e-Start® Your Web Store with Zen Cart®

A Hands-On Guide for Entrepreneurs & Businesses

 \sim 4th edition \sim

By Goh Koon Hoek



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Credits

About the author

Goh Koon Hoek has been working in the IT industry for the last 15 years. He has been involved with numerous small and large scale projects for both local and overseas entities in the public and private sector.

He has performed roles as diverse as software programmer, project leader and technical consultant. His main interest lies in the area of business software - using IT to realize business objectives. He hopes you will find this book helpful in your business endeavors.

Acknowledgement

This book would never have been possible without the foresight, hard work and great technical abilities of the Zen Cart team in building such a wonderful piece of software that has helped so many store owners around the world set up their own online businesses.

I want to take this opportunity to thank each and every one of them (Chris Brown, Ian C Wilson, Kim Elliot and Linda McGrath) for the great work they have done and the effort they put in everyday to help new store owners with their problems.

I also want to thank my lovely wife, family and friends for believing in me and providing the support I need to write this book.

Preface

Today, millions of people are already doing their shopping online. With the number of online shoppers set to explode as Internet access becomes more affordable and Internet infrastructure more available to the masses, businesses cannot afford not to have an online presence to cater to such demand.

Contrary to popular belief, you do not have to spend loads of money just to establish an online store. With this book, you will learn how to use the *free* and open source Zen Cart software to start building and running your own online store.

This practical book provides a step-by-step guide to on how to perform all the necessary tasks required to run an online store. Many screen shots are also included to help reinforce your learning experience and help you visualize the steps even when you are away from a computer.

Why this book was written

This book serves to address two major concerns for store owners who are using Zen Cart to run their online stores.

Firstly, it goes into detail on how to manually set up a Zen Cart store on a remote computer.

With this approach, store owners can avoid the use of automated installation wizards that their web hosting providers offer for quickly and silently installing a Zen Cart store. This is because the use of automated installation wizards often lead to strange problems when running a Zen Cart store.

Secondly, this book acts as a form of structured documentation for Zen Cart.

Now, anyone can start learning how to use this powerful piece of software in a structured manner and see how the different pieces fit together. This "proactive" approach is in stark contrast to the "reactive" approach that current users employ: asking questions in the forums, reading the Wiki or browsing the FAQs on Zen Cart's site.

Ultimately, store owners can save themselves the time, effort and headaches of sifting through the forums to look for answers to most of their problems. The developers of Zen Cart can then have more time to continue enhancing this wonderful software and not repeatedly answering the same questions that keep popping up ever so often on the forums.

Audience

This book is aimed at anyone who wants to use Zen Cart to set up an online store to sell products or services. It is *not* a book for *programmers* learning how to program Zen Cart!

It assumes you are comfortable with using a web browser (Internet Explorer, Mozilla Firefox, etc) and already familiar with your operating system (Microsoft Windows, Mac OS X, etc). This would allow you to install and set up your online store comfortably.

You should also be familiar with commonly used Internet terms like web server, web hosting provider, HTTP, FTP, etc. Knowledge of programming languages like HTML, CSS and PHP is not strictly necessary but does allow you to customize your store in greater detail.

Finally, you need a large dose of patience and perseverance. Setting up an online store is relatively easy, but tailoring it to suit your business requirements will require time and effort.

How to use this book

This book covers Zen Cart version 1.5.4 which is the latest version at the time this book goes to print. This book is divided into 6 parts. If you are reading this book for the first time, you should go through the book in sequence from Part 1 to Part 5. After that, you can jump around the different chapters to accomplish a specific task.

Part I, "Getting started"

- Chapter 1, "Introduction to Zen Cart" Introduces you to Zen Cart's history and features and why you should use Zen Cart to set up your online store.
- Chapter 2, "Installing Zen Cart on your remote server" Goes into details on how to install a Zen Cart store on a remote computer.
- Chapter 3, "Store quick tour" Brings you on a quick tour of Zen Cart's Admin Console and Store Front interfaces. Also covers the creation of sample data for use in later chapters.

Part II, "Setting up your store"

- Chapter 4, "Email" Shows you how to connect Zen Cart to a mail server for sending emails. Also breaks down the various email options into manageable sections for you to understand and configure.
- Chapter 5, "Location" Helps you understand and configure location-related information which will be used throughout the online store.
- Chapter 6, "Store details and contact information" Shows you the different mediums in which your store contact information will be displayed to customers; email, packing slips, invoices, etc.
- Chapter 7, "Currency" Covers how to setup multiple currencies and also how to update these currencies in real time without you having to deal with exchange rates manually.
- Chapter 8, "Weighting unit"- Discusses how to change the unit of measure for weight.
- Chapter 9, "Taxes" Discusses the concepts behind sales tax configuration and then shows you how to set up sales tax for any region.
- Chapter 10, "Shipping" Discusses the various shipping concepts before going through the configuration of various shipping options.
- Chapter 11, "Payment" Goes through the configuration of various payment options.

Part III, "Managing your store catalog"

- Chapter 12, "Working with catalog restrictions and categories" Discusses how restrictions can be placed on your entire store or on the product catalog. Also talks about how categories can be manipulated.
- Chapter 13, "Working with product types and products" Goes through the concepts related to product types and products. Different ways of manipulating products are then presented.
- Chapter 14, "Working with product attributes" Discusses how to add new attributes to your products and also how to tie pricing and weighting information to these attributes.
- Chapter 15, "Advanced product attribute configuration" Discusses more advanced uses of attributes when configuring downloadable products or making use of attributes to support customer uploads.
- Chapter 16, "Additional product manipulation techniques" Shows you how to add multiple product images and make use of sample clips for your goods.

Chapter 17, "Order totals, surcharges and discounts" - Discusses how order totals affect a customer's order pricing during checkout. Also examines the different surcharges and discounts you can apply to specific goods, categories or the entire store.

Part IV, "Customizing your store"

- Chapter 18, "Customizing common page elements" Introduces you to the layout components in your Zen Cart store and shows you how to customize your store's look mainly from your web browser.
- Chapter 19, "Altering the shopping flow" Goes through some lesser known ways in which the standard shopping flow can be altered via settings in the Admin Console.
- Chapter 20, "Working with Store Front templates" Explains how to use the Override System to make changes to your store. You will also be shown how to change templates and add multiple language support to your store.

Part V, "Managing your store"

- Chapter 21, "Managing customers" Shows you how to manage common and individual customer information.
- Chapter 22, "Managing orders" Covers how to deal with orders and understand the order statistics generated by Zen Cart. Also shows you how to generate invoices and packing slips from the orders.
- Chapter 23, "Managing stock" Discusses how to interpret and make use of stock-related information including setting low-stock warnings and configuring low stock email alerts.
- Chapter 24, "Marketing" Discusses the use of various marketing techniques like discount vouchers, gift certificates, newsletters, banners, etc, for attracting customers to your store and helping them with their purchasing decisions.
- Chapter 25, "System administration" Covers the non-business related functions like backup, security, performance and upgrades which ensure the smooth operation of your online store.

Part VI, "Appendixes"

- Appendix A, "Utility software" Covers the various computer programs like text editors, FTP programs and file comparison programs that you will need to properly configure and customize Zen Cart.
- Appendix B, "Choosing a web host" Deals with the details of getting your Zen Cart store hosted on a remote server on the Internet.
- Appendix C, "Working with your remote computer" Goes through some common web hosting features that will be helpful to a store owner working with Zen Cart.
- Appendix D, "Zen Cart file structure" Explains Zen Cart's directory layout and some of the important files you should take note of.

Conventions used

This book makes use of various typefaces and graphics to help you distinguish between regular text and what you see on your screen.

Light Bold type is used for words or objects on the screen that you are to do something with. For example, "Click on **Configuration** > **My Store** to access general store settings".

Italic type is used for a word or phrase that is being defined or otherwise deserves special emphasis.

<u>Monospaced</u> <u>Underline</u> type is used for text that you are to type from the keyboard. For example, enter <u>false</u> into the **Enable Images** field.

Monospaced type is used to illustrate directories or files on your OS. For example, the directory path C:\apache \htdocs\store\docs holds documentation that comes with Zen Cart.

File contents will be contained in blocks as follows.

```
<html>
<head><title>Greeting</title></head>
<body><h1>Hello World</h1></body>
</html>
```

Examples are contained in blocks as follows.

```
Area of Rectangle = Length x Breadth Area of Triangle = \frac{1}{2} x Length x Breadth
```

Furthermore, there are several graphic elements to bring your attention to specific items in the book.



Expects you to pay particular attention to how something is done or why something is done in a specific manner.

6 Tip

Provides a faster means of accomplishing the same task.



Be wary of how something is done or what can happen if you do not follow the instructions carefully.

Contacting us

We want to know what we are doing right and how we can do better. So if you have any comments regarding this book or wish to suggest other titles we should publish, you can reach us by using the "Contact Us" page on our site or replying to the email address in our exclusive customer newsletter if you have signed up for it after purchasing this book.

Part I Getting started

This section introduces you to Zen Cart's history and features. Next, you will walk through how to set up Zen Cart on your web host's remote computer. Finally, you will be introduced to how a Zen Cart store functions and how to set up sample test data for use in the later parts of the book.

This section covers the following topics:

- Chapter 1, "Introduction to Zen Cart"
- Chapter 2, "Installing Zen Cart on your remote server"
- Chapter 3, "Store quick tour"

Chapter 1: Introduction to Zen Cart

What is Zen Cart?

Zen Cart (http://www.zen-cart.com) is a piece of shopping cart software that allows you to create an online, e-commerce store for selling your goods and services. It is written in PHP and requires a MySQL database to work. You can use Zen Cart to create an online store to sell physical goods like shoes, pianos or digital goods like gift certificates, music downloads, etc. You can even sell services like insurance policies, IT support plans, etc.

The developers of Zen Cart have adopted the line, "The Art of E-Commerce", as their goal when developing the software. Hence, you will find that the software is designed to cater specifically to the requirements of store owners and shoppers first. Store owners do not need an IT degree to set up and administer their websites, and shoppers can navigate the online store and check out their items easily. Programmers are also not forgotten, as the code for Zen Cart is well-structured and well-designed for easy maintenance and custom logic.

Zen Cart comes absolutely free with many e-commerce features available out-of-the-box. Therefore, you do not have to invest a lot of money to establish an online, robust and professional e-commerce presence. All you need is to pay the web hosting fees and possibly some web design fees if you want to give your online store a more polished look.

The source code for Zen Cart is distributed under the GNU General Public License (GPL). In essence, this license gives anyone the right to modify the source code to suit their needs. However, derivative works that modify the source code have to adhere to certain restrictions if they are to be re-distributed. More information on the GNU GPL can be found at http://www.fsf.org/licensing/licenses/gpl.html.

Features

Zen Cart has a wide user base and is currently deployed across many 'live' sites around the world. Due to input from this user base and a very active forum, Zen Cart is able to offer many useful and robust e-commerce features out-of-the-box.

A list of the features that come with a default Zen Cart distribution is shown below.

Simple Web-Based Installation

Once you have the necessary supporting software (i.e. PHP and MySQL) ready, installing Zen Cart is easily performed using a web browser.

Supports Physical and Virtual Goods

Physical goods (computers, cars, flowers, etc) and virtual goods (digital music, e-books, etc) can be sold. Product samples like brochures or music clips can also be provided together with these goods.

Product Customization through Attributes

Product attributes can be added to further customize products. For example, customers can specify the colors, size and wordings for T-shirts that are being sold.

Simple Checkout Process

Customer checkout is a simple three-step process which is designed to reduce the occurrence of shopping cart abandonment. Customers only need to specify their shipping and billing information and then confirm their orders to complete the checkout.

Multiple Payment Options

Check/Money Orders, Cash-On-Delivery, PayPal and many other payment options are supported by default. Payment options can also be enabled for customers based on their locations.

Multiple Shipping Options

Flat Rate, Per Item, Free Shipping and many other shipping options are supported by default. Shipping options can also be enabled for customers based on their locations.

Multiple Languages, Currencies and Taxes

To cater for customers from different geographical and cultural backgrounds, additional currencies and languages can be defined to smoothen their shopping experience. Taxes are calculated based on zone information and tax rates which store owners define.

Wide Array of Marketing Tools

To help store owners promote their products and retain their customers, many marketing tools like newsletters, product reviews, customer referrals, banners, etc are available.

Advanced Pricing Options

Discounts based on store-wide, category-wide or product-specific selections are possible. Surcharges can also be applied for customer orders below a certain amount, cash-on-delivery payment options, etc.

Order Total Calculation

Customers can choose to use discount coupons, gift certificates or their group discount status to offset their order total amounts either partially or fully.

Order Management

Store owners can easily manage orders by assigning order statuses to them. Customers can then log in to their individual accounts to view the status of their orders. Invoices and delivery orders can also be automatically generated by Zen Cart at the click of a button.

Custom Look-and-Feel

A store's look-and-feel can be changed dramatically just by modifying some CSS and HTML. Maintenance efforts are also reduced with the use of the Override System in Zen Cart. Additional web pages can also be easily added using the EZ-Pages feature.

The above features are only the tip of the iceberg when it comes to what Zen Cart can do for store owners. Additional features that do not come bundled with the default Zen Cart distribution are easily downloaded from the Zen Cart site and plugged-into an existing store. No programming experience is required to use these third-party downloads.

The list of third-party downloads can be accessed via the downloads area at Zen Cart's website.

History

Zen Cart was borne out of another shopping cart software known as osCommerce (http://www.oscommerce.com) back in June 2003. Since then, it has undergone major code enhancements and several releases to make it stand out from osCommerce and other e-commerce software.

Although anyone can contribute to Zen Cart's development, there is a group of core developers churning out the code and ensuring the quality of the overall product. This team of developers (in alpabetical order) include:

- Chris Brown (*DrByte*)
- Ian C Wilson (*wilt*)
- Kim Elliott (*Kim*)

■ Linda McGrath (*Ajeh*)

Their nicknames are in brackets and you will usually encounter them in the forums where they can be seen answering questions on Zen Cart.

Support

If you are worried about the fact that Zen Cart does not offer any support because it is not commercial software, you can put your mind at ease. The great number of Zen Cart users have given rise to a lively community of users which include programmers, graphic designers and store owners. These people, and the developers of Zen Cart, provide an excellent source of support for most of your queries.

Before you consider seeking help from the community, do spend some time familiarizing yourself with Zen Cart's site. If you are a non-English speaking user, you might even be able to locate a Zen Cart support site which is in your native language.

To help you seek help from the community more effectively, you might like to follow this approach when using Zen Cart's site at http://www.zen-cart.com.

- 1. Check the **Tutorials/FAQs** section to see if an answer already exists for a question you are about to ask.
- 2. Go to the **Wiki** section to find out if your area of concern has already been addressed in one of the write-ups.
- 3. Check the **Plugins** section to see whether any of the third-party contributions like content boxes, payment and shipping modules serve your particular needs.
- 4. Go to the community **Forum** if you still do not find a satisfactory answer to your problems. Before you post any queries, spend some time reading through other people's posts or simply do a search of the forums to see if a question similar to yours might have been answered before.

Besides seeking help from the community, you are also encouraged to sign up for our newsletter using the email we sent you after you have purchased this book.

Our newsletter is exclusive to our customers only and includes a mini-course on working with Zen Cart, notifications about errata and updates to this book, as well as other insider tips and tricks to help you get the best results out of your Zen Cart store.

Introduction

This chapter guides you through the process of *manually* installing a Zen Cart store on your remote host. It assumes you have already signed up for a hosting plan with your web host and are already familiar with how to work with your remote server. If this is not the case, review the software requirements you require in this chapter and then refer to Appendix B, "Choosing a web host" and Appendix C, "Working with your remote computer" for more information.



Even if you already have a Zen Cart store installed, you should still browse through this chapter as it presents information that will be used later in this book.

In this chapter, we shall:

- Look at different installation approaches.
- Highlight technical requirements required to run Zen Cart.
- Run through a list of pre-installation activities.
- Go through the steps in performing an actual installation.
- Run through a list of post-installation tasks.

Overview of different installation approaches

Zen Cart can be installed on your *local computer* or on a *remote web host*. Both approaches have their pros and cons and having an overview of both approaches will allow you to understand why different groups of Zen Cart users may prefer one approach over another.

Installing Zen Cart on your *local computer* is great for development and testing purposes. You can test most thirdparty plugins and templates for Zen Cart on your local computer before actually uploading the plugins and templates to your remote server. This saves a lot of time because you do not need an internet connection for these tasks. You can also delay the purchase of a hosting account if you have not yet decided on which one to sign up for.

However, one big drawback of a local Zen Cart installation is that you will need to set up and configure all the necessary server software before you can begin Zen Cart installation. Another drawback is that Zen Cart functionality that requires connection to third-party sites (e.g. shipping quotes and payment gateway interactions) may not work because some of these third-party sites require that your site be located on the publicly accessible internet.

Installing Zen Cart on a *remote server* is the preferred approach because all the necessary server software required for normal Zen Cart operation is already in place. Communications between your Zen Cart store and third-party sites will usually not pose problems as well. Unlike a *local* Zen Cart store which will ultimately need to go through the laborious

task of being *transferred* to a remote server in order for your customers to access it, a remotely installed Zen Cart store has the added benefit of not having to adjust settings done for a local computer to suit the remote server's configuration.

The main drawback for a remote Zen Cart installation is that you will need to have an existing web hosting account in place already. Choosing a good web host can be a time-consuming process because you need to ensure that the web host is reliable and has the expertise and tools to help you when you encounter problems working with Zen Cart.

As you can see, a *local installation* is more suitable for programmers and template designers as they can edit Zen Cart's files directly on their local computer without having to download the files first. An internet connection is also optional. For store owners, a *remote installation* makes more sense because they do not need to deal with the technical aspects of setting up and updating their own server software just to have a web store set up quickly in order to process customer orders.

With the preceding points in mind, we will show you how to *manually* install Zen Cart on your remote host. The steps we highlight in this book are rather detailed because we need to make sure they can work on different web hosting servers which are configured differently. With practice, most installations can be done within 15 minutes or less. Therefore, do not be disappointed if you take a longer time than that for your first manual installation.

There is one important point to note after you have decided to install Zen Cart on your remote host though. Nowadays, many web hosts provide *automated* installation wizards (e.g. Fantastico, SimpleScripts, Softaculous) for the different software applications they host on their servers. Although an automated installation wizard may allow you to quickly and conveniently set up a Zen Cart store, you are strongly urged to *avoid* using any of them. This is because automated installers offer limited installation options and can cause various problems which you may not be aware of until much later when you start running your store.



- To install Zen Cart on a Mac OS computer, refer to http://www.zen-cart.com/forum/showthread.php?t=96011.
- To install Zen Cart on a Windows computer, refer to http://www.zen-cart.com/index.php? main_page=product_contrib_info&products_id=586.

Technical requirements

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To ensure the smooth running of your Zen Cart installation, you will need to check that your web host complies with Zen Cart's requirements. Furthermore, you may want to get some client software ready on your local computer as they will come in handy when going through Zen Cart's installation.

Server software requirements

Before you begin installing and configuring Zen Cart, you need to make sure that your web host fulfills the following software recommendations.

Server software	Minimum version	Recommended version
РНР	5.2.10 or higher	5.3.7 or higher

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Chapter 2. Installing Zen Cart on your remote server

Server software	Minimum version	Recommended version
Apache	2.0 or higher	2.0 or higher
MySQL	4.1.13 or higher	5.0.90 or higher

Zen Cart is able to run on any operating system (i.e. Windows, Linux, and Mac) that supports the aforementioned software. However, for security and reliability reasons, it is highly recommended that your web host runs on Linux instead of Windows.

To understand the interaction between the different pieces of software mentioned previously, refer to the following figure which shows what happens when a user requests a web page from a web browser to a remote computer running Zen Cart on the Internet.



Figure 2.1: Interaction between Apache web server, MySQL database and PHP

PHP

Web Address: http://www.php.net/

PHP is a programming language widely used for developing web-based applications. It is free and open source and is one of the most popular computer languages with web developers because of its simplicity and power.

Zen Cart is written in PHP but you do not need to know much about it to run your online store successfully. All you need is some basic information (PHP version, PHP settings, etc) to help you troubleshoot any problems you might face when running your online store.

Apache web server

Web Address: http://httpd.apache.org/

Theoretically, you should be able to use any web server (e.g. Microsoft IIS) that supports PHP. However, most people run PHP with Apache so you are strongly suggested to do the same. This will save you lots of time and frustration if

you encounter set up or performance problems because most people are familiar with Apache and should be able to answer any questions you have relatively faster.

MySQL database

Web Address: http://www.mysql.com/

Zen Cart uses a database to store all product, customer, order and configuration details. Currently, MySQL is the only supported database. It is a robust and popular database; and is used to power high traffic sites like Yahoo Finance and Google.

The developers of Zen Cart have also begun work on supporting another open source database called PostgreSQL (http://www.postgresql.org) although it will not be ready anytime soon. Do check with your web hosting provider on whether they provide this database if you intend to use it as your Zen Cart database in future.

Client software requirements

Besides the server software which Zen Cart requires in order to run properly, you will also need to have some software programs available on your local computer. For example, you will likely need a GUI-based FTP client software to transfer files between your local computer and your remote host and a proper text editor to edit Zen Cart's files.

For more information on the list of client software that will come in handy for you when working with Zen Cart, refer to Appendix A, "Utility software".

Pre-installation activities

Before Zen Cart can be installed, you will need to first create a database for Zen Cart to hold information related to your online store. You will also need to transfer a set of files to your web server in order to run Zen Cart's web installer during the installation process later.

Creating your store's database

Zen Cart uses a database to store most of your store's information such as your store's configuration settings, customer and product information, etc.

To create a new database, refer to your web host's documentation. You can also refer to the section "Setting up a new database" to get an idea how a new database can be created using cPanel.

While going through the database creation process, remember to note down the following information so that Zen Cart can connect to the database during installation.

- MySQL Database Name
- MySQL Server Address (often "localhost" or the server IP address)
- MySQL Username
- MySQL Password

Placing Zen Cart files on your web server

Zen Cart comes in a compressed archive which contains a set of installation files. These files need to be transferred to your remote host and have their file permissions properly set in order for the Zen Cart web installer to run smoothly during installation at a later stage.

Obtaining the Zen Cart software package

To obtain the latest Zen Cart installation package:

1. Go to Zen Cart's home page at http://www.zen-cart.com.



2. Click on the **Download** hyperlink on the right-side of the screen and you will be redirected to the SourceForge website (http://sourceforge.net) to download Zen Cart's installation file.

SOURCE FORCE FIND AND DEVELOP OPEN SOURCE SOFTWARE	Welcome, Guest!	Log In Create Account
Find Software Develop Create Project Blog Site Support About	Q enter keyword	Search
Your Zen Cart E-Commerce Shopping Cart download will start shortly Problems with the download? Please use this direct link or try another mirror.		S Donate

3. Follow the on-screen instructions to begin your download. After your download completes, you should end up with a zip file with the version and date of release in its name. For example, at the time this book is written, the latest version of Zen Cart is version 1.5.4 and hence the downloaded zip file's name is zen-cart-v1.5.4-12302014.zip.



4. Verify that the zip file you downloaded is not corrupted by using a file decompression program (e.g. WinZip, StuffItExpander) to unpack it into a folder on your local computer. If the unpacking operation fails, re-download the zip file again.

→ C:\zencart_files\zen-ca	rt-v1.5.4-12302014	▼ → Search z	en-cart-v1.5.4-12302014	۶
Organize 👻 Include in library 👻	Share with 🔻	Burn New fold	er 🗄 🔻	. 0
Name	Date modi	fied Type	Size	
📗 admin	1/24/2015	L:58 PM File folde	er	
📗 cache	1/24/2015	L:58 PM File folde	er	
📗 docs	1/24/2015	L:58 PM File folde	er	
🌗 download	1/24/2015	L:58 PM File folde	er	
i editors	1/24/2015	L:58 PM File folde	er	
🌗 email	1/24/2015	L:58 PM File folde	er	
🃗 extras	1/24/2015	L:58 PM File folde	er	
🃗 images	1/24/2015	L:58 PM File folde	er	
includes	1/24/2015	L:58 PM File folde	er	
📗 logs	1/24/2015	L:58 PM File folde	er	
🌗 media	1/24/2015	L:58 PM File folde	er	
퉲 pub	1/24/2015	L:58 PM File folde	er	
📗 zc_install	1/24/2015	L:58 PM File folde	er	
🝘 ajax.php	12/24/2014	12:36 PHP File	1	KB
ZC favicon.ico	12/24/2014	12:36 Icon	10	КВ
🝘 index.php	12/24/2014	12:36 PHP File	5	КВ
📄 install.txt	12/24/2014	12:36 Text Doc	cument 2	KB
🝘 ipn_main_handler.php	12/24/2014	12:36 PHP File	26	КВ
🗎 license.txt	12/24/2014	12:36 Text Doc	ument 15	КВ
25 items				

(б) Тір If you are looking for a particular version of Zen Cart, you can go directly to http://sourceforge.net/projects/zencart/files/.

Transferring Zen Cart program files to your server

Before you begin, make sure you are familiar with how to set file permissions and how to manipulate files on your server. We shall be using cPanel for most of the file manipulation screen shots in our illustration. Refer to Appendix C, "Working with your remote computer" if you need more information on working with cPanel.



in.

zen-cart-v1 5 4-12302014

For the sake of convenience and consistency when working through this book, we shall use the term [doc-root] to refer to the **document root** of your remote server and www.example.com to represent where your site is located on the Internet.

To transfer the downloaded Zen Cart program files to your server, you can use either of the following approaches depending on whether your web host provides a file decompressing functionality in their control panel software.

- If your web host **does** provide a file decompressing function, follow these steps for a faster transfer:
 - a. Use your client FTP program or control panel's file manager to upload the Zen Cart zip file from your local computer to your remote server's document root directory.



b. Using your control panel's file manager application, extract the zipped file on your remote host into [doc-root]. This would result in a folder [doc-root]/zen-cart-v1.5.4-12302014.

×	Extr	act		
Extra	act			
Type t /public	he path you wish to extract _html/zen-cart-v1.5.4-12302014.zip			
to (if y new d	ou enter a directory that does not exist it v irectory) and press "Extract":	vill be create	d, and the archive extracted	in the
at I	public_html			
			Extract File(s)	Cancel
🐧 Home	🛞 Up One Level 💠 Back 📫 Forward 🖞	Reload 🔽	Select all 🔲 Unselect all	
	Name	Size	Туре	Perms
	zen-cart-v1.5.4-12302014.zip	5.42 MB	package/x-generic	0644

c. Delete the file [doc-root]/zen-cart-v1.5.4-12302014.zip which you uploaded previously as we won't be using it anymore.

httpd/unix-directory

0755

■ If your web host **does not** provide a file decompressing function, then follow these steps:

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- a. On your local computer, unzip zen-cart-v1.5.4-12302014.zip and you should end up with the directory zen-cart-v1.5.4-12302014.
- b. Use your FTP client program to upload the entire zen-cart-v1.5.4-12302014 directory and its contents to the [doc-root] directory of your web host.

The process may take quite some time due to the many files that need to be uploaded.

After the files are uploaded, you should have a directory structure similar to the following screen shot which shows the uploaded file contents in the [doc-root]/zen-cart-v1.5.4-12302014 directory.

Eile Edit View Iransfer Server Bookmarks B <td< th=""><th>- FileZilla <u>H</u>elp</th><th></th><th></th><th></th><th></th><th></th><th></th><th>×</th></td<>	- FileZilla <u>H</u> elp							×
Host: Username:	Pass <u>w</u>	ord:		Port:	Quickconne	ect 💌		
Local site: C:\zencart_files\		•	Remote site:	/public_html/zer	-cart-v1.5.4-12	2302014		•
Filename	Filesize	Filetype	Filename			Filesize	Filetype	~
 zen-cart-v1.5.4-12302014. zen-cart-v1.5.4-12302014.zip	5,685,205	File fold Compre	admin cache docs download editors email extras includes logs media pub zc_install ajax,php favicon.icc findex,php install.bt	0		961 10,134 4,666 1,247	File folder File folder PHP File Icon PHP File Text Docu	
< III.		Þ	•	iii				•
1 file and 1 directory. Total size: 5,685,205 bytes			Selected 1 file.	. Total size: 5,099 k	ytes			
Server/Local file Direction Remo	te file					Size	Priority	Statu
								F.
Queued files Failed transfers Successful t	ransfers (1)				♦₽	Queue: empty		•

After your Zen Cart files are uploaded to your remote server, you will need to prepare the files and directories for subsequent installation.

- 1. Decide on what web address you want to use for your store and use your control panel's file manager to manipulate the unpacked files as follows:
 - If you are installing Zen Cart for testing purposes, it is recommended that your web store be accessed via http://www.example.com/store.

In this case, *rename* [doc-root]/zen-cart-v1.5.4-12302014 to [doc-root]/store. We shall use store for the renamed unpacked folder for examples used in this book. You are free to rename the unpacked folder to something else (e.g. shop or demo) if you like.

■ If you intend to run your business on Zen Cart immediately, it is recommended that your web store be accessed via http://www.example.com.

In this case, *move* all the files and directories from [doc-root]/zen-cart-v1.5.4-12302014 into [doc-root]. *Delete* the empty [doc-root]/zen-cart-v1.5.4-12302014 folder after moving the files and directories.

2. *Rename* the following two files that reside under the main Zen Cart directory from dist-configure.php to configure.php. Also make sure their permissions are set to *writeable* (e.g. chmod 644 or chmod 777).

- /admin/includes/dist-configure.php
- /includes/dist-configure.php

This step may not be necessary depending on how your web host has configured your server. This is because the Zen Cart web installer is able to automatically rename the preceding two files and set their permissions correctly in most cases. However, we highlight the instructions here in order to make sure your installation goes without a hitch on all servers.

3. Ensure the following directories that reside under the main Zen Cart directory have their permissions set to *write-able* (e.g. chmod 755 or chmod 777).

/cache/

- /images/ (and all its sub-directories)
- /includes/languages/english/html_includes/
- /logs/
- /media/
- ∎ /pub/

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Note

- /admin/backups/
- /admin/images/graphs/

For the rest of this book, we shall use [zc-home] to represent the top-most directory containing all your Zen Cart files.

That means if your Zen Cart files were placed in the store folder under your server's document root, then [zc-home] would represent the [doc-root]/store folder. Similarly, if you had placed all your Zen Cart files in your server's document root directory, then [zc-home] would represent the [doc-root] folder.

6 Tip

The [doc-root] directory on most web hosts usually comes with default files (e.g. 505.shtml) and sub-directories (e.g. cgi-bin) which may be unfamiliar and confusing to someone who has just signed up for a new web hosting account.

Hence, it is preferable to install Zen Cart into a [doc-root] directory's *sub-folder* (e.g. store) in order to avoid mixing Zen Cart files with those default files in the [doc-root] directory.

If you want to switch the web address of your Zen Cart store from http://www.example.com to http://www.example.com/store or vice versa, see http://tutorials.zen-cart.com/ index.php?article=122.

Performing the installation

Installation of Zen Cart will be performed via a web browser. After the installation is completed, you will need to do some manual manipulation of some files and directories to prevent warning messages from appearing.

Running the Zen Cart web installer

The Zen Cart web installer provides a wizard-style interface which guides you through every step of the installation. If you are unsure about the purpose of any field during installation, just click the "more info" link next to the field and a pop-up window will appear explaining the purpose of that particular field.

To begin installation of Zen Cart via the web installer, follow these steps:

1. From your web browser, navigate to the URL you specified in the previous section.

For example, if you had transferred your files to your server's document root directory (i.e. [doc-root]), use http://www.example.com. On the other hand, if your files reside in a sub-directory under your server's root directory (e.g. [doc-root]/store) then use something like http://www.example.com/store. A welcome screen should appear as shown in the following screen shot.



2. Click on either the Click here or zc_install/index.php hyperlinks to proceed to the Welcome screen.

Zen the art of e-c	Cart
Welcome	:: Zen Cart® Setup - Welcome
License	Walcome to the setup program for Zen Catt® v1 5.4 release. This setup program will quide you through
Prerequisites	the necessary steps to ensure Zen Cart® is properly installed on your system.
Database Setup	
ystem Setup	Welcome To Zen Cart® - The Art of E-Commerce
itore Setup	Designed for Online Merchants
ldmin Setup inished	Zen Cart® truly is the art of e-commerce; a free, user-friendly, open source shopping cart system. The software is being developed by group of like-minded shop owners, programmers, designers, and consultants that think e-commerce could be, and should be, done differently.
	Some other "solutions" seem to be complicated programming exercises instead of responding to users' needs. Zen Cart® puts the merchant's and shopper's requirements first.
	Similarly, other programs are nearly impossible to install and use without an IT Continue

3. Click on Continue to proceed to the License screen.



4. Agree to the license by clicking on the top radio button. Next, click on **Continue** to proceed to the Prerequisites screen.

If your server is not properly configured to work with Zen Cart, you may encounter errors or warning messages which are highlighted in red or yellow. Approach your web host on what you can do to resolve those issues before proceeding with the installation.





- 5. Click on **Install** to proceed to the Database Setup screen. Pay attention to the following points while filling in the values for the fields.
 - You should choose <u>UTF-8</u> for the **Database Character Set** / **Collation** field. UTF-8 is an encoding scheme that is commonly used to support multiple languages in a software application.
 - The values for the Database Host, Database Username, and Database Password fields are what you specified earlier in the section "Creating your store's database".
 - Specify a value for the **Store Identifier** (**Table Prefix**) field only if you will be running another application (e.g. WordPress) that will be using the same database. This is usually required only in rare instances when your hosting account allows only *one* database per account or per domain.



6. Click on Save Database Settings and a screen will appear showing the progress of data population in your database.

After the database installation completes, the System Setup screen appears. Verify the default settings automatically picked up by Zen Cart. Avoid setting the **Enable SSL** and **Enable SSL** in Admin Area fields to \underline{ves} unless you have a dedicated SSL certificate set up on your web server already. We will explain how to configure SSL for use with your Zen Cart store in a later part of this book.

	:: Zen Cart® Setup - System	n Setup
tes	if necessary to suit your directory layout.	. Then click on <i>Save System Settings</i> to continue.
Setup	Server/Site Settings	
Setup	Physical Path To Zen Cart®	
up	Physical Path to your	/nome/jonndoe/public_ntml/store
tup	Leave no trailing slash. more info	
	URL to your Zen Cart® store URL to your Zen Cart® store. Leave no trailing slash. more info	http://www.example.com/store
	company if you are unsure of the corre	ect details.
	HTTPS Domain Virtual server for your secure Zen Cart® directory.	https://www.example.com
	H11PS Domain Virtuia server for your secure Zen Cart® directory. Leave no trailing slash. more info HTTPS Server URL Full Virtual Path to your secure Zen Cart® directory. Leave no trailing slash. more info	https://www.example.com
	HTTPS Domain Virtual server for your secure Zen Cart® directory. Leave no trailing slash. more info HTTPS Server URL Full Virtual Path to your secure Zen Cart® directory. Leave no trailing slash. more info If your SSL certificate is already workin DO NOT enable SSL here if you do If you enable SSL here if you do If you enable SSL here if you do If you enable SSL but the SSL address your admis set nor log in to your store configure.php file.	https://www.example.com https://www.example.com/store g, choose your SSL settings below. not already have SSL enabled on your hosting account. you provide does not work, you will not be able to access a. You can activate SSL later by editing settings in your
	HTTPS Domain Virtual server for your secure Zen Cart® directory. Leave no trailing slash, more info HTTPS Server URL Full Virtual Path to your secure Zen Cart® directory. Leave no trailing slash, more info If your SSL certificate is already workin DO NOT enable SSL here if you do If you enable SSL here if you do If you enable SSL but the SSL address your admin ste nor log in to your store configure.php file. Enable SSL Would you like to enable Secure Sock Leave this set to NO unless you're SUB	https://www.example.com https://www.example.com/store g, choose your SSL settings below. not already have SSL enabled on your hosting account. you provide does not work, you will not be able to access a. You can activate SSL later by editing settings in your you can activate SSL later by editing settings in your ets Layer in Customer area? Et you have SSL working. more info

- Click on Save System Settings and the Store Setup screen will appear. Pay attention to the following points while filling in the values for the fields. Also note that values entered in all the fields, except that for the Store Demo field, can be changed later when we work through the book.
 - You are strongly encouraged to enter <u>YES</u> for the **Store Demo** field if this is the first time you are running Zen Cart. This action will cause the installer to populate your database with sample data that contains many product and feature configuration possibilities, some of which may not be covered in this book.
 - You may want to choose <u>United States</u> for the **Store Country** field and <u>Florida</u> for the **Store Zone** field if you have chosen <u>YES</u> for the **Store Demo** field. This is because the sample data has a default tax setup for the Florida zone which you can use to test out different scenarios where taxes will be tabulated when customers purchase goods from your store.

	:: Zen Cart® Setup - Store Setup		
icense	This section of the Zen Cart® setue teel will help you have setting u	in your basis store settings	(011)
rerequisites	be able to change any of these settings later using the administration	n tool. Enter each value carefi	ully
atabase Setup	and press Save Store Settings to continue.		
ystem Setup	Store Information		
tore Setup	Store Name		_
dmin Setup	What is the name of your Zen Cart® store? more info		
nished	Store Owner Who is the owner of your Zen Cart® store? more		
	info		
	Store Owner Email What is the Zen Cart® store owner's email address? more info		
	Store Country What country is your Zen Cart® store located in? more info		Ŧ
	Store Zone What zone is your Zen Cart® store located in? more info	ease Select	Ŧ
	Store Address What is the address of your Zen Cart® store? This address will be used on printable documents and displayed online. more info	Store Name Address Country Phone	
	Default Language		
	Please select your default language? more info	English	•
	Default Currency	LIG D. II	_

8. Click on **Save Store Settings** to proceed to the Admin Setup screen. The values you enter here will be used to log in to your Zen Cart administration area later. Therefore, make sure you note down the values somewhere first before proceeding to the next step.

Georrie	:: Zen Cart® Setup - Administrator Account Setup
icense	Te administer settings in vour Zen Cart⊛ shan, vou nood an Administrative assaunt. Diassa select an
Prerequisites	administrator's name, and password, and enter an email address for reset passwords to be sent to. Ent
Database Setup	and check the information carefully and press Save Admin Settings when you are done.
ystem Setup	Administrator Information
tore Setup	Administrator's Username
dmin Setup	Enter the username to be used for your Zen Cart® administrator account. more info
nisned	TEMPORARY Admin Password Enter a TEMPORARY password to be used for your Zen Cart® administrator account. You will be asked to change this password at first login. Your password must contain both NUMBERS and LETTERS and minimum 7 characters. more info Confirm temporary Admin Password Re-enter the temporary password. more info Administrator's Email Enter the email address to be used for your Zen Cart® administrator account. This will be used for testing newsletter emails and for sending password resets, etc. more
	Info Upgrade Detection Check for Zen Cart® updates when logging into Admin This will attempt to talk to the live Zen Cart® versioning server to determine if an upgrade is available or not. If an update is available, a message will appear in admin. It will NOT automatically APPLY any upgrades. You can override this later in Admin->Config->My Store->Check if version update is available.

9. Click on **Save Admin Settings** to complete the running of the web installer. You should see the Finished screen if the installation goes well.
| Nelcome | :: Zen Cart® Setup - Finished | |
|---------------|---|--|
| icense | | |
| rerequisites | Congratulations! | |
| atabase Setup | You have successfully installed Zen Cart® on your system! | |
| ystem Setup | NEXT STEPS | |
| tore Setup | For security, YOU NEED TO RENAME your /admin/ folder to a name less likely to be 'guessed' by | |
| dmin Setup | someone probing your site for illegitimate access. There's an FAQ article on Renaming Your Admin | |
| Finished | Politici which will guide you chrough the simple steps. | |
| | Also for security, you will need to reset permissions on your configure.php files located in the /admin
/includes/ and /includes/ folders back to read-only mode before allowing people to access your store. | |
| | Additionally, you need to remove the /zc_install folder so that someone can't re-install your shop again
and wipe out your database! Warnings will appear until the folder has been removed. | |
| | DONATE | |
| | You can show your appreciation for our free software, and can support future development by making a
donation to the Zen Cart project: Make a donation of any size by clicking here. Thanks in
advance! | |
| | CONFIGURATION | |
| | We encourage you to begin by reading the FAQ's in our online support forums for useful
information to assist with configuring and customizing your online shop the way you wish it to look and
operate.
If you have questions, this is the first place to look! If you're stumped, feel free to post a question! We
have a helpful, friendly, knowledgeable community who welcomes you. | |
| | It's also important that you check out the Documentation in the /docs folder of your site. Click here to view a listing. | |
| | IMPORTANT READING | |
| | The most important tool you'll use when customizing your site is the Developers Tool Kit , which is in
the Admin area, under Tools . You can use it to search for almost anything you might like to customize
or change, especially the text displayed on your site. | |
| | The most important concept you'll want to become familiar with in order to customize your site is our
template system. There are some very good articles on the template system in our online FAQ
section. | |
| | ADDITIONAL READING | |
| | The Zen Cart® Wiki is a helpful place to find tips and tricks and general use information. | |
| | We're glad you chose Zen Cart® to be your e-Commerce solution! | |
| | Visit us online at www.zen-cart.com | |
| | Press the <i>Store</i> button below to test out your store or press the <i>Admin</i> button to begin customizing
your store. | |
| | | |

To verify that the web installer has completed correctly, click on either of the buttons at the end of the page.

If you click on the **Click here to go to the Store** button, you will see a collection of products appearing as shown in the following screen shot if you had chosen to install the sample data earlier.



V	SECURITY WARNING: Installation directory exists at: /home/johndoe/public_html/store/zc_install. Please remove this
dir	rectory for security reasons.

If you click on the **Click here to go to the Admin area** button, you should see the following screen which prevents you from logging into your Admin area. We will learn how to get rid of the warning message in the next section.

Warning!
Warning: You cannot access the admin until you have
 deleted the zc_install folder. (Use your FTP program or your hosting control panel.)
• renamed the admin folder. <u>Help for renaming the admin folder can be found here</u>
Then, to access your admin area, type the new URL into your browser, ie: <u>http://www.your_site.com/YourAdminFolder/</u>

\odot	
Note	

The web address for your Store Front should either be something like http://www.example.com/store or http://www.example.com depending on whether you have installed Zen Cart under a sub-folder.

Similarly, the web address for your Admin Console should either be something like http:// www.example.com/store/admin or http://www.example.com/admin. If you have renamed the admin folder according to the instructions in the following section, then replace the admin in your web address to the name of your renamed admin folder (e.g. myadmin).

In both cases, the www prefix in the web address may or may not apply depending on how you have it set up for your hosting account.

Cleaning up the installation files and directories

If you had attempted to visit either the Store or Admin areas of your Zen Cart store after running the web installer, you will encounter warning messages informing you about security concerns that the Zen Cart software has detected.

To get rid of the warning messages appearing in your Store area, follow these steps:

- 1. Delete the [zc-home]/zc_install directory to prevent malicious hackers from re-running the web installer and messing up your store's database and other settings.
- 2. Set the permission of the [zc-home]/includes/configure.php file to *read only* (e.g. chmod 444 or chmod 400).

This step may not be necessary because the Zen Cart web installer will automatically attempt to set the permissions of the [zc-home]/includes/configure.php file to *read only*, it may not work on all web hosts due

to configuration differences and requirements between them. Therefore, it is recommended that you check with your web host on the correct *read only* permissions to use.

3. Go to your Store area again and refresh the page to make sure that the warning messages have disappeared.

To get rid of the warning message appearing in your Admin area, follow these steps:

1. Rename the [zc-home]/admin directory to a less common name (e.g. [zc-home]/myadmin). This is important because it reduces the likelihood that malicious users are able to access the administration area of your store.

In this book, we shall use [admin] to refer to your renamed admin folder. For example, if you had renamed the admin folder to myadmin, then [admin] would represent the myadmin folder.

- 2. Set the permission of the [zc-home]/[admin]/includes/configure.php file to *read only* (e.g. chmod 444 or chmod 400).
- 3. Access your Admin area by utilizing the renamed admin folder name in your URL. For example, if your previous Admin URL was http://www.example.com/store/admin, then your new Admin URL might be http://www.example.com/store/myadmin instead.

If your changes are correct, you should see a Log In screen similar to the following screen shot instead of the earlier warning message.

Admin	Login	
	Admin Username:	
	Admin Password:	
	Login	Forgot Password
Please be aware	that after 15 minutes of inactivity,	, you will be required to login again.
	Note: All passwords expire e	very 90 days.

Troubleshooting your installation

If you encounter problems during your Zen Cart installation, go to http://tutorials.zen-cart.com/index.php and click on the **Installing Zen Cart** hyperlink to see if you can find any solutions. Alternatively, type some keywords related to your problem in the **Search** box to find articles that match your problems.

Select a category Go Search		
FAQ Home Glossary Index My Favori	tes	
 Installing Zen Cart (40) Miscellaneous (46) Questions and Tips for installing Zen Cart All the things that don't fit anywhere else. 		

If your problems have not been addressed, post a question in the "Installing Zen Cart" forums. Do remember to read through the posting guidelines carefully before composing your question so that other users on the forum are able to understand your situation better and thus offer more timely help.

Installi Trouble	Installing Zen Cart trouble installing? Read this section first. Please post your question under the type of server you are using.			
6	Installing on a Linux/Unix Server	Unable to login to admin area by jackie.taferner 14th December 2010 11:59 PM »	2,796	16,639
4	Installing on a Windows Server	E Admin log in by Get Em Fast 14th December 2010 10:50 PM ♪	1,426	8,255
1	Installing on a Mac Server	E .htaccess appears in by kobra 12th November 2010 04:01 PM ▶	102	660

Post-installation activities

After you have completed your Zen Cart installation and verified that it is working, you should run through a list of actions in order to ensure that your online store is up-to-date and secure.

Helping search engines index your site correctly

The [zc-home]/robots_example.txt file is a sample file which you can modify to help search engines go through the contents of your site according to your preferences.

If you already have a pre-existing [doc-root]/robots.txt file and are satisfied with it, you can safely delete [zc-home]/robots_example.txt.

On the other hand, if you do not have a [doc-root]/robots.txt file, then download the [zc-home]/robots_example.txt file from your remote server to your local computer and open it with a text editor. Read through the comments inside the file and edit the file contents to suit your needs. After that, rename the file from robots_example.txt to robots.txt and upload the file to your remote server's [doc-root] directory. Finally, remember to delete the obsolete [zc-home]/robots_example.txt file from your server.

Applying code updates and bug fixes

Bugs and security patches may be reported since the release of your installed Zen Cart version. Occasionally, code changes may also be required because a service provider has changed its advertised rates or programming interface. You are thus advised to go through the "Bug Reports" and "Zen Cart Release Announcements" forums at Zen Cart's website to see if you need to make any changes to your site after successfully completing your Zen Cart installation.

Code Report	Matters bugs, post suggestions and make wishes			tį,
4	Bug Reports If you have a bug to report, post it here. Please clearly explain what version you are using, and the exact error message. Please ALSO explain why you believe it's a bug, and post a solution if you have one.	SQL Error by BigDiscounts 14th December 2010 05:03 AM ♪	1,071	7,189
News Importa	and Announcements Int information about the Zen Cart Project.			tį,
6	Zen Cart Release Announcements Watch this forum for new releases and other important announcements. Click here to subscribe to these announcements.	E Zen Cart v1.3.9h Released! by Kim 27th October 2010 07:44 AM >	46	88

While going through the preceding forums, you are also strongly encouraged to subscribe to them so that you can be notified automatically via email whenever bug fixes, security patches or Zen Cart version upgrades become available.

Complying with Zen Cart security recommendations

Besides general security measures like choosing strong passwords and setting the appropriate permissions for the files and folders on your server according to your web host's requirements, you should also aim to adhere to Zen Cart's security recommendations as much as possible.

Zen Cart's security recommendations can be found in the /docs/ important_site_security_recommendations.html of your Zen Cart directory. Alternatively, you can refer to the online version which tends to be more up-to-date and can be found at http://www.zen-cart.com/wiki/index.php/ Important_Site_Security_Recommendations.

If you are a newcomer to Zen Cart and have problems understanding some of the terminology or following the instructions in the security recommendations, do not be overly concerned. We will be covering most of the security recommendations throughout the rest of this book so that you have an opportunity to confirm your settings and understand the context in which these security recommendations apply.

Now is also a good time to take a quick glance at Appendix D, "Zen Cart file structure" to understand the purposes behind some of the directories and files in a Zen Cart installation and the changes made to them.

Summary

After working through this chapter, you should be familiar with how to manually install Zen Cart on a remote server. As you work through the installation, you should also have recorded some information about your Zen Cart store (e.g. database log in credentials, Zen Cart Administrator login credentials). Keep this information updated and in a safe place as you may need to refer to it from time to time.

Before we go, take note of the shortcuts (i.e. [admin], [zc-home], and [doc-root]) we have used to represent certain commonly used directories when you installed your Zen Cart store. They will be used throughout this book to refer to your actual Zen Cart installation on your remote host.

Chapter 3: Store quick tour

Introduction

A Zen Cart store is segmented into two different access areas. Site visitors and customers access the *Store Front* to do their shopping or manage their personal accounts. Store owners (also known as administrators) access the *Admin Console* to add products to the store's catalog and configure other business rules.

In this chapter, we shall:

- Understand how a customer interacts with your Store Front to purchase goods.
- Set up some test customer accounts for use in later chapters.
- Highlight some useful navigational tips in your Admin Console.
- Set up some test products for use in later chapters.

The Store Front

The Store Front acts as the *front-end* to your store and is where your customers go to perform their shopping activities. A sample customized Store Front is shown in the following screen shot.



If you had opted to include the demo data during Zen Cart installation, you might think the Store Front is very cluttered because too many elements are present. However, all these elements are enabled in order for you to get an idea of the many possibilities and options that are available to you when presenting your products for sale.

On the other hand, if you had chosen not to install any demo data, then your store will appear very empty. This book can be used as a guide to set up your store according to your requirements.

A typical shopping flow

To help you understand how Zen Cart works, we shall go through a typical set of activities that customers perform when doing their online shopping. This entire process constitutes a workflow and enables you to visualize which part of your store will be affected when you start configuring your own online store. For simplicity's sake, the illustrated workflow is shown in sequence. In actual fact, customers can opt to skip to certain pages without having to follow the sequence. Store owners can also alter the standard shopping flow to suit their business needs as we will learn in Chapter 19, "Altering the shopping flow".



Figure 3.1: A typical shopping flow

An explanation of the different steps in the illustrated shopping flow is shown in the following table.

Table 3.1: Explanation of each step in the shopping flow

Step Comments

1 A customer learns about your site through a marketing campaign (Search Engine, Gift Certificate, etc) you have implemented. She picks up your site's web address and types it into her web browser to reach your Store Front. The first page she encounters is known as the Home Page (which is also known as the Index Page or Main Page).

The customer browses through your store's products via the Categories side-box. If your store sells documents, she may see a Documents side-box as well. Optionally, she can perform a search for a product she is interested in.

An example of a Home Page was shown in the first screen shot in this chapter.

2 As the customer clicks through the list of products, she will ultimately reach the Product Info page which details the price, weight, discounts and any other information related to the product.

Once she decides to purchase the product, she enters the desired quantity into the "Add to Cart" text box and then clicks the "add this to my cart" button to proceed to the Shopping Cart page.

Home :: Assorted Goods :: Lapto Ф. Ф. Assorted Goods Product 11/16 (prev) (listing) (next) Laptop \$2,359.00 \$2,000.00 Save: 15% off This laptop boasts 200GB of hard disk space, 2 GB of RAM and a luxurios 17" screen. For connectivity, it boasts built-in W1-FI, 4 x USB ports, IEEE Firewire and a Ethernet port. larger image Shipping Weight: 4lbs 988 Units in Stock Add to Cart: 1 add this to my cart 👾 image write a review

3 On the Shopping Cart page, the number of items that the customer has purchased and the price breakdown for all items will be displayed. Products can be removed and the quantity of items changed by clicking the relevant icons on the screen.

Once the customer is satisfied with her purchase, she can click the "go to checkout" button to begin the checkout process.

Your Shop	Your Shopping Cart Contents [help (?)]			
Total Items: 1 Weight: 4lbs Amount: \$2,000.00				
Qty.	Item Name	Unit	Total	
1	Laptop	\$2,000.00	\$2,000.00	
		Sub-To	tal: \$2,000.00	
back shoppin	to ng		go to checkout	
shipping				

4 Before the customer enters the checkout process, she will be redirected to the Login page if she has not logged in to her account. If she does not have an account, she will need to sign up for an account at the same page.

Zen Cart is smart enough to make sure that items in the customer's shopping cart will not be lost even if she transitions from an anonymous visitor to a logged-in customer.

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Chapter 3. Store quick tour

	Sign In	Additional Contact Details	
Note: If you have shopp or your convenience, the More Info]	ed with us before and left something in your cart, a contents will be merged if you log back in.	* Telephone: * Fax Number:	
Returning Customers: Please Log In		Verify Your Age	
Email Address:		Date of Birth: * (eg. 05/21/1970)	
Password:		Login Details	
Forgot your password?	(login)	Email Address: *	
		Password: * (at least 5 charac	
New? Please Provid	e Your Billing Information	Confirm *	
		Password:	
Company Details	* Required information	U Subscribe to Our Newsletter.	
Company Name:			
Address Details			
○ Mr. ○ Ms. *			
First Name:	*		
Last Name:	*		
Street Address:	*		
Address Line 2:			
Address Line 2:	*		

5 Once the customer is logged in, she will automatically be redirected to the Delivery Information page.

The customer will choose her desired shipping option and confirm her delivery addresses. After making her selection, she will click on the "continue checkout" button to proceed to the Payment Information page.

Step 1 of 3 - Delivery Inf	ormation
Shipping Information:	
Bellamont Nicole 1000 Rue Troyon Paris, 75017 Paris, France <i>change your address</i>	Your order will be shipped to the address at the left or you may change the shipping address by clicking the <i>Change Address</i> button.
Shipping Method:	
Please select the preferred shipping	method to use on this order.
Flat Rate	
Best Way	\$5.00
Per Item	
O Best Way	\$2.50
Store Pickup	
O Walk In	\$0.00
- Special Instructions or Comme	ents About Your Order
Continue to Step 2 - choose your payment method.	continue checkout

Chapter 3. Store quick tour

Step Comments

6 At the Payment Information page, the customer will choose her desired payment option and confirm her billing addresses.

The customer can also use the monetary values contained in her discount coupons or gift certificates to offset a portion of the order amount. After she is satisfied with her selection, she will click on the "continue check-out" button to proceed to the Order Confirmation page.

Step 2 of 3 - Payment Information	Payment Method
Billing Address: Bellamont Nicole 1000 Rue Troyon Paris, 75017 Paris, France Change your address Change your address Paris, France Your billing address is shown to the left. The billing address should match the address on your credit card statement. You can change the billing address by clicking the Change Address by clicking the Change Address button.	Please select a payment method for this order. Cash on Delivery Note: COD fees may apply
Your Total Sub-Total: \$2,000.00 Flat Rate (Best Way): \$5.00 Value Added Tax (VAT) @ 10%: \$200.00 Total: \$2,205.00	Check/Money Order
Discount Coupon Please type your coupon code into the box next to Redemption Code. Your coupon will be applied to the total and reflected in your cart after you click continue. Please note: you may only use one coupon per order. Redemption Code	Special Instructions or Order Comments Continue to Step 3 - to confirm your order. Continue
Gift Certificates To use Gift Certificate funds already in your account, type the amount you wish to apply in the box that says 'Apply Amount'. You will need to choose a payment method, then click the continue button to apply the funds to your shopping cart. If you are redeeming a new Gift Certificate you should type the proches the back was the back and the card the second	

7 At the Order Confirmation page, all applicable costs (shipping charges, sales taxes, etc) for the customer's order are tallied and displayed. Previously selected values for the Delivery Information page and Payment Information page will also be displayed.

Once the customer is satisfied with the details of her order, she will click on the "confirm the order" button. After the order is processed by Zen Cart (send out order confirmation emails, set order status to Pending, save order in database, etc), the customer will be redirected to the Checkout Success page.

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Comments	
Step 3 of 3 - Order Conf	irmation
Billing/Payment Information	Delivery/Shipping Information
Bellamont Nicole edit 1000 Rue Troyon Paris, 75017 Paris, France	Bellamont Nicole 1000 Rue Troyon Paris, 75017 Paris, France
Payment Method: Check/Money Order Please make your check or money order payable to: Mega Store 123, rue de Tocqueville Paris, 75017 France +33-1-40681234	Shipping Method: Flat Rate (Best Way)
Mail your payment to: Mega Store 123, rue de Tocqueville Paris, 75017 France +33-1-40681234	
Your order will not ship until we receive payment.	
Special Instructions or Or None	der Comments
Shopping Cart Contents	
onopping our contents	edit
Qty. Item Name	Total
1 × Laptop	\$2,000.00
	Sub-Total: \$2,000.00
	Flat Rate (Best Way): \$5.00
Value	Added Tax (VAT) @ 10%: \$200.00
value	
Value	Total: \$2,205.00

8 At the Checkout Success Page, the customer will be given an opportunity to opt-in to receive any email updates for the products she just purchased.

If the customer has purchased gift certificates from your store or received gift certificates from her friends, the balance in her gift certificate account will also be displayed. This brings an end to the shopping flow.

Optionally, if the customer wants to view her order history, she can click the My Account hyperlink to proceed to the My Account Information page.

Thank You! We Appreciate	Gift Certificate Account
your Business!	
Your Order Number is: 78	You have a balance available in your Gift Certificate account. You may condit to condit to
Under normal circumstances, your order should ship within the next 2 business days. For more information	someone else. To send click the button below.
on our shipping policy, please click here.	Your Gift Certificate balance is: \$10.00
Thank you for shopping. Please click the Log Off link to ensure that your receipt and purchase information is not visible to the next person using this computer.	send a gift certificate
Please notify me of updates to t	hese products
✓ Laptop	
	update
You can view your order history by goir clicking on "View All Orders". Please direct any questions you have t	ng to the My Account page and by
Thanks for shoppin	g with us online!
	-

Chapter 3. Store quick tour

Step Comments

9 At the My Account Information page, the customer will be able to view her order history and check on each order status.

My Account	Information			
			(show all	orders)
	Previous	Orders		
Date No.	Ship To	Status	Total	View
11/15/2010 # 78	Bellamont Nicole France	Pending	\$2,205.0	0 (view)
11/12/2010 # 77	Bellamont Nicole France	Pending	\$14.0	0 (view)
10/27/2010 # 75	Francois Bellamont France	Delivered	\$2,400.0	0 (view)
My Account		Gift Certifi	cate Acco	ount
 View or cha informatio View or cha my addres Change m password. 	ange my account n. ange entries in s book. y account	You have a b your Gift Certi may spend it someone else button below.	alance avail: ificate accou or send it to a. To send c	able in nt. You b lick the
Email Notifica	ations	Your Gift Cert \$10.00	ificate balan	ce is:
from news • View or cha notification	etters. ange my product 1 list.		send a certific	gift ate 🎑

Sample customer

If you have installed the sample data when creating your Zen Cart store, you would already have a customer present in your store. To prevent your store from being accessed by malicious users who are familiar with Zen Cart, use the following steps to reset the sample customer's password.

To change the sample customer's password:

1. Go to your Store Front (e.g. http://www.example.com/store/index.phporhttp://www.example.com/ index.php) and click on the Log In hyperlink at the top of the page.



- 2. You should be presented with a screen for you to log in and/or sign up for a new account depending on the settings in your Admin Console.
- 3. Log in to the sample customer's account using the following credentials. Note that both fields are case-sensitive.
 - Email Address = root@localhost.com
 - Password = <u>password</u>
- 4. Click the **Enter** button when you are done. Notice that the navigation bar containing the **Log In** hyperlink has changed to that shown in the following screen shot.

Home Log Out My Account Shopping Cart Checkout

- 5. Click on the My Account hyperlink and you will be re-directed to the My Account Information page of the customer.
- 6. Click on Change my account password hyperlink and you will see something similar to the following screen shot.

Home :: My Accoun	t :: Change Password	
My Password		
		* Required information
Current	*	
Password:		
New Password:	*	
Confirm	*	
Password:		
(back)		(submit)

- 7. Enter the details of your new password and write the new password down in case you forget it.
- 8. Click submit after you have set up your new password.
- 9. Click on the Log Out hyperlink at the top of the page to log out of the sample customer's account.

Home :: Log Off
Log Off
You have been logged off your account. It is now safe to leave the computer.
If you had items in your cart, they have been saved. The items inside it will be restored when you log back into your account.

After you have reset the sample customer's password, log in again with the new password to verify the change has taken effect.

Setting up a test customer

We shall now set up a test customer account in your online store. With this test customer, you will be able to experience the impact of different store settings which we will learn to configure from the next chapter onwards.

Note that even if you have a test customer already present in your store, you are still encouraged to add more test customers with different addresses. This will help you test the tax, shipping, and payment calculations later. It will also give you a feel of what your customers will need to go through to create accounts in your store as well.

To create a test customer account:

- 1. Go to your Store Front and click on the Log In hyperlink at the top of the page.
- 2. You should be presented with a screen for you to log in and/or sign up for a new account depending on the settings in your Admin Console.
- 3. Enter the values for your test customer account. To save time, you can make use of the following values for the time being. Leave the other fields at their default values.
 - Mr. Ms. = <u>Mr.</u>
 - First Name =<u>Jacques</u>
 - Last Name = Pires
 - Street Address = 200, rue de Tolbiac
 - City = Paris
 - State/Province = <u>Paris</u>
 - **Post/Zip** Code = <u>75015</u>
 - Country = <u>France</u>
 - **Telephone** = (33)-01-40-80-82-11
 - **Date of Birth** = <u>05/21/1970</u>
 - Email Address = jacques@example.com

- Password = <u>abcdefg</u>
- Confirm Password = <u>abcdefg</u>
- 4. Click on **submit** once all the relevant data has been entered. The test customer will be created and automatically logged in to his account.
- 5. Click on the Log Out hyperlink at the top of the page to log the test customer out of his account.

Repeat the above steps to create a few more test customers; preferably belonging to different countries and states.

The Admin Console

The Admin Console acts as the *back-end* to your store and is where you will spend most of your time looking through orders, adding shipping and payment options, and configuring discounts, etc.

Logging in to the Admin Console

To access the Admin Console of your store, enter something similar to http://www.example.com/store/myadmin/login.php or http://www.example.com/myadmin/login.php in your web browser. Refer to the previous chapter if you are still unsure about the actual web address to use.

Admin Username:	
Admin Password:	
Logir	n
	Forgot Password

 $^{\circ}$

Note

To log in to your Admin Console, use the values you entered for the Administrator Username and Administrator's **Password** fields in the Admin Setup screen during Zen Cart installation earlier.

If you have forgotten the password but still remember the email address of the administrator, click the **Forgot password** hyperlink to begin the process of retrieving your password in the email. On the other hand, if you have forgotten your password and cannot remember which email address was specified for the administrator username, refer to http://tutorials.zen-cart.com/index.php?article=2 for instructions on resetting your Admin Console login credentials.

As part of Zen Cart's security features, an email will be sent to an admin user if the admin user's username was entered in four consecutive failed login attempts. To disable the sending of such emails, change the value of the following line in the [zc-home]/[admin]/login.php file from "Yes" to "No".

define('ADMIN_SWITCH_SEND_LOGIN_FAILURE_EMAILS', 'Yes');

Moving around the Admin Console

After you log in, you will arrive at the Admin Home page. The Admin Home page acts as a dashboard that allows you to control how you want your Zen Cart store to behave.

To give you an idea of the amount of information that is available from the Admin Console's home page, refer to the following screen shot.

the art of e-commerce	GIFT Queue				(You are presen
Saturday 24 Jan 2015 00 box187.cucumberme	6:22:47 AM -0700 G edia.com - America	MT [100.52.210.103] /Chicago - en_US	Admin Ho	me Online Catalog Supp	port Site Version A
Configuration Catalog Mod	dules Custome r s	Locations / Taxes Localiza	ation Reports Tools	Gift Certificate/Coupons	Admin Access Managemer
Statistics		New customers:		New orders:	
Hit Counter Started:	09/07/2006	Bellamont Nicole	09/19/2006	Bellamont Nicole	\$330.32
Hit Counter:	6584	Christine Summers	09/17/2006	03/01/2012	
Customers:	4	Alan Smith	09/15/2006	Jacques Pires	\$16.00
Products:	41	Jacques Pires	09/09/2006	lacques Pires	\$30.00
Products deactivated:	15			01/10/2011	\$50.00
Reviews:	4			Jacques Pires	\$29.00
Reviews Pending Approval:	2	01/14/2015	3 - 7	11/16/2010	
Newsletter subscribers:	2	03/12/2014	1 - 3		
		03/01/2013	1 - 31		
Specials Expired	2	02/26/2013	1 - 14		
Specials Active	3	02/23/2012	2 - 46		
Featured Products Expired	7	02/19/2012	1 - 1		
Featured Products Active	1	02/18/2012	1 - 1		
Sales Expired	2	02/02/2012	2 - 12		
Sales Active	0	01/24/2012	1 - 1		
Orders		05/17/2011	2 - 53		
Pending:	51				
Processing:	16				
D-F	12				
Deliverea:					

To navigate around the different areas in the Admin Console, hover over the menu entries at the top of your screen and click on a selected sub-menu entry. The complete list of menu entries that come with a default installation of Zen Cart is shown in the following screen shot.

Configuration	Catalog	<u>Customers</u>	Tools	Gift Certificate/Coupons
My Store	Categories/Products	Customers	Template Selection	Coupon Admin
Minimum Values	Product Types	Orders	Layout Boxes Controller	Gift Certificates Queue
Maximum Values	Products Price Manager	Group Pricing	Banner Manager	Mail Gift Certificate
Images	Option Name Manager	PayPal IPN	Send Email	Gift Certificates sent
Customer Details	Option Value Manager		Newsletter and Product	
Shipping/Packaging	Attributes Controller	Locations / Taxes	Notifications Manager	Extras
Product Listing	Downloads Manager	Countries	Server/Version Info	Record Artists
Stock	Option Name Sorter	Zones	Who's Online	Record Companies
Logging	Option Value Sorter	Zones Definitions	Store Manager	Music Geore
E-Mail Options	Manufacturers	Tax Classes	Developers Tool Kit	Media Manager
Attribute Settings	Reviews	Tax Rates	EZ-Pages	Media Types
GZip Compression	Specials		Define Pages Editor	Media Types
Sessions	Featured Products	Localization	Install SQL Patches	
Regulations	SaleMaker	Currencies		
GV Coupons	Products Expected	Languages	Admin Access Manageme	<u>ent</u>
Credit Cards		Orders Status	Admin Profiles	
Product Info	<u>Modules</u>		Admin Users	
Layout Settings	Payment	<u>Reports</u>	Admin Page Registration	
Website Maintenance	Shipping	Products Viewed	Admin Activity Logs	
New Listing	Order Total	Products Purchased		
Featured Listing		Customer Orders-Total		
All Listing		Products Low Stock		
Index Listing		Customers Referral		
Define Page Status				
EZ-Pages Settings				

For the rest of this book, we shall use the following syntax **Localization** > **Currencies** to indicate that you should click on the main menu entry **Localization** and then click the sub-menu **Currencies**.

From any page in your Admin Console, you can easily jump back to the Admin Home page by clicking on the **Admin Home** hyperlink on the navigation bar above the row of main menu entries.

The admin user account

From time to time, admin users may need to change their email addresses or passwords. Zen Cart allows them to do so without having to trouble a system administrator to do so on their behalf.

To change the email address or password of the current admin user:

1. Click on the Account hyperlink on the navigation bar to access the Admin Account Maintenance screen.

Admin Account Maintenance			
Name	Email		
admin	admin@example.com	edit reset pwd	

- 2. To change the current admin user's *email address*:
 - a. Click on Edit and you should see something similar to the following screen shot.

Admin Account Maintenance			
Name	Email		
admin	admin@example.com	update cancel	

- b. Enter a valid email address into the Email field.
- c. Click Update to save your changes in the database. Simultaneously, Zen Cart will automatically send an email to the email address that is found in the Email Address (Displayed to Contact you) field in the E-Mail Options screen which you can access via Configuration > E-Mail Options.
- 3. To reset the current admin user's *password*:
 - a. Click on reset pwd and you should see something similar to the following screen shot.

Admin Account Maintenance				
Name	Email	New Password:	Confirm Password:	
admin	admin@example.com		update cancel	

- b. Type in the *new* password you want to use in both the **New Password** and **Confirm Password** fields. Note that passwords in Zen Cart are *case-sensitive* and must follow the PA-DSS requirements for admin user passwords
- c. Click Update to save your changes to the database. No emails are sent when an admin user's password is changed.

Using rich-text editors

Several areas in the Admin Console allow the input of HTML (i.e. HyperText Markup Language) to spruce up the look of otherwise plain looking content. These areas include email newsletters, product and category descriptions, etc.

The following screen shot shows the difference in appearance when HTML formatting is added to a simple product description. Notice that the product description on the right contains text that is formatted with an underline and a background color while the one on the left does not have any extra formatting. The extra formatting that appears in the product description on the right is achieved using some HTML code while the product description on the left does not use any HTML code at all.



Wild Surfing Game Starting at: \$15.00

Test your surfing skills on this latest release. It's cool and fun and you'll think you're actually in the water in no time!



By *default*, text boxes in Zen Cart that allow the use of HTML content requires admin users to manually type in the required HTML content in the Admin Console and then visit the relevant page in the Store Front to view the affected content. Such default text boxes are commonly known as **plain-text editors**.

An example showing the input that needs to be manually entered into a plain-text editor in order to display our earlier HTML formatted product description in the Store Front is shown in the following screen shot. Besides the need for the admin user to be familiar with HTML code, notice how difficult it is to read the relevant content as it is jumbled up with HTML code.

```
Test your <span style="background-color:#ffff00;">surfing skills</span> on this
<span style="color:#ff0000;"><u>latest release</u></span>. It's cool and fun and
you'll think you're actually in the water in no time!
```

An alternative to using plain-text editors to write content containing HTML code is to use **rich-text editors** instead. A rich-text editor, also known as an **HTML editor** in Zen Cart, provides a WYSIWYG (i.e. What-You-See-Is-What-You-Get) interface consisting of toolbars and buttons to format HTML content without having to manually type in any HTML code.

An example of a rich-text editor showing the input that is used to display our earlier HTML formatted product description in the Store Front is shown in the following screen shot. Notice the similarity between the content that is displayed in the rich-text editor and the content in the Store Front. The appeal of a rich-text editor is obvious as it offers immediate visual feedback when formatting content and does not require the admin user to know HTML.

However, there are several drawbacks to using a rich-text editor. One drawback is that it becomes cumbersome to change a group of content with similar formatting. For example, imagine that all your product descriptions contain

the words "Satisfaction Guaranteed" and the words are formatted in bold and highlighted with a yellow background. If you now decide to format the words in italic and highlight their backgrounds in green, imagine the work you will need to do if you have tens or hundreds of products. The solution to the problem is to use HTML and CSS code in conjunction with external CSS stylesheets. However, we shall not discuss the solution here as it will require deeper knowledge of HTML and CSS and can get very technical.

Prior to Zen Cart version 1.5.0, a default rich-text editor by the name of HTMLarea (http://www.dynarch.com/projects/ htmlarea) came pre-packaged with Zen Cart. That rich-text editor has now been removed because it has not been updated in a long time and renders HTML code that does not meet present day web standards.

Therefore, you must now install a third-party add-on in order to use a rich-text editor. The rich-text editor seen in this book goes by the name of CKEditor (http://ckeditor.com) and can be downloaded from http://www.zen-cart.com/ index.php?main_page=product_contrib_info&products_id=1626. Instructions for its installation are contained within the downloaded ZIP file. You are, however, advised to hold off installing the add-on until you are more familiar with the workings of Zen Cart.

If you have installed a rich-text editor for your Zen Cart installation, you can choose to use it as the default text editor in your Admin Console by clicking on **Configuration** > **My Store** and editing the **HTML Editor** field as shown in the following screen shot. Individual admin pages can still choose to use a different rich-text editor or the plain-text editor as we will see in later chapters.



Sample categories and products

If you have opted to install the sample data during your Zen Cart installation, you will find a list of products in the Categories/Products screen when you click on Catalog > Categories/Products as shown in the following screen shot.

LEGEND:	Status OFF	Status ON	Linked Product	Meta Tags Defined: Yes No P					
								Text Edit	or 🛛 Plain Text 💌
					Catego	ries/Product Display Order:	Categorie	s Sort Order, C	ategories Name 💌
CATECODIES		Top						Search:	
CATEGORIES /	FRODUCIS	TOP					X _G	o⊤o: Top	*
ID Categories /	Products			Model	Price/Special/Sale	Quantity	Status	Sort	Action
1 🖾 Hardware	2					5 of 6 active		1	€ 8 0€
2 🗋 Software						4 of 4 active		2	880€
3 🗋 DVD Movi	es					17 of 17 active		3	C 8 0÷
21 🗋 Gift Certi	ficates					6 of 6 active		4	e 8 of
22 🗋 Big Linke	d					24 of 24 active		5	8803
23 🗋 Test Exa	nples					16 of 16 active		500	C 8 0 C
28 🗋 Test 10%						7 of 7 active		510	880€
25 🗋 Test 10%	by Attrib					3 of 3 active		515	8803
24 🗋 Free Call	Stuff					7 of 7 active		600	e 8 ot
33 🗋 A Top Lev	vel Cat					0 of 0 active		700	880€
48 🖾 Sale Perc	entage					7 of 7 active		1000	8800
49 🗋 Sale Ded	uction					4 of 4 active		1100	8800
50 🗋 Sale New	Price					4 of 4 active		1200	8803
53 🗋 Big Unlin	ked					12 of 12 active		1500	8800
54 🗋 New v1.2						20 of 20 active		1510	8803
62 🗋 Music						1 of 1 active		1520	8803
63 🗋 Documen	ts					2 of 2 active		1530	8803
64 🗋 Mixed Pro	oduct Types					5 of 5 active		1550	800
Categories: 18 Products: 0		new	category NOTE:	Category has SubCategorie Products cannot be added	S				

The sample products are very useful in helping you understand how certain product features are set up. Try referring to them if you are unsure of a setting or functionality that is covered in this book.

There is currently no way to remove the sample categories, products, and files (e.g. images and media samples) automatically by running a script or clicking a button in the Admin Console.
Therefore, if you intend to use your demo store as the actual store to serve real-world customers later, you should manually disable or remove the sample categories and products via the Admin Console. You may also want to run through the various files in the following directories (and their sub-directories) to remove any sample files you do not need.
I [zc-home]/images
[[zc-home]/pub

- [zc-home]/download
- [zc-home]/media

Setting up your own test products

We shall now set up some test products in your online store. Although you may not understand some of the fields as we start creating the products, do not worry as we will cover these fields in greater depth as we proceed through the book.

Setting up the test products here in this section is recommended even if you already have the sample data installed. This is because it provides consistency when troubleshooting problems in your store as you can counter check against the contents of this book. Furthermore, some store owners may have inherited a store from someone else but the store does not contain any sample data for testing or verifying Zen Cart's functionality.

Before we can create any test products, we need to create a category to hold our test products. To create a test category:

- 1. Click on Catalog > Categories/Products to access the Categories/Products screen.
- 2. Click on the **new category** button to bring up the next screen where you can specify your category details. Enter the following values for the following fields on the screen. Ignore all other fields.
 - Category Name = <u>Test</u>
 - Categories Description = To hold all test products for our testing purposes.
 - Sort Order = <u>2000</u>
- Click save after you have entered the relevant fields. You will be redirected back to the Categories/Products screen where your newly created category will be displayed; most likely at the bottom of the screen if your store contains other categories or products because we have specified a very high sort order for the category.

66 🗋 Test		0 of 0 active	2000 🛛 🗶 🛛 🕄
Categories: 20 Products: 0	new category NOTE: Category has SubCategories Products cannot be added		

Now that we have created our test category, we shall begin adding our test products.

Normal Test Product

This product shall be used for testing multiple scenarios (shipping modules, payment modules, sales taxes, etc) in our store.

To create a Normal Test Product:

1. Click on the "Test" folder icon in your Categories/Products screen and you should see something similar to the following screen shot.

LEGEND:	Status OFF	Status ON	Linked Product	Meta Tags Defined: Ves No							
									Text E	ditor Pla	in Text 🗸
							Categories/Product Display	y Order: Prod	ucts Sort Orde	er, Product	s Name 💌
CATEGORIES	/ Products -	Test							Search: X Go To:	Test	*
ID Categories	/ Products				Model		Price/Special/Sale	Quantity	Status	Sort	Action
Categories: 0 Products: 0		bac	k new categor	/ new product	Product - General	*					

- 2. Select <u>Product-General</u> from the drop-down list box and then click on the **new product** button to bring up the next screen where you can specify your product details. We shall call this screen the Product Details screen.
- 3. Enter the following values for the respective fields on the screen. Ignore all other fields.
 - Products Name = <u>Normal Test Product</u>
 - Tax Class = <u>Taxable Goods</u>
 - **Products Price** (Net) = <u>200.00</u>
 - Products Description = A generic test product that can be used for many scenarios.
 - **Products Quantity** = <u>1000</u>
 - **Products Shipping Weight** = <u>0.2</u>
 - **Sort Order** = <u>10</u>
- 4. Click **preview** after you have entered the values for the relevant fields and you will see the following screen which shows you all the data you have previously entered.

Normal Test Product	\$200.00
A generic test product that can be used for many scenarios.	
	NO PICTURE AVAILABLE
This product was added to our catalog on Sunday 26 December, 2010.	
	back insert cancel

5. Click **insert** to create your product. You will be redirected back to the "Categories/Products - Test" screen which will contain your newly created product.

LEGEND:	Status OFF	Status ON	Linked Product	Meta Tags Defined: Yes No ()						
										Text Editor 🛛 Plain Text 💌
							Categories/Produ	ct Display (Order: P	roducts Sort Order, Products Name 💌
CATEGORIES	/ Products	- Test								Search: X Go To: Test V
ID Categories	/ Products			Model	Price/Sp	ecial/Sale	Quantity	Status	Sort	Action
1 🖗 Normal T	est Product					\$200.00	1000		10	C 8 0 C 6 🕄 🕀
Categories: 0 Products: 1		back	new product	Product - General	*					
				Displa	ying 1 to 1 (of 1 products) Page 1 of 1					

Free Test Product with Free Shipping

This product is used to test a particular payment module which we will cover later. A free product in Zen Cart has to be specifically marked as "Product is Free". If you specify the product as \$0.00, Zen Cart will not automatically recognize the product as a free product although customers do not have to pay for the product in both instances.

To create a "Free Test Product with Free Shipping" product, follow the same steps when creating the "Normal Test Product" but specify the following values instead when you reach Step 3.

- Products Name = Free Test Product with Free Shipping
- Product is Free = Yes

- Tax Class = <u>--</u> none <u>--</u>
- Always Free Shipping = Yes, Always Free Shipping
- Products Description = For testing the Payment Module Free Order
- **Products Quantity** = <u>1000</u>
- Products Shipping Weight = <u>0.2</u>
- **Sort Order** = <u>20</u>

Ignore all warning messages when previewing your product as they only serve to ensure that you have configured your settings correctly. After your product is created, your "Categories/Products - Test" screen will contain the "Free Test Product with Free Shipping" product as shown in the following screen shot.

LEGEND:	Status OFF	Status ON	Linked Product	Meta Tags Defined: Yes No						
										Text Editor 🛛 Plain Text 💌
							Categories/Prod	uct Display (Order: Pro	oducts Sort Order, Products Name 💌
CATEGORIES	/ Products -	- Test								Search: X Go To: Test
ID Categories	/ Products			Model		Price/Special/Sale	Quantity	Status	Sort	Action
1 🖗 Normal T	est Product					\$200.00	100		10	88000
2 🖗 Free Test	Product with Free	Shipping				FREE	100		20	C & D C A 🛛 🖓
Categories: 0 Products: 2		back	new product	Product - General	*					
				Displa	ying 1 to 2 (of 2 p Page 1 of 1	oroducts)				

Summary

You should now have a better picture of how customers perform their shopping activities and the various screens involved. With this mental picture, you should find the configurations for your store much easier to understand.

If you have installed the sample data, you will find that the test customer account and test products will come in handy when you begin testing out your store configurations.

Part II Setting up your store

This section shows you how to set up the business infrastructure for your online store. It helps you define all the necessary settings you need to make before you can start adding products to your catalog and welcoming customers to your store.

This section covers the following topics:

- Chapter 4, "Email"
- Chapter 5, "Location"
- Chapter 6, "Store details and contact information"
- Chapter 7, "Currency"
- Chapter 8, "Weighting unit"
- Chapter 9, "Taxes"
- Chapter 10, "Shipping"
- Chapter 11, "Payment"

Chapter 4:

Email

Introduction

Email is the main communication channel used by your store. It can be configured to notify customers of their order statuses, to notify you of different conditions (e.g. low stock level) in your store, and also as part of your marketing campaign (e.g. newsletters).

In this chapter, we shall:

- Learn how to set up Zen Cart to send emails.
- Specify the recipients for different email notifications.
- Cover miscellaneous email options.
- Learn how to customize your email message templates.

The E-mail Options screen

All email configurations in Zen Cart, except for email templates, are configured via the E-Mail Options screen. To access the E-Mail Options screen, click on **Configuration** > **E-Mail Options**. A screen shot of an E-Mail Options screen is shown on the following page.

Chapter 4. Email

E-MAIL OPTIONS			
Title	Value	Action	E-Mail Transport Method
E-Mail Transport Method	PHP	►	Please make any necessary changes
E-Mail Linefeeds	LF	(Î)	
Enable HTML Emails?	true	(Î)	E-Mail Transport Method
Send E-Mails	true	(Î)	PHP is the default, and uses built-in PHP
Email Archiving Active?	false	(I)	wrappers for processing.
E-Mail Friendly-Errors	true	(Î)	Servers running on Windows and MacOS
Email Address (Displayed to Contact you)	storekeeper@example.com	1	should change this setting to SHTP.
Email Address (sent FROM)	storekeeper@example.com	Œ	SMTPAUTH should only be used if your
Emails must send from known domain?	Yes	Œ	server requires SMTP authorization to send
Email Admin Format?	TEXT	Œ	SMTPAUTH settings in the appropriate fields in
Send Copy of Order Confirmation Emails To	storekeeper@example.com	Œ	this admin section.
Send Copy of Create Account Emails To - Status	0	Œ	sendmail is for linux/unix bosts using the
Send Copy of Create Account Emails To	storekeeper@example.com	Œ	sendmail program on the server
Send Copy of Customer GV Send Emails To - Status	0	Û	"sendmail-f" is only for servers which
Send Copy of Customer GV Send Emails To	storekeeper@example.com	Û	require the use of the -f parameter to send mail. This is a security setting often used to
Send Copy of Admin GV Mail Emails To - Status	0	Û	prevent spoofing. Will cause errors if your
Send Copy of Customer Admin GV Mail Emails To	storekeeper@example.com	Û	host mailserver is not configured to use it.
Send Copy of Admin Discount Coupon Mail Emails To - Status	0	Û	Omail is used for linux/unix bosts running
Send Copy of Customer Admin Discount Coupon Mail Emails To	storekeeper@example.com	Û	Qmail as sendmail wrapper at /var/qmail
Send Copy of Admin Orders Status Emails To - Status	0	Û	/bin/sendmail.
Send Copy of Admin Orders Status Emails To	storekeeper@example.com	Û	
Send Notice of Pending Reviews Emails To - Status	0	(Î)	 PHP candmail
Send Notice of Pending Reviews Emails To	storekeeper@example.com	(Î)	 sendmail-f
Set "Contact Us" Email Dropdown List	Store Owner <storekeeper@example.com>, Site Administrator <webmaster@example.com></webmaster@example.com></storekeeper@example.com>	٢	○ smtp
Contact Us - Show Store Name and Address	1	(Î)	O smtpauth
Send Low Stock Emails	0	Û	O Qmail
Send Low Stock Emails To	storekeeper@example.com	Û	
Display "Newsletter Unsubscribe" Link?	true	Û	
Audience-Select Count Display	true	Û	
SMTP Email Account Mailbox	YourEmailAccountNameHere	Û	
SMTP Email Account Password	****	Û	
SMTP Email Mail Host	mail.EnterYourDomain.com	Û	
SMTP Email Mail Server Port	25	Û	
Convert currencies for Text emails	£,£:€,€:®,®:™,™	Û	

Figure 4.1: E-Mail Options screen

The large number of settings in the E-Mail Options screen may make the screen overwhelming at first sight. Do not worry about it as you will find that the settings can be broadly categorized as follows:

- Email connection settings.
- Email message recipient(s).
- Other email options.

We will be using the above categorization to explain the different fields on the screen.

Email connection settings

For emails to be sent from your Zen Cart store, you will need to obtain the settings for the mail server with which you will use to connect to and send messages from. Contact your web host or mail service provider (e.g. Gmail) for the relevant information. After that, refer to the following fields in the E-Mail Options screen to set up the email connection settings for your store.

Field	Comments
Send E-Mails	Set this field to <u>true</u> in order to enable Zen Cart to send emails. A warning message will be displayed at the top of your Admin Console screen if you have set this field to <u>false</u> .
E-Mail Transport Method	The method that is used to connect to a mail server. Check with your web host if you are unsure which method to use.

Table 4.1: Email connection settings

Field	Comments
	For web hosts running on Windows/Mac platforms, this is usually <u>smtp</u> or <u>smtpauth</u> . On Unix/Linux platforms, this is usually <u>sendmail</u> , <u>sendmail -f</u> or <u>Qmail</u> .
	The default value \underline{PHP} uses PHP's "mail()" function to send emails. It allows Zen Cart to use whatever mail-sending method that is already configured by your web hosting provider on the server hosting your store. In many cases, this may be the best option.
SMTP Email Account Mailbox	This is the user name that is used to log in to the email account on the mail server.
	Required if E-Mail Transport Method value is <u>smtpauth</u> . In some cases, may also be required if using <u>smtp</u> .
SMTP Email Account Pass- word	This is the password that is used to log in to the email account on the mail server.
	Required if E-Mail Transport Method value is <u>smtpauth</u> . In some cases, may also be required if using <u>smtp</u> .
SMTP Email Mail Host	This is either the domain or IP address of the mail server.
	Required if E-Mail Transport Method is set to <u>smtp</u> or <u>smtpauth</u> .
SMTP Email Mail Server Port	This is the mail server port which Zen Cart will connect to when sending out emails. The usual value is <u>25</u> .
	Required if E-Mail Transport Method is set to <u>smtp</u> or <u>smtpauth</u> .

To test whether your mail server settings can work with Zen Cart, send an email to the test customer in your store. To send an email from the Admin Console using the connection settings you have specified:

1. Click on Tools > Send Email to access the Send Email To Customers screen.

Send Em	ail To Customers	Text Editor Plain Text 💌
Customer:	All Customers (1)	
From:	storekeeper@example.com	
Subject:	Test email connection settings	
Rich Text Message:	Note: You are using TEXT only email. If you would like to send HTML you need to enable "use MIME HTML	" under Email Options
Text-Only Message:	This is a test message.	
		preview cancel

- 3. Click send to send the email to the test customer.
- 4. Log in to your test customer account to see if the email has been received.



If you encounter any problems sending emails, refer to http://www.zen-cart.com/wi-ki/index.php/Troubleshoot_-_Email_Problems for a discussion on the possible solutions before you post on Zen Cart's forum.

Email message recipient(s)

Zen Cart is able to automatically send carbon copy (cc) or low stock emails to your designated recipients whenever an email is sent from your online store. Most emails are sent when a customer takes a specific action (e.g. signs up for an account) or when the system detects an extraordinary condition (e.g. a low stock level).

Note that you can set multiple recipients for each email notification by using a comma and a space as the separator for multiple email addresses as shown in the following example:

Jacques <jacques@example.com>, Nicole <nicole@example.com>, Alan <alan@example.com>

To specify the recipients of different emails sent by Zen Cart, concentrate on the following fields in the E-Mail Options screen.

Field	Comments		
E-Mail Address (Displayed to Contact you)	Displayed in email messages that customers receive. Used as a means for cus- tomers to contact you if they have any questions.		
	Zen Cart itself will also send emails to this email address whenever certain se- curity-sensitive activities take place in your store. For example, when admin users change their admin names or associated email addresses; or when pay- ment, shipping or order total modules are installed, updated or removed.		
	Refer to Figure 4.2: "Sample email message received by a customer" to see the location of this field in an email.		
E-Mail Address (sent FROM)	Displayed in email messages that customers receive so they know who sent them the relevant emails.		
	Refer to Figure 4.2: "Sample email message received by a customer" to see the location of this field in an email.		
Send Copy of Order Confirma- tion Emails To	Specifies the CC recipient(s) for the order confirmation email that a customer receives after completing the checkout process.		
Send Copy of Create Accounts Emails To - Status	Enables the sending of CC emails for the following field.		

Table 4.2: Email message recipient(s)

Field	Comments
Send Copy of Create Accounts Emails To	Specifies the CC recipient(s) for the welcome email which a customer receives on signing up with your store.
Send Copy of Customer GV Send Emails To - Status	Enables the sending of CC emails for the following field.
Send Copy of Customer GV Send Emails To	Specifies the CC recipient(s) for an email (containing the Gift Certificate amount) which a customer sends to another person.
Send Copy of Admin GV Mail Emails To - Status	Enables the sending of CC emails for the following field.
Send Copy of Customer Admin GV Mail Emails To	Specifies the CC recipient(s) for an email (containing the Gift Certificate amount) which the store owner send to his/her customers.
Send Copy of Admin Discount Coupon Mail Emails To - Sta- tus	Enables the sending of CC emails for the following field.
Send Copy of Customer Admin Discount Coupon Mail Emails To	Specifies the CC recipient(s) for an email (containing the Discount Coupon amount) which the store owner sends to his/her customers.
Send Copy of Admin Orders Status Emails To - Status	Enables the sending of CC emails for the following field.
Send Copy of Admin Orders Status Emails To	Specifies the CC recipient(s) that should receive a copy of the updated order status emails sent to a customer.
Send Notice of Pending Re- views Emails To - Status	Enables the sending of emails for the following field.
Send Notice of Pending Re- views Emails To	Specifies the recipient(s) for an email which indicates that a new product review by a customer is ready for moderation.
Send Low Stock Emails	Enables the sending of emails for the following field.
Send Low Stock Emails To	Specifies the recipient(s) for an email which indicates that a product's stock level has fallen below a threshold level.

A sample email that a customer receives on signing up with your store is shown in the following screen shot. It clarifies the difference between the **Email Address (Sent FROM**) field and the **Email Address (Displayed to Contact you)** field. Although the email addresses are the same in the screen shot, they can be different for your situation.

This PDF has been licensed for use to: Alan Deverell <aland@casa.co.nz>

	from Claud Blanc <storekeeper@example.com> û ← subject Welcome to Mega Store to Degue Brac®</storekeeper@example.com>		
	Dear Mr. Pires,		
	We wish to welcome you to Mega Store.		
	You are now registered with our store and have account privileges: With your account, you can now take part in the various services we have to offer you. Some of these many services include:		
	Order History - View the details of orders you have completed with us.		
	Permanent Cart - Any products added to your online cart remain there until you remove them, or check them out.		
	Address Book - We can deliver your products to an address other than yours! This is perfect to send birthday gifts direct to the birthday-person themselves.		
	Products Reviews - Share your opinions on our products with other customers.		
Email Address (Displayed to	For help with any of our online services, please email the store-owner: storekeeper@example.com		
Contact you)	Sincerely,		
	Claud Blanc Store Owner		
	http://www.example.com/store/		
	This email address was given to us by you or by one of our customers. If you did not signup for an account, or feel that you have received this email in error, please send an email to <u>storekeeper@example.com</u>		
	This email is sent in accordance with the US CAN-SPAM Law in effect 01/01/2004. Removal requests can be sent to this address and will be honored and respected.		

Figure 4.2: Sample email message received by a customer



Enable all CC emails in your store so that you have the necessary documents to back you up in case of disputes with customers.

Other email options

We shall now touch upon other email options that do not fall into the previous two categories but are also contained in the E-Mail Options screen. Refer to the following table for their explanations.

Table 4.3: Message	formats	and	composition

Field	Comments
E-Mail Linefeeds	Specifies what character(s) should be used to terminate a line in email messages. On a Windows machine, a line feed is specified via a carriage return (CR) fol- lowed by a line feed (LF) which results in a "CRLF". For a Unix/Linux ma- chine, it is specified as a "LF". You can set this to <u>CRLF</u> if your website is run- ning on a Windows server else set this to <u>LF</u> .
Enable HTML Emails	If set to $false$, emails can only be composed in TEXT format. All customers will receive TEXT emails regardless of the email format they choose to receive from your store.

Field	Comments		
	If set to <u>true</u> , emails can be composed in both TEXT and HTML formats. However, customers who have chosen to subscribe to Text-Only emails will still receive emails in TEXT format.		
Email Archiving Active?	Allows you to keep copies of sent emails in your store's database. You might need to set this to <u>true</u> to comply with your country's laws. However, this can take up a lot of disk space and become a performance problem. Recommended value for testing purposes is <u>true</u> .		
E-Mail Friendly-Errors	If set to <u>true</u> , an easier to understand error message will be displayed when sending of emails fail. If set to <u>false</u> , PHP errors which are not easily understood by non-programmers will be shown instead.		
	Do <i>not</i> rely on this setting to determine whether email messages have been sent. It is better that you CC yourself a copy of an email when you send out email messages to your customers.		
Emails must send from known domain?	Some mail servers require that a valid email address from a known domain (e.g. example.com) be used for the FROM field when sending out an email. If you set this field to <u>Yes</u> , Zen Cart will disregard any other email address you use which is not from the recognized domain (e.g. experiment.org). Instead, Zen Cart will use the E-Mail Address (sent FROM) field to send the email.		
	Note: For store owners who choose to use Gmail for the E-Mail Address (sent FROM) field, it is recommended to set this field to <u>No</u> .		
Email Admin Format?	Indicates whether email messages carbon copied (cc) to store owners should be in plain-text format or HTML format.		
Set ''Contact Us'' Email Drop- down List	If this field is left <i>blank</i> , all emails sent via the Contact Us page will be sent to the email address you configured in E-Mail Address (sent FROM) field.		
	If this field is <i>not empty</i> , customers can direct their emails to specific parties in your store by choosing from a drop-down list box. Refer to the section "The Contact Us page" to see a screen shot of how the list of email recipients will ap- pear if this field is not empty.		
	When adding email addresses to this field, make sure that the angle brack- ets are included as well. An example value would be <u>Store Owner</u> <u><storekeeper@example.com></storekeeper@example.com></u> . Remember to use the format shown in the section "Email message recipient(s)" if you intend to specify multiple recipients for this field.		
Contact Us - Show Store Name	Toggles the display of your store's contact information in the Contact Us page.		
and Address	Your store's contact information is taken from the Store Address and Phone field found under Configuration > My Store . Refer to the section "The Contact Us page" to see a screen shot of where this information is displayed.		
Display ''Newsletter Unsub- scribe'' Link?	If enabled, the Information side-box in your Store Front will display a Newslet- ter Unsubscribe hyperlink.		

Field	Comments		
Audience-Select Count Display	This setting only affects the screens in the Admin Console. If enabled, the number of email recipients in each mailing group will be displayed. To see an example of the number of customers displayed in each mailing group, click on Tools > Send Email and look at the Customer field.		
	If this setting is set to \underline{true} , the display of admin email pages may slow down on large or poorly tuned servers due to the extra database work to calculate the relevant numbers.		
Convert currencies for Text emails	When you compose TEXT emails, you are not able to specify certain currency symbols properly. For example, the English Pound (\pounds) or the Euro (\notin). Zen Cart is able to help you overcome this problem by letting you use a replacement text (e.g. €) that will automatically help you do the conversion to the appropriate symbol (e.g. \notin).		

Customizing email messages

Email messages that are delivered to customers can appear in either HTML format or plain-text format. To get an idea of how the same email message may be presented in either format, refer to the following screen shots. Notice that both screen shots show the same Welcome Email message but differ only in their appearance.

	Dear Ms. Bellamont,
	We wish to welcome you to Mega Store.
Zencart the art of e-commerce	You are now registered with our store and have account privileges: With your account, you can now take part in the various services we have to offer you. Some of these many services include:
	Order History - View the details of orders you have completed with us.
Dear Ms. Bellamont,	Permanent Cart - Any products added to your online cart remain there until
We wish to welcome you to Mega Store.	you remove them, or check them out.
You are now registered with our store and have account privileges: With your account, you can now take part in the various services we have to offer you. Some of these many services include:	Address Book - We can deliver your products to an address other than yours! This is perfect to send birthday gifts direct to the birthday-person themselves.
 Order History - View the details of orders you have completed with us. Permanent Cart - Any products added to your online cart remain there until you remove them, or check them out. 	Products Paviaws . Share your oninions on our products with other sustamens
 Address Book - We can deliver your products to an address other than yours! This is perfect to send birthday gifts direct to the birthday operations. 	Products Reviews - share your opinions on our products with other customers.
 Products Reviews - Share your opinions on our products with other customers. 	For help with any of our online services, please email the store-owner: storekeeper@example.com
For help with any of our online cervines inlesse email the store-owner: storekeener@evample.com	
	Sincerely,
Sincerely,	Claud Blanc
Claud Blanc Store Owner	store owner
http://www.example.com/store/	http://www.example.com/store/
inspect on a submerring machine and me	
	This email address was given to us by you or by one of our customers. If you
Copyright (c) 2012 <u>Mega Store</u> . Powered by <u>Zen Cart</u>	error, please send an email to storekeeper@example.com
This email address was given to us by you or by one of our customers. If you did not signup for an account, or feel that you have received	
this email in error, please send an email to <u>storekeeper@example.com</u>	This email is sent in accordance with the US CAN-SPAM Law in effect
This email is sent in accordance with the US CAN-SPAM Law in effect 01/01/2004. Removal requests can be sent to this address and will be honored and respected.	01/01/2004. Removal requests can be sent to this address and will be honored and respected.

Understanding how email messages are formed

Each email sent from Zen Cart is actually constructed from several components. These components include the various "define() statements in the many possible language files in your store, the data stored in your database, the email layout

templates, etc. To visualize all these components, we shall use the preceding Welcome Email sample screen shots together with the following explanations to give you a rough idea how an email is constructed before being delivered.

The *structure* of an email is taken from one of the email template files located under the [zc-home]/email directory. For a Welcome Email, it is the file [zc-home]/email/email_template_welcome.html. If you open up that file and look at the contents, you will see something similar to the following snippet of code.

```
<div class="content">
  <div class="content-line">$EMAIL_GREETING</div>
  <div class="content-line">$EMAIL_WELCOME</div>
```

Text preceded by a dollar sign are known as template tags. The HTML source code in the file gives HTML emails their structure. The template tags are *placeholders* for static custom text taken from "define()" statements contained in various language files, database values for settings you configured for your store, and dynamic content generated by Zen Cart.

To understand how template tags act as placeholders for content, open up the file [zc-home]/includes/languages/english/create_account.php and you should see something similar to the following snippet of code.

```
define('EMAIL_WELCOME', 'We wish to welcome you to <strong>' . STORE_NAME .
'</strong>.');
```

Notice that the words **EMAIL_WELCOME** in the "define()" statement actually corresponds to the template tag **\$EMAIL_WELCOME** in the email template file. Another thing you will notice is that the words **We wish to welcome you to** corresponds exactly to the second sentence in the sample email screen shots you saw earlier. The word **STORE_NAME** is a variable that holds the value for the **Store Name** field found under **Configuration** > **My Store**. This value is taken from the database although it is configured in the Admin Console.

We shall not talk about dynamic content generated from Zen Cart for template tags because it requires knowledge of PHP to understand the logic behind how dynamic content is generated for a particular situation. In any case, there is seldom a need to change the dynamic content generation code.

So how do you get plain-text emails since only HTML email layout templates are available? Well, the answer is Zen Cart retains all the values taken from template tags and just strips away all HTML and CSS codes from an email layout template before sending out the relevant plain-text emails.

Changing text in emails

From our discussion in the previous section, you can see that the only thing that you are likely to customize besides the various store settings is the "define()" text found in various language files. Store settings are covered throughout the book so there is no point talking about them here. Instead, we will show you how to locate the necessary language files holding the "define()" text you want to change.

To locate and edit a "define()" text:

- 1. Look at a copy of an email containing some text you want to change.
- 2. Look at the names and contents of the various files under the [zc-home]/email directory and you should be able to identify the email layout template containing the "define()" text you need to change.

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i 🖻 🛲	
em em	all
- L'	.htaccess
···· @	email_template_checkout.html
···· @	email_template_contact_us.html
···· @	email_template_coupon.html
···· @	email_template_default.html
···· @	email_template_direct_email.html
···· 6	email_template_gv_mail.html
···· @	email_template_gv_queue.html
···· 6	email_template_gv_send.html
···· 6	email_template_low_stock.html
···· @	email_template_newsletters.html
···· @	email_template_order_status.html
···· @	email_template_password_forgotten.html
···· 6	email_template_product_notification.html
···· @	email_template_tell_a_friend.html
···· 6	email_template_welcome.html
· 📄	gv.gif
···· 🖬	header.jpg
···· 6	index.html

- 3. Identify the template tag in the email layout template that is likely to contain the "define()" text you need to change. For example, **\$EMAIL_WELCOME**.
- 4. Go to your Admin Console and click **Tools** > **Developers Tool Kit** to access the Developers Tool Kit screen. This screen allows you to look for text appearing in certain files used by Zen Cart.

DEVELOPERS TOOL KIT			
Look-up CONSTANT or Lang	uage File defines		
Key or Name:	Language File Look-ups:		
	None 👻 search		
NOTE: CONSTANTS are writter Language file, functions, classe	i in uppercase. s, etc. lookups are performed when nothing has been found in the database tables, if selected in dropdown		
Search in Configuration Set	tings/Keys		
Phrase to search: (This will s	earch configuration setting names and descriptions, and also configuration_keys if exact match)		
Enter words to find in settings	Search Search (sorted by key) View All Reset		
Look-up Functions or things Key or Name:	s in Function files Function File Look-ups: All Function files - Catalog/Admin Search n Classes files		
Key or Name:	Classes File Look-ups		
	Al Classes files - Catalog/Admin 🖌 Search		
Look-up Template things			
Key or Name:	Template File Look-ups:		
	All Template files - /templates sideboxes /pages etc. Search		
Look-up in all files			
Key or Name:	All Files Look-ups: File type		
	All Files - Catalog/Admin 🗸 php only 🗸 Case Sensitive? 🔲 search		

- 5. Enter the template text (without the dollar sign) you identified in Step 3 into the *first* text box under the **Key or Name** field on the screen. For example, enter <u>EMAIL WELCOME</u>.
- 6. Experiment with the values in the adjacent drop-down list box to specify the search scope. For example, choose <u>All Current Selected Language Files</u>.
- 7. Click search to begin the search.
- 8. After some time, your screen should refresh with search results displayed on top of your screen. If something is found, you will see something like the following screen shot.

Searching 73 files ... for: EMAIL_WELCOME //home/johndoe/public_html/store/includes/languages/english/create_account.php Line #25 : define('EMAIL_WELCOME', 'We wish to welcome you to ' . STORE_NAME . '.'); Match Lines found: 1

9. Based on the file name and line number of the file(s) found, use the Override System to change the custom text accordingly.





Email layout templates *cannot* be overridden using the Template Override System at the present time. Therefore, make sure you back up a copy of the email layout template you intend to change before performing any edits on the relevant file.

Changing the header image used in HTML emails

The image that appears in the header of your HTML emails is the file [zc-home]/email/header.jpg. If you open up any of the email template files, you will notice the following snippet of code which refers to that file.

```
<!-- Header Section -->
<div class="header">
<img src="email/header.jpg" alt="logo" />
</div>
```

Hence, to change the header image used in your HTML emails. You can use either of the following approaches:

- Upload a new file with the name header.jpg to your server's [zc-home]/email directory to overwrite the original file.
- Upload a file with a different name or file extension (e.g. my_header.jpg to your server's [zc-home]/email directory. Then edit *all* the email templates in the directory to change the earlier snippet of code to use your custom image file name instead.

Summary

Email is the communications lifeline for any e-commerce store. Thus, we have covered the meanings of every email setting available in Zen Cart to allow you to troubleshoot most problems you might experience in your own online store. Armed with this knowledge, you should be able to set up your email preferences confidently.

Chapter 5:

Location

Introduction

Location plays a very important role in the correct functioning of your store. It affects how your shipping, payment and tax rules will be applied based on the supplied geographical information from your customers and your store.

In this chapter, we shall:

- Understand how the different pieces of location information (i.e. Countries, Zones and Zone Definitions) are used together to determine the taxes, shipping and payment charges that a customer incurs.
- Configure Countries information.
- Configure Zones information.
- Configure Zone Definitions information.
- Specify your store location.

Understanding the use of location information

In Zen Cart, location information is divided into the following categories:

- Countries
- Zones
- Zone Definitions

Countries is self-explanatory. **Zones** allow you to segregate a country into different areas. For example, you might use zones to specify *states* for America, *provinces* for China, etc. **Zone definitions**, on the other hand, allow you to segregate different geographical areas according to how you conduct business. Thus, you can have a zone definition that spans several countries or several states.

To appreciate the relationship between Countries, Zones and Zone Definitions, consider the case where you run your business in England and you have recently set up an online shop to sell vintage guitars. Since your shop is online and caters to customers from all over the world, you will have to consider the impact of taxes, shipping and payment charges that apply to each customer.

If you expect the bulk of your customers to come from the United States, you might want to provide overnight FedEx delivery only to this set of customers to entice them to buy from you. In that case, you might want to use *zones* in Zen Cart to represent the *states* in the United States. You would then set up a *shipping zone definition* which encompasses all these zones of the United States. When you configure your Shipping options, you can then choose to have the FedEx option show up only when customers are from the *shipping zone definition* you created.

Similarly, you can set up a *payment zone definition* to support customers in certain regions where you want to offer a specific Payment option. For example, you can offer a Check/Money Order payment option only to customers in the United Kingdom and United States. Customers who belong to other geographic locations will not be able to see this option as a result.

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Finally, you can also set up a *tax zone definition* to encompass the different counties that make up the United Kingdom so that you can apply a suitable Value Added Tax to charge customers from this region.

The preceding example is rather simplified but it does give you an idea of how Zen Cart provides the flexibility for you to specify the settings you want. Do not worry if you cannot get the full picture now because we will be going through this topic again in later chapters. For the next few sections in this chapter, we shall look at how to configure these individual pieces of location information.

Countries

By default, Zen Cart comes with a complete set of countries in your database. You will not need to add any more countries unless there are major political upheavals in certain parts of the world. However, you might want to consider removing some of the countries which you do not intend to or cannot support.

For example, if your store location is in the United States and you sell hardware with strong encryption software, you are unlikely to be allowed to export your hardware to certain countries which the United States deem to have terrorist links. In that case, you might want to remove those countries from the list of countries available in Zen Cart.

To manage the countries in your online store, click on Locations/Taxes > Countries to access the Countries screen.

Countries				
				ISO 3166 Country Codes Reference
Country	ISO Codes	Status	Action	Aaland Islands
Aaland Islands	AX ALA			edit delete
Afghanistan	AF AFG		(Î)	
Albania	AL ALB		①	Name:
Algeria	DZ DZA		(Î)	Aalahu Islahus
American Samoa	AS ASM		1	ISO Code (2): AX
Andorra	AD AND		(1)	150 Code (3): ALA
Angola	AO AGO		1	130 Code (3). ADA
Anguilla	AI AIA		٢	Address Format: 1
Antarctica	AQ ATA		٢	Status (Active for shipping?): Ves
Antigua and Barbuda	AG ATG		٢	Status (Active for shippings). Tes
Argentina	AR ARG		٢	
Armenia	AM ARM		٢	
Aruba	AW ABW		①	
Australia	AU AUS		(I)	
Austria	AT AUT		Û	
Azerbaijan	AZ AZE		(I)	
Bahamas	BS BHS		①	
Bahrain	BH BHR		Œ	
Bangladesh	BD BGD		①	
Barbados	BB BRB		0	
Displaying 1 to 20 (of 244 countries)			<< Page 1 v of 13 >>	
			new country	

The options to add, update, remove, and toggle the status of the countries in your store are very obvious from the screen and also quite self-explanatory. However, you need to take note of the following three points while making your changes.

- Country status.
- ISO country codes.
- Address formats in each country.

When you click on the **edit** button next to a country in the Countries screen, you will see a side-panel similar to the following screen shot. We shall use this screen shot to discuss the above three points.
Chapter 5. Location

Edit Country
Please make any necessary changes
Name:
Aaland Islands
ISO Code (2):
AX
ISO Code (3):
ALA
Address Format:
1 -
Status (Active for shipping?);
undate cancel
upuale

Country status

The value of the **Status (Active for shipping?)** field in the preceding screen shot corresponds to the color of the button displayed for that country under the Status column in the Countries screen.

Despite the field's name, it actually affects both the shipping and billing addresses of a customer and not just the shipping address alone.

New customers will not be able to use any inactive countries when registering for new accounts or to create shipping or billing addresses. Existing customers with addresses within inactive countries will be prompted to create new addresses that are outside those inactive countries.

ISO country codes

Zen Cart uses both the **ISO Code (2)** and **ISO Code (3)** fields to represent different countries in its database as seen in the preceding screen shot. These are internationally recognized abbreviations of country codes according to the ISO-3166 standard. This standard defines both two-letter and three-letters codes for different countries in the world.

The **ISO 3166 Country Codes Reference** hyperlink in the Countries screen points to a list of ISO country codes on the official ISO website. Make sure you refer to that list when adding or updating country codes in Zen Cart.

Address formats used in different countries

Each country in the world defines a fixed format for the addresses in their respective countries. This address format is available via the post office of each country.

Zen Cart comes with a default of six address formats which are used to format the addresses contained in your invoices, packing slips, etc, when you send goods to other countries.

As seen in the preceding screen shot, only the **Address Format** field is shown but not the exact pattern of the address format. Therefore, you will need to rely on the following table to understand which option to choose for the **Address Format** field. Note that the example addresses shown are purely fictitious and used only for illustration purposes.

Address format	Pattern	Default coun- tries affected	Address format examples
1	\$firstname \$lastname	All other coun-	James Logan
	\$streets	tries not stated	496 Victoria Street
	\$city, \$postcode	below.	Sydney, 2010

Table 5.1: Address format patterns used in Zen Cart

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Chapter 5. Location

Address format	Pattern	Default coun- tries affected	Address format examples
	\$statecomma\$country		New South Wales, Australia
2	\$firstname \$lastname \$streets \$city, \$state \$postcode \$country	United States	John Doe 123 Magnolia Street Dallas, TX 55803-0034 United States
3	\$firstname \$lastname \$streets \$city \$postcode - \$statecomma\$country	Spain	Martina Gonzalez General Castanos, 86 Barcelona 08003 - Barcelona, Spain Note: Assumes both city and state are "Barcelona". Although Spain uses "province" instead of "state".
4	<pre>\$firstname \$lastname \$streets \$city (\$postcode) \$country</pre>	Singapore	John Low 16 Whampoa Drive Singapore (260042) Singapore
5	\$firstname \$lastname \$streets \$postcode \$city \$country	Austria, Germany	Heidi Kohler Lentzeallee 194 14195 Berlin Germany
6	<pre>\$firstname \$lastname \$streets \$city \$state \$postcode \$country</pre>	United Kingdom	James Watson 1 St.Georges Business Centre Portsmouth Portsmouth PO1 3AX United Kingdom Note: Assumes both city and state are "Portsmouth".
7	\$firstname \$lastname \$streets \$city \$state \$postcode \$country	Australia	Jane Carter 10 Elizabeth Street Sydney NSW 2000 Australia

Zones

In Zen Cart, Zones are defined as geographical regions within a country. Zen Cart comes with a default set of zones configured for the following countries: *Australia*, *Austria*, *Canada*, *Germany*, *Palau*, *Spain*, *Switzerland* and *United States*.

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Purpose of zones

To understand the purpose of Zones, let us first look at what happens when a customer signs up for an account with your store. We shall assume you have set the State/Province field to be displayed as a drop-down list box in your Sign Up page. For more information on how to configure the look of the State/Province field on the Sign Up page in your Store Front, refer to Step 3 in the section "Common customer settings".

If customers come from a country that does not have any Zones configured in Zen Cart, they will have to manually enter a value in the State/Province field. On the other hand, customers who come from a country with Zones defined in Zen Cart can choose the required information from the State/Province field's drop-down list box instead.



So why does Zen Cart want to enforce this rule of restricting the State/Province information for countries that have Zones configured in Zen Cart's database? The answer is because Zen Cart may need to make use of this information to allow you to *fine-tune* your shipping, payment and tax charges. For example, you can apply different sales tax rates based on whether the shipping addresses of customers fall within certain Zones.

Adding a zone

To add a zone to a country:

1. Click on Locations/Taxes > Zones to access the Zones screen.

Zones				
Country	Zones	Code	Action	Australian Capital Territory
Australia	Australian Capital Territory	ACT	•	edit delete
Australia	New South Wales	NSW	(I)	
Australia	Northern Territory	NT	Û	Zones Name:
Australia	Queensland	QLD	(Î)	Australian Capital Territory (ACT)
Australia	South Australia	SA	Û	Country: Australia
Australia	Tasmania	TAS	(Î)	Country, Australia
Australia	Victoria	VIC	Û	
Australia	Western Australia	WA	Û	
Austria	Burgenland	BL	(Î)	
Austria	Kärnten	KN	Û	
Austria	Niederösterreich	NO	(Î)	
Austria	Oberösterreich	00	(Î)	
Austria	Salzburg	SB	(Î)	
Austria	Steiermark	ST	(Î)	
Austria	Tirol	TI	\odot	
Austria	Voralberg	VB	(Î)	
Austria	Wien	WI	(1)	
Canada	Alberta	AB	\odot	
Canada	British Columbia	BC	(1)	
Canada	Manitoba	MB	\odot	
Displaying 1 to 20 (of 296 z	ones)	<< Page	1 ▼ of 15 >> new zone	

2. Click on new zone and concentrate on the side-panel.

New Zone
Please enter the new zone with its related data
Zones Name:
Zones Code:
Country: Aaland Islands
insert cancel

- 3. Enter the name of a state or province in the relevant country into the **Zone Name** field. Alternatively, if your country does not have a state or province defined, you can use any logical grouping you can think of that will make sense to customers from that country.
- 4. Enter the code representing the state or province into the **Zone Code** field. For example, the United States uses "TX" to represent the state of Texas in that country. If your country does not have such a definition or you are using a logical grouping, you can use the same value as the one used for the **Zone Name** field.
- 5. Choose the country containing the zone you want to define from the Country field.
- 6. Click insert to save the zone to the database.

Zone Definitions

A Zone Definition is a *logical* grouping of zones. You may need to create separate zone definitions for payment, shipping or tax purposes. Additionally, discount coupons usage can also be restricted based on which zones your customers' billing addresses fall under.

Purpose of zone definitions

When you add a shipping option, payment option, sales tax rate or discount coupon in your store, you have the option of selecting a Zone Definition to link to it. This Zone Definition allows you to restrict a shipping or payment option only to customers from a specific area in the world. Similarly, you can use a Zone Definition to specify a specific tax rate for customers from a specific location in the world.

A Zone Definition is a *logical* grouping of Zones. A Zone Definition can cover a small area such as a State in a country (e.g. Paris) or several countries in a federation (e.g. European Union). It all depends on what you want to achieve with the Zone Definition.

For example, if your business operates in the European Union (EU) and your store is required to collect Value Added Tax (VAT), you may want to create a Zone Definition for all countries in the EU. This is because VAT is collected only for customers in the EU. You can then specify a tax rate that applies to all the EU countries uniformly. Similarly, you can create a Zone Definition which contains your local state only. You can then offer free shipping to those customers from your local state only.

Ultimately, you have to understand your own business needs before you can set up a zone definition.

Adding a zone definition

To add a zone definition:

1. Click on Locations/Taxes > Zone Definitions to access the Zone Definitions screen.

ZONE DEFINITIONS - TAXES,	PAYMENT AND SHIPPING			
	• Zener Defined but ant Taura • • Net Conferred			
Zone Name	Zone Description	Status	Action	European Union (EU)
	Countries in the European Union	0	Accion	edit delete details
European Union (EU)	Councies in the European onion	•	-	tax rates
- Florida	Florida local sales tax zone	0	Œ	Lax Tales
France Shipping Zone	For shipping options available only in France	0		Number of Zones: 1
Displaying 1 to 3 (of 3 tax zones)			Page 1 of 1	
			insert	Number of Tax Rates: 1
				Date Added: 08/21/2010
				Last Modified: 09/27/2010
				Description: Countries in the European Union

2. Click on insert and concentrate on the side-panel.

New Zone
Please enter the new zone information
Zone Name:
Description:
insert cancel

- 3. Enter the relevant information and click **insert** to save your changes to the database. You will be redirected back to the Zone Definitions screen, but with your changes shown instead.
- 4. Select the zone definition you created in the preceding step and click **details** in the side-panel to proceed to the next screen. This screen displays all the sub-zones belonging to the selected zone definition. It should be empty if you have not created any sub-zone.

Zone Definitions - Taxes, Payment and Shipping		
Country	Zone	Action
Displaying 0 to 0 (of 0 countries)		Page 0 of 0
		back insert

5. Click on insert and concentrate on the side-panel with the heading "New Sub Zone".

New Sub Zone
Please enter the new sub zone information
Country:
All Countries
Zone: All Zones 💌
insert cancel

6. Choose the relevant information and then click **insert** to save your changes. Note that the **Zone** field is dynamically populated with information after you have selected a particular country from the **Country** field.

For example, the following screen shot shows what would be displayed if you had chosen <u>United States</u> for the **Country** field and <u>All Zones</u> for the **Zone** field.

Zone Definitions - Taxes,	, PAYMENT AND SHIPPING	
Country	Zone	Action United States
United States	All Zones	edit delete
Displaying 1 to 1 (of 1 countries)		Page 1 of 1
		back insert Date Added: 11/15/2010

7. Repeat **Steps 5 and 6** to continue adding more sub-zones.

8. Click back after you have finished specifying all your sub-zones.

Specifying your store location

We have postponed the discussion of setting your store location until now because you need to have the proper country and zone information set up in your store before you can configure this setting.

Although you have a virtual online store, you still need to provide Zen Cart with details of where you are located. This is because Zen Cart may need this information to determine how certain charges are to be calculated. For example, you can specify that shipping tax and product tax be calculated based on your store location (see the section "Basis for tax calculation" for details).

To specify your store location, click on Configuration > My Store to access the My Store screen and change the following fields accordingly.

- Country
- Zone

Make sure that you specify the **Country** field first then the **Zone** field. Values in the **Zone** drop-down list box are populated based on the **Country** specified.

Summary

Location information provides the basis for you to specify shipping, payment and tax rules. Although they are easy to setup, they are not easy to understand. Therefore, you have to think through your business needs and plan properly before specifying this information.

A slight misconfiguration here and it could affect the charges that a customer should pay for your product or service; ultimately it might hurt your revenue and possibly your reputation. Make sure you test your shipping, payment and tax settings thoroughly, with test customers from *different* geographical regions.

Chapter 6: Store details and contact information

Introduction

Research has shown that customers prefer to deal with businesses that display their contact information prominently. This gives them the impression that the business is legitimate and they will have a response if something goes wrong with their orders.

In this chapter, we shall:

- Specify your store contact information.
- See how your store information is displayed in your online store.
- See how your store information is displayed in printable documents generated by your store.
- See how your store information is displayed in emails sent to customers.

Specifying store contact information

To specify your store's contact information for online and printed documents:

- 1. Click on Configuration > My Store to access the My Store screen.
- 2. Edit the Store Address and Phone field and concentrate on the side-panel.



The information displayed in the side-panel corresponds to the values you entered in the **Store Address** field in the Store Setup screen. Any information entered here is used purely for display purposes and has no effect on shipping options, payment options or tax calculations. The default text (as shown above) gives you an idea of the information you might want to make available to your customers. You should consider adding any pertinent information (fax numbers, pager numbers, etc) for your business here as well.

Store contact information displayed online

Your store contact information is available in the following places online:

- Contact Us page.
- Order Confirmation page if Check/Money Order payment option chosen by customer.

The Contact Us page

To view your store's contact information in the Contact Us page, go to your Store Front and click on Contact Us from the Information side-box.

Home :: Contact Us	
Mega Store 123, rue de Tocqueville Paris, 75017 France +33-1-40681234	— Store Contact Information
Contact us Sample Text This section of text is from the Define Pages Editor located under Tools in the Admin.	
To remove this section of the text, delete it from the Define Pages Editor.	
This file is located in /languages/english/html_includes/classic/	
NOTE: Always backup the files in /languages/english/html_includes /your_template	
Contact Us * Required information Send Email To: Store Owner Full Name: Email Address: * Message: *	Appears only if the field, Set "Contact Us" Email Dropdown List, in Configuration > E-Mail Options is not empty.
(back) (send)	

If you do not see your store's contact information displayed on the top-left corner of the screen, click on Configuration > E-Mail Options and check that the Contact Us - Show Store Name and Address field is enabled.

The Order Confirmation page

If customers have chosen the Check/Money Order payment option when checking out their purchases, they will see your store's contact information displayed under the *Mail your payment to* section in their Order Confirmation screens.

Payment Method: Check/Money Order Please make your check or money order payable to:
Claud Blanc
Mail your payment to: Mega Store
123, rue de Tocqueville Paris, 75017
France +33-1-40681234
Your order will not ship until we receive payment.

Store contact information displayed in printable documents

Your store's contact information will also appear in the following printable documents - *invoices* and *packing slips*. These documents can then be printed and sent together with your goods when preparing your orders. More information on how to generate these documents will be covered in a later chapter. For now, just concentrate on the display of your store's contact information.

Invoices

Your store contact information will be displayed on the top-left corner of an invoice.

Mega Store 123, rue de To Paris, 75017 France +33-1-406812	OCQUEVILLE				the art of e-co	Cart
SOLD TO: Bellamont Nicole 1000 Rue Troyon Paris, 75017 Paris, France 212-123-1234 nicole@example.com Invoice No. 78 Date Ordered:	1 1onday 15 November, 21	010		SHIP TO: Bellamont Nicole 1000 Rue Troyon Paris, 75017 Paris, France		
Payment Method: 0	Check/Money Order					
Products	Model	Tax	Price (ex)	Price (inc)	Total (ex)	Total (inc)
1 x Laptop		10%	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00
					Sub-Total Flat Rate (Best Way) Value Added Tax (VAT) @ 10% Total	: \$2,000.00 : \$5.00 : \$200.00 : \$2,205.00
Date Added	Status Comments					
11/15/2010 00:53:37	Pendingnone					

Packing slips

Similarly, your store contact information will also be displayed on the top-left corner of a packing slip.



Store information appearing in emails

Unlike the information displayed in online and printed documents, contact information presented in emails sent out from your store will only contain the *store name* and *store owner's name* as shown in the following sample screen shot.

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Chapter 6. Store details and contact information



To change the contact information displayed in emails, click on **Configuration** > **My Store** and edit the following fields.

- Store Name
- Store Owner

Notice that the values for the preceding fields correspond to the values you entered in the **Store Name** and **Store Owner** fields in the Store Setup screen.



Summary

Your contact information is available through several mediums: online store, printed documents and in emails. Always keep your contact information updated as it is important for the image and credibility of your business.

Chapter 7: Currency

Introduction

Zen Cart provides you with the ability to configure your store to accept multiple currencies. Customers can then switch to their desired currency when they view product prices via the Currencies side-box in your Store Front.

By offering customers the ability to switch to their desired currencies when viewing product prices, you aid them in their buying decisions since they do not need to perform any manual or mental exchange rate conversions.

In this chapter, we shall:

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- Add new currencies to your Zen Cart store.
- Update currency exchange rates in real-time.
- Specify the default currency for your store.

The Currencies screen

All currency configurations in Zen Cart are configured via the Currencies screen. To access this screen, click on Localization > Currencies.

Currencies			
Currency	Code	Value A	ction Australian Dollar
Australian Dollar	AUD	1.17890000	edit delete
Canadian Dollar	CAD	1.10420001	0
Euro	EUR	0.77300000	① Title: Australian Dollar
GB Pound	GBP	0.67259997	① Code: AUD
US Dollar (default)	USD	1.0000000	0
Displaying 1 to 5 (of 5 currencies) update currencies	e 1 of 1 symbol Right:		
			Decimal Point: .
			Thousands Point: ,
			Decimal Places: 2
			Last Updated: 10/04/2010
			Value: 1.17890000
			Example Output: \$30.00 = \$35.37

The default currency used in a store is the US dollar. The important point you need to take note is that the *default* currency (US dollar) has a value of 1.00000000. All other currencies will be *relative* to this currency when specifying the exchange rate.

Depending on your situation, you may not want to specify <u>1.00000000</u> as the value for your default currency. For example, if your default currency is the Indonesian Rupiah, you might want to specify <u>100.00000000</u> as the value instead.

If you intend to accept online payments via a payment gateway (e.g. PayPal, 2CheckOut, etc), check whether these payment gateways are able to accept the currency you specify in your Zen Cart store.

Adding a new currency

To add a new currency:

1. Click on new currency in the Currencies screen to bring up the following side-panel.

New Currency
Please enter the new currency with its related data
Title:
Code:
Symbol Left:
Symbol Right:
Decimal Point:
Thousands Point:
Decimal Places:
Value:
Set as default (requires a manual update of currency values)
insert cancel

- 2. An explanation of the different fields on the screen is shown in the following table. Go through them before you start setting their values in your screen.
- 3. Check the Set as default (requires a manual update of currency values) option if you intend to set your new currency as the default currency.
- 4. Click insert to save your changes to the database.

Table 7.1: Meanings of fields in the New Currency side-panel

Field	Meaning
Title	You can assign any name you like to a currency. This should, however, be intuitive because it is displayed in the Currencies side-box in your Store Front.
Code	This represents an abbreviated code assigned to a currency. You should use a currency code that conforms to the ISO 4217 standard which is available from http://en.wikipedia.org/wi-ki/ISO_4217#Active_codes.
	If you use a currency code that is not in the ISO 4217 list, you might have problems doing a real-time update of the exchange rate later.
Symbol Left	The symbol that will appear on the left-side of a currency value. For example, in the case of US dollars, the symbol will appear as a (\$) sign on the left of the amount 17.99 as \$17.99.
Symbol Right	The symbol that appears on the right-side of a currency value. For example, in the case of Euros, the symbol would appear as a (\in) sign on the right of the amount 17.99 as 17.99 \in .
	Note: You can display a Euro sign (€) in your browser by specifying <u>€</u> for this field, However, the symbol might not be displayed properly in all browsers because it is still con-

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Chapter 7. Currency

Field	Meaning
	sidered a relatively new currency and requires that the symbol exists on the customer's op- erating system.
Decimal Point	This is a separator to indicate hundredths of the currency. For example, \$100.99 has a "." as a separator.
Thousands Poir	This is a separator before each thousand. For example, \$1,000,000 has a "," as a thousand separator.
Decimal Places	Specifies the number of decimals you want for a particular currency. For example, if a prod- uct costs ten dollars and you specify 2 decimal places for this field, then the price of that product will appear as \$10.00.
Value	Specifies the exchange rate <i>relative</i> to the default currency. If you are not sure, you can leave this field blank. You can update exchange rates in real-time after a currency is created.
F Warning	Setting a <i>default</i> currency for use in your store requires careful consideration. This is because when you add products to your store's catalog, you will have to specify all currencies based on this <i>default currency</i> .
	If your product catalog contains hundreds of goods and you decide to change your default cur- rency at a later date, you will need to manually adjust each product price to reflect the value of the new default currency.

Updating exchange rates in real-time

If you want your currencies to be updated with the latest exchange rates, you just need to click on the **update currencies** button in the Currencies screen. Zen Cart will immediately fetch the latest exchange rates from http:// www.ecb.europa.eu. If this site is down or the exchange rates you want are not available there, Zen Cart will automatically switch to another currency exchange site (http://www.bankofcanada.ca) to retrieve the required exchange rates. Once the exchange rates are updated, messages will be displayed at the top of your screen.



Exchange rates can also be retrieved from http://www.oanda.com and http://www.xe.com. However, the use of these two sites requires that you subscribe to their services as per their Terms of Service. If you are sure you want to do that, you can edit the following two lines in the [admin]/includes/init_includes/init_general_funcs.php file and replace the values of ecb or boc with oanda or xe.

define('CURRENCY_SERVER_PRIMARY', 'ecb');
define('CURRENCY_SERVER_BACKUP', 'boc');

Using the Currency Conversion Ratio to achieve realistic exchange rates

If you were to visit the aforementioned currency exchange sites and compare the rates displayed online with the exchange rates displayed in Zen Cart, you may notice a discrepancy between the two sets of values. This discrepancy is caused by the **Currency Conversion Ratio** field which is accessible via **Configuration** > **My Store**.



Because the actual exchange rates retrieved from the currency exchange sites assume forex transactions in very large amounts, they are not realistic for most businesses. To alleviate this situation, Zen Cart first multiplies a retrieved exchange rate with the value of the **Currency Conversion Ratio** before updating the affected currency's exchange rate in your store's database.

The default value for the **Currency Conversion Ratio** field is <u>1.05</u>. This ratio may not be appropriate for your area, always check the exchange rates available at your local banks or money changers and adjust the field accordingly.



Note that exchange rates which are entered *manually* (instead of updated real-time online) into the Currencies screen are not subjected to the Currency Conversion Ratio calculation.

Configuring the displayed default currency

Whenever visitors arrive at your site, the *default* currency will be displayed in the Currencies side-box. If your store supports only English, the default currency displayed in the Currencies side-box in your Store Front, will be the default currency you specified in the Currencies screen of the Admin Console. However, if your store supports multiple languages, the default currency displayed in the Currencies side-box can either be the default currency specified in the Currencies screen of the Admin Console with the language the visitor is using to view your store.



If your store does *not* support multiple languages, you can safely skip this section. For more information on making your Zen Cart store work with multiple languages, refer to the section "Adding a language pack" for details.

Before we discuss how to specify the default currency for a store that supports multiple languages, you need to know what is the default currency associated with a language pack. We shall term the default currency associated with a language pack as the *native currency* for that language. For example, the French language pack will have a file [zc-home]/includes/languages/french.php. If you view the contents of that file, you will find the following piece of code.

define('LANGUAGE_CURRENCY', 'EUR');

This means the native currency for the French language is the Euro (EUR). This currency must be defined in the Currencies screen of your Admin Console. Similarly, other language packs will have their native currency defined in a file [zc-home]/includes/languages/[language].php.

A store that supports multiple languages can choose to have the default currency in the Currencies side-box in your Store Front displayed in the following ways:

- Always use the default currency specified in the Currencies screen of the Admin Console regardless of the language chosen by a customer in the Store Front. To achieve this, click on Configuration > My Store and set the Switch to Default Language Currency field to false.
- Switch to the native currency of the particular language that a customer has chosen in the Store Front. To achieve this, click on Configuration > My Store and set the Switch to Default Language Currency field to <u>true</u>.

Summary

You have seen how you can easily support multiple currencies in your store. Although exchange rates can easily be updated in real-time, you need discipline to constantly update your currency exchange rates to reflect current market conditions. You have also learned how to properly configure the default currency to be displayed to customers viewing your store in different languages.

Chapter 8: Weighting unit

Introduction

An often overlooked point for most store owners when setting up their stores is the issue of which *unit of measure* to use for weight. For simplicity's sake, we shall refer to the unit of measure for weight as "weighting unit" for the rest of this book.

The *default* weighting unit in Zen Cart is the *pound* (lb). This weighting unit is used in countries that follow the Imperial system of measurements. For countries that follow the Metric system, they would be more accustomed to the *kilogram* (kg) instead. Whatever the case, Zen Cart offers much more flexibility than that to specify your weighting unit. You can use anything to identify your weighting unit. For example, carat, stone, horse, rock, etc. Why is that so? Because to Zen Cart, the weighting unit is just a "label"!

The weighting unit issue is an abstract concept for most new store owners so we will examine it closely. Whenever a weight is specified, two things need to be mentioned: weighting unit and weightage. For example, 5 kgs of flour or 10 lbs of pork. When you learn to create products in your store, you will only be asked to key in the weightage. When a product's weight is displayed, Zen Cart automatically puts the weighting unit and weightage information together so the weight makes sense to customers. That is why you can customize the weighting unit to anything you want in Zen Cart.

Note that the weighting unit you decide to use is applied *globally* throughout the store. You cannot mix multiple weighting units. For example, specifying the weighting unit of product X in kilograms and the weighting unit of product Y in grams.

Implications of changing the weighting unit

Although the weighting unit is used purely as a label for display in your store, when it comes to shipping your goods you will most likely need to take into account the real weighting unit that needs to be used. Some shipping modules expect the weight to be expressed in a certain weighting unit. For example, the United States Postal Service (USPS) shipping module expect weight to be in pounds (lbs) and no other weighting unit. If you need to use the USPS or any other shipping module that expects weight to be in pounds, my advice would be *not* to customize the weighting unit.

If you already have products in your store created with pounds as the weighting unit, then changing your weighting unit may also be a concern. This is because when you specified the weightage (e.g. 20) for your products, you had the intention of using pounds (lbs). If you change the weighting later to kilogram (kgs), your products will not display weight correctly. For example, a product will now display "20 kgs" instead of "20 lbs" previously. Making the required manual changes is a simple task if you have very few products but it can be very tedious changing an entire catalog with thousands of products.

Changing the weighting unit

Changing the weighting unit to anything other than the default pound (lb) is not a trivial task. For readers who are new to Zen Cart, you should skip this chapter and come back to it after you have gone through the rest of the book.

You would then be in a better position to decide whether you want to perform any weighting unit customizations; and if you do, you can easily change the weightage for the few example products that are in your store and also edit all affected files properly using the Override System.

There are two steps to perform in order to change the default weighting unit used in your store.

- 1. Search for source files that have weighting unit information contained in them.
- 2. Apply the changes to these files.

Step 1 of 2: Search for files to change

As mentioned earlier, the default weighting unit in Zen Cart is the pound. This unit is represented as either "lb" or "lbs". Therefore to change the weight unit, you will have to search for these values and replace them with your own weighting unit; e.g. "kg" or "kgs".

To search for files containing the value "lb", "lb(s)" or "lbs":

1. Click on **Tools** > **Developers Tool Kit** to access the Developers Tool Kit screen. This screen is helpful in locating any text contained within the physical files that make up your Zen Cart store.

DEVELOPERS TOOL KI	r		
Look-up CONSTANT or Lar	iguage File defines		
Key or Name: Language File Look-ups:			
	None 👻 search		
NOTE: CONSTANTS are writte Language file, functions, class	en in uppercase. ses, etc. lookups are performed when nothing has been found in the database tables, if selected in dropdown		
Search in Configuration Se	ettings/Keys		
Phrase to search: (This will	search configuration setting names and descriptions, and also configuration_keys if exact match)		
Enter words to find in settings	Search Search (sorted by key) View All Reset		
Key or Name:	Function File Look-ups: All Function files - Catalog/Admin Search		
Look-up Classes or things	in Classes files		
Key or Name:	Classes File Look-ups:		
	All Classes files - Catalog/Admin 🚽 Search		
Look-up Template things			
Key or Name:	Template File Look-ups:		
	All Template files - /templates sideboxes /pages etc Search		
Look-up in all files			
Look-up in all files Key or Name:	All Files Look-ups: File type		

- 2. Concentrate on the Look-up in all files portion of the screen.
- 3. Type the weighting unit which you would like to replace into the Key or Name field. For example, type <u>1b</u>.
- 4. Choose <u>All Files Catalog/Admin</u> from the All Files Look-ups field to maximize your search scope.
- 5. Choose <u>.php only</u> from the **File type** field to search only files that contain code which could affect the display of the weighting unit.
- 6. Leave the Case Sensitive checkbox unchecked.
- 7. Click **search** and a list of files containing the keyword you typed in Step 3 will be displayed at the top of the screen if the search was successful.

- 8. Take down the names of the files and their line numbers as you will need to edit these files later. Ignore those files that contain words that match your keyword but are not related to weighting unit. For example, the words "callback" and "fallback" both contain the keyword "lb" but are not related to weight.
- 9. Repeat your search for the weighting unit you want to change with other forms of the previous keyword you typed in Step 3. For example, type <u>lbs</u> or <u>lb(s)</u>.

As you can see in Step 8, it can be very tedious to single out files that contain the weighting unit you want to change. You need to be patient and thorough or else you may encounter strange problems later on. For example, a certain screen may display weight in "kgs" but another screen in your store may display the same weight in "lbs".

Step 2 of 2: Edit the relevant file(s)

After you have consolidated all the file names containing the weighting unit you want to change, you need to edit the relevant files and change the weighting unit contained in them. You have two options for changing the contents of those affected files:

- Use Zen Cart's Override System to edit the relevant files. This is the preferred way and the methodology is covered in the section "The Template Override System".
- Directly edit the relevant files. Back up those files which cannot be overridden using Zen Cart's Override System.

Whatever option you choose, make sure you use a proper text editor when editing the contents of any file. Refer to the section "Text editors" for more information on choosing a text editor.

Since the editing of file contents only involves a straightforward search and replace for the relevant keywords, we will not discuss it further here. Just be careful not to accidentally replace keywords that may be embedded in other words.

Summary

As you have just seen, it is not easy to change the unit of measure for weight without touching a lot of files. To compound the problem, some shipping modules (e.g. USPS) require that a specific unit of measure for weight (e.g. lb) be used. Therefore, you should consider carefully whether you really need to change the unit of measure for weight before undertaking the task.

Chapter 9:

Taxes

Introduction

Taxes are a part and parcel of everyday life. If you run a business, you would most likely have to deal with sales taxes. Sales taxes are taxes levied on consumption of goods and/or services and are a form of indirect taxation which is different from income tax. In Zen Cart, sales taxes can be applied to shipping as well as to goods and/or services.

Sales taxes vary across different countries and sometimes even across states within a country. What's more, you could have different tax rates apply to different classes of goods. Sales taxes can even be compounded. That means you might have to charge an assortment of taxes on even a single item you will be selling in your store!

Indeed, the topic of taxation is a complex and wide-ranging one. Since you are planning on setting up your online store to conduct business, do check with your accountant on how taxation works for your line of business.



Tax rates used in this book are purely *fictitious* and intended only for illustration purposes.

In this chapter, we shall:

- Understand how the different elements of Zen Cart are used to configure tax rates.
- Decide on the basis of your sales tax collection.
- See the impact of different settings on the display of tax-related prices.
- Add a tax class.
- Add a tax rate.
- Understand the impact of customer zone information on tax calculation.

Understanding how taxes are configured

Before you start configuring taxes in Zen Cart, you need to have an overall picture of how Zen Cart implements tax calculations. Let us use an example of an online store that sells guitars and is located and registered in Australia. The tax setup for the store is shown in the following illustration and will be used to explain the concept of tax configuration in Zen Cart.



Figure 9.1: Tax configuration overview

Looking at Figure 9.1: "Tax configuration overview", the different components of Zen Cart (i.e. Zone, Zone Definition, Tax Class, Tax Rate) used to calculate the tax charged on goods sold by the store are shown in **bold** whereas example values for each component are shown in *italics*.

Zone Definitions and Zones are used to identify the geographical regions where a tax rate should apply.

A Tax Class allows different products to be separated into different groups so that each group can be taxed at a different rate. For example, if Item A is to be taxed at 5% while Item B is non-taxable, you can set up two different tax classes (i.e. Taxable Goods and Non-Taxable Goods) to hold each item.

A Tax Rate defines the percentage of a product's retail price or shipping charges that should be collected as sales tax. It ties together the information you have defined for a Zone Definition and a Tax Class to trigger the collection of a sales tax.

After looking at the building blocks of tax calculation above, we can now interpret the tax setup in the preceding illustration as follows: customers from the relevant Zones (i.e. Queensland, Victoria and New South Wales) in a Zone Definition (i.e. the country of Australia) who purchase goods (of Tax Class "Taxable Goods") will be liable to pay sales taxes (at a rate of 10%) on those goods.

Zen Cart gives you a lot more flexibility than the simple illustration we have just seen. For example, you could specify that the tax calculation be based on store location instead of shipping address. You can also specify whether different tax rates should be added or compounded (Federal Taxes added to State Taxes, etc). We shall cover all these different permutations in the rest of this chapter.



Store owners who need to set up sales taxes for either the United States, United Kingdom or Canada can refer to the FAQ section at Zen Cart's site for examples.

Basis for tax calculation

Usually, sales tax is collected based on a customer's *shipping* addresses when a purchase is made. However, there may be times where a store owner would like to have the sales tax calculated based on the store address or a customer's billing address instead.

To specify the basis for sales tax calculation:

- 1. Click on Configuration > My Store to access the My Store screen.
- 2. Set the following fields to either <u>Shipping</u>, <u>Billing</u> or <u>Store</u>.

- **Basis of Product Tax**
- **Basis of Shipping Tax**

Shipping and Billing addresses are determined by a customer during the checkout process. Store address is based on the following fields in the My Store screen.

```
■ Country
```

Zone

Display of tax information

Before you configure your tax information, you need to take note of a few settings that might affect whether you get to see tax calculations being displayed and how these tax calculations are derived.

All the relevant display settings can be found in the My Store screen available by clicking **Configuration** > **My Store**. We shall go through each of those fields in the following table.

Table 9.1: Explanation of tax settings in My Store screen

Field	Comments						
Tax Decimal Places	Specifies how many decimal places will be used to display a tax rate. Let us use the following example screen shot to illustrate its use where we assume we have already set this field to $\underline{0}$.						
	Tax Rates						
	Priority Tax Class Zone Tax Rate Description: Action Taxable Goods 1 Taxable Goods Florida 7% FL TAX 7.0% edit edit 1 Taxable Goods European Union (EU) 10% Value Added Tax (VAT) @ 10% 0 Displaying 1 to 2 (of 2 tax rates) Page 1 of 1 new tax rate Date Added: 09/07/2006 Last Modified: 09/07/2006 Last Modified: 09/07/2006						
	Notice that we have specified a Tax Rate of 17.5% for the EU zone. When we try to delete this tax rate, the side-panel actually shows a tax rate of 18%! Do not worry because this setting only affects the <i>display</i> of tax rates. <i>Actual</i> tax rates will still be used in any tax calculation. To avoid confusion, set this value to use the same number of decimal places as your expected tax rate.						
Display Prices with Tax	If this field is <u>true</u> , your product prices will be displayed <i>inclusive</i> of tax. For example, if your product price is \$100 and a tax rate of 10% is applied. The product price will be displayed as \$110 instead of the usual \$100.						
	There are two cases where this setting will have an effect on the display of prices in the Store Front:						
	Product PriceOrder Total						
	When looking at product prices in the Store Front, even if you have <i>enabled</i> this field, whether you will see the price of \$110 or \$100 will depend on what you set for the Basis of Product Tax field. If the address for the Basis of Product						

Field	Comments		
	Tax field falls within a Zone defined in the ta \$110, if not, you will still see \$100.	ax rate y	ou set up, then you will see
	Note that Zen Cart will not know a customer logged in. Hence, whether the customer sees subjected to this scenario.	's location the price	on if the customer has not e with or without tax is also
	At the final step of the check out process, cus order totals. Depending on the value of this f information is different, as shown in the follo	stomers vield, the owing sci	will be presented with their display of prices with tax reen shots.
	Display Prices with Tax: false.		
	Otv. Item Name T	otal	7
	1 × Normal Test Product	\$200.00	
	Sub-Total: Elat Date (Best Way):	\$200.00 \$5.00	
	Value Added Tax (VAT) @ 10%:	\$20.00	
	Total:	\$225.00	
	Display Prices with Tax: <u>true</u> .	otal	1
	1 × Normal Test Product	\$220.00	
	Sub-Total:	\$220.00	
	Flat Rate (Best Way):	\$5.00	
	Value Added Tax (VAT) @ 10%:	\$20.00	
	Total:	\$225.00	
	Note that the tax calculations in the above or and <i>not</i> to the shipping charge (Flat Rate).	ders only	y apply to the product price
Display Prices with Tax in Ad- min	This setting will affect the display of prices i generated by Zen Cart in the Admin Console by Zen Cart, click on Customers > Orders a voice to see a dynamically generated invoice	n <i>custom</i> . To lool and choo	<i>her orders</i> and <i>invoices</i> at an invoice generated se an order. Click on in-

Take note of the differences in the **Price (inc)** and **Total (inc)** columns for the two sample invoices shown in the following screen shots.

Display Prices with Tax in Admin: false.

Products	Model	Tax	Price (ex)	Price (inc)	Total (ex)	Total (inc)
1 × Normal Test Product		10%	\$200.00	\$200.00	\$200.00	\$200.00
					Sub-Tota	: \$200.00
				Fla	t Rate (Best Way): \$5.00
				Value Added	Tax (VAT) @ 10%	\$20.00
					Tota	l: \$225.00

Display Prices with Tax in Admin: true.

Products	Model	Tax	Price (ex)	Price (inc)	Total (ex)	Total (inc)
1 x Normal Test Product		10%	\$200.00	\$220.00	\$200.00	\$220.00
					Sub-Tota	l: \$200.00
				Fla	t Rate (Best Way): \$5.00
				Value Added	Tax (VAT) @ 10%	b: \$20.00
					Tota	l: \$225.00

Field Sales Tax Display Status Show Split Tax Lines	Comme Note tha <i>not</i> to th on the n If enable is recom whether	ents at the tax calculations i be shipping (Flat Rate). umber of decimal plac ed, it will force the disp imended that you set th your tax calculations a	n the above ord The number of es you set for th play of sales tax nis value to <u>1</u> du are in order.	ers only ap decimals of at particula even if the ring testing	oply to the product a displayed is depend ar currency. e amount is \$0.00. I g so you can check		
Sales Tax Display Status Show Split Tax Lines	Note tha not to the on the n If enable is recom whether This fiel	at the tax calculations i ae shipping (Flat Rate). umber of decimal plac ed, it will force the disp imended that you set th your tax calculations a	n the above ord The number of es you set for th play of sales tax nis value to <u>1</u> du are in order.	ers only ap decimals of at particula even if the ring testing	pply to the product a displayed is depend ar currency. e amount is \$0.00. g so you can check		
Sales Tax Display Status Show Split Tax Lines	If enable is recom whether This fiel	ed, it will force the disp mended that you set th your tax calculations a	play of sales tax is value to <u>1</u> du are in order.	even if the ring testing	e amount is \$0.00. I g so you can check		
Show Split Tax Lines	This fiel		If enabled, it will force the display of sales tax even if the amount is \$0.00. It is recommended that you set this value to $\underline{1}$ during testing so you can check whether your tax calculations are in order.				
	implies, an order For exan separate	d is relevant only whe it allows a store owne are displayed during o mple, if the field is set lines during checkout	n multiple taxes r to configure h heckout. to <u>1</u> , then multi as shown in the	apply to a ow multipl ple tax rate following	in order. As its nam le taxes which apply es would be display g screen shot.		
	01-1	These News	Terr	Tetal			
	1 × No	ormal Test Product	20%	\$200.00			
			Sub-Total:	\$200.00			
		F	lat Rate (Best Way):	\$5.00			
		Value Adde	d Tax (VAT) @ 10%:	\$20.00			
			CarbonTax @ 10%:	¢20.00			

Adding a tax class

A tax class allows you to classify your goods into a specific category so that tax rates can be applied. When you configure a shipping module or create a new product (which you will learn about in a later chapter), you will be given the option of specifying a tax class for that particular product or shipping module.

Value Added Tax (VAT) @ 10% + CarbonTax @ 10%:

Flat Rate (Best Way):

Total:

\$5.00

\$40.00

\$245.00

To add a tax class:

1. Click on Locations/Taxes > Tax Classes to access the Tax Classes screen.

Tax Ci	ASSES	
ID 1	Tax Classes Taxable Goods	Action Taxable Goods
Displaying	g 1 to 1 (of 1 tax classes)	Page 1 of 1 new tax class Date Added: 10/04/2010 Last Modified:
		Description: The following types of products are included: non-food, services, etc

2. Click on new tax class to bring up the tax class detail panel.

New Tax Class
Please enter the new tax class with its related data
Tax Class Title:
Description:
·
insert cancel

- 3. Enter your desired values for the Tax Class Title and Description fields.
- 4. Click insert to save your changes into the database.

Adding a tax rate

A tax rate specifies a percentage of a product's sales price to be added as tax. A product can incur several tax rates at once so Zen Cart gives you the option of adding or compounding the different tax rates together.

To add a tax rate:

1. Click on Locations/Taxes > Tax Rates to access the Tax Rates screen.

TAX RAT	Tax Rates							
Priority	Tax Class	Zone	Tax Rate	Description:	Action	Taxable Goods		
1	Taxable Goods	Florida	7%	FL TAX 7.0%		edit delete		
1	Taxable Goods	European Union (EU)	10%	Value Added Tax (VAT) @ 10%	(Î)			
1	Taxable Goods	European Union (EU)	10%	CarbonTax @ 10%	(Î)	derine zones		
Displaying 1 to 3 (of 3 tax rates)				Page 1 of 1 new tax rate	Date Added: 09/07/2006 Last Modified: 09/07/2006			
						Description: FL TAX 7.0%		

2. Click on new tax rate to bring up the New Tax Rate side-panel.

New Tax Rate
Please enter the new tax class with its related data
Tax Class Title: Taxable Goods 💌
Zone: Florida 💌
Tax Rate (%):
Description:
Tax rates at the same priority are added, others are compounded.
Priority:
insert cancel

- 3. Choose the tax class which you want to apply a tax rate to by selecting from the Tax Class Title field.
- 4. Choose a zone definition to which the tax rate should apply from the **Zone** field.
- 5. Specify the tax rate you want to charge in the Tax Rate (%) field.
- Specify a meaningful description for the Description field. Preferably, state the tax rate since this field will be displayed to the customer in the Order Confirmation screen during check out. For example, enter <u>Value Added</u> <u>Tax (VAT) @ 10%</u>.

- 7. Specify how you want different tax rates to apply by entering a number into the **Priority** field. An explanation of this field is found in the following section.
- 8. Click **insert** to save your changes.

Compounding or adding different tax rates

In some cases, different tax rates need to be applied to a product. The final tax rate that applies for the product will depend on whether these tax rates are compounded or added. Zen Cart allows you to perform the compounding or addition of tax rates by way of the **Priority** field which you encountered earlier. Notice that the **Priority** field states that "Tax rates at the same priority are added, others are compounded".

We will use the following examples of a single product which has two tax rates (3% and 5%) applied to it to understand the meaning of compounding versus addition.

Example 9.1: "Compounded" Tax Rate

Net Price of Product = \$100.00

Priority = 1, Tax Rate = 5%

Priority = 2, Tax Rate = 3%

Compounded Tax Rate = (1.05 x \$100.00) x (1.03) = \$108.15

Example 9.2: "Added" Tax Rate

Net Price of Product = \$100.00

Priority = 1, Tax Rate = 5%

Priority = 1, Tax Rate = 3%

Added Tax Rate = $(1 + 0.05 + 0.03) \times 100.00 = 108.00$

Impact of customer zone information

One of the things that can cause problems when Zen Cart calculates taxes is when no State/Province information exists for a customer. This happens when they are not required to enter the **State/Province** field when they sign up for an account with your online store.

Zen Cart needs the State/Province information in order to determine which *Zone* a customer is located in so that it can decide whether the customer is liable for sales tax. If your store chooses not to collect any zone information during customer registration, then the only way to assess taxes on those customers would be to set the tax basis to <u>Store</u> (refer to the section "Basis for tax calculation" for configuration details). Note that the *Zone* used when using a store-based tax basis is taken from the **Zone** field under **Configuration** > **My Store**.

To make sure that customers specify a state or province when they sign up for an account:

1. Click on Configuration > Customer Details to access the Customer Details screen.

2. Make sure the **State** field is set to <u>true</u>.

Summary

Configuration of sales taxes needs to be carefully done as there are many steps to perform and also several dependencies with other modules as well. The main thing before you start configuring your taxes is to have an understanding of how your business is required to handle taxation issues. Since tax rules can change overnight, you also need to stay abreast of current affairs and update your tax settings in a timely manner.

Do contact your local tax authority or consult a tax accountant to review your business needs, including taxation issues related to zones outside the jurisdiction of your local tax authority (since you can sell to anyone anywhere if you are selling online).

Chapter 10: Shipping

Introduction

Any store that deals with physical goods will likely need to ship those goods to their customers. Zen Cart provides various shipping modules to cater to the different ways in which store owners ship their goods. Each shipping module that is enabled will then appear as a shipping option to customers based on the delivery addresses they select when they check out their items.

In this chapter, we shall:

- Understand important shipping considerations like tare weight, shipping boxes calculation and shipping/packing details.
- Run through the common shipping screen and shipping settings.
- Go through each shipping option separately.



To keep the explanation of each shipping module independent, we shall discuss how to test each shipping module immediately after learning how to configure it.

Default shipping modules

Use the following table to help you decide which shipping options you want to offer your customers. Shipping modules are classified according to the methods they employ to calculate shipping charges, such as:

- Online Shipping charges are calculated in real-time by an external shipping processor and sent back to your store for display to customers.
- Offline Shipping charges are calculated based on the rates a store owner sets for a particular shipping module.

Modules	Methods	Comments
Flat Rate	Offline	Adds a fixed shipping cost to a customer's order regardless of how many items were bought.
Per Item	Offline	Adds a fixed shipping cost to each item in a customer's order.
Per Unit	Offline	A different shipping cost is applied for each item based on the item's unit weight and quantity.
		Note: The unit weight of an item is the weight you specified when creating a product in the store's catalog.

Table 10.1: Default shipping options

Modules	Methods	Comments
Store Pickup	Offline	Charges a fixed shipping cost for customers who choose to collect their goods from your store instead of having you de- liver it to them.
Table Rate	Offline	Applies different shipping charges for items that fall within different bands for weight, price or number of items. For example, charge \$2 for orders below 5 lbs and charge \$5 for orders between 5 lbs to 10 lbs.
Zone Rates	Offline	Behaves similarly to Table Rate but has the added ability to define different table rates for different countries in different zones.
FREE SHIPPING	Offline	Allows you to specify extra charges that should apply although free shipping is offered to customers.
		Note: If this module is active and shown to the customer dur- ing checkout, all other modules automatically disappear. To enable free shipping for customers and at the same time offer other shipping options to customers, use the Free Shipping Op- tions module instead.
Free Shipping Options	Offline	Allows you to specify different conditions for a customer to qualify for free shipping. For example, when the total order exceeds a certain amount or weight, or when the total number of items bought is above a certain threshold value.

Enabling network access to third-party sites

For some shipping modules which require access to third-party sites to acquire real-time shipping quotes, you will need to ensure that your PHP settings are properly configured to work with cURL. cURL support in PHP allows Zen Cart to communicate properly with external websites.

To check whether cURL functionality is enabled in your server's PHP settings:

- 1. Click on Tools > Server/Version Info to access the Server Information screen.
- 2. Make sure that the CURL support field is enabled.

curl	
cURL support	enabled
cURL Information	libcurl/7.21.0 OpenSSL/0.9.8b zlib/1.2.3 libidn/0.6.5

If your store is hosted with a web hosting provider, you should check with them if you encounter problems with network access when configuring those shipping modules which require cURL access.

Important shipping considerations

Before you can start configuring any shipping module, you need to take note of several factors that will affect your shipping destinations and costs.

Shipping destinations

If your local laws impose certain export regulations on your business or you have valid fraud concerns about shipping your goods to certain countries, go to **Locations/Taxes** > **Countries** and disable the status of the relevant countries accordingly. Customers will then be unable to specify those countries as their shipping locations during checkout.

Tare weight and calculation of shipping boxes

What is tare weight?

You might need to enclose your product within a box and maybe add some layers of foam for protection when shipping your items. The additional weight (i.e. packing box, foam, etc) added to the actual weight of your item is known as the *tare weight*. This variable should be the first thing you check when you find that the calculation for your shipping charges do not add up.

Calculating the number of shipping boxes required

Whenever you ship items, you need to pack them nicely into suitable boxes, tubes, etc. Zen Cart can help you determine the number of boxes you require based on the weight of your orders. However, the way the number of shipping boxes is calculated *can* be *wrong*!

The formula for the calculation of the number of shipping boxes required is:

```
Number of shipping boxes =
    (total weight of all items in an order) / (maximum package weight)
Note: maximum package weight is the maximum weight that each shipping box can hold.
```

We shall use the following two examples to show how this formula actually works. For simplicity, both examples *assume the tare weight is zero*. Example 10.1: "Correct shipping boxes calculated" gives you an idea of how the formula works. Example 10.2: "Impractical shipping boxes calculated" illustrates why you have to be very careful if you decide to use this feature to determine your shipping boxes.

Example 10.1: Correct shipping boxes calculated

Assume the maximum package weight is 0.4 lbs and a customer buys several items of the same product.

Product A = 0.2 lbs

Customer buys 4 units of Product $A = 4 \ge 0.2 = 0.8$ lbs

No. of Shipping Boxes required = (0.8) / (0.4) = 2

Note: Each box weighs 0.4 lbs, and contains 2 units of Product A each.

Example 10.2: Impractical shipping boxes calculated

Assume the maximum package weight is 2.5 lbs and a customer buys the following three products from your store.

```
Product A = 2 lbs
Product B = 1 lb
Product C = 2 lbs
```

No. of Shipping Boxes required = (2+1+2)/(2.5) = 2

Note: You can't ship your goods with only 2 boxes because the maximum weight for each box is 2.5 lbs! You would need 3 boxes to ship the goods properly.

Due to the potential miscalculation of shipping boxes above, it is advisable that you do not show customers any information on shipping boxes when they are checking out their items. You will see how to disable the display of this information when we discuss "display-related information" in later.

Shipping and packaging details

Before you configure your shipping modules, you should set some general settings for all your shipping-related activities. We will go through all the settings here to give you a firm grounding in how Zen Cart deals with these issues.

Click on Configuration > Shipping/Packaging to access the Shipping/Packaging screen.

Shipping/Packaging			
Title	Value	Action	Country of Origin
Country of Origin	France	▶	edit
Postal Code	75017	۵	
Enter the Maximum Package Weight you will ship	50	0	Select the country of origin to be used in
Package Tare Small to Medium - added percentage:weight	0:3	۵	shipping quotes.
Larger packages - added packaging percentage:weight	10:0	1	Date Added: 09/07/2006
Display Number of Boxes and Weight Status	3	(I)	Last Modified: 09/27/2006
Order Free Shipping 0 Weight Status	0	0	
Shipping Estimator Display Settings for Shopping Cart	1	1	
Display Order Comments on Admin Invoice	1	1	
Display Order Comments on Admin Packing Slip	1	(Ĵ)	

The information in this screen can be split up into several categories to help you appreciate how they impact your shipping configuration.

- "Shipping origin information" on page 85.
- "Weight-related information" on page 86.
- "Display-related information" on page 88.

Shipping origin

The following fields are *required* if you are shipping physical items anywhere in the world.

- Country of Origin
- Postal Code

The information collected may be used to determine your shipping rates. For example, if you choose to use online shipping modules (USPS, UPS, etc) which prepare shipping quotes in real-time, then this information will be used to calculate the shipping charges based on the distance between your shipping origin and the shipping destination.

Weight-related information

The following fields are related to weight information and will affect the calculation of your shipping weights when you configure your shipping modules later.

- Enter the Maximum Package Weight you will ship
- Package Tare Small to Medium added percentage:weight
- Larger packages added packaging percentage:weight
- Order Free Shipping 0 Weight Status



The values for the Package Tare Small to Medium - added percentage:weight and Larger packages - added packaging percentage:weight fields do *not* represent *ratios*.

Enter the Maximum Package Weight you will ship tells Zen Cart the maximum weight that you will allow in a shipping package's box, tube, envelope, etc. This is the maximum package weight that will be used for calculating the number of boxes to pack the items contained in a customer's order. Refer to the section "Calculating the number of shipping boxes required" for calculation details. You should check with your shipping company in order to get an idea what should be the correct value you should enter in this field.

Package Tare Small to Medium - added percentage:weight and **Larger packages - added packaging percentage:weight** both allow you to specify a tare weight in addition to the total weight of your orders. You need to pay close attention to these two options because store owners tend to forget that they affect the order weight calculations and spend a lot of time trying to figure out where the phantom weight came from.

Order Free Shipping 0 Weight Status allows you to specify whether you want to allow customers to enjoy free shipping when they purchase a product for which you did not specify a weight. If you enable this option by setting its value to <u>1</u>, you will need to enable the FREE SHIPPING! module under **Modules** > **Shipping**.

The value for the Enter the Maximum Package Weight you will ship field acts as a switch used to determine whether the value for the Package Tare Small to Medium - added percentage:weight field or the Larger packages - added packaging percentage:weight field is used in your shipping calculations.

To better understand the relationships between the three preceding fields, let us assume you have the following values set up in your Shipping/Packaging screen.

- Enter the Maximum Package Weight you will ship = <u>20</u> lbs
- Package Tare Small to Medium added percentage:weight = <u>0:3</u>
- Larger packages added packaging percentage:weight = <u>10:0</u>

Let us further assume you have the following three products in your store:

- Product X = 20 lbs
- Product Y = 10 lbs
- Product Z = 5 lbs

Example 10.3: Larger packages - added packaging percentage:weight value used

If a customer buys products X, Y and Z, then the *total items weight* will be:

= 20 + 10 + 5 = 35 lbs.

Since total items weight (i.e. 35 lbs) is *greater than* the value (i.e. 20 lbs) for the **Enter the Maximum Package Weight you will ship** field, Zen Cart determines that you will not be able to fit all your products within one shipment box and will need to split your shipment into multiple boxes. Thus, Zen Cart uses the value for the **Larger packages - added packaging percentage:weight** to add tare to your total items weight before it goes on to calculate how many boxes you will actually need to ship all your products.

Based on the above values, your *total shipping weight* for multiple boxes is now:

```
= total items weight
+ (total items weight x large tare percentage)
+ large tare weight
= 35 lbs + (35 lbs x 10%) + 0 lbs
= 38.5 lbs.
```

The calculation for the *number of boxes* used for shipping your products is now:

= (total shipping weight) / max. package weight

Based on the above values, you will get:

= (38.5)/20 = 1.925 = 2 boxes (rounded up)

The weight for each box will be:

= (total shipping weight) / no. of boxes

Based on the above values, you will get:

= (38.5)/2 = 19.25 lbs

Thus, you will arrive at the following configuration for your shipping calculations:

= 2 x boxes @ 19.25 lbs each.

Example 10.4: Package Tare Small to Medium - added percentage:weight value used

If a customer buys product Y and Z, then the total items weight will be:

= 10 + 5 = 15 lbs.

Since total items weight (i.e. 15 lbs) is *less than* the value (i.e. 20 lbs) for the **Enter the Maximum Package Weight you will ship** field, Zen Cart determines that you will only need a single box to ship your product. Thus, Zen Cart uses the value for the **Package Tare Small to Medium - added percentage:weight** field to add tare to your total items weight.

Based on the above values, your total shipping weight for a single box is now:

```
= total items weight
+ (total items weight x small and medium tare percentage)
+ small and medium tare weight
= 15 + (15 x 0%) + 3
= 18 lbs.
```

Thus, you will arrive at the following configuration for your shipping calculations:

= 1 x box @ 18 lbs.

Display-related information

The two fields related to display information for shipping are:

- **Display Number of Boxes and Weight Status**
- Shipping Estimator Display Settings for Shopping Cart

Display Number of Boxes and Weight Status allows you to choose how you want to display the number of boxes and weight when customers are prompted to choose a shipping option during the checkout process. The following example screen shot shows what is displayed if you set this option to <u>Both Boxes and Weight</u>.

	Step 1 of 3 - Delivery In Shipping Information:]	
	Jacques Pires 200, rue de Tolbiac Paris, 75015 Paris, France	Your order will be shipped to the address at the left or you may change the shipping address by clicking the <i>Change Address</i> button.	
Number of	Shipping Method: This is currently the only shipping n	nethod available to use on this order.	Weight per
shipping boxes	Table Rate (2 x 0.40lbs)	\$17.00	shipping box

It is recommended that you set this value to <u>off</u> to prevent customers from witnessing any possible impractical calculations as shown in Example 10.2: "Impractical shipping boxes calculated". You certainly do not want to confuse your customers and explain the discrepancies over and over again.

Shipping Estimator Display Settings for Shopping Cart toggles the display of the Shipping Estimator option when customers view their shopping cart details. The following example screen shots show what customers can expect to

see for the values of <u>Display as Button on Shopping Cart</u> and <u>Display as Listing on Shopping</u> <u>Cart Page</u> respectively.

Total I	tems: 4 Weight: 0.8lbs Am	ount: \$800.	00	Estimate Ship	ping Costs	
Qty.	Item Name	Unit \$200.00	Total \$800.00	Ship to: Jacques I 200, rue Paris, 75 Paris, Fra	Pires de Tolbiac 015 ance	
				A	vailable Shipping Methods	Rates
		Sub-Tot	al: \$800.00	Flat Rate (Best W	Vay)	\$5.00
back to shopping		g	o to heckout	Table Rate (2 × 0).40lbs) (Best Way)	\$17.00
estimate shipping				[Logged-in	customer]	
L Display as	Button on Shopping Ca	rt		Estimate Ship	pping Costs	
				Country:	France	*
				State/Province:	Please select 💙	
				Post/Zip Code:		
						(update)
Dis [Cu	play as Listing on Shopp stomer not logged-in vet	ing Cart F 1	Page	 Shipping quotes	s are based on the address information y FRANCE	vou selected:
•	55 , .	•		A	vailable Shipping Methods	Rates
				Flat Rate (Best V	Vay)	\$5.00
				Table Rate (2 × 0	0.40lbs) (Best Way)	\$17.00

Figure 10.1: Shipping estimates displayed on Shopping Cart page

Common shipping information

Before we start adding shipping options, you need to know certain common shipping information that will help ease your configuration later.

The Shipping Modules screen

All shipping modules in Zen Cart are configured via the Shipping Modules screen. To access this screen, click on **Modules > Shipping**.

SHIPPING MODULES				
Modules		Sort Order	Action	Flat Rate
Flat Rate	flat	40 0	•	edit
Free Shipping Options	freeoptions	30 0	1	
FREE SHIPPING!	freeshipper	20 0	1	- remove
Per Item	item	•	١	Flat Date
Per Unit	perweightunit	•	٦	not reate
Store Pickup	storepickup	10 0	٦	Enable Flat Shipping
Table Rate	table	•	1	True
Zone Rates	zones	•	1	Shipping Cost
Module Directory: /home/johndoe/public_html/store/includes/mod	les/shipping/			5.00
				Tax Class none
				Tax Basis Shipping
				Shipping Zone none
				Sort Order 40

A shipping module can only be used if it is:

- Installed.
- Enabled.

Therefore, you should automatically perform the above steps if you are asked to configure a shipping module later in the chapter.

The colors of the buttons under the Sort Order column have the following meanings:

- **Red** Shipping module is not installed.
- **Green** Shipping module is installed and enabled.
- Yellow Shipping module is installed but disabled or the Shipping Zone field is enabled only for a particular zone.



Avoid having your shipping module set to installed but disabled (i.e. **Yellow**) as it reduces Zen Cart's program efficiency because the affected shipping module's code is still processed although it will not be used. It is only recommended when you have custom code for the shipping module that will enable itself at a later time.

Automatic email alerts

Whenever a shipping module is installed, updated or removed, an email will automatically be sent to the email address as specified in the E-Mail Address (Displayed to Contact you) field of the E-Mail Options screen.

The contents of the email will include which particular shipping module was affected, which admin user made the change and what kind of change (i.e. installed, updated or removed) was made.

The email alerts provide a good security safeguard against malicious or unintended changes to your shipping module settings and there is currently no option in the Admin Console to turn off the sending of such email alerts.

Common shipping settings

Certain fields which are common across most of the different shipping modules are highlighted in the following table so we do not have to explain them again later.

Table 10.2: Explanation of common shipping settings

Field	Comments
Tax Class	Assigns a tax class to the calculated shipping cost of an order. Refer to the section "Understanding how taxes are configured" if you have forgotten how taxes work.
Tax Basis	Specifies which of the following addresses to use for calculating tax charges - <i>Shipping</i> , <i>Billing</i> or <i>Store</i> . Refer to the section "Basis for tax calculation" for more information.
Handling Fee	Adds an extra charge to the final shipping cost. For example, if you have to buy special packaging materials for your goods, you might want to add the cost of those materials here.

Field	Comments
Handling Per Order or Per Box	If you had entered a value for the Handling Fee field, select the <u>Order</u> radio button so that handling fees are based on the value entered in the Handling Fee field only.
	If your shipping method is <i>weight-based</i> , you can select the <u>Box</u> radio button so handling fees will be charged by multiplying the amount specified in the Han-dling Fee field against the total number of shipping boxes required to fulfill the order.
Shipping Zone	For shipping modules that have selected a particular zone definition for this field, customers will only see the corresponding shipping option if their delivery addresses fall within the selected zone definition.
	Specifying <u>none</u> for this field for a particular shipping module will make the corresponding shipping option appear to <i>all</i> customers.
	For testing purposes, set this field to <u>none</u> .
Sort Order	Indicates the sequence in which shipping options appear to a customer when checking out. A shipping option with a <i>lower</i> value will appear above a shipping option with a <i>higher</i> value.
	You can leave this field set to $\underline{0}$ for all shipping modules to let Zen Cart sort the shipping options automatically when customers view them.
	If you choose to specify a non-zero value for this field, make sure you also spec- ify a non-zero value for all other shipping modules. In addition, all non-zero val- ues must be different.

Adding shipping options

Flat rate

This shipping option adds a fixed charge to a customer's order regardless of the number of items, total weight or total price of the order. For example, if a customer orders 5 lamps, 2 tables and 3 chairs, you still charge a flat rate of \$50 for the whole order.

This type of shipping option is a good choice for stores that sell goods which can be hand-carried by customers. In such cases, if the customers wish to have the items delivered, then the store will charge a flat rate for any deliveries. An example would be furniture shops which typically do delivery if customers buy items above a certain amount.

To configure this module:

- 1. Click on Modules > Shipping to access the Shipping Modules screen.
- 2. Edit the Flat Rate module. If required, install the module first.


- 3. In the **Shipping Cost** field, specify the fixed amount you want to charge for customers who choose this shipping option.
- 4. Fill in the rest of the details for the module. Refer to the section "Common shipping settings" for explanations for the rest of the fields.
- 5. Click update to save your changes into the database.

Before you begin to test this module, you need to create a product in your store. We shall use the Normal Test Product (refer to the section "Normal Test Product" for details) for the purpose of our test.

To test this module:

- 1. Log in to your test customer account in your Store Front.
- 2. Add a "Normal Test Product" product to your cart and check out the item.
- 3. At the Delivery Information screen, you should see "Flat Rate" appear as a shipping option under the Shipping Method section.

Shipping Method: This is currently the only shipping method available to use on this o	order.
Flat Rate	
Sest Way	\$5.00

4. Check that the amount appearing next to the **Best Way** radio button is correct based on your settings for this module.

Per item

This shipping module adds a fixed charge to *each item* in a customer's order regardless of the number of items, total weight or total price of the order. For example, if a customer orders 5 lamps, 2 tables and 3 chairs, you decide to charge a per item rate of \$10. Your total shipping cost will work out to be $(5+2+3) \times 10 = 100 .

This shipping module is a good choice for stores that sell a single item or items that have uniform shipping attributes. An example would be shops selling DVDs, CDs and books, etc.

To configure this module:

- 1. Click on Modules > Shipping to access the Shipping Modules screen.
- 2. Edit the Per Item module. If required, install the module first.

Per Item
Enable Item Shipping
bo you want to oner per item rate shipping?
• True
○ False
Shipping Cost The shipping cost will be multiplied by the number of items in an order that uses this shipping method. [2.50
Handling Fee Handling fee for this shipping method. 0
Tax Class Use the following tax class on the shipping fee. -none-
Tax Basis On what basis is Shipping Tax calculated. Options are Shipping - Based on customers Shipping Address Billing Based on customers Billing address Store - Based on Store address if Billing/Shipping Zone equals Store zone
 Shipping Billing Store
Shipping Zone If a zone is selected, only enable this shipping method for that zone.
Sort Order Sort order of display. 0
update cancel

- 3. In the Shipping Cost field, specify the amount you want to charge for each item in a customer's order.
- 4. Fill in the rest of the details for the module. Refer to the section "Common shipping settings" for explanations for the rest of the fields.
- 5. Click update to save your changes into the database.

Before you begin to test this module, you need to create a product in your store. We shall use the Normal Test Product (refer to the section "Normal Test Product" for details) for the purpose of our test.

To test this module:

- 1. Log in to your test customer account in your Store Front.
- 2. Add *two* or more "Normal Test Product" products to your cart and check out the items. By adding multiple items, you can better visualize and verify the accuracy of the shipping charges calculation.
- 3. At the Delivery Information screen, you should see "Per Item" appear as a shipping option under the Shipping Method screen.

Shipping Method: Please select the preferred shipping method to use on this order	
Ø Best Way	\$10.00

4. Check that the amount appearing next to the **Best Way** radio button is correct based on your settings for this module.

Per unit

This shipping module applies a different charge to each item in a customer's order based on the item's *unit weight* and *quantity*. The unit weight of an item is the weight you specified when creating a product in the catalog. Essentially, it provides you a way of specifying different shipping charges based on the products that are being shipped.

Consider this scenario: You decide to sells pots and pans which weigh 0.5 and 0.25 pounds respectively. You have further decided that the shipping cost is \$10 per pound. Therefore, if a customer orders 2 pots and 3 pans, the total shipping cost will work out to be $(2 \times 0.5 \times 10) + (3 \times 0.25 \times 10) = 17.50 .

To configure this module:

- 1. Click on Modules > Shipping to access the Shipping Modules screen.
- 2. Edit the Per Unit module. If required, install the module first.



- 3. In the **Shipping Cost per Unit** field, specify the amount you want to charge per unit weight for each item in a customer's order. If you have trouble understanding this field, think of it as how much you would charge per pound (\$/lb) or how much you would charge per kilogram (\$/kg), etc.
- 4. Fill in the rest of the details for the module. Refer to the section "Common shipping settings" for explanations for the rest of the fields.
- 5. Click update to save your changes into the database.

Before you begin to test this module, you need to create a product in your store. We shall use the Normal Test Product (refer to the section "Normal Test Product" for details) for the purpose of our test.

Before you test this module, you can turn off tare weight to simplify the interpretation of the test results. Click on **Configuration** > **Shipping/Packaging** and set the following fields to 0:0.

- Package Tare Small to Medium added percentage:weight
- Larger packages added packaging percentage:weight

To test this module:

1. Log in to your test customer account in your Store Front.

- 2. Add *two* or more "Normal Test Product" products to your cart and check out the items. By adding multiple items, you can better visualize and verify the accuracy of the shipping charges calculation.
- 3. At the Delivery Information screen, you should see "Per Unit" appear as a shipping option under the Shipping Method section.

Shipping Method: Please select the preferred shipping method to use on this order.	
Per Unit	
Best Way	\$0.80

4. Check that the amount appearing next to the **Best Way** radio button is correct based on your settings for this module.

Repeat the test with different values for the tare weight to better understand how shipping charges for this shipping module are calculated by Zen Cart.



Do check that you have set the value of Enter the Maximum Package Weight you will ship in Configuration > Shipping/Packaging to a value that is *higher* than your expected *total order weight*. If not, you might find that your shipping cost is limited to the weight of the maximum package weight instead of the total weight of the order.

Store pickup

This shipping module gives customers the benefit of picking up their items at your store instead of incurring any delivery charges. Similarly, it saves store owners the hassle of having to pack and deliver the goods. If you use this option, do consider defining a *shipping* Zone Definition that covers your local vicinity so that only customers with shipping addresses in the vicinity can see this shipping module.

To configure this module:

- 1. Click on Modules > Shipping to access the Shipping Modules screen.
- 2. Edit the Store Pickup module. If required, install the module first.

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Chapter 10. Shipping

Store Pickup
Enable Store Pickup Shipping
Do you want to offer In Store rate shipping?
True
© False
Enter a list of locations, separated by semicolons (:).
Optionally you may specify a fee/surcharge for each
location by adding a comma and an amount. If no amount is
specified, then the generic Shipping Cost amount from the
next setting will be applied.
Examples:
121 Main Street;20 Church Street
Sunnyside,4.00;Lee Park,5.00;High Street,0.00 Dallas:Tulsa 5.00;Phoenix 0.00
For multilanguage use, see the define-statement in the
language file for this module.
Walk In
Chinaina Cast
The shipping cost for all orders using this shipping method.
0.00
Tax Class
use the rollowing tax class on the shipping ree.
Tax Basis
On what basis is Shipping Tax calculated. Options are
Shipping - Based on customers Shipping Address Billing Based on customers Billing address
Store - Based on Store address if Billing/Shipping Zone
equals Store zone
Shipping
Billing
Shipping Zone
If a zone is selected, only enable this shipping method for
that zone.
Sort Order
Sort order of display.
0
update cancel

- 3. Enter one or more physical locations where customers can pick up their purchases in the **Pickup Locations** field. Alternatively, you can leave the field as it is.
- 4. In the **Shipping Cost** field, specify the amount you would like to charge for customers who choose to pick up their goods from your store. Usually, this amount is left at <u>0.00</u> unless there is some warehousing costs to the store owner.
- 5. Fill in the rest of the details for the module. Refer to the section "Common shipping settings" for explanations for the rest of the fields.
- 6. Click update to save your changes into the database.

Before you begin to test this module, you need to create a product in your store. We shall use the Normal Test Product (refer to the section "Normal Test Product" for details) for the purpose of our test.

To test this module:

- 1. Log in to your test customer account in your Store Front.
- 2. Add a "Normal Test Product" product to your cart and check out the item.
- 3. At the Delivery Information screen, you should see "Store Pickup" appear as a shipping option under the Shipping Method section.

Shipping Method: This is currently the only shipping method available to use on this	order.
Walk In	\$0.00

4. Check that the amount appearing next to the Walk In radio button is correct based on your settings for this module.

Table rates

This shipping module allows you to apply different shipping charges based on either the *weight*, *price* or *number of items* bands. For example, you can charge \$10 for orders above \$50 and \$2 for orders above \$100. Specifying table rates based on price or number of items is entirely up to how your business operates. To specify table rates by weight, you can usually obtain a copy of the shipping rates table from your local post office to help you get started.

Understanding the shipping table

Before we go any further, you need to understand the syntax of the Shipping Table field which you will encounter later.

Example 10.5: Table Method = Weight

In this example, you have specified that the value of the **Shipping Table** represents *weight*. Let us assume that the total weight of a customer's order is "x" and that the *default unit of measure for weight* is in "lbs". If the value of the **Shipping Table** field is <u>25:8.50,50:5.50,1000:0.00</u>, it essentially means the following:

Example 10.6: Table Method = Price

In this example, you have specified that the value of the **Shipping Table** represents *price*. Let us assume that the total price of a customer's order is "y" and that the *default currency* is in "\$". If the value of the **Shipping Table** field is 25:8.50, 50:5.50, 1000:0.00, it essentially means the following:

```
y <= $25 : Shipping Rates = $8.50
$25 < y <= $50 : Shipping Rates = $5.50
$50 < y <= $1000 : Shipping Rates = $0.00 i.e. Free Shipping for purchases
above $50
```

Example 10.7: Table Method = Number of Items

In this example, you have specified that the value of the **Shipping Table** represents *number of items*. Let us assume that the total number of items in a customer's order is "z". If the value of the **Shipping Table** field is 25:8.50, 50:55.50, 1000:0.00, it essentially means the following:

```
z \le 25 : Shipping Rates = $8.50
25 < z \le 50 : Shipping Rates = $5.50
50 < z \le 1000 : Shipping Rates = $0.00 i.e. Free Shipping for more than
50 items bought
```



The value for the last entry in the **Shipping Table** field can be specified as a *percentage of an order total* instead of a flat charge. This additional calculation flexibility is applicable regardless of whether *weight*, *price* or *number of items* is chosen as the basis for the shipping rate.

Using Example 10.5: "Table Method = Weight" as an illustration and *further assuming* the order total for an order is \$100.00. If the entry was 25:8.50, 50:5.50, 1000:5%, then the calculation for the shipping charges based on weight will be as follows:

```
x <= 25 lbs : Shipping Rates = $8.50
25 lbs < x <= 50 lbs : Shipping Rates = $5.50
50 lbs < x <= 1000 lbs: Shipping Rates = $5.00 i.e. 5% of $100.00</pre>
```

Make sure you understand how the Shipping Table works before you begin configuring this shipping module.

To configure this module:

- 1. Click on Modules > Shipping to access the Shipping Modules screen.
- 2. Edit the Table Rate module. If required, install the module first.



- 3. Change the value of the **Shipping Table** field according to your preference and then specify what the **Shipping Table** field represents by clicking the appropriate radio button in the **Table Method** field.
- 4. Fill in the rest of the details for the module. Refer to the section "Common shipping settings" for explanations for the rest of the fields.
- 5. Click update to save your changes to the database.

Before you begin to test this module, you need to create a product in your store. We shall use the Normal Test Product (refer to the section "Normal Test Product" for details) for the purpose of our test.

The following test uses *weight* for illustration. You should substitute it with either price or number of items to suit your own needs. Before you test this module, you can turn off tare weight to simplify the interpretation of the test results. Click on **Configuration > Shipping/Packaging** and set the following fields to 0:0.

- Package Tare Small to Medium added percentage:weight
- Larger packages added packaging percentage:weight

To test this module:

- 1. Log in to your test customer account in your Store Front.
- 2. Add *two* or more "Normal Test Product" products to your cart and check out the items. By adding multiple items, you can better visualize and verify the accuracy of the shipping charges calculation.
- 3. At the Delivery Information screen, you should see "Table Rate" appear as a shipping option under the Shipping Method section.

If your table method calculation is based on weight, you will see the *number of shipping boxes* and *weight per box* fields next to the "Table Rate" heading.

Shipping Method: This is currently the only shipping method available to use on this ord	er.
Table Rate (2 x 0.40lbs)	
Best Way \$17	.00

4. Check that the amount appearing next to the **Best Way** radio button is correct based on your settings for this module.



If you use a **Table Method** of <u>weight</u> when configuring this shipping module, make sure you check that the tare weight values you have configured in **Configuration** > **Shipping/Packaging** makes sense to you.

Zone rates

Zone Rates can be considered a superset of Table Rates. Both shipping modules operate on the same underlying concept using band rates for *weight*, *price* or *number of items* in an order. Whereas the Table Rates shipping module has only one shipping table for an entire shipping zone, the Zone Rates shipping module provides different shipping tables for multiple shipping zones.

To look up the ISO country code for a particular country while configuring this module, you may want to refer to the Countries screen by clicking on Locations/Taxes > Countries.

To configure this module:

- 1. Click on Modules > Shipping to access the Shipping Modules screen.
- 2. Edit the **Zone Rates** module. If required, install the module first.

Zone Rates Enable Zones Method Do you want to offer zone rate shipping? O True O False	Zone 1 Countries Comma separated list of two character ISO country codes that are part of Zone 1. Set as 00 to indicate all two character ISO country codes that are not specifically defined. US, CA	Zone 2 Countries Comma separated list of two character ISO country codes that are part of Zone 2. Set as 00 to indicate all two character ISO country codes that are not specifically defined.	Zone 3 Countries Comma separated list of two character ISO country codes that are part of Zone 3. Set as 00 to indicate all two character ISO country codes that are not specifically defined.
Calculation Method Calculate cost based on Weight, Price or Item?			
Weight Price Item Tax Class Use the following tax class on the shipping fee. "none- Tax Basis On what basis is Shipping Tax calculated. Options are Shipping - Based on customers Shipping Address Billing Sabesd on Customers Billing address Store - Based on Store address if Billing/Shipping Zone equales Store zone	Zone 1 Shipping Table Shipping rates to Zone 1 destinations based on a group of maximum order weights/prices. Example: 3:8:0,7:10.50,	Zone 2 Shipping Table Shipping rates to Zone 2 destinations based on a group of maximum order weights/prices. Example: 318:00,710.500Weight/Price less than or equal to 3 would cost 8.50 for Zone 2 destinations. You can also use percentage amounts, such 25:8.50,35:5%,40:9.50,10000:7% to Charge a percentage value of the Order Total 3:8.50,7:10.50,99:20.00	Zone 3 Shipping Table Shipping rates to Zone 3 destinations based on a group of maximum order weights/prices. Example: 318:00,7110.500Weight/Price less than or equal to 3 would cost 8.50 for Zone 3 destinations. You can also use percentage amounts, such 25:8.50,35:5%,40:9.50,10000:7% to charge a percentage value of the Order Total 8:8.50,7:10.50,99:20.00
 Shipping Billing Store 	Zone 1 Handling Fee Handling Fee for this shipping zone 0	Zone 2 Handling Fee Handling Fee for this shipping zone 0	Zone 3 Handling Fee Handling Fee for this shipping zone 0
Sort Order Sort order of display. 0	Handling Per Order or Per Box Zone 1 (when by weight) Do you want to charge Handling Fee Per Order or Per Box?	Handling Per Order or Per Box Zone 2 (when by weight) Do you want to charge Handling Fee Per Order or Per Box?	Handling Per Order or Per Box Zone 3 (when by weight) Do you want to charge Handling Fee Per Order or Per Box?
Skip Countries, use a comma separated list of the two character ISO country codes Disable for the following Countries:	⊙ Order ○ Box	⊙ Order ○ Box	⊙ Order ○ Box
			update cancel

- 3. Select an appropriate value for the Calculation Method field.
- 4. If you do *not* want this shipping option to *appear* for shipping addresses in specific countries, add the necessary ISO country codes in the **Skip Countries** field.

Customers with shipping addresses in countries not specified in the **Skip Countries** field and also not specified in all the **Zone Countries** field will see a message displayed under the "Zone Rates" shipping option as shown in the following screen shot.

Shipping Method: This is currently the only shipping method available to use on this order.
Zone Rates
No shipping available to the selected country

- 5. For each zone, fill in the necessary details for the Zone Countries, Zone Shipping Table and Zone Handling Fee fields.
- 6. Fill in the rest of the details for the module. Refer to the section "Common shipping settings" for explanations for the rest of the fields.
- 7. Click **update** to save your changes into the database.

6	
Τίρ	

You can change the number of zones available to you by editing [zc-home]/includes/modules/shipping/zones.php and changing the value of <u>this->num_zones=3</u> to something else; e.g. <u>this->num_zones=5</u>.

We shall use the Normal Test Product (refer to the section "Normal Test Product" for details) for the purpose of our test. The following test uses *weight* for illustration. You should substitute it with either price or number of items to suit your own needs.

In addition, we shall use the test customer we created in the section "Setting up a test customer" for our test. Note that the ISO country code for the test customer's country of France is "FR".

To simplify the interpretation of test results, you can turn off tare weight for the time being. Click on **Configuration** > **Shipping/Packaging** and set the following fields to 0:0.

- Package Tare Small to Medium added percentage:weight
- Larger packages added packaging percentage:weight

To test this module:

- 1. Log in to your test customer account in your Store Front.
- 2. Add *two* or more "Normal Test Product" products to your cart and check out the items. By adding multiple items, you can better visualize and verify the accuracy of the shipping charges calculation.
- 3. At the Delivery Information screen, you should see "Zone Rates" appear as a shipping option under the Shipping Method section.

Shipping Method: This is currently the only shipping method available to u	ise on this order.
Zone Rates	
\odot Shipping to FR (2 x 0.40lb(s))	\$17.00

4. Check that the amount appearing next to the **Shipping to** radio button is correct based on your settings for this module.



If you use a **Calculation Method** of <u>weight</u> when configuring this shipping module, do check the tare weight values you have configured in **Configuration** > **Shipping/Packaging** makes sense to you.

Free shipping

This shipping module allows you to offer free shipping to your customers. Note that it is compulsory to enable this module if you decide to do the following:

- Offer discount coupons which are marked as free shipping. Refer to the section "Creating discount coupons" for details.
- If you have a product configured for free shipping in your store.
- If you sell downloadable products.

When this shipping option appears in the Delivery Information page during check out, all other shipping options (except Store Pickup, if enabled) will automatically disappear. To enable free shipping to appear simultaneously with other shipping options (besides Store Pickup, if enabled) in the Delivery Information page during check out, use the "Free Shipping Options" module instead.

You can choose from the following list of conditions to trigger the *appearance* of the Free Shipping option when customers check out their purchases:

- The total price of a customer's order exceeds a threshold value.
- If a product does not have any unit weight associated with it.
- If *all* products in a customer's order are configured for free shipping as follows:

- ▶ Product is Virtual field is *not* set to Yes, Skip Shipping Address.
- ► Always Free Shipping field is set to <u>No</u>, <u>Normal Shipping Rules</u>.

To trigger the appearance of the Free Shipping option when the total price of a customer's order exceeds a threshold value:

- 1. Click on Modules > Order Total to access the Order Total Modules screen.
- 2. Click on **Shipping** and edit the item.
- 3. Specify <u>true</u> for the Allow Free Shipping field.
- 4. Set the threshold amount to trigger free shipping in the Free Shipping For Orders Over field.
- 5. Specify whether free shipping should apply for <u>international</u> or <u>national</u> delivery addresses in the **Provide Free Shipping For Orders Made** field. Choose <u>both</u> for testing purposes.

To trigger the appearance of the Free Shipping option when a product does not have any unit weight associated with it:

- 1. Click on Configuration > Shipping/Packaging to access the Shipping/Packaging screen.
- 2. Set the Order Free Shipping 0 Weight Status field to 1.

 $^{\circ}$ Note

I would recommend that you do not allow free shipping to be activated based on the fact that a product does not have a weight attached to it. If you are careless and forget to input a weight for a product, you might end up having to pay yourself to ship the goods.

To trigger the appearance of the Free Shipping option when *all* products in a customer's order are configured for free shipping, you need to first make sure that you have a product that is configured to take advantage of such a scenario first. To configure such a product:

- 1. Click on Catalog > Categories/Products to access the Categories/Products screen.
- 2. Navigate to the the category containing the product you want to configure for free shipping. If you do not have such a product, you can create one first.
- 3. Edit the details of the product. Make sure the following fields are set as follows:
 - **Product is Virtual** field is *not* set to Yes, Skip Shipping Address.
 - Always Free Shipping field is set to <u>No</u>, <u>Normal</u> Shipping Rules.



If all products in a customer's order are virtual products or downloadable products, then the Delivery Information page will be *skipped* altogether. In both cases, the Free Shipping modules should still be enabled as it is used to drive the checkout process.

Now that you understand the conditions that will trigger the appearance of the Free Shipping option during check out, you can start configuring the Free Shipping module.

To configure this module:

- 1. Click on Modules > Shipping to access the Shipping Modules screen.
- 2. Edit the **FREE SHIPPING!** module. If required, install the module first.

FREE SHIPPING!
Enable Free Shipping Do you want to offer Free shipping?
True False
O Talac
Free Shipping Cost What is the Shipping cost? 0.00
Handling Fee Handling fee for this shipping method. 0
Tax Class Use the following tax class on the shipping fee.
Shipping Zone If a zone is selected, only enable this shipping method for that zone. none
Sort Order Sort order of display. 0
update cancel

- 3. In the **Free Shipping Cost** field, specify the amount to charge customers who choose this option. Specifying a fee here is discouraged because customers expect Free Shipping to be literally *free*!
- 4. Fill in the rest of the details for the module. Refer to the section "Common shipping settings" for explanations for the rest of the fields.
- 5. Click update to save your changes to the database.

Before you begin to test this module, you need to create a product in your store. We shall use the Normal Test Product (refer to the section "Normal Test Product" for details) for the purpose of our test.

We shall assume that you have chosen to trigger Free Shipping based on price.

To test this module:

- 1. Log in to your test customer account in your Store Front.
- 2. Add a "Normal Test Product" product to your cart and check out the item.
- 3. At the Delivery Information screen, you should see "Free Shipping" appear as the *only* shipping option under the Shipping Method section if your free shipping threshold value is below the order price.

Shipping Method:	
Free Shipping Free shipping for orders over \$50.00	

4. Note that the threshold value for free shipping is shown on the screen as well.

Free shipping options

This shipping module allows you to offer free shipping to customers side-by-side with other shipping options. This is not possible with Free Shipping which causes all other shipping modules (except Store Pickup, if enabled) to disappear when it appears. Furthermore, you can choose to have this shipping option appear based on the *total price*, *total weight* or *total number of items* in a customer's order.

To configure this module:

- 1. Click on Modules > Shipping to access the Shipping Modules screen.
- 2. Edit the Free Shipping Options module. If required, install the module first.

Free Shipping Options	Handling Fee	Tax Class
Enable Free Options Shipping	Handling fee for this shipping method.	Use the following tax class on the shipping fee.
Free Options is used to display a Free Shipping	0	-none M
displayed. It can be based on: Always show,	Total >=	Tax Basis
Order Total, Order Weight or Order Item Count.	Free Shipping when Total >=	On what basis is Shipping Tax calculated.
The Free Options module does not show when Free Shipper is displayed	0.00	Options are Shipping - Based on customers Shipping
rice shipper is displayed.	Tabel de	Address
Setting Total to >= 0.00 and <= nothing (leave	Free Shipping when Total <=	Billing Based on customers Billing address
blank) will activate this module to show with all shipping modules, except for Free Shipping -		Store - Based on Store address if Billing/Shipping Zone equals Store zone
freeshipper.		Simily, Shipping Lone equals store Lone
	Weight >=	Shipping
Item count blank will deactivate this module.	Free Snipping when weight >=	O Billing
		O Store
NOTE: Free Shipping Options does not display if	Weight <=	
Shipping, See: freeshipper	Free Shipping when Weight <=	Shipping Zone If a zone is selected, only enable this shipping
		method for that zone.
Do you want to offer per freeoptions rate	Item Count >=	-none- 💟
snipping?	Free Shipping when Item Count >=	Cart Ordan
True		Sort order of display.
O False		0
	Item Count <=	
Shipping Cost	Thee shipping when tern Count <=	update cancel
n no		
0.00		

- 3. Carefully read the instructions on the side-panel before you start configuring this module.
- 4. Specify how Free Shipping Option should be triggered based on the corresponding **Total**, **Weight** and **Item Count** fields.
- 5. Avoid entering a value for the **Shipping Cost** field because customers expect Free Shipping Options to be literally *free*!
- 6. Fill in the rest of the details for the module. Refer to the section "Common shipping settings" for explanations for the rest of the fields.
- 7. Click **update** to save your changes into the database.

Before you begin to test this module, you need to create a product in your store. We shall use the Normal Test Product (refer to the section "Normal Test Product" for details) for the purpose of our test.

We shall assume that you have chosen to trigger Free Shipping based on *number of items* in an order. Thus, you should have entered $\underline{2}$ for the **Item Count** >= field when configuring this module.

To test this module:

- 1. Log in to your test customer account in your Store Front.
- 2. Add *three* or more "Normal Test Product" products to your cart and check out the items. By adding multiple items, you can better visualize and verify the accuracy of the shipping charges calculation.
- 3. At the Delivery Information screen, you should see "Free Shipping Options" displayed as a shipping option under the Shipping Method section.

Shipping Method: This is currently the only shipping method available to us	e on this order.
Free Shipping Options	
Free Shipping	\$0.00

4. Check that the amount appearing next to the **Free Shipping** radio button is correct based on your settings for this module.



Do check the tare weight values you have configured in **Configuration** > **Shipping/Packaging** if you use weight as a trigger for activating this shipping module.

Summary

Shipping options are an important aspect of an online store. Finding the best option for your situation will require some planning and creative experimentation. Make sure you spend some time to understand how the module you choose actually works. It could save you a lot of embarrassing questions from customers later.

Chapter 11: Payment

Introduction

Zen Cart provides various payment modules to cater to the different ways in which store owners intend to process customer's payment information. Each payment module that is enabled will then appear as a payment option to customers based on the billing addresses they select when they check out their items.

Before offering any payment option to your customers, make sure you find out more about the legal and accounting requirements of your country. For example, in most countries, you need to ensure that customers credit card information must be transmitted over a secure channel and such credit card information must be stored securely.

Zen Cart comes with a number of default payment modules. For payment modules that require interaction with thirdparty payment processors, we will only be covering the PayPal Payments Standard module as it is the most popular and widely accepted form of online payment at the moment. After you are familiar with how the PayPal Payments Standard module works, you should be able to adapt the concept to other payment modules that require access to a third-party payment processor.

In this chapter, we shall:

- Explain the meanings of PCI-DSS and PA-DSS.
- Run through the common payment screen and payment settings.
- Go through each payment option separately.



To keep the explanation of each payment module independent, we shall discuss how to test each payment module immediately after learning how to configure it.

Making sense of PCI-DSS and PA-DSS

To counter credit card fraud and identity theft, several major payment card brands (American Express, MasterCard Worldwide, Visa Inc, etc) have grouped together to form an organization known as the Payment Card Industry Security Standards Council (PCI SSC) to develop a set of security standards pertaining to the protection of cardholder account data.

The main security standard that was developed is the Payment Card Industry Data Security Standard (PCI DSS). It is a set of policies and procedures intended to optimize the security of credit, debit and cash card transactions and protect cardholders against misuse of their personal account information.

As PCI DSS applies whenever cardholder data is *stored, transmitted or processed* by merchants or card processors, several parties can be affected when a card payment transaction takes place. For example, if a customer enters card data on your site when paying for a purchase, that data may be transmitted by your online store to a payment gateway through your web host's servers. As a result, your site, the payment gateway and your web host all have to be PCI DSS compliant.

Another security standard that was developed is the Payment Application Data Security Standard (PA-DSS). This standard was derived from PCI DSS and has a narrower focus as it applies more to payment applications (e.g. shopping cart software and payment gateways).

As Zen Cart version 1.5.4 is already PA-DSS certified, it helps reduce the workload of store owners aiming for PCI DSS compliance. For detailed information on Zen Cart and PCI DSS compliance, refer to [zc-home]/docs/im-plementation-guide-v154.pdf.

For store owners who need to adhere to PCI DSS and fail to do so, penalties from individual card companies include punitive fines to termination of the right to accept credit cards. If a credit card breach occurs, store owners could also end up facing lawsuits. Hence, it is important that you find out whether you need to be PCI DSS compliant.

The *general rule* with regards to whether you need to be PCI DSS compliant depends on whether your store has a web page that collects cardholder data.

For example, if your customers enter their credit card details on your payment gateway's site when making a purchase, then you likely do not need to be PCI DSS compliant. However, if customer's enter their credit card information directly on your site and that information is captured by your site, then there is a very strong likelihood that you will need to be PCI DSS compliant.

If you are unsure whether you need to be PCI DSS compliant, consult your credit card processor, payment gateway or a qualified professional familiar with PCI DSS standards.

Due to the evolving nature of PCI DSS and the important effects it might have on your business, you are strongly encouraged to find out more information about it by referring to the standard's official website at https://www.pcisecuritystandards.org/index.php.

Default payment modules

Before you decide which payment options to offer your customers, you can consult the following table to get an idea of the various default payment modules that come with Zen Cart. These payment modules are classified according to the methods they employ to process payments, such as:

- **Online** Processing is done in real-time with an external payment processor.
- Offline Processing is done when information is collected and the store owner has to take action to complete the payment process.
- **Special** This is a special case where no action is taken to process payment.

Modules	Methods	Comments
Cash on Delivery	Offline	Payment is received on delivery of goods. Not advisable for global e-commerce!
Check/Money Order	Offline	Customers will mail in their checks or money orders separately after placing their orders.
Authorize.net	Online	Integrates with Authorize.net payment processor. See http://www.authorize.net/ for details.
Authorize.net (AIM)	Online	Same as above but uses Authorize.net's Advanced Integration Method (AIM) for integration.

Table 11.1: Default payment options

Modules	Methods	Comments
		Due to PCI-DSS requirements, this module requires SSL to be configured for your Zen Cart store before the module itself can be enabled.
Authorize.Net - eCheck	Online	Integrates to Authorize.Net payment processor to process elec- tronic checks. To sign up for an Authorize.Net account, go to http://reseller.authorize.net/application.asp?id=131345 for de- tails.
		Due to PCI-DSS requirements, this module requires SSL to be configured for your Zen Cart store before the module itself can be enabled.
FirstData/Linkpoint/YourPay API	Online	Integrates to the LinkPoint payment gateway. For more infor- mation on signing up for a merchant account and using this module, go to http://www.zen-cart.com/partners/linkpoint for details.
		Due to PCI-DSS requirements, this module requires SSL to be configured for your Zen Cart store before the module itself can be enabled.
PayPal Payments Standard	Online	Integrates to PayPal payment processor. To sign up for a Pay- Pal business account and obtain more information on PayPal, go to http://www.zen-cart.com/partners/paypal for details.
		The name of this module will appear as PayPal Website Pay- ments Standard if the Country field is not set to <u>United</u> <u>States</u> in the My Store screen. This is due to PayPal's brand- ing guidelines for different countries.
PayPal Express Checkout	Online	Also integrates to PayPal payment processor but has the added benefit of shortening the checkout process for customers. For more information on this payment module, turn to the PayPal Express Checkout sub-forum on Zen Cart's site.
PayPal Payments Pro	Online	Also integrates to PayPal payment processor but unlike the other PayPal modules, it allows customers to enter their cred- it card details on your site without having to visit Paypal's site thus providing a seamless checkout process.
		The name of this module will appear as PayPal Website Pay- ments Pro if the Country field is not set to <u>United States</u> in the My Store screen. This is due to PayPal's branding guidelines for different countries.
		Due to PCI-DSS requirements, this module requires SSL to be configured for your Zen Cart store before the module itself can be enabled.

Modules	Methods	Comments
		To sign up for a PayPal business account and obtain more information on PayPal, go to http://www.zen-cart.com/part-ners/paypal for details.
		Note that PayPal Express Checkout needs to be installed and enabled before you can use this module.
Free Order	Special	Allows you to specify that customers from a specific zone are able to buy things from your store for free.
(lote	All <i>online</i> payment gateways rec store in order to proess 'live' payn store is PCI DSS compliant.	uire SSL (Secure Sockets Layer) to be configured for your nent transactions. This is irrespective of whether your online

Refer to Chapter 20, "Working with Store Front templates" for more information on configuring your store to work with SSL.

Enabling network access to third-party sites

If you have enabled a payment module (e.g. Linkpoint/YourPay API) which requires access to a third-party site to process payments, you may need to enable cURL support on your server. Refer to the section "Enabling network access to third-party sites" for more details on this issue.

6	
Τίρ	

To check whether cURL settings are properly configured on your server and whether cURL is working properly with some of your online payment modules, you can make use of the [zc-home]/extras/curltester.php file. For instructions on doing so, refer to http://www.zen-cart.com/forum/showpost.php?p=434187&postcount=2.

Common payment information

Before we start adding payment options, you need to know certain common payment information that will help ease your configuration later.

The Payment Modules screen

All payment options in Zen Cart are configured via the Payment Modules screen. To access this screen, click on Modules > Payment.

Payment Modules			
Modules		Sort Order Orders Status	Action Authorize.net (SIM)
Authorize.net (SIM)	authorizenet	•	install
Authorize.net (AIM)	authorizenet_aim	•	0
Authorize.net - eCheck	authorizenet_echeck	•	① Click Here to Sign Up for an Account
Cash on Delivery	cod	20 O default	Click to Login to the Authorize not Merchant Area
Free Order	freecharger	40 🖸 default	Click to Login to the Authorize.net Merchant Area
FirstData/Linkpoint/YourPay API	linkpoint_api	•	① Requirements:
Check/Money Order	moneyorder	30 O default	*Authorize.net Account (see link above to
PayPal Website Payments Standard - IPN	PayPal	10 O Processing	() signup)
PayPal Website Payments Pro	PayPal	•	*Authorize.net username and transaction key available from your Merchant Area
PayPal Express Checkout	PayPal	•	\bigcirc
Module Directory: /home/johndoe/public_html/store/includes/mod	dules/payment/		

- Installed.
- Enabled.

Therefore, you should automatically perform the above steps if you are asked to configure a payment option later in the chapter.

The colors of the buttons under the Sort Order column have the following meanings:

- **Red** Payment module is not installed.
- **Green** Payment module is installed and enabled.
- Yellow Payment module is installed but disabled or the Payment Zone field is enabled only for a particular zone.



Avoid having your payment module set to installed but disabled (i.e. **Yellow**) as it reduces Zen Cart's program efficiency because the affected payment module's code is still processed although it will not be used. It is only recommended when you have custom code for the payment module that will enable itself at a later time.

Automatic email alerts

Whenever a payment module is installed, updated or removed, an email will automatically be sent to the email address as specified in the E-Mail Address (Displayed to Contact you) field of the E-Mail Options screen.

The contents of the email will include which particular payment module was affected, which admin user made the change and what kind of change (i.e. installed, updated or removed) was made.

The email alerts provide a good security safeguard against malicious or unintended changes to your payment module settings and there is currently no option in the Admin Console to turn off the sending of such email alerts.

Common payment settings

Certain fields which are common across most of the different payment options are highlighted in the following table so we do not have to explain them again later.

Table 11.2: Explanation of common payment settings

Field	Comments
Payment Zone	For payment modules that have selected a particular zone definition for this field, customers will only see the corresponding payment option if their billing addresses fall within the selected zone definition.
	Specifying <u>none</u> for this field for a particular payment module will make the corresponding payment option appear to <i>all</i> customers.
	For testing purposes, set this field to <u>none</u> .
Set Order Status	Specifies the status of an order after a customer has made payment. The default installation of Zen Cart comes with four order statuses defined - <i>Pending</i> , <i>Processing</i> , <i>Delivered</i> , <i>Updated</i> .

Field	Comments
	The <u>default</u> value in the drop-down list box refers to the <i>default</i> order status defined in Localization > Order Status . For more details on order statuses, refer to the section "Working with order statuses".
Sort Order of Display	Indicates the sequence in which payment options appear to a customer when checking out. A payment option with a <i>lower</i> value will appear <i>above</i> a payment option with a <i>higher</i> value.
	You can leave this field set to $\underline{0}$ for all payment modules to let Zen Cart sort the payment options automatically when customers view them.
	If you choose to specify a non-zero value for this field, make sure you also spec- ify a non-zero value for all other payment modules. In addition, all non-zero val- ues must be different.

Displaying a list of accepted credit cards

Zen Cart gives you the option of displaying the credit cards you want to accept in your store when a customer is on the Payment Information page. This option is available *unless* a particular payment modules requires special checkout handling (e.g. PayPal Express Checkout and PayPal Payments Pro).

To display a list of credit cards in the Payment Information page when a customer is checkout out:

1. Click on Configuration > Credit Cards to access the Credit Cards screen.

CREDIT CARDS		
Title	Value	Action Credit Card Enabled - Show on Payment
Credit Card Enable Status - VISA	1	① Please make any necessary changes
Credit Card Enable Status - MasterCard	1	() Credit Cred Fredelad - Chew on Provident
Credit Card Enable Status - AmericanExpress	1	D Credit Card Enabled - Show on Payment D Show accepted credit cards on Payment page?
Credit Card Enable Status - Diners Club	0	① 0= off
Credit Card Enable Status - Discover Card	1	\bigcirc 1= As Text 2= As Images
Credit Card Enable Status - JCB	0	\odot
Credit Card Enable Status - AUSTRALIAN BANKCARD	0	O Note: images and text must be defined in both the database and language file for specific credit
Credit Card Enable Status - SOLO	0	 card types.
Credit Card Enable Status - Switch	0	0
Credit Card Enable Status - Maestro	0	
Credit Card Enabled - Show on Payment	0	
		update cancel

- 2. Set the Credit Card Enabled Show on Payment field to either 1 or 2.
- 3. To toggle the display of each individual credit card, edit the respective Credit Card Enabled Status xxx field accordingly.

Images representing the credit cards are contained in the [zc-home]/includes/templates/template_default/images/icons directory. The credit card image names are specified in the [zchome]/includes/languages/english/credit_cards.php file. Refer to Chapter 20, "Working with Store Front templates" to learn the proper way to change the images.

0 Note The displayed cards you want to accept may not necessarily correspond to the actual cards accepted by a particular payment module. Therefore, use this *display* option only when you are sure your payment modules will be accepting the credit cards you enabled.

AJAX checkout experience

One of the requirements of PA-DSS compliance is that the HTML forms rendered by certain payment modules that collect credit card information from customers be rendered using a technology known as AJAX (i.e. Asynchronous JavaScript and XML).

AJAX is what allows information on fragments of a web page to be collected and displayed without having to reload the entire web page. Currently, the default payment modules that implement AJAX form rendering are PayPal Payments Pro, FirstData/Linkpoint/YourPay API and Authorize.net (AIM).

If your store does not require PA-DSS compliance and you do not want to use AJAX to render the credit card forms, you can go to Configuration > My Store and set the PA-DSS Ajax Checkout field to <u>Non-compliant</u> as seen in the following screen shot.



Adding payment options

Cash on delivery

Generally, this method is not recommended for e-commerce. However, if you are just beginning to add an online presence on top of your current brick-and-mortar shop; and you already have a base of loyal customers, then this would be an excellent option for you.

To discourage customers from choosing this payment option, you can consider charging customers an extra fee if they choose this payment option during checkout. Refer to the section "Cash on Delivery (COD) fee" for more details.

To configure this module:

- 1. Click on Modules > Payment to access the Payment Modules screen.
- 2. Edit the Cash on Delivery module. If required, install the module first.

Cash on Delivery
Enable Cash On Delivery Module Do you want to accept Cash On Delivery payments?
⊙ True ○ False
Payment Zone If a zone is selected, only enable this payment method for that zone. -none-
Set Order Status Set the status of orders made with this payment module to this value default
Sort order of display. Sort order of display. Lowest is displayed first.
update cancel

- 3. Fill in the details for the module. Refer to the section "Common payment settings" for explanations for all the fields.
- 4. Click update to save your changes into the database.

Before you begin to test this module, you need to create a product in your store. We shall use the Normal Test Product (refer to the section "Normal Test Product" for details) for the purpose of our test.

To test this module:

- 1. Log in to your test customer account in your Store Front.
- 2. Add a "Normal Test Product" product to your cart and check out the item.
- 3. At the Delivery Information screen, choose any shipping method and click **continue checkout** to proceed to the Payment Information screen.
- 4. At the Payment Information screen, you should see "Cash on Delivery" appear as a payment option under the Payment Method section.

Payment Method
Please select a payment method for this order.
Cash on Delivery Note: COD fees may apply

Check and money order

This method is not recommended for e-commerce because it takes time both for the check or money order to arrive and for them to clear with the banks. However, it is a safer means of collecting payment as it avoids online fraud. In any case, certain businesses will always need to have this means of receiving payment, so we shall discuss how this can be done in Zen Cart.

To configure this module:

- 1. Click on Modules > Payment to access the Payment Modules screen.
- 2. Edit the Check/Money Order module. If required, install the module first.



3. Enter the name of the person or entity that should receive the check or money order in the **Make Payable to** field. Do not use the default text displayed in the text box.

- 4. Fill in the details for the module. Refer to the section "Common payment settings" for explanations for all the fields.
- 5. Click update to save your changes into the database.

Before you begin to test this module, you need to create a product in your store. We shall use the Normal Test Product (refer to the section "Normal Test Product" for details) for the purpose of our test.

To test this module:

- 1. Log in to your test customer account in your Store Front.
- 2. Add a "Normal Test Product" product to your cart check out the item.
- At the Delivery Information screen, choose any shipping method and click continue checkout to proceed to the Payment Information screen.
- 4. At the Payment Information screen, you should see "Check/Money Order" appear as a payment option under the Payment Method section.

Payment Method
Please select a payment method for this order.
Check/Money Order

 Click the radio button next to Check/Money Order and then click on continue checkout to proceed to the Order Confirmation screen.



Free order

Unlike all other payment modules in Zen Cart, this payment module does *not* involve any monetary transaction. Its main purpose is to offer customers a smoother checkout experience. When this payment option appears, all *other* payment options will *disappear* thus speeding up the checkout process because customers do not have to spend time choosing between different payment options.

This payment option is available only for products that satisfy the following criteria:

- Product price is marked as Free.
- Product comes with Free Shipping.

Note that this payment option will only appear if all items in the customer's shopping cart satisfy the above criteria.

In addition, if an order happens to qualify for free shipping because a free shipping coupon was redeemed, then this payment option will appear as well.

You may ask why anyone would offer a free item? Well, you could do this to gain some publicity to your site or build goodwill among your customers. For example, if your store sells hard-copy magazines; you can offer readers a free electronic download of a particular magazine's article to entice them to sign up for a subscription to that magazine. Most customers would also have a better impression of your store since you have given them a "try-before-you-buy" option.

Before you begin to configure this module, you need to enable the Free Shipping option in Zen Cart:

- 1. Click on Modules > Shipping to access the Shipping Modules screen.
- 2. Click on **FREE SHIPPING** and make sure it is installed and enabled.
- 3. Make sure both the Free Shipping Cost and Handling Fee fields are set to <u>0</u>.
- 4. You can specify Tax Class, Shipping Zone and Sort Order according to your preferences.

To configure this module:

- 1. Click on Modules > Payment to access the Payment Modules screen.
- 2. Edit the Free Order module. If required, install the module first.



- 3. Fill in the details for the module. Refer to the section "Common payment settings" for explanations for all the fields.
- 4. Click update to save your changes into the database.

Before you begin to test this module, you need to have a free product that also offers free shipping. Do take note that the product has to be marked as *Product is Free* and not just specified as having a price of \$0.00! We shall use the "Free Test Product with Free Shipping" (refer to the section "Free Test Product with Free Shipping" for details) product for the purpose of our test.

To test this module:

- 1. Log in to your test customer account in the Store Front.
- 2. Add a "Free Test Product with Free Shipping" product to your cart and check out the item.
- 3. The Delivery Information screen will *only* appear if you have specified <u>No</u>, <u>Shipping Address Required</u> for the **Product is Virtual** field when you created your product. Only the Free Shipping and Store Pickup shipping options will be visible regardless of whether other shipping modules are available.

Choose any shipping option and click continue checkout to go to the Payment Information screen.

Shipping Method: Please select the preferred shipping method to use of	on this order.
Store Pickup	
Walk In	\$0.00
FREE SHIPPING!	
No Delivery Charge	\$0.00

4. At the Payment Information screen, you should see "Free Order" appear as the only option under the Payment Method section.

Payment Method		
Free Order		

PayPal Payments Standard

PayPal is one of the most popular and widely-accepted payment methods on the Internet. It charges merchants a very low fee for its transactions and comes with an excellent fraud detection service. Furthermore, it does not levy any extra charge to open an account with them.

PayPal offers several payment solutions to online merchants in order to help them process their customer payments. Although Zen Cart offers three different PayPal payment modules, we shall only be going through the "PayPal Payments Standard" payment module as it is the one most commonly available to online merchants and also the least confusing to customers who are new to online shopping. Refer to http://tutorials.zen-cart.com/index.php?article=28 if you want to know the differences among the three PayPal payment modules.

Note that the name of the "PayPal Payments Standard" payment module will appear as "PayPal Website Payments Standard" if the **Country** field is not set to <u>United States</u> in the My Store screen. This is due to PayPal's branding guidelines for different countries. For the remainder of this book, we shall refer to this payment module as "PayPal Payments Standard".

Before attempting to set up the PayPal Payments Standard payment module in Zen Cart, you should go through the rest of the book and be sufficiently familiar with Zen Cart. The following steps will assume you are setting up PayPal Payments Standard for the first time on a *remote* host.



Further PayPal setup and troubleshooting information is available at http://www.zen-cart.com/wiki/index.php/PayPal.

There are essentially three things you need to do to get PayPal working with your online store.

- "Set up PayPal Payments Standard in your store" on page 116.
- "Set up your PayPal Business Account at PayPal's site" on page 118.
- "Test your PayPal Payments Standard setup" on page 121.

Set up PayPal Payments Standard in your store

- 1. Go to the Admin Console of your online store.
- 2. Click on Modules > Payment to access the Payment Modules screen.

3. Click on the **PayPal Payments Standard** module. If this module is not installed, the side-panel should look similar to the following screen shot.



4. Take note of the following fields in the side-panel as you will need them later.

Notice that the URLs of the fields in the above screen shot are preceded by "https". If you have not enabled SSL support for your store, the URLs will display "http" instead.

- Instant Payment Notification Preferences URL
- Automatic Return URL
- 5. After you click install, you should see a side-panel similar to the following screen shots.

		l		
PayPal Payments Standard	Which currency should the order be sent to	Payment Zone	Address Override	Page Style
Enable PayPal Module	PayPal ac?	method for that zone	relacted in Zen Cart will override the sustemer	Sets the Custom Payment Page Style for
Do you want to accept PayPal payments?	NOTE: if an unsupported surroussy is cant to	-0000- 2	DayDal-stored address book. The customer will	payment pages. The value of page_style is the
	PayPal it will be auto-converted to USD	-10/0-" (R)	see their address from Zen Cart, but will NOT	same as the Page Style Name you chose when
() True	PayPai, it will be auto-converted to USD.	Set Pending Notification Status	be able to edit it at PavPal.	adding or editing the page style. You can add
© Irue		Set the status of orders made with this payment	(An invalid address will be treated by PayPal as	and edit Custom Payment Page Styles from the
O False	Selected Currency	module that are not yet completed to this value	not-supplied, or override=0)	Profile subtab of the My Account tab on the
	Only USD	('Pending' recommended)	0=No Override	PayPal site. If you would like to always
Business ID	O Only AUD	Pending [1]	1=ZC address overrides PayPal address	reference your Primary style, set this to
Primary email address for your PayPal account.	O Only ADD		choices	"primary," If you would like to reference the
NOTE: This must match EXACTLY the primary	Only CAD	Set Order Status		default PayPal page style, set this to "paypal".
email address on your PayPal account settings.	Only EUR	Set the status of orders made with this payment	0.0	Primany
It IS case-sensitive, so please check your	C Only GBR	module that have completed payment to this	① 1	r may
PayPal profile preferences at paypal.com and be	C Only GBF	('Processing' recommended)		Live or Fandbox
sure to enter the EXACT same primary email	© only chi	Processing [2]	The huvers shipping address If set to 0 your	Live: Used to process Live transactions
address here.	Only CZK	ricecoung [c]	customer will be promoted to include a chinging	Englight For developers and testing
storekeeper@example.c	C Only DKK	Set Refund Order Status	address. If set to 1 your customer will not be	sanabox, for developers and testing
	Only HKD	Set the status of orders that have been	asked for a shipping address. If set to 2 your	Inc
PDT Token (Payment Data Transfer)	Only HUF	refunded made with this payment module to	customer will be required to provide a shipping	O model
Enter your PDT Token value here in order to	C Only 1PY	('Pending' recommended)	0=Prompt	⊖ sandbox
activate transactions immediately after	C only NOV	Pending [1]	1=Not Asked	Debug Mode
processing (if they pass validation).	O Only NOK		2=Required	Enable debug logging?
	Only NZD	Sort order of display.	NOTE TO USE A	NOTE: This can REALLY clutter your email inhox
	Only PLN	Sort order of display. Lowest is displayed first.	enter their own shipping address, then	and use up disk space!
	C Only SEK	0	MAKE SURE you PERSONALLY manually	Logging goes to the /logs folder
	Only SGD	Detailed Line Items in Cart	verify the PayPal confirmation details to	Email goes to the store-owner address.
	Only THB	Do you want to give line-item details to PayPal?	orders. When using Website Payments	Email option NOT recommended.
	Only MXN	If set to True, line-item details will be shared	Standard (IPN), Zen Cart does not know if	Leave OFF for normal operation.
	C Only ILS	shipping are simple. Otherwise an Aggregate	they choose an alternate shipping	0.04
	O Only PHP	cart summary will be sent.	when placing an order.	
	O Only TWD			
		(No	0.0	U Log and Email
	O Only BRL	O Yes	01	
	C Only MYR		⊙ 2	update cancel
	Conhy TRY			

- 6. Make sure that Enable PayPal Module is set to True.
- 7. Specify an email address for the **Business ID** field. If you already have a PayPal account, this should be the Primary Email Address for that account. If not, enter an email address first and then set it as the Primary Email Address after registering for an account at PayPal's site.
- 8. Take note of the value for the **Mode for PayPal web services** field. It should match the one you see in your PayPal account later.

- Choose <u>live</u> for the Live or Sandbox field since this book assumes you will be creating a real-world account and testing against that account. If you are familiar with programming and have signed up for a test account with PayPal, you can choose the <u>sandbox</u> instead.
- 10. Leave all the other fields at their *default* values while *testing* this module. Only change them later after you are more familiar with how the PayPal module works.
- 11. Click update to complete your PayPal settings in Zen Cart.

Set up your PayPal Business Account at PayPal's site

Before we begin, make sure you have signed up for a *PayPal Business Account* (PBA). If you have not done so, you can go to http://www.zen-cart.com/partners/paypal to start creating your account.



Over time, PayPal's website might be re-designed or may appear differently to users from different countries. Thus, the screen shots that you see may not match the site's look on your computer screen as you are reading this book. Do not worry; the general concepts presented in this book remain valid so use the screen shots that you see here only as a guide.

There are actually three main things you need to configure on PayPal's site.

- 1. Specify a *Primary Email* so that PayPal can notify you when payments are made.
- 2. Set up Instant Payment Notification so that PayPal can send payment notification back to your Zen Cart store.
- 3. Set up *Website Payment Preferences* to allow PayPal to redirect customers back to your site after making their payments at PayPal's site.

To begin configuring your PBA to accept payments from your store:

1. Log in to your PBA and the top of your screen should look similar to the following screen shot.



2. Hover over the **Profile** tab with your mouse and choose **Add or Edit Email** from the drop-down menu. Look for an email that has its **Status** set to <u>Primary</u>. Make sure it is exactly the same as the email you entered previously in Step 7 of the section "Set up PayPal Payments Standard in your store".

Email	Back to Profile Summary
Select Email Address	Status
storekeeper@example.com	Primary
O abc@example.com	
Make Primary Confirm Remove	Add

3. Click on the **Profile** tab, and then click **My Selling Preferences** in the side menu. Concentrate on the **Getting paid and managing my risk** section.

My business details > Name, email, password, and	My business set up	Cool tools to help boost my b	usiness.	Get starte
more.	eBay ID	Link my eBay ID to my PayPal	account.	Updat
My money > Bank accounts, cards, and more.	Selling online			
My account settings	 Getting paid and managing 	ı my risk		
Notifications, time zone, more.	My automatic payments	Manage the subscriptions an payments that I offer my custo	d automatic Imers.	Upda
My selling > preferences	Instant payment notifications	Integrate PayPal payment not website.	ifications with my	Upda
tools.	Block payments	Limit payments, add instructio	ons, and more.	Upda
e the classic Profile version	Customer service message	Create a personalised mess disputes.	age for customer	Upda
	+ Postage my items			
	More selling tools			
	Encrypted payment settings	<u>PayPal button language</u> <u>encoding</u>	Seller reputation nu	mber

Click on **Instant payment notifications** and you will be presented with a screen similar to the following screen shot.

Instant Payment Notificat	ion (IPN)	Back to Profile Summary
You have turned on the IPN feature. You can view your IPNs on the <u>IPN History page</u> . If necessary, you can resend IPN messages from that page. For more information on using and troubleshooting this feature, read more about <u>Instant Payment Notification (IPN)</u> .		
To stop receiving IPNs permanently	/, click Turn Off IPN.	
Current settings		
Notification URL	https://www.example.com/store/ipn_main_handler.php	
Message delivery	Enabled	
	Edit settings Turn Off IPN	

- a. Click the Turn On IPN button to activate PayPal's Instant Payment Notification (IPN) feature.
- b. Click the Edit settings button to begin adding your PayPal IPN URL. Refer to the Instant Payment Notification Preferences URL you obtained in Step 4 of the section "Set up PayPal Payments Standard in your store" and enter it into the Notification URL field. Make sure you check the Receive IPN messages radio button as well. Note: Change the URL to start with "https" instead of "http" if your store has SSL configured already.

Edit Instant Payment Notification (IPN) settings	Back to Profile Summary
PayPal sends IPN messages to the URL that you specify below.	
To start receiving IPN messages, enter the notification URL and select Receive IPN messages below. T messages, select Do not receive IPN messages below. PayPal continues to generate and store IPN me IPN messages again (or turn off IPN).	o temporarily stop receiving IPN essages until you select Receive
Notification URL	
https://www.example.com/store/ipn_main_handler.php	
IPN messages	
Receive IPN messages (Enabled)	
O Do not receive IPN messages (Disabled)	
Save Cancel	

120

- c. Click Save to complete the configuration of the IPN feature in your PayPal account.
- 4. Click on the **Profile** tab, and then click **My Selling Preferences** in the side menu. Concentrate on the **Selling online** section.

My Profile			
My business details > Name, email, password, and	My business set up	Cool tools to help boost my business.	Get started
more.	eBay ID	Link my eBay ID to my PayPal account.	Update
My money > Bank accounts, cards, and more.	Selling online		
Mv account settings >	PayPal buttons	Manage my payment buttons.	Update
Notifications, time zone, more.	Credit card statement name	Name of my business as it appears on customer card statements: MEGASTORE	Update
My selling >	VAT	Set up sales taxes for multiple regions.	Update
eBay, postage, buttons, and tools.	Custom payment pages	Set up PayPal payment pages to look like my website.	Update
See the classic Profile version	Website preferences	Bring customers back to my website after they pay with PayPal.	Update
	API access	Manage API credentials to integrate my PayPal account with my online shop or shopping cart.	Update
	Invoice templates	Create and manage my invoices.	Update

Click on **Website preferences** and you will be presented with another screen. We are only interested in the portion of the screen that is similar to the following screen shot.

Website Payment Preferences	Back to Profile Summary		
Auto Return for Website Payments			
Auto Return for Website Payments brings your buyers back to your website immediately after payment completion. Auto Return applies to PayPal Website Payments, including Buy Now, Subscriptions and Shopping Cart. <u>Learn More</u>			
Auto Return: On Off			
Return URL: Enter the URL that will be used to redirect your customers upon payment completing guidelines detailed below. Learn More	n. This URL must meet the		
Return URL: https://www.example.com/store/index.php?main_pa	ge		
Return URL Requirements: The following items are required in order to set up A	Auto Return.		
In accordance with the User Agreement, you must provide written information on the pa Return URL that will help the buyer understand that the payment has been made and t been completed. You must provide written information on the page displayed by the Return URL that exp transaction details will be emailed to the buyer. Example: Thank you for your payment. Your transaction has been completed, and a rec has been emailed to you. You may log into your account at <u>www.paypal.com/so</u> to view transaction.	age displayed by the hat the transaction has plains that payment ceipt for your purchase details of this		
Payment Data Transfer (optional)			
Payment Data Transfer allows you to receive notification of successful payments as the Payment Data Transfer depends on your <u>system configuration</u> and your Return URL. P Payment Data Transfer, you must turn on Auto Return.	ey are made. The use of lease note that to use		
Payment Data Transfer: ③ On 〇 Off			
Identity Token: BFx2lv3uet69zp5jiWyAydIaAjN7_U3Yxaq5QKKvGfCsGLb.	JYJMqeTYa7Mi		

- b. Refer to the Automatic Return URL you obtained in Step 3 of the section "Set up PayPal Payments Standard in your store" and enter it into the Return URL field. Note: Change the URL to start with "https" instead of "http" if your store has SSL configured already.
- c. Optionally, set the Payment Data Transfer radio button to <u>On</u> and copy the value of the Identity Token field onto your system clipboard and then paste it into the PDT Token (Payment Data Transfer) field of your PayPal Payments Standard module.
- d. Optionally, set the **PayPal Account Optional** field (not shown in the preceding screen shot) to <u>On</u>. By doing so, customers without PayPal accounts can still pay using their credit card information.
- e. Leave the other fields at their default values for now. You can change them later when you are more comfortable with how PayPal works.
- f. Click Save to commit all your changes.
- 5. You can now log out from your PayPal account.

Test your PayPal Payments Standard setup

Before you begin testing your PayPal Payments Standard module:

- Make sure you have created a product in your store with a value of \$0.01. This amount minimizes any monetary loss if unforeseen problems occur with your tests.
- Make sure you use several test customer accounts from different regions to test your PayPal settings.

To begin testing your PayPal Payments Standard module:

- 1. Log in to your Store Front as a test customer and purchase your test product.
- 2. Choose PayPal as your payment option in the Payment Information screen.

Payment Method
Please select a payment method for this order.
 PayPar Save time. Check out securely. Pay without sharing your financial information.

- Proceed to the Order Confirmation screen and after you click Confirm the order in that screen, you will be redirected to PayPal's site to complete your payment details.
- 4. After you have completed payment at PayPal's site, you should be redirected back to your online store.
- 5. Log in to your Admin Console.
- 6. Click on Customers > Orders to see what your order looks like.
- Click on Customers > PayPal IPN to check that your order has been processed successfully by PayPal and the customer's order information has indeed been returned to your store.
- 8. Log in to your PayPal Business Account.
- 9. You should see a payment received from your test order if everything goes well.
- 10. Do a refund for the test product's amount if you are satisfied with your testing.

- 11. Log in to your Admin Console again.
- 12. Click on Customers > PayPal IPN to check whether the order status has been updated after your order has been refunded.



Zen Cart keeps records of all PayPal IPN transactions centrally. You can access these records by clicking on **Customers > PayPal IPN** to access the PayPal Instant Payment Notifications screen.

Summary

Do not overwhelm your customers with too many payment options. Research has shown that customers who ponder too long on a payment option eventually end up not buying at all! Use the following criteria when deciding whether to offer a particular payment option to your customers:

- Benefit your customers and convenient for them to use.
- Suitable for your business and be easy to administer.

Besides offering your customers suitable payment options, you should also make sure your store uses Secure Sockets Layer (SSL) when processing payment details from them. Refer to the section "Secure Sockets Layer (SSL)" for more information on how you can set up SSL for your store.

Part III

Managing your store catalog

This section discusses how you can add goods and services to your store catalog. It also shows you how to customize your products using product attributes. You will also learn different ways to manipulate your product catalog to allow you to sell downloadable goods, list your products in multiple categories, etc.

This section covers the following topics:

- Chapter 12, "Working with catalog restrictions and categories"
- Chapter 13, "Working with product types and products"
- Chapter 14, "Working with product attributes"
- Chapter 15, "Advanced product attribute configuration"
- Chapter 16, "Additional product manipulation techniques"
- Chapter 17, "Order totals, surcharges and discounts"

Chapter 12: Working with catalog restrictions and categories

Introduction

The ultimate aim of any online store is to showcase a merchant's goods and services for sale or offer. Zen Cart achieves this by providing a dynamic catalog which groups categories of products into a hierarchical tree structure. This allows customers to quickly and easily browse through the store's catalog to get to their desired items.



For the purposes of this book, we shall use the word "Product" to refer to both "Goods" and "Services" collectively. Goods can be tangible (e.g. a water bottle) or intangible (e.g. an ebook).

In this chapter, we shall:

- Learn how to place restrictions store and catalog functions.
- Highlight useful tips for navigating the category and product manipulation area of the Admin Console.
- Go through the the different ways to work with categories.

Working with store and catalog restrictions

Under normal circumstances and for most online stores, the store catalog will display all goods with their prices on each page for all users who visit the store.

However, some online stores require that certain information be limited to only customers who have logged into the store or who have been granted the necessary permissions from the store owner to access product prices.

Therefore, before we look into adding products and categories to our store catalog, let us examine the different ways whereby we can control access to some of our catalog information.

The three ways to restrict the shopping functions and access to information displayed in your store catalog are as follows:

- "Store-wide catalog restriction" on page 124.
- "Login-based catalog restriction" on page 125.
- "Authorization-based catalog restriction" on page 126.

Store-wide catalog restriction

To specify the shopping function of your store on a store-wide basis:

1. Click on Configuration > My Store to access the My Store screen.

2. Edit the Store Status field and concentrate on the side-panel.



- 3. Explanations for the different values are as follows:
 - Under normal circumstances, you will choose the value <u>0</u>. This means your store functions as a normal online store where users can browse and purchase your goods.
 - If you choose option 1, your store will function as a product showcase. Visitors to your site will only see your products without the prices and not be able to make any purchase. Only a Contact Us hyperlink which leads to the Contact Us page is shown in place of an Add to Cart button. Visitors will also not be able to create an account with your store because the Log In hyperlink at the top of the Store Front will not be displayed.
 - If you choose option <u>2</u>, your store will function as if you chose option <u>1</u>. The only difference being that prices are displayed to visitors in this case.

Login-based catalog restriction

To control your store shopping function based on the login status of your customers:

- 1. Click on Configuration > Customer Details to access the Customer Details screen.
- 2. Edit the Customer Shop Status View Shop and Prices field and concentrate on the side-panel.



- 3. Explanation for the different values are as follows:
 - <u>Not</u> required The store functions normally. Users are able to view products and their prices and also to make purchases.
 - <u>Must login to browse</u> Visitors to your site who are not logged in will only see the Log In screen with both side columns disabled. Upon log in, the store functions normally.
 - May browse but no prices unless logged in Visitors to your store who are not logged in will still see your products. However, no prices will be displayed and a "Login for price" message will be displayed in place of the Add to Cart button. Upon login, the store functions normally.

- Showroom Only Regardless of the login status of customers, a "Show Room Only" message will be displayed in place of the Add to Cart button. Customers will still be able to see the products and prices in your store but will not be able to make any purchases.
- 4. Click on update to if you have made any changes.



Individual customers can be *banned* from your store and *prevented from logging in*. To do this, edit a customer's details (refer to the section "Editing a customer's details") and select <u>Banned</u> – <u>Not allowed to login or shop</u> from the **Customer's Authorization Status** field on that screen.

Authorization-based catalog restriction

Customers to your store can have different authorization statuses assigned to them as we shall see when we discuss this in the section "Individual customer settings". To control your store shopping function based on the authorization status of your customers:

- 1. Click on Configuration > Customer Details to access the Customer Details screen.
- 2. Edit the Customer Approval Status Authorization Pending field and concentrate on the side-panel.



- 3. The effects of the above fields in the side-panel are similar to those mentioned in the previous section. The difference being that one depends on the *login* status while the other depends on the *authorization* status.
- 4. Click on update if you have made any changes.



Individual customers can be *banned* from your store and *prevented from logging in*. To do this, edit a customer's details (refer to the section "Editing a customer's details") and select <u>Banned</u> <u>- Not allowed to login or shop</u> from the **Customer's Authorization Status** field on that screen.

Catalog navigation tips

Let us now turn our attention to populating your store catalog with products and categories. However, before we do so, it is important that you familiarize yourself with some commonly used tips for quickly navigating the store. This will save you a lot of time if your store catalog is very big.

Navigating the Catalog menu

Many functions for dealing with the different elements of your store catalog will be available via the **Catalog** menu as shown in the following screen shot. Always turn to the menu entries here to give your brain a jolt if you want to manipulate a product feature but are not sure what to do.

Catalog
Categories/Products
Product Types
Products Price Manager
Option Name Manager
Option Value Manager
Attributes Controller
Downloads Manager
Option Name Sorter
Option Value Sorter
Manufacturers
Reviews
Specials
Featured Products
SaleMaker
Products Expected

Navigating the Categories/Products screen

Manipulating the products and categories in your store catalog will require that you deal with the Categories/Products screen most of the time. Therefore, it is important that you gain a firm grasp of the capabilities and short cuts available in this screen.

When you click on **Catalog** > **Categories/Products** to access the Categories/Products screen, the initial display will only show categories and not products as shown in the following screen shot.

LEGEND:	Status OFF	Status ON	Linked Product	Meta Tags Defined: Ves No ()						
								Text Edit	or Plain Text 💌	
					Categories/I	Product Display Order	Categories	Sort Order, C	ategories Name 💌	
								Search:		
CATEGORIES / PRODUCTS - TOP								🗶 до то: Тор		
ID Categories	/ Products			Model	Price/Special/Sale	Quantity	Status	Sort	Action	
1 🗋 Hardwar	re					6 of 6 active		1	880€	
2 🗋 Software	e					4 of 4 active		2	880€	
3 DVD Mov	/ies					17 of 17 active		3	8803	
21 Gift Cert	ificates					6 of 6 active		4	8803	
22 🗋 Big Link	ed					24 of 24 active		5	8803	
23 🗋 Test Exa	amples					16 of 16 active		500	8803	
28 🗋 Test 109	%					7 of 7 active		510	8803	
25 🗋 Test 109	% by Attrib					3 of 3 active		515	8803	
24 🗋 Free Cal	ll Stuff					7 of 7 active		600	8803	
33 🗋 🗛 Top Le	evel Cat					0 of 0 active		700	8803	
48 🖾 Sale Per	centage					7 of 7 active		1000	8803	
49 🖾 Sale Dec	duction					4 of 4 active		1100	8 8 03	
50 🗋 Sale Nev	w Price					4 of 4 active		1200	8 8 8 •	
53 🗋 Big Unlin	nked					12 of 12 active		1500	8803	
54 🗋 New v1.	2					20 of 20 active		1510	8803	
62 🗋 Music						1 of 1 active		1520	8803	
63 🗋 Docume	nts					2 of 2 active		1530	8803	
64 🖾 Mixed Pi	roduct Types					5 of 5 active		1550	8803	
Categories: 18 Products: 0		new	category NOTE:	Category has SubCategories Products cannot be added						

The row of brightly colored buttons near the top of the screen is the legend and it is used to provide a quick reference point to the buttons that are shown next to each row of products or categories that appear in your catalog.
Chapter 12. Working with catalog restrictions and categories



The available options for sorting the categories are available via the Categories/Products Display Order field.



As you click through the categories to get to deeper categories, you will eventually reach a category that contains only products and no categories. We shall refer to a category containing only products as a *leaf category* in this book. We will talk more about the *leaf category* in the section "Category and product setup rules".

By looking at the following screen shot, you will notice other differences between a Categories/Products screen containing only categories versus one that contains only products. Products have the "C" button which allows them to be copied whereas categories do not have this button and hence cannot be copied. For products, they have extra "\$" and "A" buttons which are not shown in the legend. The "\$" button is used to configure additional pricing properties for your products while the "A" button is used to specify attributes for your products. The uses for these buttons will become clear as we work through the rest of this book.

LEGEND: Status OFF Status	ON Linked Product	Meta Tags Defined: Ves No Image: Image: Imag				
						Text Editor 🛛 Plain Text 💌
			Catego	ries/Product Display Order:	Produ	cts Sort Order, Products Name 💌
Categories / Products - Big Li	INKED				Χ.	Search: Bo To: Big Linked 🗸
ID Categories / Products		Model	Price/Special/Sale	Quantity Status	Sort	Action
34 🖗 A Bug's Life "Multi Pak" Special 2003	Collectors Edition	DVD-ABUG	\$35.99	796 🛑	0	8 8 D C A 🕄 🕄
105 🛞 A Maximum Sample of 1		MAXSAMPLE-1	\$50.00	999 🔘	0	e X D C A 🕄 🕀
106 🖗 A Maximum Sample of 3		MAXSAMPLE-3	\$50.00	1000 🔵	0	e 8 o cas
44 🖗 A Mixed OFF Product with Attributes		TESTMINUNITSNOMIX	\$100.00- \$90.00 Save: 10% off	999 🔘	0	0 C D C A 🕄 🕈
46 O A Mixed ON Product with Attributes		TESTMINUNITSMIX	\$100.00 \$90.00 Save: 10% off	981 🔲	0	880040
20 🛞 Beloved Linked		DVD-BELOVED	\$54.99	8 🔲 💭	0	0 8 0 C A 🕄 🕄
5 🖗 Blade Runner - Director's Cut Linked		DVD-BLDRNDC	\$35.99- \$30.00 Save: 17% off	14 🔲 🔾	0	880080
16 🖗 Courage Under Fire Linked		DVD-CUFI	\$38.99- \$29.99 Save: 23% off	9 🔲 🔾	0	880640
12 🛞 Die Hard With A Vengeance Linked		DVD-DHWV	\$39.99	9 🔲 🔘	0	8 X D C A 🕄 🕀
24 🛞 Disciples: Sacred Lands Linked		PC-DISC	\$90.00	16 🔲 🔵	0	e x o cas) 🕈
Categories: 0 Products: 10	back new pro	Product - General Displaying 1 to 10 (of 24 << Page 1 v of 3	⊧products) 3 >>			

The available options for visually sorting products and categories are available via the **Categories/Products Display Order** field. The "+" and "-" signs that appear in the options signify whether you want to sort the results in ascending or descending order. Furthermore, if two or more terms appear, it means the sort order is performed with the first term followed by the second term.

Categories/Produc	t Display Ori	der:	Products Sort Order, Products Name Products Sort Order, Products Name Products Name Products Model Products Otx+, Products Name
Quantity 982	Status	Sor	Products Qty-, Products Name Products Price+, Products Name Products Price-, Products Name

Using different text editors

If you have installed a rich-text editor in your Admin Console, you can use the **Text Editor** drop-down list box in the Categories/Products screen to choose which editor to use when composing content for your category or product descriptions. For more information on the use of rich-text editors, refer to the section "Using rich-text editors".

Jumping between categories

To quickly get from one category to another category in your catalog, make use of the **Go To** drop-down list box as shown in the following screen shot. Notice that the options available in the **Go To** drop-down list box are indented with an offset to help you differentiate the different nesting levels that categories can be grouped under.

X Go Toi Graphics Cards W Top Hardware CCDROM Drives Graphics Cards Kenoy Montra Software Action Simulation Simulation
Top Hardware CDROM Drives Graphics Cards Keyboards Menoy Mice Montors Printers Speakers Software Action Simulation Simulation
Hardware CDROM Drives Cospines Costs Keyboards Michaey Michaey Michaey Michaey Software Action Simulation Strategy
Crashise Cards Keyboards Menory Mice Montors Printers Speakers Software Action Simulation Simulation
Keyboards Memory Mice Monitors Printers Software Action Simulation Simulation
Memory Mice Monitors Printers Speakers Software Action Simulation Simulation
Mice Monitors Printers Sopeakkers Software Action Simulation Strategy
Monitors Printers Speakers Software Action Simulation Strategy
Speakers Software Action Simulation Strategy
Software Action Simulation Strategy
Action Simulation Strategy
Simulation Strategy
Strategy
DVD Movies
Action
Cartoons
Drama
Science Fiction

The red cross and green tick icons toggle to display the Go To drop-down list box when clicked.

Search:	
	🖋 Go To:

Searching the catalog

Another less utilized but very helpful feature when navigating your store catalog is to use the search feature. When you enter a search term (e.g. <u>sale</u>) inside the **Search** input box, a search is performed against all category names and the product ID, product name, product description, and product model fields of all products.

Products and categories that meet the search criteria are *both* displayed within the *same page* as shown in the following example screen shot. The **Reset** button which appears after a search is done will bring you to the main Categories/Products screen when clicked.

LEGEND: Status OFF Status ON Linked Proc	luct Meta Tags Defined: Yes No T				
					Text Editor 🛛 Plain Text 💌
		Categor	ies/Product Display	Order: Catego	ories Sort Order, Categories Name 💌
				reset	
CATEGORIES / PRODUCTS - TOP					Search Filter: sale
				X	Go To: Тор 💌
ID Categories / Products	Model	Price/Special/Sale	Quantity	Status So	rt Action
58 🖾 Real Sale			2 of 2 active 🕻	11	• C X O
48 🖾 Sale Percentage			7 of 7 active 🚺	100	• • • • • • • •
49 🖾 Sale Deduction			4 of 4 active 🚺	110	• • • • • • •
50 Sale New Price			4 of 4 active 🚺	120	• B B D
41 $\stackrel{<}{\otimes}$ A Call for Price Product SALE	TESTCALL	\$100.00	999 (• • • • • • • • • • • • • • • • • • •
42	TESTFREE	\$100.00- \$95.00 Save: 5% off	998 (• • • • • • • • • • • • • • • • • • • •
173 🖗 Book	Book	\$52.50	1000 (0 C C A () ()
36 🔗 Hewlett Packard - by attributes SALE	HPLJ1100XI	\$499.00	700 🕻		0 CA
100 🛞 Hewlett Packard - by attributes SALE with Special	HPLJ1100XI	\$499.00 \$374.25 Save: 25% off	700 (• • • • • • • • • • • • • • • • • • •
74 🖗 Hewlett Packard - by attributes with Special% no SALE	HPLJ1100XI	\$499.00 \$399.20 Save: 20% off	700 🕻		• • • • • • • • • • • • • • • • • • •
61 🛞 Hewlett Packard - Sale with Attributes NOT on Sale	HPLJ1100XI	\$499.75	699 (0 C C C A () ()
60 🛞 Hewlett Packard - Sale with Attributes on Sale	HPL1100XI	\$499.75	699 (0 C X D C A () ()
55 🛞 Min and Units MIX - Sale	MINUNITSMIXSALE	\$25.00	991 (0 C C C A C C
56 🛞 Min and Units NOMIX - Sale	MINUNITSNOMIXSALE	\$25.00	991 (0 C C C A () 🔿
Categories: 4 Products: 10	NOTE: Category has SubCategories Products cannot be added Displaying 1 to 10 (of 4 << Page 1 v o	44 products) f5 >>			

Only the <u>Category Sort Order</u>, <u>Category Name</u> and <u>Category Name</u> options are available in the **Display Order** after your search is completed.

Working with categories

Category and product setup rules

Categories allow you to group different sub-categories and products together. However, each category is only allowed to contain either products or sub-categories but not both at the same time. Therefore, do not place your products on the top-most level. This is because once you do that, you will not be able to create any categories!

There are several other points you need to take note of when manipulating the categories and products in your store catalog. Some of the terminology introduced here will also be used in the rest of the book so it is very important that you pay careful attention to what is being mentioned here.

- 1. A store catalog contains products that you group into categories. This grouping follows a *hierarchical* structure with a single parent at the top of the structure.
- 2. The **Top** category refers to the top-most level in your product catalog. This is a pseudo category that is created by Zen Cart. No products or categories can be added at the same level or any level above the Top category.

Only *categories* can exist below it. Hence, even if your store sells only one product, you must create a category to house that single product. This rule is in place because of performance reasons, future expansion of your store to accomodate more products and also to fulfil the needs of custom shopping rules that are applied on a per-category basis.

- 3. A category can only contain child categories or products as its immediate children and not both at the same time.
- 4. **Branch** categories are those categories that contain only *sub-categories* as immediate children. Hence, Branch categories cannot contain both child categories and child products at the same level. The term "Branch" category is coined by me for easy reference in this book.
- 5. **Leaf** categories are those categories that contain only *products*. Again, the term "Leaf" category is coined by me for easy reference in this book.
- 6. A product can only be listed in one **master category**. A "master category" is used to determine the **pricing** rules for a product that is linked to different categories. More information on master categories will be covered in the section "Listing products in multiple categories".

A summary of the rules you need to follow when creating categories and products in your catalog is shown in the following diagram.



Chapter 12. Working with catalog restrictions and categories



Note that you can break the rule of each category holding either categories or products only. This is possible when *moving* categories and also when you are in a *disabled* category. Nevertheless, do not mix products and categories under a parent category. This will cause Zen Cart to behave strangely.

Creating new categories

To create a new category:

- 1. Click on Catalog > Categories/Products to access the Categories/Products screen.
- 2. Click on new category to proceed to the Category Details screen.

Categories / Products - Top	
New Category	
Please fill out the following information for the new category	
Category Name:	
Categories Description:	
Category Image: Browse	
Upload to directory: categones	
Or, select an existing image file from server, filename:	
Sort Order:	
	save cancel

- 3. Enter a name for the category in the Category Name field.
- 4. Enter a description for the category in the Category Description field.
- 5. To specify an image for the category, choose one of the following two methods:
 - The first method is to upload your image to the server via your browser.
 - a. Search an image file from your local computer by clicking the **Browse** button next to the **Category Image** field. For a discussion on image file sizes, refer to the section "Optimizing image sizes" for more information.
 - b. Choose a directory which you want to use to store the image from the Upload to Directory drop-down list box. The default value of <u>categories</u> refers to [zc-home]/images/categories under the web server. The other values in the drop-down list box refer to sub-directories located under [zc-home]/images.
 - The second method is to upload your image via FTP to your server.
 - a. The image you upload via FTP should be placed in the [zc-home]/images directory or its sub-directory.

b. After your image is uploaded, type in the name of the file in the **filename** field. If the file on the server is [zc-home]/images/beverage.gif, type the value <u>beverage.gif</u>. If the file on the server is [zc-home]/images/drinks/beverage.gif, then type the value <u>drinks/beverage.gif</u> instead.

Note that you can type <u>none</u> into the **filename** field to remove an image you have uploaded previously. However, this method does not work with Internet Explorer.

- 6. Enter a number for the **Sort Order** field which specifies the sequence which this category will be displayed with respect to other categories.
- 7. Click save to save your information. Your new category will appear in the Categories/Products screen.

Restricting categories to certain Product Types only

After you have created a category, you can choose to restrict the product types that the category can hold. In this way, you reduce errors by ensuring uniformity of products while adding products to the category.

For example, if your store sells music CDs. You will likely choose to use the Product-Music product type when creating a music CD in your store catalog because this is the only product type in Zen Cart that contains the following fields: music genre, artist and record company. By restricting the category you wish to hold the music CD to contain only products of Product-Music product type, you will not make the mistake of using another product type when creating music CDs in that category.

Note that category restrictions based on product types only affects the creation of *new* products in the affected categories. Any products created based on other product types currently in the affected categories will not be affected.

To restrict a category to allow only products of a particular Product Type to be added:

- 1. Click on Catalog > Categories/Products to access the Categories/Products screen.
- 2. Click on the green "e" icon in the row containing the category which you want to set up a restriction. The category's details screen should appear.
- 3. Navigate to the bottom of the screen and you should see something similar to the following screen shot.

	save cancel
Restrict to Product Type Product - General 🔽 Add include SubCategories	Add without SubCategories

- 4. From the **Restrict to Product Type** drop-down list box, choose the product type you wish to restrict this category to.
- 5. Click on Add include SubCategories if you want the restriction to apply to all sub-categories under this category. Click on Add without SubCategories if you want the restriction to apply only to the immediate sub-category instead of subsequent sub-categories after the immediate sub-category. All additions are immediately saved in the database.

Note that sub-categories created *after* restrictions have been applied to the parent categories will not inherit the restrictions of the parent categories.

6. Repeat Steps 4 and 5 to restrict this category to other Product Types.

Note that there is no visual cue to indicate that a category contains restrictions. You should check the parent category whenever you do not see a full list of product types available to you when creating a product. Furthermore, there is no way you can tell whether a category contains restrictions via Add include SubCategories or Add without SubCategories. Therefore, it is always a good idea to write down your changes and keep a manual record.

Moving and deleting categories

Zen Cart provides you the flexibility of re-arranging your categories by moving them around. When you move a category to another category or sub-category, all the products under the category will be moved as well.



This feature allows you to quickly come up with a rough product catalog when you begin experimenting with your store setup and then you can slowly refine it according to your business requirements.

To move a category:

- 1. Click on Catalog > Categories/Products to access the Categories/Products screen.
- 2. Click on the purple "m" icon in the row containing the category which you want to move. You should see a screen similar to the following screen shot.

Categories / Products - Top	Search: X Go To: Top
Move Category Please select which category you wish Eruits to reside in	
Move Fruits to:	
move cancel	

- 3. Choose the destination category to move to from the drop-down list box.
- 4. Click on move to move the category to the destination category.

The process of deleting a category is straightforward. However, there are a few things to note before deleting a category. If the category contains linked products, then the original products will not be deleted. On the other hand, if the original products are deleted, then any linked products in other categories will also be deleted.

To delete a category:

- 1. Click on Catalog > Categories/Products to access the Categories/Products screen.
- 2. Click on the red "x" icon in the row containing the category which you want to move. You should see a screen similar to the following screen shot.



Enabling and disabling categories

The status of a category is immediately visible via the the "red" or "green" status buttons next to the product in the Categories/Products screen.

When a category is disabled, it will not show up in the product catalog of your Store Front. Neither will any products (linked or otherwise) under that category show up in the catalog as well.

To enable or disable a category:

- 1. Click on Catalog > Categories/Products to access the Categories/Products screen.
- 2. Navigate to the desired category you wish to enable or disable.
- 3. Click the Status button (either "green" or "red") to toggle the status of that category in the catalog.

Summary

This chapter covered how you can control access to your store's catalog by placing access restrictions at the store level or the customer level. You were also given tips on navigating the category and product manipulation area of the Admin Console so that you can perform commonly utilized functions faster and more efficiently. Finally, you learned how to create and maipulate the categories in your catalog.

Introduction

While it is easy to describe a product in the physical world where we live, we need to put in more thought and effort when setting up products in our online store. This is because the capabilities offered by an online store requires that a product be set up properly in the store's catalog in order to make use of the different features that Zen Cart offers in showcasing and manipulating them later.

In this chapter, we shall:

- Learn product-related concepts specific to Zen Cart.
- Run through the workings of different product types.
- Learn the different ways to manipulate products.
- See how we can list products in different categories.

Important product-related concepts

Creating products and manipulating the many different properties and aspects of its functions often leaves store owners losing themselves in the details and not seeing the full picture. In order to avoid this situation, we shall discuss some of the key terms that you will often encounter when browsing the Zen Cart forums or when creating the products later on.

Product types

The main reason for the use of Product Types stems from the fact that different product types will need to be displayed differently.

Most products in a store will have similar fields like title, description, price and weight. However, there will be situations in which certain products require different or additional fields that deviate from the norm. The existence of such extra fields may sometimes require custom code to handle them as well.

For example, if your store sells cars, then the standard product fields like title, description and price would be sufficient. However, if your store sells songs, then you may need an *extra field* to represent the artist(s) who recorded the songs.

Furthermore, cars are generally associated with a manufacturer or model. A song would definitely not be associated with those fields and would more likely be associated with a recording company instead. Moreover, a song may provide a short music sample whereas a manufacturer may not do that. All these extra features will need to be handled by different sets of programming *logic* as well.

In order to cater to the above situations, Zen Cart's developers came up with the concept of a Product Type. A Product Type defines the different fields that a particular type of product will have. In addition, custom programming logic is also developed to handle products belonging to different product types.

By default, Zen Cart comes with the following five different product types which easily caters to the needs of most store owners.

- Product-General
- Product-Music
- Product-Free-Shipping
- Document-General
- Document-Product

However, business situations differ; so if you need a custom product type to meet your needs, you can either *code* it yourself or look for one from the *contributions* area on Zen Cart's site.

If you are interested in coding your own Product Type, refer to http://tutorials.zen-cart.com/index.php?article=114. The article provides some very good background information on the impetus behind the creation of the Product Type entity and also the general steps required on how to create your own Product Type.

Comparing standard products with variant products

Let us suppose that your store sells three different types of study desks that differ only in the wood used to construct them (e.g. teak, pine and rosewood).

You can either choose to create three different products to represent each desk; or you can choose to create one product to represent the desks but with three different options each representing a different construction material which a user can choose from. The former approach would require creating three 'standard' products while the latter approach will only require creating one 'variant' product.

In short, a 'variant' product is one which gives customers the freedom to make choices in customizing a product to fit their needs before making their purchases. A 'standard' product, on the other hand, does not offer customers any choices in customizing the product.

Product attributes can also be configured to have price, weight and other information attached to them. They also form the basis for creating downloable products. Due to the power and flexibility of product attributes, they can affect the workings of several different store functions simultaneously. Thus, they will be covered in the chapters following this one.



A **Product Type** defines the properties (i.e. fields) that a *store owner* would need to enter when creating a product. A **Product Attribute** defines the properties (i.e. options) that *customers* can use to create or select different variations of a product during purchase.

Physical, Virtual, Downloadable and Combo products

The terms 'Physical', 'Virtual', 'Downloadable' and 'Combo' are often encountered when browsing through the Zen Cart forums. However, these terms are often misunderstood or misused and hence we shall discuss them here in order to clear up the confusion. Strictly speaking, these terms refer to the *shipping* aspect of a product.

'Physical' products will require some sort of shipping option set up because it deals with tangible goods. 'Virtual' products will not require shipping as it deals mainly with intangible goods. 'Combo' products deal with products that possess both a 'Virtual' and 'Physical' component to them.

The similarities between the terms 'Virtual' and 'Downloadable' is often the main source of confusion for newcomers to Zen Cart when discussing electronically delivered products.

In Zen Cart parlance, a 'Virtual' product means a product that does not need to be delivered to a customer. For example, an accounting service has *nothing to be shipped* to a customer because the service is performed by a person going to a client's site to tabulate the financial statements. Similarly, an electronic gift certificate with its value automatically kept in the online store will not need to be shipped to a customer as well. We shall cover the functions of an electronic Gift certificate in the section "Gift certificates".

On the other hand, a 'Downloadable' product requires the product to be *shipped electronically* to a customer. Hence, a customer will need to log in to your online store to *download* the electronic product. Downloadable products are covered in the section "Selling downloadable products".

Working with Product Types

As you have learned earlier, all products created in Zen Cart must belong to a Product Type. Product types define the default properties of a product and whether these properties are shown to a customer.

Hence by changing a single property of a Product Type, you can effectively influence the field display and logic of all products that belong to that particular Product Type. For example, if you turn off the weight display field for a particular Product Type, then all products that belong to that Product Type will not display their weight in the store catalog. This is actually one of the most commonly asked questions in the forums and understanding this example alone will save you a lot of time later.



Choose your Product Type carefully. It usually takes a lot of effort and code changes to migrate from one Product Type to another due to the differences in database table structures and relationships between different Product Types.

Editing a Product Type

Each Product Type has two sets of properties:

- Definition properties.
- Layout properties.



I have coined the term 'Definition Properties' because there is currently no literature in Zen Cart on how to differentiate between the two types of properties for a Product Type.

Editing definition properties

Definition properties specify the characteristics of a product type. It is of interest mainly to people who want to customize a product type or to create new product types in Zen Cart. As there is seldom any need to edit the definition

properties of a Product Type unless you are a programmer, we shall only go through the meanings of the fields for those who are curious.

To edit the definition properties of a particular Product Type:

1. Click on Catalog > Product Types to access the Product Types screen.

Product Types		
Product Types	Add to Cart	Action Product - General
Product - General	Y	edit layout
Product - Music	Y	Date Added: 10/04/2010
Document - General	N	Last Modified: 10/04/2010
Document - Product	Y	1
Product - Free Shipping	Y	IMAGE DOES NOT EXIST
Displaying 1 to 5 (of 5 product types)		Page 1 of 1 Products: 119

2. Choose a product type and click on <u>edit</u> to bring up a side-panel similar to the following screen shot.

Edit Product Type :: Product - General Please make any necessary changes			
Product Type Name:			
Product - General			
Product Type Default Image: Browse_ Browse_			
Upload to directory: Main Directory 🔍			
IMAGE DOES NOT EXIST			
Handler Page:			
product			
This Product can be added to cart:			
This product type should be considered a sub-type of Product - General			
save cancel			

Most of the fields are self-explanatory except the following:

- Handler Page This field is used to indicate which PHP program should be used to process this particular product type. Do not edit this field unless you are very sure you know what you are doing!
- Product Type Default Image If you upload an image here, Zen Cart will use this default image if you do not specify an image when creating products belonging to this Product Type. It is reserved for future use, therefore, do not specify anything here.
- Upload to Directory This option is useful only if you have specified something for the Product Type Default Image field.
- This Product can be added to cart If unchecked, it means users cannot purchase this product because they cannot add it to the shopping cart.
- 3. Click on save if you have made any changes.

Editing layout properties

Layout properties affect the *display* of certain product-related properties either in the Store Front or Admin Console. Different product types might even have different sets of product-related properties. For example, the Product-Music product type has a unique "recording company" property which is non-existent in other product types. The Product-General product type has a "manufacturer" property not found in the Product-Music product type.

To edit layout properties of a particular Product Type:

- 1. Click on Catalog > Product Types to access the Product Types screen.
- 2. Choose a product type and click on **edit layout** to access the layout properties screen. A screen shot of the layout properties available to a Product-General product type can be seen in Figure 13.2: "Product-General product type".

The **Product Free Shipping Image Status - Catalog** field and properties beginning with "**Show**" affect the display of a product's properties in the Store Front. Other properties relate to the default status of certain fields in a product when you start customizing the product in the Admin Console.

- 3. Select any field you wish to change and then click edit when the corresponding side-panel appears.
- 4. If you have made any changes to a field, click on update in the side-panel to effect your changes.

Refer to the following screen shots to compare the different fields belonging to different product types.

PRODUCT TYPE INFO PAGE LAYOUT OPTIONS :: PRODUCT - I	FREE SHIPPING	
Title	Value	Action Show Model Number
Show Model Number	1	edit cancel
Show Weight	0	0
Show Attribute Weight	1	Display Model Number on Product Info 0= off
Show Manufacturer	1	① 1= on
Show Quantity in Shopping Cart	1	Date Added: 01/06/2012
Show Quantity in Stock	1	0
Show Product Reviews Count	1	\odot
Show Product Reviews Button	1	1
Show Date Available	0	\odot
Show Date Added	1	⁽¹⁾
Show Product URL	1	\odot
Show Starting At text on Price	1	\odot
Show Product Additional Images	1	⁽¹⁾
Product Free Shipping Image Status - Catalog	1	\odot
Show Metatags Title Default - Product Title	1	\odot
Show Metatags Title Default - Product Name	1	①
Show Metatags Title Default - Product Model	1	\odot
Show Metatags Title Default - Product Price	1	①
Show Metatags Title Default - Product Tagline	1	\odot
Product Price Tax Class Default - When adding new products?	0	\odot
Product Virtual Default Status - Skip Shipping Address - When adding new products?	0	Ð
Product Free Shipping Default Status - Normal Shipping Rules - When adding new products?	1	Ū
PRODUCT FREE SHIPPING Attribute is Display Only - Default	0	\odot
PRODUCT FREE SHIPPING Attribute is Free - Default	1	①
PRODUCT FREE SHIPPING Attribute is Default - Default	0	①
PRODUCT FREE SHIPPING Attribute is Discounted - Default	1	⁽¹⁾
PRODUCT FREE SHIPPING Attribute is Included in Base Price - Default	1	①
PRODUCT FREE SHIPPING Attribute is Required - Default	0	①
PRODUCT FREE SHIPPING Attribute Price Prefix - Default	1	⁽¹⁾
PRODUCT FREE SHIPPING Attribute Weight Prefix - Default	1	Ð

Figure 13.1: Product-Free-Shipping product type

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Chapter 13. Working with product types and products

PRODUCT TYPE INFO PAGE LAYOUT OPTIONS :: PRODUCT -	General		
Title	Value	Action	Show Model Number
Show Model Number	1	▶	edit cancel
Show Weight	1	(I)	
Show Attribute Weight	1	(Î)	Display Model Number on Product Info 0= off
Show Manufacturer	1	①	1= on
Show Quantity in Shopping Cart	1	(I)	Date Added: 01/06/2012
Show Quantity in Stock	1	①	Date Added: 01/00/2012
Show Product Reviews Count	1	①	
Show Product Reviews Button	1	(I)	
Show Date Available	1	(Î)	
Show Date Added	1	(Ī)	
Show Product URL	1	(I)	
Show Starting At text on Price	1	(Î)	
Show Product Additional Images	1	(I)	
Product Free Shipping Image Status - Catalog	0	(I)	
Show Metatags Title Default - Product Title	1	①	
Show Metatags Title Default - Product Name	1	(I)	
Show Metatags Title Default - Product Model	1	(I)	
Show Metatags Title Default - Product Price	1	①	
Show Metatags Title Default - Product Tagline	1	(I)	
Product Price Tax Class Default - When adding new products?	0	(Î)	
Product Virtual Default Status - Skip Shipping Address - When adding new products?	0	Ũ	
Product Free Shipping Default Status - Normal Shipping Rules - When adding new products?	0	Ũ	
PRODUCT Attribute is Display Only - Default	0	(Î)	
PRODUCT Attribute is Free - Default	1	(I)	
PRODUCT Attribute is Default - Default	0	(Î)	
PRODUCT Attribute is Discounted - Default	1	(Î)	
PRODUCT Attribute is Included in Base Price - Default	1	(Î)	
PRODUCT Attribute is Required - Default	0	①	
PRODUCT Attribute Price Prefix - Default	1	(Î)	
PRODUCT Attribute Weight Prefix - Default	1	(Î)	

Figure 13.2: Product-General product type

PRODUCT TYPE INFO PAGE LAYOUT OPTIONS :: PRODUCT -	Music		
Title	Value	Action	Show Model Number
Show Model Number	1	•	edit Cancel
Show Weight	0	①	
Show Attribute Weight	1	①	Display Model Number on Product Info 0= off
Show Artist	1	(Ì)	1= on
Show Music Genre	1	(I)	Data Addady 01/06/2012
Show Record Company	1	(Ì)	Date Added: 01/00/2012
Show Quantity in Shopping Cart	1	1	
Show Quantity in Stock	0	(I)	
Show Product Reviews Count	1	①	
Show Product Reviews Button	1	Œ	
Show Date Available	1	①	
Show Date Added	1	1	
Show Starting At text on Price	1	①	
Show Product Additional Images	1	①	
Product Free Shipping Image Status - Catalog	0	()	
Show Metatags Title Default - Product Title	1	(I)	
Show Metatags Title Default - Product Name	1	①	
Show Metatags Title Default - Product Model	1	()	
Show Metatags Title Default - Product Price	1	0	
Show Metatags Title Default - Product Tagline	1	1	
Product Price Tax Class Default - When adding new products?	0	(I)	
Product Virtual Default Status - Skip Shipping Address - When adding new products?	0	⁽¹⁾	
Product Free Shipping Default Status - Normal Shipping Rules - When adding new products?	0	Œ	
MUSIC Attribute is Display Only - Default	0	1	
MUSIC Attribute is Free - Default	1	$(\mathbf{\hat{D}})$	
MUSIC Attribute is Default - Default	0	0	
MUSIC Attribute is Discounted - Default	1	1	
MUSIC Attribute is Included in Base Price - Default	1	(I)	
MUSIC Attribute is Required - Default	0	1	
MUSIC Attribute Price Prefix - Default	1	1	
MUSIC Attribute Weight Prefix - Default	1	1	

Figure 13.3: Product-Music product type

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Chapter 13. Working with product types and products

Product Type Info Page Layout options :: Document - General			
Title	Value	Action Show Product Reviews Count	
Show Product Reviews Count	1	edit cancel	
Show Product Reviews Button	1	0	
Show Date Available	1	Display Product Reviews Count on Product Info	
Show Date Added	1	① 0= off 1= on	
Show Product URL	1	Date Added: 01/06/2012	
Show Product Additional Images	1	①	
Show Metatags Title Default - Document Title	1		
Show Metatags Title Default - Document Name	1		
Show Metatags Title Default - Document Tagline	1		
DOCUMENT GENERAL Attribute is Display Only - Default	0		
DOCUMENT GENERAL Attribute is Free - Default	1	$(\hat{\mathbf{D}})$	
DOCUMENT GENERAL Attribute is Default - Default	0		
DOCUMENT GENERAL Attribute is Discounted - Default	1		
DOCUMENT GENERAL Attribute is Included in Base Price - Default	1		
DOCUMENT GENERAL Attribute is Required - Default	0	\odot	
DOCUMENT GENERAL Attribute Price Prefix - Default	1		
DOCUMENT GENERAL Attribute Weight Prefix - Default	1	$(\hat{\mathbf{D}})$	



Product Type Info Page Layout options :: Document - Product				
Title	Value	Action Show Model Number		
Show Model Number	1	edit Cancel		
Show Weight	0	0		
Show Attribute Weight	1	① Display Model Number on Product Info 0= off		
Show Manufacturer	1	① 1= on		
Show Quantity in Shopping Cart	1	Data Addada 01/06/2012		
Show Quantity in Stock	0	Date Added: 01/00/2012		
Show Product Reviews Count	1	\odot		
Show Product Reviews Button	1	\odot		
Show Date Available	1			
Show Date Added	1	\odot		
Show Product URL	1			
Show Starting At text on Price	1	\odot		
Show Product Additional Images	1	\odot		
Product Free Shipping Image Status - Catalog	0			
Show Metatags Title Default - Document Title	1	\odot		
Show Metatags Title Default - Document Name	1			
Show Metatags Title Default - Document Model	1			
Show Metatags Title Default - Document Price	1			
Show Metatags Title Default - Document Tagline	1			
Product Price Tax Class Default - When adding new products?	0			
Product Virtual Default Status - Skip Shipping Address - When adding new products?	0	Ð		
Product Free Shipping Default Status - Normal Shipping Rules - When adding new products?	0	Ð		
DOCUMENT PRODUCT Attribute is Display Only - Default	0	(1)		
DOCUMENT PRODUCT Attribute is Free - Default	1	\odot		
DOCUMENT PRODUCT Attribute is Default - Default	0	\odot		
DOCUMENT PRODUCT Attribute is Discounted - Default	1	(1)		
DOCUMENT PRODUCT Attribute is Included in Base Price - Default	1	(1)		
DOCUMENT PRODUCT Attribute is Required - Default	0	\odot		
DOCUMENT PRODUCT Attribute Price Prefix - Default	1	\odot		
DOCUMENT PRODUCT Attribute Weight Prefix - Default	1	⁽¹⁾		



Creating products manually

Creating products in your store typically involves five major steps; out of which Step 1 and Step 3 are compulsory. If you follow all the steps, you may find yourself lost in the process if you are a new comer to Zen Cart. However, once you have gone through the process a few times, it will be much easier. That's because although the steps here are listed in sequence, they may not necessarily need to be followed in this particular order. As you shall see, many parts of the product catalog (e.g. manufacturers) can be pre-defined earlier and then re-used when creating new products.

Step 1 of 5: Decide on a Product Type

Before you add a product to your store, you must first determine what product type you want the product to belong to. As we have discussed earlier in this chapter, you will need to choose between the five different product types.

For most occassions, you will usually choose to have products belong to either the 'Product-General', 'Product-Music' or 'Document-Product' product types.

The reason why the 'Document-General' product type is not usually chosen is because products created using this product type cannot be added to a shopping cart and thus customers cannot purchase the product.

The 'Product-Free Shipping' product type allows you to have products set up in your online store to automatically allow free shipping. Its use will depend on the needs of your business.

Step 2 of 5: Set up Product Type dependencies

Each product type may have separate dependencies which can be set up to help your customers better filter and search your products. For example, products belonging to the 'Product-General' product type can be linked to specific *manufacturers* whereas products belonging to the 'Product-Music' product type can be linked to the *record companies*. These dependencies should be set up before any data is entered for a product because they will be linked from the Product Details screen.

Product-Music dependencies

Zen Cart provides explicit support for music-related products via the Product-Music product type. Products that are of Product-Music product type will have an additional three fields available to them.

- Recording Artist
- **Record** Company
- Music Genre

To have these three fields appear in the Product Info page in your Store Front, make sure that the layout properties of the Product-Music type under **Catalog** > **Product Types** has the following fields enabled:

- Show Artist
- Show Music Genre
- Show Record Company

The **Record Companies** and **Music Genre** fields give rise to the following two side-boxes. The **Record Artist** field currently has no effect but a side-box might be added in future.



To specify the information for the **Record Artists**, **Record Companies** and **Music Genre** fields, look into the screens accessible by clicking the following menu entries.

- Extras > Record Artists
- Extras > Record Companies
- Extras > Music Genre

Product-General and Product-Free Shipping dependencies

Most products that you create will usually belong to the Product-General product type. This product type has the most number of fields and many of those fields also appear in other product types as well. Therefore, we shall make use of it to help explain and point out the differences between it and other product types.

What if your store sells services (accounting, legal or insurance, etc) instead of physical products which need to be delivered? Well, one way is to treat a Service as a General product and set its **Product is Virtual** field to \underline{Yes} , <u>Always Free Shipping</u>. If all items in a customer's shopping cart are virtual products and you have enabled the Free Shipping module, Zen Cart will automatically skip the Delivery Information page and bring the customer to the Payment Information page.

Another way is to use the Product-Free-Shipping product type when creating your service. By default, products that belong to this product type do not have their weights displayed in the Store Front and are set to free shipping. Most services do not require any physical delivery of goods, so you will also want to consider turning off the display of the Free Shipping icon when displaying products of this product type.

To disable the display of the Free Shipping icon in the Store Front for products of Product-Free-Shipping product type:

- 1. Click on Catalog > Product Types to access the Product Types screen.
- 2. Click Product-Free-Shipping under the **Product Types** column and concentrate on the side-panel.
- 3. Click the **edit layout** button on the side-panel to proceed to a screen containing definition properties for this product type.
- 4. Edit the Product Free Shipping Image Status Catalog field and set the value to No.
- 5. Click **update** to save your changes.

When creating products belonging to either the Product-Free-Shipping or Product-General product types, you will have the option of linking to a specific manufacturer for the product. Before you can link to a manufacturer, you will need to create the manufacturer first.

If you have manufacturers set up in your store, there will be two side-boxes available to your customers as shown in the following screen shot.



By clicking a hyperlink in the Manufacturers side-box, a list of products belonging to the same manufacturer will be displayed. Thus, customers can quickly locate a product they are interested in based on information they have on the name of the manufacturer.

For example, if your store sells mobile phones and accessories, you might decide to place your products into two separate categories: Phones and Accessories. However, most people are loyal customers of a particular brand and will only purchase accessories and phones of a common brand due to interoperability issues. For these customers, getting to their choice of products is easier via the Manufacturers side-box rather than browsing the Categories side-box.

The Manufacturer Info side-box appears only when you are at the Product Info page of a product. By clicking on the **Other products** hyperlink in this side-box, you will also be shown a list of products that come from the same manufacturer.

To create manufacturers in Zen Cart:

1. Click on Catalog > Manufacturers to access the Manufacturers screen.

Manufacturers	
Manufacturers	Action Clubs Hand Phones
Clubs Hand Phones	Image: Section 2 and Secti
Diamonds Telecommunications	• • •
Hearts Cell Phones	O Date Added: 09/23/2006 Date Modified: 09/23/2006
Spades Technologies	
Displaying 1 to 4 (of 4 manufacturers)	Page 1 of 1 insert
	Products: 2

Notice that there is a number next to the words **Products** underneath the product image. This indicates the number of products that are linked to this manufacturer. By default, if the value is zero, this manufacturer will not be shown in the Manufacturers side-box.

2. Click on insert to access the New Manufacturer side-panel.

New Manufacturer Please fill out the following information for the new manufacturer
Manufacturers Name:
Manufacturers Image: Browse_
Upload to directory: manufacturers 💌
Or, select an existing image file from server, filename:
Manufacturers URL:
save cancel

- 3. Enter the name of a manufacturer into the Manufacturers Name field.
- 4. To specify an image for the manufacturer, follow the same instructions as you did in the section "Creating new categories" when you specified an image for a category. The difference this time is the default directory where files are uploaded is <u>manufacturers</u>, which corresponds to the [zc-home]/images/manufacturers directory on the server.
- 5. Optionally, specify the web address of the manufacturer in the Manufacturers URL field; e.g. <u>http://www.clubs-handphones-technologies.com</u>.
- 6. Click on save to save your changes.

Document-General and Document-Product dependencies

To create documents in your store, you can make use of either the Document-General or Document-Product product types. Products that belong to the Document-General product type *cannot be purchased* by customers. You can use such products to offer free information to your customers: FAQs, free articles, brochures, etc. On the other hand, products that belong to the Document-Product product type act like normal products which can be sold at a price.

Only products that belong to the Document-General and Document-Product product types can be displayed in a separate Documents side-box in your Store Front. This allows your customers to easily separate normal products (displayed in the Categories side-box) from document products in your store.

Documents	
e-Magazines-> (1) _ Articles (1) _ Books	

Step 3 of 5: Enter product details

When you are ready to enter your product details, you will need to navigate to a category within which you want to create your product. Select your desired product from the product type drop-down list box and click the **new product** button to access the Product Details screen. The **new category** button will only appear if the category currently has no products.

Document - General Document - Product Product - Free Shipoina

Except for products belonging to the Document-General product type, the large number of settings may seem overwhelming to a newcomer to Zen Cart. To help you better visualize the relationships between the settings, we will categorize the settings into the following groups:

- "General settings" on page 146.
- "Stock settings" on page 147.
- "Pricing settings" on page 148.
- "Shipping settings" on page 149.
- "Purchase quantity settings" on page 150.

The categorization we are using here may seem cumbersome at first because it differs from the arrangement of the fields on your actual screen. However, when it comes time to troubleshoot problems in your product setup, this categorization will come in handy as you are able to quickly narrow down a problem to a group of settings instead of going through every single setting on the screen.

As products belonging to the Product-General product type are the most commonly used by store owners and they have the most number of settings which also appear across different product types, we shall use the Product Details screen settings of a Product-General product to explain the meaning of each setting.

Before we begin looking at each product field in depth, let us take some time to examine the *differences in product fields* for a Product Details screen between that of a Product-General product type and a products belonging to the other product types. In this way, you will not feel lost if you do not find a field you are looking for when entering your product details.

Product type	Field differences with Product-General products	
Product-Free-Shipping	The <i>only difference</i> between products belonging to the two product types is that the Free Shipping field of a Product-Free-Shipping product is set to a default value of \underline{Yes} , Always Free Shipping unlike that of a Product-General product which is set to a default value of <u>No</u> , <u>Normal Shipping Rules</u> .	
Product-Music	Product-Music products do not have the Manufacturers field. Instead, there are three extra fields: Recording Artist, Record Company , and Music Genre . Refer to the section "Product-Music dependencies" to learn how to populate the three drop-down list boxes with suitable values.	
Document-Product	There is <i>no difference</i> in the number and nature of fields between products belonging to the two product types.	

Table 13.1: Field differences between Product-General	products and other	product type products
---	--------------------	-----------------------

Product type	Field differences with Product-General products
Document-General	Document-General products contain only a <i>subset</i> of Product-General product fields. The other minor difference is that some of the field names of the Document-General products start with the word "Document" instead of "Product".

General settings

The following fields are general and apply to all products regardless of product types in your store.

Product Master Category

Master categories allow products to be linked to multiple categories but managed as a single stand-alone product. It is also the category that determines the price of a product if discounts are applied on a per-category basis.

When creating a new product or when editing a product that belongs to only one category, then the master category is the category that the product is created or currently existing in.

Product Master Category:	ID# 64 Mixed Product Types	
NOTE: Master Category is used for pricing purposes where the product category affects the pricing on linked products, example: Sales		

If you are editing a product that belongs to multiple categories, then you will have a choice of re-assigning the master category via the **Product Master Category** drop-down list box.

Product Master Category:	Mixed Product Types ID# 64 🗸	
NOTE: Master Category is used for pricing p product category affects the pricing on link	Invalid Master Category ID Documents ID# 63	5
product category attacts the pricing on link	Mixed Product Types ID# 64	

Products Status

If a product is marked as <u>Out of Stock</u> the product will not appear in your store.

Each time a product is sold, the value in the **Products Quantity** field will be decremented. When the **Products Quantity** field reaches zero, this field will automatically switch to <u>Out of Stock</u>.

For further discussion on how Out of Stock settings can be customized, refer to the section "Configuring stock settings".

Date Available

If the product is already in stock, leave this field empty.

If you specify a *future* date, a customer is still able to view and purchase the product. The product will be displayed in the "Upcoming Products" list in your Store Front and the product's Product Info page will also highlight the date that the product will be in stock. For a screen shot of the "Upcoming Products" listing, refer to the section "Upcoming products summary-list".

Products Name

This is the name of the product that customers see.

Products Description

Enter the description for your product here.

Products Image

To specify an image for the product, follow the same instructions as you did in the section "Creating new categories" when you specified an image for a category. Note the existence of two extra options for a product image compared to a category image.

For the Delete Image option:

- Set to <u>Yes</u> if you want to disassociate the current image with the product. No new product image will be uploaded.
- Set to \underline{No} if you want to use another image with the product.

For the Overwrite Existing Image on Server option:

- Set to <u>Yes</u> if you need to upload an image which has changed but still maintain the previous name or you simply want to upload a new image after clicking the **Browse** button.
- Set to <u>No</u> if want to use an image which has already been uploaded via FTP to the desired directory on your server. You can type the name of the uploaded file in the **filename** field.

Products URL

Used to point a customer to another website which might contain more information for the product. For example, you can type in a URL in the following form: www.greatphones.com/pico.html.

If a value is entered for this field, the following line will appear under a product in the Product Info page in your Store Front.

For more information, please visit this product's webpage

Note that the words "webpage" is a hyperlink and it points to the URL you specified for this field.

Sort Order

Specifies the sequence in which this product should be displayed. Default is 0.

Stock settings

The following fields are related to an individual product's stock settings. We shall examine more general product stock settings in Chapter 23, "Managing stock".

Products Manufacturer

Allows you to specify the manufacturer of a product; e.g. if you sell cars, you can have Ford, Toyota, etc as the manufacturers.

You need to enter the list of manufacturers first before you can see any of your choices. Refer to the section "Product-General and Product-Free Shipping dependencies" for details.

Products Model

Used to specify a model for your product. Customers can perform a search in your store based on a product's model. If you intend to sell Gift Certificates in your web store, the value of this field will need to meet a certain syntax. For more information on Gift Certificates, refer to the section "Gift certificates".

Products Quantity

Indicates the amount of *stock* you have for the particular product. If you do not specify a value, it defaults to <u>0</u>.

If a customer places an order (e.g. 4 units) for a product that has limited stock available (e.g. 1 unit left), a warning message will be displayed in the Shopping Cart page as shown in the following screen shot.

Total Items: 4 Weight: 0.8lbs Amount: \$800.00				
Products marked with *** are out of stock. Items not in stock will be placed on backorder.				
Qty.	Item Name	Unit	Total	
4	NO PICTURE AVAILABLE	roduct ***\$200.00	\$800.00	
Sub-Total: \$800.00				

If all your units are sold, then Zen Cart automatically marks the **Product Status** field as <u>Out of Stock</u> and *disables* the product.

Product Master Category:	ID# 1 Test
NOTE: Master Category is used for pricing product category affects the pricing on lin	purposes where the iked products, example: Sales
	*Product is Disabled
Products Status:	O In Stock ③ Out of Stock

The customer will not be able to see the product in your product catalog or anywhere in your Store Front if it is disabled.

If you *enable* the product by toggling the *red* button in the Categories/Products screen but still leave its **Product Status** as <u>Out of Stock</u>, then the customer will see a Sold Out sign instead of the usual Add to Cart button when viewing the product. An example of what the Sold Out sign looks like is shown in the following screen shot.



Either way, customers will not be able to make any purchases once a product is out of stock.



By default, all quantities specified in the Product Details screen must be in whole units. To allow customers to buy products in fractional units, click on **Configuration** > **Stock** and change the **Product Quantity Decimals** field accordingly. For more information on other stock settings, turn to the section "Configuring stock settings".

Pricing settings

The following fields affect how your product is basically priced. The final purchase price of a product may vary due to other pricing mechanisms which we shall discuss in Chapter 17, "Order totals, surcharges and discounts".

Product is Free

Marking Yes will *override* all prices and discounts you have applied for the product and cause the product to be free! The customer will *still see* whatever discounts that were applied but will not be charged anything for the product during the checkout process.



Try not to specify a value for **Products Price** (Net) field if you do not want to confuse your customers when you set this field to \underline{ves} . This feature is good for occasions when you want to give away product samples to customers for them to try before they buy.

Product is Call for Price

Behaves similarly to "Product is Free" except that the product will have a "call for price" image instead. Customers also cannot add the product to the shopping cart.

Normal Test Product \$200.00 \$100.00 Save: 50% off Call for price

Try not to specify a value for **Products Price** (Net) field if you do not want to confuse your customers when you set this field to \underline{Yes} .

Product Priced by Attributes

You will see in the next chapter that you can add extra, self-defined *attributes* to your products to create different product variations.

Set this option to $\underline{\forall es}$ and your **Product Price** field to $\underline{0.00}$ if you want your product's price to be dependent entirely on the prices of your attributes. For example, if you sell tickets to a gala event and have set your tickets to have no base price. You can use product attributes to specify different ticket options (e.g. "Luxury", "Premium", "Regular") available for purchase. A price is then attached to each ticket option and customers need only pay the price quoted for each ticket option they choose.

Set this option to <u>No</u> if your product price involves a base price with additional attribute pricing variations. For example, if you sell a standard arrangement of roses at \$50.00. You can provide your customers more choices when it comes to the gift wrapping used for the flowers by quoting additional prices for different variations of gift wrappings.

Avoid entering a value in the **Product Price** field and then setting this option to \underline{Yes} as price calculations in your store may not work correctly!

Tax Class

Allows you to automatically calculate the **Products Price** (Gross) value using the value you specify for the **Products Price** (Net) field. Refer to the section "Adding a tax class" for details on setting up a tax class.

The default tax class can be specified in the **Product Price Tax Class Default - When adding new products** field under the layout properties of this product type in **Catalog > Product Types**.

Products Price (Net)

This is the base price of your product. It is usually your selling price. Set the value to $\underline{0}$ if you have set the **Product Priced by Attributes** field to \underline{Yes} .

Products Price (Gross)

This is the price of your product after applying the tax rate specified in the **Tax Class** field. If you find that your value looks strange, check whether it has to do with multiple tax rates by referring to the section "Compounding or adding different tax rates".

Shipping settings

This section deals with how your products will be shipped.

Product is Virtual

Normally you would specify <u>No</u>, <u>Shipping Address Required</u> if you need to ship any physical goods to your customers. However, if your store offers professional services (accounting, law consultation, etc) to your customers and you do not need to ship any physical products, then you can specify <u>Yes</u>, <u>Skip Shipping</u> <u>Address</u>.

If you specify <u>Yes</u>, <u>Skip</u> <u>Shipping</u> <u>Address</u> for this field, you are implying <u>Always</u> <u>Free</u> <u>Shipping</u> is marked <u>Yes</u>, <u>Always</u> <u>Free</u> <u>Shipping</u>, even if you set it to <u>No</u>, <u>Normal</u> <u>Shipping</u> <u>Rules</u>!

<u>Special</u>, <u>Product/Download</u> <u>Combo</u> <u>Requires</u> a <u>Shipping</u> <u>Address</u> is used only if you want to provide *both* a downloadable product and a physical product to be sent to your customers.

The default virtual status can be specified in the **Product Virtual Default Status - Skip Shipping Address -**When adding new products? field under the layout properties of this product type in Catalog > Product Types.

Always Free Shipping

Indicates whether you want to offer Free Shipping for this product. If you set it to <u>No</u>, <u>Normal Shipping</u> <u>Rules</u>, then all the rules you specified in your shipping modules will kick in.

Note: If you specified **Product is Virtual** to be Yes, Skip Shipping Address, then this field is automatically assumed to be Yes, Always Free Shipping regardless of what you specify for it.

The default free shipping status can be specified in the **Product Free Shipping Default Status - Normal Shipping Rules - When adding new products?** field under the layout properties of this product type in Catalog > Product Types.

Products Shipping Weight

Allows you to specify a weight which is used for shipping calculations. The default weight is $\underline{0}$ if you leave this field blank. The default unit of measurement is pounds (lbs).

If weight is $\underline{0}$, you might accidentally cause shipping to be free if you have enabled **Order Free Shipping 0** Weight Status under Configuration > Shipping/Packaging. Therefore, make sure you check that setting if you intend to set this field to $\underline{0}$ or leave it blank.

Purchase quantity settings

Products Quantity Box Shows

If set to Yes, Show Quantity Box, the customer sees:



If set to No, Do not show Quantity Box, the customer sees:



In the second case, each customer is restricted to purchasing the quantity specified in the **Product Qty Minimum** field. This feature comes in handy if you offer digital downloads for sale. Customers will only need one copy of a digital download because they can easily make extra copies themselves. Thus, you can save customers the trouble of entering the number of items they want to purchase by specifying **Product Qty Minimum** as 1 in this case.

Product Qty Minimum

Indicates the minimum number of items of a product a customer must buy. It is also commonly known as the "minimum order quantity" in layman terms.



If a customer enters less than the minimum quantity allowed, the system will display an error message prompting the customer to adjust the quantity.

This option is useful when you are offering an extremely low priced product which will only turn in a profit if a minimum number of items are sold.

Product Qty Maximum

Indicates the maximum number of items of a product a customer is allowed to buy.



If a customer enters more than the maximum quantity allowed, the system will automatically adjust the quantity to be equal to the maximum allowed quantity. This option is useful when you have products that are in high demand and you want to avoid angering your customers if one of them buys a large amount at one go thus depriving other customers of a chance to buy the product.

Product Qty Units

This option limits customers to purchasing in *fixed* quantities. For example, if you specify the value to be 5, then customers can only order in quantities of 5, 10, 15, etc.

The wording to potential customers may not be very intuitive though. You can see this in the screen shot below where it states "Units: 5" which limits your customers to purchasing in quantities of 5.



This option is useful when you have goods already packed neatly in fixed quantities. By not taking out the goods and selling separately, you can save yourself any leftover goods and maybe help your shipping costs as well.

Product Qty Min/Unit Mix

If you have defined custom *attributes* for a product, you can make use of this field to control what quantities of a product (based on attributes) customers are allowed to buy from your store.

Let's say you sell canned tuna and have defined an attribute "flavor" with three possible values: curry sauce, tomato sauce and olive oil. Assume you have set up the following fields as follows:

- **Product** Qty Minimum = $\underline{4}$
- Product Qty Maximum = <u>12</u>
- **Product** Qty Units = $\underline{1}$

The above quantity settings mean the customers can only buy the canned tuna in quantities of: 4, 5, 6, 7, 8, 9, 10, 11 or 12.



If **Product Qty Min/Unit Mix** is N_0 . Besides adhering to the above quantity settings, customers are also limited to ordering tuna packed in *one* of the flavors only.

If **Product Qty Min/Unit Mix** is <u>Yes</u>. Although they still have to adhere to the above quantity settings, they are now allowed to mix-and-match the different flavors of tuna in different quantities e.g. 2 cans in curry sauce, 3 cans in tomato sauce and 7 cans in olive oil.

Step 4 of 5: Set up and attach product attributes

If you are creating a 'variant' product, you will need to set up product attributes which can be linked to your product.

Product attributes are extremely powerful and flexible and will be covered in Chapter 14, "Working with product attributes" and Chapter 15, "Advanced product attribute configuration". If you do not need any product attributes, you can safely skip to the next step.

Step 5 of 5: Attach additional product information

After creating your product in your store, you are essentially done with product creation. However, there might be other features that will allow you to enhance your product offering further and which you should take advantage of.

Music samples

For products belonging to the Product-Music product type, you have the option of adding music samples to the product so customers can have a preview of the music before actually purchasing from you.

The process is rather involved and will be covered in the section "Providing media samples for Product-Music products".

Additional product images

Although you are only allowed to upload a single product image via your web browser when creating your product. You have the option of displaying several different images for each product.

Again, the process is rather involved and will be covered in the section "Providing multiple images for a product".

Creating products via duplication

After going through how to add products and services to your catalog in this chapter, you will find the process very tedious and repetitive if your products have similar attributes and values. You can alleviate this problem and save time for yourself by duplicating products you have created.

By duplicating your products, you save time and effort because you only need to customize selected portions of the copied product instead of having to create a new product each time. Duplicating products work best when your products have fairly generic properties with few differences.

For example, T-shirts have a limited selection of sizes and mostly differ in terms of color, pictures and wordings. Therefore, you can easily create a skeletal product of your T-shirt with some generic attributes like color and size

attached to it. By duplicating this skeletal product within the same category or to other categories, and customizing only those properties (description, images, etc) that change, you can save yourself a lot of time and repetitive effort.

To duplicate a product within a category or to another category:

- 1. Click on Catalog > Categories/Products to access the Categories/Products screen.
- 2. Click on the blue "C" button next to the product you wish to duplicate. This product shall be referred to as the *source* product because it is used to create other duplicated products.
- 3. A side-panel should appear as shown in the following screen shot.

Сору То		
Please choose a new category you wish to copy this product to	Only used for Duplicate Products	
Current Product: Simple Linked Test Product ID#43	Copy Product Attributes to Duplicate?	Copy product attributes?
Current Categories: Assorted Goods	O No	
Categories: Assorted Goods	Only used for Duplicate Products with Discounts	
Copy Method: O Link product O Duplicate product	Copy Product Discounts to Duplicate?	Copy product discounts?
	copy cancel	
	Multiple Categories Link Manager	

- 4. Choose the target category you want the duplicated product to reside in from the Categories drop-down box.
- 5. Choose <u>Duplicate product</u> for the Copy Method field.
- 6. Choose <u>Yes</u> for the **Copy Product Attributes to Duplicate** field if you have product attributes which you wish to copy to the duplicated product. This field only appears if your source product has attributes attached to it.
- 7. Choose <u>Yes</u> for the **Copy Product Discounts to Duplicate** field if you have any discounts tied to this product that you wish to copy to the duplicated product. This field only appears if your source product has discounts attached to it.
- 8. Click on **copy** to begin duplicating the product. You should be redirected to the target category you specified in Step 4 once product duplication completes.
- 9. By default, your duplicated product is *disabled* to allow you to make changes. This is shown by a red button icon appearing under the Status column of the duplicated product in the Categories/Products screen.
- 10. Make any required changes to your duplicated product and then *enable* it so that it is available for sale in your online catalog.

Editing products

Editing a product's details is straightforward, just navigate (i.e. search, jump, or page through) to the category containing the product and click the green "e" button. Click **update** when you are done.

Note that you cannot edit a product to re-assign its product type. This is a major operation which requires code and database changes.

Moving and deleting products

To *move* a product, navigate to the category containing the product and click the purple "m" button next to the product. You will be presented with a side-panel as shown in the following screen shot. Follow the on-screen instructions to accomplish your aim. Remember to check or uncheck the relevant checkbox(s) depending on your needs.

Move Product	
Please select which category you wish Sample of Document Product Type to reside in	
Current Categories: Mixed Product Types >&nb	
Move Sample of Document Product Type to: Mixed Product Types	
move cancel	

To *delete* a product, navigate to the category containing the product and click the red "x" button next to the product. You will be presented with a side-panel as shown in the following screen shot. Follow the on-screen instructions to accomplish your aim. Remember to check or uncheck the relevant checkbox(s) depending on your needs.



Deleting products will not delete any order information pertaining to the product if the product was sold some time back. This is because Zen Cart's database keeps a snapshot of the product's information at the time it was sold.

Enabling and disabling products

Whether a product is enabled or disabled depends on the Status field in a product's Product Details screen.

This status can be set *manually* either in the Product Details screen or via the green/red button when viewing the list of products in a leaf category of the Categories/Products screen as shown in the following screen shot.



Alternatively, it can be *automatically disabled* for inventoried products. Refer to Table 23.1: "Meaning of selected Stock fields" and read up on the **Products status in Catalog when out of stock should be set to** field to see how this can be done.

There is currently no way to *automatically enable* a product via an Admin Console setting. This is because an indeterminate number of custom business scenarios would need to be catered for in order to make it work in a general way.

Listing products in multiple categories

Product linking allows you display a product in multiple categories. You also get the benefit of greater product exposure with only a single copy to maintain. For example, if you have a medicinal pill that has the ability to act as a sleeping pill and a pain killer, you can list that pill under both the "sleeping pills" and "pain killers" categories.

The important thing to remember about linked products is this: Although they appear in multiple categories, there is always only *one* product. The rest of the products that are *linked* to different categories are just *ghost images* of this one product. This is a great maintenance advantage because you only have to make changes to your linked product in one place and all the changes will appear concurrently in all the categories it is displayed in. Note that deleting the linked products will not remove the main product they linked to from the catalog.

Linked products are easily identified in the Categories/Products screen via a *yellow* button icon (on the right of the green icon) under the **Status** column as shown in the following sample screen shot.

ID Categories / Products	Model	Price/Special/Sale	Quantity	Status
43 🖉 Simple Linked Test Product		\$200.00	1000	

This yellow button icon also appears next to any *categories* that contain linked products. For example, if your product originally resides in Category A and is then linked to Category B, you should see the yellow button icons appearing next to both Category A and Category B in the Categories/Products screen.

If you do not see any yellow buttons even if you have already set up linked products, go to Configuration > My Store and make sure the Show linked status for categories field is set to <u>true</u> as shown in the following screen shot.



The importance of the Master category

Whenever you deal with products that are **linked**, you will come across the term *Master category*. The purpose of a Master Category is to allow your product to take advantage of any *pricing* mechanisms you have tied to a *category*.

For example, if you have created a 10% sale for all products in the Christmas Sale category. By linking a Product X under another category to the "Christmas Sale" category and making the "Christmas Sale" category the Master Category, Product X will automatically be subjected to a 10% discount as well.

So how do you know what Master Category a linked product belongs to? Well, you can edit any linked product which has the yellow button icon next to it in the Categories/Products screen. You will notice a **Product Master Category** field appearing on top of the Product page as shown in the following sample screen shot.

Product in Category: "Test"			
	0		
Product Master Category:	Computers ID# 11 💌		
NOTE: Master Category is used for pricing purposes where the product category affects the pricing on linked products, example: Sales			

Notice from the preceding screen shot that the Master Category of the product is the "Computers" category but we are viewing the product from within the "Test" category.

In essence, when a product is linked, take note of the following points:

- Only *one* copy of the product actually exists in the database regardless of how many categories the linked product appears under.
- Only one Master Category exists for a linked product regardless of how many categories the linked product appears under.

There are two ways to configure product linking in Zen Cart:

- Simple product linking only one category can be linked to at any time.
- Advanced product linking many categories can be linked to at any time, bulk copy/delete operations, etc, can be performed from a single location.

Simple product linking

To list a product under different categories by using the simple product linking approach:

- 1. Click on Catalog > Categories/Products to access the Categories/Products screen.
- 2. Click on the blue "C" button next to the product you wish to link from. This product shall be referred to as the *master* product because it is under the master category.
- 3. A side-panel should appear as shown in the following screen shot.

Copy To Please choose a new category you wish to copy this product to Current Product: Simple Linked Test Product ID#43 Current Categories: Assorted Goods	Only used for Duplicate Products Copy Product Attributes to Duplicate?	Ignore this setting. Works for Duplicate Products only.
Categories: Assorted Goods 💌 Copy Method: ③ Link product ④ Duplicate product	Only used for Duplicate Products with Discounts Copy Product Discounts to Duplicate? ③ Yes ③ No	Ignore this setting. Works for Duplicate Products only.
	Copy Cancel	

- 4. Choose the *target* category you wish to link to from the **Categories** drop-down list box. This category must be *different* from the current product's category.
- 5. Choose <u>Link product</u> for the Copy Method field.

- 6. Ignore the Copy Product Attributes to Duplicate field if it appears.
- 7. Ignore the Copy Product Discounts to Duplicate field if it appears.
- 8. Click on **copy** to create a linked product. You should be redirected to the target category you specified in Step 4 once product linking completes.
- 9. If you go to both the target category and the master category, you will notice both a *green* button icon and a *yellow* button icon appearing next to your linked product. Furthermore, any category that contains a linked product will also have the green and yellow button icons displayed next to them.

Advanced product linking

Besides the simple linking you have just seen in the above section, you can employ another technique that is even faster and more powerful using the Multiple Categories Link Manager screen. This screen allows you to immediately link a product to multiple categories and perform bulk manipulation of linked products across categories.

Note that the Multiple Categories Link Manager screen is not immediately accessible via any menu options in the Admin Console. You can only reach the screen via the following two methods:

- Click on the Multiple Categories Link Manager *button* that appears at the bottom of a Copy To side-panel of a product when you click on the blue "C" button of a product in the Categories/Products screen.
- Click on the Multiple Categories Link Manager hyperlink appearing near the top of any Attributes Controller screen of a product.

There is a lot of information contained in the Multiple Categories Link Manager screen. To help you understand this screen and simplify your configuration approach, think of the screen as being broken up into the following sections:

- Product selection
- Product linking
- Mass operation

Product selection

This portion of the screen allows you to navigate to the product which you want to link to several categories. You should be familiar with how this portion of the screen works since it behaves similarly to what you saw in the **Catalog** > **Attributes Controller**.

Products to Multiple Select a Category with	Categories Link Manager Assorted Goods Products Or move between the Products Products 16(1)	
previous	Assorted Goods* v next	
	Select a Product to View and Press Display	
\$20.00	DownloadableProd - C (\$100.00) [] - ID# 72 DownloadableProd - D (\$100.00) [] - ID# 73 Dumb Bels (\$30.00) [] - ID# 15 Encyclopedia - History of the World (Download Edition) (\$200.00) [] - ID# 18 Hotel Accomodation (\$100.00) [] - ID# 10 Laptop (\$2.359.00) [] - ID# 16 Outraid Mouse (\$23.00) [] - ID# 13 Portrait of Einstein (\$20.00) [] - ID# 13 Portrait of Einstein (\$20.00) [] - ID# 13	display
	T-Shirt (\$20.00) [DRYFIT-1000] - ID# 9	<u>i</u>

Product linking

This portion of the screen allows you to change the Master Category of a linked product by choosing from the **Product Master Category** drop-down list box. You can also link a product to multiple categories simultaneously by selecting the desired check-boxes and then clicking the **Update Category Links** button.

PRODUCTS TO MULTIPLE CAT PRODUCT ID# 9 T-SHIRT	egories Link Manager		
The Products to Categories Linker is d You may also Link all of the Products for additional instructions) Product Master Category:	lesigned to quickly link the current Produ in a Category to another Category or Re ssorted Goods ID# 11 Current Numb	ct to one or to many Categories. move Linked Products from a Category t per of Linked Categories: 2	hat are in another Category. (See below
CATEGORIES WIT	TH PRODUCTS THAT ARE AVAIL	ABLE FOR LINKING	9 T-Shirt
	Update Category Links		
ID# Categories Name	ID# Categories Name	ID# Categories Name	
3 Apples	8 🗌 Articles	11 O Assorted Goods	
14 Beverages	10 Books	32 🗌 Cars	Product: T-Shirt
12 Gift Certificates	6 Handobones	34 Manuale	Model: DRYFIT-1000
	4 Oranges	26 Others	Save: 10% off
5 Pineapples	1 ✓ Test	35 Components	Select Product to Link
	Update Category Links		Attribute Controller price manager
For pricing purposes, each Product re This can be set via the Master Catego	quires a Master Category, regardless of ry Dropdown.	how many Categories it may be linked.	details edit product
The Product is currently linked to the Categories simply check the checkbox Categories, simply uncheck the check When you have checked all of the Ca Links	Category or Categories that are checker x next to the Category name. To remove box next to the Category name. tegories that you want this Product to be	a above. To add a new Category or e an existing linked Category or linked to, press the Update Category	
L			

Mass operation

This portion of the screen allows you to perform bulk copying, deleting and resetting of product linkages. Instructions on how to perform these operations are displayed prominently on the screen. Make sure you read and understand them before performing any operations as these operations can affect many products simultaneously.

GLOBAL CATEGORY LINK CHANGES AND MASTER CATEGOR	RY ID RESET
Copy ALL Products in a Category as LINKED Products to another Category Example: Using 8 and 22 would Link ALL Products in Category 8 to Category 22 Select All Products in Category:Link to Category:	Copy Products as Linked
Remove ALL Products in a Category that are LINKED Products to another Category Example: Using 8 and 22 would Unlink ALL Products in Category 8 from Category 22 Select All Products in Category: Remove from being Linked to Category:	r Remove Products as Linked
Reset ALL Products in the selected Category to use the selected Category as the r Example: Resetting Category 22 would set ALL Products in Category 22 to use Category 22 4 Reset the Master Categories ID for All Products in Category:	ew Master Categories ID is the Master Category ID Reset Master Categories ID

Summary

We have covered important product-related concepts that you will need to grasp in order to work with Zen Cart. You also learned the different ways to work with product types and to manipulate products. Finally, you saw how products can be listed in multiple categories and the importance of the master category when doing that.

Chapter 14: Working with product attributes

Introduction

Personalization and customization have become buzzwords of modern businesses that seek to pander to the needs and tastes of individual customers. For example, allowing customers to choose whether they want extra toppings to go with their pizzas on top of their standard order.

To cater to such scenarios, Zen Cart uses the concept of *product attributes* to create different product variations and allow your customers to choose how their products can be customized according to their wishes.

A word of caution and encouragement is in order here. Product attributes offer extremely flexible configurations of your products but at the same time they can be confusing to novice users. Hence, it may take some time for the concepts and instructions in this chapter to sink in and be applied appropriately.

In this chapter, we shall:

- Learn concepts related to product attributes.
- Add and configure product attributes individually.
- Run through examples that show how attributes can be applied as a whole.
- Manipulate multiple attributes simultaneously.
- Learn different ways to sort product attributes.

General attribute concepts

Product attributes are not easy to grasp for newcomers to Zen Cart and so it is important that you have a proper understanding of its ability and makeup before you actually create your own product attributes.

Understanding different aspects of a product attribute

Attributes are formed by three properties: Option Type, Option Name , and Option Value. **Option Type** determines how attributes will be presented to the customer. **Option Name** identifies an attribute. **Option Value** represents one or more values that are associated with an Option Name.

Take a look at the following illustration which consists of a single attribute to understand these concepts better. Notice that the Option Name is Color and this is usually how we refer to an attribute (i.e. the Color attribute). There are three Option Values consisting of Green, Blue and Silver respectively. The Option Type for this attribute is Radio because this attribute is presented with three radio buttons but the user can only choose one of them.



For each option value, you will also be able to add *one or more* additional pieces of information to it. These additional pieces of information could include prices, weights, images; thus allowing you to alter the basic details of your base product.

Chapter 14. Working with product attributes

Take a look at the following illustration which consists of four option values: Red, Blue, Yellow, and Green. Notice that each option value is associated with a price and an image.



Identifying the available types of product attributes

The different Option Types available for defining attributes are as follows: Dropdown, Text, Radio, Checkbox, File, and Read Only. We shall take a closer look at them here.

Dropdown



Customers will need choose one of the choices listed.

Text



Customers specify their own words. No choices will be provided even if they are defined. We shall use the term "text-field" to refer to the top screen shot and the term "text-area" to refer to the one at the bottom.

A "text-field" only allows a single line for text input while a "text-area" allows multiple lines for text input.

Note: If this attribute is compulsory and you want to force your customers to enter something before allowing them to add products to the cart, enable the **Attribute Required for Text** field when we talk about Attribute Flags later in this chapter.

Radio



Customers can choose only one of the choices listed. Note that once a radio button is selected, none of the radio buttons can be de-selected.

Checkbox

Please Choose:	
Size Small	
🗌 Medium	
Large	
🗌 Extra Large	

Customers can choose zero or more choices.

File

Pleas	e Choose:	
Size		Browse

Customers can specify a file on their local computers to upload to your store. Besides the standard steps to configure an upload attribute, additional steps are required for file uploads to work properly. We shall cover these additional steps in Chapter 15, "Advanced product attribute configuration".

Read Only



Customers can only view the available choices but they are not allowed to choose any values. This option is usually used to inform customers of something instead of telling them to take a specific action.

How product attributes are created and configured

It is easy to get lost whilst in the process of creating your attributes due to the great number of options available in the main Attributes Controller screen which you will encounter later. Therefore, it is important that you get a grasp of how attributes are created in Zen Cart.

The main idea is this - based on your business needs, come up with a set of attributes (options and values) that are likely to apply to all the products in your store. After that, assign each attribute and its corresponding value(s) to the desired products. During the assignment process, you can attach specific information (e.g. price, weight) to each value.

Let us use the following illustration of what we mean.



Notice that we have created an attribute Color with five option values: Red, Blue, Green, Pink, and Yellow. We then assign a different subset of these values to the blouse and the skirt respectively. The common color being Blue. Assuming that Blue is a less popular color among customers of our store, we can assign an extra cost to each blue blouse or blue skirt as we would need to specially order them from our suppliers. We can also assign different prices to the same attribute value depending on which product the attribute is assigned to. This is evident from the higher cost of a Blue skirt compared to a blue blouse.

Adding attributes to a product

Zen Cart allows you to create attributes for all Product Types. Each attribute is defined by an *option name* and several *option values*. Because the addition of other attribute properties (pricing, images, etc) can be very confusing, we shall

Chapter 14. Working with product attributes

Before you begin adding a product attribute, make sure you have already created the product to which you want to add an attribute.

There are essentially two steps to creating an attribute for a product.

- 1. Create the attribute.
- 2. Assign the attribute to a product.

Step 1 of 2: Create the attribute

Create attribute option name

1. Click on Catalog > Option Name Manager to access the Product Options screen.

Attribute Controller option values Display Global Features - OFI PRODUCT OPTIONS Option 1 2 >> Option			NOTE: Edit Product Options Name for additional settings			
ID	Option Name	Option Type	Sort Order	Size	Max	Action
1	Size	Radio	10	32	32	edit delete
2	Color	Radio	20	32	32	edit delete
з	Room Type	Radio	30	32	32	edit delete
9	Additional Plates	Checkbox	40	32	32	edit delete
5	Connector Type	Radio	50	32	32	edit delete
22	en: Orde	r: Dropdown 🗸				insert

- 2. To simplify the look of the screen, choose <u>Display Global Features</u> OFF from the drop-down list box near the top of the screen as shown in the preceding screen shot.
- 3. Scroll down the screen and concentrate on the last row in the list. Enter suitable values for the fields as follows: ■ en - Your attribute name as it appears in English.
 - Order The sequence in which your attribute will be arranged next to other attributes. By default, a lower value will make your attribute appear before any attributes with a higher value.
 - Option Type Determines how your attribute will be displayed. Refer to the section "Identifying the available types of product attributes" for more information.
- 4. Click on **insert** to create your option name. The screen should be refreshed with your option name saved in the database.
- 5. To set additional properties for the option name you just created, click on the **edit** button of the next to the option name and you should see something similar to the following screen shot.

2 en: Color Order: 20 Radio 💌	update cancel
NOTE: Rows, Display Size and Max Length are for Text Attributes Only: en: Comments:	
Rows: 0 Display Size: 32 Maximum length: 32	
Attribute Images per Row: 4 Attribute Style for Radio Buttons/Checkbox: 5	
Image Styles: 0 = Images Below Option Names 1 = Element, Image and Option Value 2 = Element, Image and Option Name Below 3 = Option Name Below Element and Image 4 = Element Below Image and Option Name 5 = Element Above Image and Option Name	

- 6. If you have specified the **Option Type** to be <u>Text</u>, you can specify a *non-zero* value for the **Rows** field and a multi-line "text-area" will appear to the customer instead of the default single-line "text-field". The **Display Size** field controls the number of *visible* character columns to display whereas the **Maximum Length** field limits the number of characters a customer can enter.
- 7. Make any other changes you require and click on update to save your settings.

Create attribute option value

If you have chosen <u>File</u> or <u>Text</u> for the **Option Type** field of your attribute name in the Option Names screen, you will not need to specify an option value. For all other option types, use the following steps to create your option value(s).

1. Click on Catalog > Option Value Manager to access the Option Values screen.

Attr Op	Attribute Controller Option names Display Global Features - OFF Edit Product Options for additional settings OPTION VALUES Edit Product Options for additional settings					
1 2	1 2 3 4 >>					
ID	Option Name	Option Value	Default Order	Action		
33	"Beginner Drum Lessons" Manual	PDF Format	10	edit delete		
34	"Beginner Drum Lessons" Manual	MS Word Format	20	edit delete		
20	Additional Plates	small	10	edit delete		
21	Additional Plates	medium	20	edit delete		
22	Additional Plates	large	30	edit delete		
42	"Beginner Drum Lessons" Manual 💌	en:	Order:	insert		

- 2. To simplify the look of the screen, choose <u>Display Global Features</u> OFF from the drop-down list box near the top of the screen as shown in the preceding screen shot.
- 3. Scroll down the screen to the the last row in the list.
- Select the option name to which you want to add your option value from the drop-down list box under the Option Name column. Specify the option value name and sort order in the respective Option Value and Default Order columns.
- 5. Click on **insert** to associate the option value with the option name. Your screen should be refreshed with your option name and option value saved in the database.



The number of option names and option values appearing on the Product Options screen and Option Values screen are controlled via the **Products Attributes - Option Names and Values Display field under Configuration > Maximum Values**.

Step 2 of 2: Assign the attribute to a product

- 1. Click on Catalog > Attributes Controller to access the Attributes Controller screen.
- 2. Select a category from the drop-down list box which contains the product to which you want to add an attribute.

C/ Se	CATEGORIES: - Assorted Goods Select a Category with Products Or move between the Products Products: 1/16					
	previous	Assorted Goods* 💌	next			
3. Choose your desired product from the product list and click display.

Select a Product to View and Press Display	
Laptop (\$2,359.00) [] - ID# 16	display
Optical Mouse (\$29.00) [] - ID# 13	
Portrait of Einstein (\$20.00) [] - ID# 11	
Simple Linked Test Product (\$200.00) [] - ID# 43	
T-Shirt (\$20.00) [DRYFIT-1000] - ID# 9	

4. Concentrate on the portion of the screen with the words "Adding New Attributes" as shown in the following screen shot.

ADD	ING NEW ATTRIBUTES	Define the Attribute Settings then press Insert to apply	insert
1	Laptop		
	Option Name "Beginner Drum Lessons" Manual [Dropdown] [#15 Additonal Plates [Checkbox] [#9] Buy Instructional Videos? [Checkbox] [#14] Color [Radio] [#2] Connector Type [Radio] [#5] Flavor [Radio] [#16] Muspottom image [File] [#21] Musp dide image [File] [#21] Musp dide image [File] [#20] Print Size and Color [Radio] [#6]	Option Value C Please select an Option Name from the list	

5. Select your choice of **Option Name** and **Option Value** to link with the product. **Note**: You must choose *both* an option name and an option value. Many people make the mistake of choosing either an option name or an option value only.

If the value you selected in the **Option Name** list is of <u>File</u> or <u>Text</u> type, you should only choose <u>TEXT [RE-</u> <u>SERVED FOR TEXT/FILES ONLY ATTRIBUTES]</u> in the **Option Value** list.

6. You can associate other information to the selected attribute using the following portion of the screen. More information on the settings of this portion of the screen will be covered in later sections.

PRICES AND WEIGHTS						
Price Weight Order One Time:						
Attributes Qty Price Discount: Onetime Attributes Qty Price Discount:						
Price Per Word: - Free Words: Price Per Letter: - Free Letters:						
Attribute Flags: Used For Display Purposes Only: (I) No Attribute is Free: (I) No Default Attribute to be Marked Selected: (I) No Apply Discounts Used (I) Purplict Special/Sale: (I) No Include in Base Price (I) No Image: No Ves No Ves No Ves No Ves No Ves No Ves No No Ves No No	Attribute Required for Texts • No • Yes					
Attributes Image Swatch: Browse. Attributes Image Directory: attributes Image Directory: Timage on Server? No ③ Yes						
Downloadable products: Filename: Expiry days: (0 = unlimited) Maximum download count: 7 5						

7. Click on **insert** to save the association between the attribute and the product. Your newly created attribute should appear in the list after the screen refreshes.

ID	Option Name	Option Value	Prefix Price	Prefix Weight	Order	Legend:	Total Disc: Onetime:	Action
				ID# 16 -)P		
				10# 10	LAFIC			
57		TEXT	+ 20.0000	+ 0	0	$\mathbf{X} \blacksquare \mathbf{X} \blacksquare \mathbf{X}$	\$20.00 \$16.96 \$0.00	edit delete
delete COLOR	L							
55	Color	Red	+ 50.0000	+ 0	10	$X \blacksquare X \blacksquare \blacksquare X$	\$50.00 \$42.39 \$0.00	edit delete
56	Color	Green	+ 0.0000	+ 0	20	$\boxtimes \blacksquare \boxtimes \blacksquare \boxtimes \boxtimes$	\$0.00 \$0.00	edit delete

Configuring individual attribute values

You should now have a good overview and firm grasp of how to add an attribute to a product. The power and flexibility of attributes comes into play when you configure each attribute to take on additional information like price, weight, image, etc. All these attributes can further behave differently depending on how you want them to appear relative to each other (e.g. mark an attribute as a default instead of others).

We shall now go through how each piece of information (e.g. price, weight, or image) can be added to an attribute. Do remember that *each attribute* can have *multiple pieces* of information attach to it at anytime. You will need to be creative when working with attributes in order to set them up to meet your requirements.

The important thing is not to lose sight of the whole picture when setting up your attributes. That means you need to understand how your product is set up before you configure your product attributes as there is a dependency between them.

Understanding how attribute flags work

After having gone through the Attributes Controller screen, you may have noticed some attribute flags (as shown in the following screen shot) appearing in a multi-colored row while you were linking an attribute with a product. These flags control further properties of each attribute so it is important that you do not overlook them.

Attribute Flags:	Used For Display Purposes Only:	Attribute is Free When Product is Free: No • Yes	Default Attribute to be Marked Selected: ③ No ○ Yes	Apply Discounts Used by Product Special/Sale: O No O Yes	Include in Base Price When Priced by Attributes O No O Yes	Attribute Required for Text: No O Yes
---------------------	------------------------------------	--	---	--	--	---

You can change the default values for these flags by clicking on **edit layout** for the respective product types under **Catalog** > **Product Types**. Using a sample layout setting from the Product-General product type, you can see that the settings match the attribute flag's default settings exactly.

PRODUCT Attribute is Display Only - Default
PRODUCT Attribute is Free - Default
PRODUCT Attribute is Default - Default
PRODUCT Attribute is Discounted - Default
PRODUCT Attribute is Included in Base Price - Default
PRODUCT Attribute is Required - Default

The status of the attribute flags are also displayed next to each individual attribute value after it has been attached to a product. You can quickly toggle the status of each attribute flag by clicking on its corresponding button.

delete COLOR					
5	Color	O Red	+ 10.0000	+ 0	• 🗙 🔵 🔵 💭 🗙
7	Color	O Green	+ 20.0000	+ 0	• 🗙 🗨 🎗 🖝 🗶 🎗
6	Color	O Yellow	+ 30.0000	+ 0	• 🗙 🗨 🎗 🖝 🗶 🎗

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The purpose of each individual attribute flag is explained in the following table.

Table 14.1: Meaning of individual attribute flags

Attribute flag	Meaning				
Used for Display	Indicates that this option value is meant for informational purposes only.				
Purposes Only	For example, if this option value belongs to the option type <i>Dropdown</i> , <i>Radio</i> , <i>or Checkbox</i> , and its flag is set to \underline{Yes} , when customers click on the attribute choice and then select Add to Cart, an error message will be shown indicating that the attribute cannot be chosen. Other attributes, however, can be chosen.				
	If this option value belongs to the <i>Text</i> option type, then customers are not allowed to enter a value into text box in your Store Front or an error message will also appear when attempting to add the product to a cart.				
	This flag has no effect on attributes that are of <i>Read Only</i> or <i>File</i> option type.				
Attribute is Free When Product is Free	If you have specified a price for an attribute but marked your product as free, you can spec- ify whether that makes the whole product free or whether you still want to charge your cus- tomers based on the price of the attributes alone.				
	For example, you sell old tower clocks and you have specified that they come with at- tributes like gold or silver needles which each cost money. If you decide to make your old tower clocks free, you should then decide whether you should charge your customers extra if they choose the gold or silver needles.				
Default Attribute to be Marked Selected	Applicable only if your attribute is of option type <i>Dropdown, Radio or Checkbox</i> . This will automatically set this option value as the default option selected from the list of option values.				
	For example, if you have option values of "white", "red", "blue" and "green" for a T-shirt. You can set the option value of "white" to be the default selected attribute by setting this field to \underline{Yes} .				
Apply Discounts Used by Product Special/Sale	Indicates whether the same discount percentage should be applied to this attribute as it applies to a product. Refer to Chapter 17, "Order totals, surcharges and discounts" for details on Specials and Sales.				
	For example, if the price of a product is \$30 and a sale of 50% is given. That means the product costs \$15. If an attribute is originally priced at \$5, then if this flag is set to <u>Yes</u> , the attribute price after discount would be \$2.50.				
	However, if this flag is set to \underline{NO} , then the attribute price will remain at \$5 although the product is at the discounted price of \$15.				
Include in Base Price When Priced	This flag indicates whether the current option value should be considered when calculating the <i>base price</i> of a product.				
by Attributes	It is only taken into consideration if the product has the its Product Priced By Attributes value set to \underline{Yes} and the Products Price (Net) set to $\underline{0.00}$ in the Product Details screen.				

Attribute flag

Meaning

If the **Product Priced By Attributes** value is set to N_0 , then this flag has no effect and will be ignored. The products base price in this case will always be the product's price as entered in the **Products Price (Net)** field in the Product Details screen.

To visualize the effect of this flag, we shall assume a product has a **single attribute** with the following option values with the status of this flag indicated next to their prices:

Attribute "X"						
======	= = =	===	=======			
option	А	=	+\$1.00	(NO)		
option	В	=	+\$2.00	(Yes)		
option	С	=	+\$3.00	(No)		
option	D	=	+\$4.00	(Yes)		

With the preceding configuration, the product will show a base price of "Starting at: 2.00" in the Product Info page in the Store Front. The base price is calculated based on the *lowest value* of all option values in an attribute with this flag set to <u>ves</u>.

Now consider the case where the product has **two attributes** with the following option values with the status of this flag indicated next to their prices:

	Attribute "Y"			
=====				
(NO)	option $W = +$10.00$ (No)			
(Yes)	option $X = +$20.00$ (No)			
(NO)	option Y = +\$30.00 (Yes)			
(Yes)	option $Z = +$40.00$ (Yes)			
	===== (No) (Yes) (No) (Yes)			

With the preceding configuration, the product will show a base price of "Starting at: 32.00" in the Product Info page in the Store Front. The base price is calculated based on the *addition* of the *lowest value* of all option values in each attribute with this flag set to <u>Yes</u>.

Attribute Required
for TextIf your attribute is of option type *Text*, you can make it into a compulsory field. Users will
be forced to enter some text before they are allowed to add the product or service to the cart.An example would be the wordings on a cake. You can force users to enter the wordings
they want on the cake by setting this option to <u>Yes</u>.

Attaching images

You can specify different images for your attributes to help your customers better visualize the end-product or service. For example, you can have a different color T-Shirt represent your T-Shirt's color attribute as shown in the following screen shot.

larger image	T-Shirt \$20.00 Made from 1 and size. Op place on the	L00% cotton. Ch otionally, upload e left pocket are:	ioose your own color a logo which we'll a.		
• Shippin • 1000 U	g Weight: 0.2lbs nits in Stock Add to Cart: 1 add this to my cart				
Please Cho Color	ose:				
© Red	Yellow	Green			



Attributes of option type *Read Only* cannot have images associated with them. Even if you have defined an image for this type of attribute, it will not be displayed.

Before you specify images to represent your product or service:

- Make sure you have created the product and its required option names and option values.
- Make sure that Enable Attribute Images is set to <u>true</u> under Configuration > Attribute Settings.

To specify an image to represent each attribute:

- 1. Click on Catalog > Attributes Controller to access the Attributes Controller screen.
- 2. Choose the appropriate category from the drop-down list box and your screen will be refreshed with products from the previously selected category. The (*) symbol appearing next to certain categories in the drop-down list box indicates that they contain products.
- 3. Choose the appropriate product and attribute from the respective boxes and then concentrate on the following area in your screen.

Your area of the screen may contain less information if you do not have an existing attribute image present. Nevertheless, the fields behaves similarly to the screen used for creating a product so we shall not waste time explaining them again.

Attributes Image Swatch: Brows attributes/room_view.png	Attributes Image Directory: attributes	Overwrite Existing Image on Server? O No O Yes	Delete Image? NOTE: Removes Image from Product, Image is NOT removed from server: No O Yes
---	--	---	--

4. Upload the appropriate image to your store by specifying the required values and then click the insert button.

If you go to your Store Front and look at your product, you might not be satisfied with the way the attributes are laid out on the screen. There are several layout options open to you as well. You can take a look at a few of them in the following screen shots.



Before you change the layout of your image attributes:

- 1. Click on Configuration > Product Info to access the Product Info screen.
- 2. Check the value of **Product Info Show Option Values Name Below Attributes Image**. This field will cause the text to disappear if the text appears below an image. For example, if the text "Blue" appears below the blue square, then the text "Blue" will disappear if this option is disabled.

To change the layout of the image attributes:

- 1. Click on Catalog > Option Name Manager to access the Product Options screen.
- 2. Click edit for the option name you used for your image attribute previously.
- 3. Concentrate on the following portion of the screen which specifies how the attribute should be laid out.

Attribute Images per Row: 5 Attribute Style for Radio Buttons/Checkbox: 0
Image Styles: 0= Images Below Option Names 1= Element, Image and Option Value 2= Element, Image and Option Name Below 3= Option Name Below Element and Image 4= Element Below Image and Option Name 5= Element Above Image and Option Name

- 4. Edit the Attribute Images per Row and Attribute Style for Radio Buttons/Checkbox fields accordingly.
- 5. Click update to effect your changes.
- 6. Go to your Store Front to see whether the attribute layout suits your preference.

Attaching price information

Zen Cart provides you the ability to price your products by attributes. For example, if you sell computers, you can set a base price and then increment the price for each separate accessory or component that is added. If you sell T-shirts, you can specify different color options and tag a separate price for each color.

While you are going through this section, take note of the effects the following attribute flags might have on your pricing options:

- Attribute is Free When Product is Free
- Apply Discounts Used by Product Special/Sale
- Include in Base Price When Priced by Attributes

Also keep in mind that although we are going through the attribute properties (price, weight, etc) individually, these attribute properties can actually be combined to yield the desired effect for your products.

0 Note All the pricing examples shown in this section assume the following settings in the Product Details screen of a product in your Admin Console:

- Product Priced by Attributes is set to <u>No</u>.
- Products Price (Net) is the value shown in the respective screen shots.

This should remove any confusion if the values in your screen appear different from those shown in this book.

By absolute value

The simplest way to price your attributes is to specify a price for selecting the attribute and indicating whether the price should be incremented or decremented for each product that is bought. The following example screen shot shows a hotel charging different rates based on the room type specified by a customer.

Hotel Accomodation Starting at: \$100.00 Your choice of air-conditioned Starndard rooms with either twin or double beds. Free Internet access and complimentary breakfast are also included. If you need a bigger room, just choose from the following room types.		
• 1000 Units in Stock Add to Cart: 1 add this to my cart		
Please Choose: Room Type Superior (+\$50.00) Deluxe (+\$90.00)		

Before you specify the pricing for an attribute:

- Make sure you have created the product and its required option names and option values.
- Click the edit layout button of the product type that is linked to this attribute and look at the PRODUCT Attribute Price Prefix - Default field. This field specifies whether the attribute price should be incremented or decremented by default.

To specify a price for an attribute:

- 1. Click on Catalog > Attributes Controller to access the Attributes Controller screen.
- 2. Choose the appropriate category from the drop-down list box and your screen will be refreshed with products from the previously selected category.
- 3. Choose the appropriate product and attribute from the respective boxes and then concentrate on the following area in your screen.



- 4. To *add* the attribute price to the product price, specify a "+" or a *blank space* in the first box under the **Price** field. To *subtract* the attribute price from the product price, specify a "-" in the box instead.
- 5. Enter your desired price in the empty box under the Price field.
- 6. If you want your attribute price to be charged only once regardless of how many items of the product a customer buys, enter a value in the **One Time** field.

7. Enter a number into the **Order** field. This field indicates the sequence in which the attributes will be displayed to a customer.

For example, assume you have three attributes (X, Y, Z) in their original sequence as follows: 1, 2, 3. If you change the sequence to: 3, 1, 2. Then the attributes will be displayed in the order Z, X, Y to a customer.

8. Click insert to save your changes to the database.

One Time Charges

The **One-Time** field which you saw in Step 6 of the previous section allows you to charge a customer only once for a product attribute when several items of a product are bought. An example is provided below to help you understand its use.

If you have a product that retails for \$20 and a single attribute that adds \$1 to the product. You have also specified that this attribute has a *one-time* charge of \$5.

Then if the customer buys a total of 3 of your products with the same attribute, the total price charged to the customer will be:

(\$20 + \$1 + \$5) + (\$20 + \$1) + (\$20 + \$1) = \$68

This option is usually applied to one-time setup charges. For example, when you first sign up for a web hosting account with a web hosting provider, they usually charge you a one-time setup fee and not for subsequent renewals for the hosting plan.

By percentage

This pricing mechanism works similarly to attribute pricing by numbers except that it is based on percentage rather than numbers. It makes use of the concept of *price factor* and *offset* to achieve a percentage-based attribute pricing scheme. Nevertheless, the attribute prices that are displayed are in absolute numbers instead of percentages. The following example screen shot shows a poster of Einstein which is priced by size and color.

larger image	Portrait of Einstein \$20.00 A wonderful portrait of one o scientists who ever lived.	f the greatest	
• Shippin • 1000 U	ng Weight: 0.5lbs Units in Stock Add to Cart: 1 add this to my cart		
Please Choose: Print Size and Color $\textcircled{0}{8" \times 10" (B/W) (+$4.00)}$ $\bigcirc 11" \times 14" (B/W) (+$8.00)$ $\bigcirc 16" \times 20" (B/W) (+$12.00)$ $\bigcirc 8" \times 10" (Full Color) (+$6.00)$ $\bigcirc 11" \times 14" (Full Color) (+$10.00)$ $\bigcirc 16" \times 20" (Full Color) (+$14.00)$			

Before you specify percentage pricing for your attribute:

■ Make sure you have created the product and its required option names and option values.

■ Make sure that Enable Price Factor is set to <u>true</u> under Configuration > Attribute Settings.

To price your attributes by percentage:

- 1. Click on Catalog > Attributes Controller to access the Attributes Controller screen.
- 2. Choose the appropriate category from the drop-down list box and your screen will be refreshed with products from the previously selected category.
- 3. Choose the appropriate product and attribute from the respective boxes and then concentrate on the following area in your screen.

Price Factor: Offset:	One Time Factor:	Offset:
-----------------------	------------------	---------

To understand the *meanings* and *syntax* for the above fields, refer to the section after these steps.

- 4. To *add* the attribute price to the product price, specify a "+" or a blank space in the first box under the **Price** field. To *subtract* the attribute price from the product price, specify a "-" instead.
- 5. To specify a *constant* price factor and offset for your attribute, enter your desired values in the *first* two boxes of the left column under the **Price Factor** and **Offset** headings.
- 6. To specify a *one-time* price factor and offset for your attribute, enter your desired values in the *last* two boxes of the left column under the **One Time Factor** and **Offset** headings.
- 7. Commit all your changes to the database by clicking the **insert** button.

Price Factor, One Time Factor and Offset

The Price Factor and Offset pricing mechanism calculates the attribute price based on a *percentage* of the product price. The formula is as follows:

Attribute Price = (Price Factor - Offset) x Product Price

The above formula can *optionally* be combined with the **Price** field as follows:

Attribute Price = Price + [(Price Factor) x Product Price]

The **Offset** field is a bit of an abstract concept and thus is not quickly understood without some explanation. We shall use an example to show why this is so. For example, you might want to add 1% (i.e. 0.01) to the price of a car if a customer chooses a custom paint attribute.

Car Price = \$30,000 Price Factor = 0.02 Offset = 0.01 Attribute price: (0.02 - 0.01) x \$30,000 = \$300

Car Price = \$30,000 Price Factor = 0.01 Offset = 0 Attribute price: (0.01) x \$30,000 = \$300

So what is the purpose of the **Offset** field when you can accomplish the same pricing strategy with or without it? Well, the answer boils down to *personal preference*. The **Offset** field is provided to certain store owners who prefer to enter their attribute pricing according to a "fixed pattern".

For example, take the screen shot of the poster of Einstein that was shown initially in this section. If your store sells posters that come in various sizes and color, then you can implement an attribute pricing strategy based on the pattern shown below. Notice that there are two main variables that decide the pricing strategy - Print Size and Print Color.

```
        Print Size
        Price Factor
        Print Color
        Offset

        8" x 10"
        0.4
        B/W
        0.2

        11" x 14"
        0.6
        Color
        0.1

        16" x 20"
        0.8
        0.2
        0.1
```

Now that you understand the **Price Factor** and **Offset** fields, we shall move on to discuss the **One Time Factor** field. The difference between the **Price Factor** and **One Time Factor** fields is in how the *final* product price is arrived at for product quantities greater than 1. Take a look at the following examples to understand their differences.

Qty	Product Price	Price Factor	Attr. Price	Total Product Price
1	10	0.2	2	(10 + 2) = 12
3	10	0.2	2	$(10 + 2) \times 3 = 23$

Qty Product Price One Time Fac	tor Attr. Price Total Product Price	e
		-
1 10 0.2	2 (10 + 2) = 12	
3 10 0.2	$2 (10 \times 3) + 2 = 32$	



The justification for the **Offset** field is not easy for most people to accept, especially to those who cannot think of a need for this. If that is the case with you, just use the **Price Factor** field and ignore the **Offset** field.

By quantity

Quantity discounts for a product attribute can also be specified in Zen Cart. Once a product attribute contains a quantity discount, Zen Cart will show a hyperlink on the Product Info page in the Store Front. The pop-up window which appears on clicking the hyperlink allows a customer to see the bulk discounts that apply for the product. An example of an optical mouse with a bulk discount for each type of connector chosen is shown in the following screen shots.

Optical Mouse \$29.00 Ergonomically designed optical mouse which provides precision tracking with 800 dpi resolution. No mouse pad required. • Shipping Weight: 0.2lbs • 992 Units in Stock Add to Cart: 1 add this to my cart		Zen Cart!, The Art of E-commerce	
Please Choose:			
● Connector Type ○ USB (+\$1.00) ④ PS/2 (+\$0.75) ● Quantity Discounts Available		Click to open pop-up window.	

Before you specify bulk discounts for your attribute:

- Make sure you have created the product and its required option names and option values.
- Make sure that Enable Qty Price Discount is set to <u>true</u> under Configuration > Attribute Settings.

To specify bulk discounts for an attribute:

- 1. Click on Catalog > Attributes Controller to access the Attributes Controller screen.
- 2. Choose the appropriate category from the drop-down list box and your screen will be refreshed with products from the previously selected category.
- 3. Choose the appropriate product and attribute from the respective boxes and then concentrate on the following area on your screen.

Attributes Qty Price Discount:	Onetime Attributes Qty Price Discount:
--------------------------------	--

To understand the *meanings* and *syntax* for these two fields, refer to the section after these steps.

- 4. To specify a *constant* quantity discount for your attribute, enter your desired values in the **Attributes Qty Price Discount** field.
- 5. To specify a *one-time* quantity discount for your attribute, enter your desired values in the **Onetime Attributes Qty Price Discount** field.
- 6. Commit all your changes to the database by clicking the **insert** button.

Attributes Qty Discount and Onetime Attributes Qty Discount

The **Attributes Qty Discount** field allows you to specify bulk discounts for a particular attribute. For simplicity's sake, we shall assume that this attribute has no other prices attached to it. Consider the case where your store sells an optical mouse at a price of \$29 and a customer chooses *only* the USB Connector attribute.

You can specify the bulk discounts for the optical mice with the USB Connector option value as follows:

```
1:1.00,3:0.75,5:0.50
```

Customers at the Product Info page in your Store Front can click on a Quantity Discount hyperlink which opens a popup window showing a Quantity Discount Table as follows:

QTY	1	2-3	4+
PRICE	\$1.00	\$0.75	\$0.50

The above table values translate into the following scenarios based on the number of optical mice a customer buys assuming *only* the USB Connector attribute is selected.

```
No. of Optical Mouse bought = 1,
No. of Optical Mouse bought = 2,
No. of Optical Mouse bought = 3,
No. of Optical Mouse bought = 4,
No. of Optical Mouse bought = 5,
No. of Optical Mouse bought = 5,
No. of Optical Mouse bought = 6,
Total Price: (\$29 + \$0.75) \ge 2 = \$59.50
Total Price: (\$29 + \$0.75) \ge 3 = \$89.25
Total Price: (\$29 + \$0.50) \ge 4 = \$118.00
Total Price: (\$29 + \$0.50) \ge 5 = \$147.50
Total Price: (\$29 + \$0.50) \ge 5 = \$147.50
```

The **Onetime Attributes Qty Discount** field allows you to specify bulk discounts for a particular attribute but the calculation is slightly different from the **Attributes Qty Discount** field. For comparison sake, we shall use the same example above but with the values entered into the **Onetime Attributes Qty Discount** field instead of the **Attributes Qty Discount** field.

Customers at the Product Info page of your Store Front can click on a Quantity Discount hyperlink which opens a popup window showing a Quantity Discount Table as follows:

The above table values translate into the following scenarios based on the number of optical mice a customer buys, assuming the USB connector attribute is selected.

```
No. of Optical Mouse bought = 1,
No. of Optical Mouse bought = 2,
No. of Optical Mouse bought = 3,
No. of Optical Mouse bought = 3,
No. of Optical Mouse bought = 4,
No. of Optical Mouse bought = 5,
No. of Optical Mouse bought = 5,
No. of Optical Mouse bought = 6,
Total Price: (1 \times \$29) + 1.00 = \$30.00
Total Price: (2 \times \$29) + 0.75 = \$87.75
Total Price: (4 \times \$29) + 0.50 = \$116.50
Total Price: (5 \times \$29) + 0.50 = \$145.50
Total Price: (6 \times \$29) + 0.50 = \$174.50
```

By words or letters

This pricing mechanism is applicable only to attributes that are of the *Text* option type. It allows you to price your text attribute according to the number of letters or words that a customer specifies. An example of a cake which allows customers to specify the wordings they want on the cake and a corresponding greeting card is shown in the following screen shot to give you an idea of the use of this pricing mechanism.

larger image	Birthday Cake \$10.00 Surprise your loved ones with a beautifu ice-cream birthday cake. You even get to customize the wordings on the cake and ressage on the complimentary birthday care	l your d.	
• Shippin • 999 Uni	ng Weight: 4lbs nits in Stock Add to Cart add this to my ca	: 1	
Please Choose: Customize your cake and greeting card: Wordings on Cake Price per letter: \$1.00 Letter(s) free 10			
Message in	Birthday Card		
200 maximu	um characters allowed		
Price per word:	: \$0.10 Word(s) free 20		

Before you specify the pricing for words or letters in your attribute:

- Make sure you have created the product and its required option names and option values. The option name must be of option type: **Text**.
- You can adjust the text box layout settings by clicking on the **edit** button of the option name in the Product Options screen. Refer to the section "Create attribute option name" if you have forgotten how to do this.
- You can also force the customer to enter a value into the text area before adding the product to a cart by checking the Attribute Required for Text flag in the Attributes Controller screen.
- Make sure that Enable Text Pricing by word or letter and Text Pricing Spaces are Free are set to <u>true</u> under Configuration > Attribute Settings.

To specify a price for the number of words or letters in each attribute:

- 1. Click on Catalog > Attributes Controller to access the Attributes Controller screen.
- 2. Choose the appropriate category from the drop-down list box and your screen will be refreshed with products from the previously selected category.
- 3. Choose the appropriate product and attribute from the respective boxes and then concentrate on the following area on your screen.

Price Per Word: - Free Words: Price Per Letter: - Free Letters:

- 4. To price an attribute based on words, enter your desired values in the Price Per Word and Free Words headings.
- 5. To price an attribute based on *letters*, enter your desired values in the **Price Per Letter** and **Free Letters** headings.
- 6. Commit all your changes to the database by clicking the insert button.

Attaching weight information

If your shipping charges are affected by the weight that your product attributes introduce, you can optionally choose to increase the product weight based on the attribute instead. An example would be if your store sells gym equipment. A customer can choose to buy a set of basic dumbbells and add more weight to the dumbbells by using weight plates. This example is shown in the following screen shot.

larger image	Dumb Bells \$30.00 Made for durabilit handling. Suitable professionals.	y and ease of for beginners and
 Shipping Weight: 51 999 Units in Stock 	bs	Add to Cart: 1 add this to my cart
Please Choose: Add more weight to y Additional Plates sma mea larg	your dumbbells: all (+5lbs) dium (+10lbs) ge (+20lbs)	

Before you specify weight to represent your product or service:

- Make sure you have created the product and its required option names and option values.
- Click the edit layout button of the product type that is linked to this attribute and take note of the PRODUCT Attribute Weight Prefix - Default field. This field specifies whether the attribute weight should be incremented or decremented by default. In addition, make sure the following fields in the screen are enabled:
 - ► Show Weight
 - ► Show Attribute Weight

To specify a weight to represent each attribute:

- 1. Click on Catalog > Attributes Controller to access the Attributes Controller screen.
- 2. Choose the appropriate category from the drop-down list box and your screen will be refreshed with products from the previously selected category.
- 3. Choose the appropriate product and attribute from the respective boxes and then concentrate on the following area in your screen.



- 4. To *add* the attribute weight to the product weight, specify a "+" or a *blank space* in the first box under the **Weight** field. To *subtract* the attribute weight from the product weight, specify a "-" instead.
- 5. Type in a value for the second box under the **Weight** field to specify how much weight should be added or subtracted from the product's weight.
- 6. Enter a number into the **Order** field. This field indicates the sequence in which the attributes will be displayed to a customer. For example, if you have three attributes X, Y, Z in their original sequence of 1, 2, 3 and you change the sequence to 3, 1, 2. Then the attributes will be displayed in this order to the customer Z, X, Y.

- 7. *Optionally*, you can enter values into the **Price** and **One Time** fields if you want to specify *prices* along with your weights. Note that the **One Time** field applies only to price and not weight!
- 8. Commit all your changes to the database by clicking the insert button.

Attaching download information

Another piece of information you can attach to attribute values is to signal an attribute as part of a downloadable product. For example, you can make an attribute represent a PDF document download and another attribute as a Word document download.

As the attribute configuration for downloadable products involves several different steps, we shall cover it in more detail in the section "Selling downloadable products".

Attaching upload information

If your product offerings include letting customers upload files to your store, you can attach one or more file upload attributes to your products. Several considerations and steps are involved when making file upload functionalities available to your customers and they shall be covered in the section "Accepting file uploads from customers".

Examples of using product attributes to configure a product

The multitude of configuration options for each product attribute alone often leads to frustration figuring out the best approach to use when attempting to attach several attributes to a product at once. The problem seems even more daunting when you need to configure differing pieces of information per attribute.

To provide you with some inspiration when creating your own attributes and to amalgate all the individual product attribute configuration information we have presented earlier, you can refer to the following examples.

A word of caution is in order here. The examples may add to your confusion if you try too hard to adapt them to your needs without first thoroughly understanding your own product set up requirements. In such cases, set up more attributes with different variations and play with them as you work through your product attribute set up. Although you will have to spend more time setting up your attributes in this way, you will be surprised by the insight you will gain into your own product configuration problems as well as how product attributes work.

Example 1: A television



From the preceding screen shot, we see that the TV is being offered at a base price of \$800. By default it comes in the form of a 40 inch TV screen and a 3 feet HDMI cable. Option values with either a + or "-" sign appearing before their prices or weights will alter the base price of \$800.00 and base weight of 45 lbs. Also note that the default selected HDMI cable is the "3-ft" one because this is the most popular choice among our customers. We may also offer a reduction in price for the "1-ft" HDMI cable because we are clearing our stock.

Let us now take a quick look at some of the settings in the Product Details screen. We shall assume that we have used the 'Product-General' product type when creating our product and the rest of the product fields have their values set at their defaults or according to what is displayed in our preceding screen shot.

Field	Value
Products Status	<u>In Stock</u>
Product Priced by Attributes	No
Products Price (Net)	\$800.00
Products Quantity	100
Products Shipping Weight	<u>45</u>

Table 14.2: Television product field settings

Here are some of the pertinent points to note in our product detail settings:

- 1. We have set the **Product Priced by Attributes** field to <u>No</u> which means that our product will have a base price. This is because we are offering the product with a default variation of 40-in and a 3-ft HDMI cable. We will be using attributes later to allow customers to choose how big they want their TV to be or what length of HDMI cable they want.
- 2. Since we are offering a default product variation, we set the default values for the **Products Price** (Net) and **Products Shipping Weight** fields too.

3. The **Products Status** and **Products Quantity** field are highlighted here so that you know when to check them if you do not see your product in your Store Front.

To quickly see what settings we have set up for each attribute in the Attributes Controller screen, refer to the following screen shot.

ID	Option Name	Option Value	Prefix Price	Prefix Weight	Order	Legend:	Total Disc: Onetime:
			I	D# 182 - LEI	ОТУ		
delete SCREEN SIZE							
1118	Screen size	40 in	+ 0.0000	+ 0	10	$\boxtimes\boxtimes \blacksquare \blacksquare \boxtimes \boxtimes$	\$0.00 \$0.00
1119	Screen size	46 in	+ 150.0000	+ 3	20	$\boxtimes\boxtimes\boxtimes\boxtimes\boxtimes\boxtimes\boxtimes\boxtimes$	\$150.00 \$0.00
1120	Screen size	52 in	+ 300.0000	+ 6	30	$X X X \blacksquare \blacksquare X$	\$300.00 \$0.00
delete HDMI CABLE							
1121	HDMI cable	1 ft	- 10.0000	+ 0	10	$\boxtimes\boxtimes\boxtimes\boxtimes\boxtimes\boxtimes\boxtimes\boxtimes$	\$-10.00 \$0.00
1122	HDMI cable	3 ft	+ 0.0000	+ 0	20	$\boxtimes\boxtimes \blacksquare \blacksquare \boxtimes \boxtimes$	\$0.00 \$0.00
1123	HDMI cable	6 ft	+ 5.0000	+ 0	30	$\boxtimes\boxtimes\boxtimes\boxtimes\blacksquare\boxtimes\boxtimes$	\$5.00 \$0.00

Here are some of the more interesting points to note in our attribute settings:

- 1. We have chosen the "40 in" screen size and "3 ft" HDMI cable option values as the default options to be selected by having their **Default Attribute to be Marked Selected** attribute flag set to Yes.
- 2. For the two option values mentioned in the preceding step, we have also not specified any prices or weight for them because we want to let customers know that these are the default options that the TV will come with and so do not incur any charges.
- 3. A "+" and "-" sign is also placed before the price and weight of some option values to signify whether those chosen option values will add to or subtract from the product's base price of \$800 or weight of 45 lbs.

Example 2: A video game



From the preceding screen shot, we see that the game is being offered on different gaming platforms. The delivery of the product is either in the form of an electronic download or shipped to the customer after purchase. In all the option values, no "+" or "-" signs appear before the prices or weights. Visually, this may tell the customer that the price stated in the option value is the price of the product when that particular option value is selected. If we add a "+" sign next to a option value, it may seem to a customer that the price is added onto a base price and this may not be what you want to portray.

Let us now take a quick look at some of the settings in the Product Details screen. We shall assume that we have used the 'Product-General' product type when creating our product and the rest of the product fields have their values set at their defaults or according to what is displayed in our preceding screen shot.

Field	Value
Products Status	<u>In Stock</u>
Product Priced by Attributes	Yes
Products Price (Net)	<u>\$0.00</u>
Products Quantity	100
Products Shipping Weight	<u>0</u>

Table 14.3: Video game product field settings

Here are some of the pertinent points to note in our product detail settings:

- 1. Unlike our previous example, we have set the **Product Priced by Attributes** field to \underline{Yes} and the **Product's Price** to 0.00. This means that the price of the product will be determined purely by the options selected by the customer.
- 2. We have not specified any weight for the product because the product is offered either as a shippable item which has a weight or a downloadable item with no weight. You do not need to follow our example because your product may need to have a base shipping weight with your attributes adding on additional weight. Or maybe your product may have a weight which is common across your attributes and so you can simplify the situation by specifying a product weight here.
- 3. The **Products Status** and **Products Quantity** field are highlighted here so that you know when to check them if you do not see your product in your Store Front.

To quickly see what settings we have set up for each attribute in the Attributes Controller screen, refer to the following screen shot.

ID	Option Name	Option Value	Prefix Price	Prefix Weight	Order	Legend:	Total Disc: Onetime:
		ID#	183 - WILD	SURFING G	AME		
1127	Gaming Platform	Select one	+ 0.0000	+ 0	10		\$0.00 \$0.00
1128	Gaming Platform	Sony Playstation	50.0000	0.3	20	$\boxtimes \blacksquare \boxtimes \blacksquare \blacksquare \boxtimes$	\$50.00 \$0.00
1129	Gaming Platform	Microsoft X-Box	45.0000	0.3	30	$X \odot X \odot X$	\$45.00 \$0.00
1130	Gaming Platform	Windows Computer (Download - EXE)	15.0000	+ 0	40	$X \odot X \odot X$	\$15.00 \$0.00
		• Filename: wild-surfing-exe.zip	Days: 7 Max:	5			
1131	Gaming Platform	Mac OS X Computer (Download - DMG)	15.0000	+ 0	50	$X \blacksquare X \blacksquare \blacksquare X$	\$15.00 \$0.00
		O Filename: wild-surfing-dmg.zip	Days: 7 Max:	5			

Here are some of the more interesting points to note in our attribute settings:

1. We are forcing customers to select an option from one of the drop-down list boxes by creating an option value "Select one ..." and specifying <u>Yes</u> for the Used For Display Purposes Only and Default Attribute to be Marked Selected attribute flags.

This approach of forcing the customer to make a selection is **not compulsory** for *Radio* and *Dropdown* attributes because by setting the **Default Attribute to be Marked Selected** flag to <u>Yes</u> for one of the option values, you can force one of the choices to be selected already.

However, not only is it aesthetically more pleasing, it also prevents customers from just accepting the default option values you have set for them if you choose not to use this approach.

Note that this approach is currently only possible for *Radio* and *Dropdown* attributes and not possible with *Checkbox* and *File* attributes. To force customers to enter a value into a *Text* attribute, just set the **Attribute Required** for **Text** attribute flag to <u>Yes</u>.

- 2. We have left the "+" or "-" box *blank* when we entered their corresponding price and weight information. These forces the Product Info page in your Store Front not to show the sign when displaying the price or weight.
- 3. We have set all the Include in Base Price When Priced by Attributes attribute flags to <u>Yes</u> except for the "Select one ..." option which can either be set to <u>No</u> or <u>Yes</u>. That is because the "Select one..." attribute is marked as Used For Display Purposes Only and will thus not be involved in the determination of the base price for the product by default.

Note that you do not need to specify $\underline{\underline{Yes}}$ for all the **Include in Base Price When Priced by Attributes** attribute flags. For instance, if you only want one the Product Info page to display "Starting at \$45.00" instead of "Starting at \$15.00" in our example screen shot. Just set the **Include in Base Price When Priced by Attributes** attribute flag to $\underline{\underline{Yes}}$ for the Microsoft X-Box option value while leaving the rest set to <u>No</u>.

4. Notice that two of the option values are configured as downloadable files and do not have any weight specified for them. This may make it visually clearer to customers that those option values are only for downloadable versions that will not be shipped physically. We shall learn more about downloadable files in the section "Selling downloadable products".



One limitation in both examples you may have noticed is that stock settings are only available at the product level but not at the product attribute level. Therefore, you will need to maintain a separate log of your products if your stock levels are tied to individual attributes.

Manipulating multiple attributes simultaneously

We shall now talk about how to copy attributes across different products. If you intend to perform all these operations, remember the two following principles:

- Create and price all your attributes beforehand to save you the trouble of propagating the changes afterwards.
- Back up your database to prevent accidental replacement of your data. Refer to the section "Database back up" for details on doing this properly.

Enabling mass attribute copy, add, and delete

To copy or move attributes you have created, you need to turn on the appropriate feature in Zen Cart. You can either set this as a default for your store or on a per-page basis.

To enable copying and moving of attributes on a *default* basis:

Click on Configuration > Layout Settings and set Option Names and Values Global Add, Copy and Delete Features Status and set the value to <u>1</u> to enable it.



To enable copying and moving of attributes on a *per-page* basis:

Go to either the Product Options screen or the Option Values screen and select Display Global Features - ON from the drop-down list box near the top of the screen.

Copying attributes to other products

Some situations require that you copy a set of attributes for one product across to all the products you have in a specific category. For example, suppose your shop sells children's clothing. You can set up an option name "shirt size" with the following values "small", "medium" and "large". You can then copy all these option values to another option name "cap size" easily.

As explained earlier, an attribute is made up of an option name and one or more option values. Therefore, there are two possible ways by which you can copy attributes to other products.

- Copy option values from one option name to another option name
- Copy option name with associated values from one product to other products in a category.

To copy all option values from one option name to another option name:

- 1. Click on Catalog > Option Name Manager to access the Product Options screen.
- 2. Concentrate on the following portion of the screen.

Copy ALL Option Values to another Option Name		
All Option Values will be copied from one Option Name to another Option Name		
Copy from Option Name: Size	Print Size and Color v update	

- 3. Choose the *source* option name containing the required option values to copy from the **Copy from Option Name** select box.
- 4. Choose the *destination* option name for the values you wish to copy to from the Copy All Option Values to Option Name field.
- 5. Click on update to complete the copy operation.



All option values copied from one option name to another will *not* retain their original attribute pricing, weighting and image properties. You will need to set these attribute properties up again if you want them to apply to another set of attributes.

To copy selected option values to other products by matching "option name and value":

1. Click on Catalog > Option Value Manager to access the Option Values screen and concentrate on the following portion of the screen.

Copy to ALL Products where Option Name and Value Select an Option Name and Value that currently exists on a product or products that you then want to copy another Option Name and Value to for all products with this existing Option Name and Value					
Option Name to match: "Beginner Drum Lessons" Manual Option Value to match: "African Beats" [BUY INSTRUCTIONAL VIDEOS?] Gr	olor Name to add: volor volue to add: reen [COLOR] v	Leave blank for ALL Products or enter a Category ID for Products to update	insert		
Target	Source				

- 2. To copy to products that contain a certain *distinct* attribute option name and option value, choose the matching option name and option value from the first column of select boxes; i.e. **Option Name to match** and **Option Values to match**.
- 3. Select the option name and option value you wish to *copy from* by choosing from the select boxes in the second column; i.e. **Option Name to add** and **Option Value to add**.
- 4. In Step 3, you chose products that contain a matching attribute which will be affected by the copy operation. You can optionally specify whether these matching products should be *restricted to a certain category* by specifying the Category ID in the third column.
- 5. Click on **insert** to start the copy operation. A success message will appear at the top of your screen if everything is successful.

To copy selected option values to other products by matching "option name":

1. Click on Catalog > Option Value Manager to access the Option Values screen and concentrate on the following portion of the screen.



- 2. Select the option name and option value you wish to *copy from* by choosing from the select boxes in the first column; i.e. **Option Name to add** and **Option Value to add**.
- 3. *Optionally*, you can enter a Product ID into the blank text box on the left-most column for a source product which already has its default values.

For example, you may have many different products with the same attribute but one of them has its option value price and weight set to a specific value already. You can choose to have this specific product's default option value and settings copied over to the new product.

- 4. To copy to products that contain a certain *distinct* attribute option name only, choose the matching option name from the second column of select boxes; i.e. **Option Name to add to**.
- 5. In Step 4, you chose products that contain a matching attribute which will be affected by the copy operation. You can optionally specify whether these matching products should be *restricted to a certain category* by specifying the Category ID in the third column's text box.
- 6. If you do not want to continue adding an attribute if the target product already contains the attribute you are trying to add, you should check the **Ignore existing attributes and add only new attributes** radio button.
- 7. If you want to update the target attribute with the source attribute values (most likely already changed from the last time it was added), you can check the Update existing attributes with new settings/prices option instead. This setting will have an effect only when both the source and target attribute values are the same but the attribute pricing, weight and other settings are different.
- 8. Click on **insert** to start the copy operation. A success message will appear at the top of your screen if everything is successful.

Adding attributes to other products

You can create an attribute and choose to have it added to other products. The target products (which must have at least one option value defined) can be restricted to the following types.

- All products.
- A single product.
- A category of products.

To access these options, click on Catalog > Option Name Manager and scroll to the following portion of the screen.

Add ALL Option Values to ALL products for Option Name Update ALL existing products that have at least ONE Option Value and Add ALL Option Values in an Option Name				
Select an Option Name update update				
Add ALL Option Values to ONE products for Option Name Update ONE product that has at least ONE Option Value and Add ALL Option Values in an Option Name				
Select an Option Name "Beginner Drum Lessons" Manual DownloadableProd - A (Model:) (\$11.00, 100) DownloadableProd - A (Model:) (\$100,00) DownloadableProd - A (Model:) (\$100,00) DownloadableProd - B				
Add ALL Option Values to ONE Category of products for Option Name Update ONE Category of products, when the product has at least ONE Option Value and Add ALL Option Values in an Option Name				
Select an Option Name "Beginner Drum Lessons" Manual Select a Category Apples - ID#3 Aticles - ID#1 Beverages - ID#14 Books - ID#10				
NOTE: Sort order will be set to the default Option Value Sort Order for these products				

You should have no problems going about adding your own attributes to other products since the fields are selfexplanatory and you have already covered how to copy attributes in the above sections.

Deleting attributes from a selection of products

Zen Cart also allows you to do a mass delete of attributes from a selection of products if the need arises. All the steps taken and screen options are similar to those in the adding and copying of attributes section. Thus, we shall not be going through them.

Delete Matching Attribute from ALL Products where Option Name and Value Select an Option Name and Value that currently exists on a product or products that you want deleted from ALL Products or from ALL Products within one Category			
Option Name to match: Additional Plates Option Value to match: large [ADDITIONAL PLATES]	Leave blank for ALL Products or enter a Category ID for Products to update	delete	

You can also choose to delete an attribute from products by matching an option name only. These products can be restricted to the following types.

- All products.
- A single product.
- A category of products.

To do so, click on Catalog > Option Name Manager and manipulate the following portion of the screen.

Delete ALL Option Values to ALL products for Option Name Update ALL existing products that have at least ONE Option Value and Delete ALL Option Values in an Option Name				
Update ALL option values to ALL products for Option Name Update ALL existing products that have at least ONE Option Value and Delete ALL Option Values in an Option Name				
Update ALL existing products that have at least ONE Option Value and Delete ALL Option Values in an Option Name				
Select an Option Name "Beginner Drum Lessons" Manual 👽				
Delete ALL Option Values to ONE products for Option Name				
Update ONE product that has at least ONE Option Value and Delete ALL Option Values in an Option Name				
Select a Product Beginner Drum Lessons' Manual Birthaby Cake (Model:) (\$11.00) Canned Tuna (Model:) (\$50.00) DownloadableProd - K (Model:) (\$10.00) DownloadableProd - B (Model:) (\$10.00) DownloadableProd - B (Model:) (\$100.00) Downloadab				
Delete ALL Option Values to ONE Category of products for Option Name Update ONE Category of products, when the product has at least ONE Option Value and Delete ALL Option Values in an Option Name				
Select an Option Name "Beginner Drum Lessons" Manual Assorted Goods - ID#11 Beverages - ID#14 Books - ID#10				
NOTE: All Option Name Option Values will be deleted for selected product(s). This will not delete the Option Value settings.				

Copying, adding, or deleting attributes from a single product

To copy, edit, or delete attributes from a single product:

- 1. Navigate to the Attributes Controller screen of the product.
- 2. Concentrate on the list of buttons near the top of the screen.

Attributes Controller							
Products Listing for: Products ID#9 - in Category: Assorted Goods T-Shirt							
edit product price manager update sort preview delete Copy to Copy to CATEGORY							
Multiple Categories Link Manager							

3. To copy the current set of product attributes to another product, click on the **Copy To Product** button and you should see something similar to the following screen shot. Follow the on screen instructions to make your desired changes.

ATTRIBUTES CONTROLLER	
Copy Attributes to another Product from ID#9 T-Shirt	How should existing product attributes be handled? Delete first, then copy new attributes Update with new settings/prices, then add new ones Ignore and add only new attributes
Select the Product to copy all attributes to: \$10 Gift Certificate (\$10.00) (GIFT-10) - ID# 21 \$100 Gift Certificate (\$10.00) (GIFT-100) - ID# 24 \$25 Gift Certificate (\$25.00) (GIFT-25) - ID# 22 \$50 Gift Certificate (\$50.00) (GIFT-50) - ID# 23 Beginner Drum Lessons (\$11.00) - ID# 17 Birthday Cake (\$10.00) [DI - ID# 14 Canned Tuna (\$50.00) [DI - ID# 38 Classical Masterpieces on Violin (\$19.95) [] - ID# 7 Coke (\$0.00) [] - ID# 32 DownloadableProd - A (\$100.00) [] - ID# 70	copy cancel

4. To copy the current set of product attributes to all the products belonging to a category, click on the **Copy To Category** button and you should see something similar to the following screen shot. Follow the on screen instructions to make your desired changes.

Attributes Controller	
Copy Attributes to all Products in Category from Product ID#9 T-Shirt	How should existing product attributes be handled? Delete first, then copy new attributes Update with new settings/prices, then add new ones Ignore and add only new attributes
Select the Category to copy all attributes to: Apples : in Fuits - ID#3 Articles : in e-Magazines - ID#8 Assorted Goods - ID#11 Beverages : in Dinks - ID#14 Books : in e-Magazines - ID#10	copy cancel

5. To delete all the attributes from the current product, click on the **delete** button. You will be prompted with a message to confirm whether you are sure you want to perform the delete.

Attributes Controller	
Are you sure you want to delete all attributes for ID# 9 delete T-Shirt	

There is another way to perform the same functions as the following steps. Just navigate to the product you want to perform the desired operation on in the Categories/Products screen. Click on the "A" icon next to the relevant product and follow the on-screen instructions found in the corresponding side-panel as shown in the following sample screen shot.

Categories / Products - Test			Search: Go To: Test 💌
1 🖗 Normal Test Product	\$200.00	1000 🔘	Attributes Changes for Products ID# 9
9 🖗 T-Shirt	\$20.00	1000 🔲 🔘	Attribute Features For:
3 🖉 Free Shipping Test Product	\$100.00	100 🔘	T-Shirt ID# 0
			preview Attribute Controller
			Downloads: none
			Delete ALL Product Attributes for: T-Shirt ID# 9 delete
			Update All Products' Attribute Sort Orders to match Option Value Default Sort Orders: T-Shirt 10# 9 update
			Copy Attributes to another product from: T- Shirt ID# 9 Copy to
			Copy Attributes to another category from: T-Shirt ID# 9 Copy to
			cancel

Sorting attributes

Zen Cart provides several options for you to manipulate the ordering of your product attributes. In this book, we shall categorize them into three different areas for easier reference:

- Default sort order
- Custom sort order
- Display sort order

Default sort order

The *default* sort order for an attribute's option name or option value is the value you entered in the **Order** field when you **created** the option name or option value.

To understand default sort orders better, let us assume that you have created the following two option names with their corresponding option values in brackets:

- Texture (Wood, Granite, Sand)
- Dimension (100x200, 200x200, 300x200)

The sort orders of the preceding two attributes in their respective Product Options screen and Option Values screen are shown in the following screen shots.

PRODUCT OPTIONS		Option ID	
<<	1 2 3		
ID	Option Name	Option Type	Sort Order
21	Screen size	Radio	3000
22	HDMI cable	Dropdown	4000
23	Gaming Platform	Dropdown	2000
24	Texture	Checkbox	1
25	Dimension	Checkbox	2

Ор	Option Values				
ID	Option Name	Option Value	Default Order		
85	Dimension	100 × 200	10		
86	Dimension	200 × 200	20		
87	Dimension	300 × 200	30		
82	Texture	Wood	10		
83	Texture	Granite	20		
84	Texture	Sand	30		

When we attach the option names and option attributes to a product, let us *not* enter any value into the corresponding **Order** field in the Attributes Controller screen. You will notice that the default sort orders are used to fill up the option values as shown in the following screen shot.

delete TEXTURE					
1142	Texture	Wood	+ 0.0000	+ 0	10
1140	Texture	Granite	+ 0.0000	+ 0	20
1141	Texture	Sand	+ 0.0000	+ 0	30
1143	Dimension	100×200	+ 0.0000	+ 0	10
1145	Dimension	200×200	+ 0.0000	+ 0	20
1144	Dimension	300×200	+ 0.0000	+ 0	30

If you go to your Store Front now, you will see that the option values for your attributes are ordered exactly as your default sort order of your option values.



Although you can change the default sort orders for your option names and option values by going to the Product Options screen and Option Values screen respectively, there is a faster way to accomplish this.

To quickly re-arrange the default sort order for your option names:

1. Click on Catalog > Option Name Sorter to access the Option Name Sort Order screen.

Option Name Sort Order				
		Editing Al	l Option Names	
	Selected Languge: English 💌			
	Option ID	Туре	Option Name	Sort Order
	24	(DROPDOWN)	Texture	1
NN	25	(DROPDOWN)	Dimension	2

- 2. Enter new values into the **Sort Order** fields corresponding to the option names you want to change.
- 3. Click on update to save your changes.

To quickly re-arrange the default sort order for your option values:

1. Click on Catalog > Option Value Sorter to access the Option Values Default Sort Order screen.

Option Values Default Sort Order	
Update Option Values Sort Order	
Select an Option Name: Texture V edit	
Update Attribute Sort Order from Option Value Defaults	
For a Product:	
LED TV (Model:) (\$800.00)	update
For a Category:	
Update All Products' Attribute Sort Orders update	

2. Select your desired option name from the *first* drop-down list box and click edit.

OPTION VALUES DEFAULT SORT ORDER					
Edit	ing Option Name: Te	xture			
Option ID	Option Value Name	Sort Order			
82	Wood	10			
83	Granite	20			
84	Sand	30			
Update Sort Order Cancel					

- 3. Enter new values into the Sort Order fields corresponding to the option values you want to change.
- 4. Click on Update Sort Order to save your changes.

Custom sort order

When you attach attributes to your products, you have the opportunity to make use of *custom* sort orders to control how the attributes will be displayed in your Store Front.

Custom option name sort orders are specified based on the order in which you attach them to your product. Custom option values are specified if you have entered a value in the **Sort** field when attaching an attribute to a product. If you have not entered a value in the **Sort** order field, then Zen Cart makes use of the default sort order of the option value.

Let us study the effects of applying custom sort orders to your option values by adjusting the values for the example used in the previous section as shown in the following screen shot.

delete TEXTURE					
1140	Texture	Granite	+ 0.0000	+ 0	100
1141	Texture	Sand	+ 0.0000	+ 0	200
1142	Texture	Wood	+ 0.0000	+ 0	300
delete DIMENSION					
1144	Dimension	300×200	+ 0.0000	+ 0	100
1145	Dimension	200 × 200	+ 0.0000	+ 0	200
1143	Dimension	100×200	+ 0.0000	+ 0	300

If you go to your Store Front now, you will see that the option values for your attributes are now ordered according to your custom sort orders instead of the default sort orders of the option values.

lease Choose:	٦.
Fexture Granite	
Sand	
Wood	
Dimension 300 × 200	
200 × 200	
100 × 200	

Besides manually re-entering the custom sort orders of your option values to re-arrange their sequences, you can also use the following methods to quickly override them with the default sort orders instead.

To quickly re-arrange the *default* sort order for your option values:

1. Click on Catalog > Option Value Sorter to access the Option Values Default Sort Order screen.

	_
OPTION VALUES DEFAULT SORT ORDER	
Update Option Values Sort Order	
Select an Option Name: Texture V edit	
Update Attribute Sort Order from Option Value Defaults	
For a Product:	
LED TV (Model:) (\$800.00)	е
	_
For a Category:	
Documents update	
Update All Products' Attribute Sort Orders update to match Option Value Default Sort Orders:	

- 2. To override the *custom* sort orders of option values belonging to **a product** to use the *default* sort orders of the option values instead.
 - Select your product from the *second* drop-down list box.
 - Click on Update to effect the changes.
- 3. To override the *custom* sort orders of option values belonging to all products in **a category** to use the *default* sort orders of the option values instead.
 - Select your product from the *third* drop-down list box.
 - Click on **Update** to effect the changes.
- 4. To override the *custom* sort orders of option values belonging to **all products** in your store to use the *default* sort orders of the option values instead, click on the **update** button next to the **Update All Products' Attribute Sort Orders** text.

Note that this same function can be found in the Store Manager screen when you click on **Tools** > **Store Manager** as shown in the following screen shot.

Update All Products' Attribute Sort Orders	undata
to match Option Value Default Sort Orders:	upuale

If you happen to be editing a product's attributes in the Attributes Controller screen, you can also override the *custom* sort orders of option values belonging to the product to use the *default* sort orders of the option values instead by clicking on the **update sort** button which appears near the top of the screen.

Attributes Controller				
Products Listing for: Products ID#9 - in Category: Assorted Goods T-Shirt				
edit product price manager update sort preview delete copy to copy to EDIT PRODUCT PRODUCTS PRICE MANAGER TO DEFAULT ORDER PREVIEW ATTRIBUTES DELETE ALL PRODUCT CATEGORY				
Multiple Categories Link Manager				

Alternatively, you can also click on the "A" icon next to a product in the Categories/Products screen to reveal a sidepanel similar to the following screen shot. Again, the custom sort order of the option values can be manipulated via the **update** button as shown in the following screen shot.

Categories / Products - Test			Search: Koron Test 💌
1 🛞 Normal Test Product	\$200.00	1000 🔲	Attributes Changes for Products ID# 9
9 🕑 T-Shirt	\$20.00	1000 🔲 🔘	Attribute Features For:
3 🕗 Free Shipping Test Product	\$100.00	100 🔘	T-Shirt ID# 0
			preview Attribute Controller
			Downloads: none
			Delete ALL Product Attributes for: T-Shirt ID# 9 delete
			Update All Products' Attribute Sort Orders to match Option Value Default Sort Orders: <u>T-shirt 10# 9</u> update
			Copy Attributes to another product from: T-Shirt ID# 9 copy to
			Copy Attributes to another category from: T-Shirt ID# 9 copy to
			cancel



You may want to back up your database when doing mass updates of *custom* attribute option sort orders with those from your *default* attribute option sort orders as these mass updates are irreversible.

Display sort order

To change the sorting preferences for your attributes in the Product Info page of your Store Front:

- 1. Click on Configuration > Product Info to access the Product Info screen.
- 2. Change the displayed sort order for your option names by editing the **Products Info Products Option Name Sort Order** field.

Products Info - Products Option Name Sort Order	
Please make any necessary changes	
Products Info - Products Option Name Sort Order Sort order of Option Names for Products Info 0 = Sort Order, Option Name 1 = Option Name	
⊙ 0 ○ 1	
update cancel	

3. Change the displayed sort order for your option names by editing the **Products Info - Product Option Value** of **Attributes Sort Order** field.



Summary

After going through this chapter, you should be comfortable manipulating most product attributes. Product attributes is one of the most powerful features of Zen Cart although few people utilize its flexibility or power because it requires some effort and experimentation to understand and apply.

Do not worry if you need to spend a bit more time on this chapter compared to the rest of the book. After you master the power of attributes, your imagination will allow you to configure almost any product the way you want.

Chapter 15:

Advanced product attribute configuration

Introduction

Selling downloadable products and offering customers a way to upload their files to your store are other ways in which product attributes can be utilized. These product attributes require more steps to set up and require that you be familiar with how product attributes work already.

In this chapter, we shall:

- Set up downloadable products for sale.
- Configure your store to accept customer file uploads.

Selling downloadable products

Digital downloads are one of the hottest ways of doing business on the Internet nowadays. There is no inventory to hold and customers get to enjoy their products sooner.

Zen Cart allows you to easily set up downloadable products for sale in your online store via the use of product attributes. For example, you can sell individual songs contained in a song album by using a product attribute to represent each song. Customers can then choose which songs they want to buy and pay only for those songs.

Deciding how download options are structured

The steps to creating a downloadable product are fairly straightforward. The difficult part is in deciding how you want to "structure" your download options as shown in the following screen shots.

Iarger image Encyclopedia - History of the World (Download Edition) \$200.00 \$200.00 Get the most authoritative encyclopedia covering the history of the world in digital format now! No shelf space to set aside and all contents indexed to allow for quick search.	Beginner Drum Lessons Starting at: \$11.00 Learn to play drums by following the exercises in the downloadable manual. Both sheet music and tablature are available. Instructional videos on how to play each song featured in the manual can also be <i>separately downloaded</i> .
• 1000 Units in Stock add this to my cart Please Choose: ALL volumes available for download upon purchase. Vol 1 of 4. Asia	NOTE: All instructional videos are in ".avi" format. • 991 Units in Stock Add to Cart: 1 add this to my cart
Vol 2 of 4: [®] Africa Vol 3 of 4: [®] America Vol 4 of 4: [®] Europe	Please Choose: "Beginner Drum Lessons" Manual PDF Format (+\$10.00) V PDF Format (+\$10.00) MS Word Format (+\$15.00) MS Word Format (+\$1.00) " "African Beats" (+\$1.00) " "Jungle Beats" (+\$1.00) " "Metal Beats" (+\$1.00)

The figure on the *left* shows an encyclopedia with several downloadable parts. All the downloadable parts are presented as radio buttons which have already been *pre-selected*. Therefore, when customers buy the encyclopedia, they will be able to download all four parts of the encyclopedia separately. Breaking up large files into smaller parts for download allow users with limited bandwidth to schedule their downloads according to their own free time.

All three download attributes are implemented using a pair of option name and option value. All option values also have their **Default Attribute to be Marked Selected** attribute flag in the Attributes Controller screen set to \underline{ves} . By doing so, customers do not have to explicitly click on each radio button to indicate they want to purchase that particular download.

The figure on the *right* shows an instructional manual and the corresponding training videos for download. Here, customers are given a choice of what they want to download. For the Video attribute, they can choose from any of the four videos. For the Manual attribute, they will need to choose between the PDF or Word file format. In either case, each option name has more than one option value attached to it. The price of the final purchase will also depend on the number of downloads that a customer chooses.

Having seen two examples of how download attributes can be structured, you should be able to utilize the concept when creating your own downloadable products.

Configuring a downloadable product

The general steps to configuring your downloadable product properly can be summarized as follows:

- 1. Enable download functionality in Zen Cart.
- 2. FTP downloadable files to the server.
- 3. Configure download attributes.
- 4. Specify when downloads are made available.
- 5. Test your product download configuration.

Before you begin to configure your downloadable product:

■ Create a product based on the product type that best matches the downloadable product you want to sell. Due to the nature of downloadable products, you should pay careful attention to the fields in the following table when creating

your product. Refer to the section "Step 3 of 5: Enter product details" if you need to refresh your memory on the meanings of the other fields in the Product Details screen.

Field	Comments
Product is Virtual	Set to <u>No</u> , <u>Shipping Address Required</u> . Zen Cart will <i>not</i> reduce the stock level automatically in this case; which is logical for a downloadable product.
Always Free Shipping	Set to <u>No, Normal Shipping Rules</u> if your product is offered purely as a down- loadable file. Zen Cart automatically skips the Shipping Information page if all items in a customer's shopping cart are downloadable files.
	Set to <u>Special</u> , <u>Product/Download</u> <u>Combo</u> <u>Requires a Shipping Address</u> if your product is offered both as a downloadable file and a physical good to be delivered to customers.
Products Quantity Box Shows	Set to No, Do not show Quantity Box and set the Product Qty Minimum field to $\underline{1}$ if your product is offered purely as a downloadable file. This setting makes sense for products offered purely as download files because customers only need one copy of the product and can easily duplicate multiple copies themselves.

Prepare the files you want customers to download. Try to zip your downloadable files into a compressed format to save space and speed up the download. For compressed files, most web browsers will open up a dialog box prompting users to save the files to their local computers.

If your downloadable files are uncompressed and happen to belong to the type that can automatically be "opened" by a web browser (.jpg, .gif, .pdf, etc), your customers will not have a chance to choose where they want to save the files and may even have trouble opening the files properly. Therefore, save yourself the trouble of having to answer support calls by compressing your downloadable files.

Step 1 of 5: Enable download functionality in Zen Cart

1. Click on Configuration > Attribute Settings to access the Attribute Settings screen.

Attribute Settings		
Title	Value	Action Enable Downloads
Enable Downloads	true	► edit
Download by Redirect	true	0
Download by streaming	false	① Enable the products download functions.
Download Expiration (Number of Days)	7	
Number of Downloads Allowed - Per Product	5	Date Added: 10/04/2010
Downloads Controller Update Status Value	4	\odot
Downloads Controller Order Status Value >= lower value	2	\odot
Downloads Controller Order Status Value <= upper value	4	\odot
Enable Price Factor	true	\odot
Enable Qty Price Discount	true	\odot
Enable Attribute Images	true	\odot
Enable Text Pricing by word or letter	true	\odot
Text Pricing - Spaces are Free	1	\odot
Read Only option type - Ignore for Add to Cart	1	\odot

- 2. Ensure that the **Enable Downloads** field has a value of <u>true</u>. This will allow Zen Cart to process downloads.
- 3. Edit the Download by Redirect field to bring up the following side-panel.



- a. Choose <u>true</u> if your Zen Cart store is running on a Linux or Mac operating system. Note that the directory permission for the [zc-home]/pub directory only needs to be *writeable*. It may not be chmod 777 depending on how your web host has configured your server. For more information on how file permissions are configured on your remote server, refer to the section "Changing file and directory permissions".
- b. Choose <u>false</u> if your Zen Cart store is running on a Windows operating system.
- c. Click update to save your changes.
- 4. The **Download by streaming** field allows your customers to download their files in smaller chunks from the server. This is helpful if you have set **Download by Redirect** to <u>false</u> and the PHP memory limit on your server has been set to 8MB or less.

Download by streaming	
Please make any necessary changes	
Download by streaming If download-by-redirect is disabled, and your PHP memory_limit setting is under 8 MB, you might need to enable this setting so that files are streamed in smaller segments to the browser.	
Has no effect if Download By Redirect is enabled.	
⊖ true ⊙ false	
update cancel	

Remember to make sure the [zc-home]/pub directory on your server has the correct file permission (e.g. chmod 755) if you have specified <u>true</u> for the **Download by Redirect** field and your Zen Cart store is hosted on a Linux or Mac operating system. If your Zen Cart store is running on a Windows server, you can ignore the [zc-home]/ pub directory as it is not used.



Check that the download file type you want to offer is allowed in the list of permitted file types in [zc-home]/pub/.htaccess and [zc-home]/download/.htaccess in order for the file to be downloadable by your customers from the Store Front.

For more information on working with the .htaccess file, refer to the section "The .htaccess files".

Step 2 of 5: FTP downloadable files to the server

Now we need to FTP some files to the server which we want users to be able to download.

- 1. Start your FTP client software and connect to the server hosting your Zen Cart store.
- 2. Make sure that the [zc-home]/download directory exists on the server. If you do not see the directory, check the following lines in your [zc-home]/includes/configure.php file to see which directory your downloadable file should be located in. The [zc-home]/pub directory is only useful if you have set **Download by Redirect** to <u>True</u> earlier and your remote server is running on a Linux or Mac operating system.

```
define('DIR_FS_DOWNLOAD', DIR_FS_CATALOG . 'download/');
define('DIR_FS_DOWNLOAD_PUBLIC', DIR_FS_CATALOG . 'pub/');
```

3. Upload the required file to the [zc-home]/download directory or the directory specified in the previously mentioned configure.php file. Uploading to an immediate sub-directory of [zc-home]/download should also work but it is best to avoid doing so in order to minimize any unforeseen problems.



Avoid using spaces, special characters, extra periods, quote marks, etc, for your filenames as they can cause strange problems to occur. Also note that filenames are case-sensitive.

Step 3 of 5: Configure download attributes

Different file formats are required for different types of product downloads. For example, if you sell e-books, your download format might be ".pdf" or ".doc". If you sell music, your download format might be ".mp3" or ".wma". Whatever the case may be, you need to tell Zen Cart what the attribute used for download is.

Before you begin to configure your download attribute:

- Create the attribute you want for a product to allow a specific download. For example, if you are offering e-books as downloadable files, you can create an attribute with an option name of "File Format" and option values of "pdf" and "doc" respectively.
- Choose either one of the following values for the **Option Type** field when creating your download attribute's option name:
 - ▶ <u>Radio</u>
 - ▶ <u>Dropdown</u>

To configure your download attribute:

- 1. Click on Catalog > Attributes Controller to access the Attributes Controller screen.
- 2. Navigate to the product which you want to associate a download attribute with.
- 3. Choose the option name and option value to be associated with a specific download file. Concentrate on the following portion of the screen.

Downloadable products: Filename:	Expiry days: (0 = unlimited) Maximum download count: 7 5
----------------------------------	--

- 4. In the **Filename** field, type the name of the file which you have transferred to the server via FTP. Note that the file name is case-sensitive!
- Enter a value for the Expiry days field to specify the download validity period for the download. You can change
 the *default* value for this field by clicking on Configuration > Attribute Settings and changing the value of the
 Download Expiration (Number of Days) field.
- 6. Enter a value for the Maximum download count field to specify a limit on how many times a customer can download the same file. You can change the *default* value for this field by clicking on Configuration > Attribute Settings and changing the value of the Number of Downloads Allowed Per Product field.
- 7. Click on insert to link the downloadable file with the product attribute.

Step 4 of 5: Specify when downloads are made available

Finally, you need to tell Zen Cart whether the customer is entitled to an *immediate* download or a *delayed* download. This decision is based on the *order status* of the customer purchase. The default order statuses available in Zen Cart are as follows:

- Pending [1]
- Processing [2]
- Delivered [3]
- Update [4]

Refer to the section "Working with order statuses" for more information related to order statuses.

Click on **Configuration** > **Attribute Settings** and concentrate on the following fields which dictate what order statuses will affect *when* your products are available for download.

- **Downloads Controller Update Status Value** The order status value here *resets* the download days and maximum download counts for a particular download. This is helpful if your customer's download period has expired and you want to enable them to re-download a particular file. The default value is <u>4</u> which represents an order status of "Update [4]".
- Downloads Controller Order Status Value >= lower value The lower bound of order statuses that will make a download available to customers. The default value is 2, which represents an order status of "Processing [2]".
- Downloads Controller Order Status Value # upper value The upper bound of order statuses that will make a download available to customers. The default value is <u>4</u>, which represents an order status of "Update [4]".

Based on the above three fields in the Attribute Settings screen, we can conclude that an order that has an order status of "Processing [2]" or "Delivered [3]" will mean that file(s) are available for download. An order of "Pending [1]" will mean that file(s) are not available for download yet. An order of "Update [4]" not only makes a download available, it resets the download days and maximum download counts too.

Now that you understand how order statuses affect the availability of your downloads to customers, you will need to specify when you want files to be available for download to customers after they have paid up.

To configure when customers can download a particular file after paying for your goods:

- 1. Click on Modules > Payment to access the Payment Modules screen.
- 2. Choose and edit a payment option available to your customers and concentrate on the following portion of the screen.

Set Order Status Set the status of orders made with this payment module to this value		
default 🗸 🗸		
Pending [1] Processing [2]	Isplay. play. Lowest is displayed first.	
Delivered [3] Update [4]		

- 3. Choose a value for your Set Order Status field as discussed earlier:
 - For *delayed* downloads, you need to set the order status to <u>Pending [1]</u>.
 - For *immediate* downloads, you need to set order status to <u>Processing [2]</u> or <u>Delivered [3]</u>.
Step 5 of 5: Test your product download configuration

Using a test customer account, go to your Store Front and purchase the downloadable product which you have just created. Make sure you choose a payment option that allows you to check whether it allows *immediate* or *delayed* download.

If a file is available for immediate download, the test customer will be able to see and download the files immediately on the Checkout Success page as shown in the following screen shot.

Optionally, you can log in to the test customer account to check whether files are available for download. To give you an idea of how files that are available for download will appear in a test customer's account, you can refer to the following sample screen shots.

	Previous Orders						0	rder 1	[nformatio	on - Orde	r #26	
Date	No.	Ship To	Status	Total	View		Qty.		Products			Tota
11/16/2010) # 26	Jacques Pires France	Processing	\$200.00	view		1 ea. Encycloped Edition)	dia - His	tory of the W	orld (Downlo	ad	
11/15/2010) # 23	Jacques Pires France	Pending	\$225.00	view		• Vol • Vol • Vol	1 of 4: 2 of 4: 3 of 4:	- Asia - Africa - America			\$2
11/07/2010) # 19	Jacques Pires France	Pending	\$23.45	view		• voi	4 of 4:	- Europe			
						' I				_	Sub-Total:	\$2
										Free	e Shipping:	ŝ
											Sales Tax:	+ 7
Si	tatus Dov	is "Processing" Inload available	· ·				To download y "S	your fil Save to	les click the Disk" from	download the popup	button an menu.	d cho
1.4	200						Item Name	File Size	Filename	Link Expires	Remaining	
				Click "view" t screen to be	to go to n ain down	ext load.	Encyclopedia - History of the World (Download Edition)	0.05 (MB)	encyclopedia- part1.zip	01/15/2011	. 5	down
				·	5		Encyclopedia - History of the World (Download Edition)	0.05 (MB)	encyclopedia- part2.zip	01/15/2011	5	down
							Encyclopedia - History of the World (Download Edition)	0.05 (MB)	encyclopedia- part3.zip	01/15/2011	. 5	dowr
							Encyclopedia - History of the World (Download Edition)	0.05 (MB)	encyclopedia- part4.zip	01/15/2011	5	dow

Checking and changing download statuses

After a purchase is made by a customer, you can check the availability of your downloadable products to that customer. This allows you to check on customer complaints regarding download failures or simply to manually reactivate the downloads of a particular customer's order.

To check and/or change the download status of your customer orders:

- 1. Click on Customers > Orders to access the Orders screen.
- 2. Choose the order which contains purchased downloads and click the **edit** button on the side-panel. Concentrate on the following portion of the screen.

Chapter 15. Advanced product attribute configuration

	LEGEND:	Availa	able)	Expired	Not on S	Server		
		Order	Download 9	Status				
	Status	Filename		Days	Cou	Int		
Color of button denotes	╞	encyclopedia	a-part1.zip	7	5			
		encyclopedia	a-part2.zip	7	5			
		encyclopedia	a-part3.zip	7	5			
		encyclopedia	a-part4.zip	7	5			
	Date	Added Custon		Notified	Status	Comments		
	09/26/200	06 01:07:39 🛛 🗸		'	Pending			
Change from "Pending [1]" to "Processing [2]" to allow customer to perform download.	Comments							
	Status:	Pending [1]	*			update		
	Notify Cu	istomer: [(🖲 -Email	🔾 -No E	mail 🔘	-Hide] Append Comments: 🗹		

- 3. To change the download status of a particular file, click on the respective button under the Status column of the Order Download Status table.
- 4. To change the status of an order so as to control *when* files are available for download, choose a suitable order status from the **Status** drop-down list box and click the **update** button.

Managing downloadable products centrally

You can easily lose track of which attributes are tied to which downloadable files if your online store sells a lot of downloadable products. To alleviate this problem, Zen Cart provides a screen which allows you to manage all your download-specific information from one place. This screen is available via Catalog > Downloads Manager as shown in the following sample screen shot.

Dov	VNLO	ads Manager							Search:
				 Missing file 	name O Valid filename				
Attr ID	Prod ID	Product Name	Model Option Name	Option Value Name	Filename	Day	/s Coun	t 30	song_African.zip edit Attribute Controller
30	17	Beginner Drum Lessons	Buy Instructional Videos?	"African Beats"	O song_African.zip	7	5	► Pro	duct: Beginner Drum Lessons
31	17	Beginner Drum Lessons	Buy Instructional Videos?	"Dance Beats"	O song_Dance.zip	7	5	① Mod	del:
32	17	Beginner Drum Lessons	Buy Instructional Videos?	"Jungle Beats"	O song_Jungle.zip	7	5	① Max	c Days: 7
33	17	Beginner Drum Lessons	Buy Instructional Videos?	"Metal Beat	s" O song_Metal.zip	7	5	① ^{Max}	Cowhloads: 5
37	17	Beginner Drum Lessons	"Beginner Drum Lessons" Manual	MS Word Format	Osheet_music_word_A	ALL.zip 7	5	Û	
36	17	Beginner Drum Lessons	"Beginner Drum Lessons" Manual	PDF Format	EDITING DOWNLOAD Product: Beginner D	rum Less	ATION ons		
47	70	DownloadableProd - A	TestDownload	Zip Format	Model:				
48	71	DownloadableProd - B	TestDownload	Zip Format	Edit the Download info	rmation:			
26	18	Encyclopedia - History of the World (Download Edition)	Vol 1 of 4:	Asia	Filename:				Click "edit" to change
27	18	Encyclopedia - History of the World (Download Edition)	Vol 2 of 4:	Africa	song_African.zip				to this side-panel.
28	18	Encyclopedia - History of the World (Download Edition)	Vol 3 of 4:	America	Max Days:				
29	18	Encyclopedia - History of the World (Download Edition)	Vol 4 of 4:	Europe	7				
Displ	aying 1	to 12 (of 12 downloads)			Max Downloads:				
					5				
					update	canc	el		

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Accepting file uploads from customers

Customer file uploads can be handled by using attributes. In Zen Cart, file uploads are handled as *part* of a purchase and not after the purchase. That means the upload process occurs when a product with a *File* attribute option type is added to a customer's shopping cart.

How file uploads work in Zen Cart

File uploads are achieved by utilizing *File* attributes that are attached to a product. Each *File* attribute results in an upload file field being rendered in the product's Product Info page as shown in the following screen shot.

	Design-A-Mug \$20.00				
larger image	Upload your coolest images to create your very own customized mugs! Alternatively, let us randomly select the images for you based on our psychic predictions.				
 Shipping We 999 Units in 	ight: 0.1lbs Stock	Add to Cart: 1 add this to my cart			
Please Choose: Upload your mug images below:					
Mug side image	Browse_				
Mug bottom image Browse_					

Customers pick their desired files to upload from their local computer by clicking the respective Browse buttons next to each file upload field. The upload process begins immediately after a customer clicks the "Add to Cart" button. Messages will then be displayed on the next page indicating whether the upload was successful. For example, the following screen shots shows the Shopping Cart page when a successful upload is performed. Notice that a number is *prefixed* to the *original name* of each uploaded file if the upload succeeds.

Home :: The Sh	opping Cart	
🖗 Success: fil	le saved successfully.	
Your Shop	ping Cart Contents	[help (?)]
т	otal Items: 1 Weight: 0.1lbs Am	ount: \$20.00
Qty.	Item Name	Unit Total
1	Design-A-Mug	\$20.00 \$20.00
	 Mug side image - 3. my_mug_side.png Mug bottom image - 4. my_mug_bottom.png 	
		Sub-Total: \$20.00

After a file is uploaded onto a remote server, Zen Cart will rename the *physical* files by assigning a unique and incrementing number to their original *file extensions*. For example, if there are already two files on the server with the names: 1.jpg and 2.jpg. Then, the two files that the customer uploaded (i.e. my_mug_side.png and my_mug_bottom.png) will be renamed to 3.png and 4.png on the server respectively. Hence, if you were to go to the directory where the uploaded files are stored, you will see a directory structure similar to the following screen shot.

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🖻 🛅 images	
📄 🗀 upl	oads
🖻	.htaccess
🖬	1.jpg
	2.jpg
	3.png
· 📄	4.png

This re-naming scheme for uploaded files serves two main purposes. Firstly, it prevents the accidental overwriting of files when different customers upload files with the same names. Secondly, it prevents customers from uploading files to your online store and then sharing the links to the uploaded files with other users thus turning your store into a file sharing website.

Note that the re-naming of uploaded files is opaque to the customer uploading the files. The unique number that is prefixed to a customer's uploaded image in the Shopping Cart page is the same running number assigned to the renamed physical file on the remote server. The prefixed file name appears from the Shopping Cart page all the way to the Order History page as shown in the following screen shot.

Home :: My Acco	ount :: History :: Order #80				
	Order Date: Tuesd	ay 16 Novem	ber, 2010		
(Order Information - Order	⁻ #80			
Qty.	Products	-	Total		
1 ea. Design-A	A-Mug				
• M • M	lug side image - 3. my_mug_side.pr lug bottom image - 4. ny_mug_bottom.png	ng	\$20.00		
	:	Sub-Total:	\$20.00		
	Flat Rate (B	lest Way):	\$5.00		
	Value Added Tax (VAT	F)@10%:	\$2.00		
	CarbonTa	ix @ 10%:	\$2.00		
		Total:	\$29.00		
Status History & Comments					
Date	Order Status	Comme	ents		
11/16/2010 11/16/2010	Pending Processing				

When a store owner processes an order with uploaded files in the Orders screen, the names of the uploaded files will also appear with their respective running numbers as shown in the following screen shot.



Currently, there is no way to download the files uploaded by a customer directly from within the Admin Console. Instead, store owners will have to correlate the prefixed file names in a customer's order with the uploaded physical file names on the remote server before using an FTP client or cPanel to retrieve the uploaded files to their local computers.



You may want to run a virus scan on the uploaded file when you download it to your local computer. Optionally, you may want to speak to your web host to see if they offer real-time virus scanning services for your hosting account.

Configuring file uploads

We have discussed how you can configure file attributes earlier so you should not have any problems here. There are several steps that you will need to perform to get file uploads working as they are intended to in Zen Cart. We shall cover these settings in detail in this section.

Upload directory settings

The directory in which uploaded files are stored is defined in the following two lines of code in the [zc-home]/includes/configure.php file. By default, it would mean that the file upload directory is [zc-home]/images/uploads.

```
define('DIR_WS_UPLOADS', DIR_WS_IMAGES . 'uploads/');
define('DIR_FS_UPLOADS', DIR_FS_CATALOG . DIR_WS_UPLOADS);
```

In order for uploaded files to be placed in the configured file upload directory, you need to make sure that the directory *exists* and also that the directory *permissions* allow files to be stored there. For more information on changing directory permissions, refer to the section "Changing file and directory permissions".

Attribute configuration

Before you configure the necessary file upload attributes, you need to make sure that the following conditions are met:

- 1. Click on Configuration > Maximum Values to access the Maximum Values screen.
- 2. To control the file names extension that can be used by customers to upload to your server, edit the Allowed Filename Extensions for uploading field.

The file name extensions are checked against customer uploaded files in a case-insensitive manner by Zen Cart.



3. To limit the size of an uploaded file, enter a value (in bytes) into the **Maximum File Upload Size** field. The default value is <u>2048000</u> bytes which is almost 2 megabytes (i.e. 2MB).

This value is different from the upload_max_filesize PHP configuration setting covered in the next section. It is used by Zen Cart to determine whether a file should be allowed on the server *after* an upload completes whereas the upload_max_filesize PHP settings is used to determine whether a file size limit has been reached *during* upload.

Maximum File Upload Size
Please make any necessary changes
Maximum File Upload Size What is the Maximum file size for uploads? Default= 2048000
2048000
update cancel

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As you should be very familiar with attribute manipulation after working through the Chapter 14, "Working with product attributes", we shall only cover the main steps required for you to set up and configure a file upload attribute in the following steps.

1. Create an attribute with Option Type = File as shown in the following screen shot.

PR <<		Option ID 🗸				
ID	Option Name	Option Type	Sort Order	Size	Max	Action
12	Vol 3 of 4:	Radio	2	32	32	
13	Vol 4 of 4:	Radio	3	32	32	
14	Buy Instructional Videos?	Checkbox	1	32	32	
15	"Beginner Drum Lessons" Manual	Dropdown	0	32	32	
16	Flavor	Radio	0	32	32	
17	Tuna Type	Radio	1	32	32	
18	Upload Shirt Logo	File	1	32	32	
19	Flavors	Radio	0	32	32	
21	Mug bottom image	File	20	32	32	
20	en: Mug side image Order: 10 NOTE: Rows, Display Size and Max Length are for Tex en: Comments: Upload your mug images below: Rows: 0 Display Size: 32 Maximum length: 32 Attribute Images per Row: 0 Attribute Style for Radio B Image Styles:	File Image: Checkbox:				update Cancel
	1 mage styles: 0 = Images Below Option Names 1 = Element, Image and Option Value 2 = Element, Image and Option Name Below 3 = Option Name Below Element and Image 4 = Element Below Image and Option Name 5 = Element Above Image and Option Name					

2. Attach the file upload attribute to the product and configure the attribute's settings as shown in the following example screen shot.

CATEGORIES: - Assorted Good Select a Category with Products Products previous Assorted Goods \$20.00	ds Or move between the Products ts: 4/16 ds ▼	
Legend: Display Only Free Defaul OFF/ON X X	DownloadableProd - A (\$100.00) [] - ID# 70 Iult Discounted Base Price Required Images Valid/Invalid filename	
ID	Option Name Option Value Prefix Price Prefix Weight Order Legend: Total Disc: Onetime:	Action
	ID# 69 - DESIGN-A-MUG	
	r.	
51	E Mug side image TEXT + 0.0000 + 0 0 🗶 🗑 🗶 \$0.00 \$0.00 🦉	delete
ADDING NEW ATTRI	IBUTES Define the Attribute Settings then press Insert to apply	insert
53 Design-A-Mug		
Option Name "Beginner Dum Lessons" Mr Additional Plates (Color (Rado) [472] Connector Type [Rado] [472] Message in Birthdo (2017) Message in Birthdo (2017) Message in Birthdo (2017) Message in Birthdo (2017) Mag Bottom mosco [176] [472] Mug Bottom general [176] [472]	Option Value Manual [Dropdown] [#15] Image: Constraint of the second seco	

3. Go to the Store Front to preview and verify how the attribute will look and behave as shown in the following example screen shot.

Please Choose: Upload your mug images l	below:
Mug side image	Browse
Mug bottom image	Browse

PHP configuration settings

You will need to be aware of certain PHP configuration settings that could potentially interfere with whether file uploads work properly for your Zen Cart store.

These settings can be determined when you click on **Tools** > **Server/Version Info** to access the Server Information screen. You will not usually need to change these settings. However, if you are required to do so, speak to your web host to see how this can be done as it depends on how your remote server is configured by them.

Table 15.1: PHP settings that may affect file upload operations

Option	Description
file_uploads	Indicates whether file upload operations are allowed. This value must be set to $\underline{1}$ or \underline{true} .
upload_tmp_dir	This is the directory which PHP will temporarily store any uploaded files. This value is <i>not</i> used by Zen Cart but is mentioned here so that you do not waste time checking it.
upload_max_filesize	Controls the maximum file size that PHP will accept. This value must be less than the post_max_size explained later.
max_file_uploads	This directive was introduced in PHP 5.2.12 to limit the number of files that your web application will handle per request. This is to prevent a class of web hacking activity known as denial-of-service (DOS) attacks.
post_max_size	Controls the maximum data size that can be sent from a browser via a POST request. The data size would include the lengths of form fields and any attached files to be uploaded to the server. This value must be greater than the upload_max_filesize mentioned earlier.
max_input_time	Limits the amount of time (in seconds) that a POST request may take to submit all its data, after which the operation will be terminated. Users who are using slow internet connections may require you to adjust this value for their uploads to work.

File upload errors and limitations

File uploads may fail for a number of reasons and it is important that you are aware of some of these scenarios so you will not be clueless when your customers report a problem with their checkout experience.

One of the messages that can appear when a customer experiences a failed upload with an overly large file is shown in the following screen shot.

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Notice that the product is still added to the shopping cart despite the appearance of the warning message. This is one way Zen Cart tries to help store owners retain their customers and discourage the affected customers from leaving for a competing site immediately.

The other error message that may appear occurs when the upload directory does not have the required permissions settings to allow uploaded files to be placed in it. This error message is shown in the following screen shot.

🗥 Error: destination not writeable.

Besides the errors messages that you have just seen, you may also want to take note of a number of limitations when working with the file upload functionality in Zen Cart. This will help you decide whether you need to have custom code developed for your online store in order to meet your business needs.

Currently, if a customer uploads a file successfully when adding it to the cart but does not complete the purchase, the uploaded file will remain on the remote server indefinitely until you manually remove it. You may want to devise a schedule to periodically clean up the stray files when you no longer need them.

Another point worth mentioning is that there is currently no way to assign different file type restrictions for each separate file upload attribute. For example, restricting one attribute to allow only ".png" and ".jpg" files to be uploaded while another attribute only accepts ".pdf" and ".zip" files.

Summary

As you have seen, configuring downloadable products and upload attributes require a lot more steps due to the extra security considerations that are in place. Therefore, take your time when setting them up and work with your web host if you are unsure about certain security measures your web host has configured.

Introduction

This chapter will show you the additional features that are available when working with certain or all products in your store. This features enhance your product offerings further and you should take advantage of them to make your products more compelling to your customers.

In this chapter, we shall:

- Specify multiple images for a single product.
- Add product samples to music products.

Providing multiple images for a product

There are two scenarios where you might want to provide multiple images for a product:

- To showcase a single product using different images, each of which is auto-scaled by Zen Cart.
- To use your custom-sized images instead of using Zen Cart's image auto-scaling feature to cater to a single product image or multiple product images.

Providing auto-scaled images for a product

There are probably various occasions when you want to display multiple images for a product. For example, a zoom-in of a specific product detail like the neck-line of a dress or to provide several views (plan, elevation, etc) of a machine. Refer to the following screen shot to get an idea of how different images for a single product can be displayed.



Before you add any additional images to your product, you need to understand how Zen Cart recognizes and handles additional images for a product.

Understanding how additional images are recognized

Zen Cart uses a *base name* to distinguish the main picture of a product from other additional pictures of the same product. For example, the main picture of a laptop will usually be the front view. The side and back views might make up the other pictures for the laptop. In this case, the image names could be named as follows:

- laptop.jpg
- laptop_backview.jpg
- laptop_sideview.jpg

Because the names of a product's additional images are sorted *alphanumerically* before their corresponding images are displayed, you may want to append a number or a letter behind the names of additional product images in order to display them in your desired *sequence*. For example, you could modify the preceding additional images to use the following naming conventions instead.

- laptop.jpg
- laptop_01.jpg
- laptop_02.jpg

In each of the preceding cases, the images are *auto-scaled* to the required size by Zen Cart. Do note that, typically, an *underscore* is used to represent additional product images linked to a base name. You could easily have used laptopa.jpg, laptop123.jpg, laptoplaptop.jpg, etc. However, the latter naming schemes are difficult to comprehend and can lead to a maintenance nightmare if you have many products using images with similar names.

For simplicity's sake, we shall *assume* that all additional product images referred to in this book use the *underscore* as the separator to distinguish them from the base name of the product's main picture. Thus, from the list of sample laptop pictures listed above, the base picture is the one without an underscore (i.e. laptop.jpg). The base picture is usually uploaded when you create a new product in the Admin Console. For the other pictures, they will need to be manually uploaded to the server via FTP.

Before we go further, take note of a *potential problem* that can occur if you are not careful in naming your additional product images. Consider the following scenario where you have set up two laptops in your store catalog.

Product X: Custom Desktop Computer

```
Base picture: desktop.jpg
Other picture: desktop_side.jpg
Other picture: desktop_01.jpg
```

Product Y: NorthStar Desktop Computer

```
Base picture : desktop_northstar.jpg
Other picture: desktop_northstar_back.jpg
Other picture: desktop_northstar_01.jpg
```

If customers view Product Y, they will see it normally, with a base image and two additional images for the other views. If customers view Product X, there will be a problem because all *six* images are displayed! The problem is due to the fact that all six images have a base name of desktop. After this example, you should be conscious to avoid having different images with the same name.



Make sure that all the images have the same file extensions. If not, your additional images will not be displayed.

Adding additional images to a product

Make sure you go through the discussion on how additional images are added to a product in the preceding section before going through the following procedures.

Before you can show additional images for your products, you need to enable this feature for your particular product type:

- 1. Click on Catalog > Product Types to access the Product Types screen.
- 2. Choose the product type for which you want to have multiple images displayed and click on the **edit layout** button on the side-panel.
- 3. Make sure that the Show Product Additional Images field is enabled.

To add an additional image to a product:

1. Make sure your additional image contains an underscore (i.e. "_") after the base name of the main product image you have already uploaded. For example, if a product's main image is aaa.jpg, then the base name is simply aaa. A possible name for the product's additional image might be aaa_side.jpg or aaa_01.jpg.

Recall that the underscore is the naming convention we are using for this book to identify the additional images of a product.

2. Upload the additional image via FTP to the same directory where the base product image is located on the server.

To change the layout for the additional product images of a product:

- 1. Click on Configuration > Images to access the Images screen.
- 2. Specify the required value in the Product Info Number of Additional Images per Row field

Providing pre-scaled images for a product

The previous section discussed how multiple images can be added to a product and how each of those images are *auto-scaled* by Zen Cart. In this section, we shall learn how you can use *pre-scaled* images with your products. Before we proceed, make sure you have gone through the section "Understanding how additional images are recognized" as we will be making use of some of the concepts discussed there.

Understanding how pre-scaled images are recognized

There are essentially three possible image sizes (small, medium and large) for product images in Zen Cart. As you probably know by now, Zen Cart automatically scales your images to the correct size if you only supply one image per product.

Auto-scaling of images can result in images with less than optimum file sizes and thus consume precious bandwidth. To alleviate this problem, you can use your own pre-sized images to bypass the auto-scaling process to minimize wasted download capacity and improve page loading times for your customers. With pre-sized images, you also exert greater control over the exact resolution and size of the images that you want your customers to see.

Let us take a look at where you can see images of the three different sizes in your Store Front. This will give you a better idea of what you need to supply to Zen Cart for each image size. The following list shows the various Store Front pages where different image sizes can be seen:

- versions of your product images if they are quite large.
 Product Info *medium* sized images are displayed by default.
- Product Info *large* sized images are displayed in pop-up windows when customers click on the hyperlinked medium sized images.

Whatever the case, if you want Zen Cart to show your images with the relevant image sizes, you need to provide additional information to Zen Cart. Zen Cart recognizes the *large* and *medium* images by their suffixes of _LRG or _MED respectively.

The default suffixes can be changed in Configuration > Images by editing the following fields:

- Product Info Image Medium Suffix
- Product Info Image Large Suffix

In addition to the above file naming conventions, you need to put your custom images into the respective directories for the size desired. These directories should already be on your server and are located immediately underneath the [zc-home]/images directory with the names of large and medium respectively as shown in the following screen shot.



Now, if you only have *one image* for your product, you can provide your custom pre-scaled medium and large images as shown in the following screen shot.



However, if you want to provide custom medium and large size images for your *base and additional images*, you could name your images either way as shown in the following screen shot.



Notice that only *one medium-sized* image for a product (i.e. laptop_MED.jpg) is required regardless of how many additional images are used to represent a product. This is because the Product Info page is the only page in your Zen Cart store that uses a medium-sized image. The name of the medium-sized image must also be derived from the base name of the product's main image instead of the names of any additional images.

If your base product image resides under a sub-directory of [zc-home]/images, then your medium and large image directories should be under similarly named sub-directories of the [zc-home]/images/medium and [zc-home]/ images/large directories respectively. The following screen shot shows an example of this arrangement.



Adding pre-scaled images to a product

Make sure you go through the discussion on how pre-scaled images are added to a product in the preceding section before going through the following procedures.

To specify medium and large images for your base and additional product images:

- 1. Click on Configuration > Images to access the Images screen.
- 2. Check the value of the suffixes for the following fields:
 - Product Info Image Medium Suffix
 - Product Info Image Large Suffix
- 3. Make sure your pre-scaled images have the same suffixes as that shown in the previous step.
- 4. Upload your pre-scaled images to their respective directories on your remote server. For example, [zc-home]/ images/large and [zc-home]/images/medium.

Providing media samples for Product-Music products

For products belonging to the Product-Music product type, Zen Cart allows you to specify music samples for free download to users. For example, if your store sells music CDs, you can provide sample music clips for each song in the CD.

The following example screen shot of a music CD with sample song clips allows you to visualize how sample clips can appear with a product. The comments on the screen shot will be obvious when you learn to configure product samples later in this section.



Music product samples are implemented using the concepts of *media type* and *media manager*. A media type specifies the file type that a product sample belongs to. For example, media types of music clips can be in mp3 or wma file formats while media types of song lyrics can be in *txt* or *pdf* file formats. A media manager contains several files of possibly different media types that are assigned to a particular product. For example, you can create a media collection of song clips and lyrics and assign the media collection to a music CD in your online store.

The general steps to configuring product samples can be summarized as follows:

- 1. Configure media type for product sample.
- 2. Create a media collection to hold product samples.
- 3. Assign the media collection to a music product.

Step 1 of 3: Configure media type for product sample

To define the media types for your product samples:

1. Click on Extras > Media Types to access the Media Types screen.

Media Types					
Extension	Action MP3				
.mp3	€ 🛛 ► edit delete				
	Page 1 of 1				
	insert Extension: .mp3				
	Extension .mp3				

2. Click on insert to begin creating a media type for your product sample.

New Media Type
Please fill out the following information for the new media type
Media Type Name
Media Type Extension
save cancel

3. Specify a name whose meaning will be obvious to your customers in the **Media Type Name** field. This field is displayed to your visitors telling them the file format of the sample.

- 4. Specify a file extension in the Media Type Extension field which corresponds to the product sample file you will be uploading later. Examples include <u>wma</u>, <u>pdf</u>, <u>mp4</u> etc.
- 5. Click on save to create the media type in your database.



Check that the media type you want to offer is allowed in the list of permitted file types in [zc-home]/media/.htaccess in order for the media file to be accessible by your customers from the Store Front. For more information on working with the .htaccess file, refer to the section "The .htaccess files".

Step 2 of 3: Create a media collection to hold product samples

To create a media collection of product samples:

1. Click on Extras > Media Manager to access the Media Manager screen.

Media Manager	
Collection Name	Action Sample Audio Clips - Classical
Sample Audio Clips - Classical Masterpieces on Violin	
Displaying 1 to 1 (or 1 Media Collections)	insert assign to product
	Date Added: 09/10/2006
	Last Modified: 11/30/2006
	Linked Products: 1
	Linked Clips: 4

2. Click on insert to begin creating a new media collection.

New Media Collection				
Please enter the details of the new media collection below				
Media Collection Name				
save cancel				

- 3. Type a suitable name into the Media Collection Name field and click save to save this media collection into the database. Your Media Manager screen will be refreshed.
- 4. Select the media collection you just created and click on edit to begin specifying the different files that you wish to associate with the media collection.

Edit Media Collection
Please amend the details of the new media collection
below
Media Collection Name
Sample Audio Clips - Classical Masterpieces on Violin
save cancel
Use the section above to change the Media Collection Name, then clicking on the save button.
Use the selection below to add or remove media clips from the media collection.
Add Media Clip
Browse
Upload to Media Directory Main Directory 🛩
Media Clip Type MP3 (.mp3) ¥
Centone_di_Sonate.mp3
delete Adagio.mp3
delete 24_Caprices.mp3
delete Andante .mp3

- 5. If you wish to change the name of the media collection you just created, edit the Media Collection Name field and click save.
- 6. For each file that you wish to associate with this media collection, click the **Browse** button next to the **Add Media Clip** field and select a file from your local computer's hard drive. This file should end with a file extension which you have defined in the **Extras** > **Media Types** screen.
- 7. Choose a directory from the Upload to Media Directory drop-down list box to indicate where you want your uploaded file to be placed on the server. The default value of <u>Main Directory</u> points to the [zc-home]/media directory on the server.

Avoid uploading files with special characters (quotes, exclamation marks, etc) or spaces in their file names to avoid download problems for your customers. These problems can arise due to how different web browsers work.

- 8. Choose the appropriate file extension from the **Media Clip Type** field for the product sample file you intend to upload. The file extension for the file you upload must *match* a file extension defined in the Media Types screen. If both file extensions do not match, Zen Cart will just ignore the product sample you uploaded and thus not display the product sample in the media collection of the product.
- 9. Click Add to upload and associate the sample file to your media collection.
- 10. Repeat from Step 4 to add another product sample to the media collection.

Step 3 of 3: Assign the media collection to a music product

To assign the media collection you have created to a music product:

- 1. Click on Extras > Media Manager to access the Media Manager screen.
- 2. Choose the required media collection and click on **assign to product** to begin assigning the media collection to your desired music products.

Assign Media Collection to Product				
You can assign and remove this Media Collection for products using the forms below.				
Music				
Classical Masterpieces on Violin 🗸				
Add				
delete Classical Masterpieces on Violin				
cancel				

- 3. Choose the product *category* from the *top* drop-down list box and the *product* from the *bottom* drop-down list box for the product that should be assigned the media collection.
- 4. Click Add to assign the required media collection to the product.
- 5. Repeat from Step 3 to add the same media collection to another product.

Summary

This chapter showed you how easy it is to add multiple images and sample clips to your product offerings. You should seek to utilize these techniques to enhance your product offerings so as to entice your customers into making more purchases.

Introduction

An array of pricing mechanisms exist in Zen Cart to help store owners meet their business objectives. Discounts allow excess stock to be cleared or to increase revenue by enticing customers to buy in greater volume. On the other hand, surcharges allow businesses to control their costs by charging customers more for extra services. Finally, order totals allow a store owner to specify how the final price of an order should be derived during the checkout process.

As you go through this chapter, take note of the *difference* between *product* pricing and *order* pricing. *Product pricing* only affects products; e.g. discounts. *Order pricing* affects the total amount of the order which includes the prices of the products; taxes, surcharges, discounts, etc.

In this chapter, we shall:

- Configure how customer order prices are calculated via the Order Totals modules.
- Add surcharges to customer orders.
- Implement different discounts schemes.

Understanding order totals

The final price charged to customers is known as the order total in Zen Cart. This amount appears in the final step of the checkout process as shown in the following sample screen shot.

Shopping Cart Contents						
		edit				
Qty.	Item Name	Total				
1 ×	Normal Test Product	\$200.00				
	Sub-Tota	al: \$200.00				
	Flat Rate (Best Way	r): \$5.00				
	Value Added Tax (VAT) @ 109	6: \$20.00				
	Tota	al: \$225.00				
Final S - conti	itep nue to confirm your order. Thank you!	confirm the order				

Notice from the preceding sample screen shot that a series of calculations are performed before the final order total (\$225.00) is displayed to a customer. Zen Cart gives you the flexibility to configure the *sequence* in which these calculations are performed and also some of the *logic* within each step of a calculation.

The Order Total Modules screen

The Order Total Modules screen allows you to configure how different modules work together to affect an order total. To access the Order Total Modules screen, click on **Modules > Order Total**.

ORDER TOTAL MODULE	S		
Modules		Sort Order	Action
COD Fee	ot_cod_fee	950 O	•
Discount Coupon	ot_coupon	280 0	Û
Group Discount	ot_group_pricing	290 0	Ð
Gift Certificates	ot_gv	840 0	Ū
Low Order Fee	ot_loworderfee	400 0	Û
Shipping	ot_shipping	200 •	Û
Sub-Total	ot_subtotal	100 0	Ť
Tax	ot_tax	300 O	(1)
Total	ot_total	999 0	Û
Module Directory: /home/johndoe	/public_html/store/includes/modules/order_tota	1/	

There are two important things to note about this screen:

Total

- Each module under the **Modules** column is used to apply a *particular* business logic to a calculation. For example, the Tax module is used to determine whether a customer is liable for tax; and then to apply that tax to the order if the customer is liable for tax.
- Each value under **Sort Order** column is used to determine the *sequence* in which the corresponding module is applied to a calculation. The smallest number being the one which is applied first. If nothing appears under the **Sort Order** column, it means the module has been disabled and will not have an effect on an order's pricing.

The value which appears under the **Sort Order** column is especially important and can have unexpected results on an order total's amount. Look at the following two examples which show the difference in order total amounts just by switching the sequence in which the Shipping and Tax modules are applied in their calculations.

Exam	ple 17.1:	Sort Ora	ler: Sub-Toi	al, Shi	oping,	Tax,	Total = 1	, 2, 3, 4

Product A	= \$ 5.00
Product B	= \$15.00
Sub-Total	= \$(5 + 15) $=$ \$20.00
Add Shipping (@ Flat Rate of \$10)	= \$(20 + 10) = \$30.00
Add Tax (@ 5%)	$= (5\% \times 30) + 30 = 31.50

=

Example 17.2: Sort Order: Sub-Total, Shipping, Tax, Total = 1, 3, 2, 4

Product A Product B	= \$ 5.00 = \$15.00	
Sub-Total Add Tax (@ 5%) Add Shipping (@ Flat	$= \$(5 + 15) = (5\% \times 20) + 20$ Rate of \$10) = \$(21 + 10)	= \$20.00 = \$21.00 = \$31.00
Total	= \$31.00	

One important point to remember when testing your order total settings is to use *multiple* items in your shopping cart. This method aids in your understanding of different order total modules by allowing you to scrutinize their calculations more closely.

Automatic email alerts

Whenever an order total module is installed, updated or removed, an email will automatically be sent to the email address as specified in the **E-Mail Address (Displayed to Contact you)** field of the E-Mail Options screen.

The contents of the email will include which particular order total module was affected, which admin user made the change and what kind of change (i.e. installed, updated or removed) was made.

The email alerts provide a good security safeguard against malicious or unintended changes to your order total module settings and there is currently no option in the Admin Console to turn off the sending of such email alerts.

Core modules

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Although any order total module can be uninstalled, you should leave some of the core modules as always installed. If you uninstall these core modules, order total calculations may not make sense and the orders might not even be processed by Zen Cart after payment is made!

Modules which are optional (Gift Certificates, Discount Coupons, etc) will be discussed in their respective sections later in the book.

Because taxes have a nasty way of affecting how the prices in your order totals will work out, enable the Sales Tax Display Status field under Configuration > My Store.

This will force the display of sales tax information in your order totals even if no sales tax is applicable for a customer.

Before we go on, let us arrange all the modules in their *default* order assuming they were all *enabled*. This gives you a better idea of how these modules act together to impact the prices of your order total.

Table 17.1: Default sort order of each order total module	Э
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Order	Modules	Core Modules
100	Sub-Total	Yes
200	Shipping	Yes
280	Discount Coupon	No
290	Group Discount	No
300	Tax	Yes
400	Low Order Fee	No
840	Gift Certificates	No
950	COD Fee	No
999	Total	Yes

Explanations of the core modules are as follows:

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Sub-Total

Calculates the total prices of all items in a customer's shopping cart.

Shipping

Applies a shipping charge to a customer's order based on the shipping module that the customer has selected when performing the checkout process.

Tax

Adds up all the taxes that apply to the items in a customer's shopping cart. Whether a product is liable for tax depends on your tax configuration and also whether you have specified a tax class when creating that product.

Total

Displays the total amount of the order. If you disable this module, customer orders will *not* be processed by Zen Cart.

For a discussion on the rest of the non-core order total modules, refer to the following list.

- "Discount coupons" on page 337.
- "Customer group discounts" on page 228.
- "Cash on Delivery (COD) fee" on page 231.
- "Gift certificates" on page 347.
- "Low order fee" on page 230.

Giving discounts

Discounts are a widely-used technique employed by retail businesses to increase sales or to clear unwanted stock. When a product has a discount applied to it, the discounted price of the product will be shown in *red* while the original price will be crossed out in the Store Front.



To change the way your discounts are displayed in the Store Front, click on **Configuration > Product Info** and edit the following fields:

- Product Info Show Sales Discount Savings Status
- Product Info Show Sales Discount Savings Dollars or Percentage
- Product Info Show Sales Discount Savings Percentage Decimals

Choosing a discount type

Before we discuss how to configure the various discount techniques, take a look at the following table to help you decide which discount type you want to apply for your store.

Table	17.2:	Comparison	of	different	discount	typ	es
						- 7 1 -	

Discount Type	Entitlement	Comments
Product Specials	Single product	Applies a percentage or fixed <i>price</i> discount to a product. Optionally, an expiry date can be specified.

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Chapter 17. Order totals, surcharges and discounts

Discount Type	Entitlement	Comments
		Take note of the Apply Discounts Used by Product Spe- cial/Sale attribute flag when working with this discount type.
Product Quantity Discounts	Single product	Applies a <i>price</i> discount based on the <i>quantity</i> of a <i>product</i> bought.
Product Sale	Multiple prod- ucts	Applies product <i>price</i> discounts to the entire store or to specific categories of products.
		Take note of the Apply Discounts Used by Product Spe- cial/Sale attribute flag when working with this discount type.
Attribute Quantity Discounts	Per product at- tribute	Discount on attribute price based on quantity of a product bought.
		Refer to the section "By quantity" for more details.
Customer Group Discounts	Multiple cus- tomers	Entitles selected customers to an order total discount.
Discount Coupons	Single/multiple customers and	Discount coupons can be applied <i>both</i> to an order total or a selection of products.
	products	Refer to the section "Discount coupons" for further details on how discount coupons work.

The important thing to note is that Group Discount calculations are applied to *order totals* instead of products. On the other hand, Discount Coupon calculations can be applied to both order totals and certain selected products depending on how the order total module is configured. Make sure you are very clear on the *difference* between order total discounts and product price discounts before choosing a discount type you want to configure.

Order total discounts apply to the charges (i.e. sub-total, taxes, shipping, etc) that a customer incurs during the checkout process. *Product price discounts* apply only to product prices that are configured during the product creation process.



Remember to take into account the **Apply Discounts Used by Product Special/Sale** attribute flag if any of your products are set up to use product attributes.

Product specials

Specials allow you to specify a product discount either by percentage or by an exact price. You also have the option of specifying an expiry date for the discount. When a product is on Special, Zen Cart will increase the exposure of the product via the various layout components in the Store Front as shown in the following screen shots.



To put a product on Special:

1. Click on Catalog > Specials to access the Specials screen.



2. Click on new product to bring up the Specials details screen.

SPECIALS		Search:
NOTE: status is	auto enabled/disabled when dates are set	
Product:	Beginner Drum Lessons (\$11.00) [] - ID# 17 Birthday Cake (\$10.00) [] - ID# 14 Canned Tuna (\$50.00) [] - ID# 38 Classical Masterpieces on Violin (\$19.95) [] - ID# 7 Designer Watch (\$0.00) [] - ID# 32	
Special Price: Available Date: Expiry Date:		
Specials Notes • You can • If you en • Leave the	s: anter a percentage to deduct in the Specials Price field, for example: 20% ter a new price, the decimal separator must be a '.' (decimal-point), example: 49.99 e expiry date empty for no expiration	insert cancel

Book available for purchase from http://www.cucumbermedia.com

- 3. Choose the product you want to place on Special from the Product field.
- 4. Enter a *percentage* (e.g. <u>10%</u>) to discount from the product or an *absolute number* for the new price of the product (e.g. <u>10.00</u>) for the **Special Price** field.
- 5. Optionally, choose a date for the **Available Date** field by clicking on the dark icon next to the field to bring up a pop-up calendar. If no value is specified in the field, the discount takes effect immediately after creation. If a future date is specified, the product will automatically appear as a Special in the Store Front when the future date arrives.
- 6. Optionally, choose a value for the **Expiry Date** field by clicking on the dark icon next to the field to bring up a pop-up calendar. The discount will run indefinitely unless a value is specified for the **Expiry Date** field.
- 7. Click insert to place the product on Special.

To view statistics for products that are on Special, click on Admin Home on the navigation menu to reach your home page. Look at the Specials Expired and Specials Active fields under the Statistics table as shown in the following screen shot.

Specials Expired	6
Specials Active	1

Product quantity discounts

Quantity discounts allow store owners to give discounts for bulk purchases of a product. A product that has a quantity discount attached to it will be displayed with a discount table in the Product Info page of the Store Front as shown in the following screen shot.



To customize how the discount table is displayed, click on Configuration > Layout Settings and edit the Product Discount Quantities - Display how many per row field accordingly.

To create a quantity discount for a product:

- 1. Click on **Catalog** > **Products Price Manager** to access the Products Price Manager screen. There is a lot of information contained in the screen. To help you understand and manipulate the settings on the screen more confidently, we shall only show the relevant portions of the screen as we go through the configuration steps.
- 2. Choose a product to which you want to apply a quantity discount by referring to the following portion of the screen.

Products Price Manager - Asso Select a Category with Products Products: previous Assorted Goods	rted Goods Or move between the Products 16/16 • w next	
\$20.00	Select a Product to View and Press Display Laptor (\$2.359.00) [1-10#16 Control Mouse (\$29.00) [1-10#13 Portat of Einstein (\$20.00) [1-10#13 Simple Linked Test Product (\$20.00) [1-10#43 T-Shrt (\$20.00) (DrYTH-1000) -10#9 V	
details edit product	Attribute Controller EDIT ATTRIBUTES	

- a. From the drop-down list box between the **previous** and **next** buttons, choose a category that contains your desired product.
- b. After your screen refreshes, select your desired product from the list box beside the display button.
- c. Click display and the details of your desired product will be displayed in the following portion of your screen.

PRODUCT INFO: #9 T-S	Product Info: #9 T-Shirt Model: DRYFIT-1000				
		PREVIEW ONL	Y CURRENT PRICE STATUS PREVIEW ONLY edit Click to begin Editing		
Preview	Only Current Price	e Status Preview	/ Only		
Tax Class:	Taxable Goods 😒				
Product Price Info:	Price 20.0000	Available Date:	 In Stock Out of Stock 		
	Qty Min: 1	Qty Units: 1	<u>Qty Max:</u> Qty Min/Unit Mix: 0 ◎ Yes ○ No 0= Unlimited 1= No Qty Box/Max Value		
	Product is Free: O Yes () No	Call for Price: O Yes (No	Priced by Attributes: Ves No		
Special Price Info:	🕂 install				
Featured Product Info:	🕂 install				
Preview Only Current Price Status Preview Only No Quantity Discounts have been defined					
PREVIEW ONLY CURRENT PRICE STATUS PREVIEW ONLY edit Click to begin Editing					

- 3. To apply a quantity discount to the product you have chosen:
 - a. Click on *any* of the two **edit** buttons on the Products Price Manager screen. After your screen is refreshed, concentrate on the following portion of the screen.

Add 5 Blank Qty Discounts: add blank discounts All 0 Quantity Discounts will be removed when Undated	

b. Click on add blank discounts and you should see a discount table as shown in the following screen shot.

Discount Qty Applies to Mixed Attributes 🛞 Yes 🔘 No						
Add 5 Blank Qty Discounts: add blank discounts All 0 Quantity Discounts will be removed when Updated						
Product Discount Info	Product Discount Info Discount Type: None 💌 Discount Priced from: Price 💌					
Discount Levels	Minimum Qty	Discount Value	Calculate Price:	Extended Price:		
Discount 1	0	0.0000	\$0.00	$\times 0 = 0.00		
Discount 2	0	0.0000	\$0.00	$\times 0 = 0.00		
Discount 3	0	0.0000	\$0.00	x 0 = \$0.00		
Discount 4	0	0.0000	\$0.00	x 0 = \$0.00		
Discount 5	0	0.0000	\$0.00	x 0 = \$0.00		

To change the default number of blank discounts displayed whenever the **add blank discounts** button is clicked, click on Configuration > Layout Settings and edit the Product Discount Quantities - Add how many blank discounts? field.

- c. If your product has attributes defined, select how you want your quantity discount to be applied via the **Discount Qty Applies to Mixed Attributes** field. If you choose ¥es, product attributes will be ignored and only the number of products bought will be used to trigger a quantity discount. If you choose No, *all* product attributes must *match* (e.g. T-shirt with color attribute "Blue" and size attribute "Large") before the total number of the products will be used to trigger a discount.
- d. Do not click the add blank discounts button again unless you wish to create an additional 5 blank discounts.
- e. Select how you want your discount to be applied for the product by choosing a value from the **Discount Type** drop-down list box. Explanations for the various possible values are as follows:
 - <u>Percentage</u> Applies a percentage discount based on the product price.
 - <u>Actual Price</u> Specifies a new price as the discount amount.
 - <u>Amount Off</u> Subtracts an amount from the product price to arrive at the discounted price.
- f. Select the price basis from which your new product price should be derived from the **Discounted Price from** field. Choose <u>Price</u> if you want the discount to be applied to the product price. Choose <u>Special</u> if you want the discount to be applied to an already discounted price of a product on Special.
- g. Enter the quantity of products bought that will qualify for a bulk discount together with the corresponding discount rates into the respective **Minimum Qty** and **Discount Value** fields.
- 4. Click on **update** once you are satisfied with your settings. Your screen will refresh and Zen Cart will display the automatically calculated discounted prices in a table as shown in the following screen shot.

Discount Qty Applies to Mixed Attributes 💿 Yes 🔘 No						
Preview Only Current Price Status Preview Only						
Product Discount Info Discount Type: Percentage 💌 Discount Priced from: Price						
Discount Levels	Minimum Qty	Discount Value	Calculate Price:	Extended Price:		
Discount 1	5	1.0000	\$19.80	× 5 = \$99.00		
Discount 2	10	2.0000	\$19.60	x 10 = \$196.00		

0 Note To delete the quantity discounts you have created, you need to edit the product again; but this time, you need to specify all the fields in the Discount Table as $\underline{0}$ and then click **update**.

Product sale

Zen Cart uses the concept of a "sale" to apply discounts to an entire store catalog or to certain product categories. Unlike products on Special and products with quantity discounts, Zen Cart does not display the discounted products with other visual cues other than showing the discounted price in red.

To create a discount for the entire store catalog or to specific product categories:

1. Click on Catalog > Sale Maker to access the Sale Maker screen.

SALEMAKER						
SaleName	Deduction	Startdate	Enddate	Status	Action	10% Store-wide Xmas Sale
10% Store-wide Xmas Sale	10.0000 Percent	12/11/2010	12/18/2010		•	edit copy to delete
5% Sale on Music items	5.0000 Percent	Immediately	Never		1	
T-Shirt Sale	10.0000 Percent	Immediately	Never		1	Date Added: 09/22/2006
Displaying 1 to 3 (of 3 sales)				r	Page 1 of 1 new sale	Last Modified: 11/16/2010 Last Status Change: Never Deduction: 10.0000 Percent Pricerange: \$0.00 to \$0.00 Specials Condition: Ignore Specials Price - Apply to Product Price and Replace Special Starts: 12/11/2010 Expires: 12/18/2010

2. Click on new sale to access the Sale Maker Details screen.

SaleMaker	7
Click here for Salemaker Usage Tips. insert cancel	
SaleName:	
Deduction: Type: Deduct amount	amount
Products Pricerange: To New Pri	e I
If a product is a Special: Ignore Specials Price - Apply to Product Price and Replace Special 💌	
Start Date:	
End Date:	
Check this box if you want the sale to be applied to all products: Ignore Specials Price - Apply to Product Price and Replace	Special
Entire catalog Ignore SaleCondition - No Sale Applied When Special Exists Apply SaleDeduction to Specials Price - Otherwise Apply to	Price
Or check the categories to which this sale applies:	T
Music	
Test	
Assorted Goods	

3. Before you configure anything, click on the **Click here for Salemaker Usage Tips** hyperlink near the top of the screen. A pop-up window (as shown in the following screen shot) appears with instructions on how to configure Salemaker properly.



- 4. Enter the name you want to assign to this sale in the SaleName field.
- 5. Enter a positive number into the **Deduction** field.
- 6. Select how you want your new discounted price to be derived from the Type field.
- 7. If you want discounts to be applied only to products within a certain price range, enter your desired values in the **Products Pricerange** and **To** fields.
- 8. If your product is already on Special, you can decide how your new sale price will be affected by choosing a value from the **If a product is a Special** field.
- 9. If you want the sale to take place *immediately*, leave the **Start Date** field *empty*. If your sale should be automatically activated on a future date, choose a suitable date from the dark icon next to the **Start Date** field.
- 10. If you do not want your sale to expire, leave the **End Date** field empty. If your sale should automatically expire on a future date, choose a suitable date from the dark icon next to the **End Date** field.
- 11. Choose whether you want your discount to be applied to the entire catalog *or* to selected categories by checking the relevant check-boxes. If you check *both* the **Entire catalog** field and any other categories, the sale will still be applied to the entire catalog!
- 12. Click on insert to create your new sale.
- 13. After your screen is refreshed, your new sale will be displayed. Note that your sale will only be active if the button in the **Status** column is green.

To view statistics for products that are on Sale, click on **Admin Home** on the navigation menu to reach your home page. Look at the **Sales Expired** and **Sales Active** fields under the **Statistics** table as shown in the following screen shot.

Sales Expired	2
Sales Active	1

Customer group discounts

Sometimes, you may want to offer discounts only to a selected group of customers. For example, if you have a group of loyal customers who are your main purchasers, you can opt to give them a group discount to recognize their loyalty and to encourage them to continue doing business with you.

Customer group discounts are only applicable to *order totals* in Zen Cart. They cannot be restricted to apply only to certain products in your store. Furthermore, customers will *not* see any discounted prices based on their discount groups while *shopping*. Group discounts are only shown during the *checkout* process.

The following screen shot shows the details of a shopping cart with a 10% Group Discount applied.

Shopp	ing Cart Contents	
		edit
Qty.	Item Name	Total
1 ×	Normal Test Product	\$200.00
	Sub-Tota	al: \$200.00
	Flat Rate (Best Way): \$5.00
	Group Discour	nt: -\$20.00
	Value Added Tax (VAT) @ 109	6: \$18.00
	Tota	al: \$203.00
Final St - contin	ep ue to confirm your order. Thank you!	confirm the order

Before you can can create customer group discounts, you need to enable and configure the necessary order total module.

- 1. Click on Modules > Order Total to access the Order Total Modules screen.
- 2. Edit the Group Discount module. Install it if required. The following side-panel will appear.

Group Discount	Include Tax
This module is installed	Include Tax value in amount before discount calculation?
⊙ true	⊖ true ⊙ false
Sort order of display. 290	Re-calculate Tax Re-Calculate Tax
Include Shipping Include Shipping value in amount before discount calculation?	 ○ None ⊙ Standard ○ Credit Note
 O true false 	Tax Class Use the following tax class when treating Group Discount as Credit Note.
	update cancel

- 3. Enter a suitable value for the **Sort Order** field. Refer to the section "The Order Total Modules screen" if you have forgotten the purpose of this field.
- 4. Specify <u>true</u> for the **Include Shipping** field if you want shipping charges to be covered by a customer group discount.
- 5. Specify <u>true</u> for the **Include Tax** field if you want taxes to be covered by a customer group discount.
- Choose a suitable value for the Re-calculate Tax field. Usually, you should leave this as <u>none</u>. If you choose <u>Standard</u> or <u>Credit Note</u>, you will need to play around with different test orders to see whether they suit your needs.
- 7. If you have chosen <u>Credit Note</u> for the **Re-calculate Tax** field, you should choose a suitable option from the **Tax Class** drop-down list box.
- 8. Click update to finish configuration of your Group Discount order total module.

You should play around with the **Sort Order** field for all the order total modules if you encounter erroneous or illogical calculations. If that does not help, your last resort is to refer to the PHP code contained in the [zc-home]/includes/modules/order_total/ot_group_pricing.php file.

We shall now look at how we can create group discounts for your customers. There are two main steps to creating discounts for customers:

- Create a discount group specifying the discount value.
- Specify which customers belong to a specific discount group.

To create a discount group:

1. Click on Customers > Group Pricing to access the Group Pricing screen.

Gro	UP PRICING		
ID	Group Name	% Discount	Action Loyal Customer Group
1	Loyal Customer Group	10.00	🙂 🛛 🕨 🛛 edit 🛛 delete
Displa	ying 1 to 1 (of 1 pricing groups)		Page 1 of 1 insert Date Added: 09/22/2006
			Customers in Group: 10

2. Click on **insert** and concentrate on the side-panel.

New Pricing Group
Please fill out the following information for the new group
Group Name:
Percentage Discount:
save cancel

- 3. Enter a name for the group discount you want to create in the Group Name field.
- 4. Enter a positive value into the Percentage Discount field.
- 5. Click save to create the discount group.

To attach a discount group to a customer:

- 1. Click on Customers > Customers to access the Customers screen.
- 2. Choose a customer to whom you want to assign a discount group and click edit.
- 3. Select the discount pricing you want to apply to the customer from the **Discount Pricing Group** drop-down list box as shown in the following screen shot.

Options	
Email Format Pref:	O HTML I TEXT-Only
Newsletter:	Subscribed 🗸
Discount Pricing Group	none
Customer Referral 1st Discount Coupon	-none Loyal Customer Group 10.00%

4. Click update to assign the customer to the Discount Group. You will be redirected back to the Customers screen.

Notice that the name of the discount group assigned to a customer is shown under the **Pricing Group** table header as shown in the following example screen shot.

Customers										
	ID#	Last Name Asc Desc	First Name Asc Desc	Company Asc Desc	Account Created Asc Desc	Last Login Asc Desc	Pricing Group Asc Desc	GV Balance Asc Desc	Authorized Asc Desc	Action
L	5 1 of 2	Nicole	Bellamont		09/19/2006	11/15/2010	none	\$10.00		Û
L	3 1 of 1	Summers	Christine		09/17/2006	11/06/2010	none	\$0.00		٢
L	2 1 of 3	Smith	Alan		09/15/2006	10/27/2010	none	\$10.00		٢
L	1 1 of 1	Pires	Jacques		09/09/2006	11/16/2010	Loyal Customer Group	\$30.00		•

Adding surcharges

Surcharges allow you to add an additional fee to the *order total* prices. Zen Cart allows you to impose surcharges for orders that are below a certain amount or when customers choose the Cash-On-Delivery payment method.

Low order fee

A Low Order Fee allows you to charge customers an extra amount of money for orders that are below a certain threshold amount. This feature is helpful for stores that sell products with very narrow profit margins.

Shop	ping Cart Contents	
		edit
Qty.	Item Name	Total
1 ×	Normal Test Product	\$200.00
	Sub-To	al: \$200.00
	Flat Rate (Best Wa	y): \$5.00
	Value Added Tax (VAT) @ 10	%: \$20.00
	Low Order F	ee: \$5.00
	To	al: \$230.00
Final S - conti	tep nue to confirm your order. Thank you!	confirm the order

If you intend to set up a low order fee for your store, try to display a message clearly in your Store Front informing customers about this policy. As the low order fee will only be shown in the final step of the checkout process, customers might feel your business is out to cheat them and discontinue visiting your store.

To add a surcharge for orders falling below a certain threshold amount:

- 1. Click on Modules > Order Total to access the Order Total Modules screen.
- 2. Edit the Low Order Fee module. Install it if required.

Low Order Fee	Attach Low Order Fee On Orders Made
This module is installed	Attach low order fee for orders sent to the set destination.
⊙ true Sort Order Sort order of display.	 ○ national ○ international ⊙ both
Allow Low Order Fee Do you want to allow low order fees?	Tax Class Use the following tax class on the low order fee.
⊖ true ⊙ false	No Low Order Fee on Virtual Products Do not charge Low Order Fee when cart is Virtual Products Only
Order Fee For Orders Under Add the low order fee to orders under this amount.	⊖ true
0rder Fee	No Low Order Fee on Gift Vouchers Do not charge Low Order Fee when cart is Gift Vouchers Only
For Percentage Calculation - include a % Example: 10% For a flat amount just enter the amount - Example: 5 for \$5.00	⊖ true ⊛ false
5	update cancel

- 3. Make sure the Allow Low Order Fee field is set to true.
- 4. All fields are self-explanatory so we shall not go through them here.
- 5. Click on update to save your changes to the database.

Cash on Delivery (COD) fee

The Cash On Delivery (COD) payment method is not encouraged for online business. This is because there is a higher risk that you might not get the payment you want. Customers can always regret their purchases and refuse to pay when you show up at the door or deny the transaction ever took place.

Therefore, to discourage customers from choosing this option and to provide yourself some insurance, you can impose a charge on customer orders if they choose to pay via the COD payment method in the Billing Information page during checkout. Note that the wording in red (i.e. COD Fees may apply) will only appear if the COD fees order total module has been enabled.

r.
_

COD Fees that are applicable will only be shown in the final step of the checkout process as shown in the screen show below.

Shopping Cart Contents				
		edit		
Qty.	Item Name	Total		
1 ×	Normal Test Product	\$200.00		
	Sub-Tot	al: \$200.00		
Flat Rate (Best Way):		y): \$5.00		
Value Added Tax (VAT) @ 10%:		%: \$20.00		
COD Fee:		e: \$9.99		
	Tot	al: \$234.99		
Final S - conti	tep nue to confirm your order. Thank you!	confirm the order		

To impose surcharges for customers who choose to pay via the COD payment method:

- 1. Click on Modules > Order Total to access the Order Total Modules screen.
- 2. Edit the COD Fee module and concentrate on the side-panel.

COD Fee	COD Fee for Free-Options Shipping Module	COD Fee for UPS	COD Fee for German Post
Display COD	- (freeoptions)	UPS: <country code="">:<cod price="">, 00 as</cod></country>	German Post: <country code="">:<cod price="">,</cod></country>
Do you want this module to display?	Free+Options: <country code="">:<cod price="">,</cod></country>	country code applies for all countries. If country	00 as country code applies for all countries.
,	00 as country code applies for all countries.	code is 00, it must be the last statement. If no	If country code is 00, it must be the last
0.	If country code is 00, it must be the last	00:9.99 appears, COD shipping in foreign	statement. If no 00:9.99 appears, COD shipping
I true	statement. If no 00:9.99 appears, COD shipping	countries is not calculated (not possible)	in foreign countries is not calculated (not
O false	in foreign countries is not calculated (not	CA-4 50 LIS-3 00 00-9 99	possible)
	possible)	07.4.00,00.0.00,00.0.0	DE-2.59.00-9.99
Sort Order	CA-4 E0 UC-2 00 00-0 00		DL.3.30,00.3.33
Sort order of display	CA:4.50,05:5.00,00:5.5c	COD Fee for USPS	
		USPS: <country code="">:<cod price="">, 00 as</cod></country>	COD Fee for Servicepakke
950	COD Fee for Per Weight Unit Shipping	country code applies for all countries. If country	Servicepakke: <country code="">:<cod price="">,</cod></country>
	Module - (perweightunit)	code is 00, it must be the last statement. If no	00 as country code applies for all countries.
COD Fee for FLAT	Per Weight Unit: <country code="">:<cod< td=""><td>00:9.99 appears, COD shipping in foreign</td><td>If country code is 00, it must be the last</td></cod<></country>	00:9.99 appears, COD shipping in foreign	If country code is 00, it must be the last
FLAT: <country code="">:<cod price="">, 00 as</cod></country>	price>, 00 as country code applies for all	countries is not calculated (not possible)	statement. If no 00:9.99 appears, COD shipping
country code applies for all countries. If country	countries. If country code is 00, it must be the	CA:4.50.US:3.00.00:9.99	in foreign countries is not calculated (not
code is 00, it must be the last statement. If no	last statement. If no 00:9.99 appears, COD		possible)
00:9.99 appears, COD shipping in foreign	shipping in foreign countries is not calculated	COD Eas for ZONES	NO-69
countries is not calculated (not possible)	(not possible)	ZONES: Country and as a COD prices	
AT:3 00 DE:3 58 00:9 99	CA-4 50 LIS-3 00 00-9 95	20NL3. Country code 200 prices, 00	COD Eas for EadEr
1110.00,02.000,00.000	011100,00.0.00,00.0.00	as country code applies for all countries. If	COD FEE IOF FEUEX
		country code is ou, it must be the last	redex: <country code="">:<cod price="">, 00</cod></country>
COD Fee for Free Snipping by default	COD Fee for ITEM	statement. If no 00:9.99 appears, COD snipping	as country code applies for all countries. If
Free by default: <country code="">:<cod price="">,</cod></country>	ITEM: <country code="">:<cod price="">, 00 as</cod></country>	In foreign countries is not calculated (not	country code is 00, it must be the last
00 as country code applies for all countries.	country code applies for all countries. If country	possible)	statement. If no 00:9.99 appears, COD snipping
If country code is 00, it must be the last	code is 00, it must be the last statement. If no	CA:4.50,US:3.00,00:9.99	in foreign countries is not calculated (not
statement. If no 00:9.99 appears, COD shipping	00:9.99 appears, COD shipping in foreign		possible)
in foreign countries is not calculated (not	countries is not calculated (not possible)	COD Fee for Austrian Post	US:3.00
possible)	AT:3.00,DE:3.58,00:9.95	Austrian Post: <country code="">:<cod price="">.</cod></country>	
US:3.00		00 as country code applies for all countries.	Tax Class
	COD Fee for TABLE	If country code is 00, it must be the last	Use the following tax class on the COD fee.
COD Fee for Free Shipping Module -	TABLE: <country code="">:<cod price="">00</cod></country>	statement. If no 00:9.99 appears, COD shipping	-0008 ¥
(freeshinner)	as country code applies for all countries. If	in foreign countries is not calculated (not	
Free Module: <country code="">:<cod price="">.</cod></country>	country code is 00, it must be the last	possible)	
00 as country code applies for all countries	statement If no 00:9 99 annears COD shinning	AT-2 C2 00-0 00	update (cancel)
If country code is 00, it must be the last	in foreign countries is not calculated (not	A1.3.03,00.3.33	
statement If no 00.9 99 annears COD shinning	nossible)		
in foreign countries is not calculated (not	AT 2 00 DE 2 50 00 0 00		
noncrible)	A1:3.00,DE:3.58,00:9.95		
CA:4.50,05:3.00,00:3.35			

- 3. Make sure the Display COD field is set to true.
- 4. As you can see, you can specify different COD fees for different shipping modules. As all the fields are self-explanatory, we shall not discuss them further.
- 5. Click on update to save your changes to the database.

Summary

In this chapter, you have learned to manipulate your product prices and order prices by using the different discounts and surcharges available in Zen Cart. You have also taken a look at how your order totals can impact the final order price that is charged to customers.

Part IV

Customizing your store

Unlike the previous sections which teach you how to configure the business logic in your store, this section deals mainly with how to customize the look-and-feel of your store. You will learn the different layout elements that make up a Zen Cart store, how to make your store support multiple languages, etc.

This section covers the following topics:

- Chapter 18, "Customizing common page elements"
- Chapter 19, "Altering the shopping flow"
- Chapter 20, "Working with Store Front templates"

Chapter 18: Customizing common page elements

Introduction

Most of the customizations in this chapter are related to the visual elements of your Store Front and can be performed from within your Admin Console alone. Thus, it is suitable for everyone, regardless of whether you are well-versed in different web technologies like HTML, CSS, Javascript, PHP, etc.

In this chapter, we shall:

- Understand the different layout components.
- Run through all the configurations for individual layout components.
- Learn to create your own custom web pages.
- Understand all the different fields in the Images screen.

Knowing the common layout containers



Figure 18.1: Structural Layout Containers

From the preceding screen shot, you can see that a typical screen in your Store Front is actually broken up into five major display blocks. Each major display block acts as a container for other layout elements (content boxes, center-boxes, template text, etc). These child layout elements each hold a specific piece of information. This modular design of layout elements allows you to quickly and easily manage the display of information by turning on/off or editing certain settings within the Admin Console.

Chapter 18. Customizing common page elements

To allow you to quickly look up a display element's configuration setting, we shall group all display elements based on the display container they belong to.

Header



From the preceding screen shot, you can see that the Header can be divided into four main areas:

Navigation Bar

Provides links for users to perform functions like log in, check out, manage account etc.

Header Main Bar

Usually the place to locate your company logo and put across your sales message.

EZ-Pages Header Bar

For placing links to EZ-Pages. EZ-Pages are custom web pages you create for specific purposes; company press releases, news articles, etc. We will touch on them in the later part of this chapter.

Categories-Tabs Menu

For placing your top-level category entries.

The Header can be turned off from the Admin Console using the following methods:

- Click on Configuration > EZ-Pages Settings and edit the EZ-Pages Pages to disable headers field. Refer to the section "EZ-Pages" for more information on the use of EZ-Pages.
- Click on Configuration > Website Maintenance and edit the Down for Maintenance: Hide Header field. Refer to the section "Website maintenance" for more information on how to set your site to be temporarily offline.

To turn off the Search box on the Navigation Bar, click on Tools > Layout Boxes Controller and edit the sideboxes/search_header.php field. Make sure you set *both* the Left/Right Column Status and Single Column Status fields to OFF.

To turn off the Categories-Tabs Menu, click on Configuration > Layout Settings and set the Categories-Tabs Menu ON/OFF field to $\underline{0}$.

To turn off the EZ-Pages Header Bar, click on Configuration > EZ-Pages Settings and set the EZ-Pages Display Status - HeaderBar field to $\underline{0}$. Edit the EZ-Pages Header Link Separator if you want to change the separator between appearing between hyperlinks of the EZ-Pages.

Footer


The Footer contains the following elements:

Top half

Contains the Home hyperlink and possibly some hyperlinks to the EZ-Pages you have created.

Bottom half

Contains the IP address of a site visitor accessing your store and the copyright message from Zen Cart.

The Footer can be turned off from the Admin Console using the following methods:

- Click on Configuration > EZ-Pages Settings and edit the EZ-Pages Pages to disable footers field. Refer to the section "EZ-Pages" for more information on the use of EZ-Pages.
- Click on Configuration > Website Maintenance and edit the Down for Maintenance: Hide Footer field. Refer to the section "Website maintenance" for more information on how to set your site to be temporarily offline.

To turn off the display of EZ-Pages hyperlinks, click on Configuration > EZ-Pages Settings and set the EZ-Pages Display Status - FooterBar field to $\underline{0}$. Edit the EZ-Pages Footer Link Separator if you want to change the separator between appearing between hyperlinks of the EZ-Pages.

To turn off the display of IP address of your site visitor, click on Configuration > Layout Settings and set the Footer - Show IP Address status field to $\underline{0}$.

To change the copyright text, override the [zc-home]/includes/languages/english.php file and edit the following code:

```
define('FOOTER_TEXT_BODY', 'Copyright © ' . date('Y') . ' <a href="' .
    zen_href_link(FILENAME_DEFAULT) . '" target="_blank">' . STORE_NAME . '</a>.
    Powered by <a href="http://www.zen-cart.com" target="_blank">Zen Cart</a>');
```

0 Note The following logging information is not part of the footer but appears just below it.

Parse Time: 0.771 - Number of Queries: 486 - Query Time: 0.27507439353943

To turn on/off the display of the logging information, click on Configuration > Logging and edit the Display The Page Parse Time field.

Center column

The center column contains the most important information in a page and there are many ways in which its contents can appear as we shall soon see.

Breadcrumbs

Home :: Test :: Normal Test Product

Breadcrumbs are navigational links that provide customers with a visual cue as to their current location in your store. They are located on the top-left corner of the center column.

To alter the appearance of the breadcrumb:

1. Click on Configuration > Layout Settings to access the Layout Settings screen.

- Define Breadcrumb Status
- Bread Crumbs Navigation Separator

While editing the **Bread Crumbs Navigation Separator**, you might encounter the character sequence " ". This character sequence represents a *white space* in HTML. It is required because HTML interprets *any number* of normal white spaces which you type as a *single* white space.

For example, if you type "Thank You" with five white spaces in between the words in an HTML document, you will only see "Thank You" with only one white space between the words in your browser. To force the five spaces to appear in a web browser, you need to type as follows: "Thank %nbsp;You".

Multi-product layout elements

How products are displayed plays an important role in the buying decisions of customers. Therefore, we need to look closely at the different product layout elements that can appear in your Store Front. To help you with your CSS customizations (which you will learn in a later chapter), the product layout elements we are about to discuss will be grouped according to their *appearance*.

Before we begin, take note that most of the product layout elements we will discuss require that some of your products meet certain conditions (Featured Product, Specials, etc) before you will see them in your Store Front:

- Featured Products will be discussed in the section "Featured Products".
- Product Specials were discussed in the section "Product specials".
- New Products will be shown depending on the elapsed time since they were added to your catalog. You can configure the elapsed time setting by editing the New Product Listing Limited to field under Configuration > Maximum Values.
- Upcoming Products are products that have their Date Available fields in their respective Product Details screen set to a future date.

New, All and Featured product listings

On clicking one of the following hyperlinks in the Categories side-box, you will be redirected to product listings similar to the following screen shots.

- New Products
- Featured Products
- All Products



To limit the number of products appearing in any of the preceding product listings:

- 1. Click on Configuration > Maximum Values to access the Maximum Values screen.
- 2. Edit the relevant field for your desired product listing:
 - New Products Listing Number Per Page
 - Maximum Display of Featured Products Page
 - Maximum Display of Products All Page

To configure the appearance of individual product listings, you can take the following actions.

- For New Products listing, click on Configuration > New Listing.
- For Featured Products listing, click on Configuration > Featured Listing.
- For All Products listing, click on Configuration > All Listing.

We have chosen to discuss these three product listings together because their configuration fields are the same although they are located in different screens in the Admin Console. The meanings of the fields are mostly self- explanatory but their syntax can be quite confusing. To help you understand the syntax better, we shall use the **Display Product Name** field under **All Listing screen** as an example.

ALL LISTING			
Title	Value	Action	Display Product Name
Display Product Image	1102	(Î)	Please make any necessary changes
Display Product Quantity	1202	(Î)	Diselas Desident Name
Display Product Buy Now Button	1300	Û	Do you want to display the Product Name?
Display Product Name	2104	•	
Display Product Model	0201	Û	U= off 1st digit Left or Right
Display Product Manufacturer Name	2302	(Î	2nd and 3rd digit Sort Order
Display Product Price	2402	(Î)	4th digit number of breaks after
Display Product Weight	2502	(Î)	2104
Display Product Date Added	0601	Û	
Display Product Description	150	(Î)	update cancel
Display Product Display - Default Sort Order	1	(Î)	
Default Products All Group ID	23	(Î)	
Display Multiple Products Qty Box Status and Set Button Location	3	Û	

From the preceding screen shot, the default value for **Display Product Name** has 4 digits and is shown as <u>2101</u>. The explanation for the individual digits will be explained next.

The *first* digit specifies the *location* of the product name as shown in the following illustrations. Notice that the product name will only be displayed if you specified either "1" or "2" as the value for the first digit.



The *second* and *third digits* are taken together to represent the *order* in which different pieces of information are displayed next to each other. Let us take a look at the second and third digits of **Display Product Price** (middle 2

digits = "40") and **Display Product Name** (middle 2 digits = "10") and see what happens if we *swap* the values as shown in the following illustrations.



The *fourth* digit indicates how much "clearance" or white space will separate one displayed field from another displayed field. Look at the following illustrations to better appreciate the visual impact of this setting.



If you have turned off the display of images for a product listing, you might find that images with the words "NO PICTURE AVAILABLE" are still displayed for products with no associated pictures. To solve this problem, click on **Configuration** > **Images** and set the **Product Image** - **No Image Status** field to <u>0</u>.

Search, Product Type and Category product listings

A Search product listing appears when a customer performs a search in any of the search boxes in your store. A Product Type listing appears when a customer clicks on a link in either the Manufacturers, Music Genres or Record Companies side-box.

A Category product listing appears under the following conditions:

 \odot

Note

- When a *category* or *sub-category* with several products is chosen from either the Categories or Documents sidebox.
- When a customer is on a Product Info page and clicks on the **listing** button which is between the **previous** and **next** buttons.

Examples of Search, Product Type and Category product listings are shown in the following screen shots respectively. Note that a drop-down list box for manufacturers will only appear for a specific Category product listing if there are two or more manufacturers associated with the entire list of products in that category.



The main difference between the Category product listing and the other two product listings is the presence of the category information in the Category product listing which is missing from the other two product listings.

Nevertheless, the configuration for the appearance of these three product listings (other than the above difference) are done via the *same* screen in the Admin Console. Therefore, we have chosen to group them together in our discussion.

To change the display of the Search, Product Type and Category product listings simultaneously:

1. Click on Configuration > Product Listing to access the Product Listing screen.

Product Listing			
Title	Value	Action Display Product Image	
Display Product Image	1	► edit	
Display Product Manufacturer Name	0	0	
Display Product Model	0	① Do you want to display the Product Image?	
Display Product Name	2	1	
Display Product Price/Add to Cart	3	Date Added: 10/04/2010	
Display Product Quantity	0	\odot	
Display Product Weight	0	(1)	
Display Product Price/Add to Cart Column Width	125		
Display Category/Manufacturer Filter (0=off; 1=on)	1	\odot	
Prev/Next Split Page Navigation (1-top, 2-bottom, 3-both)	3	①	
Display Product Listing Default Sort Order		\odot	
Display Product Add to Cart Button (0=off; 1=on; 2=on with Qty Box per Product)	1	①	
Display Multiple Products Qty Box Status and Set Button Location	3	⁽¹⁾	
Display Product Description	150	$(\hat{\mathbf{D}})$	
Product Listing Ascending Sort Order	+	⁽¹⁾	
Product Listing Descending Sort Order	-	①	
Include Product Listing Alpha Sorter Dropdown	true		
Include Product Listing Sub Categories Image	true	①	
Include Product Listing Top Categories Image	true		
Show SubCategories on Main Page while navigating	1	(I)	

- 2. Click on a field you would like to change and follow the instruction in the corresponding side-panel to make your changes.
- 3. If you have edited any property, click on **update** to save your changes.

To change the number of items to display in the Category product listing:

- 1. Click on Configuration > Maximum Values to access the Maximum Values screen.
- 2. Edit the Products Listing Number Per Page field and click update to save your changes.

Center-boxes

Product center-boxes have the ability to appear across several places in your Store Front as shown in the following screen shots.



The screen shots on the left are product center-boxes that appear in the Home page of your Store. The middle screen shot shows a product center-box appearing in a category with child categories defined while the one on the right shows a product center-box appearing under a Product Listing. There is also an Also Purchased product center-box but we will discuss that in a later chapter.

Note that there is another center-box which contains upcoming products to your store. We will cover that center-box in the section "Upcoming products summary-list" because it looks totally different from the center-boxes you see in the preceding screen shots.

The following table summarizes some general characteristics of product center-boxes.

Table 18.1: Characteristics of different	product center-boxes
--	----------------------

Location in Store Front	Type of Center-Box	Products Displayed
Home page (also known as Index page or Main page)	New Products, Featured Products, Specials	All eligible products in the store can be displayed here.
Category page with sub-cate- gories	New Products, Featured Products, Specials	Only eligible products from sub-categories will be displayed.
Product Listing page	New Products, Featured Products, Specials	All eligible products within the parent category.
Product Info page	Also Purchased Products	Will be discussed in the section "Also Pur- chased Products".

With the exception of the Product Info page, we shall now discuss how we can configure the different product center-boxes in your store.

To turn on/off or specify the sort order of a particular product center-box in your *Home* page:

- 1. Click on Configuration > Layout Settings to access the Layout Settings screen.
- 2. Note down the value of the **Categories Always Show on Main Page field**. This field is primarily used to control whether category images should be displayed in your main page or not. However, its value can affect the configuration of product center-boxes in your Home page as well.

3. Click on Configuration > Index Listing to access the Index Listing screen.

Index Listing		
Title	Value	Action Filter Product Listing for Current Top Lev
Show New Products on Main Page	1	Category When Enabled
Show Featured Products on Main Page	2	Please make any necessary changes
Show Special Products on Main Page	3	Filter Product Listing for Current Top Lev
Show Upcoming Products on Main Page	4	① Category When Enabled
Show New Products on Main Page - Category with SubCategories	1	enabled for current Main Category or show
Show Featured Products on Main Page - Category with SubCategories	2	① products from all categories?
Show Special Products on Main Page - Category with SubCategories	3	U = Filter Off 1=Filter On
Show Upcoming Products on Main Page - Category with SubCategories	4	① ○ ₀
Show New Products on Main Page - Errors and Missing Products Page	1	① ③ 1
Show Featured Products on Main Page - Errors and Missing Products Page	2	0
Show Special Products on Main Page - Errors and Missing Products Page	3	① update cancel
Show Upcoming Products on Main Page - Errors and Missing Products Page	4	0
Show New Products - below Product Listing	1	\odot
Show Featured Products - below Product Listing	2	
Show Special Products - below Product Listing	3	$(\hat{\mathbb{D}})$
Show Upcoming Products - below Product Listing	4	$(\hat{\mathbb{D}})$
New Products Columns per Row	3	
Featured Products Columns per Row	3	(I)
Special Products Columns per Row	3	(I)
Filter Product Listing for Current Top Level Category When Enabled	1	•

4. If the value you obtained in Step 2 is <u>1</u>, then edit the following fields accordingly.

- Show New Products on Main Page Category with SubCategories
- Show Featured Products on Main Page Category with SubCategories
- Show Special Products on Main Page Category with SubCategories

5. If the value you obtained in Step 2 is $\underline{0}$, then edit the following fields accordingly.

- Show New Products on Main Page
- Show Featured Products on Main Page
- Show Special Products on Main Page

To turn on/off or specify the sort order of a particular product center-box in your Category with sub-categories page:

- 1. Click on Configuration > Index Listing to access the Index Listing screen.
- 2. Edit the respective field for your desired product center-box:
 - Show New Products on Main Page Category with SubCategories
 - Show Featured Products on Main Page Category with SubCategories
 - Show Special Products on Main Page Category with SubCategories

To turn on/off or specify the sort order of a particular product center-box in a Product Listing page:

- 1. Click on Configuration > Index Listing to access the Index Listing screen.
- 2. Edit the respective field for your desired product center-box:
 - Show New Products below Product Listing
 - Show Featured Products below Product Listing
 - Show Special Products below Product Listing

To simultaneously control the number of *products* appearing in each product center-box for *all* pages:

- 1. Click on Configuration > Maximum Values to access the Maximum Values screen.
- 2. Specify the number of products you wish to display for a particular product center-box by editing the relevant fields.
 - New Products Module
 - Maximum Display of Featured Products Main Page
 - Maximum Display of Specials Products Main Page

Note: The Maximum Display of Featured Products Page field applies to Product Listings and not product center-boxes.

To control the number of *columns* appearing in each product center-box for *all* pages:

- 1. Click on Configuration > Index Listing to access the Index Listing screen.
- 2. Edit the respective field for your desired product center-box:
 - New Products Columns per Row
 - Featured Products Columns per Row
 - Special Products Columns per Row

Note: The Special Products Columns per Row setting also affects the Product Specials Grid, which we shall talk about in the next section.

Specials grid



Besides appearing in product center-boxes, products on Special can also appear in a grid layout as shown in the preceding screen shot. We shall refer to this layout as the Product Specials Grid. The Product Specials Grid only appears when a customer clicks on the Specials hyperlink in the Categories side-box.

To control the number of products appearing in the Product Specials Grid:

- 1. Click on Configuration > Maximum Values to access the Maximum Values screen.
- 2. Edit the Products on Special field.

Note: Do not confuse this setting with the one in the Specials product center-box.

To change the number of columns for the Product Specials Grid:

- 1. Click on Configuration > Index Listing to access the Index Listing screen.
- 2. Specify a value for the Special Products Columns per Row field.

Note: The Special Products Columns per Row setting also affects the Specials product center-box.

Upcoming products summary-list

Upcoming Products						
These items will be in stock s	soon					
Item Name	Date Expected					
Product Y	01/11/2011					
Product X	01/11/2011					
Normal Test Product	01/11/2011					

Whenever the **Date Available** field in a Product Details screen is set to the future, the affected product will be displayed in the Upcoming Products summary-list in Zen Cart.

To control which field to sort by and the sorting order of the products in the summary-list:

- 1. Click on Configuration > My Store to access the My Store screen.
- 2. Edit the **Expected Sort Field** field to control whether you want to sort the products in the summary-list by product name or expected date.
- 3. Edit the **Expected Sort Order** field to control whether you want the product name or expected date to be sorted in ascending or descending order.

Although the appearance of the Upcoming Products summary-list is different from that of the product center-boxes, its other configuration settings are similar to those of the product center-boxes. Therefore, refer to the section "Center-boxes" for details on how to configure other display aspects of your Upcoming Products summary-list.

Custom pages

Besides the standard web pages you see in the Store Front, you can also create entirely new custom web pages to suit your particular needs. For example, if you want to display your company financial statements in a separate part of your store or add a page to explain to customers how your company ensures product quality by going through a rigorous manufacturing process.

There are essentially two methods you can use to create your custom web pages.

- Define Pages
- EZ-Pages

The Define Pages feature is good for creating a few simple web pages which do not necessarily have any relationships among them. They are located at specific locations in your online store. The EZ-Pages feature is better suited for situations which require a greater number of custom web pages. Furthermore, EZ-Pages allow you to define relationships between pages and gives you greater control over how and where you want to place them in your store.

Define Pages

A Define Page refers to the template text on a screen which store owners can customize to fit their needs. A Define Page can either be an *entire page* by itself (e.g. Privacy Notice) or appear as *part of a page* (e.g. the text appearing in the Checkout Success page).

Most Define Pages can be accessed via hyperlinks in the Information and More Information side-boxes as shown in the following screen shots.

Home :: Privacy Notice			Home :: Page 2]
Privacy Notice 🗧	Information		Page 2 🖌	More Information	Ċ.
Privacy Sample Text	Shipping & Returns Privacy Notice Conditions of Use		Page 2 Sample Text	Page 2 Page 3 Page 4	
This section of text is from the Define Pages Editor I in the Admin.	Contact Us Site Map Gift Certificate FAQ		This section of text is from the Define Pages Edito in the Admin.	- I	Γ
To remove this section of the text, delete it from the Editor.	Discount Coupons Newsletter Unsubscrib	e	To remove this section of the text, delete it from t Editor.	he Define Pages	
This file is located in /languages/english/html_includes/da	ssic/		This file is located in /languages/english/html_includes/	slassic/	
NOTE: Always backup the files in /languages/english/ht /your_template	ml_includes		NOTE: Always backup the files in /languages/english. /your_template	html_includes	
(back)			(back)		

They are also found in various parts of your standard store pages where you can leave instructions for your customers to follow. For example, in the Page Not Found page and Checkout Success page as shown in the following screen shots.



To turn on or off a Define Page:

1. Click on Configuration > Define Page Status to access the Define Page Status screen.

Notice that other than the "Define Page-Not-Found Status", "Define Checkout Success" and "Define Main Page Status" Define Pages, the rest of the Define Pages are mapped to the hyperlinks in the Information and More Information side-boxes in your Store Front.

Value	Action Define Main Page Status
1	Please make any necessary changes
1	
1	Enable the Defined Main Page Link/Text?
1	① 0= Link ON, Define Text OFF
1	1 = Link ON, Define Text ON 2 = Link OFF, Define Text ON
1	③ 3= Link OFF, Define Text OFF
1	0
1	
1	
1	
1	\odot \bigcirc 3
1	① update cancel
	Value 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

2. Edit any field and you will see a side-panel similar to the preceding screen shot. Choose your desired choice out of the four possible combinations of **Link and Define Text** options.

The meaning of the Link and Define Text options are as follows:

- The display of a hyperlink in the relevant side-box is controlled by setting Link to either <u>ON</u> or <u>OFF</u>.
- The display of template text in a Define Page is controlled by setting **Define Text** to either <u>ON</u> or <u>OFF</u>.
- 3. Click update if you have made changes to a field.



The "Define Page-Not-Found Status" Define Page is displayed as part of a Site Map page when a customer accesses a page in your store that does not exist. It is the only one in the Define Page Status screen that has Define Text options but no Link options in the side-panel.

There are two ways in which Define Pages can be changed. One way is via the use of the Admin Console and the other way involves the use of the Template Override technique which we shall present in a later chapter.

To change the template text displayed in a Define Page via the Admin Console:

1. Click on Tools > Define Pages Editor to access the Define Pages Editor screen.

define_cliscount_coupon.php define_discount_coupon.php define_page_2.php define_page_2.php define_page_3.php define_page_4.php define_page_e.not_found.php define_page_e.not_found.php define_privacy.php define_sitippinginfo.php define_sitippinginfo.php define_sitippinginfo.php

2. Select the Define Page you wish to change from the **ENGLISH** drop-down list box and choose an appropriate value for the **TEXT EDITOR** field as shown in the following screen shot.

Take note of the path that leads to the Define Page that is being edited. If you have multiple Zen Cart templates, it will automatically choose the Define Page from the currently active template (e.g. "magic") for editing. It is never a good idea to edit a Define Page that belongs to the "classic" template as we will learn in a later chapter.

DEFINE PAGES EDITOR FOR: ENGLISH Select a file to edit 💌 TEXT EDITOR Plain Text 💌							
Note: you should always edit the files located in your current template override directory, Example: /languages/english/html_includes/magic Be sure to make backups after changing your files.							
Editing file: /home/johndoe/public_html/store/includes/languages/english/html_includes/magic/define_main_page.php							
<pre>/div style="background-color:#97D8F5; padding: 8px; border: solid #2588B2 1px;"> We bring you quality products at the most reasonable prices. Not only that, all our products come with money-back guarantees! Just click on the Categories box on the left-side of the screen to start browsing our products. <!--/div--></pre>							
save reset cancel							

- 3. Make your desired changes to the template text in the text-area. If you are unable to make any changes to the template text, make sure the template file has its permissions set to *writeable*. For more information on file permissions, refer to the section "Changing file and directory permissions".
- 4. Click on save to save all your changes.

The *preferred way* to change the template text displayed in a Define Page is via the Overrides System and the technique is presented in the section "The Template Override System".

For your quick reference, the list of Define Page files that can be overridden with your custom text is shown in the following screen shot.

🖕 🧰 languages
🕀 🛅 classic
🖨 🛅 english
🖶 🧰 classic
⊕ (in the second secon
🖨 🧰 html_includes
🗊 🗁 💼 classic
····· 📷 define_conditions.php
define_discount_coupon.php
📠 define_main_page.php
define_page_not_found.php
define_privacy.php
define_site_map.php



For readers who are familiar with HTML, note that you must not include the enclosing <head> and <body> tags in a Define Page. This is because all contents of a Define Page are automatically rendered between the <body> tags.

EZ-Pages

EZ-Pages allows you to create *additional pages* or *hyperlinks* from within the Admin Console alone. There is no need to manually create or edit any files. Instead, the contents of all EZ-Pages you author are stored in the database.

Additional pages can either be standalone or grouped together to form a hierarchical structure that can be presented as a table of contents. Hyperlinks can point to either internal content (e.g. Privacy Page) or external sites (e.g. Yahoo Finance). The following screen shot gives you an idea of how EZ-Pages can be structured in your store and how hyperlinks to them can appear in the header, footer, and Important Links side-box.



To create an EZ-Page:

1. Click on Tools > EZ-Pages to access the EZ-Pages screen.

The default number of EZ-Pages you see listed on your screen can be changed by clicking on Configuration > Maximum Values and editing the Maximum Display EZ-Pages field in the Maximum Values screen.

Do not overlook the **Display Order** drop-down list box as it allows you to quickly preview how hyperlinks to your EZ-Pages will be arranged in different areas of your Store Front according to their sort orders.

EZ-PA	GES SELECT A PAGE	Display Order: Chapter/TOC 🗸 Text Editor Plain Text -					Text Editor Plain Text 👻			
ID	Page Title	Open New Window:	Page is SSL:	Header:	Sidebox:	Footer:	Chapter:	TOC:		Title: Calendar of Events Prev/Next
	8 Calendar of Events			10 🔘	20 🔘	o 🔘	0	ο 🔘	G►	Chapter: 0
	1 Forbes Business News			o 🔘	50 🔘	ο 🔲	0	0	e t	Internal Link OKE,Hone
	2 MSN Money			o 🔲	40 🔘	o 🔘	0	ο 🔘	e	External Link URL:none
	3 Yahoo Finance			o 🔲	30 🔘	o 🔲	0	0	e t	HTML Content:
	4 Press Releases - 2011			20 🔘	10 🔘	10 🔘	1	10	e	Calendar of Events - 2012We will be listing all our exciting events for year 2012 here. Do
	5 Jan 2011			o 🔘	o 🔘	40 🔘	1	20 🔘	e t	watch out
	6 Feb 2011			o 🔘	o 🔵	30 🔘	1	30 🔘	e	edit delete
	7 Mar 2011			o 🔘	o 🔵	20 🔘	1	40 🔘	e t	
Displaying	1 to 8 (of 8 pages)							Pa	ge 1 of 1	
								ne	wfile	

2. Click on **new file** to access the EZ-Pages Details screen.

EZ-PAGES SEL	LECT A PAGE
insert can	cel
Page Title:	
Open New Wind	ow: Page is SSL:
O Yes	© Yes
No	No
Header:	Sidebox: Footer: Chapter: TOC:
Yes Order	: Yes Order: Yes Order: Yes Order:
O No	© No © No
Header Sort Order Sidebox Sort order	used while generating pages in single row for the header; Sort order should be greater than zero to enable this page in the row type listing is used when pages are listed in vertical links; Sort order should be greater than zero to enable it in vertical listing, else it will be considered as HTML
text for special pur	poses
TOC (Table of Cont	used while generating pages in single row rooter; sont order should be greater than zero to enable this page in the row type listing tents) Sont Order used while generating pages that are customized as either a single row (header/footer, etc) or vertically, based on individual needs;
Sort order should b	be greater than zero to enable this page in the listing with the contract of the second s
will be displayed in	the TOC soft of contents soft of the display of Previous/Next. Links in the FOC will consist of pages matching this chapter number, and the TOC soft of er
HTML Content:	
TITLE CONCERC.	
Internal Link URL:	If encoding the page content will be impored and this INTERNAL alternate URL will be used to make the link
	In specinica, the page content will be ignored and this first Extract alternate one will be used to make the link Example to Reviews: index.php?main_page=reviews
	Example to My Account: index.php?main_page=account and mark as SSL
External Link URL:	
	If specified, the page content will be ignored and this EXTERNAL alternate URL will be used to make the link Example to external link: http://www.sashbox.net
incert Com	cal.

- 3. Enter the name of your EZ-Page into the **Page Title** field. The value you enter will also be used as the name of the hyperlink that customers will see in your Store Front.
- Set the Open New Window field to Yes if you want a new web browser window to open when customers click on the EZ-Page hyperlink to view its contents. If you are linking to another page in your Store Front, you will likely want to set this field to No.
- 5. Set the Page is SSL field to Yes if you want the EZ-Page to be displayed over a secure connection (i.e. your web browser address area will display a "https" instead of a "http"). This would be useful for cases where your EZ-Page contains sensitive information and you want customers to view the contents securely. For example, if you

are creating an EZ-Page as a hyperlink to the My Accounts page of your customers in the Store Front. This setting does not apply to pages which are hyperlinks to external sites.

- 6. For the **Header** section, enable the Yes radio button and enter a positive number into the corresponding **Order** field if you want a hyperlink to the EZ-Page to be created in your Store Front's header. Set the radio button to No if you do not want the hyperlink to appear in the header.
- 7. For the **Sidebox** section, enable the <u>Yes</u> radio button and enter a positive number into the corresponding **Order** field if you want a hyperlink to the EZ-Page to be created in your Store Front's Important Links side-box. Set the radio button to <u>No</u> if you do not want the hyperlink to appear in the side-box.
- 8. For the **Footer** section, enable the <u>Yes</u> radio button and enter a positive number into the corresponding **Order** field if you want a hyperlink to the EZ-Page to be created in your Store Front's footer. Set the radio button to <u>No</u> if you do not want the hyperlink to appear in the footer.
- 9. Enter a number in the **Chapter** field if your EZ-Page is to be linked together with other EZ-Pages. This number should be the *same* among all other EZ-Pages that belong to the same group. For EZ-Pages that are grouped together, a Table of Contents and corresponding navigational links can be automatically generated by Zen Cart in the Store Front.
- 10. For the **TOC** section, enable the <u>Yes</u> radio button and enter a positive number into the corresponding **Order** field if you want a hyperlink to the EZ-Page to be created in the Table of Contents.
- 11. To specify the contents of an EZ-Page, you can only choose *either* one of these three fields:
 - HTML Content Type something into this field if you are specifying your own content to display to your customers. For example, if you are writing your own press release.
 - Internal Link URL Type the portion of the URL that links to a page that currently exists in your online store. For example, if you would like the Privacy Notice page to be displayed when users click on this EZ-Page hyperlink in your Store Front then enter <u>index.php?main page=privacy</u>.
 - External Link URL Type the URL of an external hyperlink which a customer will be redirected to once they click this EZ-Page hyperlink. For example, if you want to link to Yahoo's Finance page, enter <u>http://finance.yahoo.com</u>.
- 12. Click on **insert** to save your changes and you will be redirected back to the EZ-Pages screen. A unique number will automatically be generated by Zen Cart as an identifier for your newly created EZ-Page.
 - Because many store owners tend to make the same mistake repeatedly, it is important to stress that hyperlinks to EZ-Pages will only appear in the Store Front if they meet the following conditions:
 A *non-zero* number is entered into the **Order** field of the corresponding display area (e.g. side-box)
 The EZ Page must be enabled (i.e. "green" button shown) in the corresponding column of
 - The EZ-Page must be enabled (i.e. "green" button shown) in the corresponding column of the EZ-Pages screen.

After you have created your EZ-Pages, you can specify where and how they should appear in your Store Front as follows:

1. Click on Configuration > EZ-Pages Settings to access the EZ-Pages Settings screen.

EZ-PAGES SETTINGS		
Title	Value	Action EZ-Pages Display Status - HeaderBar
EZ-Pages Display Status - HeaderBar	1	Please make any necessary changes
EZ-Pages Display Status - FooterBar	1	
EZ-Pages Display Status - Sidebox	1	Display of EZ-Pages Display Status - HeaderBar Display of EZ-Pages content can be Globally
EZ-Pages Header Link Separator	::	① enabled/disabled for the Header Bar
EZ-Pages Footer Link Separator	::	
EZ-Pages Prev/Next Buttons	2	① 2= On ADMIN IP ONLY located in Website
EZ-Pages Table of Contents for Chapters Status	1	Maintenance NOTE: Warning only shows to the Admin and not
EZ-Pages Pages to disable headers		① to the public
EZ-Pages Pages to disable footers		0
EZ-Pages Pages to disable left-column		
EZ-Pages Pages to disable right-column		
		0 2
		update cancel

- 2. Many of the settings are self-explanatory as they control how hyperlinks to EZ-Pages should be displayed in either the side-box, header, or footer in your Store Front. However, the following two fields deserve more attention.
 - The EZ-Pages Prev/Next Buttons field controls how buttons within EZ-Pages that have linked content are displayed.

EZ-Pages Prev/Next Buttons
Please make any necessary changes
EZ-Pages Prev/Next Buttons
EZ-Pages pages?
0=OFF (no buttons)
1="Continue"
2="Prev/Continue/Next"
Default setting: 2.
-
0 0
O 1
⊙ 2
update cancel

The EZ-Pages Table of Contents for Chapters Status field controls whether the Table of Contents will be displayed.

EZ-Pages Table of Contents for Chapters Status
Please make any necessary changes
EZ-Pages Table of Contents for Chapters Status Enable EZ-Pages Table of Contents for Chapters? 0= OFF 1= ON
○ 0 ⊙ 1
update cancel

3. After you edit a field, click on **update** to save your changes.

As you can see, EZ-Pages offer a very powerful and flexible solution for store owners to easily create their custom content. The only drawback with EZ-Pages is the lack of support for content rendered in multiple languages unless a language pack supports this feature. This drawback will be clearer to you when you learn how to add additional language support to your Zen Cart store.

Standard store pages

Standard store pages refer to Store Front pages that come with a default Zen Cart store. They appear as customers go around the various areas in your Store Front.

The Index/Home, Product Info and Shopping Cart pages play an integral part in a customer's shopping experience. This is because most customers will encounter them even if they choose not to sign up with your store or make a

purchase. As such, we will talk about them here as store owners usually want to customize these pages to increase their chances of making a sale.

The Index/Home/Main page



The page where a customer first interacts with your store is known as the Home, Index, or Main page in Zen Cart. The various areas available for customization is shown in the preceding screen shot and we shall be making use of these areas to explain the different customization options available to you.

To change the text appearing in the **Custom Text area**, override the following code in the [zc-home]/includes/languages/english/index.php file. Note that the file contains two sentences with the same code because your main page will appear differently depending on whether you choose to display only top category products or have it display a sub-category.

```
define('HEADING_TITLE', 'Congratulations! You have successfully installed your Zen
Cart™ E-Commerce Solution.');
```

There are two ways to go about altering the appearance of the Welcome Guest Greeting area.

To toggle the display of the greeting message:

- 1. Click on Configuration > Layout Settings to access the Layout Settings screen.
- 2. Edit the Customer Greeting Show on Index Page field.



To change the wording of the greeting message, override the following code in the [zc-home]/includes/languages/english/index.php file. Notice that the wording of the message is programmed to change according to whether the store is currently in Showcase mode or Store mode or whether a customer is logged in or not. If you have forgotten how to set a store to Showcase mode, refer to the section "Store-wide catalog restriction".

```
// Showcase vs Store
if (STORE_STATUS == '0') {
   define('TEXT_GREETING_GUEST', 'Welcome <span class="greetUser">Guest!</span>
   Would you like to <a href="%s">log yourself in</a>?');
} else {
   define('TEXT_GREETING_GUEST', 'Welcome, please enjoy our online showcase.');
}
define('TEXT_GREETING_PERSONAL', 'Hello <span class="greetUser">%s</span>! Would
   you like to see our <a href="%s">newest additions</a>?');
```

To change the text appearing in the **Define Page area**, override the [zc-home]/includes/languages/en-glish/html_includes/define_main_page.php file.

The look of the Category Images Display area can be configured as follows:

- 1. Click on Configuration > Layout Settings to access the Layout Settings screen.
- 2. To toggle the display of the area, edit the Categories Always Show on Main Page field.



To control whether only top-level categories or a particular sub-category should be displayed, edit the Main Page
 Opens with Category field.



To control the display of the center-boxes in the Home page, refer to the section "Center-boxes".

The Product Info page



This is the most important page in your entire store because it contains detailed product information which customers usually base their purchasing decisions on.

To alter the display of certain fields (Shipping Weight, Units in Stock, etc) in the Product Info page that are common to products belonging to the same product type:

- 1. Click on Catalog > Product Types to access the Product Types screen.
- 2. Select the Product Type that the product belongs to and click **edit layout** to access a list of product details for the Product Type. The following screen shot shows the fields in a Product Info page that can be turned on or off for products belonging to the Product-General product type.

PRODUCT TYPE INFO PAGE LAYOUT OPTIONS :: PRODUCT - GENERAL				
Title	Value			
Show Model Number	1			
Show Weight	1			
Show Attribute Weight	1			
Show Manufacturer	1			
Show Quantity in Shopping Cart	1			
Show Quantity in Stock	1			
Show Product Reviews Count	1			
Show Product Reviews Button	1			
Show Date Available	1			
Show Date Added	1			
Show Product URL	1			
Show Starting At text on Price	1			
Show Product Additional Images	1			
Show Product Tell a Friend button	1			
Product Free Shipping Image Status - Catalog	0			

- 3. Choose a field you wish to change and click edit to bring up the relevant side-panel.
- 4. After making your changes, click **update** to save your changes. Note that this change affects all products belonging to the same product type.



Toggling the display of a field in the Product Types screen will also affect the display of that field in *product listings* for products of that particular product type.

To alter other visual aspects of the Product Info page:

1. Click on Configuration > Product Info to access the Product Info screen.

Product Info			
Title	Value	Action	Products Info - Products Option Name Sort
Previous Next - Button and Image Status	0	()	Order
Previous Next - Navigation Includes Category Position	1	()	Please make any necessary changes
Previous Next - Navigation Includes Category Name and Image Status	2	۵	Products Info - Products Option Name Sort
Previous Next - Navigation Bar Position	1	۵	Order
Previous Next - Button and Image Settings	0	۵	Sort order of Option Names for Products Info 0= Sort Order, Option Name
Previous Next - Sort Order	1	1	1= Option Name
Previous Next - Image Width?	50	0	0.
Previous Next - Image Height?	40	(I)	
Products Info - Products Option Name Sort Order	0	▶	01
Products Info - Product Option Value of Attributes Sort Order	1	۵	
Product Info - Show Option Values Name Below Attributes Image	1	①	
Product Info - Show Sales Discount Savings Status	1	①	
Product Info - Show Sales Discount Savings Dollars or Percentage	1	()	
Product Info - Show Sales Discount Savings Percentage Decimals	0	()	
Product Info - Price is Free Image or Text Status	1	()	
Product Info - Price is Call for Price Image or Text Status	1	۵	
Product Quantity Box Status - Adding New Products	1	۵	
Product Reviews Require Approval	1	1	
Meta Tags - Include Product Model in Title	1	0	
Meta Tags - Include Product Price in Title	1	()	
Meta Tags Generated Description Maximum Length?	50	(I)	
Also Purchased Products Columns per Row	3	0	

2. Fields that begin with the words "Previous Next" affect the following area in the Product Info page.



3. Fields that begin with the words "Product Info - Show Sales Discount Savings Status" affect the following area in the Product Info page.

Starting at: \$120.00 \$90.00 Save: 25% off

- 4. The following fields affect the display of attributes on the Product Info page.
 - Products Info Products Option Name Sort Order
 - Products Info Product Option Value of Attributes Sort Order
 - Product Info Show Option Values Name Below Attributes Image
- 5. The following fields control whether an image or text should be displayed when a product is configured as either free or call for price in the Product Details screen. Note that besides the Product Info page, the display of products in the various product listings will also be affected.
 - Product Info Price is Free Image or Text Status
 - Product Info Price is Call for Price Image or Text Status
- 6. The **Product Quantity Box Status Adding New Products** field is used to set the default radio button for the **Products Quantity Box Shows** field in the Product Details screen of your Admin Console. It does not alter the display of the Product Info page in your Store Front.
- 7. For more information related to the **Product Reviews Require Approval** field, refer to the section "Product reviews".
- 8. The following fields affect the display of meta tags within the Product Info page. For more information related to these fields, refer to the section "Meta tags".
 - Meta Tags Include Product Model in Title

- Meta Tags Include Product Price in Title
- Meta Tags Generated Description Maximum Length
- 9. For more information related to the Also Purchased Products Columns per Row field, refer to the section "Also Purchased Products".

The Shopping Cart page

Your Shopping Cart Contents [help (?)					
You may want to ac (defined in includes	dd some instructions for us s/languages/english/shop;	sing the shop ping_cart.php	ping cart here.		
Total I	tems: 2 Weight: 4lbs Am	ount: \$2,010	00		
Qty.	Item Name	Unit	Total		
1 🔁 🚡	Beginner Drum Lessons	\$10.00	\$10.00		
	 "Beginner Drum Lessons" Manual - PDF Format 				
1 😢 📕	Laptop	\$2,000.00\$	2,000.00		
		Sub-Total:	\$2,010.00		
back to shopping		C	no to heckout		

The Shopping Cart page displays all the items that a customer intends to purchase. Prices are added to allow customers to decide whether they should proceed to check out or whether they should alter their shopping list to meet their budget constraints.

To change the custom text appearing just below the "Your Shopping Cart Contents" page title, override the [zc-home]/includes/languages/english/shopping_cart.php file and modify the following code.

define('TEXT_INFORMATION', 'You may want to add some instructions for using the shopping cart here. (defined in includes/languages/english/shopping_cart.php)');

To customize how the item count, weight and amount at the top of the table are displayed:

- 1. Click on Configuration > Layout Settings to access the Layout Settings screen.
- 2. Edit the Shopping Cart Show Totals field.

To change the display of the "estimate shipping" button:

- 1. Click on Configuration > Shipping/Packaging to access the Shipping/Packaging screen.
- 2. Edit the Shipping Estimator Display Settings for Shopping Cart field. To see the effects of changing this setting, refer to Figure 10.1: "Shipping estimates displayed on Shopping Cart page".

To change the display of other parts of the page:

- 1. Click on Configuration > Stock to access the Stock screen.
- 2. To customize the display of the "update" and "delete" buttons. Edit the following fields accordingly:
 Show Shopping Cart Delete Checkboxes or Delete Button

- Show Shopping Cart Update Cart Button Location
- 3. To toggle the display of center-boxes in the Shopping Cart page when the shopping cart is empty, edit the following fields accordingly.
 - Show New Products on empty Shopping Cart Page
 - Show Featured Products on empty Shopping Cart Page
 - Show Special Products on empty Shopping Cart Page
 - Show Upcoming Products on empty Shopping Cart Page

Side columns

The left and right columns that appear next to the main content area of a Store Front page act purely as containers for side-boxes.

To change the display properties of the left and right columns:

- 1. Click on Configuration > Layout Settings to access the Layout Settings screen.
- 2. To turn on or off the relevant columns, edit the following fields:
 - Column Left Status Global
 - Column Right Status Global
- 3. To alter the width of the relevant columns, edit the following fields:
 - Column Width Left
 - Column Width Right

The side columns can also be turned off from the Admin Console using the following methods:

- Click on Configuration > EZ-Pages Settings and edit the following fields accordingly. Refer to the section "EZ-Pages" for more information on the use of EZ-Pages.
 - EZ-Pages Pages to disable left-column
 - EZ-Pages Pages to disable right-column
- Click on Configuration > Website Maintenance and edit the following fields accordingly. Refer to the section "Website maintenance" for more information on how to set your site to be temporarily offline.
 - Down for Maintenance: Hide Column Left
 - Down for Maintenance: Hide Column Right

Side-boxes

Side-boxes are rectangular blocks that appear on the left and right columns of your Store Front. Each side-box provides a specific functionality. For example, the Categories side-box functions as an online catalog for visitors to browse your products. The Currencies side-box allows your site visitors to view your products in a currency of their choice.

To change the width of all side-boxes:

- 1. Click on Configuration > Layout Settings to access the Layout Settings screen.
- 2. To specify the width of the side-boxes appearing in each column, edit the following fields accordingly:
 - Column Width Left Boxes
 - Column Width Right Boxes

To change the display properties (excluding width) of individual side-boxes:

1. Click on **Tools** > **Layout Boxes Controller** to access the Column Boxes screen. The text "Classic" in the screen refers to the name of the currently active template. We shall talk more about templates in Chapter 20, "Working with Store Front templates".

Notice that the list of side-boxes in the screen is split into two halves. The top half represents side-boxes that are located on the *left* column of your Store Front whereas the bottom half represents side-boxes that are located on the *right column*.

poxes rath: /nome/jonnaoe/public_ht	mi/store/includes/mo	uules/					
Box File Name	LEFT/RIGHT COLUMN Status	LEFT or RIGHT COLUMN	LEFT/RIGHT COLUMN Sort Order	SINGLE COLUMN Sort Order	SINGLE COLUMN Status	Action	Edit Box Please make any necessary changes
sideboxes/search_header.php	OFF	LEFT	0	0	ON	G 🕨	Box Name: search_neader.php
sideboxes/document_categories.php	ON	LEFT	0	0	OFF	e (1	Left/Right Column Status:
sideboxes/categories.php	ON	LEFT	10	10	ON	e (1	ON OFF
sideboxes/whats_new.php	ON	LEFT	20	0	OFF	e (1	Location: (Single Column ignores this setting)
sideboxes/manufacturers.php	ON	LEFT	30	20	ON	e (🖲 LEFT 🔘 RIGHT
sideboxes/reviews.php	ON	LEFT	40	0	OFF	e () Loft/Right Column Sort Orders
sideboxes/featured.php	ON	LEFT	45	0	OFF	e (î	
sideboxes/information.php	ON	LEFT	50	40	ON	e (1	
sideboxes/more_information.php	ON	LEFT	200	200	ON	e (Single Column Sort Order:
sideboxes/banner_box.php	ON	LEFT	300	1	OFF	e (î	, ,
						• •	Single Column Status:
sideboxes/ezpages.php	ON	RIGHT	-1	2	ON	C (i	ON COFF
sideboxes/music_genres.php	ON	RIGHT	0	0	OFF	O C	
sideboxes/order_history.php	ON	RIGHT	0	0	OFF	00	
sideboxes/record_companies.php	ON	RIGHT	0	0	OFF	e (i	
sideboxes/banner_box_all.php	ON	RIGHT	5	0	OFF	• • •	
sideboxes/search.php	ON	RIGHT	10	0	OFF	e a	
sideboxes/banner_box2.php	ON	RIGHT	15	1	OFF	e	
sideboxes/shopping_cart.php	ON	RIGHT	20	30	ON	e	
sideboxes/best_sellers.php	ON	RIGHT	30	70	ON	e	
sideboxes/manufacturer_info.php	ON	RIGHT	35	95	ON	e	
sideboxes/specials.php	ON	RIGHT	45	0	OFF	e	
sideboxes/product_notifications.php	ON	RIGHT	55	85	ON	C (
sideboxes/languages.php	OFF	RIGHT	70	50	OFF	C (
sideboxes/currencies.php	OFF	RIGHT	80	60	OFF	e a	
sideboxes/whos_online.php	ON	RIGHT	200	200	ON	e (1	0
Rese This	t All Box Sort Order t does not remove any	o match DEFAULT of the boxes. It w	Sort Order for Templa vill only reset the curre	te: classic nt sort order			
			-				

- 2. To edit the display properties of any side-box, click on its adjacent green "e" icon and concentrate on the corresponding side-panel.
- 3. To turn on or off the display of a side-box, edit the Left/Right Column Status field.
- 4. The **Single Column Status** field is *ignored* by Zen Cart except for the Search Header side-box which we shall talk about in the section "Search Header".
- 5. To *place* a side-box either on the right or left column, edit the Location: (Single Column ignores this setting) field.
- 6. To specify the *order* in which side-boxes should appear next to each other in a column, edit the Left/Right Column Sort Order field.
- 7. Note that the **Single Column Sort Order** field is currently ignored by Zen Cart. Do not waste time setting any values for it.

Make sure you are familiar with how to manipulate side-boxes in the Column Boxes screen because we will be discussing each side-box in detail from the next section onwards. We will also assume that you have enabled a side-box everytime you want to configure its display.

Banner Box, Banner Box 2, Banner Box All



These side-boxes are used to display banners you have configured in your store. For more information on setting up banners and making them display in the relevant side-boxes, refer to the section "Banners".

Documents



This side-box displays a list of categories which are separate from the Categories side-box.

Categories that appear in this side-box must have a Document-General product type restriction. Other product type restrictions may apply to the categories but they do not force the appearance of the Documents side-box unlike the Document-General product type.

The following screen shot of the bottom part of a Category Details screen shows the product type restrictions that apply to an example category. Notice the Document-General product type restriction is the reason why this category will appear in the Documents side-box.

Restrict to Product Type Product - General 💌 Add include SubCategories Add without SubCategories]
This Category has been restricted to these Product Types delete Document - General delete Document - Product	

To toggle the display of the category count (i.e. the number of products contained in a category and all its sub-categories):

- 1. Click on Configuration > My Store to access the My Store screen.
- 2. Edit the Show Category Counts field.



The look of this side-box can be configured as follows:

- 1. Click on Configuration > Layout Settings to access the Layout Settings screen.
- 2. If the Show Category Counts field in the My Store screen is set to <u>true</u>, then you control whether you want categories with zero products to show the zero category count by editing the Categories with 0 Products Status field.

Categories with 0 Products Status
Please make any necessary changes
Categories with 0 Products Status
Show Category Count for 0 Products?
1= on
⊙ o
0 1
update cancel

3. To change the default "->" separator between the category name and category count, edit the Categories Separator between the Category Name and Count field.



- 4. To control the opening and closing brackets surrounding the category count, edit the following fields accordingly.
 Categories Count Prefix
 - Categories Count Suffix

Categories Count Prefix	Categories Count Suffix		
Please make any necessary changes	Please make any necessary changes		
Categories Count Prefix What do you want to Prefix the count with? Default= (Categories Count Suffix What do you want as a Suffix to the count? Default=)		
anbsp; ()		
update cancel	update cancel		

Categories



This side-box displays all the product categories in your store unless you have set a Document-General product type restriction on a category. In that case, this side-box will not display any categories with the said product type restriction as they will be shown in the Documents side-box instead.

A horizontal line separates the top-half containing your product categories from the bottom-half which contains hyperlinks to different product listings in your store.

Before we configure the look of this side-box, take note that the *previous methods* of configuring the look of the Documents side-box applies to this side-box as well.

The look of this side-box can be configured as follows:

- 1. Click on Configuration > Layout Settings to access the Layout Settings screen.
- 2. To toggle the display of the horizontal line that separates the top-half from the bottom half, edit the **Categories Separator between links Status** field.

Categories Separator between links Status
Please make any necessary changes
Categories Separator between links Status Show Category Separator between Category Names and Links? 0 = off 1 = on
○ 0 ④ 1
update cancel

3. To toggle the display of the "Specials" hyperlink, edit the Categories Box - Show Specials Link field.



4. To toggle the display of the "New Products" hyperlink, edit the Categories Box - Show Products New Link field.



5. To toggle the display of the "Featured Products" hyperlink, edit the Categories Box - Show Featured Products Link field.

Categories Box - Show Featured Products Link
Please make any necessary changes
Categories Box - Show Featured Products Link Show Featured Products Link in the Categories Box
⊙ true ○ false
update cancel

6. To toggle the display of the "All Products" hyperlink, edit the Categories Box - Show Products All Link field.

Categories Box - Show Products All Link
Please make any necessary changes
Categories Box - Show Products All Link Show Products All Link in the Categories Box
⊙ true ○ false
update cancel

7. To change the display of the separator between parent and child categories, edit the Categories Separator between the Category Name and Sub Categories field.



8. To control the distance between the top category and child category, edit the Categories SubCategories Indent field.



9. To control how the hierarchy of categories should be displayed depending on which category level a customer has navigated to in your Store Front, edit the Categories - Always Open to Show SubCategories field.



Best Sellers



This side-box displays a random list of best sellers in your store.

This side-box will not appear if a logged-in customer is on the Product Info page and has his **Global Product Notifi**cations option *unchecked* in the Product Notifications page of his account.

Home :: My Account :: Product Notifications
Product Notifications
The product notification list allows you to stay up to date on products you find of interest.
To be up to date on all product changes, select Global Product Notifications.
Global Product Notifications
Receive notifications on all available products.

Note that if a customer is currently viewing a list of products in a specific category, then the list of best sellers is taken from that specific category. Hence, if no product purchases were made from that specific category, then this side-box will also not appear.

To control how the product names will be displayed in the side-box:

- 1. Click on Configuration > Layout Settings to access the Layout Settings screen.
- 2. To limit the number of characters used to display product names, edit the **Bestsellers Truncate Product Names** field.



3. To specify how you want the text that was truncated to be displayed, edit the Bestsellers - Truncate Product Names followed by field.



To specify the maximum number of best sellers to display:

- 1. Click on Configuration > Maximum Values to access the Maximum Values screen.
- 2. Edit the Best Sellers For Box field.



To control the number of items of a product to have been bought before being considered as a best seller.

- 1. Click on Configuration > Minimum Values to access the Minimum Values screen.
- 2. Edit the Minimum number of best sellers to display field.



Featured



This side-box displays a random list of featured products in your store.

To specify the maximum number of featured products to display:

- 1. Click on Configuration > Maximum Values to access the Maximum Values screen.
- 2. Edit the Random Featured Products for SideBox field.

Random Featured Products for SideBox
Please make any necessary changes
Random Featured Products for SideBox This is the number of random FEATURED products to rotate in the sidebox
Enter the number of products to display in this sidebox at one time.
How many products do you want to display in this sidebox?
2
upuale cancel

For more information on putting products on Featured, refer to the section "Featured Products".

Specials



This side-box displays a random list of products which are on Special in your store. It will not be displayed if the customer happens to be on the Product Info page.

To specify the maximum number of Specials products to display:

- 1. Click on Configuration > Maximum Values to access the Maximum Values screen.
- 2. Edit the Random Products On Special For Box field.



For more information on putting products on Special, refer to the section "Product specials".

New Products



This side-box displays a random list of products which are deemed as new in your store.

The look of this side-box can be configured as follows:

- 1. Click on Configuration > Maximum Values to access the Maximum Values screen.
- 2. To specify how new products are determined, edit the New Product Listing Limited to field.

New Product Listing - Limited to
Please make any necessary changes
New Product Listing - Limited to Limit the New Product Listing to 0 = All Products 1 = Current Month 7 = 7 Days 14= 14 Days 30= 30 Days 60= 60 Days 90= 90 Days 120= 120 Days
© 0 ○ 1 ○ 7 ○ 14 ○ 30 ○ 60 ○ 90 ○ 120
update cancel

3. To specify the maximum number of new products to be displayed, edit the **Random New Products for SideBox** field.



Important Links



This side-box displays hyperlinks to EZ-Pages which are active and have positive sort orders.

To control when this side-box will appear:

- 1. Click on Configuration > EZ-Pages Settings to access the EZ-Pages Settings screen.
- 2. Edit the EZ-Pages Display Status Sidebox field.



For more information on working with EZ-Pages, refer to the section "EZ-Pages".

Information



This side-box displays a list of hyperlinks to Define Pages, gift certificate FAQ, discount coupons lookup, and newsletter unsubscribe pages.

To control whether the *first five* hyperlinks to Define Pages will be displayed:

- 1. Click on Configuration > Define Page Status to access the Define Page Status screen.
- 2. Set the relevant field to either $\underline{0}$ or $\underline{1}$ accordingly.
 - Define Shipping & Returns
 - Define Privacy Status
 - **Define Conditions of Use**
 - **Define Contact Us Status**
 - **Define Site Map Status**

For more information on working with Define Pages, refer to the section "Define Pages".

The "Gift Certificate FAQ" hyperlink will only be displayed if you have *enabled* the Gift Certificates module in the Order Total Modules screen. For more information on working with gift certificates, refer to the section "Gift certificates".

The "Discount Coupons" hyperlink will only be displayed if you have *enabled* the Discount Coupon module in the Order Total Modules screen and set the **Define Discount Coupon** field to either $\underline{0}$ or $\underline{1}$ in the Define Page Status screen. For more information on working with discount coupons, refer to the section "Discount coupons".

The "Newsletter Unsubscribe" hyperlink will only be displayed if you have set the enabled the Newsletter Unsubscribe field in the E-Mail Options screen which you can access by clicking on Configuration > E-Mail Options.

More information

More Information	
Page 2 Page 3 Page 4	

This side-box displays hyperlinks to the Define Pages you have created.

To control which Define Page hyperlinks should be displayed:

- 1. Click on Configuration > Define Page Status to access the Define Page Status screen.
- 2. Set the relevant field to $\underline{0}$ or $\underline{1}$ for the hyperlink to appear.
 - Define Page 2
 - Define Page 3
 - Define Page 4

For more information on working with Define Pages, refer to the section "Define Pages".

Languages



This side-box allows a customer to choose the language in which the current contents of the store should be viewed in. It will *not appear* if customers are in any of the checkout pages because it may distract customers from completing their purchases.

To control the number of flags that should appear in each row:

- 1. Click on Configuration > Maximum Values to access the Maximum Values screen.
- 2. Edit the Maximum Display of Language Flags in Language Side Box field.

Maximum Display of Language Flags in Language Side Box
Please make any necessary changes
Maximum Display of Language Flags in Language Side Box Number of Language Flags per Row [3
update cancel

For more information on how additional languages are set up, refer to the section "Supporting multiple languages".

Currencies



This side-box allows a customer to select the currency which will be used to display prices in your store. It will *not appear* if the customer is in any of the checkout pages.

For more information on how currencies are set up and how it can affect the display of this side-box's content, refer to the section "Configuring the displayed default currency".

Manufacturers



This side-box displays the manufacturers defined in your store. It was discussed when we talked about Product-General and Product-Free Shipping products in an earlier chapter.

The look of this side-box can be configured as follows:

- 1. Click on Configuration > Maximum Values to access the Maximum Values screen.
- 2. To change the display style or number of rows to display in the drop-down list box, edit the Manufacturers List Scroll Box Size/Style field.

lanufacturers List - Scroll Box Size/Style
lease make any necessary changes
anufacturers List - Scroll Box Size/Style umber of manufacturers names to be displayed in the croll box window. Setting this to 1 or 0 will display a ropdown list.
8
update cancel

3. To control the maximum length of characters used to represent the manufacturers, edit the Length of Manufacturers Name field.



4. To display a manufacturer only when at least one active product is linked to it, edit the Manufacturers List - Verify Product Exist field.



Manufacturer Info



This side-box displays additional information related to a manufacturer. It will only be displayed when a customer is on the Product Info page. It was discussed when we talked about Product-General and Product-Free Shipping products in an earlier chapter.

There is currently no Admin Console setting for this side-box.

Music Genres



This side-box displays the music genres defined in your store. It will only appear if you have created at least one music genre. It was discussed when we talked about Product-Music products in an earlier chapter.

The look of this side-box can be configured as follows:

- 1. Click on Configuration > Maximum Values to access the Maximum Values screen.
- To change the display style or number of rows to display in the drop-down list box, edit the Music Genre List
 - Scroll Box Size/Style field.



3. To control the maximum length of characters used to represent the genres, edit the Length of Music Genre Name field.



Record Companies



This side-box displays the record companies defined in your store. It will only appear if you have created at least one record company. It was discussed when we talked about Product-Music products in an earlier chapter.

The look of this side-box can be configured as follows:

- 1. Click on Configuration > Maximum Values to access the Maximum Values screen.
- 2. To change the display style or number of rows to display in the drop-down list box, edit the **Record Company** List - Scroll Box Size/Style field.

Record Company List - Scroll Box Size/Style
Please make any necessary changes
Record Company List - Scroll Box Size/Style Number of record company names to be displayed in the scroll box window. Setting this to 1 or 0 will display a dropdown list.
3
update cancel

3. To control the maximum length of characters used to represent the record companies, edit the Length of Record Company Name field.

Length of Record Company Name
Please make any necessary changes
Length of Record Company Name Used in record companies box; maximum length of record company name to display. Longer names will be truncated.
15
update cancel

Notifications



This side-box allows a customer to choose whether to subscribe to or unsubscribe from email notifications related to a product. A customer's product notification preferences can be edited by clicking on "My Account > View or change my product notification list" in the Store Front. The relevant choices in the Product Notifications page are shown in the following screen shot.

Home :: My Account :: Product Notifications
Product Notifications The product notification list allows you to stay up to date on products you find of interest.
To be up to date on all product changes, select Global Product Notifications.
Global Product Notifications
Receive notifications on all available products.
Product Notifications
To remove a product notification, clear that product's checkbox and click on Update. Laptop T-Shirt
(back) (update)

Note that this side-box will *only appear* if the customer happens to be on the Product Info page and has not enabled the checkbox in the "Global Product Notifications" area on the Product Notifications page.

The option to subscribe is represented by a green "tick" image and is displayed under the following conditions:

- If a customer is not logged in.
- If a customer is logged in and has not subscribed to the particular product's notification.

The option to *unsubscribe* is represented by a red "stop" image and is displayed when a customer is logged in and has already subscribed for notifications for the product.

For more information on the workings of email notifications in general, refer to the section "Newsletters".

Shopping Cart



This side-box displays the current items in a customer's shopping cart. If a customer currently has a balance in his Gift Certificate account, then that balance will also be shown.

To control when this side-box will appear:

- 1. Click on Configuration > Layout Settings to access the Layout Settings screen.
- 2. Edit the Shopping Cart Box Status field.



Quick re-order



This side-box displays a list of previously purchased items by the customer. It will only appear if the customer is logged-in and has previously made a purchase in your store.

To specify the maximum number of previously ordered items to be displayed:

- 1. Click on Configuration > Maximum Values to access the Maximum Values screen.
- 2. Edit the Recent Purchases Box- NOTE: box is disabled field.

Reviews



This side-box is used to display a random list of reviews or allow customers to write a review for a product.

The contents of the Reviews side-box will change according to the following conditions:

- 1. The words "There are currently no product reviews" will appear if there are no reviews written for any of the products in your store.
- 2. A random set of reviews will be shown under the following conditions:
 - A customer is not on a Product Info page and at least one product in the store already has a review written for it.
 - A customer is on a Product Info page of a product with at least one review already written for it.
- 3. The words "Write a review on this product" will appear if a customer is on a Product Info page of a product without any reviews written for it.

To specify the maximum number of random reviews to be displayed:

- 1. Click on Configuration > Maximum Values to access the Maximum Values screen.
- 2. Edit the Random Product Reviews for SideBox field.

Note that reviews need to be enabled and approved in order to be available for display in the Reviews side-box. For more information on the workings of product reviews, refer to the section "Product reviews".

Search



This side-box allows a customer to search your store for products by matching the customer-supplied keyword against the product name, product model, manufacturer name, product meta tag keywords and product meta tags description.

One aspect of the search algorithm you can change is to edit the **Default Search Operator** field in the My Store screen which you can access by clicking **Configuration** > **My Store**.
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A thorough discussion of the search algorithm is not discussed in this book due to its complexity. Interested readers who are comfortable dealing with SQL and PHP can go through the algorithm by consulting the code in the [zc-home]/includes/modules/pages/advanced_search_result/header.php file.

Default Search Operator
Please make any necessary changes
Default Search Operator Default search operators
⊙ and ○ or
update cancel

Search Header

The Search Header refers to two different search boxes that are configured via the sideboxes/search_header.php field under the **Box File Name** column of the Layout Settings screen. Both search boxes perform the same functionality as the Search side-box shown in the preceding section.

The first search box appears in the top navigation menu of your Store Front as shown in the following screen shot. We shall refer to this search box as a **top-box** in this book.

Home	Log Out	My Account	Shopping Cart	Checkout	Enter search keyword	Search

The second search box appears as a side-box in one of the side columns. However, its appearance is markedly different from other side-boxes. This is evident from the following screen shot which shows a Search Header side-box placed above a Search side-box.



To control the presence of the Search Header side-box and Search Header top-box, refer to the following table when configuring the relevant fields in the side-panel of the Layout Settings screen.

Table 18.2: Search Header top-box and side-box display settings

Side-Box	Top-Box	Left/Right Column Status field	Single Column Status field
Not displayed	Not displayed	Off	Off
Displayed	Displayed	On	Off
Not displayed	Displayed	Off	On
Displayed	Displayed	On	On

From the preceding table, you may notice that as long as either the Left/Right Column Status or Single Column Status field is set to <u>On</u>, then the Search Header top-box will be displayed.

Who's Online

Who's Online
There currently are 30 guests and 2 members online.

This side-box shows the number of logged in customers and anonymous users on your site.

For more information on the workings of the Who's Online feature, refer to the section "Viewing who's online information".

Images

Although images are scattered throughout your store, you can manage their dimensions and other aspects centrally within the Images screen by clicking on **Configuration** > **Images**.

Images		
Title	Value	Action Small Image Width
Small Image Width	100	► edit
Small Image Height	80	①
Heading Image Width - Admin	57	① The pixel width of small images
Heading Image Height - Admin	40	①
Subcategory Image Width	100	Date Added: 10/04/2010
Subcategory Image Height	57	
Calculate Image Size	true	①
Image Required	true	
Image - Shopping Cart Status	1	
Image - Shopping Cart Width	50	①
Image - Shopping Cart Height	40	
Category Icon Image Width - Product Info Pages	57	
Category Icon Image Height - Product Info Pages	40	
Top Subcategory Image Width	150	
Top Subcategory Image Height	85	1
Product Info - Image Width	150	
Product Info - Image Height	120	1
Product Info - Image Medium Suffix	_MED	
Product Info - Image Large Suffix	_LRG	
Product Info - Number of Additional Images per Row	3	
Image - Product Listing Width	100	
Image - Product Listing Height	80	①
Image - Product New Listing Width	100	
Image - Product New Listing Height	80	①
Image - New Products Width	100	①
Image - New Products Height	80	1
Image - Featured Products Width	100	1
Image - Featured Products Height	80	1
Image - Product All Listing Width	100	①
Image - Product All Listing Height	80	1
Product Image - No Image Status	1	0
Product Image - No Image picture	no_picture.gif	0
Image - Use Proportional Images on Products and Categories	1	0

Explanations for the various settings in the Images screen are covered in the following table.

Table 18.3: Image settings

Field(s)	Comments
Small Image Width, Small Image Height	Sets the designated dimensions for images that appear in the follow- ing Store Front locations:
	 product images that appear in all side-boxes. product images in the "Specials" listing page. product additional images that appear in the Product Info page. We have already covered these settings in the section "Providing multiple images for a product".

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Field(s)	Comments
	product images that appear in the Customers who bought this product also purchased center box.
	Some parts of the Admin Console (mainly the <i>preview</i> screens for Product Detail, Reviews, Specials, and Featured) will also use this dimension.
Heading Image Width - Admin, Heading Image Height - Admin	Currently only used for spacing the screen title against the Admin Console navigation menu and a screen's main contents. Has nothing to do with any image dimension.
Image - Shopping Cart Status, Image - Shopping Cart Width, Image - Shopping Cart Height	Sets the display status and designated product image dimensions in the Shopping Cart page.
Subcategory Image Width, Subcategory Image Height	Sets the designated dimension of <i>all</i> category icon images if Categories - Always Show on Main Page is <u>1</u> and Main Page - Opens with Category is <u>0</u> .
	Also sets the designated dimension of category icon images repre- senting <i>child categories</i> if a page were to display a top category and all its child categories.
Top Subcategory Image Width, Top Sub- category Image Height	Sets the designated dimension of icon images representing a <i>parent category</i> if a page were to display a top category and all its child categories.
Category Icon Image Width - Product In- fo Pages, Category Icon Image Height - Product Info Pages	Sets the designated dimension of category icon images in Category listing pages that show only products or in Product Info pages.
Product Info - Image Width, Product Info - Image Height	Sets the designated dimension of the product image in the Product Info page.
Product Info - Image Medium Suffix, Product Info - Image Large Suffix and Product Info - Number of Additional Im- ages per Row	Controls how additional product images are handled. We have al- ready covered these settings in the section "Providing multiple im- ages for a product".
Image - New Products Width, Image - New Products Height	Sets the designated dimensions for product images in the "New Products" <i>center-box</i> but not for "New Products" <i>listing page</i> .
Image - Product New Listing Width, Im- age - Product New Listing Height	Sets the designated dimensions for product images in the "New Products" <i>listing page</i> but not for "New Products" <i>center-box</i> .
Image - Featured Products Width, Image - Featured Products Height	Sets the designated dimensions for product images in <i>both</i> the "Fea- tured Products" center-box and listing page.

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Field(s)	Comments
Image - Product All Listing Width, Image - Product All Listing Height	Sets the designated dimensions for product images in the "All List- ings" listing page. Note that there is no "All Listings" center-box in Zen Cart.
Image - Product Listing Width, Image - Product Listing Height	Sets the designated dimensions for product images in page listings that are a result of a customer search or filter (e.g. when a customer clicks one of the hyperlinks in the Manufacturer, Record Companies, or Music Genres side-boxes).
Image - Use Proportional Images on Prod- ucts and Categories	If you have <i>specified</i> an image in the Product Detail or Category De- tail pages of a product or category in the Admin Console, and the <i>image is not missing</i> from where it is supposed to be located (e.g. [zc-home]/images/), then you can use this field to control how the original image should be scaled with respect to its designated im- age dimension. Recommeded value is <u>true</u> .
Image Required	If you have <i>specified</i> an image in the Product Detail or Category De- tail pages of a product or category in the Admin Console, and the <i>image is missing</i> from where it is supposed to be located (e.g. [zc- home]/images/), then you can use this field to decide how you want the missing image area to be displayed.
	If set to <u>true</u> , some text (e.g. the product name) will be displayed in place of the missing image. If set to <u>false</u> , nothing will appear in place of the missing image. Recommended value for debugging purposes is thus <u>true</u> .
Product Image - No Image Status	If you have <i>not specified</i> an image in the Product Detail or Category Detail page of a product or category in the Admin Console, you can use this field to control whether you want a <i>default image</i> to be displayed or not.
Product Image - No Image picture	If Product Image - No Image Status is <u>true</u> , the default image used will be the one specified in this field.

Summary

We have seen the many settings in Zen Cart which allows you to easily manipulate the look of your store. You should always look to see if a setting exists to change the look of your store before editing any files as we shall learn when we look at Zen Cart templates in a later chapter.

Chapter 19: Altering the shopping flow

Introduction

The standard shopping flow that comes with Zen Cart can usually be altered via settings in the Admin Console. However, the uses for those settings may be multi-fold and not immediately obvious when the shopping flow is taken into consideration. Therefore, we have chosen to present some common scenarios here for your reference.

In this chapter, we shall:

- Enable the display of shipping and privacy information to adhere to local regulations.
- Control the ability of customers to check out based on your stock settings.
- Delay the display of the shopping cart when customers add products to their online shopping cart.
- See how messages can be displayed when customers re-visit your store when they had a previous non-empty shopping cart.
- Utilize split Login/Sign-Up screens.
- Skip single-product categories for a smoother shopping experience.

Complying with local regulations

In certain countries, customers need to explicitly agree to privacy statements before they sign up for an account with your online store. In other instances, it is also a legal requirement that customers be shown the shipping regulations before they are directed to buy any product from you.

Both the above scenarios are not the default way Zen Cart is configured to work. Implementing the above scenarios can be done by simply enabling the relevant fields in the Regulations screen which you can access by clicking on **Configuration** > **Regulations**.

REGULATIONS			
Title	Value	Action Confirm Terms and Conditions	
Confirm Terms and Conditions During Checkout Procedure	false	During Checkout Procedure	
Confirm Privacy Notice During Account Creation Procedure	false	Please make any necessary changes	ŝ
		Confirm Terms and Conditions During Checkout Procedure Show the Terms and Conditions duri the checkout procedure which the customer must agree to. true false 	ng

Controlling checkout based on stock status

By default, Zen Cart allows customers to check out even if there is insufficient stock thus allowing them to purchase goods on back order. Although this works great for certains types of businesses, other businesses may require that customers are only able to buy whatever is currently in stock.

To stop customers from checking out if there is insufficient stock:

- 1. Click on Configuration > Stock to access Stock screen.
- 2. Set the Check stock level field to true.

Check stock level
Please make any necessary changes
Check stock level Check to see if sufficent stock is available true
○ false
update cancel

3. Set the Allow Checkout field to true.



Delaying the display of the shopping cart

The standard shopping flow in Zen Cart displays the shopping cart whenever an item is added to it. Sometimes, this may not be the behavior you want. For example, you have already customized your site to display that information in another part of the store.

You can change the standard behavior by making Zen Cart display a success message instead of showing the shopping cart's contents whenever an item is added to the shopping cart.

To *disable* the display of the shopping cart after an item is added to it:

- 1. Click on Configuration > My Store to access the My Store screen.
- 2. Set the Display Cart After Adding Product field to false.



If you choose not to display the contents of the shopping cart after customers add items to them, you should plan to enable the Shopping Cart side-box. The Shopping Cart side-box displays the items currently in the customer's shopping cart and also the total amount for all the items. Clicking on the "Shopping Cart [more]" hyperlink in the side-box will bring customers to the Shopping Cart page.

Persisting shopping cart items between visits

When customers log in to their accounts, the contents of their current shopping cart will be merged with those from a previous visit; if any. When this happens, a message will be displayed to customers informing them of this event.

To control the appearance of the message indicating the merging of shopping cart items:

- 1. Click on Configuration > Stock to access Stock screen.
- 2. Edit the Show Notice of Combining Shopping Cart on Login field accordingly.

Show Notice of Combining Shopping Cart	
Please make any necessary changes	
Show Notice of Combining Shopping Cart on Login	
When a customer logs in and has a previously stored shopping cart, the products are combined with the existing shopping cart.	
Do you wish to display a Notice to the customer?	
0= OFF, do not display a notice 1= Yes show notice and go to shopping cart 2= Yes show notice, but do not go to shopping cart	
○ 0 ④ 1	
O 2	
update cancel	

To better understand the consequences of setting the Show Notice of Combining Shopping Cart on Login field to either $\underline{1}$ or $\underline{2}$, let us take a look at the following cases.

Consider the case when the field is set to $\underline{1}$. For customers who have previously added something (e.g. Beginner Drum Lessons) to their shopping carts and not checked out. If they return to your store to continue shopping, add additional items (e.g. T-shirt) to their cart and then log in; they will see a message informing them that the contents of their current shopping cart has been merged with the contents of their previous shopping cart which was not checked out.



 $^{\circ}$

Note

Consider the case when the field is set to 2 and using the preceding example. This time, the message to the customer will be displayed at the top of the page instead of on the Shopping Cart page as shown in the following screen shot.

W NOTICE: For your convenience, your current shopping cart has been combined with your shopping cart from your last visit. Please review your shopping cart before checking out.			
Home Log Out My Account Shopping Cart Checkout			

Currently, there is no Admin Console setting to turn off the option to merge shopping cart contents between visits.

Using split Login/Sign-Up screens

The default screen that is displayed when a customer clicks the Log In hyperlink in your Store Front allows the customer to either sign up for an account or to log in to his or her own account using that screen alone. You should be familiar with that screen since you have already set up several test customer accounts already.

If you prefer to split the sign-up and login information of that screen into two screens instead, you can do so via a switch in the Admin Console. After enabling the display of sign-up and login information in different screens, customers who click the Log In hyperlink in your Store Front will encounter the following screen instead.

Home :: Login	
Welcome, Please Sign In	
New Customers	Returning Customers
Create a Customer Profile with Mega Store which allows you to shop faster, track the status of your current orders, review your previous orders and take advantage of our other member's benefits.	In order to continue, please login to your Mega Store account. Email Address: Password: Forgot your password? (login)

To split the display of sign-up and login information into different screens:

- 1. Click on Configuration > Layout Settings to access the Layout Settings screen.
- 2. Set the Use split-login page field to True.



Skipping single-product categories

If a category contains only a single product, you can easily display the product immediately instead of showing the category first. This saves your customer from clicking twice to reach the Product Info page and smoothens their shopping experience.

To configure this option, click on Configuration > Layout Settings and edit the Skip 1-prod Categories field.

Skip 1-prod Categories
Please make any necessary changes
Skip 1-prod Categories Skip single-product categories If this option is set to True, then if the customer clicks on a link to a category which only contains a single item, then Zen Cart will take them directly to that product-page, rather than present them with another link to click in order to see the product.
 O True ○ False
update cancel

Summary

We have taken a look at the different settings which can affect the default shopping flow for customers visiting your store. Although these capabilities are there, you should examine your own needs carefully before utilizing them as they deviate from the standard shopping flow which customers are usually more familiar with.

Introduction

Traditionally, and in very simple situations, a single HTML file is used to render a single web page. However, this approach proved to be a management nightmare for web masters when dealing with sites that have a lot of web pages and require dynamic content to be rendered based on user input and other contextual information as well.

To solve the preceding problems, server-side programming languages (such as PHP) generate separate portions of HTML code separately before combining them into a complete HTML document to be sent to a user's web browser for rendering.

Zen Cart uses the same approach of breaking the logic of displaying sections of HTML using separate files. In addition to that, Zen Cart is able to choose the correct images and stylesheets to use when rendering a particular page on a user's web browser.

The collection of files (PHP files, CSS stylesheets, images, etc) that work together to change how your store looks in Zen Cart is known as a **template**.

0 Note We shall now go into the guts of Zen Cart to learn how to properly customize your store's look and functionality with minimum impact on future upgrades. This will mean having to deal with HTML, CSS and a little bit of PHP along the way.

Do not be disheartened if you do not have the necessary knowledge. Online tutorials on HTML and CSS are freely and easily available on the Internet (e.g. http://www.w3schools.com). PHP and Javascript knowledge will take more time to master but are usually not required unless you need to overhaul a large part of the business logic in certain sections of code.

In this chapter, we shall look into the following the following topics:

- Take note of precautions when working with files and directories.
- Run through the steps needed to create your own templates and make changes to them.
- Understand how the Override System works.
- Learn what to do to make your store support multiple languages.

Precautions when working with files and directories

First of all, remember to avoid editing any file directly on your remote computer using your control panel software due to the likelihood of file encoding problems. Instead, download and edit any file you want to change on your local PC. After you are satisfied with your changes, upload the changed files to your remote server.

Other conventions when editing files are covered in the following sections so that you can avoid some common mistakes made by new Zen Cart users.

Displaying file extensions

There are many different types of files that are used by Zen Cart to run your site. In order to avoid mistakes such as editing a wrong file or saving a file using a wrong file extension, you should make sure your local computer has file name extensions turned on. Look at the following screen shots to see how the display of a file extension can make them unambiguous and more easily sorted.



As Windows-based computers do not have file extensions turned on by default, we shall go through an example on how to turn on file extensions for Microsoft Windows 7. If you are using another version of Windows or another operating system, do a search on the Internet or refer to your operating system manual for help.

To enable the display of file extensions on a computer running Microsoft Windows 7:

- 1. Click on Windows Start Menu > Control Panel to bring up the Control Panel window.
- 2. Type <u>folder options</u> into the search box on the top right corner of the screen as shown in the following screen shot.



- 3. Click on Folder Options and a dialog box will appear.
- 4. Click the View tab on the dialog box and *uncheck* the "Hide extensions for known file types" option as shown in the following screen shot.

Folder Options	
General View Search	_
Folder views	
You can apply the view (such as Details or Icons) that you are using for this folder to all folders of this type.	
Apply to Folders Reset Folders	
Advanced settings:	
Jies and Folders	
Always show icons, never thumbnails	
Always show menus	
Display file icon on thumbnails	
Uisplay file size information in folder tips	
Display simple folder view in Navigation parte	
Hidden files and folders	
O Do not show hidden files and folders	
Show hidden files and folders	
Hide extensions for known file types	
Hide protected operating system files (Recommended)	
Restore Defaults	
OK Cancel Apply]

5. Click OK to save your changes.

Notes on file and directory names

When you create new files and directories, avoid any *spaces* in their names. Also try to keep program file names and directory names you create in all lower-case as software programs tend to interpret names in a *case-sensitive* manner. For example, instead of having a file named testLOOK.php or test look.php, use test-look.php.

Another thing to watch out for is with regards to file names prefixed by a period. The one you will come across most often in Zen Cart is a file with the name .htaccess as it is used to specify instructions to an Apache web server. Note that this file does not have a file extension.

Some FTP programs and control panel software do not display files with names prefixed by a period. Check the documentation pertaining to your FTP program and control panel for instructions on how to turn on the display of such files. Examples on doing so for a cPanel control panel and the FileZilla program can be found in the section "A word on hidden files".

Working with text editors

Since you will be editing files on your local computer, you should look to use a proper programming editor for such tasks instead of using something like a word processor (e.g. Microsoft Word).

A proper programming editor provides syntax coloring and other features which helps to save time and avoid mistakes when changing code or saving files. Refer to the section "Text editors" for more information if you have not installed a programming text editor on your local computer yet.

There is one very important point to note when saving files in your text editor. If you had chosen <u>UTF-8</u> for the **Database Character Set / Collation** field in the Database Setup screen, then you need to make sure you save any language-related text files in UTF8-without-BOM encoding. If you are not sure how to do this, refer to your particular text editor's support resources for help.

0 Note While Adobe Dreamweaver is a powerful WYSIWYG editor, you should exercise caution if you plan on using it as highlighted at http://tutorials.zen-cart.com/index.php?article=288.

Characters with special meanings in HTML and PHP

For readers who are unfamiliar with HTML or PHP, there are several characters you need to pay attention to while editing some of the files mentioned in the rest of this chapter.

Handling special characters in HTML code

For HTML code, some characters need to be escaped with HTML character entities to prevent browsers from failing to display the affected web pages properly.

As an example, take a look at the snippet of HTML code that appears in [zc-home]/includes/languages/english/html_includes/define_contact_us.php. The code prints the header of the Contact Us page as **Contact** Us **Sample Text**

```
<strong>Contact Us Sample Text ...</strong>
```

To change the text to **Contact John & Jerry**, the code would look like the following snippet instead. Notice that the HTML character entity (&) character is used to replace the ampersand sign (&) instead.

Contact John & amp; Jerry

A collection of commonly used HTML character entities is shown in the following table. For a detailed list of HTML character entities, refer to http://www.w3schools.com/tags/ref_entities.asp.

Character	HTML Character Entities
<	<
>	>
&	&
"	"

Handling special characters in PHP code

For PHP code, text with a single quote (') or double quotes (") that appear *between* other quotes may need to be escaped with a preceding backslash (\) character. The rules governing the use of these special characters can be quite complex so interested readers are advised to turn to http://www.php.net/types.string for more information.

To simplify our discussion, we shall only look at how to escape single and double quotes (either ' or ") that appear between single quotes (') because this is the most common scenario you will encounter when editing PHP files in Zen Cart.

As an example, take a look at the snippet of PHP code that appears in [zc-home]/includes/languages/en-glish/contact_us.php. The code prints the title of the Contact Us page as **Contact Us**.

define('HEADING_TITLE', 'Contact Us');

To change the title to **Shop's Contact**, the code would look like the following snippet instead. Notice that a backslash $(\)$ character precedes the single quote which will be displayed to your customers.

define('HEADING_TITLE', 'Shop\'s Contact');

To change the title to "**Contact Us**", the code would look like the following snippet instead. Notice that the double quotes are replaced with the HTML character entity (" i) instead of a backslash character (\).

```
define('HEADING_TITLE', '"Contact Us"');
```

Terminating PHP files properly

PHP code in Zen Cart is enclosed by the use of the (<?php) and (?>) character sequences as shown in the following example.

```
<?php
// some PHP code here
?>
This line contains HTML code.
<?php // some PHP code here ?>
```

For .php files, the *last line* in the file is important as it can lead to problems with the rendering of your page if it is wrongly specified.

The best thing to do is to *omit* the use of the terminating characters (?>) in the *last line* of a .php file. The Zen Cart developers have intentionally taken this route. Hence, you will notice that many of Zen Cart's files do not have the terminating (?>) characters in the last line.

If you happen to come across a file that uses (?>) as the terminating characters, make sure there are no other characters, including white space, that comes after those characters or you may encounter errors with messages like "Headers already sent", etc.

Creating custom templates

In order to create a new template, you must create a directory under the [zc-home]/includes/templates directory. The newly created directory should also contain a template_info.php file which would specify details about the newly created template.

In order to help you understand the template creation process better, we shall go through the steps involved in creating two templates in this section.

To create our *first* template:

- 1. Create a directory named "basic" under the [zc-home]/includes/templates directory.
- Copy the [zc-home]/includes/templates/template_default/template_info.php file into [zc-home]/includes/templates/basic.

3. Edit and save the file template_info.php under the basic directory. You can use the following sample code for testing purposes.

```
<?php
$template_name = 'Basic Template';
$template_version = 'Version 1.0';
$template_author = 'Store Owner - Claude Blanc';
$template_description = 'Custom template for comparison purposes.';
$template_screenshot = 'scr_template_default.jpg';
?>
```

To create our second template:

1. Copy and rename the [zc-home]/includes/templates/classic directory to [zc-home]/includes/templates/magic.



2. Edit and save the file template_info.php under the magic directory. You can use the following sample code for testing purposes.

```
<?php
$template_name = 'Magic Template';
$template_version = 'Version 1.0';
$template_author = 'Store Owner - Claude Blanc';
$template_description = 'Custom template for testing purposes.';
$template_screenshot = 'scr_template_default.jpg';
?>
```

3. To allow you to visually differentiate between the default Classic template and your newly created Magic template later, we shall modify the background color of your newly created template.

Edit the [zc-home]/includes/templates/magic/css/stylesheet.css file and change the alphanumeric characters in the BODY section to *six zeros* which represents the color black.

BODY {
 background-color: #e5edf5;

BODY {
 background-color: #000000;

If you have followed the preceding instructions to create the two templates, then the directory structure in your [zc-home]/includes/templates directory should look like the following screen shot.



Here are some things to take note about the two templates we have just created.

- The directory names do not have to be named according to the template name. For example, you can give the Magic template another name (e.g. "Happy Theme") but leave the directory name as magic in our previous example.
- The minimum requirement for a new template is to create a new directory with a template_info.php file under the [zc-home]/includes/templates/ directory. This is what we have done with our Basic template.
- The contents of the template_info.php file always follows the same standard format: template name, author, version, description and screen shot.
- The "\$template_screenshot" field in the template_info.php file should preferably point to a screen shot of how your Store Front looks when your newly created template is active. The screen shot image can be named anything and should preferably be placed in the images sub-directory of your override directory's (e.g. [zc-home]/in-cludes/templates/magic_images/magic_screenshot.jpg).

For the two example templates we created, since we have not finished creating our new look-and-feel for the Store Front, we leave the templates pointing to the default screen shot image.

■ The fastest way to modify a template you want to change is to copy a file from the original template and then edit the changes in the newly created template. We shall talk more about this process when we discuss the topic of *overrides* later.

Switching templates

After you have created your new templates, you need to activate it in the Admin Console in order for it to take effect in your Store Front.

To switch to your desired template:

1. Click on Tools > Template Selection to access the Template Selection screen.

TEMPLATE SELECTION				
Template Language	Template Name	Template Directory	Action	Classic Contemporary Green
Default(All)	Classic Contemporary Green	classic	•	edit
Displaying 1 to 1 (of 1 template associations)		Page 1 of 1	
		n	ew language	Template Author : Zen Cart Team (c) 2006
				Template Version : Version 1.3.5
				Template Description This template set is designed to be easily modified using only the style sheet to change colors, fonts, and the store logo. Three images are required [logo.jpg, header_bg.jpg, and tile_back.gif.
				Templates Installed
				preview Basic Template
				Classic Contemporary Green
				preview Magic Template

The "Basic Template" and "Magic Template" options are only shown in the side-panel if you have created them by following the instructions in the previous section.

- 2. If you want your custom template to be applied for *all* languages used in your store.
 - a. Click the row with Template Language set as <u>Default (All)</u>.
 - b. Click on edit to access the template details page.

Edit Template Settings
Change the template
Template Name Magic Template
update cancel

- c. Choose your desired template from the Template Name drop-down list box.
- d. Click on update to save your changes.
- 3. If you want your custom template to be used only for a *particular* language in your store.
 - a. Click on the new language button.

Associate Template with language
Choose below to associate a template with a language
Template Name
Basic Template 🗸 🗸
Language Name English 💌
insert cancel

- b. Choose your desired template from the **Template Name** drop-down list box and associate it with your desired language by choosing from the **Language Name** drop-down list box.
- c. Click insert to save your changes.

If you visit your Store Front after switching to a new template, you will notice that all the side-boxes are missing. To resolve this problem, follow these steps:

- 1. Click on Tools > Layout Boxes Controller to access the Column Boxes screen.
- 2. Click the reset button to quickly turn on the set of side-boxes that are displayed by default.

To turn on or off the relevant side-boxes to suit your preferences, refer to the section "Side-boxes" for details.

If you have followed along with our examples and created the Basic and Magic templates, you will find that the look of your Store Front will look different when switching between the two custom templates as shown in the following screen shots. Notice that the Magic template has a black background and is contained within a fixed width as compared to the Basic template.





The rest of this chapter assumes that you are using the name magic for your override directory and that you have activated the "Magic Template". For the sake of convenience, we shall also refer to the "Magic Template" simply as the Magic template in this book.

The Template Override System

To work effectively with templates in Zen Cart, you will need to be familiar with the Template Override System. It is a very powerful and flexible system which serves the following purposes:

- Use templates to control the look and functionality of your store.
- Ease maintenance and upgrading efforts by not touching user-defined template files.

The Template Override System consists of three parts:

- Database settings.
- Automatically included files.
- The Override System.

The "database settings" feature uses the Admin Console to configure various settings in your store's database that will affect the appearance of your Store Front. For example, which side-boxes should appear for a given template can be configured via the Column Boxes screen which we covered in the section "Side-boxes".

The "automatically included files" feature allows custom files that are placed in specific directories and that follow pre-defined naming conventions to be automatically picked up and included in Zen Cart's processing logic when rendering a page. We shall take a look at how this is possible when discussing CSS and Javascript customizations later in this chapter. Other more advanced uses of this feature will not be discussed in this book because they apply more to programmers looking to extend Zen Cart's capabilities.

The "Override System" feature makes Zen Cart load your custom files instead of the default ones that it normally loads when rendering a page. It is the primary method used by store owners to customize the look-and-feel of their stores and hence the focus of our attention in this chapter.

How the Override System works

To understand how the Override System works, we need to differentiate *core* files from *template-specific* files in Zen Cart's directory structure. Core files provide the the core functionality that makes Zen Cart work and are essential to the normal operation of your store. Template-specific files, on the other hand, are non-essential to your store's operation and only take effect when a template is active.

A standard Zen Cart installation will contain a set of core files together with a Classic template. The Classic template is associated with all classic directories that exist under the following directories. All other files not residing within a classic directory are core files.

- [zc-home]/includes/templates
- [zc-home]/includes/languages
- [zc-home]/includes/modules

With the preceding concepts in mind, let us refer to the following files to see how the Override System works. Note that both the header.php files in the following directories render the text displayed in your Store Front's Header Main Bar area. However, which file is chosen is dependent on how the Override System works.

- [zc-home]/includes/languages/english/header.php
- [zc-home]/includes/languages/english/classic/header.php

The pertinent differences between the contents of the two header.php files appear in the line containing the text HEADER_SALES_TEXT as seen in the following code snippets.

For [zc-home]/includes/languages/english/header.php:

define('HEADER_SALES_TEXT', 'TagLine Here');

For [zc-home]/includes/languages/english/classic/header.php:

define('HEADER_SALES_TEXT', '<h1>Sales Message Goes Here</h1>');

When the Classic template is active, Zen Cart will load the contents of [zc-home]/includes/languages/english/classic/header.php file. When we switch to the Magic or Basic template we created earlier in this chapter, Zen Cart will load the contents of the [zc-home]/includes/languages/english/header.php file. You can verify this for yourself by looking at the header text that is displayed in your Store Front when you switch between the Classic template and the other two custom templates you created.

What you have just witnessed is the effects of the Override System in action. In essence, how the Override System works is it will always look to load a template-specific file over a core file if the currently *active* template contains a template-specific file that has the *same name* as the core file. This process is known as **overriding**. The core file acts as a fallback to ensure that Zen Cart will still continue to function properly when an overriding file is not present.

As you can see, the Override System greatly reduces the time that store owners need to customize the appearance of their stores because only a handful of core files need to be overridden to achieve a custom look. Another benefit is the preservation of your changes in your custom templates if any of the core files happen to be overwritten during a Zen Cart upgrade.

Besides the core files, you should also not make any direct changes to any of the Classic template files. This is because the core files and Classic template files are under the purview of Zen Cart's developers. Their contents may

be overwritten when you upgrade Zen Cart to a newer version and hence any changes you make in those files will be overwritten as well.

Hence, you should always create your own custom templates and override the relevant core files or Classic template files in order to avoid having your changes accidentally wiped out during a Zen Cart upgrade.

In the event that you really need to make alterations to the code in a core file that cannot be overridden, make sure you keep a copy of the modified core file somewhere safe. When you upgrade your Zen Cart to a newer version, you can then merge the changes you made in the backed up copy of your modified core file with the code contained in the latest core file.



Currently, the Override System only works for files that affect your Store Front appearance and not that of your Admin Console.

Identifying directories that support overrides

There are three main directories located under the [zc-home] directory that will help you decide what you need to override.

- includes/templates To change the colors, fonts and images used on your site. For example, the color of your side-boxes or the buttons that appear in your Store Front.
- includes/languages To change the text that is displayed in your web pages. For example, the title of your side-boxes or the contents of your define pages.
- includes/modules To change the logic or display structure of certain display elements. For example, you can override the files under the [zc-home]/includes/modules/sideboxes directory and change their code to influence the contents that are displayed in your side-boxes.

All files in the preceding directories and their sub-directories can be overridden *except* for those files residing under the following directories:

- [zc-home]/includes/modules/order_total
- [zc-home]/includes/modules/pages
- [zc-home]/includes/modules/payment
- [zc-home]/includes/modules/shipping
- [zc-home]/includes/modules/debug_blocks

To help you better visualize the different directories that contain files that can be overridden, refer to the following screen shot.



Figure 20.1: Directories that support overrides

Note that the classic directories appearing under the [zc-home]/includes directory in the preceding screen shot also acts as an *indicator* that files in a directory above it or on the same level as it can be overridden. The next section shall clarify the rules governing how the relevant files are to be overridden.

Creating your own overrides

Before you begin overriding a file, make sure you have already created a custom template under the [zc-home]/includes/templates directory.

After you have determined that a file you want to modify can be overridden, use the following rules as a guide to create your own custom override file:

- Your override directory name must be the *same* as your template directory name. For example, if your custom template directory is named magic then the names of your override directories should all be magic as well.
- If the file you want to override is found somewhere under the [zc-home]/includes/templates directory. Your override directory should be at the *same-level* as the file you want to override as shown in the following example.

Default path:

[zc-home]/includes/templates/template_default/sideboxes/tpl_languages.php

Override path:

[zc-home]/includes/templates/[custom-template]/sideboxes/tpl_languages.php

■ If the file you want to override is found somewhere under the [zc-home]/includes/languages or [zc-home]/ includes/modules directories. Your override directory should be *one-level below* the file you want to override as shown in the following example.



- Any content modifications you intend to make should only be applied to the file you copied over to your override directory and not the original file. Many newcomers tend to make the mistake of unintentionally making changes to the original file so it is good that you pay a bit more attention to this point.
- To see the effects of your overrides, go to your Admin Console and make sure that the currently active template for your store has the same template directory name as that of your overrides directory.

Making changes to a template

Now that you understand how to create a new template and how the Override System works, we can safely begin our customizations.

We shall assume that you have already *switched* over to your newly created template and not the Classic template when you are working on your customizations.

Anytime you are unhappy with your new modifications or feel you have overridden something wrongly, *switch back* to the Classic template to see if the changes you made in your custom template could be the problem.

Text customization

One of the most commonly asked questions on Zen Cart's forums is how to change short phrases that appear in the Store Front. For example, the text "Sales Message Goes Here" or a title appearing in one of the side-boxes. These short phrases are usually specified in Zen Cart with the use of *PHP define statements* as shown in the following code. The word appearing in all capital letters is known as a *PHP constant*.

```
define('HEADER_SALES_TEXT', '<h1>Sales Message Goes Here</h1>');
```

Another type of text content that store owners are likely to change usually consists of paragraphs of text or entire pages of text. This type of text content can either be created using a Define Page or an EZ-Page. A Define Page can be overridden but **not** an EZ-Page. This is because the former's text content is contained within the files in the [zc-home]/includes/languages/english/html_includes directory whereas the latter's text content is stored in the database.

For now, take a look at following sample content of a Define Page to get an idea of how it is different from the text appearing in the previous PHP define statements.

```
<strong>Conditions of Use Sample Text?...</strong>
```

```
This section of text is from the Define Pages Editor located under Tools in the Admin.
To remove this section of the text, delete it from the Define Pages Editor.
```

Because the act of changing text is such a regular activity and one of the first things that store owners do when customizing the look of their stores, we shall go through the entire process so that common mistakes can be avoided.

To locate a file containing text you want to change:

1. Click on Tools > Developers Tool Kit to access the Developers Tool Kit screen.

Developers Tool Kit	
Look-up CONSTANT or Lang	uage File defines
Key or Name:	Language File Look-ups:
	None 👻 search
NOTE: CONSTANTS are writter Language file, functions, classe	n in uppercase. s, etc. lookups are performed when nothing has been found in the database tables, if selected in dropdown
Search in Configuration Set	tings/Keys
Phrase to search: (This will s	earch configuration setting names and descriptions, and also configuration_keys if exact match)
Enter words to find in settings	Search (sorted by key) View All Reset
Look-up Classes or things in	All Function files - Catalog/Admin Search n Classes files
Key or Name:	Classes File Look-ups:
	All Classes files - Catalog/Admin 👻 search
Look-up Template things	
Key or Name:	Template File Look-ups:
	All Template files - /templates sideboxes /pages etc. 🗸 Search
Look-up in all files	
Key or Name:	All Files Look-ups: File type

2. Concentrate on the **first** part of the screen with the heading **Look-up CONSTANT or Language File defines**. Note that a CONSTANT refers to a PHP constant which we have mentioned earlier.

DEVELOPERS TOOL K	Π
Look-up CONSTANT or L	anguage File defines
Key or Name:	Language File Look-ups:
	None 🗸 search
NOTE: CONSTANTS are wr Language file, functions, cla	tten in uppercase. sses, etc. lookups are performed when nothing has been found in the database tables, if selected in dropdown

- 3. Enter the word(s) you would like to change in the Key or Name field. For example, enter Sales Message.
- 4. Choose an option from the Language File Look-ups drop-down list box according to which part of the file system you want to look for the language file. For example, choose <u>All Language Files for English-Cat-alog/Admin</u>.

Do not choose None because the search will then be conducted against the database only and not the language files.

Language File Look-ups:
None
None
All Language Files for ENGLISH - Catalog/Admin
All Main Language files - Catalog (/store/includes/languages/english.php /espanol.php etc.)
All Current Selected Language Files - /store/includes/languages/english/*.php
All Main Language files - Admin (/store/myadmin/includes/languages/english.php /espanol.php etc.)
All Current Selected Language Files - Admin (/store/myadmin/includes/languages/english/*.php)

5. Click the **Search** button and you should see your search results displayed on the top of the screen. The following screen shot shows the result of a successful search. It indicates the location of the file and also the matching line within that file that corresponds to your search criteria.

public_html/store/includes/languages/english/classic/header.php

(lote	If you cannot find what you are looking for via the Look-up CONSTANT or L defines search option, switch to the Look-up in all files one instead. You may choose All Files Look-ups = All Files-Catalog Admin and File type = . maximize your search scope.				
	Look-up in all files Key or Name: NOTE: CONSTANTS are written in uppercase. Language file, functions, classes, etc. lookups are	II Files Look-ups: lone	File type php only Case Sensitive? has been found in the database tables, if selected	search ed in dropdown	
	This search option will likely retuent extensive list of files. However, classes and functions which are change text content only.	urn more results b , some of the res useful only to pro	because the search is performed ults may be redundant as they ogrammers but not to store own	against a more relate to PHP ners looking to	

Before customizing a file containing text, make sure you read through the section "Characters with special meanings in HTML and PHP" and the section "Working with text editors". This is because many people do not know that failure to properly escape special characters or saving a file wrongly can give rise to unexpected errors in Zen Cart.

To customize the file containing your text, override it by performing the following steps:

1. Copy the file you want to change (e.g. header.php) from its original directory (e.g. /english/classic) into your currently active override directory (e.g. /english/magic).



- 2. Make your changes to the file in your override directory (e.g. /english/magic/header.php).
- 3. Refresh your web browser to verify your changes.

Image customization

We have discussed different aspects of working with images in previous chapters when we talked about multiple images for a product, category images, product images, etc. In this section, we shall extend our understanding of how Zen Cart template images are handled. Do consult the section "Images" for product and category image settings that can be manipulated via the Admin Console.

The image directories that are conventionally used by your templates can be found in the template_default directory as shown in the following screen shot.



As you have learned earlier, your override directory will only need to change some files instead of the full set of files in the template_default directory. Therefore we shall use the template_default directory structure to explain the purpose of the template-specific directories.

[zc-home]/includes/templates/template_default/buttons/english

This is the default directory holding the image buttons for stores that are using the English language. If your store is using another language and is not using CSS buttons for display, you should see a language-specific directory under the [zc-home]/includes/templates/template_default/buttons directory instead.

[zc-home]/includes/templates/template_default/images

This is the directory containing all template-specific images. This would include your store logo and any other images you would usually refer to in your template-specific CSS stylesheet.

[zc-home]/includes/templates/template_default/images/icons

This is the directory containing template-specific icons like credit card icons, shopping cart icons, etc.



Helpful articles on preparing your images for use in your store can be found at http://tutorials.zen-cart.com/index.php?article=224 and http://tutorials.zen-cart.com/index.php?article=30.

CSS customization

The use of CSS stylesheets is the main approach to altering your store's appearance if the settings in the Admin Console are not able to do so. It is usually the place where store owners spend the most time trying to achieve a specific look for their stores.

By default, Zen Cart's comes with three stylesheets in the Classic template directory (i.e. [zc-home]/includes/templates/classic/css) as follows:

- stylesheet.css Controls the overall look of the store (e.g. page margin, font size, colors, background images, etc)
- stylesheet_css_buttons.css Used to render buttons using CSS instead of images.
- print_stylesheet.css Used to render a page when a user chooses to print a page from within a web browser.



When you choose to replace the GIF image buttons in your Store Front with CSS buttons, you will need to have the CSS styles for the buttons present in a stylesheet. By default, stylesheet_css_buttons.css is that stylesheet.

To toggle between the display of CSS button or GIF image buttons, click on **Configuration** > **Layout Settings** to access the Layout Settings screen and then edit the **CSS Buttons** field.

If your store is currently using the Classic template and if you were to view the HTML source code of any page in your web browser, you will see the following code appearing between the <head> tags. Notice that the print_stylesheet.css is specified with an attribute of media="print" unlike the other stylesheets.

```
<link rel="stylesheet" type="text/css" href="includes/templates/classic/css/
stylesheet.css" />
<link rel="stylesheet" type="text/css" href="includes/templates/classic/css/
stylesheet_css_buttons.css" />
<link rel="stylesheet" type="text/css" media="print" href="includes/templates/
classic/css/print_stylesheet.css" />
```

Besides the standard stylesheet files that come with the default Classic template directory, you can also add your own custom stylesheets between the <head> tags of a Store Front page without altering any template code.

To do that, you need to make sure all your custom stylesheets are contained within the [zc-home]/includes/templates/[your-template]/css directory and adhere to the following naming conventions.

■ For stylesheets that should be loaded in *all pages*, the file name syntax is as follows:

► Use style[xxxxx].css for *generic* stylesheets; where [xxxxxx] represents the unique name you have given the file.

This is why the stylesheet.css and stylesheet_css_buttons.css files of the Classic template are always included in every Store Front page.

► Use print[xxxxx].css for *print-specific* stylesheets; where [xxxxxx] represents the unique name you have given the file.

This is why the print_stylesheet.css of the Classic template is always included in every Store Front page. Note that print-specific stylesheets will also have the media="print" attribute when rendered in HTML as mentioned earlier.

- For stylesheets that should be loaded only on a *specific page*, the file name syntax is as follows:
 - ► Use [page-name].css for a stylesheet that should only be loaded when the user is on a page with its URL corresponding to a specific *page name*. Here [page-name] represents the unique name you have given the file.

For example, contact_us.css will only be loaded if the customer is on the Contact Us page.

- ▶ Use index_home.css for a stylesheet that should only be loaded if you are on the *home page* of your Store Front.
- ► Use c_[category-path].css for a stylesheet that should only be loaded when the user is on a page with its URL corresponding to a specific *category path*. Here [category-path] represents the collection of category IDs which lead to the category page display.

For example,c_3_12.css will only be loaded if the customer is on a page displaying products or categories belonging to a category with a category ID of 12 and that in turn belongs to a parent category with a category ID of 3.

► Use c_[category-path]_children.css for a stylesheet that should only be loaded when the user is on a page with its URL corresponding to a specific category path or *has a parent category* with the specific category path. Here [category-path] represents the collection of category IDs which lead to the category page display or a sub-category of the page display.

For example, c_3_12_children.css will be loaded if the customer is on a page displaying products or subcategories belonging to a category with a category ID of 12 and that in turn belongs to a parent category with a category ID of 3.

► Use m_[manufacturer-id].css for a stylesheet that should only be loaded when the user is on a page with its URL corresponding to a specific *manufacturer ID*. Here [manufacturer-id] represents the ID assigned to a manufacturer when it is created in the Admin Console.

For example, $m_{20.css}$ will only be loaded if the customer is on a page displaying a list of products belonging to a manufacturer with the manufacturer ID of 20.

► Use p_[product-id].css for a stylesheet that should only be loaded when the user is on a page with its URL corresponding to a specific *product ID*. Here [product-id] represents the ID assigned to a product when it is created in the Admin Console.

For example, $p_{23.css}$ will only be loaded if the customer is on a Product Info page with a product ID corresponding to 23.

Because multiple stylesheets with the same CSS rules can cause conflicts in certain situations, it is important that you understand the *sequence* in which the stylesheets are loaded so that you can enforce your CSS rules better.

The sequence in which CSS stylesheets are loaded by Zen Cart is as follows:

- 1. Load style[xxxxx].css. Applies to all pages in a store.
- 2. Load [page-name].css or index_home.css.
- 3. Load c_[category-path].css.
- 4. Load m_[manufacturer-id].css.
- 5. Load p_[product-id].css.
- 6. Load c_[category-path]_children.css.
- 7. Load print[xxxxx].css. Applies to all pages in a store.

Besides having stylesheets load based on whether you want them to appear in a specific page or across all pages in your Store Front, you can also have them load only when a *particular language* is active. To simplify our explanations and minimize confusion, we will not be discussing *language-specific* stylesheets in this book. Readers who are interested in the topic can refer to [zc-home]/includes/templates/template_default/css/CSS_read_me.txt.

Due to the lack of space in this book, we are not able to go through the code contained within each stylesheet to learn how you can change the look of your store. Instead, you can consult the following pages on Zen Cart's wiki to get a feel of what the code in the stylesheet.css is doing.

- http://www.zen-cart.com/wiki/index.php/Customisation_-_Templates_-_Stylesheets_-_Annotated
- http://www.zen-cart.com/wiki/index.php/Customisation_-_Templates_-_Stylesheets_-_Annotated_P2

In addition, you can make your desired changes in the relevant stylesheets by doing a search in the "Templates, Stylesheets, Page Layout" forum or looking up the "Template Customization/ Building Overrides" section of the Tutorial/FAQs at Zen Cart's site. For example, you can change the width of your Store Front page by following the instructions at http://tutorials.zen-cart.com/index.php?article=46. For more information on how Zen Cart works with CSS stylesheets, refer to http://www.zen-cart.com/wiki/index.php/ Customisation_-_Templates_-_Stylesheets.

Javascript customization

If you plan on using Javascript for your store, you will be glad to know Zen Cart comes packaged with the very popular and powerful Javascript library, jQuery (http://jquery.com). Furthermore, whether you choose to use jQuery or not, including your Javascript code for use in Zen Cart is also very easy.

Zen Cart allows you to load your custom Javascript code either between the <head> tags or directly into the onload attribute of the <body onload="">opening tag of an HTML page in your Store Front. All these can be accomplished without having to make modifications to any PHP template file.

For Javascript code that is embedded between the <head> tags of an HTML page, they can appear either *as a link* to an external file containing the raw Javascript code or have all the *raw Javascript code* appear directly in the HTML source code. For example, if you were to view the HTML source code of the "Product Info" page in your web browser, you will see the following code appearing between the <head> tags. Notice that a Javascript file is linked via the first <script> tag and raw Javascript code is displayed in the second <script> tag.

```
<script type="text/javascript" src="includes/modules/pages/product_info/
jscript_textarea_counter.js"></script>
<script language="javascript" type="text/javascript"><!--
function popupWindow(url) {
    window.open(url,'popupWindow','toolbar=no,location=no,directories=no,status=no,
    menubar=no,scrollbars=no,resizable=yes,copyhistory=no,width=100,height=100,
    screenX=150,screenY=150,top=150,left=150')
}
function popupWindowPrice(url) {
    window.open(url,'popupWindow','toolbar=no,location=no,directories=no,status=no,
    menubar=no,scrollbars=yes,resizable=yes,copyhistory=no,width=600,height=400,
    screenX=150,screenY=150,top=150,left=150')
}
//--></script>
```

For Javascript code that is to be embedded directly into the onload attribute of the <body onload="">opening tag of an HTML page, only *raw Javascript code* will appear directly in the HTML source code. For example, if you were to view the HTML source code of the "Contact Us" page in your web browser, you will see the following Javascript code appearing within the opening <body onload="">> tag.

```
<body id="contactusBody" onload=" if (document.contact_us){ if (document.contact_us.contactname) {document.contact_us.contactname.focus()} };">
```

In order for your Javascript code to be embedded automatically by Zen Cart, the first thing you need to do is to make sure the file containing your Javascript code is named according to the following conventions:

■ For a file that is to be *linked* between the <head> tags of an HTML page, the file name syntax is jscript_xxxxxx.js where xxxxxx represents the unique name you have given the file.

Note that the file can only contain pure Javascript code and *no PHP* code. The <script> and </script> tags should not appear in the file as well.

■ For a file that should have all its *raw Javascript code* appear between the <head> tags of an HTML page, the file name syntax is jscript_yyyyyy.php where yyyyyy represents the unique name you have given the file.

Note that the file may contain *both PHP and Javascript* code. The <script> and </script> tags must also enclose the Javascript code in the file.

■ For a file that should have all its *raw Javascript code* embedded directly into the onload attribute of the <body onload="">onload="">onload="">onload="">onload="">onload="">onload="">onload="">onload="">onload="">onload="">onload="">onload="">onload="">onload=""</br>

Note that the file can only contain pure Javascript code and *no PHP* code. The <script> and </script> tags should not appear in the file as well.

After naming the file containing your Javascript according to the preceding conventions, you will need to place the files into the following directories according to the Store Front pages you want the Javascript to appear.

- For your custom Javascript to be embedded within the <head> tags of the HTML source code within *all pages* in your Store Front, place the Javascript file in your [zc-home]/includes/template/[yr-template]/template/jscript directory.
- For your custom Javascript to be embedded within the <head> tags of the HTML source code within *a specific page* in your Store Front, place the Javascript file in your [zc-home]/includes/modules/[page-name] directory.
- For your custom Javascript to be embedded within the <body onload="">opening tag of the HTML source code within *all pages* in your Store Front, place the Javascript file in your [zc-home]/includes/template/[yr-template]/template/jscript/on_load directory.
- For your custom Javascript to be embedded within the <body onload=""> opening tag of the HTML source code within *a specific page* in your Store Front, place the Javascript file in your [zc-home]/includes/mod-ules/[page-name] directory.

After you are done naming your Javascript files and putting them into their respective directories, Zen Cart will automatically load and embed the necessary Javascript files according to the following *sequence* each time a page is rendered in your Store Front.

Note that [yr-template] refers to your custom template name and [page-name] refers to the specific page where the Javascript code should be embedded.

- 1. Load all jscript_xxxxx.js files inside the [zc-home]/includes/template/[yr-template]/jscript directory alphabetically.
- 2. Load all jscript_xxxxx.js files inside the [zc-home]/includes/modules/[page-name] directory alphabetically.
- 3. Load all jscript_yyyyy.php files inside the [zc-home]/includes/template/[yr-template]/jscript directory alphabetically.
- 4. Load all jscript_yyyyy.php files inside the [zc-home]/includes/modules/[page-name] directory alphabetically.
- 5. Load all on_load_zzzzz.js files inside the [zc-home]/includes/modules/[page-name] directory alphabetically.
- 6. Load all on_load_zzzzz.js files inside the [zc-home]/includes/template/[yr-template]/jscript/on_load directory alphabetically.

Because the sequence in which Javascript functions (and hence Javascript files) load may affect how your custom code functions. You should rename the affected Javascript files in *alphabetical order* if you need to further control the Javascript loading sequence of each file.

0	
llote	

For more information on Zen Cart's Javascript loading functionality, refer to http://www.zen-cart.com/wiki/index.php/Customisation_-_Templates_-_Javascript.

Supporting multiple languages

Although Zen Cart is written in English, it has the capability to support additional languages. This is accomplished through the help of language packs which can be downloaded from Zen Cart's site.

If you do not find the language you require, you can even create your own language pack. However, this is not an easy task because you would need to be familiar with all the words that need to be translated. To learn how you can create your own language pack, you can refer to Zen Cart's site for instructions.

The handful of language packs currently available vary in terms of their coverage for different areas of your store. Some language packs cover both the Store Front and Admin Console whereas other language packs may only cover the Store Front or Admin Console. As these language packs are developed by volunteers and not Zen Cart's developers, the quality of each translation will vary. If you spot any mistakes, just let the maintainers (i.e. volunteers) of those language packs know.



Your operating system needs to have the necessary fonts installed in order for your web browser to display the "foreign" text properly.

Understanding ISO language codes and language encodings

Before you begin adding a language pack, you need to know about language codes and language encodings. These two topics allow you to configure Zen Cart to support additional languages and also for your web browser to display other languages properly.

A *language code* is a 2-letter ISO 639-1 code or 3-letter ISO 639-2 code used to represent a language name. Zen Cart only supports the 2-letter ISO 639-1 at the time of writing of this book. For example, "ja" is used to represent Japanese and "en" is used to represent English. You can access a list of language codes at http://www.loc.gov/standards/iso639-2/ php/code_list.php.

A *language encoding* is a binary representation of a language's character set. A character set is a grouping of several characters that represent a language. For example, you can think of the English alphabet as a character set consisting of 52 upper and lower-case letters. A language encoding allows a computer program to translate a set of bytes into the correct character. However, to display the character properly on a system, the appropriate fonts must also be installed.

Web browser language preferences

Most modern graphical web browsers have the ability to let users configure the languages used to display web pages. It is important to know where this setting is if you intend to test a new language that you have added to Zen Cart.

We shall use the free and open source Mozilla Firefox web browser in our examples to show you how to go about configuring your browser languages. There are two ways to specify language preferences in Firefox and we shall highlight both ways.

- *Static language preferences*: This configuration lists the languages that are supported by a web browser. The list of supported languages can automatically be detected by programs like PHP, Java, CGI etc. Zen Cart is written in PHP so it uses this setting to determine a customer's default language preferences.
- *Dynamic language preferences*: This configuration allows a user to change the web browser language currently being used to render a web page. If you see gibberish being displayed in your web browser when viewing web pages authored in foreign languages, you should experiment with this configuration.

Static language preferences

This configuration provides programs running on web servers with a way of automatically detecting what languages are supported by a user's web browser.

To edit the language preferences of your web browser:

- 1. Start up Mozilla Firefox if you have it installed on your system.
- 2. Click on **Tools** > **Options** to bring up a dialog box and navigate to the specified area as shown in the following screen shot.

Options						×
General	Tabs	页 Content	Applications	Privacy	Security	Advanced
□ <u>B</u> lock ✓ Load ✓ Enabl	pop-up w images au e JavaScri	indows tomatically pt				Exceptions Exceptions Advanced
Fonts & C Default fo	Fonts & Colors Default font: Times New Roman Size: 16 Colors Colors					
Language Choose y	s our prefer	red languag	e for displaying	pages		Choose
				ок	Cancel	<u>H</u> elp

3. Click on Choose and you will be able to add any language preferences in the ensuing dialog box.

Note: The "us" behind the language "en-us" is referred to as a language variant. It is used to represent differences in how a language is used in different locations. For example, "color" in the United States is spelled as "colour" in the United Kingdom.

Languages	×
Web pages are sometimes offered in more th language. Choose languages for displaying the in order of preference. Languages in order of preference:	an one ese web pages,
English/United States [en-us] English [en]	Move Up Move Down
	Remove
Select a language to add	Add
OK Cancel	Help

4. To add a language that your browser supports, choose one from the drop-down list box, then click Add.

- 5. To specify your default language, make sure it is the top-most entry in the Languages in order of preference list box.
- 6. Click on **OK** to confirm your changes.

Dynamic language preferences

This configuration changes the language encoding of a web page currently being displayed in your web browser. Unlike the configuration mentioned in the previous section, this setting changes how your web browser interprets a web page already sent by a web server. It does not send this setting to the web server.

To change the current language used by your web browser to render a web page:

- 1. Start up Mozilla Firefox if you have it installed on your system.
- 2. On the main menu bar, click on View > Character Encoding > Auto-Detect to display a list of languages.



3. Choose and click a language you wish to use to render a page you are currently viewing.

You can now view any web page dynamically with your desired language encoding instead of the static default language which *might* be read by web applications and rendered to you.

Adding a language pack

A language pack is a collection of files that contain translations of different fields in Zen Cart in a specific language (French, Spanish, etc). The language pack can either be for the Store Front only, Admin Console only, or for both interfaces.

Before you begin adding a language pack:

1. Click on Configuration > My Store and edit the Language Selector field to specify how your browser will switch to another language.



- Default: Indicates that a visitor will see a site rendered according to the language you set for your store. For testing purposes, you might like to set this as the option first.
- <u>Browser</u>: Indicates that your store will *automatically* switch to a language based on the language preferences in a visitor's browser. Refer to the section "Static language preferences" for an example showing how supported languages are configured in a web browser.
- Click on Configuration > Maximum Values and edit the Maximum Display of Language Flags in Language Side Box field. As the name implies, this field specifies the number of languages (represented by flags) to display in your Languages side-box in your Store Front.

We shall use the example of a Simplified Chinese Language Pack for Zen Cart as an example of how to add a language pack to Zen Cart. You can then modify the steps to install your own language pack.

Download and install a new language pack

Before you begin adding your language pack, make sure you back up your [zc-home] directory. Refer to the section "File system back up" for details on how to back up this directory properly.

To begin installing a language pack:

- 1. Obtain a language pack:
 - a. Go to Zen Cart's home page and click the Plugins hyperlink on the top menu.
 - b. Click on the Language Packs hyperlink to see a list of language packs available for Zen Cart.
 - c. Check the version of Zen Cart that is supported for the desired language pack.
 - d. Download the required language pack to your machine. For our example, this file is named **zen-cart-vChi-nese-simplified-utf8.zip**.
- 2. Expand your language pack into a separate directory and you should see the directory structure of a decompressed Chinese language pack as shown in the following screen shot.

Note that the Chinese language pack we are using in this book does not contain any documentation. Other language packs may have additional documentation containing installation and usage instructions.

- Image: Second system
 Image: Second system

 Image: Second
- 3. Copy the relevant files and directories under the uncompressed language pack directory into the corresponding directories under your [zc-home] directory.
- 4. Log in to your Admin Console.
- 5. Click on Localization > Languages bring up the Languages screen.

6. Click on **new language** to provide details of your new language pack to Zen Cart. The following screen shot shows the details we will specify for our example Chinese language pack.

Edit Language
Please make any necessary changes
Name: SimplifiedChinese
Code: on
Image: icon.gif
Directory: schinese
Sort Order: 10
Set as default
update cancel

- 7. Enter a name for your language pack in the Name field. E.g. Simplified Chinese.
- 8. Enter the two-letter ISO 639-1 code which represents the language in the **Code** field. Although Simplified Chinese is used in both Mainland China and Singapore, it is customary to use China as the country code to represent Simplified Chinese. Therefore, enter the country code for China as <u>on</u>.
- 9. The default <u>icon.gif</u> in the **Image** field is an image that is provided by your language pack. Most likely, it is the flag of a specific country synonymous with that language; e.g. the flag of China to represent the Simplified Chinese language.
- 10. Enter the directory which holds all your language-specific files in the **Directory** field. You should be able to derive this value via the following directory path of your language pack [language-pack-directory]/in-cludes/languages/[directory-path]. If you refer to the figure in Step 2, you will understand how we obtained the value of <u>schinese</u> for our language pack.
- 11. Optionally, check the **Set as Default** check box if you intend to make this the default language that your store uses. For testing purposes, do *not* check this field for now.
- 12. Optionally, if you would like to associate a specific template when this language is use in your Store Front.
 - a. Click on Tools > Template Selection to bring up the Template Selection screen.
 - b. Click on new language to specify what template should be used for your new language.
 - c. Specify the necessary details and click **insert**. The following screen shot shows an example of the Chinese language pack being associated with the Magic Template.

TEMPLATE SELECTIO	N .			
Template Language	Template Name	Template Directory	Action	Magic Template
Default(All)	Classic Contemporary Green	classic	Û	edit delete
SimplifiedChinese	Magic Template	magic	•	
Displaying 1 to 2 (of 2 template associations)		(new la	Page 1 of 1 anguage	Template Author : Store Owner - Claude Blanc Template Version : Version 1.0 Template Description Custom template for testing purposes.
				Templates Installed preview Green preview Magic Template

Note: While testing, it is best to leave the template set to the default Classic Template. This helps to confirm your language pack is installed properly first before you do additional tweaking to your language settings.



After you have added a language pack, you can go to your individual products and categories to add descriptions and names in the newly added language.

Associate currency in new language pack with a currency in the Currencies screen

Depending on your language pack, you may need to add the currency code associated with your language pack to Zen Cart after your language pack is installed. If you do not perform this step, your order totals may not add up when switching your store over to the newly installed language.

Since we are using the Chinese language pack for our example, we will need to add a new currency (Chinese Yuan) to your store as it is not in the list of currencies that comes with a default installation of Zen Cart.

To add the new currency associated with the new language pack:

1. Open up the [zc-home]/includes/languages/[your-language].php file and check the field containing the words "LANGUAGE_CURRENCY". For the Chinese language pack, you should see something as follows.

define('LANGUAGE_CURRENCY', 'CNY');

- 2. Log in to your Admin Console.
- 3. Click on Localization > Currencies to access the Currencies screen.
- 4. Click on new currency and concentrate on the side-panel.
- 5. Use the currency code you saw in Step 1 and enter into the Code field for the currency. For example, enter <u>CNY</u> for the Code field if you are using the Chinese language pack.
- 6. For the rest of the fields, enter the values according to those shown on the following screen shot if you are using the Chinese language pack. If you have a problem entering the Chinese character for the Symbol Right field, enter <u>元</u>; instead.

New Currency
Please enter the new currency with its related
data
Title
Chinese Yuan
Code:
CNY
Symbol Left:
Symbol Right:
7.
Decimal Point:
Thousands Point:
Decimal Places:
2
Values
7 00539017
Set as default (requires a manual update of
currency values)
insert cancel

7. Click on insert to save your changes.

Test the new language pack integration

Before you begin testing, we shall assume you have set the Language Selector field to <u>Default</u> under Configuration > My Store. The test shall be performed for both the Store Front and the Admin Console separately.

To test whether your language pack is working for your Store Front:

- 1. Start your web browser and proceed to your Store Front.
- 2. From the Languages side-box, click on the relevant flag representing the language you want to view the store in.



3. You screen should be refreshed and displayed in the chosen language. Adjust your browser language setting dynamically if you see gibberish. Refer to the section "Dynamic language preferences" for details if you have forgotten how to set your browser's language dynamically.

A Store Front displayed in Chinese and using Chinese Yuan as its currency is shown in the following example screen shot.


Make sure you test out all the necessary screens by entering an order in your system to check whether all the *functionality* and *calculations* are correct! The following screen shot of a shopping cart with order calculations displayed is to help remind you to perform these checks.

购物车中的雨			[帮助 (?)]
可以在这里输入有关 /shopping_cart.p	购物车的说明. (includes/l hp)	anguages/schines	e
	件數:1 重量:4磅 金	褫: 13,936.65元	
數量	商品名称	单价	总额
1	^{蛇记本电脑}	13,936.65元	13,936.65元 ()
		ተ፣	+: 13,936.65元
》维续购物 运费 估价			结帐 读

To test whether your language pack is working for your Admin Console (Note: Works only if your language pack has support for Admin Console):

- 1. Start your web browser and log in to your Admin Console.
- 2. You should be able to switch your language according to the drop-down list box located underneath the Zen Cart logo as shown in the following screen shot.



 Choose your desired language from the drop-down list box and your entire Admin Console will now be rendered in your selected language. The following example screen shot shows the home page of the Admin Console rendered in Simplified Chinese.

Chapter 20. Working with Store Front templates

告释语言: Simplified Chinese	🖌 Tue,	18 Jan 2011 0	D:02:00 -0500GMT	[127.0	0.0.1]	管理首或	商店首或	支持网站	廒
南店設置 南品管理	模块管理 客户管	遛 地区税率	分析系	št I	<u>д</u>	礼券优惠券	其他			
			货币代码							
			语言代码							
		新客户:	订单状态							
点击开始日期 : 2006/09/07		Bellamont Nic 2006/09/19	cole			Jacques Pire \$30.00	es 2011/01	/10		
点击计数:	6317	Christine Sur	nmers			Jacques Pir	es	_		
客户:	4	2006/09/17				\$29.00	2010/11	/16		
商品:	20	Alan Smith 2006/09/15				Jacques Pire \$225.00	es 2010/1	1/15		
未激活商品:	35	Jacques Pires	;			Bellamont N	licole			
顾客评论:	4	2006/09/09				\$205.00	2010/1	1/15		
等待审批的评论:	2					Bellamont N	licole			
电子商情订阅:	2	最近10天的就				\$14.00	2010/11	/12		
		2011/01/18	:	1 - 2						
过期特价商品	1	2011/01/17	:	1 - 26						
特价商品	3	2011/01/11	-	7 - 78						
过期推荐商品	7	2011/01/10	:	14 - 145						
推荐商品	1	2011/01/09	:	1 - 32						
过期促销商品	2	2011/01/08	5	5 - 41						
促销商品	0	2011/01/07	4	4 - 105						
		2011/01/05	:	3 - 25						
		2010/12/26	4	4 - 29						
Update:	4	2010/11/16	(6 - 109						
Delivered:	12									
Processing:	16									
Pending:	48									

With our example of adding a Chinese language pack as a reference, you should now be able to easily add your own language pack. Different language packs require different settings and may require you to perform certain manual steps. Therefore, always read the instructions, if any, that come with each language pack before you begin installing it.



If you face problems working with a language pack, try looking up the solution on the language pack's support thread on the Zen Cart forums before approaching the author of the language pack for help.

Provide translations for different parts of your store

After you are sure your new language pack is installed properly, you can begin updating all your product and category details in the new language. Also do not forget to update all your define pages like Shipping and Returns Policy page, Privacy Notice pages, etc.

Summary

In this chapter, you have learned how to make use of the Override System to modify your files to simplify any Zen Cart upgrades you need to perform in future. This should be the approach you use whenever you need to make changes to your store. You have also seen how language packs and changes in CSS files can drastically change the look-and-feel of your store.

Although it is fun and exciting to change things around, always note down your changes in case you make a mistake in your configuration and need to roll back your store's look-and-feel to a previous state.

Part V Managing your store

This section discusses the activities you need to carry out once your store goes 'live' and starts accepting customer purchases. You will learn to manage customers, configure stock settings and process orders. Different marketing techniques are also presented to help you attract customers, boost sales and maintain rapport. Finally, you will learn to deal with system administration duties to make sure your store runs smoothly.

This section covers the following topics:

- Chapter 21, "Managing customers"
- Chapter 22, "Managing orders"
- Chapter 23, "Managing stock"
- Chapter 24, "Marketing"
- Chapter 25, "System administration"

Chapter 21: Managing customers

Introduction

Zen Cart provides a simple customer management interface for you to keep track of customer orders and to email them if necessary. You also have the ability to specify a custom authorization status for customers, restricting their purchasing actions in your store.

In this chapter, we shall:

- Manage common customer details.
- Manage individual customer details.
- Understand the impact of deleting customers.
- View the total number of customers in your store.

Common customer settings

Common customer settings affect *all* customers. It is closely related to the Create Account, Edit Account, Add Address Book and Edit Address Book pages in your Store Front where customers can manage their account information. You may want to refer to the screen shots in the section "The Store Front" to refresh your memory on how those pages look before proceeding further.

To edit settings common to all customers:

1. Click on Configuration > Customer Details to access the common Customer Details screen.

Customer Details		
Title	Value	Action Email Salutation
Email Salutation	true	► edit
Date of Birth	true	0
Company	true	① Display salutation choice during account
Address Line 2	true	C creation and with account information
State	true	Date Added: 10/04/2010
State - Always display as pulldown?	false	\odot
Create Account Default Country ID	United States	
Fax Number	true	①
Show Newsletter Checkbox	1	\odot
Customer Default Email Preference	0	①
Customer Product Notification Status	1	①
Customer Shop Status - View Shop and Prices	0	
Customer Approval Status - Authorization Pending	0	①
Customer Authorization: filename	customers_authorization	
Customer Authorization: Hide Header	false	①
Customer Authorization: Hide Column Left	false	①
Customer Authorization: Hide Column Right	false	①
Customer Authorization: Hide Footer	false	(I)
Customer Authorization: Hide Prices	false	①
Customers Referral Status	0	\odot

2. To enable or disable the display of certain fields in the Create Account, Edit Account, Add Address Book and Edit Address Book pages in your Store Front, edit the following fields accordingly:

- Email Salutation
- **Date of Birth**
- **Company**
- Address Line 2
- State
- Create Account Default Country ID
- Fax Number
- Show Newsletter Checkbox
- Customer Default Email Preference
- 3. The **State Always display as pulldown?** field alters how the State/Province field in the Log In screen of your Store Front works. When set to <u>true</u>, a drop-down list box will be displayed for the State/Province field instead of an input box. The entries in the drop-down list box are populated based on the currently selected entry in the corresponding Country field of the Log In screen.

The entries in the State/Province field are actually taken from the settings you have configured via Locations/Taxes > Zones in the Admin Console. Various possible appearances of the State/Province field in the Store Front can be seen in the following screen shots.

State - Always display as pulldown? = false	State/Province: Post/Zip Code: Country:	* United States	*	
State - Always display as pulldown? = true	State/Province: Post/Zip Code: Country:	Please select *	*	Drop-down list box appears if State/Province contain entries that belong to the selected Country.
State - Always display as pulldown? = true	State/Province: Post/Zip Code: Country:	Type a choice below V *	*	Text box enabled if State/Province does not contain any entries that belong to the selected Country.

4. If you do not want customers to see a product notification prompt after the checkout process as shown in the following screen shot, disable the **Customer Product Notification Status** field.

Thank you for shopping. Please click the Log Off link to ensure receipt and purchase information is not visible to the next perso this computer.	that your on using log off				
Please notify me of updates to these products					
Dumb Bells					
	update)				
You can view your order history by going to the My Account page clicking on "View All Orders". Please direct any questions you have to customer service.	≥ and by				
Thanks for shopping with us online!					

- 5. The Customer Shop Status View Shop and Prices and Customer Approval Status Authorization Pending fields are related to the shopping functions of your store. Refer to the section "Working with store and catalog restrictions" for details.
- 6. Do not edit the **Customer Authorization: filename** unless you are absolutely sure you know what you are doing! This field specifies the name of the PHP file in Zen Cart that controls how customer authorization works.
- 7. Other fields related to how you want your store to be displayed, depending on the *approval status* of your customers are as follows:

- Customer Authorization: Hide Header
- Customer Authorization: Hide Column Left
- Customer Authorization: Hide Column Right
- Customer Authorization: Hide Footer
- Customer Authorization: Hide Prices
- The Customers Referral Status field is related to how you want to use Discount Coupons to set up a referral system in Zen Cart. Refer to the section "Implementing a customer referral scheme via discount coupons" for details on implementing a customer referral scheme.



Do *not* set the **State** field which you encountered in the Customer Details screen to <u>false</u> unless you understand the impact it has on tax calculations. Refer to the section "Impact of customer zone information" for details on this issue.

To control the length of a customer field or to make a field optional:

1. Click on Configuration > Minimum Values to access the Minimum Values screen.

MINIMUM VALUES		
Title	Value	Action First Name
First Name	2	► edit
Nick Name	3	0
Last Name	2	① Minimum length of first name
Date of Birth	10	
E-Mail Address	6	① Date Added: 10/04/2010
Street Address	5	
Company	0	
Post Code	4	\odot
City	2	\odot
State	2	\odot
Telephone Number	3	
Password	7	
Credit Card Owner Name	3	
Credit Card Number	10	
Credit Card CVV Number	3	\odot
Product Review Text	50	\odot
Best Sellers	1	\odot
Also Purchased Products	1	①

- 2. Only the following fields affect a customer's profile in your Store Front. You can edit each field individually to specify a minimum length for it. Note that the Nick Name field is only applicable if you have phpBB (http://www.phpbb.com) installed. As this field relates to another piece of software, we shall not discuss it in this book.
 - First Name
 - Last Name
 - Date of Birth
 - E-Mail Address
 - Street Address
 - Company
 - Post Code
 - City
 - State
 - Telephone Number
 - Password
- 3. Only the following fields can be made *optional* instead of compulsory. To do so, set the relevant field to <u>o</u> or *blank* and settle on the one that works. Remember that the optional field will also need to be set to <u>true</u> in the Customer Details screen.
 - Date of Birth
 - Company

- Post Code
- Telephone Number

To control the maximum number of address book entries your customers are entitled to:

- 1. Click on Configuration > Maximum Values to access the Maximum Values screen.
- 2. Edit the Address Book Entries field.

Address Book Entries
Please make any necessary changes
Address Book Entries Maximum address book entries a customer is allowed to have
5
update cancel

Individual customer settings

The Customers screen

The selection of individual customers and their respective configuration and functions are accomplished through the Customers screen by clicking on **Customers** > **Customers**.

Custon	IERS									Search:
ID#	Last Name Asc Desc	First Name Asc Desc	Company Asc Desc	Account Created Asc Desc	Last Login Asc Desc	Pricing Group Asc Desc	GV Balance Asc Desc	Authorized Asc Desc	Action	ID#5 Bellamont Nicole
5 1 of 2	2 Nicole	Bellamont		09/19/2006	10/28/2010	none	\$10.00		•	
3 1 of :	L Summers	Christine		09/17/2006	10/28/2010	none	\$0.00		٢	orders email
2 1 of 3	3 Smith	Alan		09/15/2006	10/27/2010	none	\$10.00		Û	Account Crastade 00/10/2006
1 1 of :	L Pires	Jacques		09/09/2006	10/27/2010	none	\$30.00		Û	Account Created, 09/19/2000
Displaying	1 to 4 (of 4 custo	mers)		Page 1 of 1						Last Modified: 05/17/2007 Last Logon: 10/28/2010 Number of Logons: 16
										GV Balance \$10.00 Number of Orders: 17 Last Order: 10/27/2010 Total: \$2,400.00 Country: France Number of Reviews: 1 Customer Referral 1st Discount Coupon



To change the number of customers appearing in the Customers screen, click on Configuration > Maximum Values and edit the Maximum Display of Customers on Customers Page field.

Editing a customer's details

To edit individual customer details:

- 1. Select a customer from the Customers screen and concentrate on the side-panel.
- 2. Click on edit to access the customer's details screen.

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Chapter 21. Managing customers

CUSTOMERS			Address		
			Street Address:	200, rue de Tolbiac	
Personal			Suburb:		
Gender:	Male O Female		Post Code:	75015	
Customers Authorization Status	Approved	*	City:	Paris	
First Name:	Jacques		State:	Paris	
Last Name:	Pires		Country:	France	*
Date of Birth:	05/21/1970				
E-Mail Address:	jacques@example.com		Contact		
			Telephone Numb	per: (33)-01-40-80-82-11	
			Fax Number:		
			Options		
			Email Format Pr	ef: O HTMI @ TEXT-Only	
			Newsletter:	Subscribed V	
			Discount Pricing	Group -none V	
			Customer Refer 1st Discount Co	ral upon	
					update cancel

Most fields contain information captured when the customer signed up for an account with your store so we shall not discuss them further. You will probably not need to make any changes to these fields because customers can change their personal information anytime by logging into their own accounts.

3. The **Customer Authorization Status** allows you to control how the shopping function in your store should appear to a particular customer. Refer to the section "Working with store and catalog restrictions" for various options on how your store's shopping function can be configured.

Approved
Approved
Pending Approval - Must be Authorized to Browse
Pending Approval - May Browse No Prices
Pending Approval - May browse with prices but may not buy
Banned - Not allowed to login or shop

- 4. The **Discount Pricing Group** field allows you to assign a discount group to a customer. This field was discussed in the section "Customer group discounts".
- 5. The Customer Referral 1st Discount Coupon field will be discussed later when we talk about it in the section "Implementing a customer referral scheme via discount coupons".

Sending emails to selected customers

To send emails to selected customers:

- 1. Select a customer from the Customers screen and concentrate on the side-panel.
- 2. Click on email to access the screen for you to start composing your email message.

Customer: Pease Select From: storekeeper@example.com Subject:	Plain Text 👻
From: storekeeper@example.com Subject:	
Subject: Rich Text Message: 	
Rich Text Message: 	
Text-Only Message:	
Text-Only Message:	
н	
	Cancol

The **Rich Text Message** text area allows you to send HTML-formatted email messages to your customers. It will only appear if you set **Enable HTML Emails** to <u>true</u> when you click on **Configuration** > **E-Mail Options**. Furthermore, if you have installed a rich-text editor, you can use the rich-text editor by selecting it from the **Text Editor** drop-down list box as shown in the preceding screen shot.

- 3. Choose the email recipients from the drop-down list box in the **Customer** field. There is a wide choice of customers you can choose from, namely:
 - All customers.
 - All newsletters subscribers.
 - Customers who have been dormant for more than 3 months and are also newsletter subscribers.
 - Active customers in the past 3 months who are also newsletter subscribers.
 - Active customers in the past 3 months regardless of whether they are newsletter subscribers.
 - Any individual customer, regardless of subscription status.
- 4. The From field for sending out emails is automatically populated.

To change to another email address to automatically appear next time, click on **Configuration** > **E-Mail Options** to access the E-Mail Options screen and change the value of the **Email Address (sent FROM)** field. However, this is *not* recommended because it affects *all* emails sent from your store.

- 5. Enter the subject line for your email message in the Subject field.
- 6. Enter your message in the Rich Text Message field for customers who prefer to receive HTML formatted emails.
- 7. Enter your message in the Text-Only Message field for customers who prefer to receive their emails in plain text.
- 8. Click on preview to proceed to the next screen to preview your email message.
- 9. Click on send mail to begin sending your email.
- 10. A success message will appear at the top of the screen if the email was sent successfully.

Viewing a customer's order history

This function is available only to customers who have purchased products from your store.

To manage individual customer orders:

- 1. Select a customer from the Customers screen and concentrate on the side-panel.
- 2. Click on order to access the Orders screen showing a list of orders previously made by the selected customer.

							res	et reset
							56	earch: Search by Product Name or ID:XX or Model
Ord	ERS							Order ID: Status: All Ordens 💌
LEGEN	D: • Billing and	d Shipping does not match						
ID	Shipping	Customers	Order Total	Date Purchased	Status	Comments	Action	edit delete
• 7	5 moneyorde freeoptions	r 🔄 Bellamont Nicole	\$2,400.00	10/27/2010 02:16:03	Delivered	\bigcirc	G►	
• 7	4 moneyorde free	r 🖗 Bellamont Nicole	\$200.00	10/27/2010 02:06:58	Pending		et	
7	³ moneyorde freeoptions	r 🖗 Bellamont Nicole	\$440.00	10/27/2010 02:06:27	Pending		e t (Date Created: 10/27/2010
• 6	5 moneyorde flat	r 🖗 Bellamont Nicole	\$445.00	10/27/2010 00:57:37	Delivered		CO :	nicole@example.com P Address: 127.0.0.1 - 127.0.0.1
6	4 moneyorde flat	r 🖗 Bellamont Nicole	\$335.00	05/11/2007 22:35:59	Delivered		et i	ast Modified: 10/28/2010
6	₃ moneyorde flat	r 🖗 Bellamont Nicole	\$335.00	05/11/2007 22:34:19	Delivered		eo '	Payment Method: Check/Money Order
6	2 moneyorde free	r 🖗 Bellamont Nicole	\$110.00	05/10/2007 13:02:26	Delivered		e t :	Shipping: Free Shipping Options (Free Shipping)
6	1 moneyorde 1 free	r 🖗 Bellamont Nicole	\$110.00	05/10/2007 13:02:01	Delivered		eo '	Comments
6	₀ moneyorde free	r 🖗 Bellamont Nicole	\$110.00	05/10/2007 12:20:04	Delivered		e t 1	Products Ordered: 2
5	9 moneyorde free	r 🖗 Bellamont Nicole	\$110.00	05/10/2007 12:16:01	Processing		CO d	Lx Encyclopedia - History of the World Download Edition)
Displa	ying 1 to 10 (of	17 orders)		<< Page 1 🕶 of 2 >	·>			- Vol 1 of 4:: Asia - Vol 2 of 4:: Africa
								- Vol 3 of 4:: America
								- Vol 4 of 4:: Europe
							:	L x Laptop
								edit

3. We will discuss the individual functions available in the Orders screen in the following chapter.

Deleting customers

To delete a customer, go to the Customers screen and click the **delete** button in the side-panel next to the selected customer. Before you do that, take note of the following point.

•	
llote	

Deleted customers will still have their *orders* preserved in Zen Cart. This is to comply with most regulations which require that records of order transactions be kept to prevent accounting fraud.

Therefore, instead of deleting customers, you might want to set the Customers Authorization Status of the customer to one of the pending statuses instead.

Determining how many customers you have

To view the total number of customers you have, click on **Admin Home** on the navigation menu and look at the Customers field under the **Statistics** table.

Statistics	
Hit Counter Started:	09/07/2006
Hit Counter:	6149
Customers:	4

Sometimes, the figure reflected in the Customers field may not be what you want because you have disabled several accounts by setting their **authorization status** to either the Pending Approval or Banned statuses. In that case, you should subtract the number of non-approved customers from the above statistic to get a true view of the number of customers you have.

To check the number of non-approved customers you have:

- 1. Click on Customers > Customers to access the Customers screen.
- 2. Click on the Asc or Desc hyperlink under the Authorized column to sort customers via their approval status. Note that non-approved customers are represented by a red button icon in the Authorized column.
- 3. Count the number of non-approved customers based on the number of red button icons in the Authorized column.

Summary

In this chapter, you have learned how to manage both common and individual customer settings in Zen Cart. Mainly, you were shown how to manage customer details, send email to customers and also how to view an individual customer's order history.

Chapter 22: Managing orders

Introduction

Once a customer purchases products from your store, orders are generated and saved into Zen Cart's database. Based on these orders, statistics can be generated which allow you to gain an insight into how your store sales are faring. With each order, you will also be able to generate the corresponding invoices and packing slips which will be attached to your product shipment for delivery to customers.

In this chapter, we shall:

- Go through order statistics.
- Understand the different order statuses.
- Examine the different order processing stages.
- Learn how to reset order IDs.

Viewing order statistics

Zen Cart provides an easy way for you to view the following statistics for your orders:

- Total number of orders for each order status.
- Quick view of new orders received.

To access your order statistics:

- 1. Click on the Admin Home hyperlink near the top of your Admin Console.
- 2. Statistics relating to your customer orders are found in the New orders and Orders tables.

			Orders
Jacques Pires	\$30.00		Pending:
01/10/2011			Processing:
Jacques Pires	\$29.00		Delivered:
lacques Pires	\$225.00		Update:
11/15/2010	<i>\$225.00</i>		
Bellamont Nicole	\$220.00		
11/15/2010			
Bellamont Nicole	\$14.00		
11/12/2010		ι.	

Working with order statuses

Each stage of the order fulfillment process can be reflected using an order status. Customers who log in to their accounts can then track their orders themselves without having to call you. The following screen shot shows the different order statuses appearing in different pages of a customer's account.





To change the number of orders displayed in the My Order History page of the customer's account, click on Configuration > Maximum Values and edit the Customer Order History List Per Page field.

A customer can click on the "view" button to access the Order Information page as shown in the following screen shot. Whenever you update the status of an order or add customer-visible comments to an order, the comments will also appear on this page.

Home I	Account H	istory Order	#75				
	Ty Account in it	istory in order	#75	_			
		Order I	nform	ord	ler Date: Wedne	sday 27 (October, 2010
		Olderi	morn		er #75		
Qty.		Products			Tax		Total
1 ea.	Encyclopedia - Edition)	History of the V	Vorld (E	Download			
1	• Vol 1 of	f 4 · - Asia					
	 Vol 2 of 	f 4: - Africa			0	9%	\$200.00
	 Vol 3 of 	f 4: - America					
	 V01 4 01 	t 4: - Europe					
1 ea.	Laptop				10	%	\$2,000.00
						Sub-Tota	l: \$2,200.00
				Free Shippin	g Options (Free	Shipping): \$0.00
				Value	Added Tax (VA	T) @ 10%	6: \$200.00
						Tota	l: \$2,400.00
To dov	vnload your fi	les click the d	downlo	ad button and	choose "Save	to Disk	" from the
			pop	pup menu.			
	Item Nam	ne	File	Filename	Link Expires	Remaini	ng
Encyclope	dia - History of	the World	0.05	encyclopedia-	11/03/2010	5	(download)
(Downloa Encyclope	d Edition) dia - History of	the World	MB 0.05	part1.zip encyclonedia-			
(Downloa	d Edition)		MB	part2.zip	11/03/2010	5	download
Encyclope (Downloa	dia - History of	the World	0.05 MB	encyclopedia- part3.zip	11/03/2010	5	(download)
Encyclope	edia - History of	the World	0.05	encyclopedia-	11/02/2010		(download)
(Downloa	d Edition)		MB	part4.zip	11/03/2010	5	(dominoud)
		Status	s Hist	ory & Comn	ients		
Date	Order Statu	s		Com	nents		
10/27/20	10 Pending	Pls consider ha	aving th	e instructional vi	deo in ".mp4" fo	rmat also	D.
10/27/20	10 Delivered	Your laptop ha	s been	delivered to you	r husband's add	ress.	en its done.
· · ·				,			
Deliver	y Address			Billing /	Address		
Francois	Bellamont			Bellamo	nt Nicole		
10 rue o	l'Assas			1000 Ru	e Troyon		
Paris, 7	5016			Paris, 75 Paris, Fr	017		
- ans, F							
Shippin	g Method	(hinging)		Paymen	t Method		
niee onip	ping options (F	ree amabina)		CHECK/ MC			

Another use for order statuses is to control whether digital downloads purchased from your store are entitled to immediate or delayed downloads. Refer to the section "Selling downloadable products" if you have forgotten how downloads are configured.

Typical usage of order statuses

By default, there are four order statuses available in your store. Let us use the following table as an illustration of their typical usage based on the order management workflow common to most online businesses.

Table 22.1: Meaning of different order statuses

Status	Meaning
Pending	The default status defined in Zen Cart to assign to an order after a customer completes the checkout process. Note: You can re-assign the default status to another order status.
Processing	You acknowledge the receipt of an order and inform customers that you are currently look- ing into their orders and taking the necessary steps to prepare the products before delivering the items to them.
	This usually denotes that payment has been received and is therefore the status typically used for payment modules which process credit card payments in <i>real-time</i> .
Delivered	Indicates that products which customers have ordered have been shipped. This step usually signals that the order fulfillment process has been completed.
Update	Usually used only for exceptional cases in the order fulfilment process. For example, cus- tomers receive their products but complain that the products are faulty. You can then set the order status to "Update" for you to conduct further investigation into the matter before de- ciding whether to grant a full or partial refund to the customer.
	Another special case is the resetting of download properties for downloadable products in a customer's order as mentioned in the section "Step 4 of 5: Specify when downloads are made available".

There is no "hard-wiring" of order statuses to meanings and so you are always free to alter their meanings to suit your business needs.

For example, if your online store sells rental space for a block of flats; since you have nothing to deliver, the "Shipped" status becomes meaningless. Instead, you can think of the "Shipped" status as a "Rented" status or even customize it to fit your own needs.

Customizing order statuses

As mentioned earlier, your business needs might require that you have additional order statuses to cater for your order fulfillment work flow. For example, if your store offers refunds for faulty products shipped to customers, you can choose to create an additional "Pending Goods Return" status to indicate you are waiting for your customer to return the faulty products before refunding them the amount for the purchase.

To customize the order statuses available in your store

1. Click on Localization > Order Status to access the Orders Status screen.

Orders Status	
Orders Status	Action Pending
Pending (default)	edit delete
Processing	0
Delivered	Take Pending
Update	
Displaying 1 to 4 (of 4 orders status)	Page 1 of 1
	insert

Pay attention to the order status which appears in bold and is marked as the *default* order status on the screen. If your payment modules have their **Set Order Status** field set to <u>default</u>, then your customer's order status will be set to the corresponding default order status in this screen upon a successful checkout.

- 2. To change the name of an order status or to edit its other fields, choose the order status and then click on edit.
- 3. To create an additional order status, click on insert.
- 4. To remove an existing order status, click on **delete**. Before doing so, make sure you have considered the following warning.



Avoid *deleting* the **default** order statuses that come with Zen Cart as they are used in several parts of your store. For example, when configuring whether customers are entitled to immediate or delayed product downloads.

Instead, you should only delete an order status if you have created it yourself and no longer need to use it. However, there is a catch you need to be aware of - if you delete an order status that is linked to any existing orders, then those affected orders will **not** display their order statuses correctly!

Processing orders

Now let us turn our attention to how you actually manage the orders from within your Admin Console. Before you do that, you might want to turn to the section "The Store Front" to get an idea of how customers in your store interact with an order after they have made their purchases.

Overview of the main screens

There are two main screens that you will use to manage your orders. As such, we will take a closer look at them in order for you to make sense of them and to work more efficiently with them.

The Orders screen

Most functions pertaining to order management in Zen Cart first go through the Orders screen. There are several ways in which you can access the Orders screen. The two most common ways are as follows:

- To access the Orders screen for *all* customers, click on Customers > Orders.
- To access the Orders screen for *individual* customers, click on Customers > Customers and then click on orders. The Orders screen accessed via this method will contain an extra reset button. By clicking on that button, your screen will refresh to show an Orders screen for *all* customers.

Chapter 22. Managing orders

The following sample screen shot shows an Orders screen for all customers.

						_	S	earch: Search by Product Name or ID:XX or Model
						L		
								Order ID:
ORDI	ERS							Status: All Orders
LECEN		Chinaina daga patematak						Status: Ne Status
LEGEN	Payment	i Shipping does not match				Customer		[74] 10/27/2010 02:06:58
ID	Shipping	Customers	Order Total	Date Purchased	Status	Comments	Action	adit dalata
• 7	4 moneyorder free	🖗 Bellamont Nicole	\$200.00	10/27/2010 02:06:58	Pending		G►	
7	³ moneyorder freeoptions	🐵 Bellamont Nicole	\$440.00	10/27/2010 02:06:27	Pending		e t	packing sip
• 7	2 moneyorder free	🖗 Jacques Pires	\$200.00	10/27/2010 02:04:55	Pending		et	Date Created: 10/27/2010
7	1 moneyorder freeoptions	🐵 Jacques Pires	\$133.00	10/27/2010 02:04:23	Pending		e t	nicole@example.com IP Address: 127.0.0.1 - 127.0.0.1
• 7	o moneyorder free	🖗 Jacques Pires	\$200.00	10/27/2010 02:03:45	Pending		et	Payment Method: Check/Money Order
6	9 moneyorder 9 freeoptions	🖗 Alan Smith	\$12.00	10/27/2010 01:53:38	Update	\bigcirc	Cî	Shipping: Free Shipping
6	8 moneyorder 6 freeoptions	🖗 Alan Smith	\$200.00	10/27/2010 01:00:50	Delivered	\bigcirc	et	Products Ordered: 1
• 6	7 moneyorder 7 freeoptions	🖗 Alan Smith	\$200.00	10/27/2010 01:00:16	Pending		et	1 x Encyclopedia - History of the World
6	6 moneyorder freeoptions	Christine Summers	\$200.00	10/27/2010 00:59:11	Delivered		et	- Vol 1 of 4:: Asia
• 6	5 moneyorder flat	🖗 Bellamont Nicole	\$445.00	10/27/2010 00:57:37	Delivered		et	- Vol 2 of 4:: Arrica - Vol 3 of 4:: America
Displa	ying 1 to 10 (of	73 orders)		<< Page 1 💙 of 8 >	>			- Vol 4 of 4:: Europe edit



To change the number of orders that appear in each Orders screen, click on **Configuration** > **Maximum Values** to access the Maximum Values screen and edit the **Maximum Display** of **Orders on Orders Page** field.

Here are some points to note about the Orders screen:

- The first column is the Order ID and it is the unique number used to identify your order. You can do a search for a particular order in the Order ID field near the top-right corner of the screen.
- If the shipping and billing addresses differ for an order, a little "red" icon will appear to the left of the order ID. This is a good indicator for store owners to scrutinize the order more carefully since fraud is common when large amounts of money are paid using one billing address but are to be delivered to a different location.

That said, there can be genuine cases for different billing and shipping addresses. For example, if a customer were to buy a product from your store as a gift to a friend.

Note that for orders that contain only downloadable products, the little "red" icon will always appear because these orders contain only billing addresses and no shipping addresses as the Shipping Information page is skipped during checkout.

- Next to every customer's name in the Customers column is a little "note" icon. When you click on this icon, it will immediately bring you to the Customers screen where a short preview of the relevant customer is displayed in the side-panel as seen in the following screen shot.
- A "yellow" icon is shown under the Customer Comments column only if an order contains comments entered by a customer during checkout.
- The side-panel contains a brief summary of an order's details and buttons acting as shortcuts to actions you can perform via the order's details screen as well.

Make a mental note of the Orders screen as we shall be referring to it throughout this chapter.

The Order Details screen

As its name implies, the Order Details screen provides all the details of a customer's order. It is accessible when you click the **edit** button in the respective side-panel of an order in the Orders screen.

The details in the Order Details screen may vary depending on the type of items in the order (e.g downloable products), modules you are using (e.g. PayPal), or other add-ons you have downloaded and installed. If your order includes *tax* calculations, the prices displayed may be different from what you expect. Refer to the section "Display of tax information" for more information on how taxes are displayed.

To get an idea of how an Order Details screen may look like, refer to the following screen shot where a customer has paid via the Cash-On-Delivery payment module for a set of downloadable files and a laptop.

Orders										back
Customer: Bellamont Nicole 1000 Rue Troyon Paris, 75017 Paris, France		Bellamont Nicole Shipping Address: Francois Bellamont 1000 Rue Troyon 10 rue d'Assas Paris, 75017 Paris, France Paris, France Paris, France		iont	Billing Address:	Bellamont Nic 1000 Rue Tro Paris, 75017 Paris, France	ole yon			
Telephor	ne Number:	212	123-1234							
E-Mail Ad	dress:	nico	le@example.c	m						
IP Addre	ss:	127.	0.0.1 - 127.0.	0.1						
Invoice N	o. 75									
Date Pure Payment	chased: Wednesday Method: Check/Mone	27 Octob y Order	er, 2010							
Products					Model	Tax	Price (ex)	Price (inc)	Total (ex)	Total (inc)
1 x Encyclopedia - History of the World (Download Edition) - Vol 1 of 4:: Asia - Vol 2 of 4:: Africa - Vol 3 of 4:: America - Vol 3 of 4:: America			ition)		0%	\$200.00	\$200.00	\$200.00	\$200.00	
1 x Lapt	юр					10%	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00
								Free Shipping Opt Value Add	Sub-Tot ions (Free Shippin ed Tax (VAT) @ 10 Tot	al: \$2,200.00 g): \$0.00 %: \$200.00 al: \$2,400.00
LEGEND:	Available	Expired	Not on Server							
	Order Download	Status								
Status	Filename	Days	Count							
	encyclopedia-part1.zip	7	5							
	encyclopedia-part2.zip	7	5							
	encyclopedia-part3.zip	7	5							
	encyclopedia-part4.zip	7	5							

Date Added	Customer Notified	Status	Comments				
10/27/2010 02:16:03	Le la	Pending	Pls consider having the instructional video in ".mp4" format also.				
10/27/2010 02:16:42	~	Processing	We are in the process of converting them. Will let you know when its done.				
10/27/2010 02:17:00	2010 02:17:00 🚔 Processing Check with Steve on the progress of the conversion.						
10/27/2010 02:18:28	8	Processing	Call customer to check whether alternative shipping address is correct.				
10/27/2010 02:18:42	~	Delivered	Your laptop has been delivered to your husband's address.				
Comments							
Status: Delivered [3]	◉ -Email ○ -No E	Email O-Hi	de] Append Comments: 🗹				

Many of the fields in the Order Details screen are self-explanatory so we shall only highlight the less common ones, namely:

- The Invoice Number corresponds to the Order ID of the order. It is just another name to refer to the order in this screen.
- The **IP** address field shows two different IP addresses. The one on the left gives the IP address of the computer the customer used to log in to your store and the other one is the IP address used to complete the purchase. The two IP addresses can differ for a number of reasons. Common situations usually involve the use of third-party gateways (e.g. PayPal) which have their own IP addresses different from those that customers use to log in with.

The table containing a row of status buttons is only visible if the customer has purchased any downloadable products.

Make a mental note of the Order Details screen as well because we shall be referring to it throughout this chapter.

Updating order information

Each time you perform a task in your order fulfillment process, you can update the status of an order. Order statuses which have been updated will be reflected when customers log in to their accounts to view their order history. Furthermore, you also have the option of sending an email to customers upon updating their order statuses.

To update an order's information:

- 1. Go to the Order Details screen of the order you are interested in.
- 2. Concentrate on the following part of the screen.

Comments	
Status: Delivered [3]	update
Notify Customer: [⑧ -Email ○ -No Email ○ -Hide]	Append Comments: 🗹

- 3. Add any remarks you have regarding the updated order status in the Comments field.
- 4. Optionally, choose a new order status from the Status drop-down list box.
- 5. If you have entered some comments in the **Comments** field, you can control how the comments will be displayed as follows:
 - Select the Email radio button but *do not check* the Append Comments checkbox if you do not want to include your comments in the order update email sent to a customer but want the comments to be displayed in the customer's Order Information page in the Store Front.
 - Select the Email radio button and *check* the Append Comments checkbox if you want to include your comments in the order update email sent to a customer and also want the comments to be displayed in the customer's Order Information page in the Store Front.
 - Select the **No Email** radio button if you do not want an order update email to be sent to the customer but want the comments to be displayed in the customer's Order Information page in the Store Front.
 - Select the Hide radio button if you do not want an order update email to be sent to the customer and for the comments not to be displayed in the customer's Order Information page in the Store Front.
- 6. Click on **update** to confirm the change in order information. If you have not changed the order status nor added any comments before pressing the **update** button, then no changes will apply to the order.

Each time you update your order, a log of the order is captured and displayed in the following part of the Order Details screen. The meanings of the icons are as follows:

- "tick" icon: an email was sent to the customer regarding the order. There is no indication whether the email includes any comments by the store owner.
- "locked" icon: no email was sent to the customer. Comments are visible only to the store owner but not the customer (i.e. private comments).
- "unlocked" icon: no email was sent to the customer. Comments are visible to both the store owner and customer.

 Date Added

 10/27/2010 02:16:03

 10/27/2010 02:16:42

 10/27/2010 02:17:00

 10/27/2010 02:18:28

 10/27/2010 02:18:42

10/28/2010 22:30:09

	Customer Notified	Status	Comments
16:03	f	Pending	Pls consider having the instructional video in ".mp4" format also.
16:42	~	Processing	We are in the process of converting them. Will let you know when its done.
17:00	8	Processing	Check with Steve on the progress of the conversion.
18:28	<u> </u>	Processing	Call customer to check whether alternative shipping address is correct.

Your laptop has been delivered to your husband's address

To verify the visibility of the comments in a customer's Order Information page, refer to the following screen shot which is correlated to the preceding screen shot.

Pls inform your husband to mail the laptop's warranty card within 14 days or it will be void.



~

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Delivered

Delivered

If you want to receive copies of the order confirmation emails sent to customers, click on **Configuration** > **E-Mail Options** to access the E-Mail Options screen and enter the relevant email addresses into the **Send Copy of Admin Orders Status Emails To** field. A sample plain-text email sent to a customer is shown in the following screen shot.

from Claud Blanc <storekeeper@example.com> 😭</storekeeper@example.com>
subject Order Update #75
to Nicole Bellamont <nicole@example.com> 🔐</nicole@example.com>
Mega Store
Order Number: 75
Detailed Invoice: https://www.example.com/store/index.php?main page=account history infoℴ id=75
Date Ordered: Thursday 27 October, 2010
The comments for your order are: Your laptop has been delivered to your husbands's address.
Your order has been updated to the following status: New status: Delivered
Please reply to this email if you have any questions.

Resetting download limits

When dealing with orders containing downloadable products, you can reset the download limits available to a customer at the click of a button without the need to add any comments or click the **update** button. This is also the only way to control the accessibility of individual downloadable files in an order containing several downloadable files.

To enable or disable a customer's access to a downloadable file:

- 1. Go to the Order Details screen of the order you are interested in.
- 2. Look for the button under the **Status** column of the table containing the downloadable files the customer purchased. Consult the "LEGEND" area to understand the colors of the different download status buttons.

LEGEND:	Available	Expired	Not on Server
Order Download Sta		tatus	
Status	Filename	Days	Count
	sheet_music_pdf_ALL.zip	6	5
	song_African.zip	6	5
	song_Dance.zip	6	5

3. To toggle the status of a downloadable file between "Expired" and "Available", click on the corresponding button next to the respective file name.

Generating invoices and packing slips

Whenever you ship physical products to a customer, you will likely need both an invoice and a packing slip to accompany the shipment. You will be glad to know that both of these documents can be easily generated at the click of a button.

To generate an invoice or packing slip from an order:

- 1. Go to the Order Details screen of the order you are interested in.
- 2. To generate an *invoice*, click the **invoice** button. A new window appears showing the invoice generated by Zen Cart.

MEGA STORE 123, RUE DE TOCQUEVILLE PARIS, 75017 FRANCE +33-1-40681234					Zen the art of e-	cart
CUSTOMER:						
Bellamont Nicole 1000 Rue Troyon Paris, 75017 Paris, France						
SOLD TO:	SH	IIP TO:				
Bellamont Nicole 1000 Rue Troyon Paris, 75017 Paris, France	Fra 10 Pa Pa	ancois Bellama rue d'Assas ris, 75016 ris, France	ont			
212-123-1234						
nicole@example.com						
Invoice No. 75						
Date Ordered: Wednesday 27 October, 2010						
Payment Method: Check/Money Order						
Products	Model	Tax	Price (ex)	Price (inc)	Total (ex)	Total (inc)
1 x Encyclopedia - History of the World (Download Edition) - Vol 1 of 4:: Asia - Vol 2 of 4:: Africa - Vol 3 of 4:: America - Vol 4 of 4:: Europe		0%	\$200.00	\$200.00	\$200.00	\$200.00
1 x Laptop		10%	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00
					Sub-Tot	al: \$2,200.00
			F	ree Shipping Optio	ns (Free Shipping	j): \$0.00
				Value Addeo	1 Tax (VAT) @ 10 Tat	%: \$200.00
					101	ai: \$2,400.00
Date Added Status Comments						
10/27/2010 02:16:03 Pending Pls consider having the instructional video in ".mp4" format als	50.					

Examine the information contained in the invoice carefully. If your invoice includes *tax* information, the prices displayed may be different. Refer to the section "Display of tax information" for more information on how taxes are displayed.

3. To generate a *packing slip*, click the **packing slip** button. A new window appears showing the packing slip generated by Zen Cart.

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MEGA STORE				
123, RUE DE TOCQU	JEVILLE			7 Phone Cart
PARIS, 75017				ZUITCAIT
FRANCE				the art of e-commerce
+33-1-40081234				
CUSTOMER:				
Bellamont Nicole				
Paris, 75017				
Paris, France				
BILL TO:			SHIP TO:	
Bellamont Nicole			Francois Bellamont	
Paris, 75017			Paris, 75016	
Paris, France			Paris, France	
212-123-1234				
nicole@example.com				
Invoice No. 75				
Date Ordered: Wedne	esday 27 Manay C	October, 2010		
Payment Method: Check	(Money C	Jrder		
Products				Model
1 x Encyclopedia - H	History of	the World (Download Edition)		
- Vol 1 of 4:: Asia - Vol 2 of 4:: Africa	7			
- Vol 3 of 4:: Ameri	rica			
- Vol 4 of 4:: Europ 1 x Lanton	pe			
Data Addad		Commente		
Date Added St		comments		
10/2//2010 02:16:03 Pend	ding Pl	Is consider having the instructional video in ".mp4" format also.		
10/27/2010 02:16:42 Proc	cessing W	'e are in the process of converting them. Will let you know when its d	one.	
10/27/2010 02:18:42 Deliv	vered Y	our laptop has been delivered to your husband's address.		

Examine the information contained in the packing slip carefully. Unlike an invoice, no payment information is displayed in the document.

To change how *comments* will be displayed in the generated invoice or packing slip:

- 1. Click on Configuration > Shipping/Packaging to access the Shipping/Packaging screen.
- 2. Edit the **Display Order Comments on Admin Invoice** field to change how comments should be displayed in an invoice.



3. Edit the **Display Order Comments on Admin Packing Slip** field to change how comments should be displayed in a packing slip.



The image displayed in both the invoice and packing slip is the same one appearing in the top-left corner of your Admin Console. You can change the image as follows:

1. Examine or edit the following settings in the [zc-home]/[admin]/includes/languages/english.php file. No overrides are available for this file because it is in the [zc-home]/[admin]/includes and not the [zc-home]/includes directory. Therefore, you will need to keep a back up of it if you make any changes here.

define('HEADER_LOGO_WIDTH', '200px'); define('HEADER_LOGO_HEIGHT', '70px'); define('HEADER_LOGO_IMAGE', 'logo.gif');

- 2. Upload and replace the file [zc-home]/[admin]/images/logo.gif if your custom image has the *same name* and dimension as that specified in the previous step.
- 3. If you have uploaded an image with a *different name or dimension*, adjust the settings in Step 1 accordingly.

To change the *store information* displayed on the top-left corner of the invoice, click on **Configuration** > **My Store** to access the My Store screen and edit the **Store Address and Phone** field.

Deleting an order

To delete an order, go to the Orders screen and click the **delete** button in the side-panel next to the selected order. Before you do that, take note of the following point.



Check with your local authorities on their view with regards to gaps in order IDs due to the deletion of orders. There may be specific regulations you need to follow in order not to break any laws.

Therefore, instead of deleting orders, you might want to create custom order statuses to represent the orders you want to delete. For example, creating and assigning an order status of "Testing" for your test orders. Just remember not to set that order status (e.g. Testing) to be the default one!

Resetting order IDs

If you have been testing your store setup, you will have undoubtedly created several test orders. Before your Zen Cart store goes 'live' and starts accepting real customer orders, you might want to reset the order ID. For example, if your test orders end at the order ID of "123". You might want to reset the order ID to "1000" instead. This helps you differentiate your *test* orders from your *real* orders.

To reset your order IDs:

- 1. Click on Tools > Store Manager to access the Store Manager screen.
- 2. Concentrate on the portion of the screen as shown in the following screen shot.

Set next order number				
NOTE: You cannot set the order number to a value lower than any existing order already in the database.				
New Order ID	reset]		

- 3. Enter the order ID that you want Zen Cart to assign to the next order in the New Order ID field.
- 4. Click the reset button to use the new order ID on the next customer order.

Summary

In this chapter, you have gone through the different order-related statistics which can help you assess how well your business is doing. You have also learned about the characteristics of different order statuses and how to define your own custom order statuses. Different stages in the order processing workflow were also covered. Finally, you saw how you can reset your order IDs before accepting real-world orders.

Chapter 23: Managing stock

Introduction

The proper management of stock levels plays an important part in any business. Zen Cart currently provides a basic stock management system for you to view different stock-related information and to help you meet customer demand for your products.

In this chapter, we shall:

- View stock information.
- Configure stock settings.
- Specify low stock email notification.

Checking stock information

Stock information allows you to quickly see which products need replenishment or which products have yet to reach your store for sale.

Current stock levels

To check current stock levels:

1. Click on Reports > Products Low Stock to access the Product Stock Report screen.

Pro	Product Stock Report			
ID#		Products	Quantity	
	3	Free Shipping Test Product	5	
	20	Free Test Product with Free Shipping	5	
	1	Normal Test Product	5	
Displ	Displaying 1 to 3 (of 55 products) << Page 1 🐨 of 17 >>			

Notice that products with the *lowest* stock levels are listed *first*.

2. The figures displayed under the **Quantity** column are taken from the **Products Quantity** fields of the corresponding products in their respective Product Details screens. Products that have their **Products Status** field marked as <u>Out of Stock</u> in their respective Product Details screens will still be displayed in this screen.

To control the number of products that are displayed in each page of the Product Stock Report screen, click on Configuration > Maximum Values and edit the Maximum Display of Products on Reports field.

Future stock expected

Another report of interest to you when assessing your stock level is the products that you have ordered but have yet to arrive in your store. Currently, this report only displays the names of the products and not the quantity.

To check the products that have yet to arrive:

1. Click on Catalog > Products Expected to access the Products Expected screen.

PRODUCTS EXPECTED			
Products	Date Expected	Action	Normal Test Product
Normal Test Product	01/11/2011	•	edit
Product X	01/11/2011	Û	
Product Y	01/11/2011	(Î)	Date Expected:
Displaying 1 to 3 (of 3 products expected)	Page 1 of 1	01/11/2011

- 2. The dates displayed under the **Date Expected** column are taken from the **Date Available** fields of the corresponding products in their respective Product Details screens.
- 3. To view or change the product's details, including its availability date and quantity, click on **edit** to access the product's Product Details screens.

Configuring stock settings

Besides generating reports on stock-related information, Zen Cart allows you to configure how your stock levels are controlled and how you want your stock-related information to be displayed to customers.

To configure your stock settings:

1. Click on Configuration > Stock to access the Stock screen.

S тоск		
Title	Value A	Action Check stock level
Check stock level	true	► edit
Subtract stock	true	1
Allow Checkout	true	① Check to see if sufficent stock is available
Mark product out of stock	***	
Stock Re-order level	5	Date Added: 10/04/2010
Products status in Catalog when out of stock should be set to	0	1
Show Sold Out Image in place of Add to Cart	1	1
Product Quantity Decimals	0	1
Show Shopping Cart - Delete Checkboxes or Delete Button	3	1
Show Shopping Cart - Update Cart Button Location	3	1
Show New Products on empty Shopping Cart Page	1	1
Show Featured Products on empty Shopping Cart Page	2	1
Show Special Products on empty Shopping Cart Page	3	
Show Upcoming Products on empty Shopping Cart Page	4	1
Show Notice of Combining Shopping Cart on Login	1	⁽¹⁾

- 2. The following fields on the Stock screen relate more to the display of the customer's shopping cart contents in the Store Front than to stock-related information. For details on these fields, refer to the section "The Shopping Cart page".
 - Show Shopping Cart Delete Checkboxes or Delete Button
 - Show Shopping Cart Update Cart Button Location
 - Show New Products on empty Shopping Cart Page
 - Show Featured Products on empty Shopping Cart Page
 - Show Special Products on empty Shopping Cart Page
 - Show Upcoming Products on empty Shopping Cart Page
- 3. The Show Notice of Combining Shopping Cart on Login field was discussed in detail in the section "Persisting shopping cart items between visits".
- 4. For a discussion of the rest of the fields that relate to your store's stock settings, refer to the following table.

Table 23.1: Meaning of selected Stock fields

Field	Comments		
Check stock level	Indicates whether a warning message will be displayed when the number of items for a par- ticular product added to a shopping cart exceeds the actual quantity of the product. Consider the case when you set this field to <u>true</u> .		
	If you have specified that the quantity of a product is "1" and a customer adds "3" items of the same product to the shopping cart, an error message will be displayed indicating there is insufficient stock for the customer to purchase.		
Subtract Stock	Indicates whether to automatically decrease the stock level by an amount equivalent to that which the customer purchased. Consider the case when you set this field to <u>true</u> .		
	If you have specified that the quantity of a product is "10" and a customer adds "4" items of the same product to the shopping cart. The quantity of the product in your store will automatically be set to "6" after the customer completes the checkout process.		
Allow Checkout	licates whether to prompt a customer to change the number of items in the shopping cart he number of items exceed the product quantity.		
	If you set this value to <u>true</u> , you run the risk of over-selling and if your suppliers cannot meet your sudden demand, your reputation with customers will suffer. Therefore, the recommended value is <u>false</u> .		
Mark product out of stock	Sets the display characters that should be displayed to indicate that a product is out of stock. An example screen shot of the default value "***" appearing in a shopping cart is shown below.		
	Qty. Item Name Unit Total 3 Image: Sub-Total: Normal Test Product: *** \$200.00 \$600.00 Image: Sub-Total:		
Stock re-order level	Specifies the level of stock that you want to use as an indicator for you to begin ordering more supplies.		
	This field will come in handy if you intend to receive email alerts for products that are out of stock.		
Products status in Catalog when out of stock should be set	If you have set the Subtract Stock field to <u>true</u> ; when the stock level reaches zero or a negative number, the Products Status field of the product in the Product Details screen will be updated according to the setting in this field.		
10	If this field is set to <u>0</u> , the Products Status field in the product's Product Details screen will be set to <u>Out of Stock</u> and the product will not be displayed in the Store Front. If this field is set to <u>1</u> , the Products Status field will be set to <u>In Stock</u> instead.		
Show Sold Out Im- age in place of Add to Cart	If this value is set to 1, an image with the words "Sold Out" will be displayed on the Prod- uct Info page in the Store Front instead of the usual "Add This To My Cart" button and the		

Chapter 23. Managing stock

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Comments

check box to specify the number of items to order. Similarly, a "Sold Out" image will appear in a search listing or product listing of the product.

Product Quantity Decimals

Field

Please make any necessary changes			
Product Quantity Decimals Allow how many decimals on Quantity			
0= off			
 ⊙ 0 ○ 1 ○ 2 ○ 3 			
update cancel			

Allows you to sell products that do not come in whole units. For example, if you sell fabric by the yard, customers can enter 1.25 yards when adding the product to the cart.

Remember to adjust the product's *quantity-related* fields in the Product Details screen if you intend to support fractional quantity values in your store.

Receiving low stock email notifications

Zen Cart has the ability to send email alerts to you when the stock reaches the re-order level you specified in the preceding Stock screen.

Note that an email alert will *not* be sent if you *manually* alter the product quantity to reach a level below the re-order level. Only re-order levels that have been reached via the system subtracting the product's quantity by an equivalent number of purchased items will trigger the email alert.

To receive emails for stocks that have reached the re-order level:

- 1. Click on Configuration > E-Mail Options to access your E-Mail Options screen.
- 2. Edit the following fields accordingly:
 - Send Low Stock Emails
 - Send Low Stock Emails to

Summary

In this chapter, you have learned to view stock-related information and how to configure your desired stock settings. You have also seen how you can configure email alerts for products that have reached a predetermined low stock level, thus eliminating the need for you to constantly log in to your store to check your stock levels.

Chapter 24:

Marketing

Introduction

Besides having great products and services, one of the keys to profitability is how you market your online store and products. The marketing aims you can achieve with the techniques presented in this chapter are as follows:

- Direct customers to visit your store.
- Build long-term relationships with your customers in order to increase the likelihood of repeat sales.
- Promote other products which customers may not be looking to buy when they visit your store.

In this chapter, to help you achieve the above marketing aims, we shall:

- View statistics which will help you in your marketing decisions.
- Go through the following marketing techniques:
 - Discount coupons
 - ► Gift certificates
 - ► Newsletters
 - Product reviews
 - ► Banners
 - ► Search Engine Optimization (SEO)
 - ► Other product promotion features

Note that you can also use the sales techniques presented in the section "Giving discounts" to achieve some of the marketing aims.

Be warned that this chapter is very long. So if you are short of time, you should just read the section "Gathering useful statistics", and then jump to a specific marketing technique you are interested in implementing.

Gathering useful statistics

Before deciding on a marketing technique to use, you should gather some statistics to understand current customer spending and viewing behavior in your store. You can then measure the effectiveness of each marketing technique by comparing the before-and-after results of these statistics. These statistics can also be used to target high-value customers because repeat business from these customers will have a higher impact on your profits.

Products viewed and products purchased

Statistics generated from products viewed and products purchased from your store allow you to tailor your marketing campaign in a *product-centric* manner. For example, if you realize a product is commonly viewed but not usually

purchased by customers, you can create and send a newsletter to your customers telling them the benefits of the product thus creating the impetus for them to buy.

To view statistics for products *viewed*, click on **Reports** > **Products Viewed** to access the Best Viewed Products screen.

BEST VIEV	Best Viewed Products			
ID#	Products	Viewed		
1	Normal Test Product (English)	55		
10	Hotel Accomodation (English)	35		
16	Laptop (English)	34		
Displaying 1 to	3 (of 53 products)	<< Page 1 🗸 of 18 >>		

To view statistics for products *purchased*, click on **Reports** > **Products Purchased** to access the Best Products Purchased screen.

BEST PRO	DUCTS PURCHASED	Search for Product(s) - Delimited by commas Search for Products Name/Model	
ID#	Products	Purch	ased
1	Normal Test Product	1	7
16	Laptop	:	7
17	Beginner Drum Lessons	(5
Displaying 1 to 3 (of 13 products)		< Page 1 💙 of 5 >>	

You may want to reset the statistics for the preceding screens if you wish to begin a new marketing campaign. In this way, the effectiveness of your marketing campaign can be more easily determined as you do not have to take into account any old values when viewing the statistics.

To reset the statistics for the preceding screens:

1. Click on Tools > Store Manager and concentrate on the following portion of the screen.

Reset ALL Products Viewed Reset Product Viewed Counts to 0:	reset
Reset ALL Products Ordered Reset Product Ordered Counts to 0:	reset

- 2. To reset the statistics for the Best Viewed Products screen, click on the **reset** button next to the **Reset ALL Products Viewed** field.
- 3. To reset the statistics for the Best Products Purchased screen, click on the reset button next to the Reset ALL Products Ordered field



To control the number of products that are displayed in each page of the Best Viewed Products screen and Best Products Purchased screen, click on Configuration > Maximum Values and edit the Maximum Display of Products on Reports field.

Total order values per customer

Statistics generated from the relationship between customers and their total order values allow you to tailor your marketing campaign in a *customer-centric* manner. For example, you can use this information to identify high-value customers and use Discount Coupons or Gift Certificates to reward them and breed long-term customer loyalty.

To view statistics relating customers to total order values, click on **Reports** > **Customers Orders-Total** to access the Best Customer Orders-Total screen.

Best Customer Orders-Total			
ID#		Customers	Total Purchased
	1	Jacques Pires	\$21,530.70
	5	Bellamont Nicole	\$10,401.00
	2	Alan Smith	\$4,892.00
Displaying	1 to 3	(of 4 customers)	<< Page 1 v of 2 >>

The statistics presented in the Best Customer Orders-Total screen are not very accurate as it includes all orders a customer has purchased; including duplicate orders and refunded orders.

Recall that store owners have the flexibility to assign non-standard order statuses (e.g. "Withheld") to their orders to suit their business processes. Hence, there is no definite way for Zen Cart to know exactly which orders have been refunded or are duplicate transactions based on their order statuses alone.

Discount coupons

Discount coupons are used by customers to purchase products at a discounted value. The discounted value can either be a percentage off a product's price or an absolute dollar amount. Discount coupons can also be applied to customer orders to give free shipping if a minimum order value is reached.

They have proven to be very popular with customers and can be used as a low-cost way of introducing your product to the marketplace. For example, you can give out discount coupons to loyal customers to try your new products at a discounted rate. Over time, your products will gain the recognition of customers as they keep coming back to buy more products from you.

As discount coupons may eat into your profits, you should exercise discretion when using them. Zen Cart can help you in this aspect by restricting the use of discount coupons to certain categories of products only.

How discount coupons work

An outline of how discount coupons work is as follows:

- 1. Discount coupons are created by store owners and sent to customers either during account creation or selectively via email from the Admin Console. Alternatively, discount coupon codes can be advertised in newspapers and magazines or disseminated through salespersons if you want to implement a customer referral scheme.
- 2. Store owners can choose to restrict the usage of discount coupons to certain categories and products. Coupon usage can also be restricted based on the billing addresses of customers.
- 3. Customers can make use of their discount coupons when they are prompted to enter a discount coupon code on the Payment Information screen during the checkout process.

Configuring the Discount Coupon module

Before you can start using Discount Coupons in your store, you need to enable and configure the Discount Coupon order total module as follows:

- 1. Click on Modules > Order Total to access the Order Total Modules screen.
- 2. Edit the Discount Coupon module. Install it if required.

Discount Coupon	Re-calculate Tax
This module is installed	Re-Calculate Tax
 ♦ true Sort Order Sort order of display. 280 Include Shipping Include Shipping in calculation ♦ true ♦ false 	 ○ None ○ Standard ○ Credit Note Tax Class Use the following tax class when treating Discount Coupon as Credit Note. -none
Include Tax Include Tax in calculation.	
O true	

- 3. Enter a suitable value for the **Sort Order** field. Refer to the section "The Order Total Modules screen" if you have forgotten the purpose of this field.
- 4. Specify <u>true</u> for the **Include Shipping** field if you want shipping charges to be covered by a discount coupon.
- 5. Specify <u>true</u> for the **Include Tax** field if you want taxes to be covered by a discount coupon.
- 6. The **Re-calculate Tax** field must be set to <u>none</u> if you have set **Include Tax** as <u>true</u> or you will receive an error message later. <u>none</u> is also the most commonly used setting. If you choose <u>Standard</u> or <u>Credit Note</u>, you will need to play around with different test orders to see whether they suit your needs.
- 7. If you have chosen <u>Credit Note</u> for the **Re-calculate Tax** field, you should choose a suitable option from the **Tax Class** drop-down list box.
- 8. Click update to finish configuration of your Discount Coupon order total module.

You should play around with the **Sort Order** field for all the order total modules if you encounter erroneous or illogical calculations. If that does not help, your last resort is to refer to the PHP code contained in the [zc-home]/includes/modules/order_total/ot_coupon.php file.

After a Discount Coupon module is enabled, a Discount Coupons hyperlink will appear in the Information side-box. Upon clicking this hyperlink, visitors can type in a discount code to view the details associated with that particular discount code. The following screen shots illustrate the process.

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Information Shipping & Returns Privacy Notice Conditions of Use Contact Us Site Map Gift Certificate FAQ Discount Coupons Newsletter Unsubscribe	Discount Coupon The Discount Coupon Redemption Code you have entered is for '10% Test Coupon'. Discount Offer: 10% off any product. Certain other restrictions may apply. Please see below for other details.
Discount Coupon	The coupon is valid between 09/17/2010 and 09/17/2011
Discount Coupon Sample Text	Discount Coupon Restrictions
This section of text is from the Define Pages Editor located under Tools in the Admin.	Category Restrictions:
To remove this section of the text, delete it from the Define Pages Editor.	This coupon is valid for all categories.
This file is leasted in decourse/section/date is during (denie)	Product Restrictions:
This file is located in /languages/english/html_indudes/dassid/	T-Shirt (Not allowed product)
NOTE: Always backup the files in /languages/english/html_includes /your_template	Discount Coupons may not be applied towards the purchase of Gift Certificates. Limit 1 coupon per order.
Look-up Discount Coupon Your Code:	Look-up Discount Coupon Your Code: 756121796b
(back) (send)	(back) (cance) (send)

Creating discount coupons

To create a discount coupon:

1. Click on Gift Certificates/Coupons > Coupon Admin to access the Discount Coupons screen.

DISCOUNT COUPONS		Status : Active Coupons 🗸			Text Editor Plain Text 👻	
Coupon Name	Coupon Amount	Coupon Code	Status	Starts	Expires	Action [2] abcdefghij
Test Coupon	\$5.00	abcdefghij	Y	09/17/2009	09/17/2010	Coupon Name :: Test Coupon
10% Test Coupon	10.0000%	756121796b	Y	09/17/2010	09/17/2011	Coupon Amount :: \$5.00 Start Date :: 09/17/2009
Free Shipping Coupon	Free Shipping	033f276a85	Y	11/27/2006	11/27/2007	① End Date :: 09/17/2010
Displaying 1 to 3 (of 3 coupons)						Page 1 of 1 Uses per Customer :: 1 Valid Product List ::none Valid Categories List ::none Date Modified :: 1/16/2010 Date Modified :: 11/16/2010 Coupon Zone Restriction: :: 0

2. Click on insert to access the Discount Coupon Details screen.

Discount Coupons		
Coupon Name		A short name for the coupon
Coupon Description (Customer can see)		A description of the coupon for the customer
Coupon Amount		The value of the discount for the coupon, either fixed or add a % on the end for a percentage discount.
Coupon Minimum Order		The minimum order value before the coupon is valid
Free Shipping		The coupon gives free shipping on an order. Note. This overrides the coupon_amount figure but respects the minimum order value
Coupon Code		You can enter your own code here, or leave blank for an auto generated one.
Uses per Coupon		The maximum number of times the coupon can be used, leave blank if you want no limit.
Uses per Customer	1	Number of times a user can use the coupon, leave blank for no limit.
Start Date	16 V November V 2010 V	The date the coupon will be valid from
End Date	16 V November V 2011 V	The date the coupon expires
Coupon Zone Restriction:	-none V	Coupon Zone Restriction are optional.
preview	cancel	

- 3. All fields on the screen have corresponding explanations next to them so you should not have any problems entering the correct values. However, before entering the relevant details into the screen, take note of the following points:
 - Coupon Amount and Free Shipping are mutually exclusive! You should only specify one or the other; but not both at the same time. The system will not show any errors but you will have problems later when customers start using their coupons. Also make sure the Free Shipping module is enabled if you enable the Free Shipping check-box.
 - It is a good idea to leave the **Coupon Code** field empty to allow Zen Cart to generate a *unique* code for you. This is because humans tend to specify coupon numbers in *sequence* and clever customers might just make use of this loophole to use the coupon codes of other customers!
 - What you specify for the Uses per Coupon field will depend on how you structure your coupon marketing campaign. The following two scenarios should help you decide what value to enter for the field:

If you advertise a 10% discount coupon in the newspapers for a laptop your store sells, you are limited to a single discount coupon code for that advertisement. Thus, you would have to leave the **Uses per Coupon** field blank because you want as many people as possible to use the same discount code to purchase the laptop from your store.

If you send unique discount coupons to customers on their birthdays, then you might want to restrict them to use the coupon for one time purchases only. In this case, you should specify $\underline{1}$ for the Uses per Coupon field.

■ The Uses per Customer field allows you to limit the use of a discount coupon on a per-customer basis.

There might be some confusion with the Uses per Coupon field if you happen to specify both at the same time.

For example, if you had specified **Uses per Coupon** to be 50 and **Uses per Customer** to be 1, then how many times can each customer use a particular coupon? The answer is each customer can use a particular coupon only once. However, if the same coupon is given to another 60 customers, then only the next 49 customers can use the same coupon code and each of those 49 customers can only use the coupon once as well.

• You are strongly advised to set the **Start Date** and **End Date** fields to limit the validity period for your discount vouchers. There are two benefits to this approach:

- ► Customers will tend to make their purchase decisions faster with a looming expiry deadline for their discount coupons.
- ► It limits the possibilities of customers turning up with old discount coupons with rates you offered long ago, which are no longer profitable for you to continue offering now.
- If you want to restrict coupon usage to a particular zone, select your desired zone from the **Coupon Zone Restriction** drop-down list box. Note that if you had checked the **Free Shipping** checkbox, the zone restriction will apply to a customer's shipping address, otherwise it will apply to a customer's billing address.
- 4. After entering all the relevant coupon details, click **preview** to proceed to the next screen to have a look at your changes.
- 5. Once you are satisfied with your changes, click confirm to create the coupon.



To change the number of discount coupons appearing in the Discount Coupons screen, click on Configuration > GV Coupons and edit the Maximum Discount Coupons Per Page field.

Restricting coupon usage by category or product

It is a good idea to restrict the use of your coupons to certain categories of products in your store. This allows you to better control the cost of running your discount coupon campaign as you can work out which products you can afford to offer at discount, and with what percentage or value, without eating into your profits significantly.

To limit the use of discount coupons to certain categories or products:

- 1. Select the discount coupon to which you want to apply a restriction from the Discount Coupons screen.
- Click on restrictions to bring up a screen for you to restrict the use of the discount coupon to certain categories and products.

DISCOUNT COUPONS	PRODUCT/CATEGOR	Y RESTRICTIONS				
CATEGORY RESTRICT	IONS					
Coupon ID	Coupon Name	Category ID	Category Name	Allow	Deny	Remove
Displaying 0 to 0 (of 0 categori	es)					Page 0 of 0
Category Name	Тор	~	Allow 🗸		Add	
PRODUCT RESTRICTIO	ons			- "	_	
Coupon ID	Coupon Name	Product ID	Product Name	Allow	Deny	Remove
Displaying 0 to 0 (of 0 products	;)					Page 0 of 0
Category Name		Тор 💌]			
For Add all Category Products, For Delete all Category Product	only Products not already set i ts, only Products that are speci	or restrictions will be added. fied Deny or Allow will be removed.				
						back

- To restrict your coupon usage to specific *categories*, choose from the relevant drop-down list boxes under the Category Restrictions heading. After making your choice, click Add to confirm the restriction. Repeat this step for all other categories you wish to restrict.
- 4. To restrict your coupon usage to specific *products*, choose from the relevant drop-down list boxes under the **Product Restrictions** heading. Choose the different products you want to allow or deny and click **Add**. Repeat this step for all other products you wish to restrict.
- 5. After you are satisfied with your choice, click back to return to the Discount Coupons screen.

The use of your discount coupon should now be limited only to the specific categories and/or products you have allowed or denied. If you face problems configuring your *product* restrictions, try setting <u>Deny</u> on the Top *category* before setting <u>Allow</u> on *individual* products.

Delivering discount coupons to customers electronically

There are two ways by which discount coupons can be sent to customers electronically:

- Selectively email discount coupons to customers *manually* via the Admin Console.
- Send discount coupons *automatically* to customers upon account creation.

Manually email discount coupons to customers

To receive copies of discount coupon emails sent manually via the Admin Console, click on Configuration > E-Mail Options and enable the following fields:

- Send Copy of Admin Discount Coupon Mail Emails To Status
- Send Copy of Customer Admin Discount Coupon Mail Emails To

To send discount coupons to customers directly via the Admin Console:

- 1. Click on Gift Certificates/Coupons > Coupon Admin to access the Discount Coupons screen.
- 2. If you have installed a rich-text editor and want to use it to help you compose HTML email messages in a **Rich-Text Message** text area you may see in the next screen, choose it from the **Text Editor** drop-down list box.
- 3. Select the discount coupon you want to mail to your customers and click **email** on the side-panel to bring up the email details page.

You will see two text areas for you to enter your email message if you have enabled **Enable HTML Emails** in Configuration > E-Mail Options.

DISCOUNT COUP	ons
Coupon Name:	Test Coupon
Customer:	Please Select
From:	storekeeper@example.com
Subject:	
Rich-Text Message:	We're pleased to offer you a Store Coupon .
Message:	We're pleased to offer you a Store Coupon
	cancel send mail

- 4. Enter the relevant details and click send mail to bring up another screen for you to preview your email message.
- 5. Click on send mail in that screen to send your discount coupons to the relevant parties.

A sample discount coupon plain-text email sent to a customer via the Admin Console is shown in the following screen shot.

from Claud Blanc <storekeeper@example.com> 😭</storekeeper@example.com>
subject A special discount coupon for you!
to Nicole Bellamont <nicole@example.com> 🏠</nicole@example.com>
We're pleased to offer you a Store Coupon
You can redeem this coupon during checkout. Just enter the code in the box provided, and click on the redeem button.
The coupon code is abcdefghij
The coupon is valid between 09/17/2009 and 09/17/2011
Don't lose the coupon code, make sure to keep the code safe so you can benefit from this special offer.
\$5/- off for any purchase.

Automatically send a discount coupon on account creation

To receive copies of discount coupon emails sent automatically to customers on account creation, click on **Configu**ration > E-Mail Options and enable the following fields:

- Send Copy of Create Account Emails To Status
- Send Copy of Create Account Emails To

To enable selected discount coupons to be sent on account creation:

1. Click on Configuration > GV Coupons to access the GV Coupons screen.

GV COUPONS		
Title	Value	Action Default Order Status For Zero
Default Order Status For Zero Balance Orders	Processing [2]	Balance Orders
Length of the redeem code	10	① edit
New Signup Discount Coupon ID#	0	①
New Signup Gift Voucher Amount		When an order's balance is zero, this order status will be assigned to
Maximum Discount Coupons Per Page	20	 it.
Maximum Discount Coupon Report Results Per Page	20	

2. Click on New Signup Discount Coupon ID# and concentrate on the side-panel.

New Signup Discount Coupon ID#
Please make any necessary changes
New Signup Discount Coupon ID# Select the coupon
None
update cancel

- 3. Choose a discount coupon you have previously created from the drop-down list box and click **update**. The selected discount coupon will be sent to the next customer who signs up for an account with your store.
- If you want to change the generated discount coupon code length, edit the Length of the redeem code field. For example, if you specify this length to be <u>10</u>, then the redeem code generated by Zen Cart may look like <u>9e47daba3b</u>.

If you had previously specified your own value instead of leaving the code generation to Zen Cart for the **Coupon Code** field when creating the discount coupon, then this field will have *no* effect. Furthermore, note that a change to this field will also affect the length of the redeem codes for gift certificates!

5. If you want to change the order status for an order total balance of *zero* after applying your discount coupon, you can edit the **Default Order Status For Zero Balance Orders** field.


A sample discount coupon plain-text email received by a customer on account sign-up is shown in the following screen shot. Note that the screen shot only shows the portion where the discount coupon details are highlighted and not the entire email.



Implementing a customer referral scheme via discount coupons

A Customer Referral scheme allows you to expand your customer base and assess how effective your marketing campaign is by tracking how effective your different channels of marketing (salespersons, advertisements, etc) are performing.

For example, if you have a team of salespersons, you can give each of them a unique discount code. Your salespersons will give out their individual discount codes to each new customer they find for your business. When these new customers sign up for an account with your store, they will use the unique discount code of the salesperson who introduced them to your business. In this way, you can track the performance of each salesperson by looking at the number of new customers who sign up with your store using the unique discount code of a salesperson.

How customer referrals work

The term *referral code* appears constantly when discussing referrals. It is actually a discount coupon code which has been "tagged" to specific customers to identify how they arrived at your store. It can only be used *once per customer* and is used to find out how customers come to know about your site.

For example, when a customer signs up with your store using a discount code they acquired from a magazine, radio or TV advertisement. That discount code is then known as a *referral code* because that customer was "referred" to your store by that magazine advertisement.

Here is how referrals works in Zen Cart:

- 1. Discount coupons are created.
- 2. Discount coupons are then disseminated through different channels accordingly; salespersons, advertisements, parties, etc.
- 3. Customers learn of your online store through one of your referrers (salespersons, advertisements, etc).
- 4. Customers sign up with your store using the discount code you handed out in Step 2. Optionally, customers can enter the discount code handed out in Step 2 when they check out their purchases.
- 5. Zen Cart associates each discount code with the referrer and calls it a referral code.
- 6. Store owner views a report of how the different referrers and referral schemes have performed.

Track customer referrals

There are two methods to track customers who were referred to your site:

■ When customers sign up for a new account, they can enter the referral discount coupon code on the sign-up form of the Log In screen.

Newsletter and Email Details		
Subscribe to Our Newsletter. HTML ③ TEXT-Only		
Were You Referred to Us?		
Referral Code:		

In this case, Zen Cart is able to determine the referrer immediately after the account creation process completes successfully.

When customers enter their referral discount coupons in the Payment Information screen during checkout.

Discount Coupon
Please type your coupon code into the box next to Redemption Code. Your coupon will be applied to the total and reflected in your cart after you click continue.
Please note: you may only use one coupon per order.
Redemption Code

In this case, Zen Cart stores the first discount coupon code used by the customer during checkout in order to identify the referral source.

To configure which method you would like to use to track customer referrals:

- 1. Click on Configuration > Customer Details to access the Customer Details screen.
- 2. Click on Customer's Referral Status field and concentrate on the side-panel.

Customers Referral Status		
Please make any necessary changes		
Customers Referral Status		
0= Off		
1= 1st Discount Coupon Code used		
2= Customer can add during create account or		
edit if blank		
NOTE: Once the Customers Referral Code has been set it can only be changed in the Admin Customer		
0.0		
0.		
© 2		
update cancel		

- Choose $\underline{0}$ if you do not want to use the Customer Referral feature.
- Choose <u>1</u> if you want to track customers by noting the first time a discount coupon is redeemed by them.
- Choose <u>2</u> if you want to track customers by asking them how they were referred to your store from the sign-up portion of the Log In screen or when customers edit the referral source in their My Account area if the referral source has not already been set.
- 3. Click on update to effect your changes.

Once a referral code has been attached to a customer, only the store owner can change the referral code. To see where the referral code for a customer is stored:

- 1. Click on Customers > Customers to access the Customers screen.
- 2. Select your desired customer and click the edit button on the side-panel.
- 3. The referral code for a customer is shown in the Customer Referral 1st Discount Coupon field as shown in the following screen shot.

Options	
Email Format Pref:	● HTML ○ TEXT-Only
Newsletter:	Unsubscribed 🗸
Discount Pricing Group	-none
Customer Referral 1st Discount Coupon	756121796b

View report on customer referrals

To view the performance of your referrers and referral schemes:

1. Click on Reports > Customers Referral to access the Customers Referral Report screen.

CUSTOMERS REFERRAL REPORT	
Select a Referral/Coupon Code Unknown 💌	
Start Date (m-d-y) 11-16-2010 End Date (m-d-y) 11-16-2010	display

- 2. Choose a referral coupon code from the drop-down list box at the top of the screen.
- 3. Specify which period of the report you would like to view by entering the appropriate dates into the **Start Date** and **End Date** fields.

4. Click **display** and a list of orders using the particular referral coupon you specified in Step 2 will be displayed as shown in the following sample screen shot.

CUSTOMERS REFERRAL REPO	ORT
Select a Referral/Coupon Code	Jnknown 💌
Start Date (m-d-y) 11-16-2010	End Date (m-d-y) 12-31-2010 display
Tuesday 16 November, 2010	Order #80 Discount Coupon ID# edit
Sub-Total:	\$20.00
Flat Rate (Best Way):	\$5.00
Value Added Tax (VAT) @ 10%:	: \$2.00
CarbonTax @ 10%:	\$2.00
Total:	\$29.00

Viewing discount coupon usage statistics

To view the usage statistics for *individual* discount coupons:

- 1. Click on Gift Certificates/Coupons > Coupon Admin to access the Discount Coupons screen.
- 2. Select a discount coupon and click **Report** to bring up the Discount Coupons Report screen.

DISCOUNT COUF	PONS			
Customer ID	Customer Name	IP Address	Date Redeemed	Action [2]Coupon Name Test Coupon
1	Jacques Pires	192.168.0.20	09/17/2009	Redemptions
2	Alan Smith	127.0.0.1	09/17/2010	In Total=2
Displaying 1 to 2 (of 2 (coupons)			Page 1 of 1 For this Customer=1
				back



To change the number of entries appearing in the Discount Coupons Report screen, click on Configuration > GV Coupons and edit the Maximum Discount Coupon Report Results Per Page field.

Gift certificates

Gift certificates are commonly used as a marketing tool for businesses as they offer the following advantages:

- Convenient for people who do not know what gifts to buy.
- Provide immediate cash to the business without having to supply a product or service until a later date. Thus, they behave similarly to an interest-free loan.
- Inexpensive way to widen your customer base.

There are some important concepts to take note of before you start offering gift certificates in your store:

- Unlike discount coupons for which you can specify an expiration date, gift certificates represent real money and do not expire.
- Gift certificates can be purchased by customers like ordinary products, sent by store owners to customers or transferred between customers.

- Discounts cannot be applied to gift certificates.
- A unique code is associated with each gift certificate.
- Gift certificate values are transferable. For example, if a customer has a \$100 gift certificate, he is able to transfer \$20 to his relative and his account will be left with \$80.
- They cannot be restricted to different categories like discount coupons.



The terms Gift Certificate and Gift Voucher are used interchangeably in Zen Cart.

How gift certificates work

An outline of how gift certificates work is as follows:

- 1. Gift certificates are created as *products* and sold; or they are created by the store owner and sent to customers either during account creation or selectively via email from the Admin Console.
- 2. Customers who purchase gift certificates will have the amount credited into their gift certificate accounts in your store. Customers who receive their gift certificates via email will have to redeem them at your store using the gift certificate code in their emails. After a gift certificate is redeemed, the gift certificate amount will be credited into the gift certificate account of the redeemer.
- 3. To prevent cases of fraud, the store owner can configure whether gift certificates need to be approved before they can be used in your store.
- 4. The value contained in gift certificates can then be used when purchasing products from your store. The customer will be prompted to enter a gift certificate code on the Payment Information screen during the checkout process.

To give you a more complete picture of the workings of gift certificates, we shall cover the following areas in greater detail.

- How customers receive their gift certificates.
- How gift certificates are displayed on customer account screens.
- How gift certificates are used for purchase and transfer.

How customers receive their gift certificates

There are actually several ways by which customers can receive their gift certificates.

- Customers can buy them from your store if you have created your gift certificates as *products*.
- Store owners can create gift certificates and send them to selected customers *manually* via email. Alternatively, gift certificates can be *automatically* sent via email on account creation.
- Customers can also receive their gift certificates from other customers. If the receiving parties are not currently customers of your store, they will be prompted to sign up for an account before their gift certificate values can be redeemed.

Gift certificates which are not bought as products from your store will have to be redeemed. Details required to redeem a gift certificate are contained in emails sent to customers. A sample gift certificate email sent to a customer by a store owner is shown in the following screen shot.

from Claud Blanc <storekeeper@example.com> 🏠</storekeeper@example.com>	
subject Gift certificate rewards	
to Nicole Bellamont <nicole@example.com>\u00f3</nicole@example.com>	
We're pleased to offer you a Gift Certificate	
The Gift Certificate is worth \$30.00	 Value of Gift Certificate
To redeem this Gift Certificate, please <u>click on the link below</u> . Please also write down the Redemption Code which is <u>eeb7f7574b</u> in case you have any problems.	Unique Gift Certificate numbe
http://www.example.com/store/index.php?main page=gv redeem&gv no=eeb7f7574b	generated by Zen Cart
or visit http://www.example.com/store/ and enter the code during the checkout process	

Redemption of gift certificate values

There are two ways customers can go about redeeming the values in their gift certificates as shown in the gift certificate emails sent to them:

By clicking on the hyperlink which contains a gift certificate code in the gift certificate email sent to them, the customer will be redirected to your online store. After logging in or creating a new account if the customer does not have an account yet, the gift certificate value will automatically be redeemed. A success message indicating the value of the gift certificate redeemed will be shown to the customer as seen in the following sample screen shot.

Redeem Gift Certificate	
Congratulations, you have redeemed a Gift Certificate wo For more information regarding Gift Certificate, please se Certificate FAQ.	rth \$30.00. e our Gift
	continue

■ By entering the gift certificate code contained in the gift certificate email in the Redemption Code field of the Payment Information screen during the checkout process.



A success message indicating the value of the gift certificate redeemed will be shown to the customer only when proceeding to the next screen. A sample success message when a \$50.00 gift certificate is redeemed is shown in the following screen shot.

Step 3 of 3 - Order Confirmation	٦
Congratulations, you have redeemed \$20.00	

The gift certificate account balance

Customers can check their gift certificate balance when they log in to view their account details. A gift certificate balance displayed in a customer's account is shown in the following sample screen shot.

My Accour	nt Information			
			(show all	orders)
	Previou	s Orders		
Date N	lo. Ship To	Status	Total	View
11/16/2010 #	80 Jacques Pires France	Processing	\$29.00	view
11/15/2010 #	79 Jacques Pires France	Pending	\$225.00	view
11/07/2010 #	76 Jacques Pires France	Pending	\$23.45	view
My Accoun	ıt	Gift Certif	icate Acco	ount
 View or change my account information. View or change entries in my address book. Change my account password. 		You have a b your Gift Cer may spend it someone els button below	You have a balance available in your Gift Certificate account. You may spend it or send it to someone else. To send click the button below.	
Email Notif	ications	Your Gift Certificate balance is: \$50.00		ce is:
from ne • View or notifical	wsletters. change my product tion list.		send a certific	gift ate

Alternatively, if a customer is logged in, the gift certificate balance will be displayed in the Shopping Cart side-box as shown in the following screen shot.

Shopping Cart [more]
2ea T-Shirt
\$36.00
send a gift
Gift Certificate Balance \$50.00

How gift certificates can be used

Customers can choose to use their gift certificates for the following purposes:

- Purchase of products in your store using the balance in their gift certificate account.
- Transfer the value (either wholly or partially) to someone else.

To purchase products using the balance in their gift certificate accounts:

At the Payment Information screen during the checkout process, customers can make full or partial use of the money currently in their gift certificate accounts for their purchase by entering a suitable value in the Apply Amount field.

Gift Certificates		
To use Gift Certifica you wish to apply in to choose a payme the funds to your sl	te funds already in y the box that says '/ nt method, then click hopping cart.	your account, type the amount Apply Amount'. You will need t the continue button to apply
If you are redeemin number into the bo redeemed will be ad button.	ig a <i>new</i> Gift Certifica < next to Redemptio Ided to your account	ate you should type the on Code. The amount : when you click the continue
Redemption Code		Apply Amount: 0.00 Available balance: \$30.00

Alternatively, if customers want to *redeem* and *use* the value in a gift certificate at the same time, they can enter the redeem code into the Redemption Code field instead.

To transfer the values within their gift certificate account balances:

Customers can click on the Send a gift certificate hyperlink in their Account Information screen and the following screen will appear.

Send Gift Certificate Please enter the name, email address and amount of the Gift Certificate you wish to send. For more information, please see our Gift Certificate FAQ.	Your Gift Certificate Account Your Gift Certificate balance is: \$50.00	
Send Gift Certificate		
Recipient's	*	
Name:		
Recipient Email:	*	
Amount to Send:	*	
Your Message:		
(back)	send	
This message is included with all email For your protection and to prevent ma web site are logged and the contents owner. If you feel that you have receiv an email to storekeeper@example.com	Is sent from this site: IMPORTANT: licious use, all emails sent via this recorded and available to the store red this email in error, please send n	

After they are done filling in the details in the screen, they can click **send** to transfer a portion of their gift certificate account balance as a gift certificate to another person.

When customers transfer the gift certificate amounts in their accounts to other customers, you can also be notified via email. To set up this email notification, go to **Configuration** > **E-Mail Options** and set the following fields accordingly.

- Send Copy of Customer GV Send Emails To Status
- Send Copy of Customer GV Send Emails To

Configuring the Gift Certificates module

Before you can start using gift certificates in your store, you need to enable and configure the Gift Certificates order total module as follows:

- 1. Click on Modules > Order Total to access the Order Total Modules screen.
- 2. Edit the Gift Certificates module. Install it if required.

C(1) C = 1 (1) = 1 = -	
Gift Certificates	Re-calculate Tax
This module is installed	Re-Calculate Lax
 ⊙ true Sort Order of display. 840 Queue Purchases Do you want to queue purchases of the Gift Voucher? ⊙ true ○ false Include Shipping in calculation 	 None Standard Credit Note Tax Class Use the following tax class when treating Gift Voucher as Credit Note. -none Credit including Tax Add tax to purchased Gift Voucher when crediting to Account true false
⊙ true ○ false	Set Order Status Set the status of orders made where GV covers full payment default
Include Tax	
Include Tax in calculation.	update cancel
O true	

- 3. Enter a suitable value for the **Sort Order** field. Refer to the section "The Order Total Modules screen" if you have forgotten the purpose of this field.
- 4. The **Queue Purchases** field is only relevant for gift certificates that are purchased as products from your store. This field has no effect for gift certificates that are emailed to customers.

Choose <u>false</u> for the **Queue Purchases** field if you want the amount in a gift certificate to be credited automatically into a customer's gift certificate account after purchase. If **Queue Purchases** is set to <u>true</u>, you will have to manually credit the amount to the customer's gift certificate account.

Recommended value is <u>true</u> if you want to avoid the possibility of fraud. For example, consider the case where you set this value to <u>false</u> and customers pay for a gift certificate via credit card. If the gift certificate amount is immediately credited into their accounts, they can use it to purchase goods or services from your store immediately. After they know your goods are being shipped to them, they then cancel their credit card payment.

However, you might choose to set this value to <u>false</u> if it becomes impractical for you to manually approve gift certificates because too many people are buying them. In that case, make sure you use a payment method that would reduce the possibility of fraud (i.e. PayPal).

- 5. Specify <u>true</u> for the **Include Shipping** field if you want shipping charges to be covered by a gift certificate.
- 6. Specify <u>true</u> for the Include Tax field if you want taxes to be covered by a gift certificate.
- 7. The Re-calculate Tax field must be set to <u>none</u> if you have set Include Tax as <u>true</u> or you will receive an error message later. <u>none</u> is also the most commonly used setting. If you choose <u>Standard</u> or <u>Credit Note</u>, you will need to play around with different test orders to see whether they suit your needs.
- 8. If you have chosen <u>Credit Note</u> for the **Re-calculate Tax** field, you should choose a suitable option from the **Tax Class** drop-down list box.
- 9. The **Credit Including Tax** field is only relevant for gift certificates which you have created as *taxable products*. For example, suppose you have created a gift certificate as a product for sale and applied a tax rate of 10% to it. If the gift voucher is priced at \$10.00, the customer will be charged \$11.00 on checkout due to product tax.

Now how much should go into the customers gift certificate account balance? If this option is set to <u>true</u>, then customers will receive \$11.00 in their gift certificate account balance. If this option is set to <u>false</u>, then customers will get \$10.00 in their gift certificate account balance instead.

- 10. Choose an order status to associate to an order from the **Set Order Status** field if a gift certificate covers the full amount of an order.
- 11. Click update to finish configuration of your Gift Certificates order total module.

You should play around with the **Sort Order** field for all the order total modules if you encounter erroneous or illogical calculations. If that does not help, your last resort is to refer to the PHP code contained in the [zc-home]/includes/modules/order_total/ot_gv.php file.

If a Gift Certificate module is enabled, a Gift Certificate FAQ hyperlink will appear in the Information side-box. Upon clicking this hyperlink, a customer can redeem a gift certificate or find out more about the use of gift certificates by clicking the relevant hyperlinks under the "Gift Certificate FAQ" text. The entire process is illustrated in the following screen shots.

Information Shipping & Returns Privacy Notice Conditions of Use Contact Us Site Map Gift Certificate FAQ Discount Coupons Newsletter Unsubscribe	Gift Certificates FAQ Purchasing Gift Certificates How to send Gift Certificates Buying with Gift Certificates Redeeming Gift Certificates When problems occur Please choose from one of the questions above. back Please enter your Gift Certificate redemption code: Redemption Code:	
	(redeer	n

Selling gift certificates as products

Unlike discount coupons, you can sell gift certificates as products. Since gift certificates are commonly displayed with their values, you may want to consider creating the relevant gift certificate images before you start creating your gift certificate product.

If you have installed the sample data during Zen Cart installation, you can refer to the [zc-home]/im-ages/gift_certificates directory to take a look at some of the sample Gift Certificate images available.

To create gift certificates as products in your store:

- 1. Navigate to the Categories/Products screen and create a product belonging to the "Product-General" type under your desired category.
- 2. In the Product Details screen of the product, pay extra attention to the fields shown in the following table while creating your product.

Field	Value	Explanation
Product is Virtual	Yes, Skip Ship- ping Address	Since this is an electronic Gift Certificate, no delivery of the Gift Certificate is required.
Always Free Ship- ping	<u>Yes, Always</u> <u>Free</u>	Since a cash amount equivalent to the value of the Gift Certificate is stored in the customer's account, there is nothing to physically ship to a customer.

Field	Value	Explanation
Products Model	<u>GIFT-XXX</u>	This field must begin with the characters "GIFT" and the char- acters must be in upper-case. Consider marking this field as "GIFT-10" or "GIFT-100" to differentiate between gift certifi- cates of different monetary values. Do not mis-configure this step!
Products Shipping Weight	<u>0</u>	Since an electronic Gift Certificate has no weight.

- 3. Use your discretion to specify the values for the other fields on the screen.
- 4. Click on save to create the gift certificate as a product.

Approving gift certificates

Note that a gift certificate purchased as a product by a customer may not have its value credited into a customer's account immediately. An *optional* approval process may need to be performed by the store owner before the gift certificate value is released into the customer's gift certificate account balance as a precaution against possible fraud. This additional approval process does *not* apply to gift certificates that are sent via *email* from Zen Cart to customers or between customers themselves.

To ensure that gift certificates are approved by the store owner before their values are released into customer accounts:

- 1. Click on Modules > Order Total to access the Order Total Modules screen.
- 2. Edit the Gift Certificates module.
- 3. Make sure that the Queue Purchases field is set to <u>true</u>.

To approve a gift certificate:

1. Look for the **GIFT Queue** button that appears at the top of your Admin Console as shown in the following screen shot.



2. Alternatively, click on **Customers** > **Orders** to access the Orders screen and then run through each individual order to see which are the orders that have a **GIFT Queue** button displayed in their side-panels as shown in the following sample screen shot.

ORDERS						Order ID:
ORDERS						Status: All Orders 💌
LEGEND: Billing	and Shipping does not	match				
ID Shipping	Customers	Order Total	Date Purchased	Status Customer Comments	Action	[20] 09/19/2006 02:38:48
20 ^{CC} free	🔄 Alan Smith	\$25.00	09/19/2006 02:38:48	Pending	G►	
19 cod 19 flat	🐵 Jacques Pires	\$230.00	09/18/2006 17:50:47	Pending	e0	
18 cod flat	🖗 Jacques Pires	\$190.00	09/18/2006 17:43:46	Pending	e	Date Created: 09/19/2006
17 cod flat	🖗 Alan Smith	\$200.00	09/17/2006 14:51:57	Pending	et	alan@example.com IP Address: 127.0.0.1 - 127.0.0.1
15 cod flat	🖗 Jacques Pires	\$428.00	09/17/2006 14:31:16	Pending	e t	Payment Method: Credit Card
14 cod item	🖗 Jacques Pires	\$231.62	09/17/2006 14:28:12	Pending	et	Shipping: Free Shipping
13 cod 13 perweightuni	t 🖗 Jacques Pires	\$3.40	09/17/2006 13:03:20	Pending	e t	
12 cod item	🖗 Jacques Pires	\$237.50	09/16/2006 18:36:42	Processing	e t	
¹¹ cod freeshipper	🖗 Alan Smith	\$100.00	09/16/2006 03:27:54	Pending	eo	Products Ordered: 1
10 cod item	🖗 Alan Smith	\$22.50	09/16/2006 03:27:03	Processing	e	edit
Displaying 61 to 7	0 (of 79 orders)		<< Page 7 💙 of 8 >>			

 Either way, by clicking on a GIFT Queue button, you will reach the Gift Certificate Release Queue screen. Another way to reach the Gift Certificate Release Queue screen is to simply click Gift Certificates/Coupons > Gift Certificates Queue.

GIFT CERTIF	ICATE RELEASE	Queue			
Customers	Order-No.	Gift Certificate Value	Date Purchased	Action	[1] 09/19/2006 02:38:48 \$25.00
Alan Smith	20	\$25.00	09/19/2006 02:38:48	•	Release GIFT
Alan Smith	21	\$100.00	09/19/2006 02:46:41	٢	
Displaying 1 to 2	(of 2 gift vouchers)			Page 1 of 1	Edit Order ID# 20
					Order

This screen contains a list of gift certificates that are waiting for approval before their amounts are credited into the relevant customer's gift certificate account.

4. Choose the gift certificate you wish to approve and click on **Release GIFT** to bring up a side-panel prompting you to confirm your decision.



5. Click on Confirm to release the value of the gift certificate to a customer's gift certificate account balance.



Once money is credited into a customer's gift certificate account, a store owner will *not* be able to reverse the action. This is to prevent unscrupulous store owners from "stealing" money from their own customers.

Delivering gift certificates to customers

There are two ways which gift certificates can be sent to customers electronically:

- Selectively email gift certificates to customers *manually* via the Admin Console.
- Send gift certificates *automatically* to customers upon account creation.

Manually email gift certificates to customers

To receive *copies* of gift certificate emails manually sent to customers from the Admin Console, click on **Configura**tion > **E-Mail Options** and edit the following fields accordingly:

- Send Copy of Admin GV Mail Emails To Status
- Send Copy of Customer Admin GV Mail Emails To

To send gift certificates to customers manually via the Admin Console:

1. Click on Gift Certificates/Coupons > Mail Gift Certificate to access the Send Gift Certificate To Customers screen.

Customer:	Please Select	▼
Email To:		Use this for sending single emails, otherwise use dropdown above
From:	storekeeper@example.com	
Subject:		
Amount		
Dieb Tert		
Rich Text Message:	We're ple	eased to offer you a Gift Certificate
Rich Text Message:	We're ple	eased to offer you a Gift Certificate
Rich Text Message: Text-Only Message:	We're ple We're pleased to offer you a Gi	eased to offer you a Gift Certificate

You should be able to see two text areas for you to enter your email message if you have enabled **Enable HTML Emails** under **Configuration** > **E-Mail Options**.

- 2. If you have installed a rich-text editor and want to use it to help you compose HTML email messages in the **Rich-Text Message** text area, choose it from the **Text Editor** drop-down list box.
- 3. Specify the recipient(s) of the gift certificate by choosing from the **Customer** drop-down list box or entering an email into the **Email To** field.
- 4. The **From** field is automatically populated with the value from the **Email Address** (sent **FROM**) field of the E-Mail Options screen.
- 5. Enter some text for the Subject field which will appear in customer emails.
- 6. Specify the value of the gift certificate you wish to send to customers by entering a number into the **Amount** field. Do not specify the currency symbol as Zen Cart automatically appends the symbol of the default currency to this amount when sending out the email.
- 7. Enter any other text that you might want to send to your customers in the **Rich Text Message** and **Text-Only Message** fields. These fields correspond to emails that are formatted in HTML and plain-text respectively.
- 8. Click on send mail to bring up another screen to preview the email message and message recipients.

9. Click on send mail in that screen to send the gift certificate.

A sample plain-text gift certificate email sent to a customer from the Admin Console is shown in the following screen shot.

from Claud Blanc <storekeeper@example.com> 🏠</storekeeper@example.com>
subject Gift certificate rewards
to Nicole Bellamont <nicole@example.com> ☆</nicole@example.com>
We're pleased to offer you a Gift Certificate
The Gift Certificate is worth \$30.00
To redeem this Gift Certificate, please click on the link below. Please also write down the Redemption Code which is eeb7f7574b in case you have any problems.
http://www.example.com/store/index.php?main page=gv redeem&gv no=eeb7f7574b
or visit http://www.example.com/store/ and enter the code during the checkout process
This email address was given to us by you or by one of our customers. If you feel that you have received this email in error, please send an email to storekeeper@example.com

Automatically send a gift certificate on account creation

To receive copies of gift certificate emails sent automatically to customers on account creation, click on Configuration > E-Mail Options and enable the following fields:

- Send Copy of Create Account Emails To Status
- Send Copy of Create Account Emails To

To enable Gift Certificates to be automatically created and sent on account creation:

1. Click on Configuration > GV Coupons to access the GV Coupons screen.

GV COUPONS		
Title	Value	Action Default Order Status For Zero
Default Order Status For Zero Balance Orders	Processing [2]	Balance Orders
Length of the redeem code	10	① edit
New Signup Discount Coupon ID#	0	①
New Signup Gift Voucher Amount		When an order's balance is zero, this order status will be assigned to
Maximum Discount Coupons Per Page	20	 it.
Maximum Discount Coupon Report Results Per Page	20	\odot
		Date Added: 09/07/2006

2. Click on New Signup Gift Voucher Amount and concentrate on the side-panel.

New Signup Gift Voucher Amount
Please make any necessary changes
New Signup Gift Voucher Amount
Or enter an amount ie, 10 for \$10,00
update cancel

- 3. Enter the gift certificate amount into the text box and click update.
- 4. If you want to change the gift certificate code length, edit the **Length of the redeem code** field. For example, if you specify this length to be <u>10</u>, then the redeem code generated by Zen Cart for the gift certificate may look like <u>9e47daba3b</u>. (Warning: This field also affects the length of a redeem code for discount coupons!)

5. If you want to change the order status for an order total balance of zero after applying your gift certificate, you can edit the **Default Order Status For Zero Balance Orders** field.



A sample plain-text gift certificate email received by a customer on account sign up is shown in the following screen shot. Note that only the gift certificate portion of the email is displayed.



Track gift certificates sent

To track all the gift certificates you have sent to customers or those that customers send between themselves, click on **Gift Certificates/Coupons > Gift Certificates sent** sent to access the Gift Vouchers Sent screen as shown in the following sample screen shot.

GIFT VOUCHER'S SENT							
Senders Name	Gift Certificate Value	Redemption Code	Date Sent	Date Redeemed	Action [11] \$20.00		
Jacques Pires	\$20.00	e9a56cb044	09/19/2006	11/17/2010	Senders ID: 1		
Bellamont Nicole	\$10.00	c4b5f5f577	09/19/2006	09/19/2006	Amount Sent: \$20.00		
Admin	\$20.00	df4f18879a	09/19/2006	09/19/2006	Date Sent: 09/19/2006		
Admin	\$50.00	3efd1c6fb2	09/19/2006	Not Redeemed	Redemption Code: e9a56cb044		
Admin	\$10.00	f7850dc05d	09/18/2006	09/18/2006	Email Addr: christine@example.com		
Admin	\$50.00	be32e5eccc	09/18/2006	09/18/2006	① Date Redeemed: 11/17/2010		
Admin	\$50.00	ddfeee4677	09/18/2006	09/18/2006	① IP Address: 127.0.0.1		
Admin	\$10.00	7998b4936f	09/15/2006	Not Redeemed	① Customer Id: 1		
Displaying 1 to 8 (of 8 g	gift vouchers)			Page 1 of 1			

Newsletters

Newsletters allow customers to stay informed of the latest happenings in your store. They are delivered via email and provide an excellent means of building relationships with your customers.

Zen Cart provides two types of newsletters:

■ General newsletters - for promotional purposes and general store news.

■ Product newsletters - these are divided into *product-specific* and *all-products* newsletters.

How newsletters work

An outline of how newsletters work is as follows:

- 1. Customers opt in to receive a particular newsletter. There are several ways this can be done.
 - During account creation, customers can opt in to receive General newsletters.



After account creation, customers can log in to their accounts to opt in to receive General newsletters or Product newsletters.



• When customers are viewing a product's details, they can opt in to receive a Product-specific newsletter by clicking in the Notifications side-box.



- Store owners compose and send the relevant newsletters to interested customers. 2.
- 3. Customers can choose to unsubscribe from any newsletter at any time. Again, there are several ways to do this.
 - By clicking on the Newsletter Unsubscribe hyperlink in the Information side-box. This will allow customers to unsubscribe from the General newsletter. Customers will be prompted to log in if they have not done so.



Customers can log in to their accounts and unsubscribe from the General or Product newsletters.





Only HTML-formatted newsletters will contain newsletter unsubscribe hyperlinks. Plain-text newsletters do not contain any unsubscribe hyperlinks.

Enabling newsletter sign-up on account creation

This feature applies only to *General* newsletters where users can be informed of the latest promotion or news from your store.

To allow customers to opt in to receive newsletters during account creation:

- 1. Click on Configuration > Customer Details to access the Customer Details screen.
- 2. Make sure the Show Newsletter Checkbox field is enabled.

Your customers should now see the newsletter subscription option when they sign up for an account with your store as shown in the following screen shot.

Newsletter and Email Details

Subscribe to Our Newsletter.

HTML
TEXT-Only

Creating newsletters

We shall now look at the process of creating the relevant General and Product email newsletters for your customers.

To create and send newsletters to your customers:

 Click on Tools > Newsletter and Product Notifications Manager to access the Newsletter and Product Notifications Manager screen.

NEWSLETTER AND PRODUCT NOTIFICATION	is Manager							
Newsletters	Size	Module	Sent	Status	Action	Claud's News	sletter	
Claud's Newsletter	231 bytes	newsletter	~		•	edit	delete	preview
🖗 Latest information on "Normal Test Product"	82 bytes	product_notification	X		٢		send	
Product Highlights for Sep 10	96 bytes	product_notification	~		٢			
Store Quarterly Newsletter	54 bytes	newsletter	X		٢	Date Added: 0	3/19/2008	
Displaying 1 to 4 (of 4 newsletters)				1	Page 1 of 1	Date Sent: 03	/19/2008	
				new ne	wsletter			

2. To create a new newsletter, click on **new newsletter** to proceed to the Newsletter and Product Notifications Manager Details screen.

Text Editor	Plain Text 💌		
Newsle	tter and Product Notifications Manager		
Module:	newsletter -		
Subject:			
Rich Text Content:			
Text-Only Content:			
		save	cancel

- 3. If you have installed a rich-text editor and want to use it to help you compose HTML email messages in the **Rich-Text Content** text area, choose it from the **Text Editor** drop-down list box.
- 4. In the **Module** field, choose <u>newsletter</u> if you wish to create a General newsletter and <u>product_notification</u> if you wish to create a Product newsletter.
- 5. Enter a name for your newsletter in the **Subject** field. This name will also be displayed in the subject line of emails that customers receive.
- 6. Recall that users have the option of choosing whether they want to receive their emails in HTML or plain text when they sign up for a newsletter. Therefore, enter your newsletter details into both the **Rich-Text Content** and **Plain-Text Content** areas to cater for both sets of users.
- 7. Enter all relevant details and click **save** to effect your changes. Your newly created newsletter will be displayed in the Newsletter and Product Notifications Manager screen.
- 8. To send your newly created newsletter, click on your desired newsletter in the Newsletter and Product Notifications Manager screen.
- 9. Click on **send** to begin sending your newsletter. What screen you see next will depend on what you entered for your **Module** field in Step 3.
 - If you specified <u>newsletter</u>, you will be prompted to select your newsletter recipients.

NEWSLETTER AND PRODUCT NOTIFICATION	ONS MANAGER
Please select the audience for this newsletter mailing	:
	select

Choose your desired newsletter subscribers from the drop-down list box and then click on **select**. You will be shown a preview of your message and the number of recipients for the newsletter. Click on **send mail** in that screen to send your newsletter.

■ If you specified product notification, you should see the following screen.

Products	5	elected Products
Free Shipping Test Product		
Normal Test Product	Global	
	>>>	
	~~~	
	Submit	
	Cancel	

If your newsletter is general enough to encompass all products, click **Global**. If your newsletter is meant for users who have signed up for specific products only, you need to choose the relevant products from the **Products** list and move them to the **Selected Products** list by clicking on >>>.

Once you have completed your selections, click on **Submit**. You should see a screen saying how many subscribers will receive the Product newsletter. Click on **send** in that screen to send your newsletter.

10. You can check whether your newsletter is sent by looking for a *green tick icon* under the **Sent** column of the Newsletter and Product Notifications Manager screen.

### Viewing the number of newsletter subscribers you have

To view the number of newsletter subscribers you have, click on the **Admin Home** hyperlink near the top of the Admin Console. Look at the **Newsletter subscribers** field under the **Statistics** table as shown in the following screen shot.

Statistics	
Hit Counter Started:	09/07/2006
Hit Counter:	6267
Customers:	4
Products:	4
Products deactivated:	51
Reviews:	4
Reviews Pending Approval:	2
Newsletter subscribers:	2

# **Product reviews**

Product reviews increase the likelihood that customers will return to your site, either to write a review of the items they bought or to see what other customers think of a product they want to buy. You also stand to benefit because you can learn from customer preferences, thus adjusting your product offerings and directing your marketing efforts more effectively.

Although product reviews are useful, they can be susceptible to abuse. For example, an unscrupulous competitor could sign up for an account with your store and write bad reviews about your products or store. To overcome this problem, Zen Cart allows you the option of moderating all reviews before they are posted on your site for everyone to see. Furthermore, customers have to sign up for an account first before they are allowed to write any reviews. There is no option to allow anonymous users to write reviews.

### How product reviews work

An outline of how product reviews work is as follows:

1. Customers select a product and proceed to the Product Info page as shown in the following screen shot. If there are currently no reviews written for the product, customers will see a "write a review" button. Otherwise, they will see a "read the reviews" button with the total number of reviews written for that product displayed underneath the "read the reviews" button.



2. Customers click on "write a review" to proceed to a page where a review of the product can be written as shown in the following screen shot. Zen Cart will prompt customers to log in if they have not done so.

Customers can also reach this screen by first clicking the "read the reviews" button and then clicking the "write a review" button in the ensuing screen.

NO PICTURE AVAILABLE larger image	Normal Test Product \$200.00 Written by:Alan Smith	product details read the reviews
Choose a ranking	for this item. 1 star is the worst and	5 stars is the best.
O tokokokok	O tokolole O tokolelek O tokolek	k 🔘 kalakala
Please tell us what sure to focus you	at you think and share your opinions r comments on the product.	s with others. Be
		(submit)
NOTE: HTML tags NOTE: Reviews red	are not allowed. quire prior approval before they will b	e displayed

- 3. Customers choose a rating for the product by clicking on any of the radio buttons with stars displayed next to them.
- Reviews are entered into the text area on the screen. The minimum number of characters that customers should type before Zen Cart allows a product review to be submitted is configured via the Product Review Text field under Configuration > Minimum Values.
- 5. After the product review is completed, customers click on **submit** to send their reviews for the store owner to moderate and approve. Note: Moderation is optional.
- 6. Once reviews are approved, they will appear in the Reviews side-box randomly.



7. To see a list of all product reviews in your store, customers can click on the the product image or the **"Reviews** [more]" hyperlink at the top of the side-box. A list of sample reviews is shown in the following screen shot.



### **Enabling product reviews**

Product reviews are limited to selected *product types* only; they *cannot* be enabled on a *per-product* basis currently. Before users can write product reviews, you need to enable it first.

To allow users to write reviews:

- 1. Click on Catalog > Product Types to access a list of product types in your store.
- 2. Choose a product type you want users to be able to write reviews on and then click on edit layout.
- 3. Make sure the Show Product Reviews Button field is enabled.
- 4. Optionally, you can decide whether to display the number of reviews for a particular product (which appears underneath the "write a review" button) by editing the **Show Product Reviews Count** field.

### Moderating product reviews

It is a good idea to moderate reviews to check that the comments are genuine and legal. For example, you do not want comments that praise your products but criticize that of other companies because you could end up with a legal case on your hands.

Product reviews submitted by customers may be subjected to moderation by store owners. A store owner is then able to edit the contents of a product review before approving it for display to all visitors.

#### Enable moderation for products reviews

To enable a product review to be moderated:

- 1. Click on Configuration > Product Info to access the Product Info screen.
- 2. Make sure the **Product Reviews Require Approval** field is enabled.

#### Receive emails for products pending reviews

If you would like to receive email alerts informing you of product reviews ready for moderation, click on **Configura**tion > E-Mail Options and configure the following fields accordingly.

- Send Notice of Pending Reviews Emails To Status
- Send Notice of Pending Reviews Emails To

This is a good idea if you want to save yourself the effort of constantly logging into your Admin Console to check for product reviews to moderate and approve.

#### Moderate a product review

To moderate a review:

1. Click on Catalog > Reviews to access the Reviews screen as shown in the following screen shot. Alternatively, you can reach the same screen by clicking on the Admin Home hyperlink near the top of the Admin Console, and then clicking on Reviews Pending Approval in the Statistics table.

Reviews						Search:
						Status Any 💌
Products	Customer Name	Rating	Date Added	Status	Action	Normal Test Product
Normal Test Product	Alan Smith	AAA××	09/19/2006		•	edit delete details
Normal Test Product	Jacques Pires	教教教教教	09/19/2006			
🐵 Normal Test Product	Bellamont Nicole	秋秋秋秋*	10/06/2006		٢	Date Added: 09/19/2006 Last Modified: 09/19/2006
Test Product with Image	Jacques Pires	教教教教教	09/19/2006			
Displaying 1 to 4 (of 4 product reviews)					Page 1 of 1	IMAGE DOES NOT EXIST
						Author: Alan Smith
						Rating:
						Read: 3
						Size: 135 bytes
						Average Rating: 80.00%

2. If you wish to view and edit the contents of a product review written by a customer, click on **edit** to bring up the product review details page as shown in the following screen shot.

Reviews	Search:
	Status Any 💌
Product: Test Product with Image From: Jacques Pires	••••
Date: 09/19/2006	
Review:	
An excellent test product. Can be used for testing tax settings, payment modules, shipping modules and all sorts of marketing features.	
	NOTE: HTML is not translated!
Rating: BAD O O O O GOOD	
	preview cancel

- a. Make any changes and preview your changes in another screen by clicking preview.
- b. Click on **update** in the new screen once you are satisfied with your changes. You should be redirected back to the Reviews screen after the update completes.
- 3. To approve a product review, simply click the respective *red button* under the Status column to change its color to *green*.

### Viewing product review statistics

To view statistics for product reviews in your store, click on **Admin Home** on the navigation menu to reach your Admin Console's home page. Look at the following fields under the Statistics table as shown in the following screen shot.

- Reviews
- Reviews Pending Approval

Statistics	
Hit Counter Started:	09/07/2006
Hit Counter:	5777
Customers:	4
Products:	31
Products deactivated:	22
Reviews:	4
Reviews Pending Approval:	2
Newsletter subscribers:	2

# **Banners**

You may be familiar with how banners are used on websites for placing advertisements. These advertisements can either be used for generating revenue and/or as part of a link exchange program for cross-promoting your site with other sites. For example, if you sell cars, you can exchange banners with a magazine that covers the car industry. In this way, both sites stand to gain exposure to their products without using any money for advertising.

Banners in Zen Cart are much more flexible and can be used for other purposes as well. For example, you can create eye-catching image banners that link to products and categories in your store that are currently on sale. You can then look at the banner statistics to determine how effective your in-store promotions are.

### How banners work

An outline of how banners work is as follows:

- 1. Store owners create different banners and position them at specific locations in their Store Fronts.
- 2. Site visitors click on any of the banners.
- 3. Zen Cart then re-directs visitors either to external sites or internal store pages depending on the URL associated with each individual banner.
- 4. Store owners can check the banner statistics generated by Zen Cart to determine the effectiveness of their banner marketing campaign or to determine popularity of a specific page in their store.

### **Banner display concepts**

Before we begin, take a look at the following screen shot to see the different locations where your banners can be located in your Store Front.



#### Figure 24.1: Locations of different banners in the Store Front

To facilitate the display of different banners in a selected location, each banner you create in Zen Cart will be assigned to a banner group. These banner groups are then assigned to the different banner locations in your Store Front.

There are two types of banners that you can create in Zen Cart - *Normal* banners and *HTML Text* banners. *Normal* banners use images found in the folders of your store's server for display. *HTML Text* banners are more flexible and allow you to use other forms of multimedia (e.g. Adobe Flash or Java Applet) as banners. They also allow you to link directly to images hosted on our sites.

Regardless of which type of banner you create, you should make sure that the size of the banner will fit properly into its intended location in your Store Front. For example, banners which are to be placed inside side-boxes should not be too wide.

For both types of banners, Zen Cart automatically records the number of times each banner is displayed regardless of its location in your store. Additionally, for *Normal* banners, Zen Cart automatically records the number of clicks each banner receives as well.

The statistics collected are displayed in the **Display/Views** column of the Banner Manager screen so you can get a quick idea of how your banners are performing. Note that the terms "Impressions" and "Views" are also used interchangeably with "Display" when referring to banners in Zen Cart.

### **Creating a banner**

To create a banner:

1. Click on Tools > Banner Manager to access the Banner Manager screen.

Make sure you do not overlook the statistics shown under the **Displays/Clicks** column. These statistics allow you to measure the effectiveness of a banner advertisement by showing you how many clicks were recorded for the number of times a banner is displayed.

BANNER MAN	AGER											
LEGEND:	Status OFF	Show SSL	New Window									
Banners			Groups D	)isplays / Clicks 9	Status New Windo	ow Show SSL	Sort Order	Action	eStart You	r Web Store	with Zen	Cart(R)
eStart Your We	b Store with Zen C	Cart(R)	BannersAll	48 / 1			15	~~		edit	delete	
eStart Your We	b Store with Zen C	Cart(R)	SideBox-Banners	27 / 0			1	$\sim 0$	Date Addeo	: 02/10/2007		
P eStart Your We	b Store with Zen C	Cart(R)	Wide-Banners	11 / 0			1	~ ①				
🗗 if you have to t	hink you haven	't been Zenned!	Wide-Banners	13 / 0			0	~^ ()	update			
Start Accepting	Credit Cards For	Your Business Toda	ay! Wide-Banners	10/0			0	~^ (1)				
Zen Cart			Wide-Banners	14 / 0			0	~^ (1)	Г	Last 3	Days	
Zen Cart the a	rt of e-commerce		BannersAll	48 / 1			10	~^ (1)		4		
Zen Cart the a	rt of e-commerce		SideBox-Banners	35 / 2			0	~^ (1)				
Zen Cart the a	rt of e-commerce		SideBox-Banners	35 / 2			0	~^ (1)				
Displaying 1 to 9 (of	9 banners)				Page 1 o	f1				25	1 1	
									∎ Banner V ∎ Banner C	ews icks		

2. To add a new banner, click **new banner** to bring up the Banner Manager Details screen. To save space, only the top half-of the screen is shown.

BANNER MANAGER	
Banner Status:	Intersective $\bigcirc$ Not Active NOTE: Banner status will be updated based on Scheduled Date and Impressions
Banner New Window	⑧ Yes ◎ No NOTE: Banner will open in a new window
Banner on SSL	O Yes $O$ No NOTE: Banner can be displayed on Secure Pages without errors
Banner Title:	
Banner URL:	
Banner Group:	BannersAll 🛛 , or enter a new banner group below
Image:	Rowen or enter local file below
	/home/iohndoe/public html/store/images/
Image Target (Save To):	/home/johndoe/public_html/store/images/
Suggested Target location	on for the image on the server: /home/johndoe/public_html/store/images/banners/
HTML Text:	NOTE: HTML banners do not record the clicks on the banner
Sort Order - banner_box_al	NOTE: The banners_box_all sidebox will display the banners in their defined sort order
Scheduled At:	
Expires On:	impressions/views.
Banner Notes	
banner notes.	insert cancel

Read the instructions displayed prominently below the buttons (shown in the following screen shot) to understand some of the rules governing the use of different fields in this screen.

Banner Notes:
<ul> <li>Use an image or HTML text for the banner - not both.</li> <li>HTML Text has priority over an image</li> <li>HTML Text will not register the click thru, but will register displays</li> <li>Banners with absolute image URLs should not be displayed on secure pages</li> </ul>
Image Notes:
<ul> <li>Uploading directories must have proper user (write) permissions setup!</li> <li>Do not fill out the 'Save To' field if you are not uploading an image to the webserver (ie, you are using a local (serverside) image).</li> <li>The 'Save To' field must be an existing directory with an ending slash (eg, banners/).</li> </ul>
Expiry Notes:
<ul> <li>Only one of the two fields should be submitted</li> <li>If the banner is not to expire automatically, then leave these fields blank</li> </ul>
Schedule Notes:
<ul> <li>If a schedule is set, the banner will be activated on that date.</li> <li>All scheduled banners are marked as inactive until their date has arrived, to which they will then be marked active.</li> </ul>

- 3. Set the **Banner Status** field as <u>Active</u> if you want your banner to be displayed. Disregard this field if you have configured values for **Scheduled At** and **Expires On** as the banner status will be managed automatically by Zen Cart once those fields are set.
- 4. Set the **Banner New Window** field to <u>Yes</u> if you want a new window to appear when a customer clicks on the banner. The new window will display the site that is associated with this banner.

Do note that pop-up blockers on your customers' computers can prevent the new window from appearing if this field is set to Yes.

5. Set the **Banner on SSL** field to <u>Yes</u> if you want your banner to be displayed correctly if your store's URL switches from "http" to "https".

If this field is set to <u>No</u>, then on SSL pages, your banner will not appear. You may want to do this if your banner references graphics or content external to your site that will likely throw up security alerts on SSL pages.

- 6. Enter a name for your banner in the Banner Title field.
- 7. For the **Banner Group** field, either choose an existing banner group from the drop-down list box or enter a new banner group name in the text box to create a new banner group.
- 8. The next part is a bit tricky because you need to specify whether you want a Normal or HTML Text banner.
  - To configure a *Normal* banner:
    - a. In the Banner URL field, enter the web address with which to redirect users when they click on the banner.
      - ► For a web address that references an *external site*, prefix the value with either a "http" or "https". An example value is <u>http://www.yahoo.com</u>.
      - ▶ For web address that references an а in-store page, enter the part of your which begins with "index.php". store's URL An example value is index.php? main_page=product_info&cPath=1_9&products_id=1.
    - b. For the **Image** and **Image Target** (Save To) fields, refer to the "Image Notes" section at the bottom of the screen in order to correctly specify your banner image.
  - To configure an *HTML Text* banner:
    - ► Enter the appropriate HTML code into the HTML Text field. For example, you can enter <<u>a</u> <u>href="http://www.yahoo.com">Yahoo Site</a></u> into this field to show a hyperlink which will redirect users to Yahoo's site if they click on it. Note that if you are using other multimedia files (e.g. Flash, Java Applets), you will need to find out the correct HTML code to use before entering it into this field.
- 9. If the banner group (i.e. the value for **Banner Group**) which this banner is created in will be displayed in the Banner Box All side-box, then you may want to enter a value into the **Sort Order banner_box_all** field to ensure the banners are visually stacked against each other according to your preference.
- 10. Leave the **Schedule** At field blank if you want the banner to be displayed immediately. Alternatively, if you want the banner to be displayed starting from a certain date, choose the desired date from the calendar that is displayed when clicking on the dark button next to the field.
- 11. Leave the **Expires On** field blank if you want the banner to be displayed for an indefinite period of time. Alternatively, if you want to automatically disable the display of the banner, you can choose *either* one of the following actions:
  - To disable the banner display on a particular date, choose the desired date from the calendar that is displayed when clicking on the dark button next to the field.
  - To disable the banner display based on the number of times that the banner has been displayed, enter a value in the text box next to the words "impressions/views".
- 12. Click on **insert** to create your banner. You will be redirected to the Banner Manager screen once the banner is created.
- 13. At the Banner Manager screen, make sure the **Status** button of the banner you just created is green or your banner will not be displayed in the Store Front either immediately or when the scheduled date for banner activation arrives.

### **Positioning a banner**

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Τίρ

You can refer to Figure 24.1: "Locations of different banners in the Store Front" to visualize exactly where you want to position the banners in your Store Front.

Before we begin, turn on the relevant banner side-box(es) that you want to use:

- 1. Click on Tools > Layout Boxes Controller to access the Column Boxes screen.
- 2. Enable the respective side-box(es) accordingly:
  - sideboxes/banner_box.php
  - sideboxes/banner_box2.php
  - sideboxes/banner_box_all.php

To specify where your banners should be positioned:

- 1. Click on Configuration > Layout Settings to access the Layout Settings screen.
- 2. If you want your banners to be *randomly displayed one at a time*, select any of the following fields. For each field, you can enter *one or more* banner groups as its value.
  - **Banner Display Groups Header Position 1**
  - Banner Display Groups Header Position 2
  - Banner Display Groups Header Position 3
  - Banner Display Groups Footer Position 1
  - **Banner Display Groups Footer Position 2**
  - **Banner Display Groups Footer Position 3**
  - Banner Display Groups Content Box banner_box
  - Banner Display Groups Content Box banner_box2
- 3. If you want your banners to be *statically displayed together* all at once instead of being rotated randomly, select the following field. Note that this field accepts only *one* banner group as its value.
  - Banner Display Group Content Box banner_box_all
- 4. For each field you selected, enter your desired banner group name(s) and click the **update** button to save your changes.

# Search Engine Optimization (SEO)

One of the most important things to do after getting your site online is to get it listed on search engines. By doing so, you are able to drive a greater amount of traffic to your site and subsequently increase your sales.

To get listed on a search engine you will need to submit the URL of your site and some personal details to the relevant search engine. Submission rules vary among different search engines so you will need to do some research. Since the rules on site submission to different search engines are updated constantly, we shall not show the steps here as they are likely to become obsolete soon after this book is published.

Once your application is approved, the search engine will send a little program called a "web-bot", "robot" or "spider" to crawl and index your site pages. The robot then sends back the relevant data it has obtained from your site to the search engine and the algorithms in each search engine will decide how your site ranks when someone performs a search in that particular search engine.

Because robots are computer programs, they cannot "see" the pages like human beings. Instead, they can only see the source code that is used to render your web page in web browsers. To help these robots understand your site and content better, Zen Cart provides several features to aid in their indexing work.

We shall use the term Search Engine Optimization (SEO) to describe the features offered by Zen Cart in helping robots index your site more efficiently. Most people use the term to describe the methods used to make a site appear on top of page rankings when users perform a search in a search engine. Getting on top of page rankings is a big deal for many online businesses because it increases the exposure of a business to customers and hence drives greater traffic to the site compared to sites that do not rank as high.

The SEO methods described in this book are legal and widely-accepted by search engines as long as you do not abuse them. Other SEO methods might be targeted more for specific search engines. Regardless of which SEO method you use, do check that the method has not been outlawed by a search engine before using it. Search engines tend to change their rules periodically to prevent anyone from using a specific method to get listed on top of page rankings.



Watch out for *Search Engine Optimization* (SEO) companies that claim they can help you achieve top rankings in search results. Most of these companies employ means that can get you *banned* from ever appearing in search engines again!

## **Canonical URLs**

Websites that contain duplicate or very similar content that can be accessed via different URLs may see the quality of their search engine rankings for the affected content drop. This is because search engines need to determine which URL best represents the duplicate content and at the same time avoid diluting the strength of the content's ranking across different URls.

To alleviate the preceding problem with duplicate content, the major search engines like Google, Yahoo, and Microsoft have teamed up to support the use of canonical URLs. This allows a site owner to indicate the preferred version of a URL to use when a search engine encounters different URLs that produces duplicate content on a site.

Because the contents of Zen Cart are generated dynamically, different Zen Cart URLs can point to the same or very similar content in your store. This is not a problem for search engines because Zen Cart is smart enough to automatically generate the relevant canonical URLs for the affected content.

Let us take a look at the following two examples to see how canonical URLs are generated in Zen Cart. This allows you to understand how your store's URL may appear in search engine results and allows you to check that canonical URLs are working correctly in your store.

For the *first* example, we shall assume that your store contains a product with product ID "8" and that is linked to multiple categories (i.e. "22", "30", and "45"). When you access the product's Product Info page in your Store Front with the following URLs, you will notice that the content displayed is *identical*.

- http://www.example.com.com/store/index.php? main_page=product_info&cPath=22&products_id=8
- http://www.example.com.com/store/index.php? main_page=product_info&cPath=30&products_id=8
- http://www.example.com.com/store/index.php? main_page=product_info&cPath=45&products_id=8

Regardless of which URL you use to access the Product Info page, you will notice that a canonical URL similiar to the following one has been generated by Zen Cart when you use your web browser to view the HTML source code of the page. Notice that the category ID is left out of the generated canonical URL. This ensures that search engines will not have a problem locating the product even if you were to remove it from one of the linked categories.

```
<link rel="canonical" href="http://www.example.com.com/store/index.php?
main_page=product_info&amp;products_id=8" />
```

For the *second* example, we shall make use of the New Products listing page to illustrate how canonical URLs work for pages that can display very *similar* content.

Let us first assume that you can access the New Products listing page in your store via the following URL.

http://www.example.com.com/store/index.php?main_page=products_new

By tweaking the options in the "Sort by" drop-down list box and the paging hyperlinks as shown in the following screen shot, you will be able to change the order in which the relevant products are displayed.

Home :: New Products	
New Products	
Sort by: Date Added - New to Old	
	(add selected products to cart)
Displaying 1 to 10 (of 125 new products)	1 2 3 4 5 [Next >>]

Each time you change the display options on the New Products listing page, you will notice that the URL for the page changing to include extra parameters which reflect your selections. Some examples of the changed URLs are as follows:

- http://www.example.com.com/store/index.php? main_page=products_new&disp_order=4&page=1
- http://www.example.com.com/store/index.php? main_page=products_new&disp_order=6&page=2
- http://www.example.com.com/store/index.php? main_page=products_new&disp_order=1&page=3

Again, if you use your web browser to view the HTML source code of the New Product listing page each time you change the page's display options, you will notice that a canonical URL similiar to the following one has been automatically generated by Zen Cart. Notice that the extra URL parameters are not present in the canonical URL. This ensures that search engines will know which URL to use as the definitive version and not dilute the strength of the page's content when it sees varying parameters in the page's URL.

```
<link rel="canonical" href="http://www.example.com.com/store/index.php?
main_page=products_new" />
```

As you have seen in the preceding examples, Zen Cart is smart enough to generate the relevant canonical URLs throughout various parts of your store. There is thus no need for store owners to do any manual configuration unless they have very specific requirements as to how canonical URLs should be generated for their stores or wish to troubleshoot why canonical URLs are not being generated properly. For those rare occassions, store owners can refer to the code in the [zc-home]/includes/init_includes/init_canonical.php file.

### Web spiders

#### robots.txt

A robots.txt file, *if present*, exists in the root of your site's domain (usually the document root of a web server) to help web spiders indexing your site to ignore certain content which are not important to your site's search engine rankings.

As a robots.txt file is publicly accessible and viewable via http://www.example.com.com/robots.txt, it should not contain any references to private directories or files you do not want the public to know about. This is because not all web spiders respect or interpret the instructions in a robots.txt file fully and malicious hackers are also known to scan the contents of the file to determine whether there are any directories or files which might be of interest to them.

If you had followed the instructions in the section "Helping search engines index your site correctly" after installing your Zen Cart store, then you will already have a robots.txt file in your remote server's document root directory.

In addition, if you had used Zen Cart's robots_example.txt file as a template when creating your own robots.txt file instead of creating one from scratch, then the contents of your robots.txt file should include the following code. The code tells *all* web spiders to ignore the /cgi-bin directory which is commonly found on Linux-based web hosts.

```
User-agent: *
Disallow: /cgi-bin/
```

Nowadays, some search engines provide users the ability to search for images directly (e.g. Google Images or Yahoo! Image Search). To discourage web spiders from indexing the images and pop-up images in your store, you can also follow the contents in the robots_example.txt file and add the following code to your robots.txt file:

Disallow: /images
Disallow: /index.php?main_page=popup_image*

As mentioned earlier, search engines may interpret the instructions in a robots.txt file differently. Therefore, you should consult each search engine's documentation separately to determine whether you need to tweak your robots.txt file to suit their requirements. For example, to remove an image from Google Images, refer to http://www.google.com/support/webmasters/bin/answer.py?hl=en&answer=35308.

For more information on the workings of the robots.txt file and how to properly edit its contents, refer to http://www.robotstxt.org/.

#### **Robots and security**

Session IDs are unique sequences of characters generated by web applications to keep track of users actions. Session IDs generated by Zen Cart when a user visits your Store Front are preceded by a "zenid" character. An example of a session ID appearing in a store's URL is shown in the following example:

```
http://www.example.com/store/index.php?
main_page=index&zenid=af40be3714c3b6e70c83e958c1f6e1f6
```

Session IDs appearing in search engine results can lead to some strange problems with your store. When multiple users click on the search engine result hyperlink with your session ID embedded in the URL, they could potentially see each others' carts and account details giving rise to security and privacy issues.

Besides the online risks of exposing your session IDs, you should also avoid exposing your store session IDs when displaying your store's URL in magazines, email signatures or other advertising material.

To turn off session ID indexing by robots:

- 1. Click on Configuration > Sessions to access the Sessions screen.
- 2. Make sure the Prevent Spider Sessions field is set to True.



Advanced users who have defined their own custom web pages might want to consider looking at the file [zc-home]/includes/languages/english/meta_tags.php. You can add the names of specific pages to exclude from robot indexing in a line that contains the words "ROBOTS_PAGES_TO_SKIP".

### Site map



When users click on the Site Map hyperlink in the Information side-box in your Store Front, they will be redirected to a page that shows the different products available in your store and how your store is organized. All this information is *automatically* generated by Zen Cart, and is clearly useful to visitors who might otherwise get lost in your store if you have a lot of content.

Besides being useful to humans, the site map is also beneficial for robots. This is because all the relevant pages in your store are conveniently located in a single place which eases the robot's task of crawling and indexing your site. Furthermore, robots are also able to derive useful relationships between the different products in your store as the structure of your site makes it easier to understand for them.

As a site map is automatically enabled and generated by Zen Cart, the only concern you may have with the site map is the privacy issues it can raise when robots start crawling your site. To address this concern, you should make sure that Zen Cart does not generate My Account hyperlinks in the site map so that robots do not have a chance of crawling them. This is because My Account pages contain sensitive information that should only belong to individual customers and not be indexed as part of your site's content.

To turn off the display of My Account links in a generated Site Map:

- 1. Click on Configuration > Layout Settings to access the Layout Settings screen.
- 2. Click on the Site Map include My Account Links? field and concentrate on the side-panel.

Site Map - include My Account Links?	
Please make any necessary changes	
Site Map - include My Account Links? Should the links to My Account show up on the site-map? Note: Spiders will try to index this page, and likely should not be sent to secure pages, since there is no benefit in indexing a login page.	
Default: false	
⊖ Yes ⊙ No	
update cancel	

3. Make sure the field is set to <u>No</u> before you click update to effect your changes.

To customize the look of your site map:

- 1. Click on Configuration > Define Page Status to access the Define Page Status screen.
- 2. Click on the Define Site Map Status field and concentrate on the right-panel.



3. Select your desired setting and click update to effect your changes.

To change the wordings of the template text in your site map, use the Template Override System to override the [zc-home]/includes/languages/english/html_includes/define_site_map.php file.

### Meta tags

Meta tags are special HTML tags that communicate information to web browsers and robots. They are not meant for human viewing and you can only see them when you view the HTML source code of a web page from within your web browser.

If you are using Mozilla Firefox, you can right-click on a web page and then click View Page Source on the pop-up menu to see the HTML source code associated with that page. Similarly, if you are using Internet Explorer, you can right-click on a web page and click View Source on the pop-up menu.

Any tag that contains the word "meta" is a meta tag; e.g. <*meta name="keywords">*.

There are several different types of meta tags but we will look at two of the most general ones here. The first type of meta tags is meant for web browsers. The following example meta tag tells your web browser what format and language the web page is encoded in so that your web browser knows how to display it properly.

<meta http-equiv="Content Type" content="text/html; charset=iso_8859_1" />

The other type of meta tags is meant for robots as they provide details of the contents in your store and help the robots index your store pages according to your input. These are the meta tags that we will concentrate on and talk about for the rest of this chapter. The following example meta tag may be read by robots to understand the contents of your store better.

<meta name="keywords" content="fruits, grocery, apples, oranges, grapes">

Note that nowadays, the influence of meta tags on search engine results has been drastically reduced as other parameters are used by search engines to index and rank websites. Therefore, do not spend too much time fine-tuning your meta tag descriptions.

Information you define for meta tags can be divided into the following categories:

- General information.
- Category and Product information



Although we shall be talking about the configuration of meta tags later, you will notice that the web browser title bar is also used by Zen Cart to provide information about your site. This is because robots can also make use of this information for indexing.

#### General and page-specific information

If you wish to have general information about your store or page-specific information appear in meta tags generated by Zen Cart, you will need to edit the [zc-home]/includes/languages/english/meta_tags.php file. Some of the contents of the file are shown in the following code. Note that we have removed some of the comments for easier reading and to save space in this book.

```
// page title
define('TITLE', 'Zen Cart!');
// Site Tagline
define('SITE_TAGLINE', 'The Art of E-commerce');
// Custom Keywords
define('CUSTOM_KEYWORDS', 'ecommerce, open source, shop, online shopping');
// Home Page Only:
define('HOME_PAGE_META_DESCRIPTION', '');
define('HOME_PAGE_META_KEYWORDS', '');
define('HOME_PAGE_TITLE', ''); // usually best left blank
// EZ-Pages
define('META_TAG_DESCRIPTION_EZPAGE_#','');
define('META_TAG_KEYWORDS_EZPAGE_#','');
define('META_TAG_TITLE_EZPAGE_#', '');
// Per-Page
define('META_TAG_DESCRIPTION_page_name','');
define('META_TAG_KEYWORDS_page_name','');
define('META_TAG_TITLE_page_name', '');
// Review Page can have a lead in:
define('META_TAGS_REVIEW', 'Reviews: ');
// separators for meta tag definitions
```

```
// Define Primary Section Output
define('PRIMARY_SECTION', ' : ');
// Define Secondary Section Output
define('SECONDARY_SECTION', ' - ');
// Define Tertiary Section Output
define('TERTIARY_SECTION', ', ');
```

The information contained in this file will be *included* in other meta tags in some other pages that appear in your store. Remember to use the Template Override System if you want to make changes to the file.

#### Category and product information

To add category and product information to your meta tags, you will need to configure each individual category and product separately.

To create meta tags for a *category*:

- 1. Click on Catalog > Categories/Products to access your Categories/Products screen.
- 2. Navigate to your desired category and click on the "biohazard" button; i.e. the button with four quadrants.

Categories / Products - Top	Search: X Go To: Top X
Categories Meta Tags Definitions Define Custom Meta Tags - 2 Fruits	
Title:	
Keywords:	_
Description:	
save cancel	

- 3. Enter the name of the web page for the **Title** field. This name will be shown on the web browser title bar when a customer goes to the category page by clicking on the category hyperlink in the Categories side-box.
- 4. Enter the keywords you want to associate with the category in the **Keywords** field. For example, if you specify <u>test</u>, <u>experiment</u> for this field, your meta tag will show up as <meta name="keywords" content="test, experiment">:
- 5. Enter the description you want to associate with the category in the **Description** field. For example, if you specify testing purpose for this field, your meta tag will show up as *<meta name="description" content="testing purpose">*.
- 6. Click save to save your changes into the database.

To specify meta tags for a *product*:

- 1. Click on Catalog > Categories/Products to access your Categories/Products screen.
- 2. Navigate to your desired product and click on the "biohazard" button; i.e. the button with four quadrants.

roduct in Category: "Fruits > Apples"
Mark What the Product's Meta Tag Title Should Include:
oduct Name:     Title:     Model:     Price:     Title/Tagline:       9 Yes     No     Image: Second Seco
Products Name: Pesticide-Free Apple Products Model: Price: \$10.00
Meta Tag Title:
Meta Tag Keywords:
Meta Tag Description:
TTE: The Site/Tagline is your defined definition for your site in the meta_tags.php file.
preview

 Click the relevant radio buttons under the Mark What the Product's Meta Tag Title Should Include table heading to specify which piece of product information should appear in the title bar of a customer's web browser when the customer reaches the Product Info page in your Store Front.

To change the default values for the radio buttons, click on Catalog > Product Types to access the Product Types screen. Select a product type and click edit layout and then customize the following fields accordingly.

- Show Metatags Title Default Product Title
- Show Metatags Title Default Product Name
- Show Metatags Title Default Product Model
- Show Metatags Title Default Product Price
- Show Metatags Title Default Product Tagline
- 4. Enter the name of the web page for the **Meta Tag Title** field. Depending on the settings of the radio buttons, this name might be shown on the web browser title bar *together* with other product information when a customer goes to the Product Info page in your Store Front. Note that other general keywords might also appear in the meta tag. Refer to the section "General and page-specific information" for more information.
- 5. Enter the keywords you want to associate with the product in the **Meta Tag Keywords** field. For example, if you specify <u>test</u>, <u>experiment</u> for this field, your meta tag will show up as <<u>meta name="keywords" content="test</u>, <u>experiment"</u>>. Again other general keywords might also appear in the meta tag.
- 6. Enter the description you want to associate with the product in the **Meta Tag Description** field. For example, if you specify <u>testing purpose</u> for this field, your meta tag will show up as <meta name="description" content="testing purpose">.
- 7. Click **preview** to proceed to the next screen which summarizes your product meta tag configuration.
- 8. Click **update** in that screen to confirm your changes.

#### Customizing meta-tag appearances

To further configure meta tag appearances in the Product Info page of your Store Front:
- 1. Click on Configuration > Product Info to access the Product Info screen.
- 2. Edit the following fields accordingly:
  - Meta Tags Include Product Model in Title
  - Meta Tags Include Product Price in Title
  - Meta Tags Generated Description Maximum Length

## Other product promotion features

We shall now talk about some marketing features that are seldom noticed or used by store owners. Two of these features (Also Purchased Products and Best Sellers) are automatically enabled in Zen Cart while the third (Featured Products) needs to be configured.

### **Also Purchased Products**

The Also Purchased Products feature is automatically available in Zen Cart. This feature is similar to a familiar marketing technique called "Cross-Selling" which aims to sell other related products to a customer when the customer is viewing a particular product. An example would be recommending nails when a customer is looking at a hammer in your store.

The Also Purchased Products feature works like this: When a visitor views a product in the Product Info page, Zen Cart will analyze whether the currently viewed product has ever been ordered together with other products by other customers. If the analysis is positive, those other products that were purchased by other customers will appear in the Customers who bought this product also purchased center-box at the bottom of the Product Info page. The following screen shot gives you an idea of how things look.



Note that the recommended products appear *randomly* in the center-box. There is no way to specify which specific products should be recommended based on the currently displayed product.

To change the appearance of the Customers who bought this product also purchased center-box:

- 1. Click on Configuration > Product Info to access the Product Info screen.
- 2. Edit the Also Purchased Products Columns per Row field accordingly.

To specify how many eligible recommended products should be available before the center-box is shown:

- 1. Click on Configuration > Minimum Values to access the Minimum Values screen.
- 2. Edit the Also Purchased Products field accordingly. Hint: If you do not want the center-box to ever appear, specify a very high value for this field.

To limit the maximum number of eligible products displayed in the center-box:

- 1. Click on Configuration > Maximum Values to access the Maximum Values screen.
- 2. Edit the Also Purchased Products field accordingly.

### **Best Sellers**

The Best Sellers feature displays a list of products that have chalked up the most sales in your store. It takes advantage of the curiosity factor in humans whereby everyone is interested to find out what and why others are buying. This is especially so if customers are looking for products that are "safe-bets" as gifts for loved ones.



For more information on the configuration of the Bestsellers side-box, refer to the section "Best Sellers".

### **Featured Products**

Featured Products allow you to showcase certain products distinctively across several areas of your store as shown in the following screen shots.



There are many reasons why stores might want to put products in a designated "feature" area. For example, if a store has the rights to sell a very limited edition of a branded game console, the store could market the console as a featured product to build up interest and bring in pre-orders before the actual launch of the product.

Take note of the following differences between Specials (refer to the section "Product specials" for more information) and Featured Products:

- Specials always include a discount whereas Featured Products have the option of not having a discount.
- Specials can also be positioned as Featured Products too.

To create a featured product:

1. Click on Catalog > Featured Products to access the Featured Products screen.

FEATURED PRODUCTS Search:										
NOTE: st	NOTE: status is auto enabled/disabled when dates are set									
ID#	Products	Model	Available	Expires	Status	Action Beginn	er Drum Lessons			
17	Beginner Drum Lessons		none	none		© 8 ►	edit delete			
14	Birthday Cake		none	none		C 8 (1)	price manager			
15	Dumb Bells		none	none		C & C				
16	Laptop		none	none		C X ① Date Ad	ided: 09/21/2006			
13	Optical Mouse		none	none			ainea: 10/02/2006			
Displayin	g 1 to 5 (of 5 products on featured)		Page 1 of 1 new product				Lost			
						Availab	le On: <b>none</b>			
						Expires	At:none			
						Status ( Produ	Change: 11/15/2010 edit product select uct ID to be Manually Added as a Featured			

2. Click on new product to access the Featured Product Details screen.

FEATURED	Featured Products					
NOTE: status	is auto enabled/disabled when dates are set					
Product:	\$10 Gift Certificate (\$10.00) [GIFT-10] - ID# 21 \$100 Gift Certificate (\$100.00) [GIFT-1000] - ID# 24 \$25 Gift Certificate (\$25.00) [GIFT-25] - ID# 22 \$50 Gift Certificate (\$50.00) [GIFT-59] - ID# 23 Canned Tuna (\$50.00) ] - ID# 38					
Available Dat	e: 🔽					
Expiry Date:						
			insert cancel			

- 3. Choose a product from the **Product** field.
- 4. Optionally, choose a future date for the **Available Date** field by clicking on the dark button next to the field to pop up a calendar, if you want the product to be placed on Featured on the future date. Leave the field blank if you want the product to be placed on Featured immediately.
- 5. Optionally, choose a future date for the **Expiry Date** field by clicking on the dark button next to the field to pop up a calendar, if you want the product to be removed from the Featured Product areas on that date. Leave the field blank if you want the product to be placed on Featured forever.
- 6. Click insert to create the Featured Product.

To view statistics for Featured Products in your store, click on the **Admin Home** hyperlink near the top of your Admin Console. Look at the following fields under the **Statistics** table.

- Featured Products Expired
- Featured Products Active

Specials Expired	5
Specials Active	3
Featured Products Expired	5
Featured Products Active	2
Sales Expired	2
Sales Active	1

### **New Products**

For some stores, constantly refreshing the list of products for sale can increase the number of repeat and new customers to their sites. For example, if your store sells handphone covers, you will attract more customers if your customers anticipate that you will replenish your stock with the latest designs to match the latest handphone models.

The list of display elements that relate to new products in your store can be seen in the following screen shot.

Home :: New Produc	cts	Ne	w Products For November
New Products Sort by: Date Adde	ad - New to Old 💌	i i i i i i i i i i i i i i i i i i i	S.
Displaying <b>21</b> to <b>28</b>	(add selected products to cart) (of 28 new products) [<< Prev] 1 2 3	Birthday Cake	Laptop bo sport popo op
	Optical Mouse Model: Price: <del>\$29.00</del> . \$26.10 Save: 10% off	\$10.00	Save: 15% off
In Stock: 992 more info	Weight: 0.2lbs Date Added: Monday 11 September, 2006		
with 800 dpi resolut	neo opacar mouse par required. Ton. No mouse par required. Portrait of Einstein Model: Price: \$20.00		New Products [more]
In Stock: 1000	Weight: 0.5lbs Date Added: Monday 11 September, 2006		
A wonderful portrait	t of one of the greatest scientists who ever lived.		T-Shirt \$20.00

To control the time period when a product is added to your catalog and hence defined as a new product:

- 1. Click on Configuration > Maximum Values to access the Maximum Values screen.
- 2. Edit the New Product Listing Limited to field accordingly.

# Summary

As you have seen, Zen Cart provides a wide variety of techniques to help you achieve your marketing aims. Experiment with those marketing features that interest you and assess their effectiveness by examining the relevant statistics. With imagination and hard work, you should be able to tune your marketing strategies to generate profits for your business.

# Introduction

Proper system administration ensures that your online store stays secure and performs reasonably when users visit your store. System administration may not be directly related to your business processes but it can affect the smooth operation of your online store.

In this chapter, we shall:

- Examine general system administration tasks.
- Learn to properly back up files and database.
- Consider important security settings.
- Look at factors that contribute to site performance bottlenecks.
- Look at how you would upgrade your Zen Cart to a newer version.
- Get an idea of how third-party add-ons are installed.

# **General tasks**

We shall now discuss some of the general system maintenance tasks that you may need to perform from time to time.

### **Checking server time**

If your site is hosted on a remote server, it is important to know whether there is any difference between the *server* time and your *local* time. For example, if you live in Singapore (i.e. GMT +0800 hrs) and your remote server is located in London (United Kingdom) (i.e. GMT +0000 hrs) then there is a time difference of 8 hours between the two locations assuming no daylight saving time is taken into consideration.

As all your orders and log files are recorded in *server* time, knowing this time difference allows you to better understand when payments are received and also when orders are issued. You can then translate from *server* time to the *local* times of your customers when answering customer queries regarding their orders or shipping dates.

To get a quick glance of your server's date and time, look at the top of your navigation menu in your Admin Console as shown in the following screen shot.



To be more specific, the preceding server date and time actually reflects that of the web server in which Zen Cart is running on. It is usually good enough because most shared hosting packages place their web and database servers in the same machine and hence both of them usually share the same server time. However, with some hosting packages, the database server and the web server may be located in different physical computers or have their times configured differently. This can present a problem when you are trying to make sense of customer order queries or troubleshoot your Zen Cart installation.

To more accurately determine both your remote web and database servers' time:

1. Click on **Tools** > **Server/Version Info** to access the Server Information screen. A portion of that screen is shown in the following screen shot.



- 2. The server time for both your web server and database server is found in the following two fields. If you notice a significant difference between the two fields, you should immediately alert your web hosting provider and find out the reason.
  - Server Date
  - Database Date

### Website maintenance

There will be times when you need to close your online store for a short period of time. You could use this time to do a stock take, do a Zen Cart version upgrade or simply to back up all your data. You can inform customers about an impending service disruption by placing your site in *maintenance* mode.

When your store is placed in maintenance mode, customers can still reach your website. However, they will see a message indicating that your store is undergoing maintenance and will not be able to perform any transactions. What a customer may see for a store placed under maintenance mode is shown in the following screen shot.



Although a website can be placed in maintenance mode immediately, most websites will inform customers a few days or weeks ahead before doing so. This leaves a better impression on users because they will not begin to suspect that you had to place your site under maintenance to handle an emergency (e.g. hackers).

When configuring settings for website maintenance, always specify the time values in *server* time instead of your local computer time. Furthermore, try to set the time in GMT or another timezone format to cater to international users.

Before learning how to place your store in maintenance mode, you should know where to look for the current IP address which you are using to access your Zen Cart store. This is because you can configure your store to be accessible only to you based on your IP address while other users on your site are taken to a "Down for Maintenance" page instead. This feature allows you to check your normal store functions before you decide to take your store out of maintenance mode and allow access to real-world customers.

To determine the IP address (e.g. 127.0.0.1) you are currently using to access your store:

■ If you are in your Store Front, look at the footer of your Zen Cart store.

count		Site Map		Privacy	Notice		Shared
Сор	yrig	Your IP ht © 2015	Addr Mega	ess is: 1 Store, P	27.0.0.1 owered by	, Ze	n Cart

■ If you are in your Admin Console, look at the top of your navigation menu.

Powered by the art of e-commerce
Tuesday 27 Jan 2015 01:08:04 AM -0700 GMT [127.0.0.1]

To place your store in maintenance mode:

1. Click on Configuration > Website Maintenance to access the Website Maintenance screen.

Website Maintenance			
Title	Value	Action Down for Maintenance: ON/OFF	
Down for Maintenance: ON/OFF	false	► edit	
Down for Maintenance: filename	down_for_maintenance	0	
Down for Maintenance: Hide Header	false	Down for Maintenance	
Down for Maintenance: Hide Column Left	false	① (true=on false=off)	
Down for Maintenance: Hide Column Right	false	Date Added: 10/04/2010	
Down for Maintenance: Hide Footer	false	0	_
Down for Maintenance: Hide Prices	false	(I)	
Down For Maintenance (exclude this IP-Address)	your IP (ADMIN)	Û	
NOTICE PUBLIC Before going Down for Maintenance: ON/OFF	false	Û	
Date and hours for notice before maintenance	15/05/2003 2-3 PM	$\odot$	
Display when webmaster has enabled maintenance	false		
Display website maintenance period	false	(I)	
Website maintenance period	2h00	1	

- 2. To put your store in maintenance mode *immediately*, set the **Down for Maintenance: ON/OFF** field to <u>true</u>.
- 3. If your store is *already* in maintenance mode; i.e. Down for Maintenance: ON/OFF is set to <u>true</u>.
  - a. Set the **Display when web master has enabled maintenance** field to <u>true</u> if you want to inform users when your site was placed under maintenance.
  - b. Set the **Display website maintenance period** field to <u>true</u> if you want to display the value specified for the **Website maintenance period** field. Preferably, leave this option as <u>false</u> because you do not want to pressurize yourself and disappoint your customers if you cannot complete your maintenance on time.
  - c. Enter a value for the **Website maintenance period** field to inform visitors how long you expect the site to be down for maintenance.
  - d. Set the **Down For Maintenance** (exclude this IP-Address) field with a list of IP addresses (separated by a comma) that will still be able to access all the *normal* Store Front functions like buying products and checking out.

- e. To specify how your store should look when visitors reach your site while it is under maintenance, modify the following fields accordingly:
  - Down for Maintenance: Hide Header
  - **Down for Maintenance: Hide Column Left**
  - Down for Maintenance: Hide Column Right
  - Down for Maintenance: Hide Footer
  - **Down for Maintenance: Hide Prices**
- 4. If your store is not in maintenance mode; i.e. Down for Maintenance: ON/OFF is set to false.
  - a. Set the NOTICE PUBLIC Before going Down for Maintenance: ON/OFF field to <u>true</u> if you want the value in the Date and hours for notice before maintenance field to be displayed in your Store Front. Note that if the Down for Maintenance: ON/OFF field has been set to <u>true</u>, the NOTICE PUBLIC Before going Down for Maintenance: ON/OFF field will be ignored and no maintenance notification will be displayed.
  - b. Enter the desired time for the beginning of your website maintenance in the **Date and hours for notice before maintenance** field. Your store will *not* be placed in maintenance mode automatically when this date is reached.
- 5. Leave the **Down for Maintenance: filename** field alone. This field specifies which program file in Zen Cart should handle the programming logic behind the website maintenance module.

To enable EZ-Pages to be viewed by store owners accessing the store from IP addresses specified in the **Down For Maintenance (exclude this IP-Address)** field of the Website Maintenance screen:

- 1. Click on Configuration > EZ-Pages Settings to access the EZ-Pages Settings screen.
- 2. Set your desired field to a value of <u>2</u>.
  - EZ-Pages Display Status HeaderBar
  - **EZ-Pages Display Status FooterBar**
  - EZ-Pages Display Status Sidebox

### Viewing who's online information

Both site visitors and administrators are able to view information regarding other visitors who are currently accessing an online store. However, a customer's view and an administrator's view of information pertaining to other visitors is different.

#### The customer's view



The Who's Online side-box allows your customers to see the total numbers of users currently browsing your online store. No detail on individual customers are provided.

This feature is not very useful unless you have a community-driven site where users can reach out to each other in real-time and communicate. To disable this side-box, click on **Tools** > **Layout Boxes Controller** and edit the **sideboxes/whos_online.php** field under Box File Name accordingly.

#### The administrator's view

Store owners can see more information related to customers or search engine robots visiting their stores. They can use the information to ascertain which pages are the most popular, where most of the customers come from, etc. The information can also be used for system maintenance purposes. For example, you can check that there are currently no visitors in your store before bringing it down for maintenance.

To see information regarding who is currently accessing your store:

1. Click on **Tools** > **Who's Online** to access the Who's Online screen. A list of users currently using your system or a list of search engine robots currently indexing your site will be displayed.

WHO'S ONLINE					
REFRESH LIST Legend: ● Act Inactive is Last Click >= 180s    Currently there are 2 customers o	tive cart ● Inactive cart ● Acti Inactive since arrival > 540s wi nline	ve no cart 🔍 Inactive I be removed	no cart Updating Ma Exclude Spir	anually OFF 5 se ders? Yes No	c 15 sec 30 sec 1 min Exclude Admin IP Addresses? Yes No
Online ID Full Name Asc Desc	IP Address Sessior Asc Desc Asc Des	Entry Time c Asc Desc	Last Click Time Asc Desc	Last URL Viewed Asc Desc	Users Shopping Cart Pires, Jacques - 127.0.0.1 rijbsijam7kk/793419eovcoc3
O 00:00:44 1 Pires, Jacques	s <u>127.0.0.1</u> 12:58:47	12:59:08			1 x Optical Mouse
Time Since Clicked: 00:00:23 ago	Session ID: rjibsjiam7kkl7 Host: localhost User Agent: Mozilla/5.0 (V Gecko/20101203 Firefox/3. /store/index.php?main_pac	93419eovcoc3 /indows; U; Window 5.13 e=shopping_cart∋	s NT 5.1; en-US; r umber of uploads:	v:1.9.2.13) <u>=0</u>	Subtotal \$26.85
<ul> <li>00:00:02 0 ¥Guest</li> <li>Time Since Clicked: 00:00:02 ago</li> </ul>	<u>127.0.0.1</u> 12:59:29 Session ID: hclp72iivqnh1 Host: localhost User Agent: Mozilla/5.0 (V AppleWebKit/534.13 (KHTM <u>/store/</u>	12:59:29 uueuvf8oui1m3 /indows; U; Window L, like Gecko) Chroi	s NT 5.1; en-US) me/9.0.597.107 Sa	afari/534.13	
Currently there are 2 customers o Duplicate IP Addresses: 1 Total Unique Users: 1.	online				

- 2. You can choose to either refresh the screen information manually or automatically.
  - To refresh the screen *manually*, click <u>OFF</u> in the **Updating Manually** field and then click on the **REFRESH LIST** hyperlink when you wish to refresh the screen.
  - To let the screen *automatically* refresh by itself, click on your desired refresh rate in the **Updating Manually** field.
- 3. Click on your desired value in the **Exclude Spiders** field to control whether you want search engine robots crawling your store to be displayed.
- 4. Click on your desired value in the **Exclude Admin IP Addresses** field to control whether you want customers accessing your store from the same IP address as the currently logged-in admin user to be displayed.

Note that the list of admin IP addresses that are affected include those in the **Down For Maintenance** (exclude this IP-Address) field of the Website Maintenance screen which is accessible via Configuration > Website Maintenance.

You can learn a lot of interesting stuff about your site visitors using this screen, so make sure you read through the legend and other statistics in smaller print.

# Backing up your store's data

Back up your data routinely. This point cannot be overstated enough because your business depends on it. Imagine if your database gets corrupted for some reason, how are you going to deliver your goods to customers who have already paid up? Your reputation is at stake and you may even end up in court to face legal proceedings.

Even if your web host offers automatic backups on your behalf, you are still encouraged to make your own backups. You never know whether your web host will go bust one day or whether they have under-delivered on their guarantee.

There are essentially two things you need to back up.

- File system.
- Database.

Before performing your backup, make sure that there are no users online and your site has been placed under maintenance mode.



Besides the back up techniques presented in this section, you may also want to refer to the section "Backups and restores" in order to familiarize yourself with some of the back up functionalities that may be offered by your web host.

### File system back up

There are essentially two approaches to backing up the directories and files related to your Zen Cart store — a *minimum* back up or a *full* back up.

If you prefer to do a *minimum* back up, you just need to back up the following files because the rest of the files that make up your Zen Cart store can be re-downloaded via Zen Cart's site.

- Any core Zen Cart files you have changed.
- Both the configure.php files.
- Your template-specific directories and files.
- Images for your store catalog and also any files you have made available for customer downloads.
- Any files uploaded by customers as part of their purchases.
- Any third-party modules you have installed.

If you are paranoid, you can perform a *full* back up by copying all files from the [zc-home] directory of your remote web host to your local computer. Personally, I use this approach as it is faster and less error-prone because there is no need to spend time sifting through the specific directories and files that need to be backed up.

When performing your back up, use your web host's control panel to compress all the files you want to back up before downloading the files onto your local machine. This saves bandwidth, speeds up your download, and your downloaded files are less susceptible to corruption.

### Database back up

This is the most important backup because most of your system settings and all your customer, payment and order data, etc, are stored here. If anything goes wrong or you feel that your database is corrupted, you can always recover your database via a database backup file.

Besides the database backup functionality offered by your web host's control panel, you can also use phpMyAdmin to back up your database if it is available via your web host's control panel.

phpMyAdmin gives you finer control over how you want your database to be backed up and is usually the preferred approach. However, if your database is too large, you may encounter time out issues with phpMyAdmin. Under such

circumstances, you may have no choice but to revert to the database functionality offered by your web host's control panel or have your web host perform the back up for you.

To back up your database using phpMyAdmin:

1. Access the phpMyAdmin web interface via your web host's control panel.

phpMyAdmin	덇 Server: localhost			
	👜 Databases 👼 SQL 🏶 Status 🗒 Variables 👯 Charsets 😹 Engines 🎭 Processes 👜 Export 👰 Import			
• johndoe	Actions MySQL	MySQL		
<ul> <li>_test (5)</li> <li>_zencart (96)</li> <li>information_schema (21)</li> <li>Please select a database</li> </ul>	MySQL localhost       Image: Server: Localhost via UNIX socket         MySQL connection collation:       Image: Server version: 5.0.77mm0.1-log         Interface       Image: Server version: 10         MySQL charset:       UTF-8 Unicode (utf8	)		
	Canguage (): English Web server			
	Theme / Style:       Original       > cpaneld         Custom color:       Reset       > MySQL client version: 4.1.22         Font size:       82%       > PHP extension: mysql			
	phpMyAdmin			
	<ul> <li>Version information: 3.2.4</li> <li>☑ Documentation</li> <li>☑ Wiki</li> <li>☑ Official Homepage</li> <li>▶ [ChangeLog] [Subversion] [Lists]</li> </ul>			

- 2. Select the database which you used to set up Zen Cart during your installation on the left-panel.
- 3. You should see all the tables in your store's database listed on the right-panel of your screen.

phpMyAdmin	g∄ S	erver: localhost 🕨 📠 Database: joh	ndoe_zen	cart										
	😭 S	Structure 🔝 SQL 🔎 Search 👍	Search @Query			Export 🗿 Import			<b>%</b> Operations		vileges	<b>™</b> Drop		
		Table 🔺			Action					Records ¹	Туре	Collation	Size	Overhead
Database		address_book			Ē		3-6	Ĩ	$\times$	4	MyISAM	utf8_general_ci	3.3 KiB	-
johndoe_zencart (96) 🔹		address_format			ß		3-6	Ť	×	6	MyISAM	utf8_general_ci	2.6 KiB	-
iohndoe, zencart (96)		admin			ß		3-6	Ĩ	×	3	MyISAM	utf8 general ci	7.4 KiB	20 B
Joinidoe_Zenearr (30)		admin activity log			ß		346	Ť	×	508	MyISAM	utf8 general ci	76.4 KiB	-
X		admin menus		1	r\$	121	344	Ť	×	11	M _V ISAM	utf8 general ci	2.4 KiB	-
address_book		admin pages			ß		346	1	X	91	MyISAM	utf8 general ci	12.9 KiB	-
⊟ admin ⊟ admin activity log		admin pages to profiles			- 19	12	340	Ĩ	×	26	MyISAM	utf8 general ci	4.1 KiB	348 B
admin_menus		admin profiles			ŝ	121	34	1	×	3	MvISAM	utf8 general ci	2.1 KiB	-
admin_pages admin_pages_to_profiles		authorizenet			ß		34	1	X	0	MvISAM	utf8 general ci	1.0 KiB	-
admin_profiles		hanners			ŝ	101	34	1	×	9	MyISAM	utf8 general ci	6.2 KiB	-
admonizener banners		hanners history			en Pi	101	24	1	×	67	MulSAM	utf8_general_ci	4.6 KiB	-
E banners_history categories		categories			⊡ P¶	101	34		×	61	MulSAM	utf8_general_ci	8 4 KiB	-
categories_description		categories description			⊡ r©	82	3-		×		MulSAM	utf8_general_ci	6 7 KiB	20 B
Configuration group		categories_description			iii a	828 878	31		$\sim$	554	MUSAM	utio_general_ci	0.7 KID	20 5
counter     counter history		configuration			⊞ ∞©	EE .	3**		$\hat{\mathbf{v}}$		INIVISAIVI	utro_general_ci	212.1 KID	
countries		configuration_group			8		3*0		$\hat{}$	26	MyISAM	utro_general_ci	4.5 K1B	-
E coupons coupons description		counter			8	12	340	100	<u>~</u>	1	MyISAM	utf8_general_ci	1.0 K1B	-
coupon_email_track		counter_history			E.		300		×	9	MyISAM	utf8_general_ci	2.3 KiB	-
coupon_gv_customer coupon_gv_queue		countries			Ľ,		340	Ĩ	X	243	MyISAM	utf8_general_ci	30.7 KiB	-
coupon_redeem_track		coupons			Ľ	12	36	Ť	×	0	MyISAM	utf8_general_ci	1.0 KiB	-
E currencies		coupons_description			ß		30	Ĩ	×	0	MyISAM	utf8_general_ci	1.0 KiB	-
customers		coupon email track			ß	12	3.0	晉	X	0	MvISAM	utf8 general ci	1.0 KiB	-

4. Click on the **Export** tab near the top of the screen to go to the next screen where you can configure the relevant settingsto export data from your database.



- 5. Under the **Export** section, click the **Select All** hyperlink to select all the tables in your store for export. Make sure the radio button is set to <u>SQL</u>.
- 6. Under the **Options** section, use the settings shown in the preceding screen shot. Only *check* the **Add DROP TABLE** option if you want to be able to use the backed up data to *overwrite* an *existing* database!
- Check the Save as file check-box and use the settings shown in the following screen shot as a guide. You can choose the <u>zipped</u> option for the Compression field to save space and bandwidth.



- 8. Click Go to begin the backup process on your remote server.
- After the backup process completes, download the backup file to your local machine when prompted by your web browser.

To recover your database using the backup file you downloaded previously:

- 1. Access the phpMyAdmin web interface via your web host's control panel.
- 2. Select the database which you want to use to recover your backed up data from the drop-down list box on the leftpanel. *Double-check* the selected database because all existing data will be overwritten if you had checked the **ADD DROP TABLE** option when you created your back up file earlier.
- 3. Click on the **Import** button on the top row of tabs and a screen will appear with details on how you can import data into your database.

🖀 Structure 🛛 🖓 SQL 🖉 Search	n @Query @Export @Import %Operations @Privileges %Drop							
File to import								
Location of the text file Browse_ (Max: 128MiB)								
Character set of the file: utf8 -								
Imported file compression will be aut	omatically detected from: None, gzip, bzip2, zip							
Partial import								
Allow the interruption of an impo	rt in case the script detects it is close to the PHP timeout limit. This might be good way to import large files,							
however it can break transactions.								
Number of records (queries) to skip t	rom start 0							
- Format of imported file								
○ CSV								
O DocSQL	- Options							
Open Document Spreadsheet	SQL compatibility mode NONE -							
SQL Excel 97-2003 XLS Workbook	SUL     U     V     Excel 97.2003 XI S Workbook     V     Do not use AUTO_INCREMENT for zero values							
© Excel 2007 XLSX Workbook								
© XML								
	Go							

- 4. Click on the Browse button to choose the backup file you want to use to restore your database.
- 5. Click on the **Go** button next to the **character set of the file** drop-down list box to begin your database recovery process. If errors occur during the recovery process, unzip the backup file on your local computer and then repeat the previous step using the unzipped file.
- 6. A success message will be shown if your database recovery process completes without problems.

Structure	💀 SQL	Search	🖟 Query	aDExport	🚡 Import	% Operations			
Import has been successfully finished, 258 queries executed.									

After your database is recovered successfully, you should log in to your Admin Console and Store Front and run some test transactions to verify that everything is recovered properly.



If you experience problems during the export or import of your database data while using phpMyAdmin, try experimenting with the different options in the phpMyAdmin screens. If that still does not help, approach your web host and see what recommendations they may have.

# Addressing security concerns

Security is a big and intimidating topic in all IT-related systems and a whole book will be required to write about all aspects of this topic. Therefore, to reduce the scope of security coverage, we will only be touching on issues specific to your Zen Cart website in this book.

Before we begin, if you have a local copy of Zen Cart's files, you can open up [zc-home]/docs/ important_site_security_recommendations.html in your web browser to run through a list of things you can do to make your site more secure.

### Managing access to the Admin Console

The Admin Console is a very powerful interface which has the ability to alter many sensitive and critical functions of your store. Therefore, Zen Cart has incorporated a set of security features to protect against unauthorized access to the Admin Console as well as limit the Admin Console functions available to different admin users.

Zen Cart controls access to different Admin Console functions by using the concept of admin profiles. Each admin profile is given a name and mapped to a set of admin pages. New admin pages can be added by third-party add-ons using a page registration mechanism. Every admin user is in turn assigned a specific admin profile. In this way, access to different admin pages can easily be demarcated based on the roles that different admin users perform.

Besides controlling access to different Admin Console functions, all activities performed by logged in users are automatically recorded by Zen Cart in the database. Detailed reports of all admin user activities can then be generated for viewing on an ad-hoc basis or archived for future reference as per PCI DSS requirements.

#### Enforcing a strong password policy

Attacks on web sites commonly target the login pages because it allows hackers to gain wide access to a web application and wreak the most damage. One of the most common reasons why hackers have been so successful in carrying out their exploits is due to the poor use of passwords such as using passwords which are too short or that can be easily guessed.

To overcome the potential problems with password use, Zen Cart has followed the PCI DSS standards and implemented a robust password policy for the Admin Console. This policy requires admin users to use strong passwords, change their passwords every 90 days, and not re-use the last four passwords, etc;

For store owners who do not need to be PCI DSS-compliant nor want to deal with the hassle of having to adhere fully to the password policy, they can go to **Configuration** > **My Store** and change the value of the **PA-DSS Strong Password Rules Enforced** field accordingly.



#### Working with admin profiles

When a Zen Cart store is first installed, the first admin user that is created is commonly known as the **Superuser** because it is assigned the default **Superuser** profile. The Superuser profile has *full* and *irrevocable* access rights to all the functions that can be performed in the Admin Console. The Superuser profile *cannot be deleted* as well. Hence, a new admin profile must be created in order to restrict access to only a selected number of admin pages.

To add a new admin profile:

1. Click on Admin Access Management > Admin Profiles to access the User Profiles screen.

User Profiles					
ID	Name	Users			
1	1 Superuser 1				
add profile					

2. Click on add profile and you should see something similar to the following screen shot.

395

NEW PROFILE FOR						
save cancel						
						_
Configuration					Uncheck All Check All	
My Store	Minimum Values	Maximum Values	Images	Customer Details	Shipping/Packaging	
Product Listing	Stock	Logging	E-Mail Options	Attribute Settings	GZip Compression	
Sessions	Regulations	GV Coupons	Credit Cards	Product Info	Layout Settings	
Website Maintenance	New Listing	Featured Listing	All Listing	Index Listing	🔲 Define Page Status	
EZ-Pages Settings						
Catalog		_			Uncheck All Check All	
Categories/Products	Product Types	Products Price Manager	Option Name Manager	Option Value Manager	Attributes Controller	
Downloads Manager	Option Name Sorter	Option Value Sorter	Manufacturers	Reviews	Specials	
Featured Products	SaleMaker	Products Expected	Product	Products to Categories		_
Modules					Uncheck All Check All	
Payment	Shipping	🔲 Order Total				_
Customers					Uncheck All Check All	
Customers	Crders	Group Pricing	🔲 PayPal IPN	Invoice	Packing Slip	
Locations / Taxes					Uncheck All Check All	
Countries	Zones	Zones Definitions	Tax Classes	Tax Rates		
Localization					Uncheck All Check All	
Currencies	Languages	Corders Status				
Reports					Uncheck All Check All	
Customer Orders-Total	Customers Referral	Products Low Stock	Products Purchased	Products Viewed		
Tools					Uncheck All Check All	
Template Selection	Layout Boxes Controller	Banner Manager	Send Email	Newsletter and Product	Server/Version Info	_
_	_	_	_	Notifications Manager	🔲 Who's Online	
Store Manager	Developers Tool Kit	EZ-Pages	Define Pages Editor	Install SQL Patches		
Gift Certificate/Coupons					Uncheck All Check All	
Coupon Admin	Coupon Restrictions	Gift Certificates Queue	Mail Gift Certificate	Gift Certificates sent		_
Admin Access Managem	ent				Uncheck All Check All	
Admin Profiles	Admin Users	Admin Page Registration	Admin Activity Logs			_
Extras					Uncheck All Check All	
Record Artists	Record Companies	Music Genre	🔲 Media Manager	Media Types		_
Product Types					Uncheck All Check All	
Product - Music	Document - General	Document - Product	Product - Free Shipping			
save cancel						

3. Take some time to scan through the preceding screen shot. Notice that the checkbox entries represent different admin pages and are nicely segregated according to the menu headers in the admin menu bar.

Furthermore, many of the admin pages can be directly accesed by clicking their corresponding menu entries in the admin menu bar except for the following admin pages. As the names of the pages may not be immediately clear to store owners, the following list gives a quick indication of their individual purposes in order to help you make a decision on their accessibility later.

- "Catalog :: Product" a Product Detail page.
- "Catalog :: Products to Categories" a page where products can be linked to multiple categories.
- "Customers :: Invoice" an Invoice page generated from an order.
- "Customers :: Packing Slip" a Packing Slip page generated from an order.
- "Gift Certificates/Coupon :: Coupon Restrictions" a page where restrictions on coupon usage can be limited to different categories and products.
- "Product Types" each page under this heading is accessible by clicking the relevant links after going to Catalog > Product Types
- 4. Type the name of the admin profile you wish to create into the empty field above the save button.
- 5. Check all relevant checkboxes representing admin pages that need to be accessible to the new admin profile. To check all checkboxes in a group simultaneously, click on the relevant **check All** button.
- 6. Click on **save** to create the new admin profile. You will be redirected back to the User Profiles screen as shown in the following screen shot.

User Profiles						
ID	Name	Users				
1	Superuser	1				
2	Web Designer	o edit rename del	ete			
add profile						

Renaming a *non-Superuser* admin profile or adjusting its access rights to admin pages is straightforward. However, **deleting** the non-Superuser admin profile is only possible when no admin users are currently assigned to it.

Refer to the following screen shot of a sample User Profiles screen to see what we mean. Notice that the Web Designer admin profile cannot be deleted because it is currently assigned to a user.

User Profiles						
ID	Name	Users				
1	Superuser	1				
2	Web Designer	1	edit rename			
3	Store Clerk	0	edit rename delete			
add profile						

#### Working with admin users

Besides the default admin user that was created during Zen Cart installation, you can create other admin users to help with the running of your online store.

To add an admin user:

 $^{\circ}$ 

Note

1. Click on Admin Access Management > Admin Users to access the Admin Users screen.

Admin Users					
ID	Name	Email	Profile		
1	admin	admin@example.com	Superuser	edit reset pwd	
add user					

2. Click on add user and you should see something similar to the following screen shot.

Admin Users						
ID	Name	Email	Profile	Password	Confirm Password	
			Choose Profile 👻		insert cancel	
1	admin	admin@example.com	Superuser			

3. Enter a username in the empty field under the **Name** column. The username is *case-sensitive* and will be required when logging into the Admin Console.

In addition, the username can accommodate more than a single word. Hence, both "Jean" and "Jean Simmons" are valid usernames. You may want to choose the longer version as it removes any ambiguity when interpreting the admin activity logs.

4. Enter the admin user's email address in the empty field under the Email column.

- 5. Choose an admin profile that is to be assigned to the admin user from the drop-down list box under the **Profile** column.
- 6. Type in the login password that the admin user should use in both the empty fields under the **Password** and **Confirm Password** columns. Note that admin user passwords in Zen Cart are *case-sensitive* and must *exceed* 7 *characters in length*.
- 7. Click on save to add the admin user. You will be re-directed back to the Admin Users screen. Simultaneously, an email will be sent to the email addressed specified in the Email Address (Displayed to Contact you) field of the E-Mail Options screen.

Admin Users					
ID	Name	Email	Profile		
1	admin	admin@example.com	Superuser	edit reset pwd	
2	mary	mary@webdesigners.net	Web Designer	edit reset pwd delete	
add use	ſ				

The process of deleting an admin user, editing an admin user's details, or resetting an admin user's password is straightforward as all these functions are performed via the Admin Users screen. However, there are some finer points you need to take note of when performing any of the aforementioned functions.

ADMIN	Admin Users					
ID	Name	Email	Profile			
1	admin	webmaster@example.com	Superuser	edit reset pwd delete		
3	jacques	jacques@example.com	Marketing Manager	edit reset pwd		
4	Christine	christine@example.com	Marketing Manager	edit reset pwd delete		
5	John Masters	john@example.com	Web Designer	edit reset pwd delete		
add us	er					

When *deleting* an admin user, take note of the following points.

- Admin users cannot delete themselves.
- Emails will be sent to the email address specified in the Email Address (Displayed to Contact you) field of the E-Mail Options screen after an admin user is deleted.

When *editing* an admin user's details, take note of the following points.

- Admin users cannot change their own admin profiles. This prevents admin users from assigning themselves to an admin profile with greater page access rights.
- Emails will only be sent if an admin user's email, name or profile details has been changed.
- Emails will be sent to both the email address configured in the Email Address (Displayed to Contact you) field of the E-Mail Options screen and the affected admin user's email as well. If the email address of the admin user was changed, then the notification email will be sent to the admin user's old email address.

When resetting an admin user's password, take note of the following points.

- Due to PA-DSS requirements, the new password must meet the following list of requirements.
  - ▶ it must contain both letters and numbers.
  - ▶ it must be at least seven characters long.
  - ▶ it must not be the same as the last four passwords used.
  - ▶ it will automatically expire every 90 days.
- No emails will be sent when an admin user's password is changed.

#### Adding new admin pages

If a third party add-on is installed and adds new admin pages to your Admin Console, then those admin pages can also be subjected to admin profile access controls via the User Profiles screen.

To add a new admin page that will show up in the User Profiles screen, you would need to click on Admin Access Management > Admin Page Registration to access the Admin Page Registration screen.

Admin Page Reg	ISTRATION			Select Menu ·
Page Key Page Name Page Filename Page Parameters Menu Display on Menu? Sort Order	Select Menu	(e.g. myModPageName) (e.g. BOX_MY_MOD_PAGE_NAME) (e.g. FILENAME_PAGE_NAME) (e.g. option=1 or, more usually, leave blank)	•	Select Menu Configuration Catalog Modules Customers Locations / Taxes Localization Reports Tools Gift Certificate/Coupons Admin Access Management Extras

We will not be going through how to add an admin page using the Admin Page Registration screen as the exact values to be used on this screen will depend on the instructions provided by the specific add-on you are installing. We only highlight this capability of Zen Cart's in case store owners come across unfamiliar screen names in the User Profiles screen.

#### Working with admin activity logs

In addition to controlling access to the Admin Console, Zen Cart keeps track of all actions admin users perform by logging those actions in the database. Log files of these activities can then be generated and archived for use by store owners or security consultants to look out for malicious activities or to trace a sequence of activities.

To generate an admin activity log:

1. Click on Admin Access Management > Admin Activity Logs to access the Admin Activity Log Manager screen.

min Activity Log Manager	
Review or Export Logs	
<u>INSTRUCTIONS</u> You can use this page to export your Zen Cart® Admin User Access Activity to a CSV file for archiving. You should save this data for use in fraud investigations in case your site is compromised. This is a requirement for PCI Complia	nce.
<ol> <li>Choose whether to display or export to a file.</li> <li>Enter a filename.</li> <li>Click Save to proceed.</li> <li>Choose whether to save or open the file, depending on what your browser offers.</li> </ol>	
Which log data do you want to see? Both NOTICE and WARNING (common combination for review).	
Export File Format: Export as HTML (ideal for on-screen viewing)	
Export Filename:	
admin_activity_archive_2015-01-24_09-29-45.csv	
Save to file on server? (otherwise will stream for download directly from this window) Destination: /home/johndoe/public_html/store/myadmin/backups/	
go (	cancel
Interpretation of the log data	
<ul> <li>Severity - The standards for logging generally describe severities as follows:         <ul> <li>INFO refers to general activity. This may or may not contain remarkable details.</li> <li>NOTICE refers to activity which indicates higher privilege was used, and may include things like creating new admi adding new payment modules. It also highlights when any data submitted on the web page includes potentially risk such as script tags or embedded iframes, where malicious content is being added to your products/categories/page unhappy employees or an intruder on your site. These should be reviewed regularly for any anomalies such as una activity.</li> <li>WARNING is assigned to CRITICAL things such as removal of payment modules or deletion of admin users. These activities which might suggest pending trouble if not caught quickly. These should be reviewed very frequently; recommended daily.</li> </ul> </li> <li>admin_user - This will show the admin user ID number followed by their admin username. If not logged in, it will show 0         page_accessed - This will indicate the name of the page visited, thus giving hints to the kind of activity taking place.         parameters - This is the rest of the URI of the page visited, and gives further indication of the kind of activity being atter the visitor.</li> <li>flagged - If this is set to 1, that indicates that you should inspect the content recorded in the "postdata" field for unauthor of script or iframe or other potentially dangerous content. An explanation of suspicious content will be listed in the "attention attention - This will contain suggestions related to the kind of suspicious activity which should be reviewed in the "postdat flagged.</li> </ul>	n users or y content ss by authorized are
<ul> <li>logmessage - This contains any messages recorded by the system about the activity taking place, such as installation of module.</li> <li>postdata - This contains the raw POST data (with some sensitive information scrubbed) for easy review in case malicious suspected.</li> </ul>	a certain activity is
Purge Log History	
Empty Admin Activity Log table from the database WARNING: BE SURE TO BACKUP YOUR DATABASE before running this update! The Admin Activity Log is a tracking method that records activity in the Admin. Due to its nature it can become very large, very quickly and does need to be cleaned out from time to time. Warnings are given at 50,000 records or 60 days, which ever happens first. NOTE: For PCI Compliance, you are required to retain admin activity log history for 12 months. It is best to archive your logs by choosing EXPORT TO CSV and clicking Save, above, *BEFORE* purging log data.	reset

2. Choose the severity level of logged messages you want to view from the Which log data do you want to see drop-down list box.



- 3. To generate the log in *HTML format* that is directly viewable within your web browser window.
  - a. Choose <u>Export as HTML (ideal for on-screen viewing)</u> from the **Export File Format** dropdown list box.

b. Click on the go button and your web browser window will display a report similar to the following screen shot.

severity	timestamp	ip_address	admin_user	page_accessed	parameters	flagged	attention	logmessage	postdata
warning	2015-01-24 09:43:11	109.23.143.75	1 admin	admin_activity.php	action=save	1		Admin Activity Log accessed. Output format: HTML. Filter: all. (Output to browser)	stdCass Object (filter) => 0 (format) => 0 (filename) => admin_activity_archive_2015-01-24_09-29-45.csv
info	2015-01-24 09:43:11	109.23.143.75	1 admin	admin_activity.php	action=save	0		Accessed page [admin_activity.php] with action=save. Review page_parameters and postdata for details.	stdCass Object (filter) => 0 (format] => 0 (filename] => admin_activity_archive_2015-01-24_09-29-45.csv
info	2015-01-24 09:27:59	109.23.143.75	1 admin	alt_nav.php		0		Accessed page [alt_nav.php]	Array ( )
info	2015-01-24 07:11:49	109.23.143.75	1 admin	server_info.php		0		Accessed page [server_info.php]	Array ( )
info	2015-01-24 06:53:03	109.23.143.75	1 admin	developers_tool_kit.php		0		Accessed page [developers_tool_kit.php]	Array ( )
info	2015-01-24 06:49:55	109.23.143.75	1 admin	configuration.php	gID=12&cID=252& action=edit	0		Accessed page [configuration.php] with action=edit. Review page_parameters and postdata for details.	Array ( )
info	2015-01-24 06:49:22	109.23.143.75	1 admin	configuration.php	gID=12&cID=260	0		Accessed page [configuration.php]	Array ( )
warning	2015-01-24 06:49:22	109.23.143.75	1 admin	configuration.php	gID=12&cID=260& action=save	1		Configuration setting changed for SEND_EMAILS: true	stdClass Object (configuration_value] => true [submitSEND_EMAILS_x] => 35 (submitSEND_EMAILS_Y] => 7

- 4. To generate the log in *CSV format* so that you can use a separate software program (e.g. Microsoft Excel or OpenOffice Calc) to view and sort the entries for better data analysis later.
  - a. Choose <u>Export to CSV (ideal for importing to spreadsheets)</u> from the <u>Export File Format</u> drop-down list box.
  - b. Type a name for the file you want to generate into the **Export Filename** field or use the default one provided. Avoid the use of empty spaces for your file name due to how empty spaces are interpreted by different operating systems.
  - c. You can choose to download the log file directly to your local computer or saving it on your remote server by checking the **Save to file on server** checkbox accordingly.
  - d. Click on go to generate the report.
    - If you had *unchecked* the **Save to file on server** checkbox, then your web browser will prompt you to download the admin activity log file to your local computer.
    - If you had *checked* the the **Save to file on server** checkbox, then a copy of the log file will be saved to the [zc-home]/[admin]/backups folder of your Zen Cart installation on the server as seen in the **Destination** directory path appearing in italics.

You can change the **Destination** path by editing the following line in your {DIR_ZC)/[admin]/includes/configure.php file.

```
define('DIR_FS_BACKUP', DIR_FS_ADMIN . 'backups/');
```

You may not fully understand the contents of the admin activity log because it contains some data that would only make sense to programmers or security consultants. However, it is still good that you refer to the following table to get an idea of what the different headings appearing in the admin activity log file mean. If you suspect some malicious activity has happened, you can then turn over the file to a security consultant for a full review.

Column	Meaning
timestamp	The time an admin action occurred.
admin_user	The admin id of the admin user performing the action.
ip_address	The IP address that an admin user uses to access the Admin Console to perform an action.
page_accessed	The name of the PHP file that was accessed by the admin user when performing the action.
parameters	Contains information that was submitted to an admin page via a HTTP GET op- eration. In other words, it is information that was submitted together with the URL when an admin user accesses an admin page. This field will make more sense to programmers and security consultants.
flagged	A value of "1" indicates that a possibly malicious activity has been detected while a value of "0" indicates otherwise.
attention	If the <b>flagged</b> column has a value of "1", then this column will show the possible cause that triggered the warning. For example, a XSS (i.e. Cross-site scripting) attack on your Admin Console will trigger an alert in this field.
post_data	Contains information that was submitted to an admin page via a HTTP POST operation. In other words, it is usually data that an admin user enters into a form and submits through an admin page. This field will make more sense to programmers and security consultants.

#### Table 25.1: Meaning of different fields in the admin activity log

As the admin activity log records all admin user activities in your Admin Console, its size will increase very quickly and possibly impact the performance of your store. Therefore, Zen Cart will issue periodic alerts that appear at the top of your Admin Console to remind you to purge the admin activity log.

🖄 WARNING: The Admin Activit	y Log table has records over 2 months old and should be archived to conserve space 05-17-2011
by Cart of e-commerce	You can view and archive Admin Activity details via the Admin Access Management menu, if you have appropriate permissions.

To purge the admin activity log:

- 1. Either click on the reset button as shown in the preceding screen shot or click on Admin Access Management > Admin Activity Logs to access the Admin Activity Log Manager screen.
- 2. Concentrate on the **Purge Log History** section of the screen and pay attention to the words that are highlighted in red.





4. Click the **reset** button to purge the admin activity log. You will be redirected back to the Admin Activity Log Manager screen. The message under the **Purge Log History** section of the screen will now appear as follows.

Purge Log History	
Empty Admin Activity Log table from the database WARNING: BE SURE TO BACKUP YOUR DATABASE before running this update! The Admin Activity Log is a tracking method that records activity in the Admin. Due to its nature it can become very large, very quickly and does need to be cleaned out from time to time. Warnings are given at 50,000 records or 60 days, which ever happens first. NOTE: For PCI Compliance, you are required to retain admin activity log history for 12 months. It is best to archive your logs by choosing EXPORT TO CSV and clicking Save, above, *BEFORE* purging log data.	eset

### **File permissions**

Misconfigured file permissions allow hackers to easily gain unauthorized access to your system. Therefore, you should pay careful attention to the permissions you set for certain Zen Cart directories when your site is hosted on a remote server.

Before we continue, make sure you refer to the section "Changing file and directory permissions" in order to have a basic grasp of some file permission concepts which is important to our discussion in this book. Note that the permissions mentioned here may not work for you as it is targeted at the majority of web hosts. You should consult your web host in order to determine the best permissions to set for their servers without compromising your site security and functionality.

Furthermore, because most web hosts use Linux-based servers, we shall use Linux-style permissions to explain how file permissions should be set for certain directories and files in your Zen Cart directories. If your site is hosted on a Windows or Mac OS platform, check with your site administrator as to how you can achieve the same effect as the permission levels discussed here.

When you first uploaded your Zen Cart directories and files to your server, directories are usually set to chmod 755 and files are set to chmod 644. These permissions are usually secure enough and will only need to be adjusted when you need to perform certain tasks depending on how your web host is set up.

Recall during Zen Cart installation that the following directories (either chmod 755 or chmod 777) and files (either chmod 644 or chmod 777) had to be set to *writeable*.

```
In order for the installer to store the setup information you provide in the following pages, the
configure.php files shown below need to be "writable"
   V includes/configure.php = Writeable
   dmin/includes/configure.php = Writeable
In order for many Zen Cart® administrative and day-to-day functions to work properly, You need to 
mark several files/folders "Writeable". The following is a list of folders which need to be "read-write",
along with recommended CHMOD settings. Please correct these settings before continuing
installation. Refresh this page in your browser to re-check settings.
Some hosts may not allow you to set CHMOD 777, but only 666. Start with the higher setting first,
and switch to lower values if required.
    🖌 cache = OK
    🗭 images = OK
   V includes/languages/english/html_includes = OK
   V logs = OK
   W media = OK
   V pub = OK
   .
admin/backups = OK
   Ø admin/images/graphs = OK
```

- /include/configure.php
- /[admin]/include/configure.php
- /cache
- /images (and all its sub-directories)
- /includes/languages/english/html_includes
- /logs
- /media
- /pub
- /[admin]/backups
- /[admin]/images/graphs

After installation is complete, the two configure.php files should be set to *read only* (i.e. chmod 444 in most cases or chmod 400 on some web hosts) for added security.

For the aforementioned directories, they only need to stay *writeable* when you want to perform tasks like uploading an image or editing a Define Page directly within the Admin Console. For some web hosts, the default chmod 755 is secure and good enough and you do not need to do anything more.

However, some web hosts require that you set the affected directories or files to chmod 777 in order to make them *writeable*. If your web host requires that you do so, then you may want to set the permissions back to something more restrictive after performing your task. This is recommended only if it will not compromise your normal store operations or your site security.



Do not forget to check the permissions of the files and directories that you have created through the Template Override System or third-party modules you have installed.

### Secure Sockets Layer (SSL)

Secure Sockets Layer (SSL) ensures that the traffic between users, browsers and your server is secure and not open to sniffing by hackers. When an active SSL connection is achieved between a web browser and a website, the URL for the website will transition from http://www.secure.com/s

SSL capability is achieved by installing a *digital certificate* on your web server. The digital certificate contains information identifying a site and proves that your site is who it claims it is. The installation of an SSL certificate is usually done by your web host if you are on a shared hosting account. Although many web hosts provide you with a *shared* certificate for free, it is recommended that you fork out some money and get yourself a *dedicated* (also called *private*) certificate since you will be running an e-commerce store with Zen Cart.

A *dedicated* certificate ensures that the certificate is uniquely identified with your domain and is tied to a single IP address. Visitors to your site are can switch between http://www.example.com to https://www.example.com transparently. Users are also assured that your site is legitimate if they choose to inspect the details shown in the digital certificate sent from your server to their web browsers.

With *shared* certificates, the certificate is tied to the IP address of your web host instead of your site. Transitioning from http://www.example.com to https://www.example.com usually results in a pop-up dialog box in the web browsers of your site visitors warning them to beware of the site they are dealing with because the certificate can only verify your web host is who it claims to be but is not able to do so for your site. The outcome looks unprofessional and users might decide to leave when they encounter the pop-up warning; thus abandoning their carts altogether. Hence, we will not discuss how to configure SSL support for your store using a shared certificate in this book.

Although you can configure SSL for your entire site, this is not advisable. SSL requires intensive computing resources because of the encryption and decryption processes and thus slows down your site tremendously.

Instead, SSL is usually configured only for certain areas of your site where information confidentiality is of utmost importance. Some areas on your site which will benefit from the use of SSL are:

- Customer login and sign-up pages.
- Customer checkout pages.
- Admin login screen.
- Admin catalog modification screens.

#### Verifying SSL support for your site

Before you can configure SSL support for your store, you need to purchase a dedicated SSL certificate and have your host install the SSL certificate onto your server for you.

After your web host has installed the SSL certificate on your site, you can verify the presence of the SSL certificate and its details by typing something like https://www.example.com or https://example.com into your web browser. The www is required only if you have stipulated that www be included in your SSL certificate when you purchased the certificate.

When you access any SSL-enabled pages on your site, your web browser will give you some visual feedback such as a security-related icon (e.g. a "lock" or "tick" icon) appearing at the bottom of your browser window or in your browser's address bar. Furthermore, most browsers allow you to click on the icon to view an SSL certificate's details.

Check with your web host if you are unable to verify that SSL is working on your site or the SSL certificate's details are incorrect.

#### Configuring SSL support for your store

After your SSL certificate is installed on your server, there are essentially two files in Zen Cart you need to edit in order for Zen Cart to make use of SSL support:

- [zc-home]/includes/configure.php
  - ► Changes to this file affects SSL access to your Store Front. Zen Cart will automatically redirect customers to a secure checkout process via SSL. Customers will also be automatically redirected to a SSL page during sign up or log in.
- [zc-home]/[admin]/includes/configure.php

Changes to this file affects SSL access to your Admin Console. Zen Cart will automatically redirect the store owner to an SSL page when a login to the Admin Console is performed.

To set up Zen Cart to automatically switch to SSL during a customer login or account checkout, edit the contents of the [zc-home]/includes/configure.php file according to how your SSL certificate is tied to your domain and where your Zen Cart directory is found.

Example 25.1: SSL certificate identified with domain "www.example.com" and Zen Cart directory is found under "/store".

```
define('HTTP_SERVER', 'http://www.example.com');
define('HTTPS_SERVER', 'https://www.example.com');
define('ENABLE_SSL', 'true');
define('DIR_WS_CATALOG', '/store/');
define('DIR_WS_HTTPS_CATALOG', '/store/');
```

Example 25.2: SSL certificate identified with domain "example.com" and Zen Cart directory is under root directory "/".

```
define('HTTP_SERVER', 'http://example.com');
define('HTTPS_SERVER', 'https://example.com');
define('ENABLE_SSL', 'true');
define('DIR_WS_CATALOG', '/');
define('DIR_WS_HTTPS_CATALOG', '/');
```

To set up Zen Cart to automatically switch to SSL for an administrator during log in and catalog manipulation, edit the contents of the [zc-home]/[admin]/includes/configure.php file according to how your SSL certificate is tied to your domain and where your Zen Cart directory is located.

If you only want Admin Console logins to be on SSL but not for catalog manipulation, set ENABLE_SSL_CATALOG to false in the following examples.

Example 25.3: SSL certificate identified with domain "www.example.com", Zen Cart directory found under "/store".

```
define('HTTP_SERVER', 'http://www.example.com');
define('HTTPS_SERVER', 'https://www.example.com');
define('HTTP_CATALOG_SERVER', 'http://www.example.com');
define('HTTPS_CATALOG_SERVER', 'https://www.example.com');
define('ENABLE_SSL_CATALOG', 'true');
define('ENABLE_SSL_ADMIN', 'true');
define('DIR_WS_CATALOG', '/store/');
define('DIR_WS_HTTPS_CATALOG', '/store/');
```

Example 25.4: SSL certificate identified with domain "example.com", Zen Cart directory found under "/".

```
define('HTTP_SERVER', 'http://example.com');
define('HTTPS_SERVER', 'https://example.com');
define('HTTP_CATALOG_SERVER', 'http://example.com');
define('HTTPS_CATALOG_SERVER', 'https://example.com');
define('ENABLE_SSL_CATALOG', 'true');
define('ENABLE_SSL_ADMIN', 'true');
define('DIR_WS_CATALOG', '/');
define('DIR_WS_HTTPS_CATALOG', '/');
```

Perform the following checks to verify that SSL has been configured properly for your store.

- 1. To check that admin login will automatically switch to SSL:
  - Enter your Admin Console URL into your web browser's URL location (e.g. http://www.example.com/store/myadmin). You should be automatically redirected to a SSL-secured URL preceded by "https" (e.g. https://www.example.com/store/myadmin/login.php).
- 2. To check that customer login or sign-up will automatically switch to SSL:
  - Go to your Store Front and click on the **Login** hyperlink. You will automatically be redirected to a secure page to enter your login credentials. After you have logged in, you will be redirected back to a non-secure page.
- 3. To check that customer checkout will automatically switch to SSL:
  - Go to your Store Front and purchase a test product. Once you initiate a checkout, you will automatically be redirected to a SSL page to complete the transaction.

If you are unable to get SSL support to work with your Zen Cart store using the method highlighted in this book, check with your web host to see if their server configuration requires that you take some other steps as well. If you want to have a *shared* SSL certificate working with your store for personal reasons, refer to http://tutorials.zen-cart.com/ index.php?article=14 for instructions.

### Sessions

Sessions are your server's way of keeping track of who you are and some of the activities you have performed on a site (e.g. added items to a shopping cart). There are a number of ways your server can do this, most notably using cookies.

Because web applications typically identify individual users to their site via the use of sessions, you should guard against malicious users from launching session-based attacks on your online store.

Zen Cart allows you to configure how sessions are set up on your store. The default settings are sufficient in most cases, so unless you are a developer, you are unlikely to change any settings here. Nevertheless, it is always good to know there is such a feature in case you need to use it.

#### General session settings

Click on Configuration > Sessions to access the Sessions screen.

SESSIONS			
Title	Value	Action	Session Directory
Session Directory	/home/johndoe/public_html/store/cache	•	edit
Cookie Domain	True	Û	
Force Cookie Use	False	(Î)	If sessions are file based, store them in
Check SSL Session ID	False	Û	this directory.
Check User Agent	False	(Î)	Date Added: 09/07/2006
Check IP Address	False	Û	Last Modified: 01/24/2007
Prevent Spider Sessions	True	Û	
Recreate Session	True	(Î)	
IP to Host Conversion Status	true	Û	
Use root path for cookie path	False	Ū	
Add period prefix to cookie domain	True	Û	

The **Session Directory** field is obsolete and you can safely ignore it. It was used in earlier versions of Zen Cart to store sessions via files on your server but the option to do so is no longer available since Zen Cart version 1.5.0.

For all other fields in the Sessions screen, the default values should work well for most servers. Do not make any changes here unless you are absolutely sure you know their consequences. Most of these settings will only make sense to advanced users with web programming knowledge, so do not worry too much if you are unsure of their meanings or purposes.

#### Admin session settings

There are two settings that control how long a logged in admin user is allowed to remain inactive before Zen Cart automatically logs the person out of the Admin Console. However, you should only change them if you are sure your store does not need to adhere to PCI DSS standards.

To change the duration of inactivity for an admin user in the Admin Console, click on Configuration > My Store and concentrate on the PA-DSS Admin Session Timeout Enforced and Admin Session Time Out in Seconds fields.



If the PA-DSS Admin Session Timeout Enforced field is set to <u>On</u>, then the value of the Admin Session Time Out in Seconds field will be ignored and the duration of inactivity for an admin user will always be 900 seconds (i.e. 15 minutes).

If the **PA-DSS Admin Session Timeout Enforced** field is set to <u>Non-Compliant</u>, then the duration of inactivity for an admin user will depend on the value found in the **Admin Session Time Out in Seconds** field.

#### Viewing customer's session history

Zen Cart provides a convenient view of your customer's session history in a Counter History table. This table can be accessed by clicking on **Admin Home** in the navigation menu of your Admin Console.

Counter History for last 10 r Session - Total	ecorded days
11/16/2010	6 - 109
11/15/2010	9 - 149
11/14/2010	5 - 130
11/12/2010	4 - 132
11/09/2010	1 - 4
11/08/2010	2 - 13
11/06/2010	13 - 326
11/04/2010	2 - 26
11/02/2010	2 - 13
11/01/2010	1 - 12

The information displayed in the table shows you the statistics for each day - the *unique* number of session hits to your site and the *total* session hits to your site. In layman terms, this means how many unique visitors came to your site, and the total number of pages viewed by all visitors. For example, if a customer visits your store once that day and moves around 5 pages before leaving, you will see a statistic of "1 - 5". If another customer came that day and viewed 10 pages, you will see a statistic of "2-15".

### Server log files

If your online store is hosted on a remote server, your web hosting provider will likely have log files configured to record information about your online store. These server log files are an important source for troubleshooting your application or identifying hacking attempts.

Although these files can be a bit unwieldy to read and understand for non-technical people, you should still find out from your web host where they are located and then download them periodically. If you encounter any problems with your online store (fraud, hacking attempts, etc), you can then turn over these log files to experts for analysis.

The main server log files you may have access to are as follows:

- Apache web server log files.
- MySQL database log files.

### Improving site performance

Performance issues are usually the most frustrating to resolve because complaints are usually based on perceived experiences. For example, a customer can call you to say your online store is behaving slowly today compared to yesterday. But your question will be how *slow* is the site? This is because you know that there will be times when the server will be slightly slower if there are too many users accessing it at the same time.

We will restrict our performance discussions strictly to what you can achieve with Zen Cart instead of topics like hardware upgrades, network selection, etc. This helps sharpen our focus and allows you to concentrate only on tasks that are directly within your control.

### Gathering performance statistics

*Always* be *objective* and gather useful statistics for your server before deciding whether to look into how to improve your server performance. Indeed, such statistics will also be the reference point by which you can use to conclude whether your performance tuning has yielded any measurable results.

#### Page parse time

For each page that is dynamically generated, Zen Cart is able to log the amount of time required to process that page. The page parse time can either be displayed in real-time in your Store Front or be recorded in a separate log file on your server which can be downloaded for off-line analysis.

To analyze your page processing performance:

1. Click on Configuration > Logging to access your Logging screen.

Logging			
Title	Value	Action	Log Page Parse Time
Log Page Parse Time	false	•	edit
Log Destination	/home/johndoe/public_html/store/cache /page_parse_time.log	٢	Record (to a log file) the time it takes to
Log Date Format	%d/%m/%Y %H:%M:%S	Ū	parse a page
Display The Page Parse Time	false	Ū	
Log Database Queries	false	(Î)	Date Added: 01/23/2015
			Last Modified: 01/24/2015

- 2. Make sure the Log Database Queries field is set to <u>false</u> unless you are a programmer interested in how Zen Cart works. Otherwise, a large number of log files with names starting with query_selects will be created in your [zc-home]/cache directory.
- 3. If you want to have a separate log file generated for *off-line* analysis, edit the following fields accordingly.
  - a. Set the Log Page Parse Time field to <u>true</u> to enable logging to a server file.
  - b. Specify the name of a file in the **Log Destination** field to store the page parse time data. Ensure that the directory holding the page parse time log file restricts viewing by normal website visitors and is *writeable*.

A simple approach is to give the log file a unique name and place it under the [zc-home]/cache directory. For example, you might specify something like <u>/home/johndoe/public_html/store/cache</u> depending on where your Zen Cart installation is located.

c. If you want to change the display format of the entries in the log file, you can enter the appropriate value in the Log Date Format field. For a list of date display formats, refer to http://php.net/manual/en/function.date.php.

The following screen shot of a sample off-line file that is generated by Zen Cart should give you an idea of how the contents of a log file might look like.

	test.t	kt - Not	epad			×
File	Edit	Format	View	Help		
10/ 10/ 10/ 10/	01/2 01/2 01/2 01/2	011 1 011 1 011 1 011 1 011 1	3:14: 3:14: 3:14: 3:14: 3:14:	12 - 20 - 26 - 29 -	<pre>/store/index.php?main_page=index&amp;cPath=1 (0.625s) /store/index.php?main_page=shippinginfo (0.507s) /store/index.php?main_page=contact_us (0.564s)  /store/index.php?main_page=conditions (0.464s)</pre>	< >
<					>	

 If you also want to have *real-time* logging statistics displayed in the Store Front, set the Display The Page Parse Time to <u>true</u>. An example of how the page parse time will be displayed at the bottom of your Store Front is shown in the following screen shot.

Parse Time: 0.771 - Number of Queries: 486 - Query Time: 0.27507439353943

If you have enabled *real-time* logging statistics in your Store Front's footer, you will notice three different values displayed. **Query Time** refers to the time used in interacting with the database. An unusually long time could mean that your store's database is very likely the bottleneck choking your store's performance. **Parse Time** refers to the time

used to render a web page. It is usually handled by the web server and PHP. Check with your host if you encounter an unusually long time for this field.

Remember to turn off page parsing after you feel you have have gathered enough data to help you troubleshoot your performance problem. If page parsing is left enabled, it can also be a performance drain on your server since it requires more processing for each page to load.

#### **User load**

User load refers to the number of page hits to your online store. This is usually the number of page views by your site visitors but it can also include indexing activities by a search engine robot. For the purpose of our discussion, we shall not discuss search engine indexing activities as they do not play a big part in the statistics related to user load.

Recall that we came across the Counter History table when we spoke about customer session history in the section "Viewing customer's session history". You can use the statistic in that table to quickly identify the user load on your site for a *particular* day. If a sudden spike in user load is detected, you should not be surprised if your site behaves slower than normal.

Another use for the Counter History table is in determining the average number of visitors to your site over a period of time by performing a *manual* calculation. With this information, you can then decide what a reasonable response time for your website performance is. Thus, if your customer complains that a page is taking too long to load, you can refer to your desired response time and provide an appropriate reply.

To identify the user load on your site over a *period of time*, you should refer to the Hit Counter statistic found under the Statistics table in your Admin Home page.

Statistics	
Hit Counter Started:	09/07/2006
Hit Counter:	5834

To reset the value in the Hit Counter field, click on **Tools** > **Store Manager** and edit the **Update Hit Counter** field before clicking **reset**. Note that the Hit Counter Started field in the Statistics table will not be updated to the latest date.

Update Hit Counter to to a new value:	reset

### **Checking server uptime**

Server uptime shows how long your server has been running since the last system restart. If a system is restarted, your Zen Cart customers may perceive a disruption in their shopping experience.

Before we continue, note that some web hosts might not allow the server uptime information to be made available via the Zen Cart Admin Console. In that case, you may want to check with your web host to find out their reasons for doing so.

To enable Zen Cart to check how long your server has been running.

- 1. Click on Configuration > My Store to access the My Store screen.
- 2. Make sure the **Server Uptime** field is enabled.

To check how long your server has been up and running:

1. Click on Tools > Server/Version Info to access the Server Information screen.

2. The uptime is found in the Server Up Time field.

Check with your web host if you find that your server has been constantly restarted (i.e. uptime is always a few days). This might explain why your site is performing slowly because they might just be performing upgrades to the server while your store is still running.

### **Enabling GZip compression**

GZip compression enables a faster display of web page contents in a web browser. If GZip compression is enabled, the server first compresses the contents of a web page before delivering it to a customer's web page. When the page reaches the customer's end, the web browser will automatically uncompress and display the contents to the customer.

If GZip compression has been enabled, you will notice that your browser window goes blank for a while before the actual page you requested is displayed.

Note that some web hosting providers turn on PHP Output Buffering and GZip compression by default. In such cases, you should *not* turn on GZip compression in Zen Cart as you will be recompressing already-compressed content, thus slowing things down rather than gaining speed.

You can ask your web hosting provider whether GZip compression is on by default in their PHP configuration; or you can click on **Tools** > **Server/Version Info** and check the value for the **output_buffering** field. If GZip compression is on, the value of the **output_buffering** field will show as either <u>On</u> or <u>1</u>. Alternatively, you can go to http:// www.whatsmyip.org/http_compression/ to check whether your web server has enabled GZip.

To turn on GZip compression in Zen Cart:

1. Click on Configuration > GZip Compression to access the GZip Compression screen.

GZIP COMPRESSION			
Title	Value	Action	Enable GZip Compression
Enable GZip Compression	0	•	Please make any necessary changes
			Enable GZip Compression 0= off 1= on ② 0 ③ 1
			update cancel

2. Set the Enable GZip Compression field to 1.

Although this feature can minimize your CPU and bandwidth loads tremendously, some older browsers do not support it. Use your own discretion to decide whether you want to enable this feature.

### **Optimizing image sizes**

Image size is usually the main culprit why web pages load slowly and it is also the main consumer of bandwidth on your site. Therefore, you should always optimize your images by reducing their file sizes if you find your site is loading slowly.

As a general guideline, you can reduce the size of your *product* images to 30 kilobytes each. Icon images are usually small enough in size so you can ignore them when optimizing your images. For other images, you will need to decide for yourself as you need to balance the need for visual clarity and appeal against speed.

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For store owners, the file size limit for images they upload is indicated by the **upload_max_filesize** field under **Tools** > **Server/Version Info**. If an image exceeding this limit is uploaded, the file will not be uploaded and no warning messages will be displayed.

### **Reducing database reads**

One of the most common and effective ways to improve your site performance is to reduce the number of database read operations. One of the biggest culprits of excessive database reads is the *category count* that you see next to your catalog entries in your Categories side-box.

To remove the category count from your catalog:

- 1. Click on Configuration > My Store to access the My Store screen.
- 2. Set the Show Category Counts field to <u>false</u>.

As most side-boxes and product listings may also involve a lot of database reads, try to turn them off if they are not essential to your customers' purchasing decisions.

### Optimizing your store's database

Another technique to improve database performance is to delete unwanted records that have been deleted by the Zen Cart program but are still present in the database. This action should be performed periodically and preferably at a time when your store does not have many customers as it will impact the database performance during that time.

To optimize your database:

- 1. Click on Tools > Store Manager to access your Store Manager screen.
- 2. Go to the bottom of the screen and you will see a section similar to the following screen shot.



- 3. Click on **confirm** to begin optimizing your database.
- 4. After the cleanup is completed, a message indicating how many database tables were affected will be displayed.

### **Tuning SQL cache methods**

Recall when you ran the Zen Cart web installer during installation that one of the options you had to specify was the SQL cache method you wish to employ in the Database Setup screen as shown in the following screen shot.

SQL Cache Method Select the method to use for SQL caching. more info		None 💌
Session/SQL Cache Directory Enter the directory to use for file-based caching. more info	/home/johndoe/public_html/store/cache	

If you click on the **more info** hyperlink, you will see an explanation of how the field works as shown in the following screen shot.

SQL Cache Method
Some SQL queries are marked as being cacheable. This means that if they are cached they will run much more quickly. You can decide which method is used to cache the SQL Query.
None. SQL queries are not cached at all. If you have very few products/categories you might actually find this gives the best speed for your site.
Database. SQL queries are cached to a database table. Sounds strange but this might provide a speed increase for sites with medium numbers of products/categories.
File. SQL Queries are cached to your server's hard disk. For this to work you must ensure that the directory where queries are cached to is writeable by the web server. This method is probably most suitable for sites with a large number of products/categories.
[Close Window]

We will not talk further on the SQL cache option as it is already explained in the preceding screen shot. Instead, take note that you can change your SQL cache method and SQL cache directory (if you had chosen to cache your SQL queries via the file-based approach) in both your configure.php files as shown in the following sample code.

// The next 2 "defines" are for SQL cache support. // For SQL_CACHE_METHOD, you can select from: none, database, or file // If you choose "file", then you need to set the DIR_FS_SQL_CACHE to a directory where your apache // or webserver user has write privileges (chmod 666 or 777). We recommend using the "cache" folder inside the Zen Cart folder // ie: /path/to/your/webspace/public_html/zen/cache -- leave no trailing slash define('SQL_CACHE_METHOD', 'file'); define('DIR_FS_SQL_CACHE', '/home/johndoe/public_html/store/cache');

# **Upgrading your Zen Cart installation**

From time to time, you will have to perform upgrades to your Zen Cart installation. This could be because you want to utilize features in a more recent version or you need to upgrade to higher versions to fix some security loopholes.

### **Checking your Zen Cart version**

To check for available updates to your Zen Cart store, click on **Configuration** > **My Store** and enable the **Show if version update available** field. To check whether you are running the latest version of Zen Cart, click on the **Check for Updates** button at the top-right corner of your Admin Console as shown in the following screen shot.

```
(You are presently using: v1.5.4)
```

If your Admin Console is still not able to check whether your Zen Cart version is up-to-date, then open up the [zc-home]/[admin]/includes/local/skip-version-check.ini file and make sure the following line is set to <u>on</u>.

version_check=on

### **Obtaining the latest upgrade instructions**

Whenever a new version of Zen Cart is available, an announcement will be posted in Zen Cart's forum. Details on how to perform an upgrade are also posted there. As upgrade instructions may vary from version to version, we shall not cover them here.

One important point to note when performing upgrades is to **avoid** using any *automated* scripts or wizards provided by your web host to perform an upgrade as they usually result in problems or incomplete upgrades which can be especially time consuming and difficult to track down and solve. Instead, seek to always perform *manual* upgrades to avoid or minimize such problems.



Zen Cart does not automatically upgrade your store from one version to the next. If you find that this is happening, check with your web host and tell them to disable this functionality for your site.

This is because automatic updates can overwrite any files that you have customized and thus cause errors in the normal operation of your store.

# Installing third-party add-ons

Pieces of software code that do not belong to a default Zen Cart installation but are written in such a way as to integrate into a Zen Cart store are known as **add-ons** because they add to the functionality or look of a store. Various terms such as *contributions* (*contribs* in short), *modules* (*mods* in short), and *plug-ins* are also loosely used to refer to these add-ons so do not be confused if you encounter such terms being used in the Zen Cart forums.

Your first stop when looking for add-ons that will meet your business needs should always be Zen Cart's site because the add-ons there are free and most widely used by store owners. Other sites that offer Zen Cart add-ons may require you to make a purchase or answer your support questions regarding their add-ons only on their site.

To browse or search for add-ons on Zen Cart's site, click on the "Plugins" hyperlink on the site and you should see a page similar to the following screen shot.

Home Forum Plug	ins FAQs Blogs Wiki		se Services	Go
Plugin Categories Search Plugins/A	ddons		[FAQs] [Adv S	earch]
Plugins and Addons				
If this is your first visit, be sure to ch Ink above to proceed. To start view	eck out the FAQ by clicking the link above. You ing messages, select the forum that you want i	i may have to to visit from th	register before you can post: click the re e selection below.	gister
Plugins and Addons Dir	rectory		Latest Plugins/Addons	
Plugins and Addons for Zen Cart® co	ontributed by the Search	Search	Save your sideboxes layout as the d	efault
community		Scareir	ZC1.5.4 - Admin Plugin Backward Compatibility	
Category	Description	Count	Ajax Back In Stock	
Admin Tools	Add extra features to your stock Zen	186	Dual Pricing - Wholesale Pricing	
	Cart Admin. Extra reports, HTML editors, data importers, email tools		Best Sellers Reloaded	
	and many more!		Spanish Language Pack	
			Westminster New	
Buttons and Graphics	Spice up your site with different buttons and extra graphics.	77	Easy Shipping Modules USPS & UPS Shipping Modules	
			Chinese (Simplified) Language Pack	
Language Packs	Need to run your site in a language	62	Reward Point Full Suite	
	and install a new language pack.		myDEBUG Backtrace	
	5 5 1		Product Extra Fields	
Marketing Tools	Add upsells and cross sells or get	116	All Products Virtual No Shipping	
	connected with your customers with email and social networking.		Sale Ending/Special Ending	
			Gift Wrapping	
Other Modules	Miscellaneous plugins that can add the feature you've been looking for.	325		-
Payment Modules	Accept payments around the world	198	Top Contributors	

To minimize the risk of an add-on adversely affecting the functionality or look of your store, use the following points as a checklist when deciding on and working with an add-on you are interested in.

- 1. Find out what others have to say about the add-on. For example, are there any conflicts with other add-ons, will the add-on require specific server configurations to work, is the add-on reliable and secure.
- 2. Look for a dedicated support thread in the Zen Cart forums for the add-on. Alternatively, find out if the add-on author provides an alternative support channel (e.g. paid email support).

If a dedicated support thread exists, *subscribe* to the thread and keep yourself abreast of any changes (e.g. security releases or bug fixes) with the add-on. This is because, unlike Zen Cart itself, new releases of add-ons do not automatically trigger notification messages in your Admin Console.

- 3. After you have decided on which add-on to use, download the add-on and see if the add-on comes with any documentation (e.g. README.txt or README.html) which will tell you how to install or work with the add-on. Important information relating to the add-on can often be found in such documentation so do not skip it.
- 4. Before installing an add-on, back up your site's database and files.
- 5. When installing your add-on, watch out for the following scenarios if it applies to you.
  - If you are required to make database changes to your store by running some SQL scripts, do *not* use phpMyAdmin to do so unless explicitly told to do so by an add-on author or as indicated in an add-on's installation instructions.

Instead, click on **Tools** > **Install SQL Patches** to access the SQL Query Executor screen and run your SQL script from there so that the SQL code can be applied correctly even if the table names in your database contain prefixes (e.g. *zen_orders* instead of *orders*).

SQL QUERY E	KECUTOR
BE SURE TO DO A If you are install Zen Cart™ makes using on your liv	FULL DATABASE BACKUP BEFORE RUNNING SCRIPTS HERE ing 3rd-party contributions, note that you do so at your own risk. : no warranty as to the safety of scripts supplied by 3rd-party contributors. Test before e database!
Enter the query to be executed:	
Be sure to end with ;	
	send
	NOTE: Zen Cart database-upgrade scripts should NOT be run from this page.
1	Please upload the new zc_install folder and run the upgrade from there instead for better reliability.
Upload file:	Browse_
	details

- If a core file needs to be changed, make sure you make a note of it or you may accidentally overwrite the changed file and break your store's functionality when you upgrade your Zen Cart store in future.
- 6. If you find problems or want to offer suggestions for improvements after installing and testing out an add-on, you should first visit the add-on's support thread in the Zen Cart forums before turning to the author's published support channel. This gives the add-on's author a chance to understand the circumstances surrounding an issue before rectify any problems or improving the add-on further.

# Summary

After completing this chapter, you should be able to identify areas that makes your online store perform better and more securely. You have also seen how to perform proper backups of your important data and guidelines for upgrading
your Zen Cart installation. Although the techniques here are not directly related to your business objectives, do not ignore them as they play an important part in the smooth operation of your online store.

# Part VI

# **Appendixes**

# Appendix A: Utility software

# Introduction

Besides the standard web browser (Internet Explorer, Mozilla Firefox, etc), email clients (Microsoft Outlook, Mozilla Thunderbird, etc) and file compression tools (WinZip, WinRAR, etc), you will need additional utility software to customize Zen Cart properly.

Because similar programs are easily available for the Linux, Mac and Windows platforms, we will only highlight those available for the Windows platform. You can find more of such programs by running a search at http://www.download.com.

Each software category will highlight the desirable features that should exist in a utility program before recommending a free-ware version and a share-ware version that supports those features. Which program you decide to use will depend purely on your personal preference.

# **Text editors**

To customize any Zen Cart installation properly, you will need to edit some of text files (i.e. HTML, CSS or PHP). Do not use word processors (e.g. Microsoft Word) to edit the text files as they will add invisible characters to those files. These invisible characters can cause problems either for Zen Cart or for web browsers.

Before you settle on a text editor, make sure it has the following features:

- Supports *syntax highlighting* for HTML, CSS, Javascript and PHP. This helps you to code and debug faster by visually separating the different elements of the file. For example, such a text editor might highlight PHP code in blue and HTML code in red.
- Automatic *error highlighting* for HTML, CSS, Javascript and PHP. This helps you catch errors in your programs while you are writing your code before these errors are detected when you run your program in Zen Cart. For example, if you fail to specify a closing tag for your HTML code, the editor may use a red underline to highlight the offending HTML tag.

### Notepad++

Web Address: http://notepad-plus-plus.org/.

This is a simple and free program which is easy to use for readers who need basic source code editing capabilities in a text editor. It is not related to Microsoft Notepad.

### **EditPlus**

Web Address: http://www.editplus.com.

This is a very powerful program that even boasts a built-in web browser. You can download it for a free trial of 30 days before deciding whether to buy it.

# **FTP** software

To transfer files between a remote server and your local computer, you will need to use an FTP client software.a

Although the standard FTP command line commands are available for both the Windows and Unix/Linux platforms, it is advisable to look for one that has an intuitive Graphical User Interface (GUI).

Before settling on an FTP client program, make sure it has the following features:

- Ability to transfer many files *reliably*. Some FTP clients are known to corrupt files if too many files are transferred at one go to the server. Do some research on your choice of FTP program to avoid this problem.
- Automatically switch between *text and binary modes* when transferring multiple files. This helps avoid the corruption of files as the FTP protocol requires binary files (images, compressed archives, etc) to be transferred in binary mode and text-based files (HTML, CSS, PHP, etc) to be transferred in text mode.



Avoid using a program that does not do FTP as its core functionality. For example, Adobe Dreamweaver has a built-in FTP function but it may not handle file permissions properly on your server.

## FileZilla

Web Address: http://filezilla.sourceforge.net.

This is one of the most popular free FTP clients in use today. Besides Microsoft Windows, it can also run on Linux and Mac OS X. Be sure to download only the FileZilla FTP *client* and not the FTP *server*.

### **WS_FTP** Professional

Web Address: http://www.ipswitch.com.

This program has a long history and is very popular. It has a wide user base and the program is very stable. You can download it for a free trial of 30 days before deciding whether to buy it. An online tutorial on how to use the program is available at http://www.ipswitch.com/support/ws_ftp/tutorials/tours/index.asp.

## File comparison software

File comparison software allows you to compare differences between two or more files visually. It is an indispensable tool when upgrading Zen Cart as it is used to determine which files have changed between different versions and therefore need to be updated. It is also used commonly in program debugging to understand changes between different versions of a software.

### WinMerge

Web Address: http://winmerge.sourceforge.net/

This free program has the ability to compare more than two files at once. File differences are highlighted using different colors. It also has the ability to compare separate directory hierarchies using simple drag-and-drop.

## **Beyond Compare**

Web Address: http://www.scootersoftware.com/

This program has the ability to compare directories in addition to comparing files. It supports many other advanced features so you will need to spend more time learning how to use it. You can download it for a free trial of 30 days before deciding whether to buy it.

# Appendix B: Choosing a web host

# Introduction

Once you are familiar with running Zen Cart on your local computer, you can begin to set up your store on the web.

To get your store to run on the Internet, you will need to perform the following steps:

- Choose a domain name.
- Register the domain name.
- Choose a web hosting provider.
- Install Zen Cart on the remote server.

The first thing you need to need to do is to come up with a *domain name* for your website (e.g. wildsales.com). This domain name will be used by users to access your online store. Because domain names are unique across the Internet, you will need to *register* it to prevent other people from using the same domain name.

The second thing you need to do is to find a web hosting provider that will provide you the infrastructure (hardware, network, etc) and software (Apache, PHP, etc) necessary for you to run a Zen Cart store online. Your hosting provider will also let you know what the IP address (e.g. 191.0.34.43) of the machine hosting your website is.

Finally, you will need to make the association between your domain name and IP address known to one or more DNS servers across the Internet.

The above steps are just a *logical* view of how things are done. For practical purposes, you will usually just choose a domain name and sign up for a hosting plan with a web hosting provider. The web hosting provider will then perform all the necessary steps to get your site hosted on the Internet.

# Choosing a domain name

Your first task before setting up shop on the Internet is to choose a domain name for your online store. For example, if you choose "www.pets-r-us.com" as the URL for your store, the *domain name* will be "pets-r-us.com".



To find out whether your desired domain is available, you can perform a search at http://www.godaddy.com.

When choosing a domain name, look out for the following criteria:

■ For stores engaged in commercial activities, try to choose a domain name which ends with ".com" or ".biz". Other top-level domains (TLDs) such as ".net", ".org", ".info", etc are also available.

- Avoid domain names which end with a country code. For example, ".com.sg", ".biz.my", etc, unless your business activities are limited to a specific locale (e.g. pizza delivery business). The purpose of using the Internet to conduct business is to gain maximum exposure for your business and to serve a large pool of customers regardless of geography.
- Choose a domain name that is short and easy to remember. Most people have problems remembering long names, let alone typing them out error-free.
- Avoid the use of numbers in your domain name to minimize problems with users typing the URL incorrectly. For example, if you tell customers your web address is "www.numberonecakes.com". They may accidentally type "www.number1cakes.com" into their web browser instead.
- Use words with their proper English spelling when coming up with your domain name to minimize human errors when typing your URL into a web browser. For example, using "kar-tiuns.com" instead of "cartunes.com".

# **Registering a domain name**

After you have found an available domain name, you should have it registered to prevent other people from laying claim to it. There are two ways you can go about doing this:

- Register your domain name yourself.
- Register your domain name through a web hosting provider when you sign up for a hosting plan with them.

Usually, a small fee will need to be paid to secure your rights to a domain name for a period of time (e.g. one year). Thereafter, it will need to be renewed annually. Therefore, practice due diligence to check that your domain name never expires by paying your fees on time. You do not want to lose all the hard work you have done in building up a brand name for your online store only to lose it to someone else just because your domain name needs to be changed!

If you choose to register a domain name yourself, you can go to http://www.godaddy.com to do so. There are many other companies who can do the same job, so you might want to try running a search in your favorite domain name search engine.

Most web hosting providers can also provide domain name registration on your behalf. However, you need to be careful when dealing with them. Some unscrupulous web hosting providers will register your domain name under their company name instead of your name. If you decide to migrate your online store to another web hosting provider later, they will demand a huge fee from you if you want to use back the same domain name they registered on your behalf. Therefore, it is best to sign up with reputable and well-established web hosting providers and not those which simply offer the cheapest prices.

# Choosing a web hosting provider

A web hosting provider provides the infrastructure that determines whether your online business runs smoothly and reliably. An online store that is constantly inaccessible or performs sluggishly will hurt your image and your sales. Therefore, do as much research as possible when deciding on a suitable web hosting provider.

Some things you will need to look out for when evaluating a web hosting provider are summarized in the following table.

Criteria	Explanation
Operating system and software	Try to pick a host that offers a Unix/Linux-based web hosting plan. This is because Apache has a long history of working with Unix/Linux rather than Windows-based operating systems and is consequently more stable on Unix/Linux.
	Also make sure that the web hosting provider supports PHP and MySQL versions that are compatible with Zen Cart.
Email	Because you are running an online store, you need to make sure that your web hosting provider allows you to set up email accounts with them. These email accounts must be for <i>both</i> inbound and outbound usage.
Price	Price should <i>never</i> be the deciding factor when choosing a web hosting provider. The market is very competitive for web hosting and most hosting plans vary by a few dollars. Ultimately, what matters more to an online store is speed and reliability.
Technical support	Provides different means (e.g. by phone, by email or online only) to reach the web hosting provider when you face problems with your account or setup. Most web hosting providers will advertise how good their support is. Do not take their word for it. Try to find out more information about their claims from online forums or people you know to determine whether they are really performing up to task and the level of support they actually provide.
	A poor supporting staff or system can cripple your online business for long periods if they cannot quickly and reliably solve your problems.
Uptime	Refers to the time that your site will remain accessible. No web hosting provider can guar- antee your site will be up 100% of the time but most will likely quote a figure of 99.5% or more.
Bandwidth	Refers to the amount of data (in bytes) that is transferred from your site to visitors. If your store sells digital goods for download, you will need to sign up for a plan which permits a higher bandwidth.
	Some web hosting providers state that they offer <i>unlimited</i> bandwidth, remember to read the fine print. Ultimately, web hosting providers need to pay for bandwidth and they will not allow you to constantly exceed that bandwidth at their expense.
Disk space	Refers to the amount of storage space allocated to your site. Make sure there is enough space to include an entire Zen Cart installation including any images or files you are likely to upload.
	Again, be wary of sites that offer <i>unlimited</i> disk space for the same reason as they offer unlimited bandwidth.
Web-based control panel	This feature gives you the convenience and power of managing certain aspects of your web account from the comfort of your desk without having to go through technical support every time. You will be able to view server logs, create user accounts, create email and FTP accounts, etc. Common control panels you might encounter include CPanel, Plesk and Ensim.

#### Table B.1: Criteria for evaluating web hosting providers

Criteria	Explanation
SSL installation	No proper online store is complete without an SSL certificate to encrypt sensitive parts of the store's website. Make sure your host has the ability to provide a SSL certificate to meet your business requirements.
	To make your store appear more professional and legitimate to your users, pay for a dedi- cated SSL certificate instead of using a shared SSL certificate. Also make sure that the SSL certificate you purchase offers at least 128-bit of encryption.

# A recommended solution - Zen Cart certified hosting providers

If you have trouble deciding on a suitable web hosting provider for your online store, there is good news. Just click the *hosting* hyperlink at the top of Zen Cart's website to see a list of Zen Cart certified web hosting providers.

These web hosting providers have met the rigorous requirements of the Zen Cart team for hosting Zen Cart sites so you can be sure about their work quality. They are very experienced and knowledgeable in the workings of Zen Cart and will thus be able to provide good technical support if you encounter problems with your store configuration. They even offer free installation of Zen Cart on your site.

It is highly recommended that you sign up with one of them if you are just starting a new Zen Cart store or dissatisfied with your current web host. The latest list of Zen Cart certified web hosting providers can be found at http://www.zen-cart.com/partners/certified_hosts. Go through their plans and send them an email if you have any questions regarding their hosting packages.

# **Host control panels**

After you have registered a domain and signed up for a hosting package, your web host will assign you an account with which you can work with your remote computer.

For most shared hosting accounts, the bulk of your interactions (file manipulation, database management, etc) with your remote server will be through the use of a control panel provided by your web host.

There are many different control panel software (e.g. Plesk, HSphere) available but the most popular one among web hosts is cPanel (http://www.cpanel.net). Hence, we shall use cPanel for our discussions in this book.

If you are using a different control panel software or a different version of cPanel, do not worry. The cPanel functionalities highlighted in this book are very basic and can usually be found in other control panel software. All you need to do is to adapt the instructions to suit your particular control panel software or version of cPanel.

# **Gathering important server information**

After logging into your hosting control panel and orientating yourself on the available functionalities, you should start gathering some important pieces of information about your remote server. These pieces of information will come in handy for someone helping you troubleshoot a problem related to your Zen Cart store.

### Installed server software

The pieces of server software information you need to collect are as follows:

- host operating system (e.g. Windows or Linux)
- web server information (e.g. Apache or IIS)
- PHP version
- MySQL version

Do note that you may need to check this information from time to time because web hosts may upgrade their server software versions without informing their customers. Such silent upgrades can sometimes lead to problems working with your online store.

Depending on your web host, the information you need may be readily available via your control panel software as shown in the following screen shot of a cPanel side-box. Contact your web host if the information is not readily available via your control panel software.

General server information 🛛 🚯						
Root Directory	/home/johndoe					
Perl Path	/usr/bin/perl					
Perl Modules	Click to View					
Sendmail Path	/usr/sbin/sendmail					
Apache version	2.2.29					
MySQL version	5.5.40-cll					
PHP version	5.4.34					
PHP info	Click to View					

### Identifying the server's document root

The **document root** (sometimes also known as the **web root**) refers to the directory on your remote server where your site's contents will be accessible by a public user's web browser unless some extra security measures have been implemented by your web host to prevent access to those files. We will use [doc-root] to represent the document root in this book.

For instance, if you place a test.php file in your document root, then a user will be able to access that file from a web browser by visiting http://www.example.com/test.php. If you place the same test.php file in a lab which is a subdirectory of the document root, then a user will be able to access that file at http://www.example.com/lab/test.php.

Depending on your web host, your [doc-root] could be named htdocs, public_html, wwwroot, or www. Consult your web host if you are not sure which folder to use. Assuming johndoe is your user account name, some examples of document root directories are as shown in the following list to help you identify the document root directory on your server.

For Linux-based servers:

- /home/johndoe/public_html
- /var/www/johndoe/httpdocs

For Windows-based servers:

- C:\Inetpub\wwwroot
- D:\home\johndoe\htdocs



Do not confuse the **document root** directory with the **home** directory on your remote computer. The **home** directory (e.g. /home/johndoe) is where all files related to your hosting account are stored and which also happens to include the **document root** directory (e.g. /home/john-doe/public_html) as well.

# Managing files and directories

To manage files and directories on your remote server, you can choose to use either a local FTP client software (e.g. FileZilla) or a file management application in your web host's control panel software.

For cPanel, the file management application is known as File Manager and it is accessible by clicking the corresponding icon in the "Files" section of a cPanel account.



### A word on hidden files

On Linux operating systems, a file with a preceding dot (e.g. .htaccess) is known as a hidden file. Hidden files may not appear when you attempt to browse all the files in a given directory. This can cause much frustration when you attempt to edit a file but cannot find it.

To ensure that hidden files are displayed in cPanel's File Manager application, make sure you check the **Show Hidden Files** checkbox after clicking the File Manager icon in the "Files" section.

8 File Manager Directory Selection
File Manager Directory Selection         Please select a directory to open:         Image: Comparison of the placetory
Web Root (public_html/www)
O th Public FTP Root (public_ftp)
Document Root for:     example.com
Show Hidden Files (dotfiles). Skip this question, and always open this directory in the future when opening File Manager. <u>Go</u>

FTP clients will usually display all hidden files by default. However, some web hosts may have mis-configured their FTP servers thus resulting in the non-display of hidden files. For FileZilla, you can fix this problem by clicking on the menu option **Server** > **Force showing hidden files** as shown in the following screen shot.



### Transferring files between local and remote computers

The transfer of files between your local computer and your remote server can be achieved via a client FTP program or your web host's file management application. We shall look at some of the issues you may encounter when using each of these options.

#### Via a client FTP program

Almost all GUI-based client FTP programs provide a very user-friendly drag-and-drop interface for you to transfer files between your local computer and a remote server.

E		- Fil	eZilla					_ D ×
File Edit View Transfer Server E	ookmarks Help							
≝•  <b>∑</b> ⊞ 6 <b>;</b>	93 💺 🖑   El 🔗	St 18						
Host: Usernar	ne:	Password:		Port:	Quickconnect	-		
Response: 227 Entering Passive N	Aode (67, 15, 211, 6, 135, 1	79)						^
Command: STOR techsupp.php								
Response: 227 Entering Passive N	4ode (67,15,211,6,135,2	14)						
Command: STOR version.php								
Response: 150 Accepted data co	nnection							~
Local site: C:\zencart_files\zencart\			~	Remote site: /pu	ıblic_html/store			~
Filename /	Filesize	Filetype	^	Filename /		Filesize	Filetype	<u>^</u>
<u> </u>				<u> </u>				
admin 🔁		File Folder		admin 🚞			File Folder	
Cache		File Folder		ache 🗋			File Folder	
adocs		File Folder		docs			File Folder	
(iiii) download		File Folder		i download			File Folder	
editors		File Folder		i editors			File Folder	
i email		File Folder		🚞 email			File Folder	
extras		File Folder		extras			File Folder	
images		File Folder		images			File Folder	
includes		File Folder		includes			File Folder	
media		File Folder		media			File Folder	
Dpub		File Folder		Dub			File Folder	-
i zc_install		File Folder		c_install			File Folder	
📄 index.php	4,666	PHP File		index.php		4,666	PHP File	
install.txt	1,314	Text Document		install.txt		1,314	Text Document	
ipn_main_handler.php	24,574	PHP File		ipn_main_hand	dler.php	24,181	PHP File	
🗐 license.txt	15,039	Text Document	~	🗐 license.txt		15,039	Text Document	~
<	*******		>	<				>
Selected 1 directory.				10 files and 12 dire	ectories. Total size: 61,29	7 bytes		
Server/Local file		Direction	Remot	e file	Size	Priority	Status	^
00:00:00 elapsed:- C:\zencart_files\zencart\zc_install\ Transferring C:\zencart_files\zencart\zc_install\ C:\zencart_files\zencart\zc_install\ C:\zencart_files\zencart\zc_install\	: left 92.8% version.php demo \mysql_demo.sql ndudes \admin_configure	->> /	pytes ( public_ public_	? B/s) html/store/zc_install html/store/zc_install html/store/zc_install	l/ver 976 l/de 233,303 l/ncl 6.643	Normal Normal Normal	Transferring	~
Queued files (88) Failed transfers	Successful transfe	rs (96)			5,615			
						8 E	Oueue: 2 MiB	0.0
NAMES AND A DESCRIPTION OF A DESCRIPTION	warmen and the factor law property for the term of the state	SCHEROLOGICAL CONTRACTOR STREET			Preservation and the second second second	and the second se	THE REPORT OF THE PARTY OF THE	

To minimize chances of file corruption, all FTP transfers take place using one of two modes: ASCII vs binary. Text files (.php, .css, .html, etc.) are usually transferred via *ASCII* mode while non-text files (e.g. compressed archives or image files) should be transferred via *binary* mode. Most good FTP clients (e.g. FileZilla) provide an *auto* mode that automatically switches between ASCII or binary mode depending on the file type. You should use the *auto* mode if it is available for your FTP client. For FileZilla, this option is available via **Transfer > Transfer type**.

Transfer	Server	Bookmarks	Help			
Process	s Queue			CTRL+P		
Default	: file exist	s action			_	
Transfe	er type				Þ	<ul> <li>Auto</li> </ul>
Preserv	/e timesta	amps of trans	ferred files	CTRL+U		ASCII
Speed	limits				۲	Binary
Manual	transfer			CTRL+M		

#### Via cPanel's File Manager application

To transfer files via cPanel's File Manager application, click either the Download or Upload icons as shown in the following screen shot.



If you click on the Upload icon, you will be re-directed to a page which will allow you to transfer files to your server. Note that the issue of transfer modes when using an FTP client does not apply when using File Manager.

ζUpload files	
Please select files to upload to /home/johndoe/	public_html/store
	Browse_
	Browse_
	Browse_
Overwrite existing files: $\Box$	Add Another Upload Box
	Back to /home/johndoe/public html/store

Compared to a client FTP program, file transfers via File Manager is not encouraged as a limited number of files can be transferred at one go and each transfer also takes a longer time which can lead to time-out issues for large files.

### Performing common file manipulation operations

Common file and directory manipulation operations like copy, rename, delete, and move can also be achieved using your FTP client or your web host's file management application.

#### Via a client FTP program

For a client FTP program like FileZilla, file manipulation operations can be accomplished via the use of a context menu which will appear when you right-click on a file or directory.

Remote site: /public_h	tml/store	
Filename 🗸	Filesize	Filetype
<b>a</b>		
admin		File Folder
🗀 cache	🕂 Download	File Folder
docs	👍 Add files to queue	File Folder
a download	Enter directory	File Folder
editors	View/Edit	File Folder
🗀 email		File Folder
extras	Create directory	File Folder
images	Refresh	File Folder
includes	Delete	File Folder
media	Rename	File Folder
pub	Copy URL(s) to clipboard	File Folder
📄 zc_install	File permissions	File Folder
🗐 index.php	4,000	PHP File

#### Via cPanel's File Manager application

For cPanel's File Manager application, file manipulation operations can be performed either by clicking the relevant icons on the top menu or the use of a context menu when clicking on a file or directory.

File Manager Settings			Search All Yo	ur Files	🕑 for		00
New File New Folder	d Delete	Rename Edit Code Editor	HTML Change Editor Permissi	View	Extract Compress		
/public_html/store           Go	🚯 Home	🕼 Up One Level 🖨 Back 🛛	🗢 Forward 🛭 🗐 Relo	ad 🗹 Sele	tt all 🔲 Unselect all		
		Name		Size	Туре	Perms	_
T= Collapse all		admin		4 KB	httpd/unix-directory	0755	^
(nome/jonndoe)		cache		4 KB	httpd/unix-directory	0755	
⊕ · 🗀 etc		docs		4 KB	httpd/unix-directory	0755	
🕀 📺 🖂 mail		download		4 KB	httpd/unix-directory	0755	
i i public_ftp		editors 4			httpd/unix-directory	0755	
			4 KB	httpd/unix-directory	0755		
⊕ La store ⊕ Ca tmp			4 KB	httpd/unix-directory	0755	_	
		images	Download	Download	httpd/unix-directory	0755	-
		includes	🔾 View		httpd/unix-directory	0755	
		media	🖉 Edit		httpd/unix-directory	0755	
		pub	🞱 Code Edit		httpd/unix-directory	0755	
	fantversion.php	🖻 Move		application/x-httpd-php	0755		
		index.php	Сору		application/x-httpd-php	0755	
	ΠT	install.txt	B Rename		text/plain	0755	
	□ _{PH?}	ipn_main_handler.php	Change Permis	sions	application/x-httpd-php	0755	
	ΠT	license.txt	🛪 Delete 25		text/plain	0755	
		mcs_learn_more.html	✓ Compress		text/html	0755	~



Avoid *editing* files directly via File Manager as the files could become corrupted due to file encoding issues. Instead, you should download your desired files and edit them on your local computer before uploading those files back to your remote server.

## Changing file and directory permissions

Most computer systems impose permissions on file and directories to protect files and directories from unauthorized reading and writing. No one wants a situation where other users on a server could access and manipulate the files of another user's home directory. This is especially important in shared hosting environments where many users can access and manipulate files on the same computer.

We shall cover some of the more common approaches here which relates to a shared web hosting environment and highlight some of the problems you might face using these approaches.



There are many ways in which file permissions are defined, configured and set. If the information in this book is insufficient for you to properly set the file permissions on your server, refer to http://tutorials.zen-cart.com/index.php?article=9 for more information.

#### A word on Linux file permissions

When working with Zen Cart and many other web-based applications, you will often encounter instructions to make a file *read only* or *writeable* and to ensure a directory is *writeable*. If these permissions are not set properly, you will often encounter problems like not being able to edit a file or upload an image to a specific directory from within your Zen Cart Admin Console.

File permissions on Linux-based systems are commonly expressed using a series of digits (e.g. 755) or a series of letters (e.g. drwxr-xr-x). The former representation is more commonly used when changing file permission as it is shorter and less likely to be mis-read. The latter representation is less ambiguous and more easily understood at a glance.

In this book, we shall use the digit representation to specify the particular permission you should apply to a file or directory. Each time we do that, we will also prefix the digits with the word chmod so that you do not confuse the digits with something else other than file permissions. The word chmod stands for "change mode". It is a command used commonly on Linux operating systems for changing file and directory permissions.

Depending on how your web host has configured PHP to work with your web server, the actual values to use for your file and directory permissions to make then *read only* and *writeable* may vary as shown in the following two examples. Always check with your web host if you are unsure how permissions should be set on their servers.

Example C.1: PHP configured to run under Fast-CGI and with phpsuexec installed

Directory (writeable) = chmod 755

File (writeable) = chmod 644

File (read only) = chmod 444 or chmod 400

Example C.2: PHP configured to run as an Apache module and Apache server runs as user "nobody"

Directory (writeable) = chmod 777

File (writeable)= chmod 777

Warning

File (read only) = chmod 444 or chmod 400

We have only scratched the surface of Linux file permissions in this book, if you are interested in knowing more about the subject of Linux file permissions, refer to http://catcode.com/teachmod/.

Default permissions for files and directories that are uploaded to a server are usually chmod 644 and chmod 755 respectively. Files that are required to be *read only* are usually set to chmod 444.

chmod 777 is the most relaxed permission and makes your remote server vulnerable to malicious hackers. This is the reason why some web hosts disallow this permission to be set.

If you have relaxed the permission of a file or directory to chmod 777, make sure you **set the permission back** to its required or default setting after you are done performing your desired operation on the file or directory.

#### Via a client FTP program

Some FTP clients (e.g. FileZilla) allow you to directly alter file and directory permissions from within the software. The following screen shot shows how FileZilla is able to do this.

📠 • 🔳	12 I 健 C 5 X 🎕 🕯	>   <b>‡</b> +	Q & M		
Host:	Username:		Password:	Port:	Quickconnect
Command:	MLSD				
Response:	150 Accepted data connection				
Response:	226-Options: -a -l				
Response:	226 28 matches total				
Status:	Directory listing successful				
Local site: C:	\zencart_files\zencart\	~	Remote site: /public_	html/store/includes	
Filename /		^	Filename 🕖	Filetype	Permissions
<b>`</b>			modules	File Folder	0755
admin			implates	File Folder	0755
Cache			Intaccess	HTACCESS File	e 0644
docs			application_botton	1.php PHP File	0644
download		_	application_top.ph	p PHP File	0644
editors			🗐 autoload_func.php	PHP File	0644
email			📋 configure.php	PHP File	0444
extras			🗐 counter.php	PHP File	0644
images 🗋			🗒 database_tables.p	hp PHP File	0644
includes 📄		~	🗐 filenames.php	PHP File	0644
ŝ		> -	<		
9 files and 12 d	firectories. Total size: 61,653 bytes		Selected 1 file. Total si	ze: 2,977 bytes	

Please select th	e new attributes fo sions	r the file "configure.ph
Read	Write	Execute
Group permiss	ions	
🗸 Read	Write	Execute
Public permissi	ons	
Read	Write	Execute
Numeric value:	444	
You can use an original files hav	x at any position to e.	o keep the permission th
ſ	ок	Cancel

Although changing permissions via an FTP client is convenient, you should take note that this approach may not be reliable. This is because permission changes may not have actually taken effect on the files and directories on your server although you may have changed the permissions successfully in the FTP client.

#### Via cPanel's File Manager application

For shared hosting accounts, your web host will usually allow you to change file permissions via an application in their control panel software. For example, the following screen shot shows how you can use the File Manager application in cPanel to change a file's permission.

File Manager Settings		Search All Yo	ur Files	✓ for	
New File New Folder	Upload Download Delete	Rename Edit Code HTML Change Editor Editor Permission	View	Extract Compress	
/public_html/store	Go 🕥 Home	e 🕼 Up One Level 🗢 Back 🗢 Forward 💲 Relo	ad √ Selec	t all 🔲 Unselect all	
AT Callance all		Name	Size	Туре	Perms
- Collapse all		admin	4 KB	httpd/unix-directory	0755
access-logs	×	Change Permissions		httpd/unix-directory	0755
etc	File(s):			httpd/unix-directory	0755
🗈 🛅 🖂 mail	/public_html/store/index.php	World	J	httpd/unix-directory	0755
😟 💼 🎲 public_ftp	Read V			httpd/unix-directory	0755
	Write			httpd/unix-directory	0755
E tmp	Execute 🗸 🗸	$\checkmark$		httpd/unix-directory	0755
⊕ · 🛅 🎯 www	Permission 7 5	Permission 7 5 5			0755
		Change Permission	Cancel	httpd/unix-directory	0755
		pub	4 KB	httpd/unix-directory	0755
	<b>PHP</b>	fantversion.php	37 Bytes	application/x-httpd-php	0755
		install.txt	1.28 KB	text/plain	0755
	PHP	ipn_main_handler.php	23.61 KB	application/x-httpd-php	0755
	T	license.bxt	14.69 KB	text/plain	0755
		mcs_learn_more.html	6.29 KB	text/html	0755

This approach of changing file permissions is the most reliable and is thus the recommended approach.

#### Via a PHP program

If you are unable to change to your desired file permission using the the previous two approaches, you can try changing file permissions using PHP code. This approach is not recommended and should only be used if you are sure that the permission you want to set is safe for your web host's hosting environment. A real-life example where this approach was employed can be found at http://www.zen-cart.com/forum/showthread.php?t=122852.

Right-click on any file or folder to open a context menu. Then choose "File Permissions" to open the dialog box the above dialog box.

## Managing databases

Most hosting control panels offer an assortment of options to help users manage their databases. For example, the following screen shot shows a "Databases" section in a cPanel account that offers some of these options.

	[	Databases	
MySQL® MySQL® Databases Wizard	php MyAdmin phpMyAdmin	Remote MySQL	

Using some of the cPanel options shown in the preceding screen shot as examples, you shall see how you can go about performing some database management tasks that are common to most Zen Cart site owners.

### Setting up a new database

Setting up a new database generally involves the following steps:

- 1. Create a database.
- 2. Create a database user who will access the database.
- 3. Assign appropriate database usage permissions to the new database user.

Technically, the "Database Wizard", "phpMyAdmin", and "MySQL Databases" options can all perform the preceding steps. In actual practice, due to security limitations and in order to ensure user convenience, the "Database Wizard" option is usually used for this purpose and thus the one we shall make use of for illustration purposes.

Before you begin, find a piece of paper to write down the the database user, database password, and database name of your newly created database.

To set up a new database using the "Database Wizard" option, follow these steps:

1. Click on the "Database Wizard" icon in the "Databases" section of your cPanel account and you should be directed to the "Create A Database" page. For most hosting accounts, your database name and database user will be preceded by your account name.

For example, in the following screen shot, notice that the account name is <u>johndoe</u> and it is what precedes whatever value you enter for your database name and database username later.

MySQL® Database Wizard
MySQL Databases allow you to store lots of information in an easy to access manner. The databases themselves are not easily read by humans. MySQL databases are required by many web applications including some bulletin boards, content management systems, and others. To use a database, you'll need to create it. Only MySQL Users (different than mail or other users) that have privileges to access a database can read from or write to that database.
Step 1: Create A Database
New Database: johndoe Database name must be alphanumeric characters.
Next Step

2. Enter the name (e.g. <u>zencart</u>) of your database in the input box and click the **Next Step** button and you should be redirected to the "Create Database Users" page.

MySQL® Database Wizard						
Added the database	Added the database johndoe_zencart.					
Step 2: Create Data	base Users:					
Username:	Username must be alphanumeric characters.					
	Note: seven characters max					
Password:						
Password (Again):						
Strength (why?):	Very Weak (0/100) Password Generator					
	Create User					
	[ Go Back ]   [ Go Back to the Main MySQL Page ]					

3. Fill in the username and password of the new database user who will have access to the database you created in the preceding step. Click the **Create User** button and you should be redirected to the "Add User to Database" page.

4. Click the **All Privileges** checkbox to allow the database user to have permissions to perform all tasks on the target database. Click on the **Next Step** button and you should be redirected to the task completed page.



### Modifying or deleting an existing database

To delete or modify (e.g. re-assign database user permission, reset a database user password) an existing database, the "MySQL Databases" option is usually used. You can also set up a new database this way but it is more cumbersome and is less preferable compared to the use of the "Database Wizard" option.

We shall not go into detail on how you can perform these tasks as your web host will likely provide the instructions already. Instead, we shall provide a screen shot of a sample "MySQL Databases" page to give you an idea what are some of the available functionalities when using this option.

MySQL Databases allow you t easily read by humans. MySC management systems, and o other users) that have privile	o store lots of info 2L databases are re thers. To use a dat ges to access a da	rmation in an easy to access manne squired by many web applications in abase, you'll need to create it. Only tabase can read from or write to the	rr. The databases themselves a cluding some bulletin boards, c · MySQL Users (different than m at database.
📸 Video Tutorial			↓Jump to MyS
Create New Database			
New Database: johndoeC	reate Database		
Modify Databases			
Check DB: johndoe_z	encart 🛩 Chec	k DB	
Repair DB: johndoe_z	encart 🛩 R	epair DB	
Current Databases			
		Sear	-chGo
DATABASE	SIZE	USERS	Actions
johndoe_test	0.03 MB	johndoe_testuser 🛞	Delete Database
johndoe_zencart	2.33 MB	johndoe_janedow 🛞	Delete Database
Add New User: Username: Note: set Password (Again): Strength (why?): Very Add User To Database User: [johndoe_jz Database: [johndoe_z]	ren characters may Weak (0/100) reate User inedow v	Password Generator	
Add			
	SERS	Delete	
Current Users			
iohndo	janedow	8	

## Manipulating database data

To manipulate the actual data (e.g. customer records) contained within a database, the "phpMyAdmin" option is usually the only option available to you.

phpMyAdmin is a very popular open source web-based MySQL database management software. For more information on phpMyAdmin and its uses, consult its official site at http://www.phpmyadmin.net. Do take note that not all functionalities in your hosting control panel's version of phpMyAdmin software is enabled due to security reasons.

The main method by which data in a database is manipulated is through the use of SQL (Structured Query Language) commands. SQL is a computer language that is used to display and manipulate database information. You do not need to understand or write SQL commands to work with your Zen Cart database. However, there may be occasions where you will need to issue SQL commands so we will show you how you can access this functionality in phpMyAdmin.

To issue SQL commands in phpMyAdmin, follow these steps:

1. Click on the "phpMyAdmin" icon in the "Databases" section of your cPanel account and you should be directed to the main phpMyAdmin screen. Note that the left panel of the page is where a list of your available databases is displayed.

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#### Appendix C. Working with your remote computer

phpMyAdmin	2月 Server: localhost				
	Databases 🚜 SQL 🕸 Status 🗊 Variables 🖽 Charsets 👹 Engines	Processes DExport Dimport			
• johndoe	Actions	MySQL			
<ul> <li>_test (5)</li> <li>_zencart (96)</li> <li>information_schema (21)</li> <li>Please select a database</li> </ul>	MySQL localhost MySQL connection collation: utf8_general_ci Interface	Image: Server: Localhost via UNIX socket         Image: Server version: 5.0.77mm0.1-log         Image: Protocol version: 10         User: johndoe@localhost         Image: MySQL charset: UTF-8 Unicode (utf8)			
	<ul> <li>Language (): English</li> <li>Theme / Style: Original</li> <li>Custom color: Reset</li> <li>Font size: 82% </li> </ul>	Web server  cpaneld  MySQL client version: 4.1.22  PHP extension: mysql			
		phpMyAdmin         • Version information: 3.2.4         Documentation         Wiki         Image: ChangeLog] [Subversion] [Lists]			

2. Click on a database on the left panel that contains data you wish to manipulate and you should see a screen which contains the existing tables in that particular database.

phpMyAdmin 🍦 🕄 Server: localhost > @Database: johndoe_zencart														
ARE Structure SQL Search Query Export Import Operations Privileges					vileges	Drop								
			Table 🔺			Act	ion			Records ¹	Туре	Collation	Size	Overhead
Database			address_book		ß		3ċ	Ĩ	$\times$	4	MyISAM	utf8_general_ci	3.3 KiB	-
johndoe_zencart (96) 🔹			address_format		ß		36	Ť	$\times$	6	MyISAM	utf8_general_ci	2.6 KiB	-
johndoe zencart (96)			admin		ß		3-ċ	盲	$\times$	3	MyISAM	utf8_general_ci	7.4 KiB	20 B
			admin_activity_log		ŝ		30	Ĩ	$\times$	508	MyISAM	utf8_general_ci	76.4 KiB	-
A address book	-		admin_menus	:=	ŵ		3÷ċ	Ť	$\times$	11	MyISAM	utf8_general_ci	2.4 KiB	-
address_format	-		admin_pages	1	ŝ		30	Ĩ	$\times$	91	MyISAM	utf8_general_ci	12.9 KiB	-
admin_activity_log			admin_pages_to_profiles		ŝ		3÷ċ	Ĩ	$\times$	26	MyISAM	utf8_general_ci	4.1 KiB	348 B
admin_menus admin pages			admin_profiles	1	ŵ		3÷	Ť	$\times$	3	MyISAM	utf8_general_ci	2.1 KiB	-
admin_pages_to_profiles			authorizenet		ŵ	19	3÷ċ	Ť	$\times$	0	MyISAM	utf8_general_ci	1.0 KiB	-
authorizenet			banners		ß		3÷ċ	Ť	$\times$	9	MyISAM	utf8_general_ci	6.2 KiB	-
banners banners history			banners_history		ß	12	30	盲	$\mathbf{X}$	67	MyISAM	utf8_general_ci	4.6 KiB	-
Categories			categories		Ē		30	Ť	$\times$	61	MyISAM	utf8_general_ci	8.4 KiB	-
Configuration	ш.		categories_description		ß		36	盲	$\times$	61	MyISAM	utf8_general_ci	6.7 KiB	20 B
目 configuration_group 同 counter			configuration		ß		3¢ċ	Ť	$\times$	554	MyISAM	utf8_general_ci	212.1 KiB	-
Counter_history			configuration_group		ß		3÷ċ	Ĩ	$\times$	26	MyISAM	utf8_general_ci	4.5 KiB	-
E coupons			counter		ß		3÷	Ť	$\times$	1	MyISAM	utf8_general_ci	1.0 KiB	-
coupons_description coupon_email_track			counter_history		ß		3÷ċ	Ĩ	$\times$	9	MyISAM	utf8_general_ci	2.3 KiB	-
Coupon_gv_customer			countries		ŝ		3÷	Ť	$\times$	243	MyISAM	utf8_general_ci	30.7 KiB	-
Coupon_redeem_track			coupons		ß	12	3-	Ť	$\times$	0	MyISAM	utf8_general_ci	1.0 KiB	-
Coupon_restrict			coupons_description		ŝ		3÷ċ	Ĩ	$\times$	0	MyISAM	utf8_general_ci	1.0 KiB	-
customers			coupon email track		ß	121	3÷ċ	Ť	X	0	MvISAM	utf8 general ci	1.0 KiB	-

3. Click on the SQL tab to access the area in phpMyAdmin that you will use to issue your SQL commands.

த Server: localhost 🕨 👜 Database: johndoe_zencart
🖀 Structure 🚓 SQL 🖉 Search @Query @Export @Import %Operations @Privileges 🐹 Drop
Run SQL query/queries on database johndoe_zencart: @
Bookmark this SQL guery:
Replace existing bookmark of same name
[ Delimiter : ] 🖸 Show this query here again 🛛 🕞

- 4. Enter your SQL commands into the main text area.
- 5. Click Go to execute your SQL command.

## **Backups and restores**

Backups and restores are critical but often overlooked tasks of most store owners. Most web hosts offer some sort of basic backup and restore options and you should find out what capabilities these options offer before you pursue a backup and restore strategy that will meet your needs.

To give you an idea of what capabilities some of the backup and restore options offer, look at the following screen shots which shows the "Backup" and "Backup Wizard" screens respectively. These screens are accessed by clicking on their respective icons in the "Files" section in a cPanel account.

🥪 Backups	
Backups allow you to download (to your computer) a zippe email forwarders configuration, email filters configuration) not automatically scheduled backups. Automatically schedu administrator.	d copy of either you entire site (your home directory, databases, or one of the previously mentioned parts of your site. These are iled backups need to be enabled by the server owner /
Besides the standard cPanel Backup options, we also offer regularly and have maximum protection of your informatio	custom backup scripts. If you want to have your site backed up n, please order your custom backup script from here.
📸 Video Tutorial	
Full Backup	
A full backup includes all of the files in your home directory, You can backup your account to preserve your data or to mo	your MySQL Databases, and your email forwarders and filters. ove your account to another cPanel server.
Download or Generate a Full Web Site Backup	
Partial Backups	
Download a Home Directory Backup	Restore a Home Directory Backup
Home Directory	Browse_ Upload
Download a MySQL Database Backup	Restore a MySQL Database
DATABASES	BrowseUpload
johndoe_zencart	
Backun Wizard	
Steps:	
Backup/Restore	rtial Backup Download
Backup	Restore
This feature allows you to download a zipped copy of your entire site or parts of it onto your computer.	This feature allows you to restore parts of your cPanel by uploading your partial backup zip file(s) that you downloaded from the backup feature.
The following are backed up and included in a zip file for your convenience:	The following can be restored:
Home Directory MvSOL Databases	Home Directory MvSOL Databases
Email forwarders configuration Email filters configuration	Email forwarders configuration Email filters configuration
$Backup \to$	Restore

# Appendix D: Zen Cart file structure

# Zen Cart's directory structure

The directory structures in a freshly downloaded Zen Cart installation will vary from that of a "live" Zen Cart store serving real-world customers due mainly to security reasons. Take a look at the following screen shot to see the differences between the two directory structures. Note that we have used [zc-home] to represent the directory containing all your Zen Cart files and [admin] to refer to your renamed admin directory. [doc-root] is also assumed to be the document root of the web server.



Downloaded Zen Cart installation files

Remote 'live' Zen Cart store

#### Figure D.1: Directory structure differences between downloaded Zen Cart package and 'live' store

We shall not go through the purpose of each and every file and directory in a Zen Cart installation. Instead, refer to the following table for an overview of the top-most directories residing directly underneath the main Zen Cart installation.

[admin]

/cache

/logs

/docs

/download

/editors

Zen Cart directories
Comments
Contains the main programming logic for the Admin Console part of the Zen Cart system.
May contain SQL cache files depending on a store owner's configuration set- tings.
Contains error and debug log files generated by Zen Cart.
Contains documentation related to Zen Cart.
Contains customer downloadable files.
Contains files that allow a store owner to use a rich-text editor (e.g. CKEditor or

Table D.1: Purpose of different Zen C

#### TinyMCE) when working in the Admin Console. /email Contains email template files. Contains files used for troubleshooting purposes. /extras Contains catalog images of products, categories, manufacturers, attributes, ban-/images ners, etc. Contains the main programming logic for the Store Front and other parts of the /includes Zen Cart system. Contains media files that are offered by products which belong to the Prod-/media uct-Music product type. Used for file download purposes when the download-by-redirect option is cho-/pub sen. Contains Zen Cart installation files. /zc_install

# The main configuration files

## The configure.php files

Zen Cart makes use of the information contained with a configure.php to accomplish the following tasks.

- Define the URLs to use for your site.
- Toggle the use of SSL for your site.
- Specify the relative and absolute paths to important directories.
- Place your database connection settings.
- Control how database SQL caching should be done.

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#### Appendix D. Zen Cart file structure

The location of the two configure.php files can be seen in the screen shot in the earlier section. The sections of code found in each configure.php file is well commented within the file itself. As such, you are unlikely to encounter any problems (when attempting to edit them.

For your reference, we shall provide the following *sample* configure.php files. Both files strive to mimic that of a "live" store and has been slightly re-formatted for better readability. The settings in the sample files assume that your Store Front is accessible via *http://www.example.com/store* while your SSL-enabled Admin Console is accessible via *https://www.example.com/store* while your online store resides on a Linux web host with your document root as /home/johndoe/public_html and you have chosen to use the Latin-1 encoding instead of UTF-8 encoding when you installed Zen Cart.

If your settings differ from that shown in the examples, make the necessary adjustments in both configure.php files and consult the Zen Cart Tutorials and FAQs section if you face any problems.

The contents of the [zc-home]/includes/configure.php file is as follows:

```
<?php
// Define the webserver and path parameters
// HTTP_SERVER is your Main webserver: eg, http://www.yourdomain.com
// HTTPS_SERVER is your Secure webserver: eg, https://www.yourdomain.com
 define('HTTP_SERVER', 'http://www.example.com');
 define('HTTPS_SERVER', 'https://www.example.com');
// Use secure webserver for checkout procedure?
 define('ENABLE_SSL', 'true');
// NOTE: be sure to leave the trailing '/' at the end of these lines if you make
changes!
// * DIR_WS_* = Webserver directories (virtual/URL)
// these paths are relative to top of your webspace ... (ie: under the public_html
or httpdocs folder)
 define('DIR_WS_CATALOG', '/store/');
 define('DIR_WS_HTTPS_CATALOG', '/store/');
 define('DIR_WS_IMAGES', 'images/');
 define('DIR_WS_INCLUDES', 'includes/');
 define('DIR_WS_FUNCTIONS', DIR_WS_INCLUDES . 'functions/');
 define('DIR_WS_CLASSES', DIR_WS_INCLUDES . 'classes/');
 define('DIR_WS_MODULES', DIR_WS_INCLUDES . 'modules/');
 define('DIR WS LANGUAGES', DIR WS INCLUDES . 'languages/');
 define('DIR_WS_DOWNLOAD_PUBLIC', DIR_WS_CATALOG . 'pub/');
 define('DIR_WS_TEMPLATES', DIR_WS_INCLUDES . 'templates/');
 define('DIR_WS_PHPBB', '/');
// * DIR_FS_* = Filesystem directories (local/physical)
//the following path is a COMPLETE path to your Zen Cart files. eg: /var/www/vhost/
accountname/public_html/store/
 define('DIR_FS_CATALOG', '/home/johndoe/public_html/store/');
//the following path is a COMPLETE path to the /logs/ folder
//eg: /var/www/vhost/accountname/public_html/store/logs ... and no trailing slash
 define('DIR_FS_LOGS', '/home/johndoe/public_html/store/logs');
```

#### Appendix D. Zen Cart file structure

```
define('DIR_FS_DOWNLOAD', DIR_FS_CATALOG . 'download/');
 define('DIR_FS_DOWNLOAD_PUBLIC', DIR_FS_CATALOG . 'pub/');
 define('DIR_WS_UPLOADS', DIR_WS_IMAGES . 'uploads/');
 define('DIR_FS_UPLOADS', DIR_FS_CATALOG . DIR_WS_UPLOADS);
 define('DIR_FS_EMAIL_TEMPLATES', DIR_FS_CATALOG . 'email/');
// define our database connection
 define('DB_TYPE', 'mysql');
 define('DB_PREFIX', '');
 define('DB_CHARSET', 'latin1');
 define('DB_SERVER', 'localhost');
 define('DB_SERVER_USERNAME', 'johndoe_janedow');
 define('DB_SERVER_PASSWORD', 'secretpasswd');
 define('DB_DATABASE', 'johndoe_zencart');
// The next 2 "defines" are for SQL cache support.
// For SQL_CACHE_METHOD, you can select from: none, database, or file
// If you choose "file", then you need to set the DIR_FS_SQL_CACHE to a directory
where your apache
// or webserver user has write privileges (chmod 666 or 777). We recommend using
the "cache" folder inside the Zen Cart folder
// ie: /path/to/your/webspace/public_html/zen/cache -- leave no trailing slash
 define('SQL_CACHE_METHOD', 'database');
 define('DIR_FS_SQL_CACHE', '/home/johndoe/public_html/store/cache');
```

Although they have the same names, the contents of the configure.php file for the Admin Console differs from that of the Store Front.

The contents of the [zc-home]/[admin]/includes/configure.php file is as follows:

```
<?php
// Define the webserver and path parameters
// Main webserver: eg, http://localhost - should not be empty for productive
servers
// HTTP_SERVER is your Main webserver: eg, http://www.yourdomain.com
// HTTPS_SERVER is your Secure webserver: eg, https://www.yourdomain.com
// HTTP_CATALOG_SERVER is your Main webserver: eg, http://www.yourdomain.com
// HTTPS_CATALOG_SERVER is your Secure webserver: eq, https://www.yourdomain.com
/*
* URLs for your site will be built via:
      HTTP_SERVER plus DIR_WS_ADMIN or
*
      HTTPS_SERVER plus DIR_WS_HTTPS_ADMIN or
      HTTP_SERVER plus DIR_WS_CATALOG or
      HTTPS_SERVER plus DIR_WS_HTTPS_CATALOG
  ... depending on your system configuration settings
* /
/**
* WE RECOMMEND THAT YOU USE SSL PROTECTION FOR YOUR ENTIRE ADMIN:
* To do that, make sure you use a "https:" URL for BOTH the HTTP_SERVER and
HTTPS_SERVER entries:
*/
 define('HTTP_SERVER', 'http://www.example.com');
 define('HTTPS_SERVER', 'https://www.example.com');
```

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#### Appendix D. Zen Cart file structure

```
define('HTTP_CATALOG_SERVER', 'http://www.example.com');
 define('HTTPS_CATALOG_SERVER', 'https://www.example.com');
// secure webserver for admin? Valid choices are 'true' or 'false' (including
quotes).
 define('ENABLE_SSL_ADMIN', 'true');
// secure webserver for storefront? Valid choices are 'true' or 'false' (including
quotes).
 define('ENABLE_SSL_CATALOG', 'true');
 define('DIR_WS_ADMIN', preg_replace('#^' . str_replace('-',
'\-', zen_parse_url(HTTP_SERVER, '/path')) . '#', '',
dirname($_SERVER['SCRIPT_NAME'])) . '/');
 define('DIR_WS_CATALOG', '/store/');
 define('DIR_WS_HTTPS_ADMIN', preg_replace('#^' . str_replace('-',
'\-', zen_parse_url(HTTPS_SERVER, '/path')) . '#', '',
dirname($_SERVER['SCRIPT_NAME'])) . '/');
 define('DIR_WS_HTTPS_CATALOG', '/store/');
// NOTE: be sure to leave the trailing '/' at the end of these lines if you make
changes!
// * DIR_WS_* = Webserver directories (virtual/URL)
// these paths are relative to top of your webspace ... (ie: under the public_html
or httpdocs folder)
 define('DIR_WS_IMAGES', 'images/');
 define('DIR_WS_ICONS', DIR_WS_IMAGES . 'icons/');
 define('DIR_WS_CATALOG_IMAGES', HTTP_CATALOG_SERVER . DIR_WS_CATALOG .
 'images/');
 define('DIR_WS_CATALOG_TEMPLATE', HTTP_CATALOG_SERVER . DIR_WS_CATALOG .
 'includes/templates/');
 define('DIR_WS_INCLUDES', 'includes/');
 define('DIR_WS_BOXES', DIR_WS_INCLUDES . 'boxes/');
 define('DIR_WS_FUNCTIONS', DIR_WS_INCLUDES . 'functions/');
 define('DIR_WS_CLASSES', DIR_WS_INCLUDES . 'classes/');
 define('DIR_WS_MODULES', DIR_WS_INCLUDES . 'modules/');
 define('DIR_WS_LANGUAGES', DIR_WS_INCLUDES . 'languages/');
 define('DIR_WS_CATALOG_LANGUAGES', HTTP_CATALOG_SERVER . DIR_WS_CATALOG .
'includes/languages/');
// * DIR_FS_* = Filesystem directories (local/physical)
 define('DIR_FS_ADMIN', preg_replace('#.includes$#', '',
realpath(dirname(__FILE__) . '/../') . '/');
//the following path is a COMPLETE path to your Zen Cart files. eg: /var/www/vhost/
accountname/public_html/store/
 define('DIR_FS_CATALOG', '/home/johndoe/public_html/store/');
//the following path is a COMPLETE path to the /logs/ folder
//eg: /var/www/vhost/accountname/public_html/store/logs ... and no trailing slash
 define('DIR_FS_LOGS', '/home/johndoe/public_html/store/logs');
 define('DIR_FS_CATALOG_LANGUAGES', DIR_FS_CATALOG . 'includes/languages/');
 define('DIR_FS_CATALOG_IMAGES', DIR_FS_CATALOG . 'images/');
 define('DIR_FS_CATALOG_MODULES', DIR_FS_CATALOG . 'includes/modules/');
 define('DIR_FS_CATALOG_TEMPLATES', DIR_FS_CATALOG . 'includes/templates/');
```

```
define('DIR_FS_BACKUP', DIR_FS_ADMIN . 'backups/');
 define('DIR_FS_EMAIL_TEMPLATES', DIR_FS_CATALOG . 'email/');
 define('DIR_FS_DOWNLOAD', DIR_FS_CATALOG . 'download/');
// define our database connection
 define('DB_TYPE', 'mysql');
 define('DB_PREFIX', '');
 define('DB_CHARSET', 'latin1');
 define('DB_SERVER', 'localhost');
 define('DB_SERVER_USERNAME', 'johndoe_janedow');
 define('DB_SERVER_PASSWORD', 'secretpasswd');
 define('DB_DATABASE', 'johndoe_zencart');
// The next 2 "defines" are for SQL cache support.
// For SQL_CACHE_METHOD, you can select from: none, database, or file
// If you choose "file", then you need to set the DIR_FS_SQL_CACHE to a directory
where your apache
// or webserver user has write privileges (chmod 666 or 777). We recommend using
the "cache" folder inside the Zen Cart folder
// ie: /path/to/your/webspace/public_html/zen/cache -- leave no trailing slash
 define('SQL_CACHE_METHOD', 'database');
 define('DIR_FS_SQL_CACHE', '/home/johndoe/public_html/store/cache');
```

### The .htaccess files



. htaccess files are found in several directories within a default Zen Cart installation as shown in the preceding screen shot. They are commonly used in shared-hosting environments to allow hosting account owners to modify some of the server's configurations thus allowing these hosting account owners greater control over their individual sites.

They are only applicable to Apache web servers and may even cause problems if found on other web servers (e.g. Microsoft IIS). If you suspect that they are causing problems to your non-Apache web server, temporarily rename all the .htaccess files in your Zen Cart installation to .htaccess_OFF to see if that would solve your problems. For readers who are using non-Apache web servers, consult the relevant web server documentation or your web host to see how you can implement similar security measures to that of Zen Cart's .htaccess files.

The instructions in a .htaccess file applies to the current directory the file resides in as well as all child directories underneath it. This is the default behavior unless the server administrator has changed it. Your server administrator also has the ability to change what instructions in your .htaccess files are allowed. Therefore, you should approach your web hosting company if you have problems getting your .htaccess file to work with your Apache web server.

While there are many uses for .htaccess files, Zen Cart provides them mainly for security and anti-phishing reasons. For some situations (e.g. file downloads), instructions in .htaccess files can also provide a smoother user experience.



.htaccess files are named with a period in front of them. This makes them hidden files on Linux servers. Therefore, make sure you turn on the display of hidden files in your FTP client software or server control panel software when accessing your server's file system in order to see them.

#### Common Zen Cart usage

The most common configuration instruction contained within Zen Cart's .htaccess files is to limit the files that can be directly accessible by users (e.g. via a web browser) of your site to those belonging to certain file types only.

This can be seen from the following lines of code which has been *distilled* from some of the .htaccess files in your Zen Cart folders. Note that the permitted file types have already accounts for file extensions specified in either lower-case, upper-case, or a mixture of both.

```
# deny *everything*
<FilesMatch ".*">
    Order Allow,Deny
    Deny from all
</FilesMatch>
# but now allow just *certain* necessary files:
<FilesMatch "(?i).*\.(jpe?g|gif|webp|png|swf)$" >
    Order Allow,Deny
    Allow from all
</FilesMatch>
IndexIgnore */*
```

Depending on the location of your .htaccess file, the list of allowed file types may *vary*. You may want to check the following list of directories to manually edit the .htaccess file in order to add a custom file type which you will be offering.

- [zc-home]/images
- [zc-home]/media
- [zc-home]/pub
- [zc-home]/download

#### File download operations

To provide added functionality and security with regards to file downloads, Zen Cart adds a bit more instructions in the relevant .htaccess files on top of the common file type limiting functionality you saw earlier.

#### Appendix D. Zen Cart file structure

If you had specified that downloads are to be performed by redirection on a Unix or Linux server, then the added information in the [zc-home]/pub/.htaccess file ensures that redirection works.

```
## the following line is needed to allow Download-By-Redirect to work
```

```
Options +FollowSymLinks
```

On the other hand, the [zc-home]/download/.htaccess file provides an extra layer of security by specifying the following section of code.

```
AuthType Basic
AuthName "No access"
AuthUserFile .htnopasswd
AuthGroupFile /dev/null
#Require valid-user
```

There is a common section of code which is very helpful and enabled by default in both the [zc-home]/ download/.htaccess and [zc-home]/pub/.htaccess files. This section of code (which we have reformatted for readability) forces a customer's web browser to pop-up a "Save As" file dialog box when attempting to download a file instead of directly opening the file in the web browser (e.g. Adobe PDF files).

```
# ALERT: ForceType requires Apache2 or later. If using older version of Apache,
# it will need mod_mime installed. Or just comment out the ForceType line below
# (to disable, just comment the next 2 lines by adding a '#' at the beginning of
each):
ForceType application/octet-stream
Header set Content-Disposition attachment
```

#### **Block all direct access**

For three directories that contain particularly sensitive information, Zen Cart uses the .htaccess files to deny all direct access to the contents of the directories even if the file names are known. These three directories are as follows:

- [zc-home]/images/uploads
- [zc-home]/cache
- [zc-home]/logs

Store owners who need to access the files contained in the aforementioned directories will need to either FTP into the server or use the server's control panel software to download the relevant files.

The contents of the [zc-home]/images/uploads/.htaccess file is as follows:

```
<Files *>
Order Deny,Allow
Deny from all
</Files>
```

The contents of the [zc-home]/cache/.htaccess file is as follows:

```
<Limit GET POST PUT>
```

```
Order Allow,Deny
Deny from All
</Limit>
#NOBODY SHOULD BE SNOOPING HERE
# deny *everything*
<FilesMatch ".*">
Order Allow,Deny
Deny from all
</FilesMatch>
IndexIgnore */*
```

While we have discussed the general uses for the .htaccess files in this book, we have not gone into detail on their actual configurations as there is no need to do that for a standard Zen Cart installation. Furthermore, .htaccess configuration is also a very technical topic which can lead to serious consequences if done wrongly. For more information regarding .htaccess files and their uses, refer to http://httpd.apache.org/docs/2.2/howto/htaccess.html.