Testra Corporation

TestraPlot **Printer Driver for Machine Control**

Specifications and User Instructions **Mar 2007**

Machine Control via a Printer Driver

With TestraPlot you can work in your favorite graphics program under Windows XP/2000/Vista and control a machine by printing to it in a familiar Windows environment. The machine must be controlled by one of our SS4000 series controllers running LE631 or higher firmware.. Currently only the Laser application is supported.

A model designer is available for OEM's which allows for customization for his particular machine series and model. This allows everything to be setup for his customer in advance so that he may send his job to a machine from a graphics program directly by simply printing. Both raster images and vectors are handled in the same drawing. Lines set to minimum width are treated as vectors. All other lines, fills, and photo images are treated as raster objects.

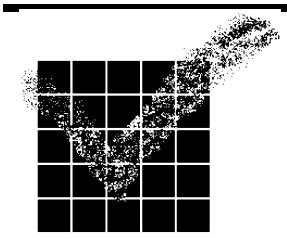
Notes: This driver is still under development and there are a few features that are NOT working, even though they appear in the user interface. They will be fixed in later releases.

1. Raster and fills at 333 dpi has a discontinuity every 1"
2. Rubber Stamp Mode is not implemented.
3. This specification and user instruction manual is just now being started so is just a brief outline at this time.

Protection

The Testra SS4000 series controllers each have a unique serial number. Each copy of TestraPlot is coded with an authorization code that is linked to the serial number. During operation the printer driver queries the controller and looks for a match of the authorized serial number. This unique code is supplied with each TestraPlot license. The printer driver will work for a short time without a license, but then will drop down into a very limited output mode allowing only a very small drawing to be output.

SynchroStepping * All of our motion systems and drivers utilize a method that synchronously, microstep, sample and correct the current on multiple motor windings at a 20-50 kHz rate resulting in stable, quiet, smooth control of a stepper motor. US Patent # 5,650,705



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Instalation

The instalation package consists of three files which are zipped together.
a) TestraPlot.msi - Setup program for the printer driver
b) License.ini - Copy of the authorization code to match the serial number.
c) BMPlotControl.ini - Copy of all the setup parameters created by the OEM

The OEM can package these up for his customer. Initially the OEM will receive the three files with the License.ini file having a null authorization code, and the BMPlotControl.ini with the default settings for the printer driver. You need to be in an Administration account in windows.

1. Unzip these files into a Temporary directory for example c:\TEMP.
2. Double-click on TestraPlot.msi
3. Follow the installation instructions

The installation will create a directory c:\Program Files\Testra\Testra Print Driver Ver 1.0.5. Within that directory will be a Driver Folder, and executable for the user interface BMPlotUI.exe and copies of the ini files. Once you have setup the driver for your machine you can copy these ini files to your TEMP directory and zip together with the TestraPlot.msi to create an installation package for your customer.

Re-Instalation

Make sure you are in an Administration account in windows. To update the driver or reinstall you must first remove the old driver. To do this from your windows desktop click on:

<start>/<control panel>/<add or remove programs>

Search down the list until you find:

<Testra Print Driver Version 1.05>

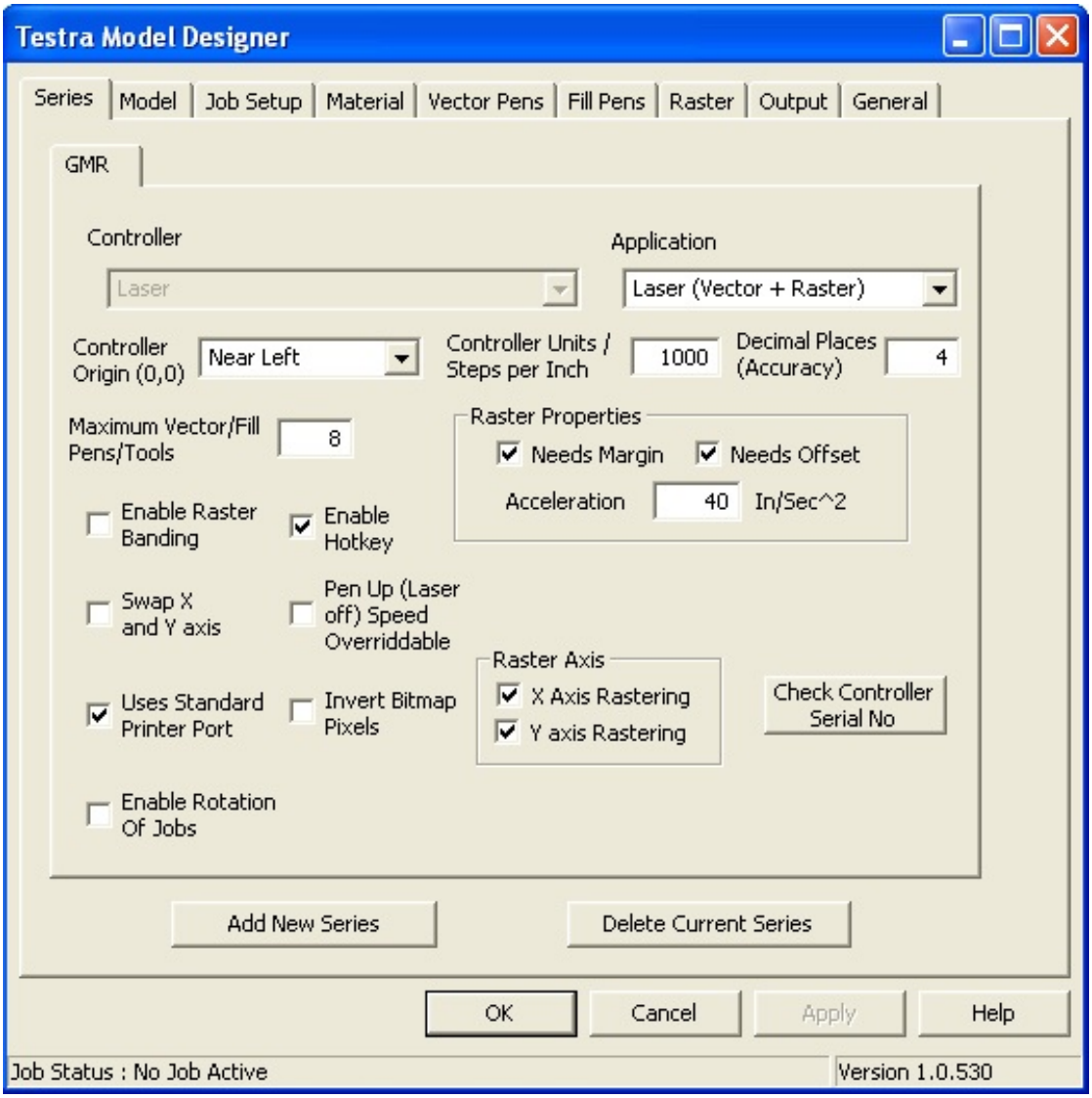
Then click on the **<Remove>** button

When windows finishes with the removal process, you may be asked to reboot your computer before installing the TestraPlot printer driver again. To reinstall simply go to your temporary directory and double-click on the new version **TestraPlot.msi** to be installed. All of your prior setup information and authorization code information will still be retained from the prior installation.

Accessing the Model Designer

Once the driver is installed, the model designer is accessed thru a hot-key combination of: **Ctrl-Alt-B**. This means you have to press and hold down those keys in sequence before releasing. This will bring you into the model designer window as shown below:

Series Tab



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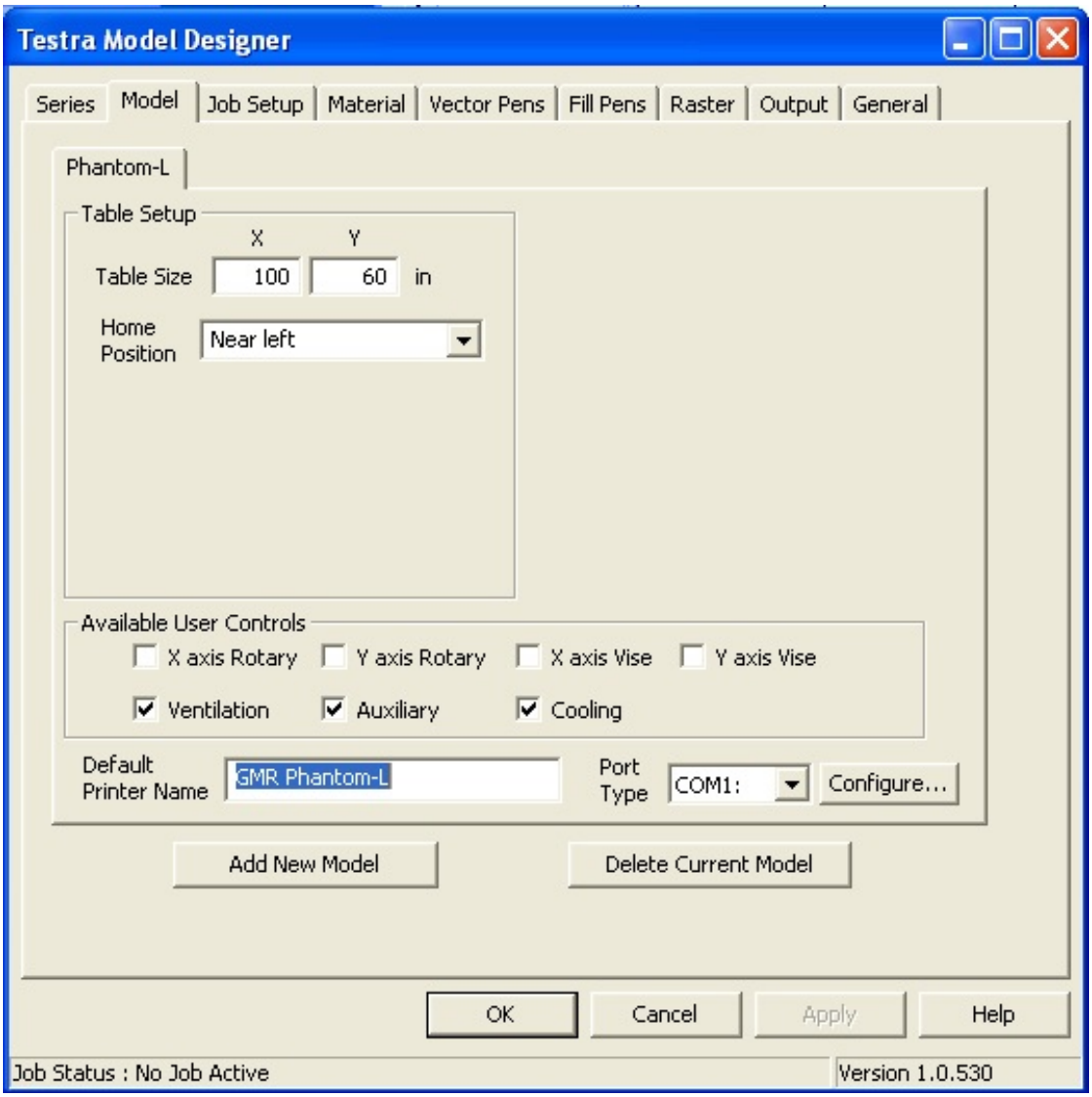
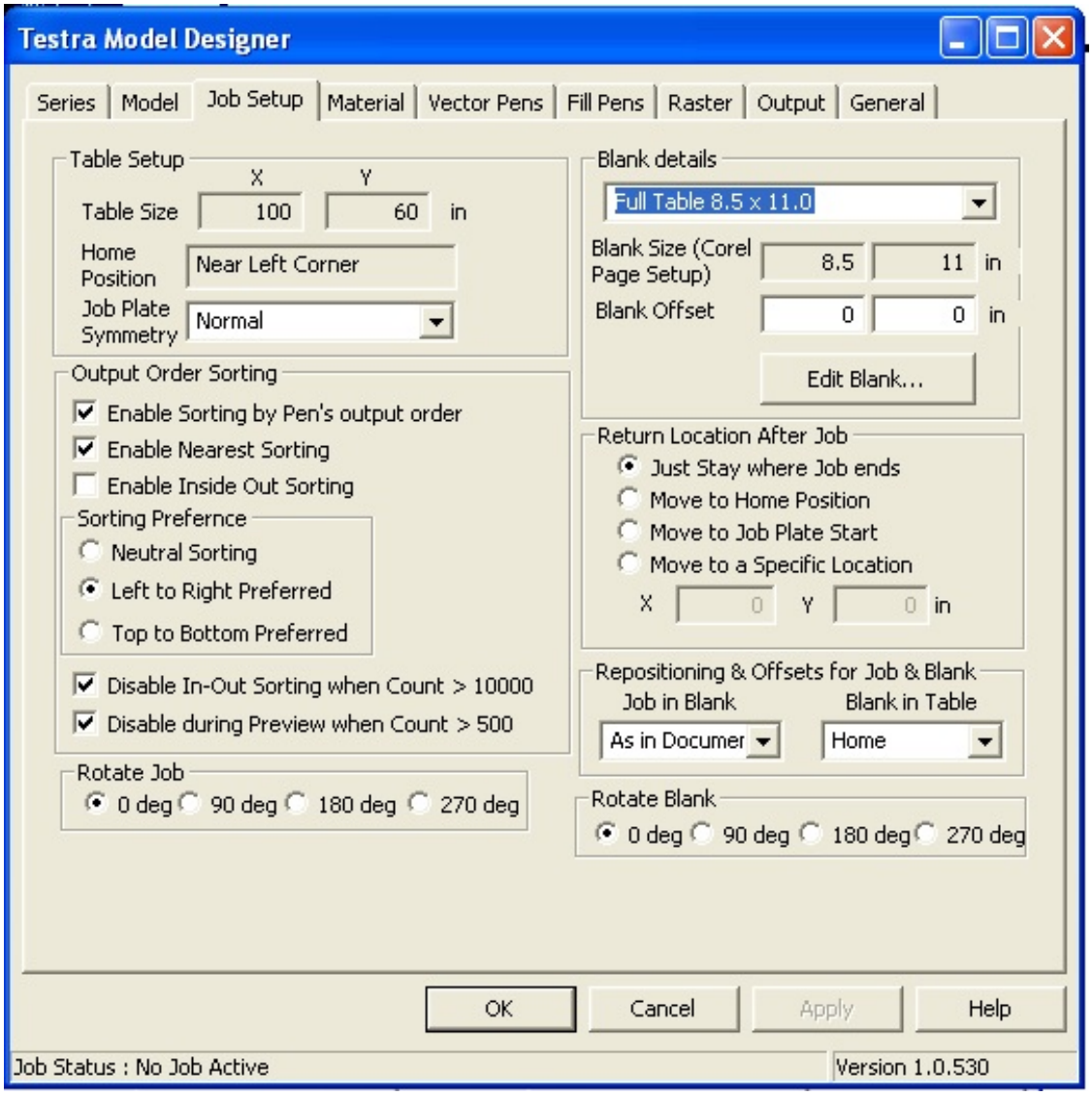
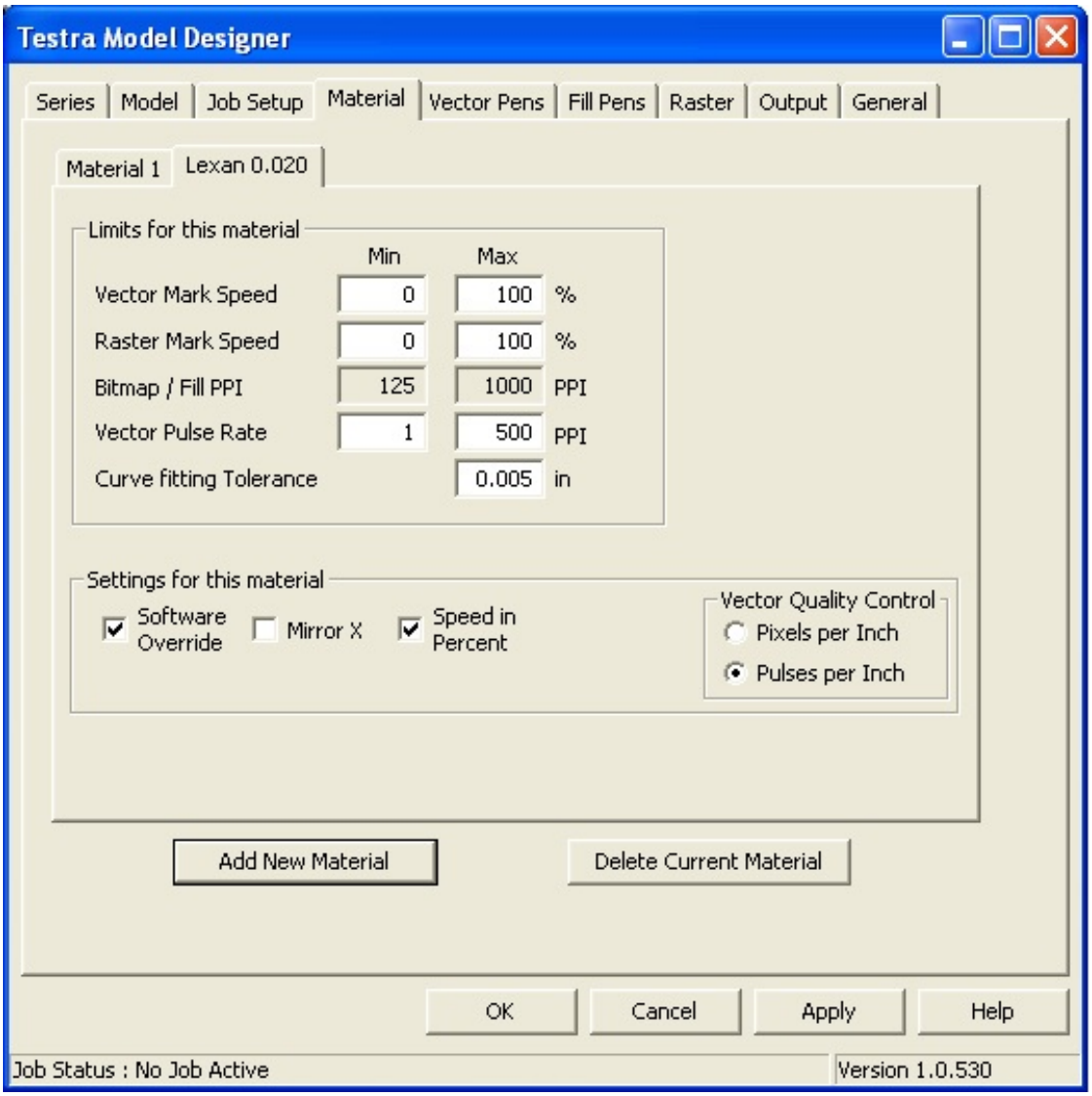
Model Tab



Job Setup Tab



Material Tab



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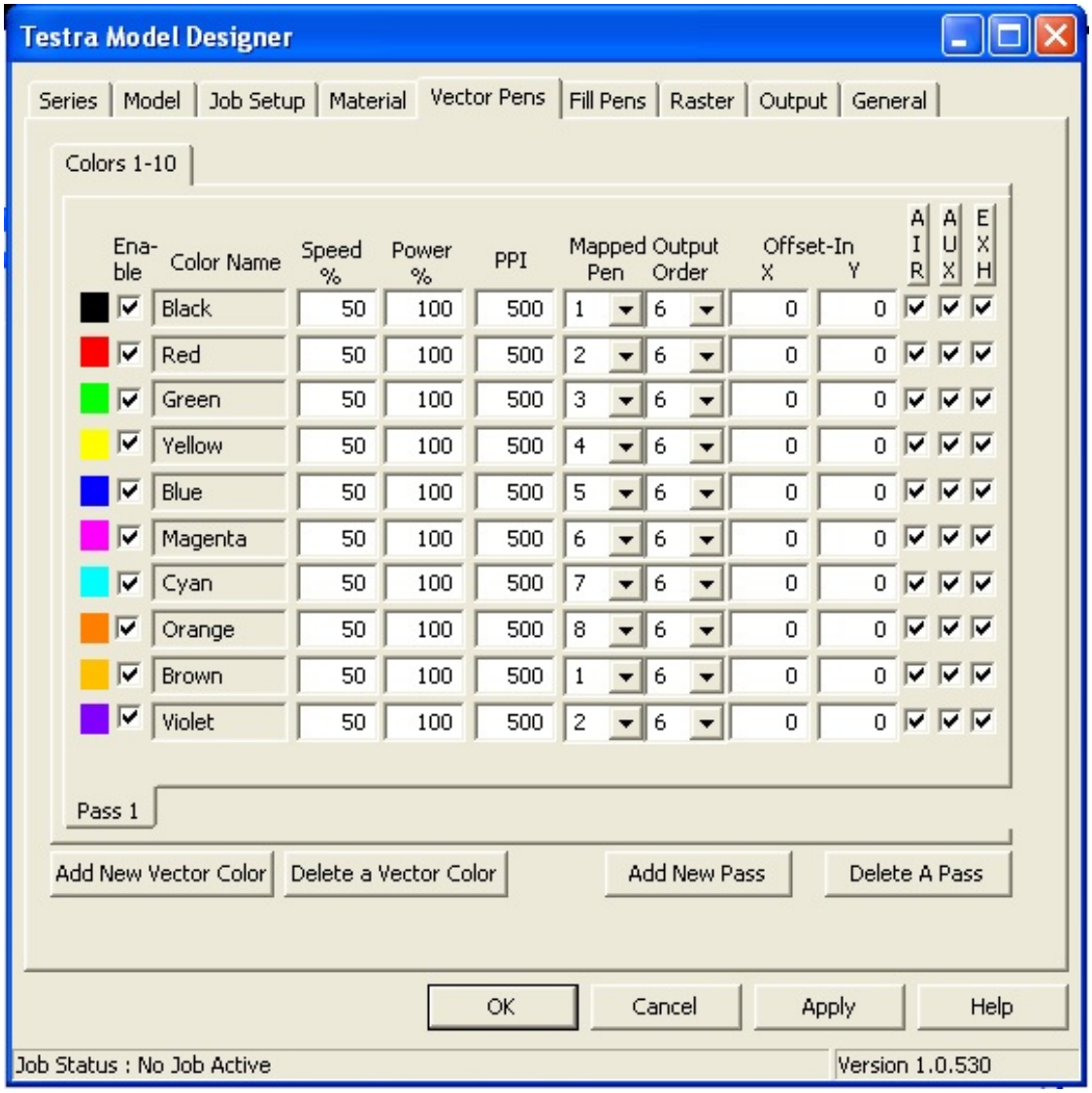
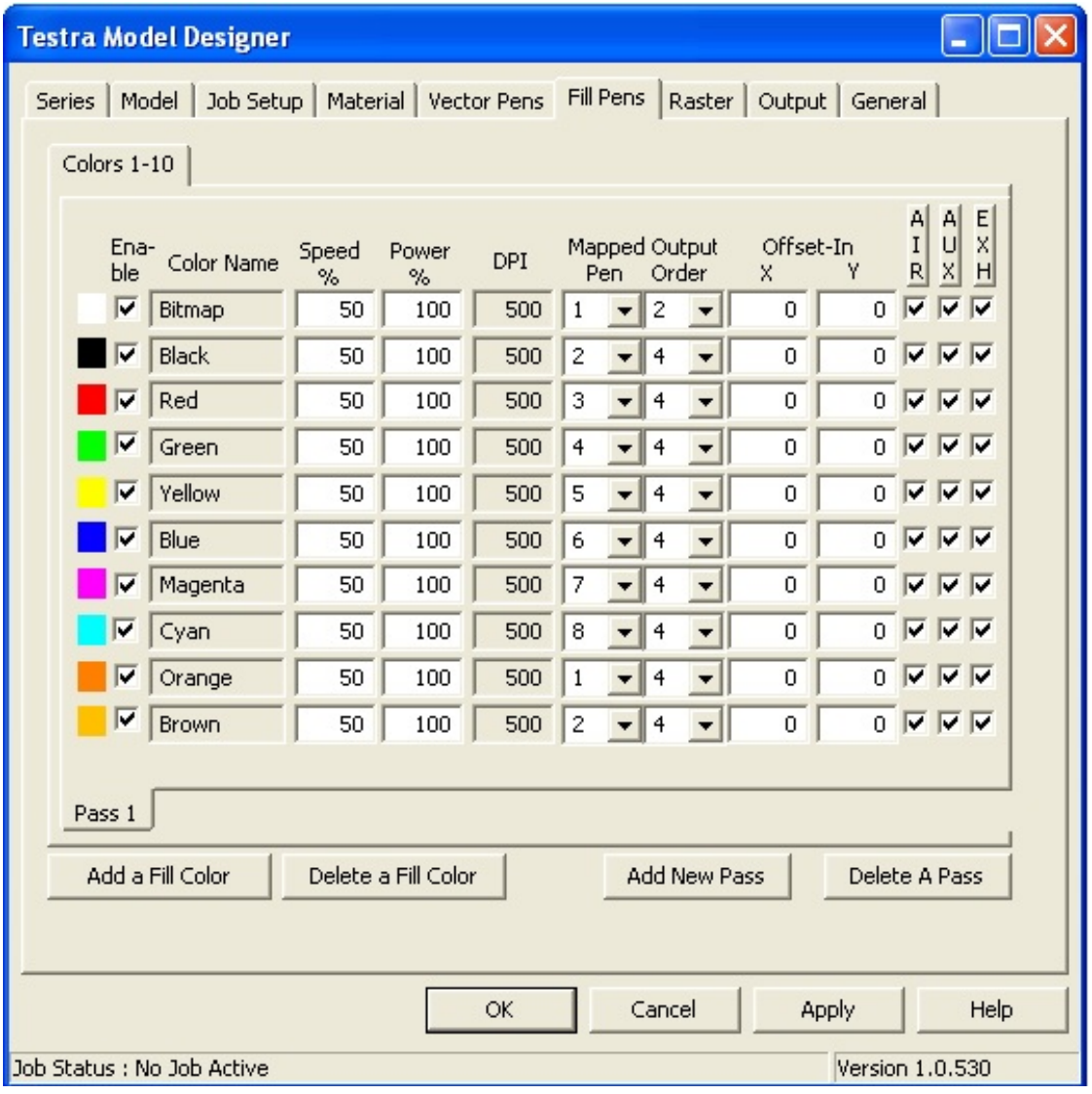
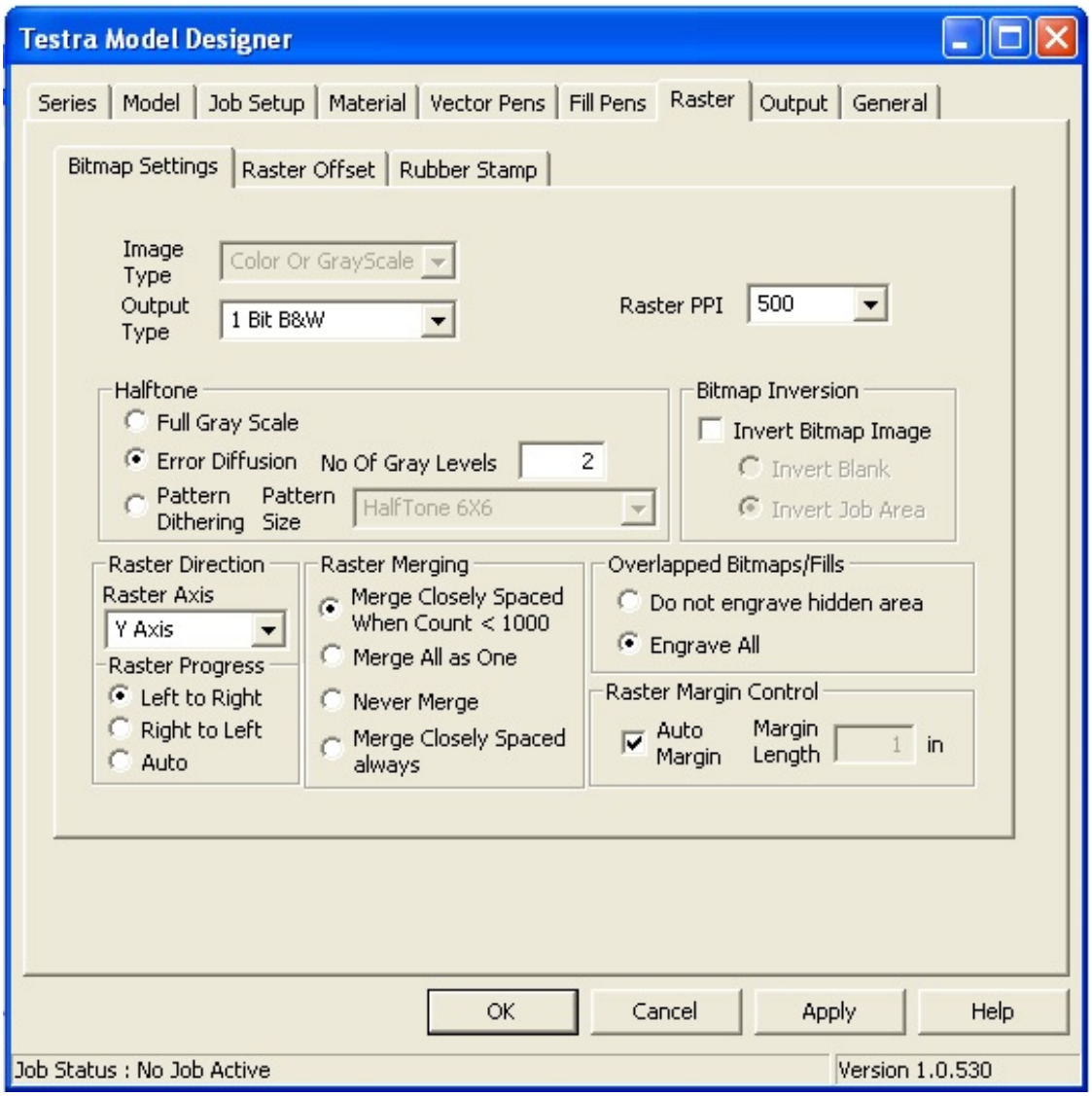
Vector Pens Tab



Fill Pens


Testra Model Designer
Series
Model
Job Setup
Material
Vector Pens
Fill Pens
Raster
Output
General
Colors 1-10
Ena-ble
Color Name
Speed %
Power %
DPI
Mapped Pen
Output Order
Offset-In X
Offset-In Y
AIR
AUX
EXH
Bitmap 50 100 500 1 2 0 0
Black 50 100 500 2 4 0 0
Red 50 100 500 3 4 0 0
Green 50 100 500 4 4 0 0
Yellow 50 100 500 5 4 0 0
Blue 50 100 500 6 4 0 0
Magenta 50 100 500 7 4 0 0
Cyan 50 100 500 8 4 0 0
Orange 50 100 500 1 4 0 0
Brown 50 100 500 2 4 0 0
Pass 1
Add a Fill Color
Delete a Fill Color
Add New Pass
Delete A Pass
OK
Cancel
Apply
Help
Job Status : No Job Active
Version 1.0.530

Raster - Bitmap Settings



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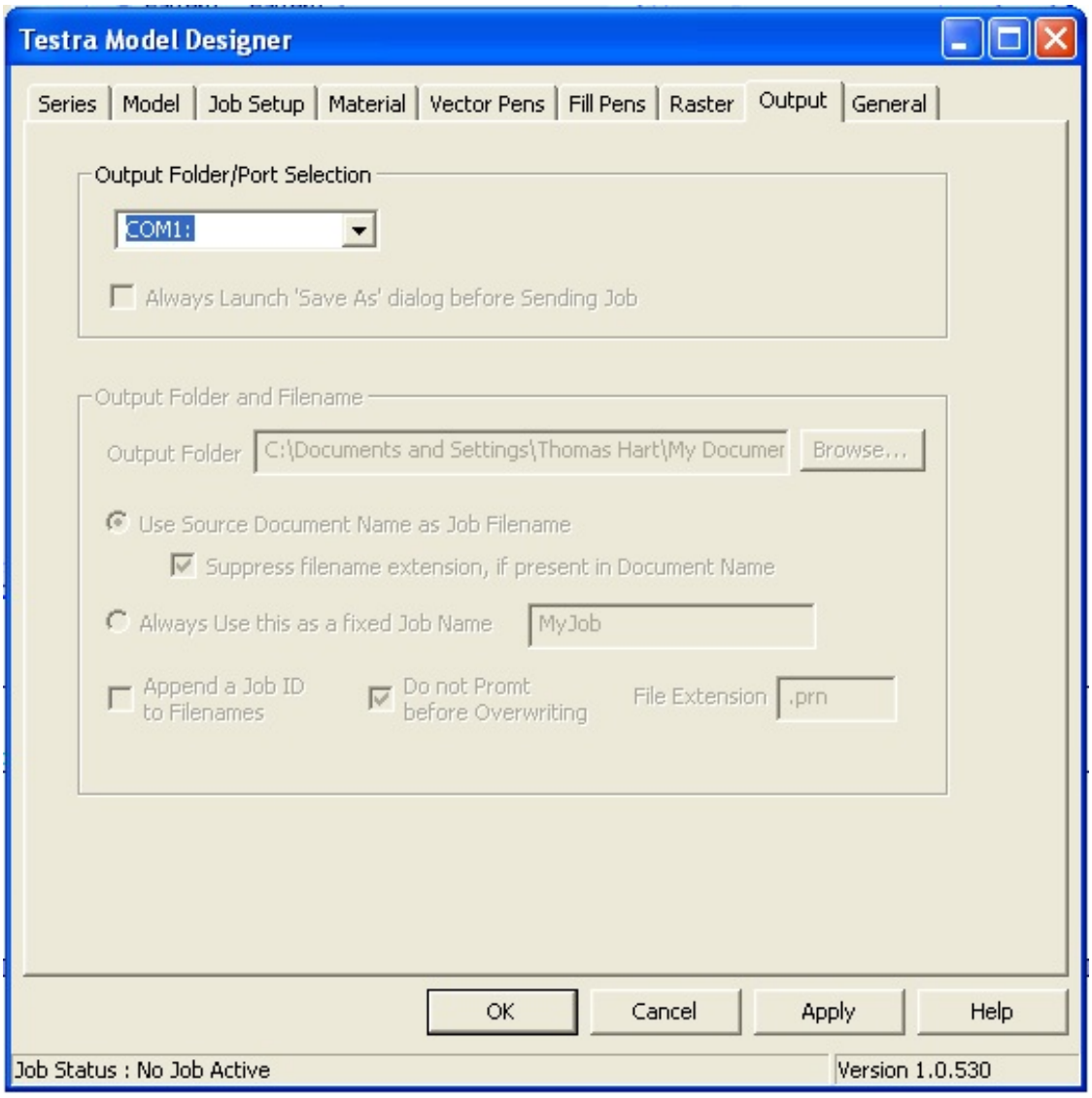
Output Tab



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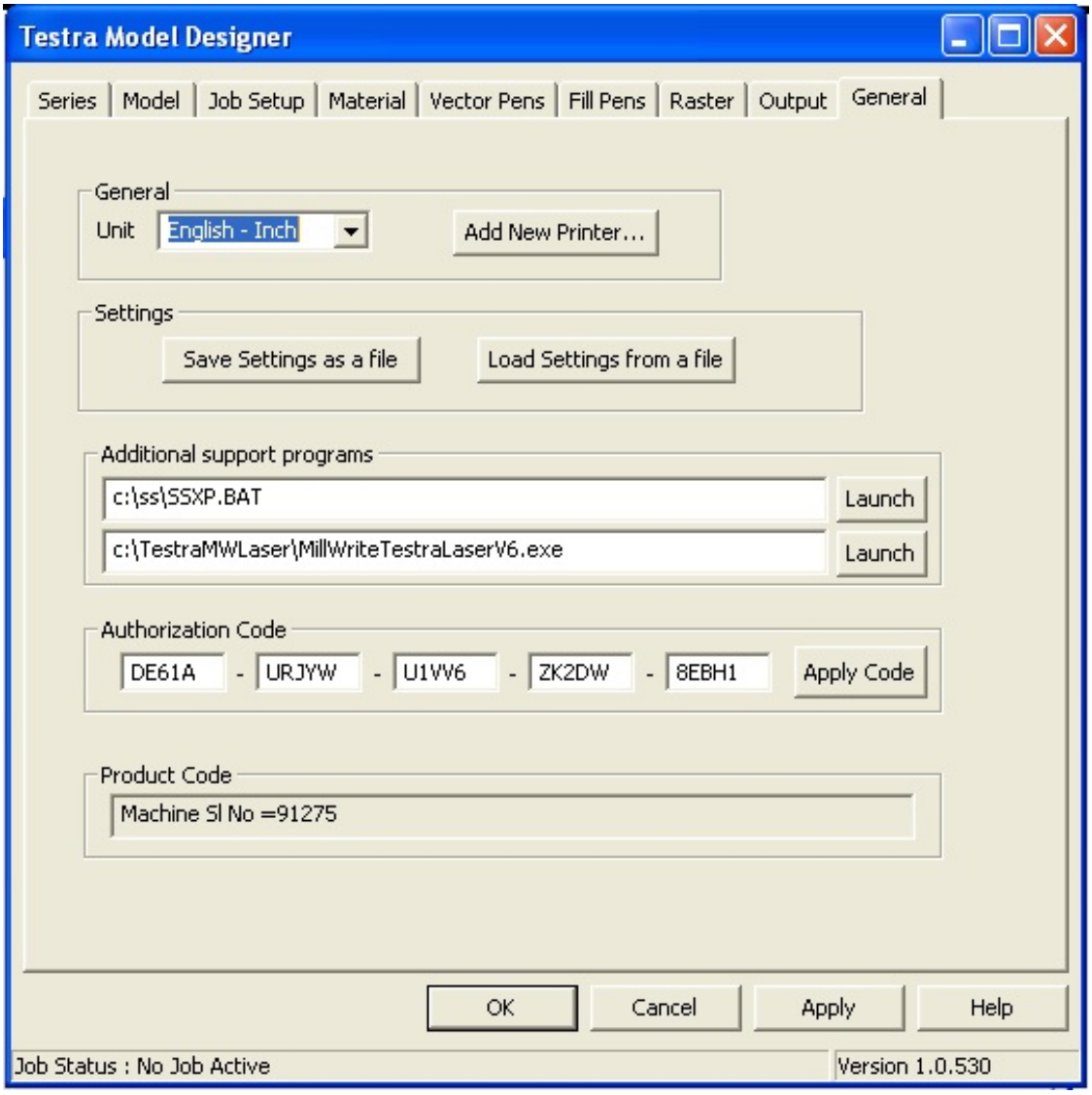
General Tab