

MAGICARD



Reverse Transfer ID Card Printer



PRIMA DRIVER MANUAL

Issue 2

Magicard Prima Printer Driver Manual

Welcome to the new high performance printer driver for the Prima printers. This manual will help you to install, set up and handle the driver to get the best results for your prints.

The driver runs on 32 bit Windows platforms and has been successfully tested under Windows 2000 and Windows XP professional.

The driver was designed for optimum performance and stability. Additionally, all the needed features referring to the different used card materials, colour ribbons etc., are included.

All document setting parameters can be controlled by the printer driver settings from the PC.

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TECHNICAL SUPPORT

For technical assistance, please contact your printer supplier or Magicard Technical Support.

1. Legal and Copyright Information

This product is provided on an “as is” basis, without any other warranties, or conditions, express or implied, including but not limited to warranties of merchantable quality, merchantability or fitness for a particular purpose, or those arising by law, statute, usage of trade or course of dealing. The entire risk as to the results and performance of the Software is assumed by you. Neither we nor our dealers or suppliers shall have any liability to you or any other person or entity for any indirect, incidental, special or consequential damages whatsoever, including but not limited to loss of revenue or profit, lost or damaged data or other commercial or economic loss, even if we have been advised of the possibility of such damages or they are foreseeable; or for claims by a third party. Our maximum aggregate liability to you, and that of our dealers and suppliers, shall not exceed the amount paid by you for the Product. Some jurisdictions do not allow the exclusion or limitation of liability for consequential or incidental damages so the above limitation may not apply to you.

2. Installation

2.1 PRINTER INSTALLATION

Please note:

If your printer has an USB interface please follow the corresponding instructions which will be included in the USB Kit.

2.2 PREPARATION OF THE P.C.

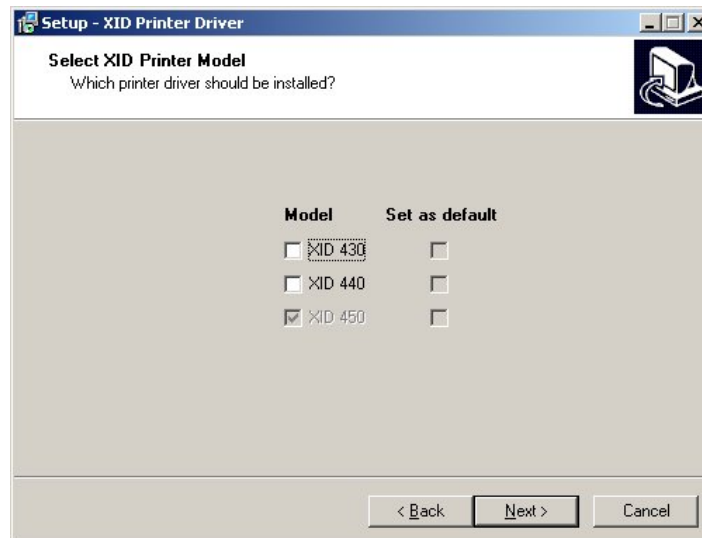
1. Follow the installation instructions of the Prima Printer instruction manual
2. Turn off the PC and the printers. Remove the power cable from all hardware and the connection cables between PC and printer
3. Install the SCSI card in your PC as described by the manufacturers' manual
4. After the card is installed, turn on the PC
5. After rebooting the PC, Windows should detect a new hardware device. Follow now the installation wizard or install the needed driver to your machine manually. After the installation is finished, reboot the machine.
6. Run the ASPI check program (ASPICHK.EXE) on your machine to make sure, that the ASPI layer is up to date. If this check fails, run the ASPI32.EXE program for updating the ASPI layer. Reboot your PC again.
7. Inside the Hardware Manager check the existing SCSI Card, that the card has been installed properly without errors and conflicts in your system.
8. Turn off your machine.

2.3 PRINTER DRIVER INSTALLATION UNDER WIN 2000 AND XP.

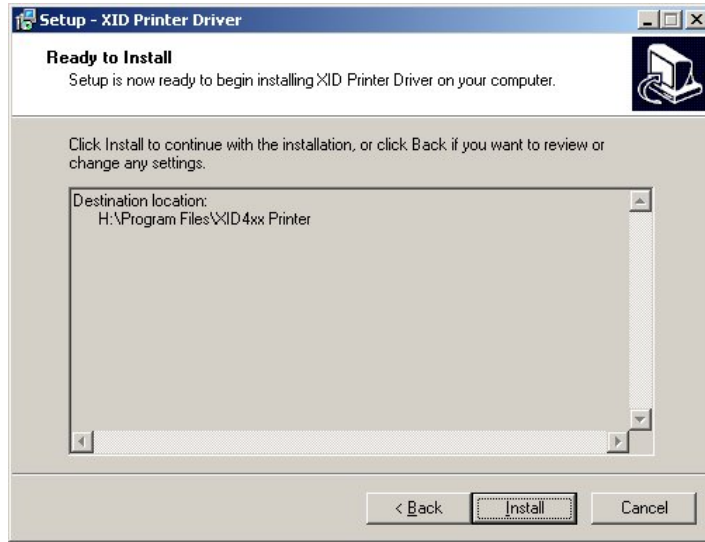
1. Log onto Windows as an administrator.
2. Open the Windows SCSI Adapters control panel, and install the SCSI adapter driver by following the instructions on your screen.
3. Make sure your printer is properly connected and powered on, then reboot your computer.
4. Open the Windows SCSI Adapters control panel again, and expand the device list. Make sure your SCSI printer appears.
5. Run ASPICHECK program. If the check fails, follow the steps "Preparation of PC" (see above).
6. Browse the CD ROM supplied with the printer, it will not auto start.



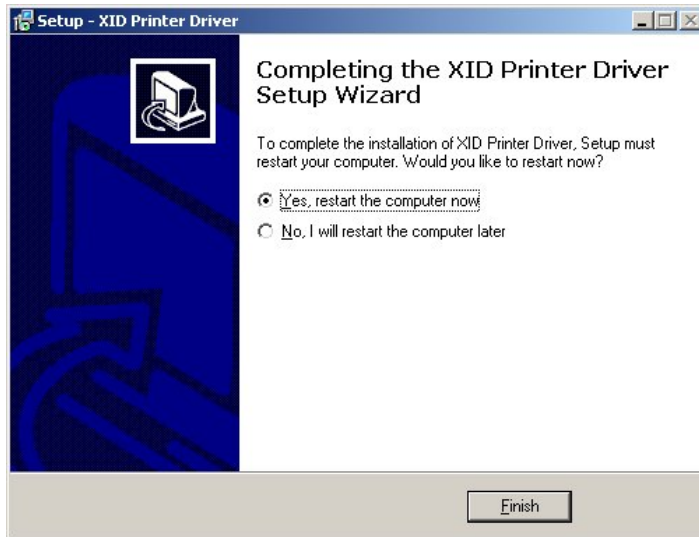
7. Run the "Set-Up.exe" file in the root directory of the CD.



8. Select "Next" on the menu.
9. Choose your printer model. Ignore the XID 430 as it is not sold by Magicard. Normally the XID 440 is the printer to choose, however if you have the daisy-chain functionality it will be a XID 450.



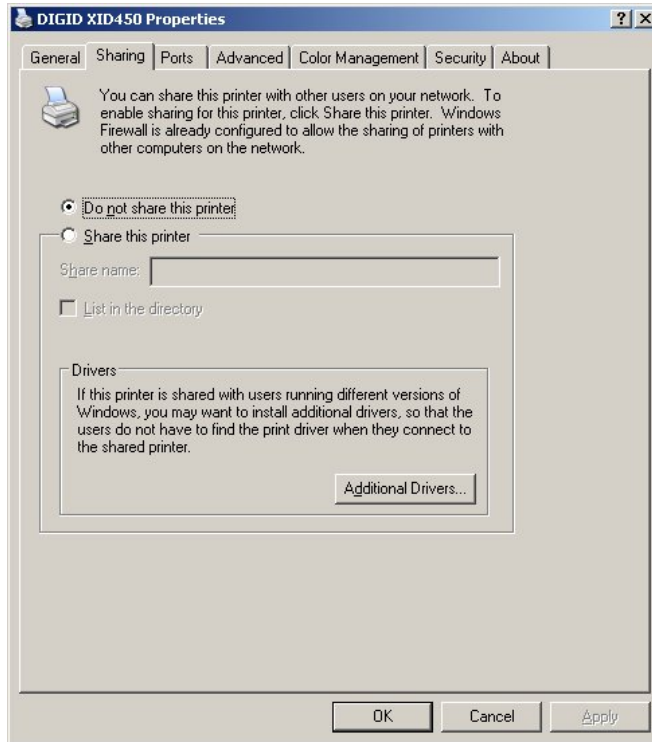
10. Gives you the location of where the drivers files will be loaded, select "Install".



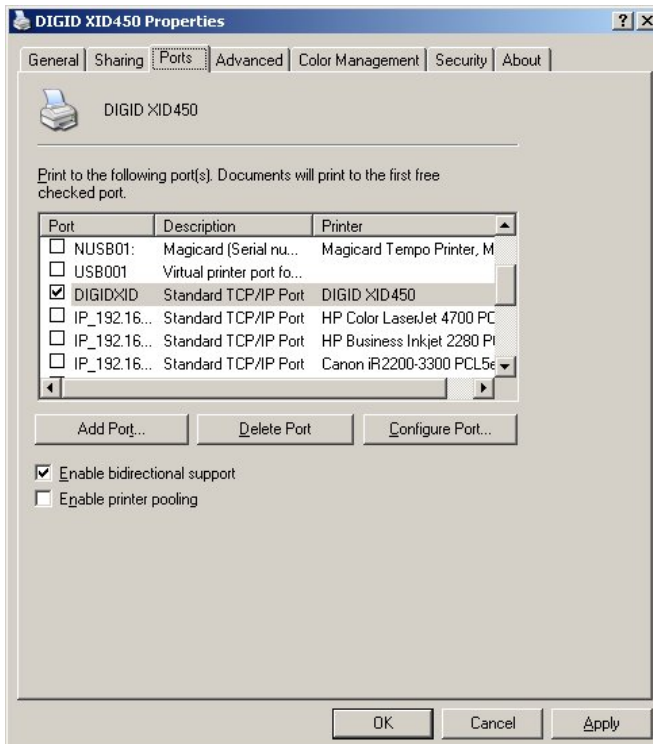
11. Printer files will be copied, once completed you must restart the computer.

2.4 ADVANCED PRINTER CONFIGURATION

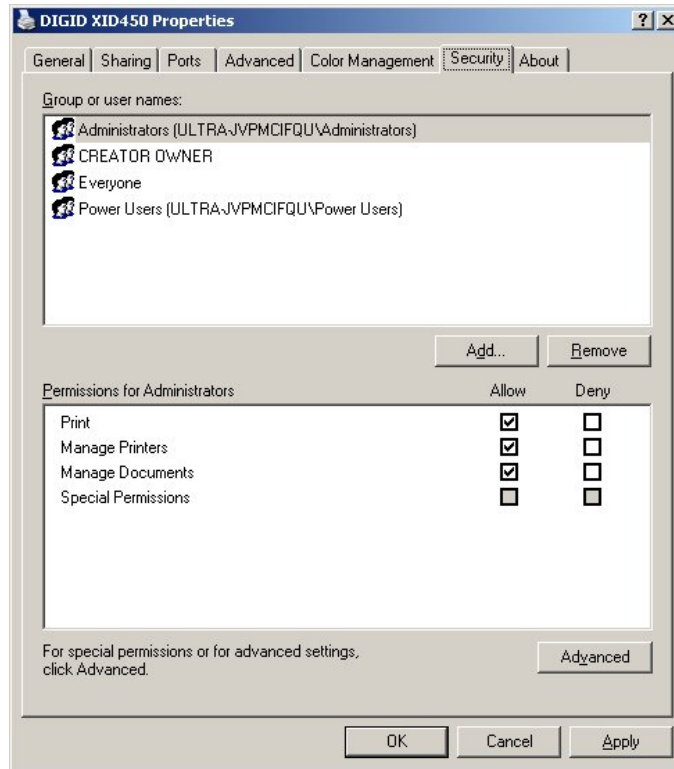
If the printer is used in a network environment and should be shared with other users then click on "Shared as:" and give the printer a name. So other users then can select this printer within the network environment.



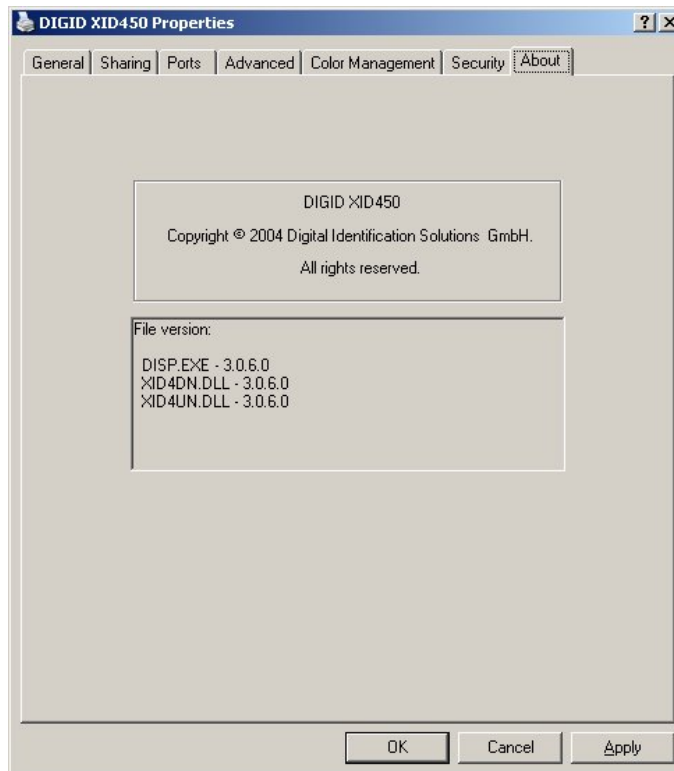
The printer has to be assigned to the DIGID port.



Do not change the following default settings unless you are an advanced user:



You can view the version of the installed printer driver.

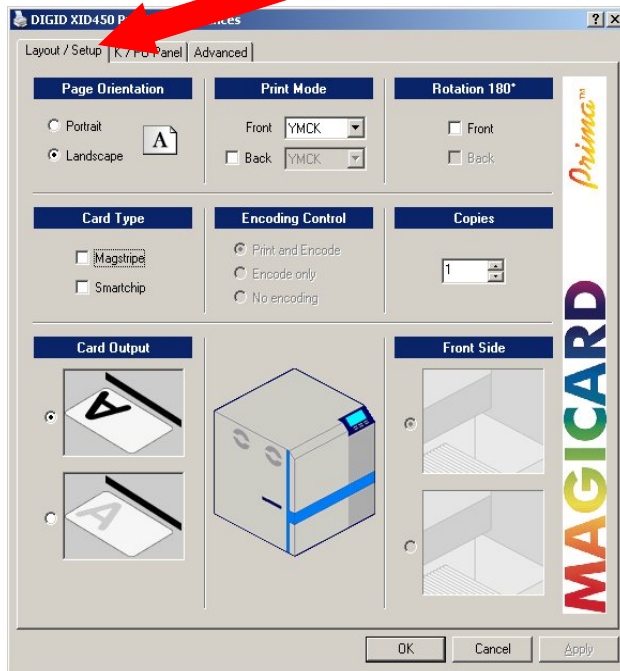


3. Printing Preferences

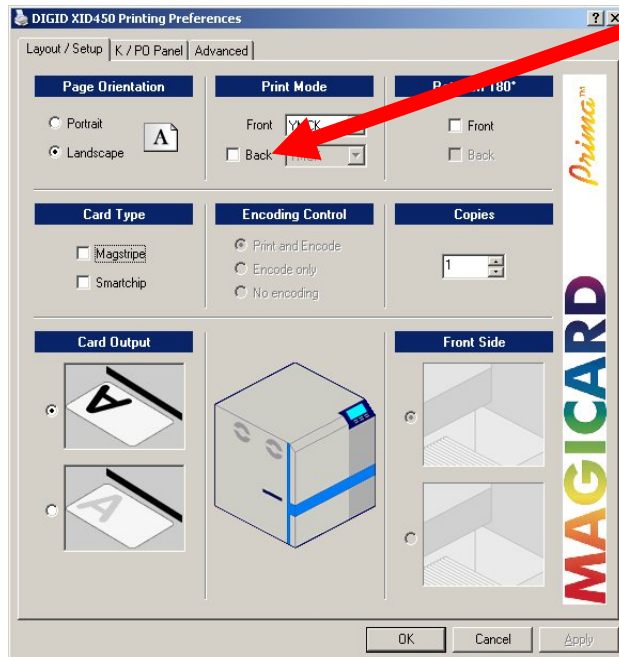
3.1 INTRODUCTION

In graphic user interfaces all options are shown dynamically as there are card feeding, loading card in magazine, card leaving the printer etc.

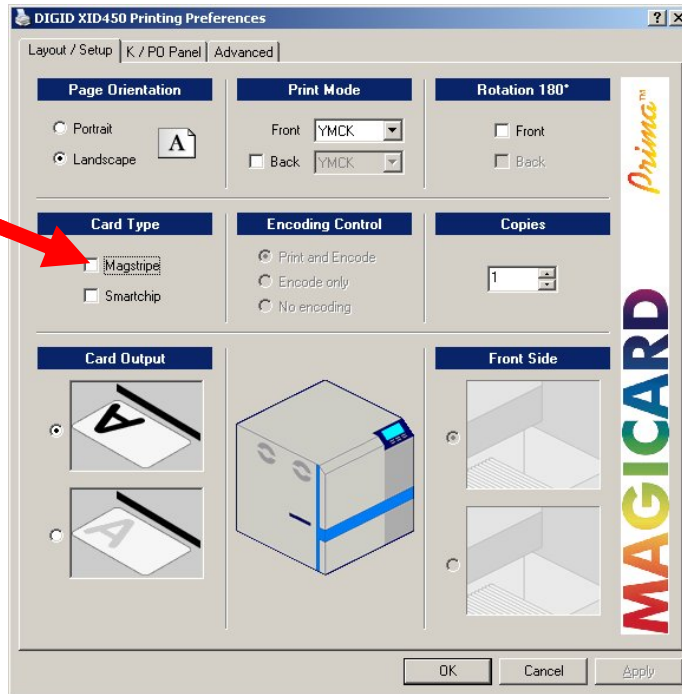
3.1.1 LAYOUT AND SET-UP.



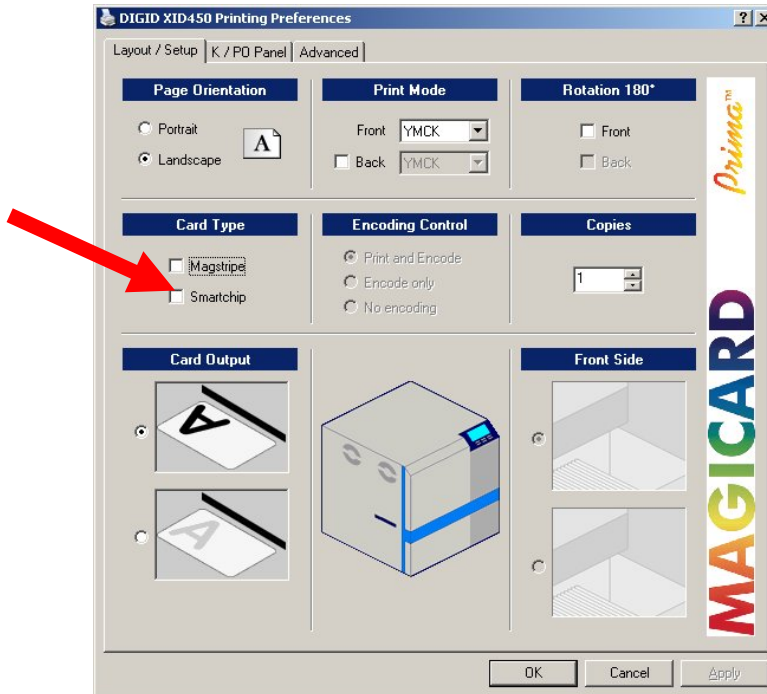
3.1.2 ENABLING FRONT AND REVERSE SIDE PRINTING



3.1.3 ENABLING THE USE OF MAGNETIC STRIPE CARDS



3.1.4 ENABLING THE USE OF CHIP CONTACT CARDS

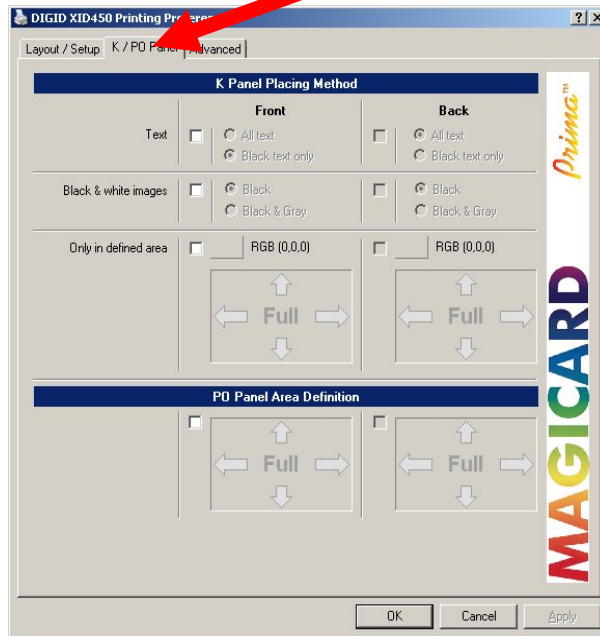


3.2 K AND PEEL OFF PANEL

3.2.1 INTRODUCTION

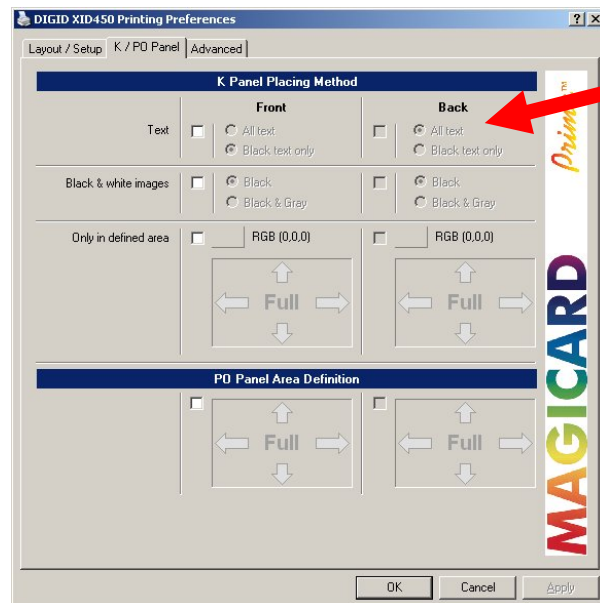
In this tab you can define the kind of extraction methods for placing different objects to the K plane. You can define inclusion areas for peel-off (for front and reverse separately), this can be done as a single or in combination setting.

3.2.2 DEFAULT SETTINGS



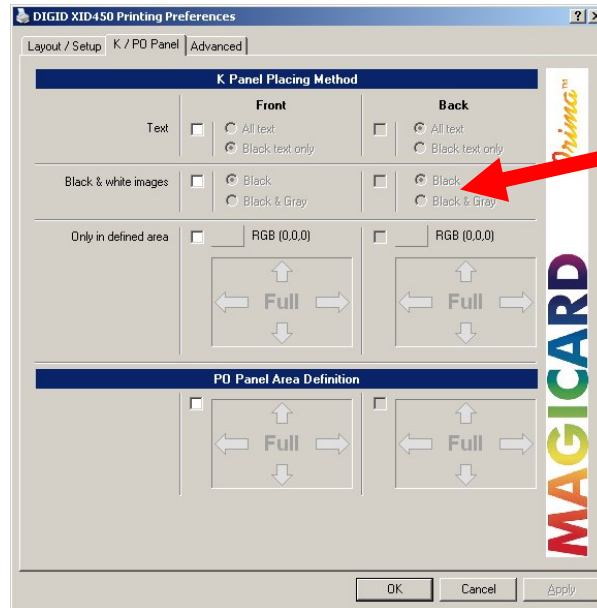
3.2.3 SELECTION OF TEXT OBJECTS TO PRINT ON K-PLANE

By enabling of "Text" you can specify if the whole text or black text only shall be printed on the K plane.



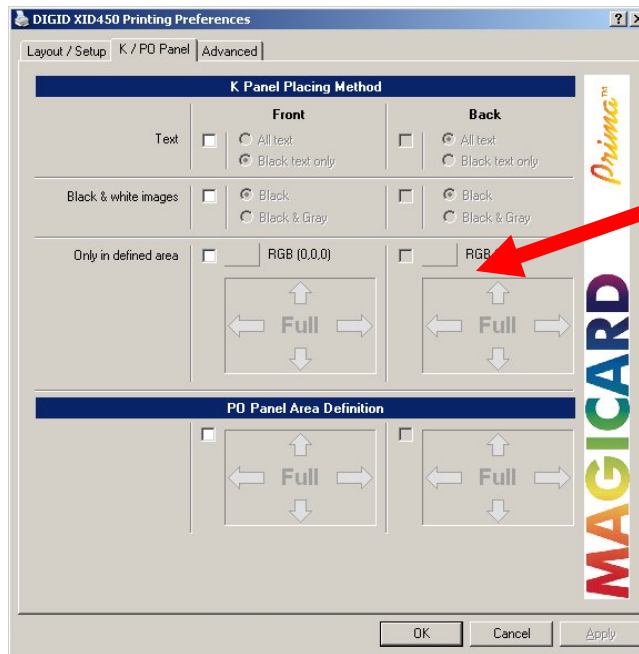
3.2.4 SELECTION OF BLACK & WHITE IMAGES TO PRINT ON K-PLANE

By enabling of “Black and White Images” you can specify if black or black & grey images shall be printed on the K plane.

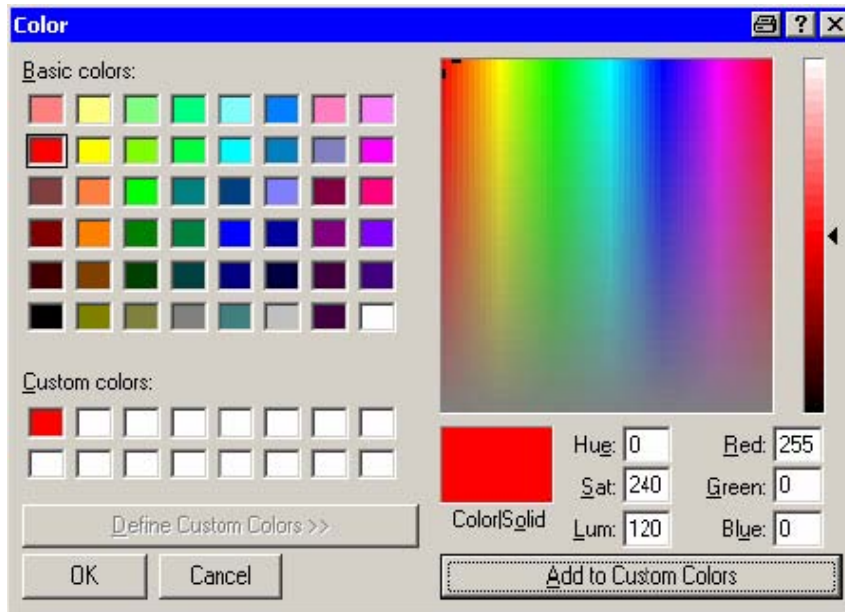


3.2.5 DEFINITION OF SPECIAL COLOURS TO BE PRINTED ON THE K-PLANE

If you use special colors which match existing ones of your layout they will be printed on K-plane.

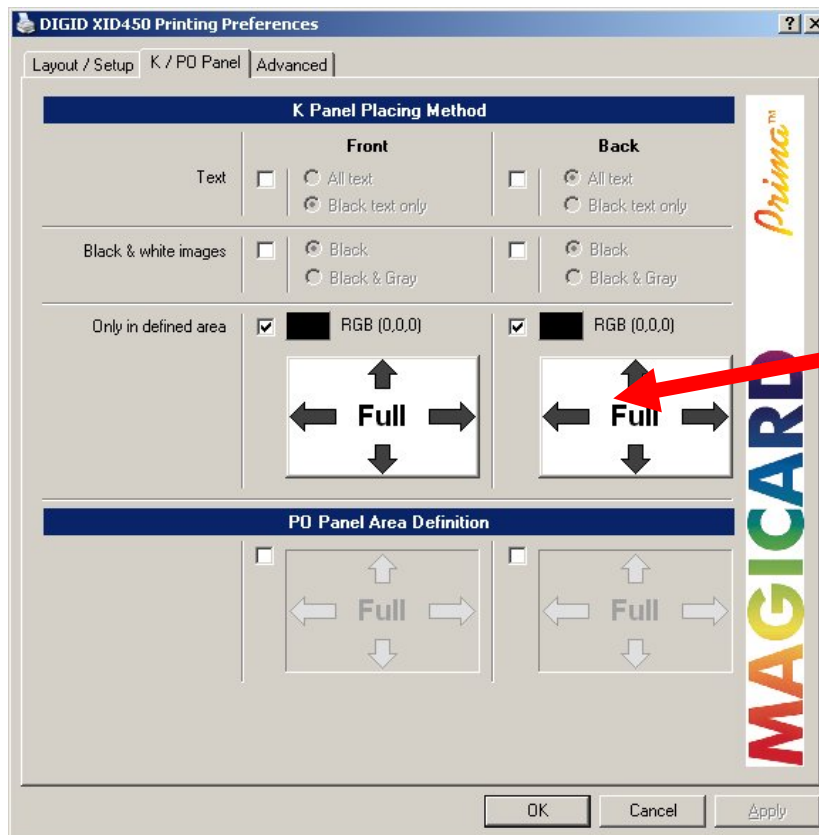


After clicking on the color button pick up or define a new color as you need.

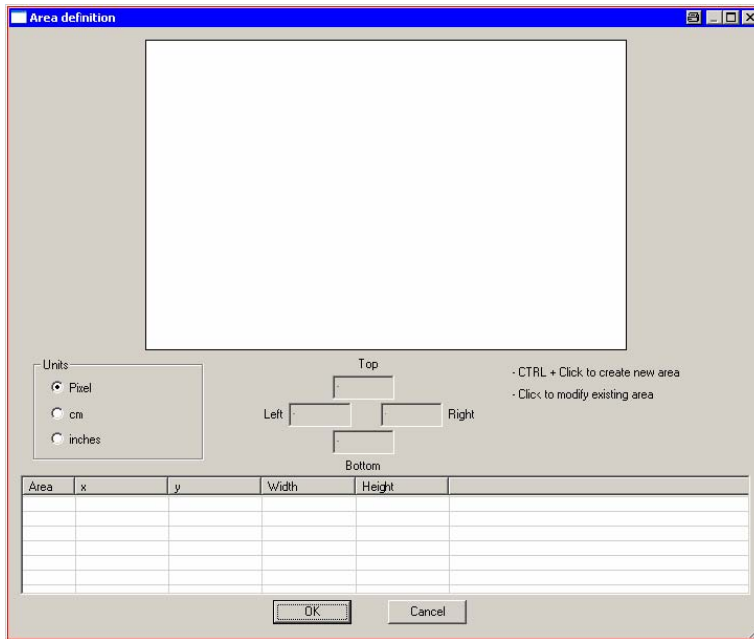


3.2.6 DEFINITION OF AREAS FOR PRINTING ON THE K-PLANE

In combination with the special colours (see chapter 3.2.5) you can define inclusion areas.

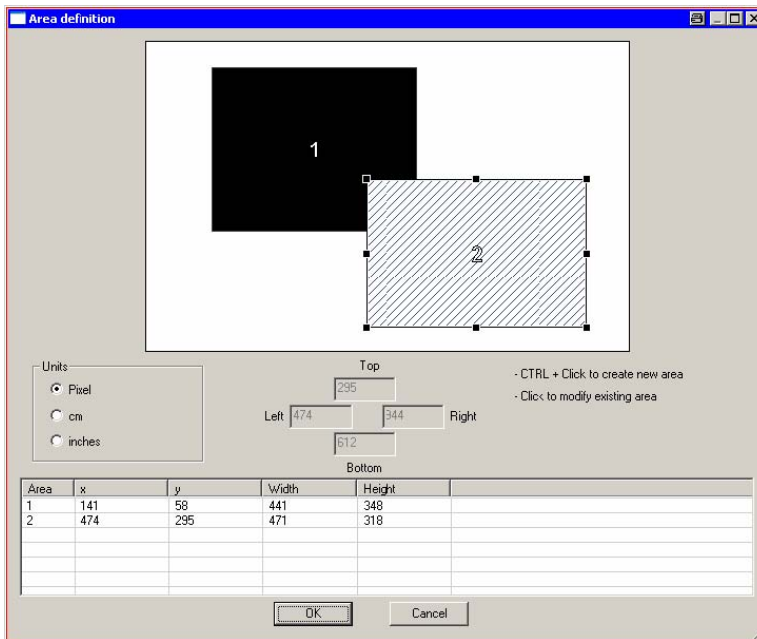


After clicking on the area button the following window appears:



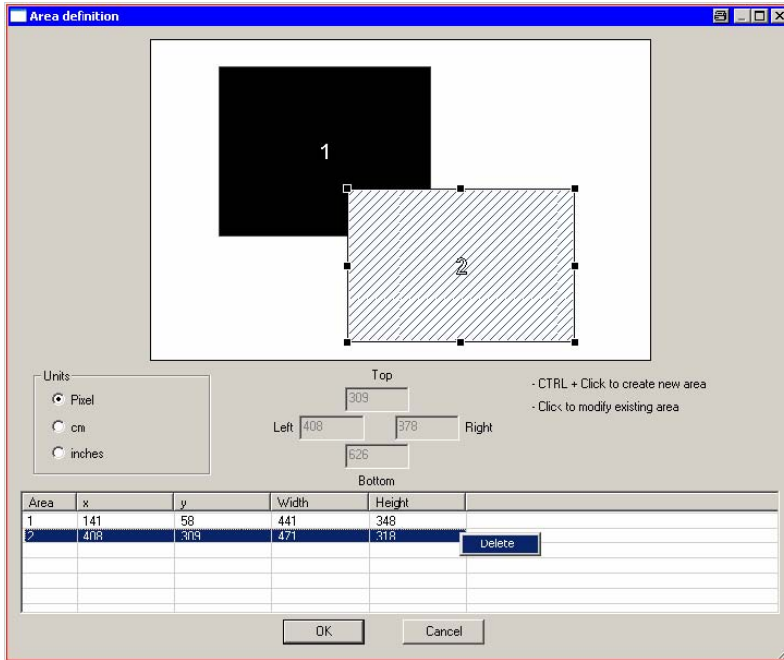
Create new area:

Simply click and draw rectangle area while pressing CTRL button, for editing click on the field you want to resize or/and move.

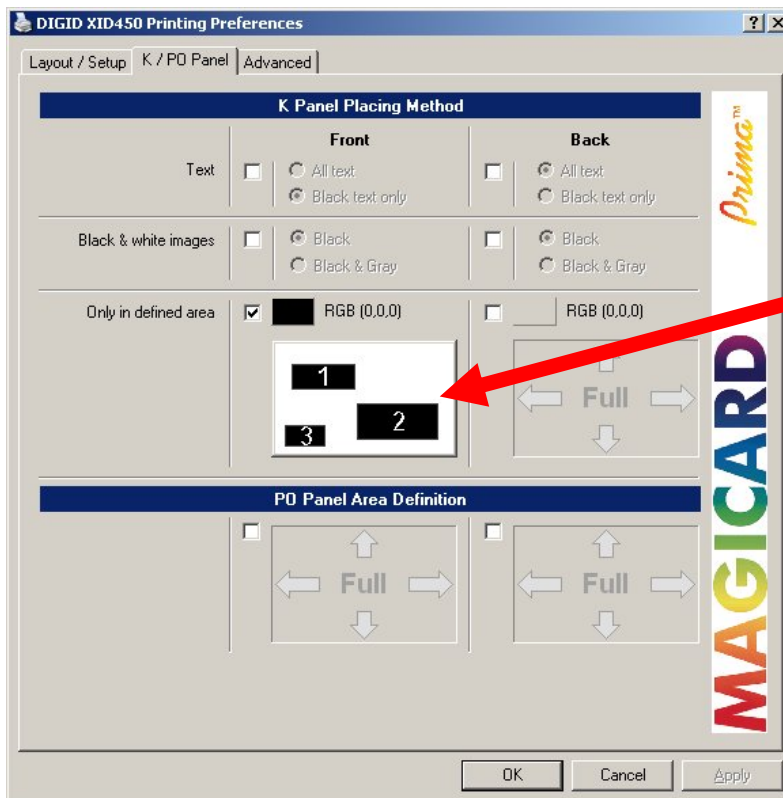


Delete of area

Choose the corresponding area from the list, right-click on mouse button and click on delete.

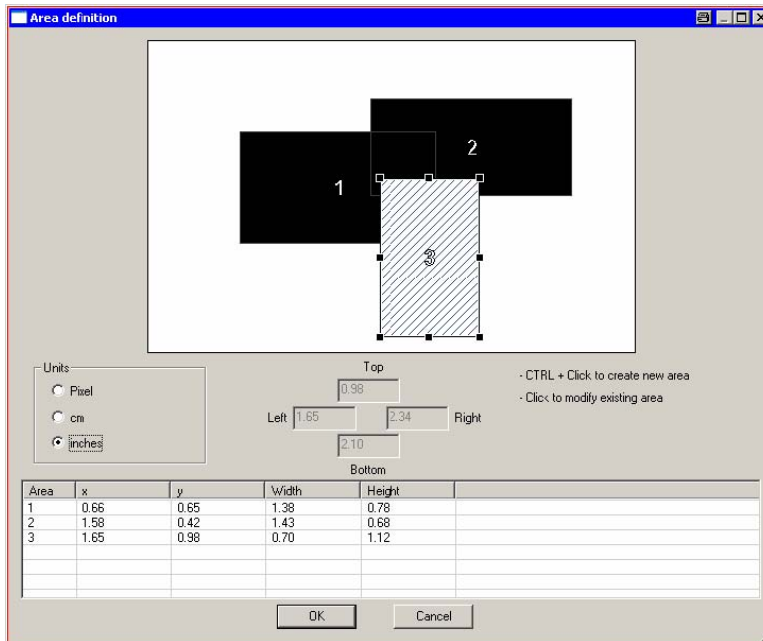


PREVIEW OF DEFINED SAMPLE K-PANEL AREAS



MEASUREMENT CHANGES

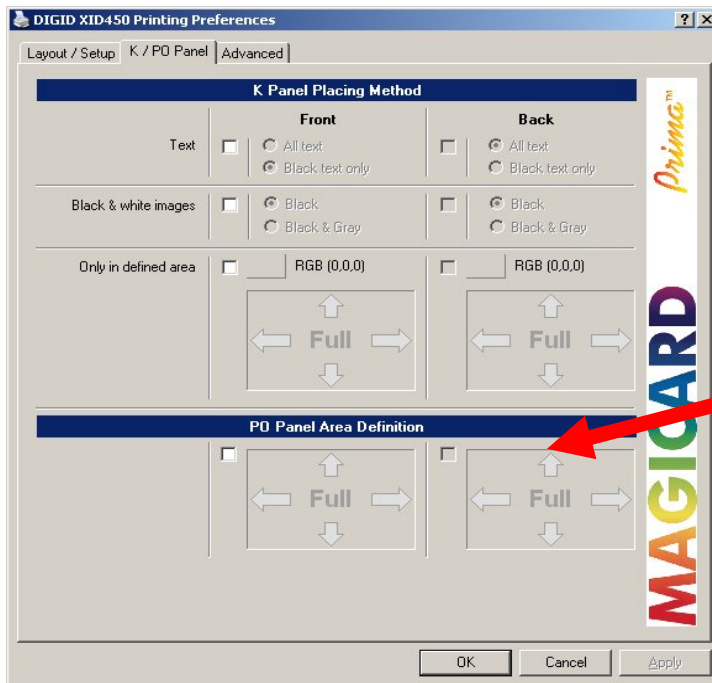
The following sample shows change of units e.g. from Pixel to Inches



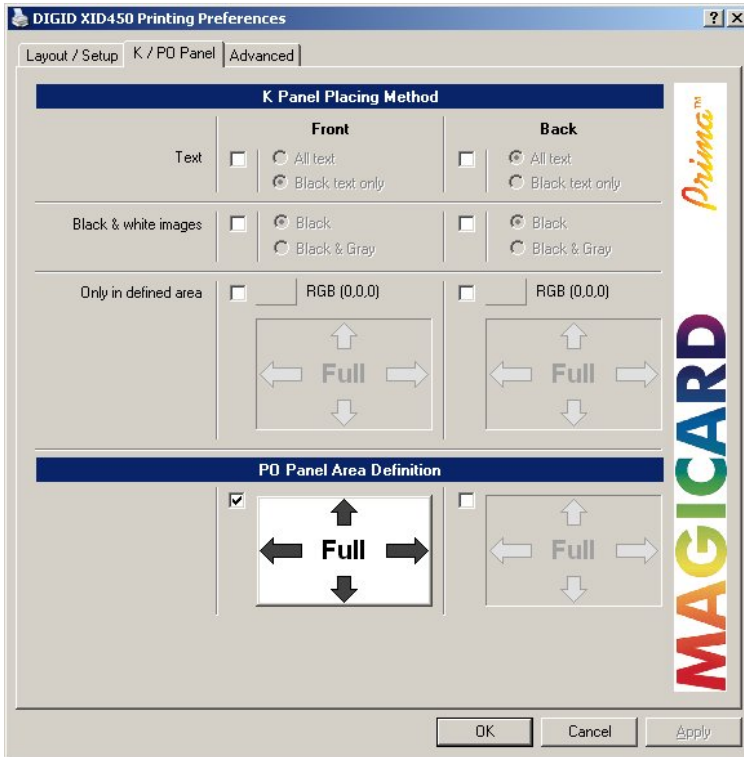
3.2.7 PEEL OFF PANEL AREA DEFINITION

This function is designed to define areas which shall be prevented from printing (e.g. signature fields).

Default Settings

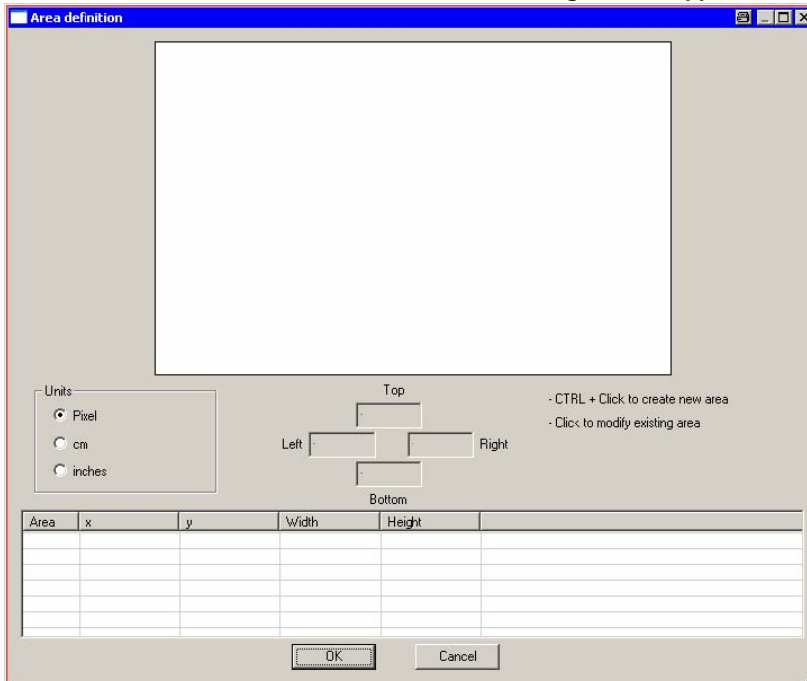


PEEL OFF AREA ENABLED



NOTE: USE OF FULL PEEL OFF AREA RESULTS IN A NON-VISIBLE PRINTOUT. YOU MUST DEFINE A SMALLER AREA.

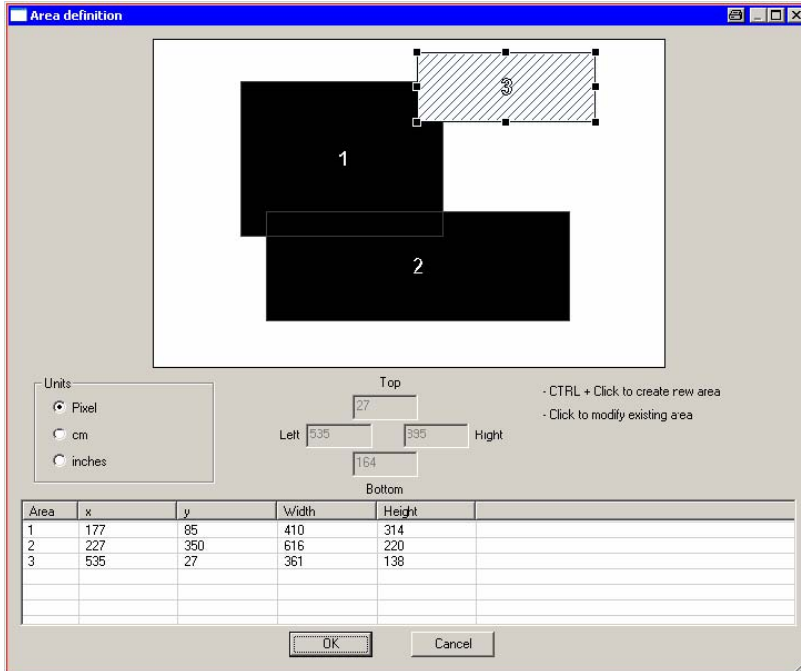
After click on the PO area button the following window appears:



DEFINITION OF AREAS FOR USE OF PEEL OFF

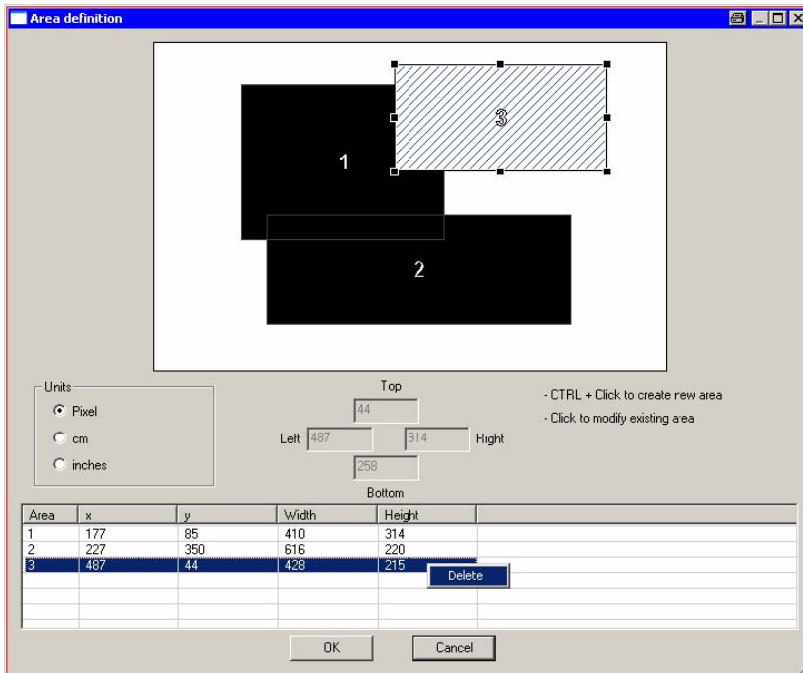
Create new area:

Simply click and draw rectangle area while pressing CTRL button; for later editing click on the field you want to resize and/or move.

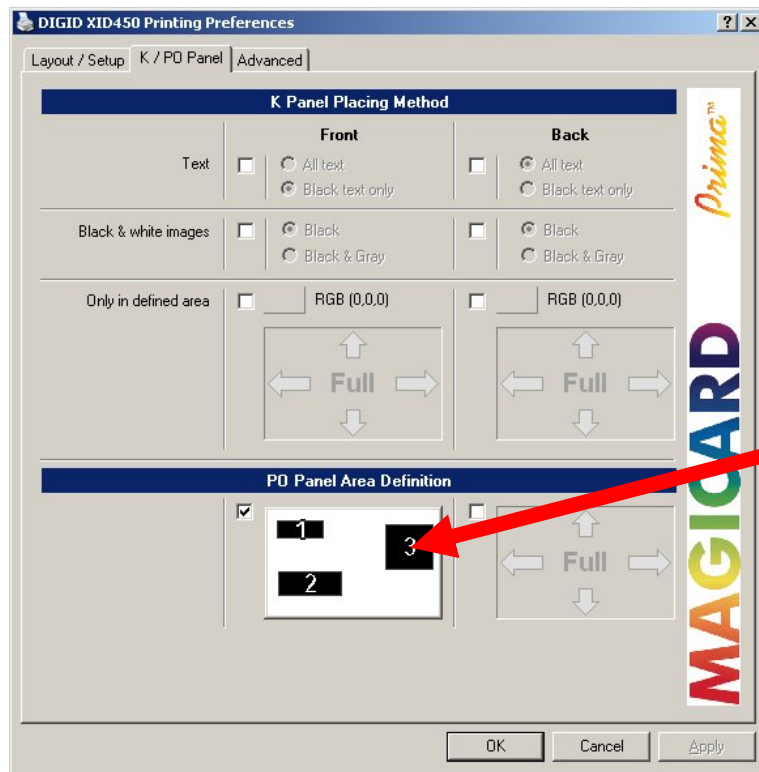


Delete of area:

Choose the corresponding area from the list, right-click on mouse button and click on delete.



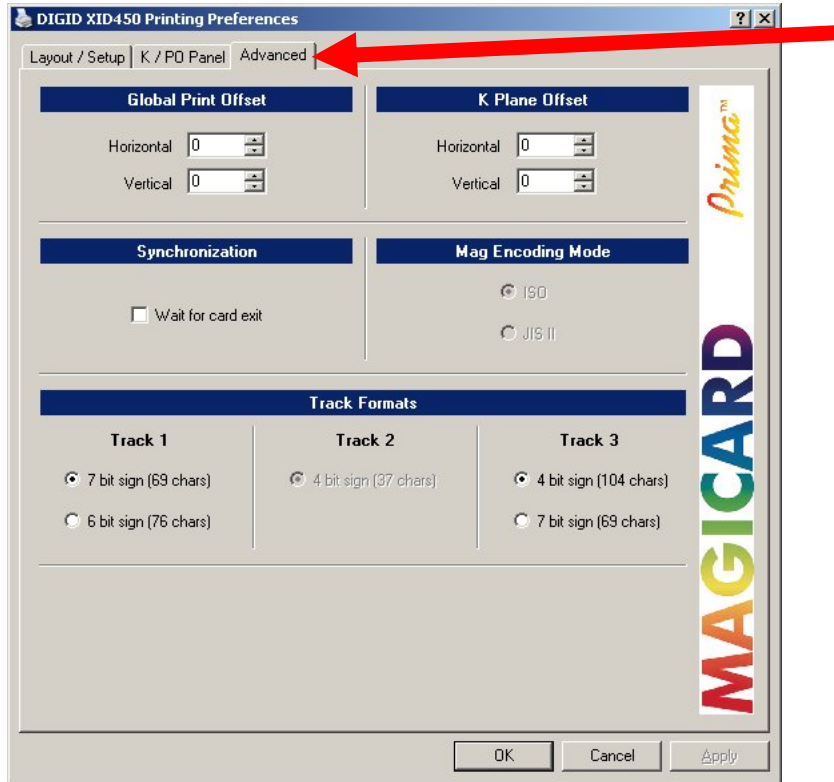
PREVIEW OF DEFINED SAMPLE PO PANEL AREAS.



3.3 ADVANCED MENU

3.3.1 OFFSETS AND SYNCHRONISATION

Default Settings



Global Print Offset:

Here you can set-up the offset of the layout in horizontal and vertical direction by changing the values; this influences the complete layout.

K Plane Offset:

The changing of the values for K plane only influences the offset of the K plane.

Synchronization:

If enabled, the printer waits until the card exits the printer. It then downloads the next print job, this is useful to prevent losing print jobs but it also decreases the print speed.

3.3.2 SAMPLE OF MAGSTRIPE ENCODING

Sending Track Information

Magnetic track data are sent in the form of text strings from the application software to the printer driver, along with all of the other printable objects within your card design. For the printer driver to differentiate between magnetic track data and the rest of the printable objects, the magnetic track data strings must be uniquely “tagged” and be formatted using the “System” font. In other words, specific characters must be added to the magnetic track data for the printer driver to know which data are to be encoded, which tracks to encode, when the track data stops and starts and so on. When using the Generic Printer Driver, you must manually add these characters to the string of magnetic track data. If these characters are not added to the track data, the text intended for the magnetic track will most likely appear as printed text on the card. To avoid this, track information must be entered as described below.

When entering track data, the “~” character is entered first, followed by the track number (1, 2, or 3) on which you intend to encode the data. The data to be encoded should then follow. The first character of this data string must be the track’s specific SS (Start Sentinel), and the last character must be the specific ES (End Sentinel). The characters or data in between the SS and the ES can include all of the valid characters specific to each track. The number of these characters, however, is limited by each track’s maximum character capacity. When segmenting track data, the appropriate FS (Field Separator) must be used. The following table shows the SS, ES, FS, and valid characters defined for each track. (Track character limits are enforced by the TR-1, TR-2, and TR-3/NNT format options selected in the Magnetic Encoding properties.)

Note:

This data must always appear on page one of your document.

The following example illustrates how track data should be entered for tracks 1, 2, and 3 under following Windows OS:

Windows 2000/XP:

Track	Start Sentinel	End Sentinel	Field Separator	Valid Characters
~1	%	?	^	0-9, A-Z, Punct., ASCII 32-95
~2;	;	?	=	ASCII 48-63
~3;	;	?	=	ASCII 48-63
~3; <i>for XP only</i>	+	?	=	ASCII 48-63

Sample for Windows XP:

Sending Data to Track 1 : ~1%JULIE ANDERSON^623-85-1253?

Sending Data to Track 2 : ~2;012345...89?

Sending Data to Track 3 : ~3+012345...89?

SECTION 4 DRIVER DESCRIPTION (DISPATCHER).

The “dispatcher” program or “Intelligent Printer Management” tool was developed with focus on giving the most possible power and flexibility to the user.

All the necessary controls and settings are stored centrally in the tool “Dispatcher” (DISP.EXE).

Using the Dispatcher the user has direct access to all the setting parameters they need.

The dispatcher is a part of the printer driver and is located in the normal area of Windows: C:\Windows\system32\spool\drivers\w32x86 under the sub directory of 2. A shortcut can be created by right clicking and dragging the dispatcher icon across to the desktop.

The dispatcher carries out the following actions:

- Showing of all the print jobs in real time including “Pause/Resume” control.
- Set all the printer settings related to the physical parameters of the unit including profile management
- Definition of the printer groups (controlling multiple printers connected to one PC).
- Downloading of “Look-up Tables” (LUT) and/or setting of a password.

SECTION 4.1 DISPATCHER PROGRAM

Printers.

The “Dispatcher” tab shows all connected and detected printers by name and SCSI ID. They are shown in the “printers” area of the window, they can be “paused” and “continued” individually”. This function is very useful for changing the cards and ribbons on specific printers while keeping other jobs spooling.

File List.

All jobs handled by the “dispatcher” are shown in the file list area. When an application sends a print job to the spooler the dispatcher will move them out for full control. This means the problem of hanging print jobs is dramatically reduced.

Tools.

The tools from the pull-down menu to control the following items:

Clear Spooler: If there is a reason to cancel running prints the clear statement deletes jobs from the print spooler.

SCSI ID's: The SCSI ID's show the printers on-line after the bus has been re-scanned.

View Error Log: If an error occurs, the “View Error log” gives a detailed description.

View Error Log: This command forces refreshment of the list content

SECTION 4.2 DISPATCHER SCREEN

When a print job is started the “Dispatcher” screen shows the status of every printer, current print job and any pending print jobs.
If you “right click” on any of the print jobs pending you have full control over their priority.

The screenshot shows the 'Dispatcher' window with the following components:

- Printers:** A section showing 'Printer SCSI ID : 2' and a 'Resume' button.
- Print Jobs:** A table listing jobs with columns: Job on Printer, Document Name, Front, Back, Assigned Printer IDs, and Started.
- Context Menu:** A right-click menu is open over a job, showing options: Delete, Suspend, Restart, and Move to top.
- Footer:** 'Cards for print: 6 / Cards printed: 1' and the 'MAGICARD Prima Intelligent Printer Management' logo.

Callout boxes provide the following information:

- Status of printers currently attached to the computer. Printer operations are shown during the print cycle.** (Points to the Printers section)
- Pause/Resume starts and stops each print job.** (Points to the Resume button)
- Individual printer job control. Menu is seen by “Right Clicking”.** (Points to the context menu)
- Current print jobs pending to each printer attached to the computer** (Points to the Print Jobs table)

A new function in this driver is to have full control over each print job currently waiting to be downloaded to the printer.

- **Delete** Remove print from queue (e.g. an error has occurred)
- **Suspend** Job is put on hold.
- **Restart** Begin the print job (e.g. after suspend has occurred)
- **Move to the top** Prioritisation of print jobs.

SECTION 4.3 PRINTER SETTINGS

The “Printer Settings” tab enables the user to set the printing parameters e.g. Speed, Temperature and Bend Remedy. The settings are shown in a user friendly manner via the P.C for every printer connected to the SCSI bus.

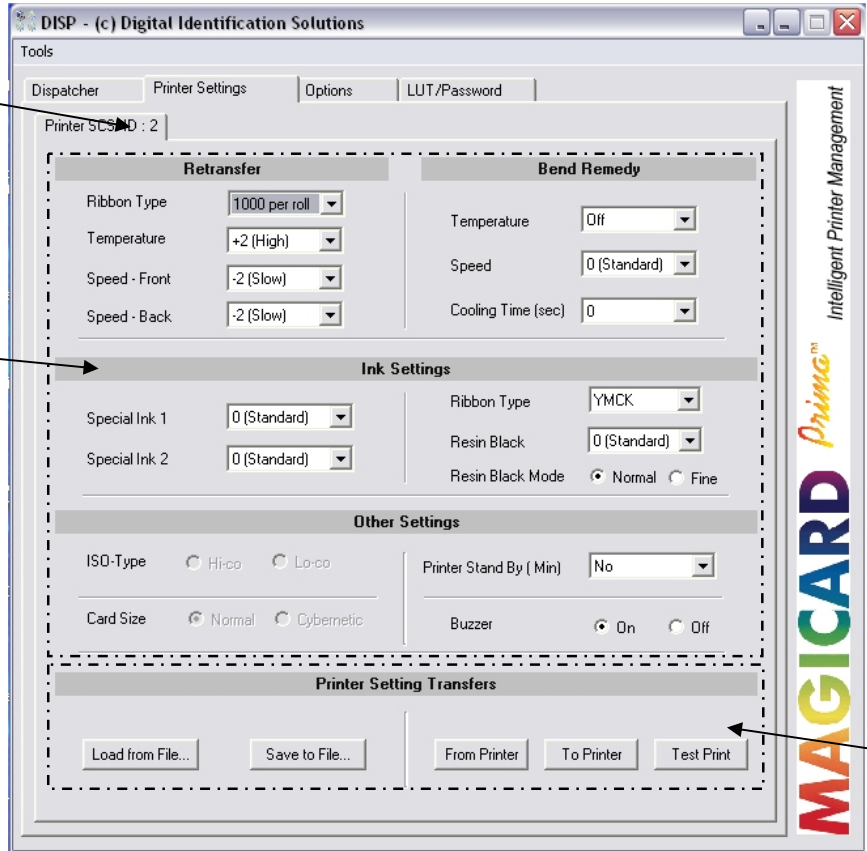
So for example if two printers (XID 450’s) were connected to the SCSI bus two tabs would show at the top of the page:

Printer SCSI ID : 2

Printer SCSI ID : 3 etc.

Individual printers attached to the SCSI Bus.

Printer Settings – see Section 8 for descriptions



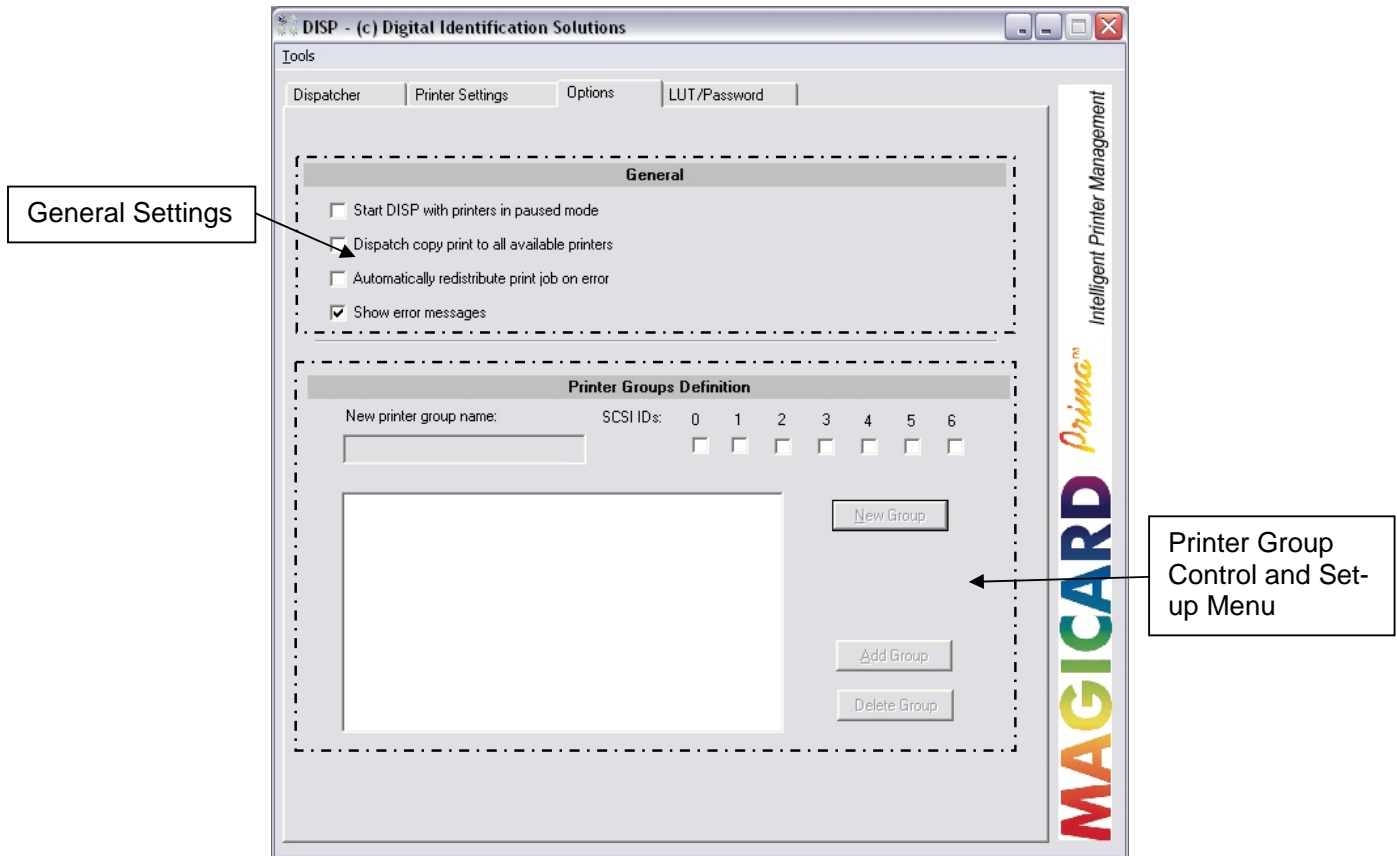
Printer Setting Transfers (described below).

- **Load from File** Select a profile currently loaded on the computer
- **Save to file** Save a profile to the computer.
- **From Printer** Get current settings from the printer.
- **To printer** Send settings currently on the screen to the printer.
- **Test Print** Produces an internal test card from the printer.

NOTE A PROFILE IS A FILE ON THE PC THAT CONTAINS SPECIFIC PRINTER SETTINGS

SECTION 4.4 OPTIONS TAB

The “Options Tab” controls the functions of the Dispatcher Program and also the configuration of the printer groups.



- Start DISP with printers in paused mode.
Next time the dispatcher program is started (either by closing or rebooting the PC) the printer stays in paused mode.
- Dispatch copy print to all available printers
If enabled all copy print jobs will be sent to all available printers.
- Automatically re-distribute print job on error.
If enabled and printers are daisy-chained, this function will make sure that every print job is directed to the next printer in that group under an error scenario.
- Show Error Messages.
Default is On, if it is turned off the user can limit the errors shown on the screen.

SECTION 4.4 OPTIONS TAB CONTINUED

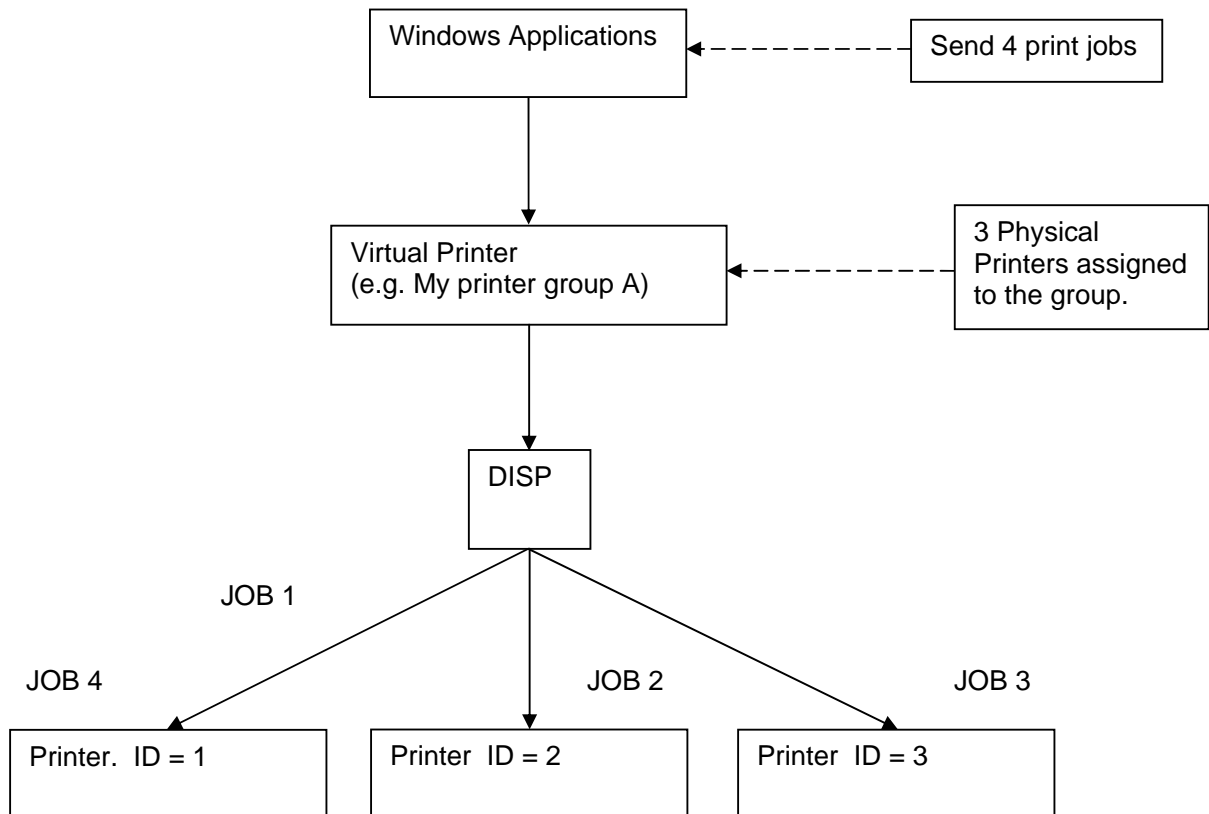
Printer Group Definitions.

The printer group definition is a unique technique to define several groups of “virtual” printers.

If created, every Windows application can print to one virtual driver shown in the Windows printer folder without sending jobs individually.

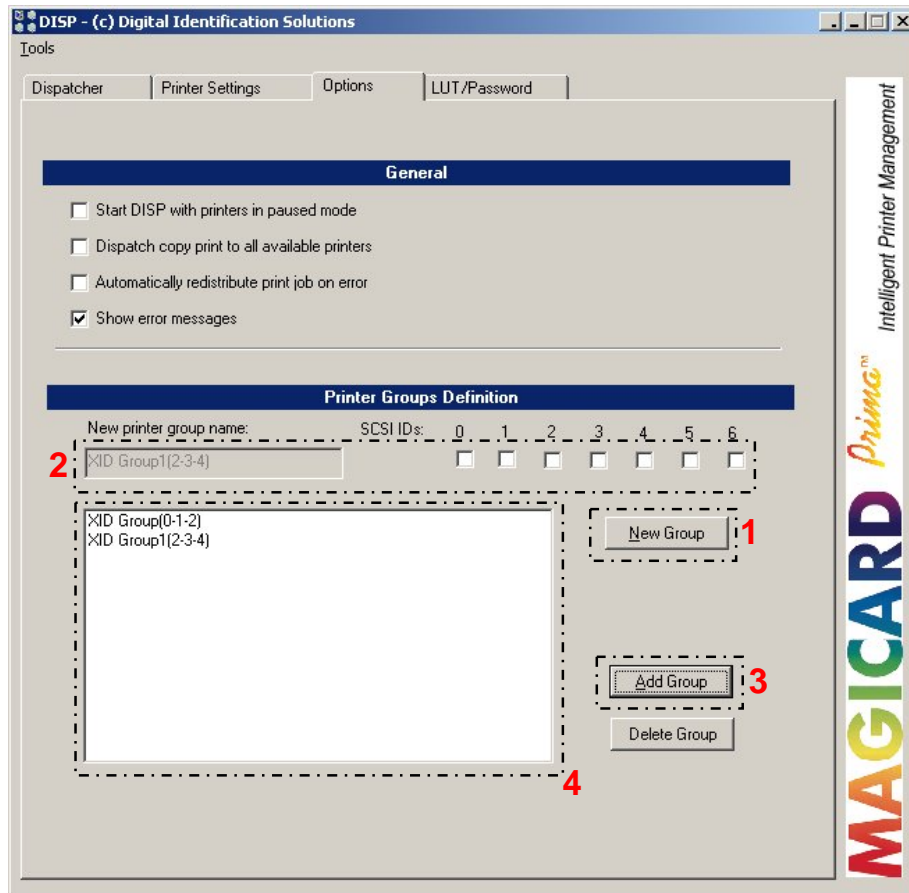
NOTE SINGLE PRINTERS CAN BE DEFINED AS A VIRTUAL PRINTER FOR ROUTING JOBS TO A SPECIFIC PRINTER.

It works as follows:



SECTION 4.5 CREATION OF PRINTER GROUPS

This section outlines how to create printer groups on your Windows system.



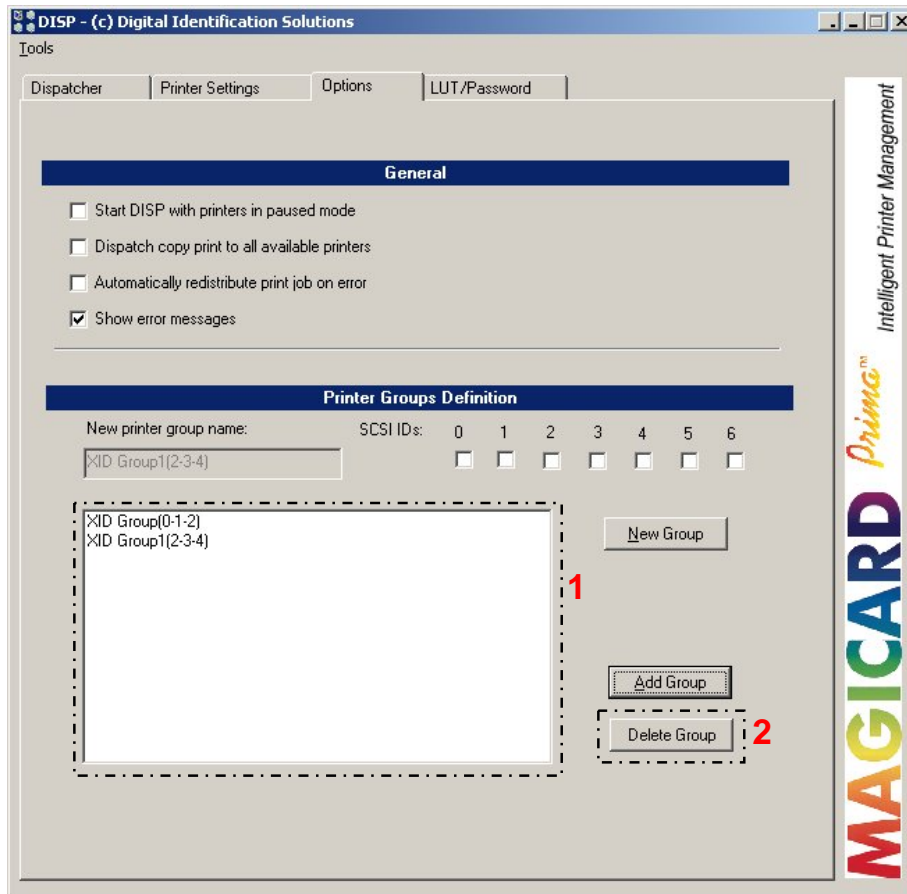
To create a new printer group:

1. Select new group.
2. Choose the SCSI ID's of the printer you want in the group
3. Choose "add group".
4. The virtual printer group appears within the dialogue box.

SECTION 4.6 DELETION OF PRINTER GROUPS

There are two different ways of deleting groups:

- Highlight the virtual printer group within Windows.
- Right click and then select “Delete”.
- Referring to the printer group in the dialogue box, highlight the printer group you want to delete.
- Press the button “Delete Group”.



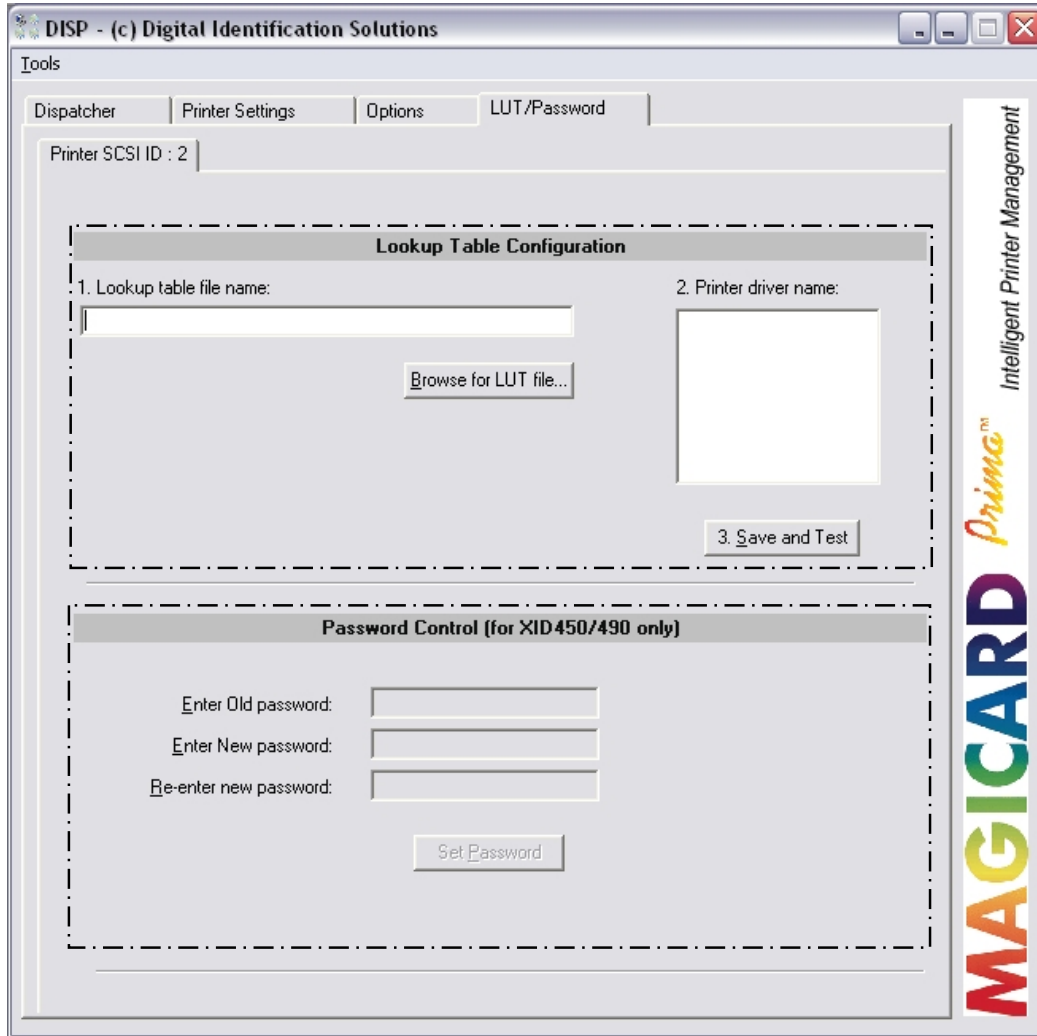
NOTE USING THE DISPATCHER PROGRAM ENSURES THE PRINTER GROUP IS DELETED FROM WINDOWS; THIS IS THE RECOMMENDED WAY OF DELETING.

SECTION 4.7 LUT AND PASSWORD.

SECTION 4.7.1 LUT.

Inside the “LookUp Table Configuration” the user has the options of creating his own colour curves.

LookUp tables contain values to control the print density for every colour. It can be useful if you are printing on cards that are both different materials and non-white in background.



NOTE USING OTHER LUT'S THAN THE PRINTER'S INTERNAL ONES REQUIRES DEEP KNOWLEDGE IN COLOUR MANAGEMENT AND IS RECOMMENDED IN SPECIAL CASES.

SECTION 4.7.2 PASSWORD.

The password option is designed for use in high security environments only. The user can set a password to ensure only certified people can produce ID cards.

NOTE THIS OPTION IS DISABLED BY DEFAULT AND NEEDS TO BE ENABLED BY MAGICARD TECHNICAL SUPPORT.