Operator manual XEScan/XEScan Reflection/XEScan Reflection Plus/XEScan Reflection 1.5



Software Version/Manual Version 1.5/1.5 Issued 1/2004

Software and hardware specifications as well as companies' respective brands used in this manual are generally subject to protection by trademark, label or patent.

SCP Software GmbH Auf der Hüls 120 D-52068 Aachen Tel: (0241) 9 68 30 - 0 Fax: (0241) 9 68 30 - 10 http://www.scp.de Email: <u>info@scp.de</u>

© 1996 – 2003 SCP Software GmbH

Portions Copyright (C) 2001 artofcode LLC. All rights reserved. Portions Copyright (C) 1996, 2001 Artifex Software Inc. All rights reserved. Portions Copyright (C) 1988, 2000 Aladdin Enterprises. All rights reserved This software is based in part on the work of the independent JPEG Group. Portions Copyright (C) 1998 Soft Horizons. All rights reserved. "Licensed under U.S. Patent No. 4,558,302 and foreign counterparts. Purchase of this software does not authorize user to use any other product or perform any other method or activity involving use of LZW unless separately licensed by Unisys Corporation."

Depending on your license, not all described options may be available.

	XEScan	XEScan Reflection Mono	XEScan Reflection	XEScan Reflection Color Plus
Monochrome Scan to file	•	•	•	•
Color Scan to file*	•	•	•	•
Monochrome Scan to print		•	•	•
Basic color Scan to print*			•	•
Professional color Scan to print*				•
Archive	N/A			•
Batch and composing	N/A			•
Color filter archive				•
Label	N/A			•
Output options	N/A			•
Output subsystem	N/A			•
Use full paper width (step and repeat)	N/A			•
Raster RIP	N/A			•
HPGL RIP	N/A			Optional
Postscript RIP	N/A			Optional
Printer driver licenses incl.	N/A	1 XES 88xx	1X2 or HP	1 X2 or HP
Additional licenses XES 88xx	N/A	Optional	Optional	Optional
Additional licenses X2 or HP	N/A			Optional

<u>Content</u>

Product Matrix	. 2
XEScan/XEScan Reflection, the multi-talent for digital color copies and scans	. 7
Packing List	. 8
Hardware Requirements	. 9
Recommended System Configuration	
Software Requirements	
Program Installation	. 10
Keycode Entry	
Hardware Configuration	
Scanner Installing Printers	
Connection	
Medium	
Hardware	
Print Job	. 18
Calibration	
Target Dialog	
Edit media parameters	
Reset media parameters Edit size correction	
Edit Size correction	
All	
None	
Invert selection	
Printing the Targets	
Scanning the Targets	
Export to Library Import from Profile Library	
Deleting Installed Printers.	
	. – .
Preferences	
General	
Warning options	
Label	
Email	
User administration	
	. 26
Making Prints	
First Settings.	
Selecting a Color Mode Scanner / DPI	
Scan Mode	
General	
Original Size	. 29
Printer	. 30
Medium	
Output	
Number of Copies Automatics (Quality Settings)	
Brightness	
Manual Filters	
Output Options	
Margins	. 33
Trim Lines	
Print Label	
Nesting	
Alignment Paneling	

Panel Size (Width/Height)	
Overlap and Gluing Marks	
Making the First Copy	
Reprint	
Presets	37
Preview	•••
Scan Pre-View	
Automatic Deskew	
Set AOI / Cropping Reset AOI Setting	
Edit AOI Setting	
Zoom to AOI / Cropping	
Zoom in / Zoom out	
Select Panels	
Roll Preview	
	10
Filter Editor	41
Function and Structure of the Filter Editor	41
Filter Editor in Color Mode	44
Histogram Window	
Black and White Points (Contrast)	44
Automatically Setting the Black and White Points	44
Manually Setting the Black and White Points	44
Method for Background Correction	
Gamma (Brightness/Color Intensity)	45
Special Filters	
Scan Resolution	46
Filter Editor in Grayscale Mode	47
Histogram Window	
Black and White Points.	
Automatically Setting the Black and White Points	47
Manually Setting the Black and White Points	47
Method for Background Correction	
Gamma	
Special Filters Scan Resolution	
	40
Filter Editor in Black and White Mode	49
Base Type Selection	
Contrast	
Background Removal	-
Output	
Scan Resolution	
Import Raster or Vector Files	51
HPGL Files	53
Pen Settings	
Pen Parameters from File	
User-Defined Pen Parameters	
Change Pen Color	
Save / Load Pen Parameters	54
Rotate Print	-
Preview	
Enlarge / Reduce	
Move Section	55
Ream to File	F.0
Scan to File	
Scanner	
Scan Mode	
Scanner Configuration	
Original Size	
File Format and File Name	
Excursus: File Formats Further Options	
Copy Size and DPI	
	00

Automatic Filters	
Contrast	
Manual Filters	61
Scan into Email	62
Scanner	
Scan Mode	
Scanner Configuration	
Original Size	
File Format and Addressing	
Copy Size and DPI	
Automatic Filters	64
Contrast	64
Manual Filters	65
Archive	66
Introduction in Working with pgf Files	67
Menu Fields in the Archive Window	
Back / Forward	
Up Cut / Copy / Paste	
Delete	
Properties	
View	
Insert Current	
RIP to File	
Scan Image	
Editor	
Rotate Image	
Print Set	
Print Image	
Print and RIP	69
PGF Editor	70
Functions in the Overview Window	71
Functions in the Overview Window	
File Save Picture	71 71
File Save Picture Print Picture	71 71 71
File Save Picture Print Picture Scan Picture	71 71 71 71
File	71 71 71 71 72
File	71 71 71 71 72 72
File	71 71 71 71 72 72 72
File	71 71 71 71 72 72 72 72 72
File	71 71 71 71 72 72 72 72 72 72
File	71 71 71 72 72 72 72 72 72 72 72
File	71 71 71 72 72 72 72 72 72 72 72 73
File	71 71 71 72 72 72 72 72 72 72 72 73 73 73
File	71 71 71 72 72 72 72 72 72 72 73 73 73
File	71 71 71 72 72 72 72 72 72 72 73 73 73 73 73
File	71 71 71 72 72 72 72 72 72 72 73 73 73 73 73 73
File	71 71 71 71 72 72 72 72 72 72 73 73 73 73 73 73 73
File Save Picture Print Picture Scan Picture Scan Picture Close Editor Mode Mark Area Set Skew Points Text Mode View Zoom in Zoom out Arrange Spy Window Edit Undo Area Despeckling	71 71 71 71 72 72 72 72 72 72 73 73 73 73 73 73 73 73 73
File	71 71 71 71 72 72 72 72 72 72 73 73 73 73 73 73 73 73 73 73 74
File Save Picture Print Picture Scan Picture Scan Picture Close Editor Mode Mark Area Set Skew Points Text Mode View Zoom in Zoom out Arrange Spy Window Edit Undo Area Despeckling Rotate Rotate	71 71 71 71 72 72 72 72 72 72 73 73 73 73 73 73 73 74 74
File Save Picture Print Picture Scan Picture Scan Picture Close Editor Mode Mark Area Set Skew Points Text Mode View Zoom in Zoom out Arrange Spy Window Edit Undo Area Despeckling Rotate Skew Mirror Area Mirror Area	71 71 71 71 72 72 72 72 72 72 72 73 73 73 73 73 73 73 74 74 74
File Save Picture Print Picture Scan Picture Close Editor Mode Mark Area Set Skew Points Text Mode View Zoom in Zoom out. Arrange Spy Window Edit Undo Area Despeckling Rotate Skew	71 71 71 71 72 72 72 72 72 72 72 73 73 73 73 73 73 74 74 74 74
File Save Picture Print Picture Scan Picture Scan Picture Close Editor Mode Mark Area Mark Area Set Skew Points Text Mode View Zoom in Zoom out. Arrange Spy Window Edit Undo Area Despeckling Rotate Skew Mirror Area Options Options	71 71 71 71 72 72 72 72 72 72 72 73 73 73 73 73 73 74 74 74 74 74
File Save Picture Print Picture Scan Picture Close Editor Mode Mode Mark Area Set Skew Points Text Mode View Zoom in Zoom out. Arrange Spy Window Edit. Undo Area Despeckling Rotate Skew Skew Mirror Area Options Unit	71 71 71 71 72 72 72 72 72 72 73 73 73 73 73 73 73 74 74 74 74 74 74
File	71 71 71 71 72 72 72 72 72 72 72 73 73 73 73 73 73 74 74 74 74 74 74 74
File Save Picture Print Picture Scan Picture Scan Picture Close Editor Mode Mark Area Set Skew Points Text Mode Text Mode View Zoom in Zoom out Arrange Spy Window Edit Undo Area Despeckling Rotate Skew Mirror Area Options Unit Scale to Gray Hide Spy Window	71 71 71 71 72 72 72 72 72 72 72 73 73 73 73 73 73 73 74 74 74 74 74 74 74 74
File	71 71 71 71 72 72 72 72 72 72 72 73 73 73 73 73 73 73 74 74 74 74 74 74 74 74
File Save Picture Print Picture Scan Picture Close Editor Mode Mark Area Set Skew Points Text Mode View Zoom in Zoom out. Arrange Spy Window Edit Undo Area Despeckling Rotate Skew. Mirror Area Options. Unit Scale to Gray Hide Spy Window	71 71 71 71 72 72 72 72 72 72 72 72 73 73 73 73 73 73 73 73 74 74 74 74 74 74 74 75 75 75
File Save Picture Print Picture Scan Picture Scan Picture Close Editor Mode Mark Area Set Skew Points. Text Mode View Zoom in. Zoom out. Arrange Spy Window Edit Undo Area Seew. Despeckling Rotate Skew Mirror Area. Options. Unit Scale to Gray. Hide Spy Window	71 71 71 71 72 72 72 72 72 72 72 72 73 73 73 73 73 73 73 73 74 74 74 74 74 74 74 75 75 75 75
File Save Picture Print Picture Scan Picture Close Editor Mode Mark Area Set Skew Points Text Mode Text Mode View Zoom in Zoom out Arrange Spy Window Edit Undo Arrea Despeckling Rotate Skew Skew Mirror Area Options Unit Scale to Gray Hide Spy Window	71 71 71 71 72 72 72 72 72 72 72 73 73 73 73 73 73 73 73 74 74 74 74 74 74 74 75 75 75 75 75
File Save Picture Print Picture Scan Picture Close Editor Mode Mark Area Set Skew Points Text Mode View Zoom in Zoom out Arrange Spy Window Edit Undo Area Despeckling Rotate Rotate Skew Mirror Area Options Unit Scale to Gray Hide Spy Window Hide Spy Window	71 71 71 71 72 72 72 72 72 72 72 73 73 73 73 73 73 73 73 73 74 74 74 74 74 74 75 75 75 75 76
File Save Picture Print Picture Scan Picture Close Editor Mode Mark Area Set Skew Points Text Mode View Zoom in Zoom out Arrange Spy Window Edit Undo Area Despeckling Rotate Skew Mirror Area Options Unit Scale to Gray Hide Spy Window	71 71 71 71 72 72 72 72 72 72 72 73 73 73 73 73 73 73 73 74 74 74 74 74 74 75 75 75 75 76 76 76
File Save Picture Print Picture Scan Picture Close Editor Mode Mark Area Set Skew Points Text Mode View Zoom in Zoom out Arrange Spy Window Edit Undo Area Despeckling Rotate Rotate Skew Mirror Area Options Unit Scale to Gray Hide Spy Window Hide Spy Window	71 71 71 71 72 72 72 72 72 72 72 73 73 73 73 73 73 73 73 73 73 74 74 74 74 74 74 75 75 75 76 76 76 76 76

Undo	76
Horizontal / Vertical Mirroring	
Rotate	
Reverse	76
Despeckling	77
Manual Deskew	
Crop	
Print Set	79
Functions	79
File	80
Load Print Set	
Add Print Set	
Save Print Set	
Close Print Set Window	
Edit: Management of Composing Function	80
Up / Down	80
Print Set Selection	80
View	81
Pre-View	81
Show Roll Pre-View	81
Refresh	
Show Button Caption	81
Actions	82
Print	82
Insert Current	82
Import PGF File	82
Scan Picture	82
Delete	83
Comment Field	83
Copy Count Control	83
Distance	84
Subsystem	85
Software Installation	
System Configuration	85
Subsystem Configuration	85
Job Processing	87
Info	88
Keycode Entry	88
Online Registration	88
Check for Update	88
Help	88
Scanner Help	88
About	
Jasper Software License	90

XEScan/XEScan Reflection, the multi-talent for digital color copies and scans

The copy system XEScan/XEScan Reflection opens up a whole new dimension of digital copying. XEScan/XEScan Reflection combines high-quality scanning technology and a system solution meeting customers' demands for a digital copier system.

A system solution encompassing the complete range of digital copying for color as well as b/w copies, XEScan/XEScan Reflection is easy to use and offers a variety of options.

The outstanding performance features are:

- High speed copying, scanning and ripping in color, grayscale and black & white
- · Excellent detail precision through modern scanning technology
- Automatic repeat multiple copies may be made from one input scan
- Excellent color fidelity through new 3D filter technology and automatic filter function
- Presets buttons for direct loading of scans and settings
- Manual filter mode allows custom-made filters
- Output of raster and vector files through file import
- · Output of picture details
- Scan to file
- Scan to email
- · Accounting feature
- Archiving
- Optimized paper and time saving batch processing
- Easy use

Please check that your XEScan/XEScan Reflection package is complete. The package should include a CD-ROM containing the XEScan/XEScan Reflection software and your personal keycode. In the envelope with the printed-on license agreement you will find a hardware module (Dongle/Hardlock). If one or more of these components should be missing, please contact your distributor or dealer.

Recommended System Configuration

To use XEScan/XEScan Reflection's full capabilities, you will need a PC with a 800 MHz processor, a 512 MByte RAM for color copies or 256 MByte RAM for monochrome copies and a 20 GB ultra-wide SCSI hard drive or E-IDE drive. Furthermore you need a Unibrain FireBoard 400 and a standard VGA display with a 100% Windows compatible video driver.

Software Requirements

Operating Systems

For the XEScan/XEScan Reflection software we recommend Windows 2000 as the operating system. You may also employ Windows 98 SE, Windows NT4 or Windows XP as the operating system.

Note:

In order to install and to remove the program, you will have to be logged in as Administrator on the computer. If a user has "Power User" or lower privileges, Windows denies the installation of the program. In order to work with the program, the currently logged in user has to be provided with "Full Control" on his working directory. In case of a normal installation, this should be the directory the program is installed to.

Program Installation

Please connect the hardlock to the first parallel port of your computer. Be sure you have activated this port in your BIOS. The settings for LPT1 should be "Bidirectional" or better.

Insert the CD into your CD-ROM. If you have activated Autostart, the installation program should run automatically.

Otherwise please go to your desktop, select the CD-ROM drive and open it. Please start the SETUP.EXE by double-clicking it.

The language selection screen will appear. This selection dialog will be in the language of your Operating system, the further installation will continue in the selected language.



The splash screen as well as a setup dialog will appear.



The Welcome screen follows. Please click on Next to get to the software license agreement:



If you accept the displayed license, please select Yes, otherwise select No to exit the setup.

oftware License Agreement			×
Please read the following Licens the rest of the agreement.	e Agreement. Pr	ress the PAGE D	OWN key to see
IF YOU COMPLETE THE INSTALLATION SOFTWARE, YOU AGREE TO BE LEGAL TERMS AND CONDITIONS. AFTER READING THESE TERMS PLEA OF THEM BY CLICKING THE BUTTON N WHICH APPEARS AT THE END OF THIS ACCEPT THESE LICENSE TERMS, DO N INSTALLATION OF OR OTHERWISE US THE INSTRUCTIONS SPECIFIED BELOV "REFUND" TO OBTAIN A REFUND OF T	LLY BOUND BY MARKED "LICEN S LICENSE. IF Y NOT COMPLETE E THIS SOFTW W IN THE SECT	THE FOLLOWIN OUR ACCEPTAN ISE ACCEPTED OU DO NOT E THE VARE BUT FOLL ION HEADED	иа <u> </u> исе оw
LICENSE GRANT XESystems, Inc. ("Xerox Engineering Syst Do you accept all the terms of the precedir			▼.
will close. To install XEScan, you must ac			<u>N</u> o

In the next menu please select where you want to install the program. If you are not sure which folder to choose, leave the default settings. As these settings are different for each version or Service pack of the software, no other software will be overwritten.

Choose Destination Loca	tion	×
Choose Destination Loca	tion Setup will install XEScan in the following folder. To install to this folder, click Next. To install to a different folder, click Browse and select another folder. You can choose not to install XEScan by clicking Cancel to exil Setup.	
	C:\\XEScan\15\ Browse	
		_
	< <u>B</u> ack <u>Next></u> Cancel	

In the next menu please select the type of setup. You may choose between Typical, Compact or Custom.

Setup Type			×
	Click the type	of Setup you prefer, then click Next.	
	C <u>T</u> ypical	Program will be installed with the most common options. Recommended for most users.	
	O <u>C</u> ompact	Program will be installed with minimum required options.	
	 Custom 	You may choose the options you want to install. Recommended for advanced users.	
		< <u>B</u> ack <u>N</u> ext > Cancel	

The typical setup is recommended for most installations. You should choose the compact version if you want to install only the necessary parts of the software. This will leave out all optional files. If you select the custom setup you will be able to choose the options you want to install from a list – recommended for the advanced user.

If you choose the custom setup, you will have to activate or deactivate the components for the installation in the following dialog:

Select Components		×
	Select the components you want to install, c you do not want to install.	lear the components
	<u>C</u> omponents ✓ Help Files ✓ XEScan Program Files Manuals ✓ XES hwhelp Files ✓ XEScan Reflection Demo	82704 K 2048 K 0 K 7196 K 4500 K
	Description	Change
	Space Required: Space Available:	163688 K 1849296 K
	< <u>B</u> ack <u>N</u> ext >	Cancel

After selecting Next the installation procedure will start. During the installation a progress bar will appear showing the percentage of progress. If the progress bar will reach 100% the installation is done. The windows on the right shows - from left to right - the transmission form the CD-ROM to the hard disc, the amount of data stored on the CD-ROM and the disk space on the hard drive.

A XEScan	
XEScan	
	·
	42 %
	Cancel
	· · · · · · · · · · · · · · · · · · ·

After XEScan has been installed, click Finish for completing the setup. This step will get you back to Windows.

Setup Complete	
	XEScan has been installed.
	Click Finish to complete Setup.
	< Back Finish

Keycode Entry

Start the program with a double click on the program icon on your desktop. The dialog Keycode Entry will automatically appear. In order to work with the full version of XEScan/XEScan Reflection you will have to enter your personal keycode. The keycode is part of your XEScan/XEScan Reflection package.

The XEScan Reflection Demo does not require a keycode or a hardlock.

Under Keycode enter your personal XEScan/XEScan Reflection keycode. The keycode is part of your XEScan/XEScan Reflection package. If you enter it manually, bear in mind it is case sensitive! The keycode symbols will be displayed in red until the keycode is complete and error-free.

🧱 Keycode Entry 🛛 🔀
Keycode QW2u)GgfVnXFJ)(GJJ97#UuNjeVqkZ/7/6WtaQ=
Version 3.44.0.218/beta
C:\\SynergixScanSystem-SA\XEScan\15\3_44_0_218\xescan.exe
Serial No: 1111
First Started 07-Nov-2002
Printed Size 13.54 sqm
Scan Target

If you prefer entering the keycode with a keycode target, proceed as follows. Place the target in the scanner; the target arrow must point towards the scanner. Click then on Scan Target. Place the target in the scanner and click on Scan target. If the target is obliquely positioned in the scanner, an error message will appear. Place the target at right angles with the scanner and repeat the registration process.

The keycode target is always black and white and may thus be sent by fax. However, the dark margins resulting e.g. from fax transmission may disrupt the target reading. In this case, cut the paper margins along the marked lines and repeat the process.

After registration the program has to be restarted.

Hardware Configuration

At first start, after you have licensed the software with your keycode, the Hardware dialog will appear on the screen. Please proceed now with the selection and configuration of scanner and printers.

Scanner Demo Scanner	
Denio scanner	
Available Printers Installe	ed Printers
Dummy HPDJ 1050c HPDJ 1055cm Xerox Synergix 510dp Xerox Synergix 8825 Xerox Synergix 8830	

Scanner

In this field the identification of the installed scanner type is displayed. You will get to the scanner configuration using the button to the right of the scanner name. These settings are device-dependent. The color of the LED depicted on the button shows the state of operation the scanner is in.

- no response
- warming up
- error
- operational

Highlight a scanner and click the button Scanner Configuration to get to the scanner dialog. Select a scan job and, if ICC profiles are available to you, enter the corresponding path.

🙀 Synergix Scan System - SA (Color) 🔀 🔀				
Scan job				
Centered				
Document	Rewind (up to 36" wide and/or 60" long)	•		
Power saver (min.)	30			
Scan speed				
Max. data rate (MB/s)	5			
Max. speed	max ips			
Winding speed	max ips			
			× a 1	
		🗸 ок	🗙 Cancel	

Confirm with OK to return to the Hardware dialog and install your printers.

Installing Printers

(XEScan Reflection only)

Highlight the printer type you want to select in the field Available Printers and then click on the red arrow. You can also double-click on the printer. You will then proceed to the printer configuration wizard.

This assistant will take you step by step through the installation and calibration of your printer.

Connection

In this first window you can enter your preferred type of connection. If you connect to the printer via SCSI directly, you should select SCSI.

In order to achieve maximum performance it is recommended to choose Output System. The output subsystem works as a spooler for the SCSI printer. You should select a spooling folder either on a local hard disc or on a remote computer if you want to install the output subsystem on another PC.

Connection
Printer name
Xerox Synergix 8830
Xerox 8825/30/50 TCP/IP Host name or IP address
 Output System Spooling folder

Medium

Here you can select the paper types you want to work with. All paper types with the indication "User defined" can be renamed by double-clicking on the entry. You can use the context menu (right mouse click) to make the selection easier.

Define Medialist	
✓ HP Coated Paper	•
✓ HP Coated Paper, Universal	
HP Heavyweight Coated Paper	
HP Heavyweight Coated Paper, Universal	
✓ HP Bright White Inkjet Paper	
✓ HP Outdoor Paper	
HP High-Gloss Photo Paper	
User defined 1	
User defined 2	
User defined 3	
User defined 4	
User defined 5	
User defined 6	
User defined 7	
User defined 8	

Hardware

As the calibration depends on the media that are used, you need to enter which media are currently in your printer. The picture on the left shows the position of the rolls in the printer (roll 1 and roll 2). Please be sure to enter the sizes and the media selection correctly.

Loaded Consumables		
Size of roll 1	Maximum Width	
Medium in roll 1	HP Coated Paper	
Size of roll 2	None	•
Medium in roll 2	HP Coated Paper	_
Size of roll 3	None	
Medium in roll 3	HP Coated Paper	

Print Job

Device-specific settings as well as different print and quality modes are to be set in this device-dependent dialog.

DPI	600 dpi
Quality	 Printer settings Lineart (accelerated) + Ink-reduction (300dpi only) Draft (accelerated) Draft Normal (accelerated) Normal Photo (accelerated) VARware
Print passes	2
Print direction	Bidirectional
Carriage Speed	40
Overprinting	
Advance adjust	0
Dry time	0
Minimal time per Pass	0
Dither pattern	 Ordered Matrix Rainbow Standard Error Diffusion
Ink Set	 Black only CMYK
Roll Number	Printer settings
Crop Printer Margins	
Cut paper	🔽 (if cutter on)

Calibration

(XEScan Reflection only)

Your system is now about to be calibrated. This ensures both color matching and length correction. Therefore a calibration is recommended for color and black and white systems alike. It is recommended to perform all calibrations as some printer settings will otherwise not allow copying.

Calibration							
Quality		Medium	ı	Copy Profile	RIP Profile		
360 dpi, High Speed, (CMY)	К	360 Pre	esentation				
🔲 🗖 360 dpi, High Speed, CMYK	LeLm	360 Pre	Presentation				
🔲 🗖 360 dpi, 1 Print Pass, (CMY)	К	360 Pre	360 Presentation				
🔲 🗖 360 dpi, 1 Print Pass, CMYK	LeLm	360 Pre	esentation				
🔲 🔲 360 dpi, 2 Print passes, (CM	Y)K	360 Pre	esentation				
🛛 🗹 360 dpi, 2 Print passes, CM [*]		360 Pre	esentation				
🗌 🔲 360 dpi, 4 Print passes, (CM	•		esentation				
360 dpi, 4 Print passes, CM			esentation				
 ☐ 360 dpi, 8/16 Print passes, ☑ 360 dpi, 8/16 Print passes, 			esentation esentation				
Profile Library							
+ Import Library	📙 Export to Lit	orary					
Calibration target			🔘 X-Rite DTP41				
🙈 Scan Target	Print Targ	et	Gretag / TECHI Scanner	KUN			

Target Dialog

After a right-click on the quality settings the following dialog is shown:

Edit media parameters Reset media parameters Edit size correction Edit RIP size correction All None Invert selection

Edit media parameters

Under certain circumstances it may be necessary to change the default media parameters Ink-limit or Gamma. But this is usually not necessary, and an incorrect value can lead to a color mismatch of original and copy. Please print the file grayscale.TIFF from the XEScan installation folder with the settings GAMMA=1.0 and Ink-limit=100%.

Please adjust the ink limit so that the dark gray areas are still distinguishable. The darkest area must be totally black.

Keep this setting. Then change the GAMMA value, until the brightness of 50% GREY is exactly in the middle of the range between 100% WHITE and 100% BLACK.

🚉 Options		×
Ink Limit [%]	70	
Gamma Correction	1.5	
	🗸 ок	🗙 Cancel

Reset media parameters

The parameters will be reset to the default values.

Edit size correction

Correction factors for width and length are automatically calculated during color calibration. These factors can be changed manually for copying and RIP in the rare case when the automatic size recognition fails to work. This is usually not necessary and can lead to a size mismatch of original and copy if a wrong value is entered.

Edit size correction	×
Width correction	100 🔶 %
Length correction	100 🗲 %
🗸 ок	🗶 Cancel

Edit RIP size correction

Edit RIP size correction works like the aforementioned function but only applies to import files.

All

If you select All, all check boxes will be activated.

None

With None you can deactivate all check boxes with a single click.

Invert selection

Through this function all active check boxes will be deactivated and vice versa.

Printing the Targets

(XEScan Reflection only)

You will be able to print different targets according to the selected output options and media types. Please check or uncheck the boxes to calibrate your system with the desired targets. Then click on the button Print Target. The targets are then printed on the selected printer. They consist of an area with an arrow surrounded by a white frame, trim lines and a print label.

Scanning the Targets

(XEScan Reflection only)

With some combinations of ink type and print medium a dry time may be necessary!

Please cut the targets at the trim lines so that they are no longer visible. Do not cut off the white frame! The white frame around the main part of the target must be at least 0.5 inch.

You can then scan the targets in any order. Please insert the target into the scanner. The arrow on the target must point towards the scanner. Then click on Scan Target. Please be sure to stage the target in mid position. After a successful calibration the date of calibration appears in the window (behind the selected combination). Repeat this process for all printed targets. Leave the wizard by clicking on the button "Finish".

Export to Library

(XEScan Reflection only)

In order to backup your calibration data or to move your calibration to another system where the same scanner and printer are attached you can export the calibration data to profile libraries.

In the calibration dialog click on Export to Library. This will open a list for all performed calibrations of the current printer. Only those which are checked in the list will be exported.

Import from Profile Library

(XEScan Reflection only)

With this function you can import calibrations that were made on another system or were saved for backup purposes. Open the printer specific profile library and mark the calibration data you want to import.

Deleting Installed Printers

(XEScan Reflection only)

Below the field Installed Printers in the Setup window you will find the button Delete printer.

勴

To activate this function, select the desired printer under Installed printers, and then click on the bin. This function is also available using the context menu (right mouse button).

Preferences

Under Preferences you will determine default settings in the tabs General, Warning Options, Label, Accounting, Email, User Administration and Archive.

<u>General</u>

Under Paper format, select between ISO and US standard formats.

As a unit you can choose to work with size entries in millimeter or inch.

If you only want to scan a part of your documents, enter the size of the prescan under Maximum Length of Pre-Scan. This input can be applied to the editor.

If ICC profiles are available for your screen activate the corresponding control box. ICC profiles are only supported by Windows 98, and Windows 2000 and newer operating systems!

If you want changes of scanner status to be displayed, activate the corresponding check box.

General Warning Options	Label	Í	Accounting	Í	EMail	 ↓
Paper Format US	•	Unit <mark>Inch</mark>				•
Maximum Length of Pre-scan Apply prescan limit in filter editor		11.81	▲ in			
☑ Use Screen ICC Profile						
☑ Display scanner status changes						

Warning Options

The warning options can be activated for the following operations:

- Paneling
- Subsequent Scaling (printing from the archive with a scaling factor)
- Nesting
- Margins (from a certain size in mm)
- Copies (from a certain number of copies)
- Gamma
- Mirroring
- Disk space (free capacity of your hard disk in MByte)
- Scan resolution (warning when using a fixed dpi value)
- · Scanned file already exists
- · Calibration is too old (number of days)
- Size Correction
- Scanned file raw size
- Output dpi

If the warning options are activated, a corresponding warning message is shown on the screen before the scan or copy process starts. It is then possible to change the output options or continue the process.

General	Warning Options	Label	Accounting	EMail	4 >
🔽 Warning Optic	ons				
🔽 Paneling					
🔽 Subseque	nt Scaling				
🔲 Nesting					
🗾 Margins		1 📥 in			
🗖 Copies		2			
🗾 Gamma					
🗾 Mirroring					
🗾 Disc Spac		100 📥 MB			
🔽 Fixed Sca	n Resolution				
🔽 Scanned F	File already Exists				
🗾 Calibration	i too Old	20 🄶 days			
🗾 Size Corre	ction				
🗾 Scan File I	Raw Size	1 🔶 MB			
🔽 Output Re	solution	2400 \pm DPI			

Label

(XEScan Reflection only)

Under the tab Label you can individually determine the information the standard label is supposed to contain. The standard label may also be turned off completely at this point. To do this, deactivate the control box Print label.



Accounting

Accounting is an important tool for billing the copies made or the evaluation of statistics. By activating the control box Accounting, the most important data is saved in a log file. This data can easily be exported to Excel to be reprocessed. Of course, Excel must be installed on the PC to use this feature. The Excel file will be stored in the

same folder as the account log file.

General	Warning Options	Label	Accounting	EMail 📕 🕨
🔽 Accounting				
🗾 Always As	k for Customer Info			×
📃 Encrypt Ar	ccounting File			
Customer Info				
Filename		account.log		
🔽 Export to B	Excel			
🔘 After e	every Usage			
💿 At Pro	gram Shutdown			

The text in the field Customer Info is written to the log file at each scan, scan-to-print or RIP operation.

In combination with the option Always Ask for Customer Info the user will have to store his user name, customer name or any other text information in the log file.

Depending on how the data is supposed to be postprocessed, we recommend opening several log files, e.g. one per day or per month or until the next billing date.

<u>EMail</u>

In this window you can configure your system for email scanning.

Warning Options Label		Accounting	EMail	User Administratic 💶 🕨
Maximum Size	1	🚔 мв		*
SMTP		_		
Sender Address				
SMTP Server				
💭 MAPI				
😒 Standard EMail Signature				
🕥 No EMail Signature				
💭 User Defined EMail Signature				

If you are using a SMTP Server, we recommend you to send an email with the Button Send test email your own address. If this works properly, your system is correctly configured.

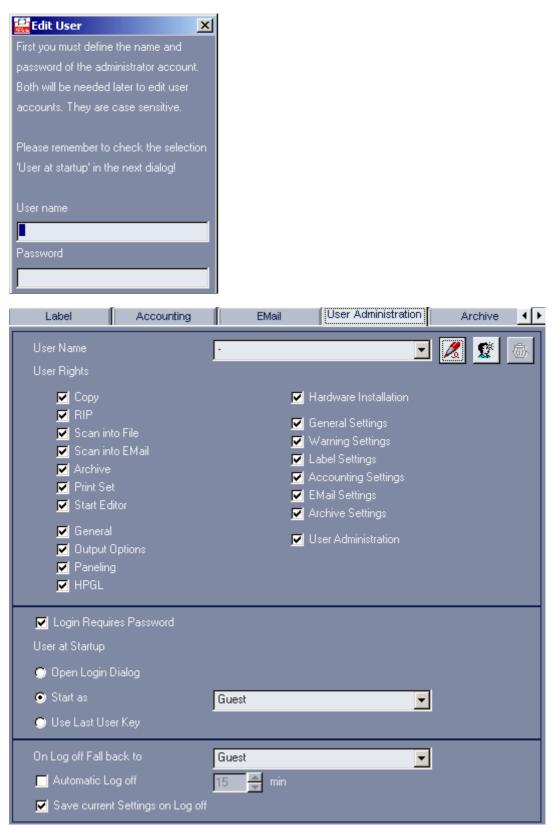
Under Maximum size you can determine from which file size on you will be warned before the email is sent.

The installation of a MAPI server depends on your operating system. Please refer to your Windows system

manual.

User administration

Please note that immediately after the installation a user with the symbolic name "_" is logged on with all administrator's rights. You will be prompted to replace this user key with your own account. Please note that the user key has the function of a password.



As an administrator you can then create user accounts with different user rights with the button New User. New users will initially get the same rights as the currently selected user.



You can also delete users completely with the bin.



In the section User at Startup you can select if a user key is requested at program start or which default user is logged in. Additionally you can choose if the programs should log in the last user.

With regards to the log off you can select which user is logged in after the current user has logged out. Typically this should be a user with restricted rights. You may also state the time of inactivity after which a user is automatically logged off.

You can also choose to save the parameters of the user logging out so that the following user can work on with these settings. When this option is not selected, the user who will log in will work with the settings specified by the administrator.

Archive

In this tab you can select which file extension should not be displayed. The most common ones are predefined. With the icons "Add File or Extension" and "Delete File or Extension", you can quickly append or erase files or extensions.

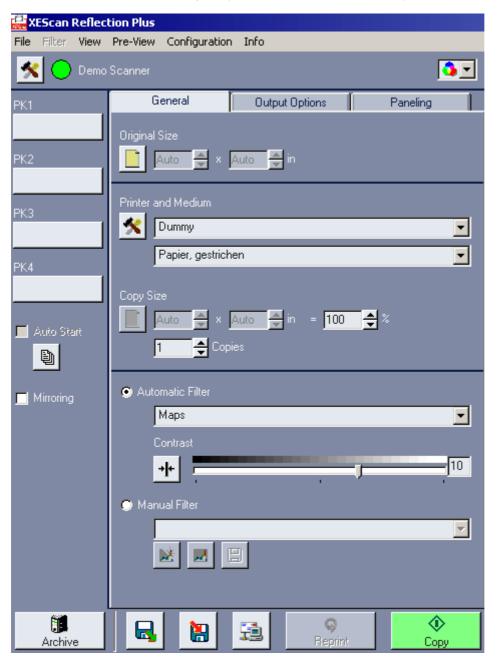
Accounting	EMail	Archive	
Hidden Files or E	xtensions		
*.bat *.com *.dll *.doc *.exe *.htm *.html *.inf *.ini			
*.lnk		 	_

Making Prints

(XEScan Reflection only)

This chapter is intended as a detailed description of the XEScan / XEScan Reflection interface in copy mode. We will give you step by step directions so that you can immediately work with XEScan/XEScan Reflection.

In our example we will be assuming that you would like to make a 1:1 copy of an ISO-DIN A4 original.



First Settings

Selecting a Color Mode

Please select if you want to perform a color copy, a grayscale copy or a black & white (monochrome) copy. Nota bene: depending on your scanner features and software license some modi may not be available.



Scanner / DPI

Check the scanner is operational. The button depicted as a LED is a control field for the scanner. The color of the LED on the button shows the state of operation the scanner is in:

- operational
- error
- warming up
- device not found

If the scanner LED is not green, move your mouse over the scanner name to obtain the error message.

Scan Mode



Autostart

Autostart is intended to ease document scanning. If you activate this function, scanning will start when documents are inserted in the scanner.

Batch

If you scan similar documents it may not be necessary to do a preview for each document in order to set the parameters for the automatic mode. So you may click the button to be in batch mode. In this mode a preview is only done for the first document, the parameters being used for all following documents to speed up the scanning of a batch of similar documents.

When the button is pressed and the first scan has been done the user will no longer be able to change either the settings for document size or document type or the scan mode (bw/grey/color). (The user can leave the batch by releasing the button or by changing to a different program mode (RIP/STF/STP/STEmail).

Mirroring

Select Mirroring if you want to mirror the image.

<u>General</u>

After successfully installing XEScan/XEScan Reflection and first-time hardware installation, start the program by double-clicking the XEScan/XEScan Reflection program icon. You will get to XEScan/XEScan Reflection main window (tab General).

General Output Options	Paneling
Original Size	
Printer and Medium	
Dummy	•
Papier, gestrichen	•
Copy Size Auto 🛖 × Auto 🛖 in = 100 🛖 : 1 🛖 Copies	
💭 Automatic Filter	
Photo	_
Contrast	
→ +	0
🕥 Manual Filter	
* Current *	-

Original Size

The next step is to enter the size of the original that is to be copied under Original Size. Please take note of the maximum scan width of your scanner! For standard sizes this is done easiest using the speed button or the context menu. When using the context menu, move the mouse to the entry field Original Size and press the right mouse button. A menu will appear with a selection of paper sizes.

Under Configuration / Preferences you might want to change the paper format and the unit for size display before proceeding.

Depending on the scanner type the options Automatic Width and Height Detection will be available.

Now select DIN A4 portrait. Alternatively you can enter the size in mm or inches using the keyboard or alter it with the arrow keys.

Retrieve Width Automatic Width Detection Automatic Height Detection Automatic Size Detection Maximum scan size ANSI A landscape ANSI A portrait ANSI B landscape ANSI B portrait ANSI C landscape ANSI C portrait ANSI D landscape ANSI D portrait ANSI E portrait Arch A landscape Arch A portrait Arch B landscape Arch B portrait Arch C landscape Arch C portrait Arch D landscape Arch D portrait Arch E portrait Arch 30 portrait

Printer

Check you have entered the correct output device in the Printer field. If you want to print the copy on another printer choose an output device from the combo box.

Click this button within the printer field to configure your printer:



The dialog for the printer configuration is device-dependent. In our example, you could select under Loaded Consumables the size of the inserted roll, while you could determine print-specific settings under Print Options such as e.g. quality mode and dpi.

<u>Medium</u>

Check you have selected the correct paper type under Medium. If you want to print the copy on another paper type select the desired medium from the combo box. If the medium has not been calibrated yet, you will not be able to copy and will have to calibrate the paper type under Configuration / Hardware. IMPORTANT: The copy process can only be started with a calibrated medium.

Output

The entered input values will be transferred automatically into the field Print size. When you alter a value under Copy Size (width or length), the second value increases or decreases automatically. This ensures that the aspect ratio remains constant when a copy is enlarged or reduced. Since we will not do an output enlargement or reduction in our example, it is not necessary to change the output size in mm or in a percentage.

Number of Copies

By default the number of copies is set to 1. If you want to make several copies right away, alter the number correspondingly.

If you make more than one copies you also have the option to make a test copy first. Set the number of copies to 1. If the copy is correct, change the number of copies accordingly, and click on the menu field Reprint (in the

lower part of the main window).



Automatics (Quality Settings)

With the button Automatic the program determines the correction of the black and white point and creates a dynamic filter depending on the document you scan. The creation of a custom made filter is not necessary. From the combo box to the right of to the button Automatic select the type of original. With this setting you preselect the type of original you want to copy. Depending on the selected mode, different lists of filters will be displayed.

Color and grayscale mode

Maps

This mode is best suited for maps with rastered areas of color and text (no photos). Good text reproduction is achieved through a high black point correction. In order to descreen the areas of color the adaptive special filter Descreen 1 is used.

Photos

We recommend this setting for photographic originals. Using this automatic mode, a careful black and white point correction is set. An editing of the original with sharpeners and softeners will not take place.

Line/Text

Use this mode for pure lineart (technical drawings), where reproduction of the edge sharpness is important. This mode uses the special filter Descreen2.

• Prints

This is a universal automatic for different mixed originals such as e.g. brochures with photos and text. The black point is not set as high as in map mode to prevent photos from being denatured. However, text will be less dark.

CAD plots

This filter is best suited for originals that have been printed on an inkjet printer.

Unchanged

With the setting Unchanged neither a filter nor a black and white point correction is applied.

Black and White Mode

Line/Text

This mode should be used to copy documents mainly consisting of line drawings and/or text.

Blueprints

Please use this mode to copy blueprints - blue background and white lines.

Bluelines

This mode is suitable to copy documents which have blue lines on nearly white background.

Pencil

Use this mode to copy low-contrast lineart originals, such as pencil drawings.

Photos

We recommend this setting for photographic originals. Using this automatic mode, a careful black and white point correction is set. An editing of the original with sharpeners and softeners will not take place.

Graphics

Use this mode to copy documents which contain mainly graphics - like charts.

• Unchanged

With the setting Unchanged neither a filter nor a black and white point correction is applied.

After selecting the suitable automatic b&w mode please select the submode:

Normal	•
Normal	
Light Dark	
Dark	
Faded	

Brightness

The brightness of the copy is influenced with the slider control for Contrast. When using normal originals, we recommend setting the value of the slider to 0. Moving the slider to the left (negative values) will result in a copy darker than the scanned original, while moving the slider to the right (positive values) results in a brighter copy.

You may also enter the numeric value in the input field on the right. If you want to reset the value back to 0, you may use the reset button (to the left of the slider).

Manual Filters

You can create new filter or change existing ones.

Before you create a new filter, change to the desired mode (color, grayscale or b&w) in the main window General. Select New and you will get to the corresponding filter editor.



After you have optimized all settings with regard to your input, you can save this filter under a new name. To avoid possible confusion, filter names can only be used once.

If you want to change a filter, you first have to select it in the tab General under Manual Filter. Select then Change with the speed button or the command under Filter.



Depending on the type of filter, you will automatically get to the filter editor for color, grayscale or black and white. Enter all changes and click on Save. The program suggests the same name as the filter name. If you accept the suggestion and exit the dialog with OK, the program overwrites the "old values". If you change the filter name, a new filter is created automatically. The filter *Current* is a temporary filter containing the current settings. These values can be changed as well. If you wish to save the current settings to the filter archive, you have to enter a new filter name.

If you made a filter and returned to the main interface of your software, you can still save it into a file. To activate Save, you have to select the temporary filter *Current* and select Save (speed button or command under Filter).



To save the current settings to the filter archive you have to enter a new filter name.

Further details referring to creating, changing and saving filters are described in the chapter Filter Editor.

Output Options

(XEScan Reflection only)

Please note that all settings made under Output Options will remain the same until they are changed. All output options can be deactivated with the menu item Reset under File.

General	Output Options	Paneling
Margins Borders Equal O Trim Lines	0 숙	0 🔶 in
🗾 Print Label		
		X
🔽 Nesting	🗾 Autorotat	e
📕 Use Full Paper '	Width	
Distance	0.1 🖕	in
🗹 Alignment		
 ● Left Offset ● Right Offset ● Centered 	0 🚽	ir

Margins

In the field Margins you may set additional white margins. The size of these margins can individually be set in mm for the left, right, top and bottom. However, the maximum print width of the initial copy decreases by the additional white margins. If you want a continuous white margin of 20 mm, just activate the check box Borders equal and set the width of the left margin to 20 mm.

Trim Lines

(XEScan Reflection only)

When working with copies with a white background or additional white margins, it is particularly hard to cut the edges at a right angle to each other. In the field Margins you may activate the check box Trim Lines. A thin cutting frame will be added to the output.

Print Label

If you activate the check box Print Label, additional information such as date, time, output device, scan and print dpi, scaling etc. will be printed. The standard label can be configured under Configuration / Preferences / Label. Enter the text in the entry field (e.g. customer, employee etc.). You may use the history for frequently used label entries.

<u>Nesting</u>

If you need to print several copies and at least two copies will fit into the available print width, the copies will automatically be printed next to each other if you select Nesting.

Distance

Under Distance you can determine the size of the white area in between the copies in mm.

Use Full Paper Width

If you activate the menu field Use Full Paper Width, as many copies as will fit on the paper width will be printed, without regard to the total number of copies that has been entered under Count.

Autorotate

When using this output function, the copy will be rotated when paper can be saved during the output of the copy.

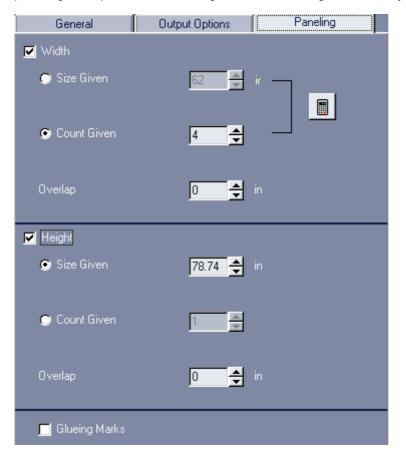
Alignment

If the output size of the copy is smaller than the available print width of the printer, you can select how the copy is to be printed: left-aligned, right-aligned or centered. Besides, an offset can be entered in mm for the left and right-aligned output.

Paneling

(XEScan Reflection only)

For large format outputs, such as posters or presentations for fairs and exhibitions, it is necessary to divide the copy into several panels. As soon as the required output size exceeds the maximum print width or the maximum print length of a printer, certain settings in the tab Paneling are necessary.



Panel Size (Width/Height)

You may choose whether paneling is to be done for the width, the height or for both directions. To do this, activate the corresponding check box(es).

You may enter either a fixed size in mm or a number of panels. If you enter a number under Count given, you will see a correspondingly high number of magenta-colored borders appear on the preview.

Calculate

To make paneling as easy as possible, click on the button Calculate.



XEScan Reflection calculates then for the width the number and maximum size of panels including the overlap entered. Under Size given the maximum print width of the selected printer is indicated and under Count given the number of panels is entered. If the output size or the output device is changed in the main window, you must click on the menu field Calculate once again to calculate the panels. The entered values are then immediately updated. You may of course change the suggested values manually.

Example

The poster to be printed is supposed to be 4000 mm wide. The maximum output width of the printer is 900 mm.

If you enter 900 mm under Size given (width), four 900mm-wide panels and one 400 mm-wide panel will be printed.

If you enter "5" under Count given, five 800mm-wide panels will be printed.

Overlap and Glueing Marks

An overlap in mm can be entered. The overlap is added on the "right side" of the Width, and at the "bottom" of the Height. If you set the maximal print width of the printer under Size given, it is reduced by the selected Overlap.

If you click on the menu field Glueing Marks, a mark will be set at the beginning of the overlap. The glueing marks can only be defined in connection with an overlap.

Making the First Copy

When all settings are done correctly, the menu field Copy will be displayed in green. Place your original in the scanner and click on Copy or use the function key F8.



Please note: you will only see the preview if you have clicked on the Preview button first. If no preview is available the preview will show an empty window.

The original will now be scanned and the data will be transmitted to the printer.

Reprint



It is often helpful to do a test copy first. You can check if the contrast and brightness settings are correct, or you may want to change the output options. You can only select a different printer if you have configured several identical printers in your system.

Presets

All settings that are entered under General, Output Options and Paneling can be saved into the directory Presets with File / Presets / Save. These Presets can be opened for different customers or projects and reloaded on demand with File / Presets / Load.

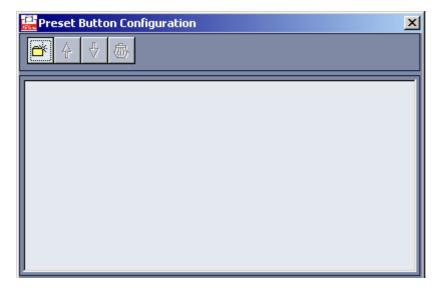
These presets can be linked for instant access to the four buttons on the left side of the main window. To do this, click on the presets buttons with the right mouse button. The following context menu will appear:



Select Assign Current Settings to name, save and assign the actual settings to the appropriate button.

With Select Preset File you may load saved settings and assign them to a button. The file extension indicates if the settings belong to Scan to File or Scan to Email.

To change the order of the buttons or delete some parameters, go to the Preset Button Configuration via File / Presets / Preset button configuration. The following dialog will appear, in which you may load or remove presets and assign some to the buttons.



Preview



The preview is very useful as you can see the results of any alterations on the original.

Scan Pre-View



A Rescan is required for each preview, when you want to change the original size in the window General or use a new original.

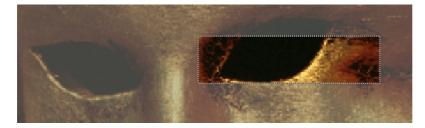
Automatic Deskew



With this function an obliquely positioned image can be adjusted horizontally. In this mode the setting of an AOI is not possible.

Set AOI / Cropping

You can define and edit any area in the preview. The size of the defined area is then entered as the output size in the window General. To set an area of interest, or AOI, draw a rectangle around the desired section, keeping the left mouse button pressed.



The selected area can be enlarged and reduced in any direction. To do this, move the mouse pointer to an edge of the rectangle until a double-arrow appears. Move this arrow in the desired direction with the left mouse button.

To move the section, click into the AOI and move the rectangle to the new position keeping the left mouse button pressed.

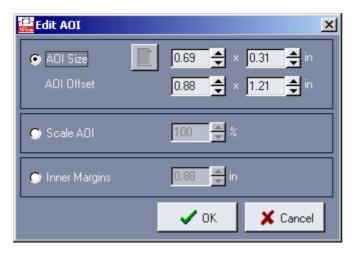
Reset AOI Setting



With this function you can delete the selection of the area of interest.

Edit AOI

Instead of dragging the AOI manually, you can determine its width and height and its position exactly. Right-click in the preview and select Edit AOI in the context menu. You may change the size of the AOI and/or the offset where the AOI begins. In addition you can enter a scaling factor.



Zoom to AOI / Cropping



With this menu item - or the corresponding button - only the selected area will be displayed in the print preview.

Zoom in / Zoom out



With Zoom in the preview or the area of interest is displayed enlarged by 100%. Zoom out resets the preview to its original size and will only be active after an enlargement.

The functions Zoom to AOI / Cropping and Zoom in do not trigger a rescan. If the result looks uneven, grainy, you may do a manual rescan: the preview will then be rescanned at higher resolution.

Select Panels

(XEScan Reflection only)

If you enter a number under Count given in the tab Paneling, you will see the arrangement of the panels on your image, including the overlap. The preview of the panels is also possible in combination with the area of interest.

You have the option to print single panels. Each panel is displayed with a magenta-colored border. Just click on the corresponding panels to activate or deactivate them.

Roll Preview

(XEScan Reflection only)

The roll preview is displayed below the print preview. The roll preview shows the alignment (right, left or centered) of the copy and the number of copies that fit on the roll width.



Function and Structure of the Filter Editor

The filter editor is a central tool, which will help you achieve optimal results even with difficult originals. The filter editor will give you a preview of the copy on the screen. Each altered setting - e.g. black and white point correction, gamma value, input, background correction etc. - is immediately displayed on the screen.

That way unnecessary test prints are avoided, since the optimal parameters can be determined before the output is done. With difficult originals we recommend to save the current parameter settings as a filter for similar copy processes.

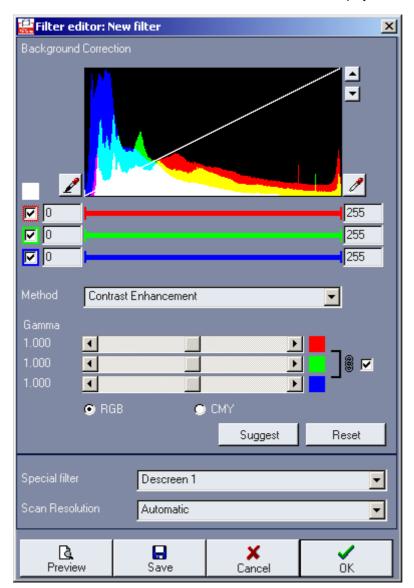
You will get to the filter editor by activating the button New under the tab Manual filter in the main window.



To change an already existing filter select the filter that is to be changed in the window General and click on the menu field Change.



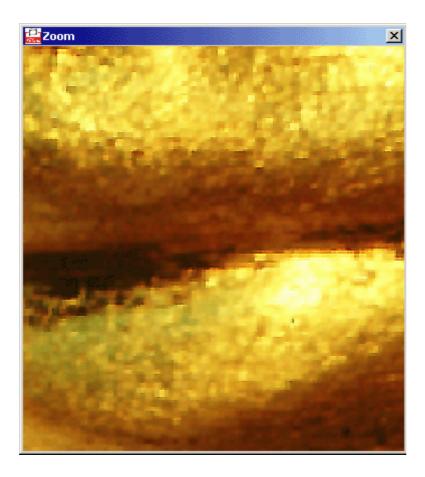
The name of the loaded filter or the indication "New filter" is displayed in the title bar of the window.





With a mouse click on the button Preview, the complete original will be scanned with low resolution and two windows will appear: overview and zoom. The complete scan is displayed in the overview window, which can be enlarged, reduced and placed anywhere on the screen.

The area selected by the frame you see in the overview is displayed in the zoom window. You can move the frame to any position to see details of the scan.



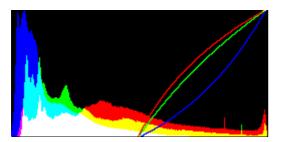
If you now change one of the parameters, e.g. contrast, threshold or edge sharpness, the results of your altered settings can be seen in the preview and the zoom window at once. Thus, you can easily find the optimal values for "difficult sections" without having to print elaborate test copies.

After you have optimized the settings, click on OK to transfer the current settings to the temporary filter *Current*. With the menu field Save you can save the current settings as a filter. The new filter is automatically transferred to the filter archive and can be used for later processes.

Filter Editor in Color Mode

The Histogram Window

In the histogram window the x-axis shows the brightness values and the y-axis the frequency of occurrence of each RGB-value. The left side of the x-axis represents values of low intensity (black), while the right side shows values of high intensity (white).

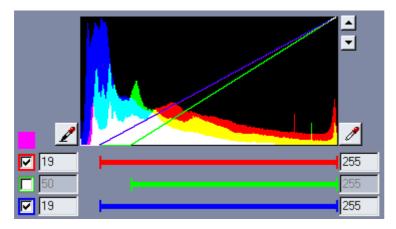


Black and White Points (Contrast)

For an optimal contrast adjustment, the black and white points can be set. The contrast filters determine two points for each color channel (red, green, blue). Every color value below the first point will be interpreted as black. Similarly, each color value above the second point is seen as white. This shall ensure that the scanned original contains a "pure" white without a gray haze, and a "pure" black with full saturation. The values ranging between the two points will be transformed to the full contrast range of 0 to 100 % to guarantee an optimal color reproduction.

Below the histogram window the color bars corresponding to the RGB-values (red, green, blue) are displayed. Their length represents the active range of the contrast filter. The empty area to the left of each color bar shows which range is set to 100 % black, the empty area to the right of each color bar represents pure white.

The black point (left side) is set with the left mouse button; the white point (right side) with the right mouse button. Usually all three color bars are moved together. However, you may explicitly enable or disable the control of each primary color.



Automatically Setting the Black and White Points

For most applications it is sufficient to let the program determine the black and white points automatically, using the Suggest button.

Manually Setting the Black and White Points

For all colors

To set the black and white points for all colors simultaneously, the check boxes for Red, Green and Blue must be activated. Set the black point with the left mouse button and the white point with the right mouse button.

For each single color of the Histogram

You have the option to set the black and white points for each single color. To do this, click on each color in the color selection menu separately and drag the white point with the right mouse button to the value where the peak of the respective color in the histogram is most pronounced. The activated color is displayed in the color field (box above the RGB menu fields). This way you can set the white point for all three primary colors as well as for mixed colors. The black point for contrast enhancement can also be determined individually for each color. However, we recommend setting the black point to the same value for each color.

Color Pickers for Black and White Points

You may also adjust the contrast with the color pickers for the black (left to the histogram) and the white points (right to the histogram). Click on the color picker for the black point and select a black area in the image by drawing a box around the area you want to define as the black or white point, keeping the mouse button pressed. The averaged color value of the selected area will be assigned to the black point, and automatically corrected.

Proceed likewise for the white point choosing a white area in the image.

Method for Background Correction

Under Method you can choose between Color preservation and Contrast enhancement. The background correction is strongly dependent on the black and white points and the sort of the original that has been scanned.

Contrast enhancement is suited for printed originals, photos and imported graphic files (RIP) with low black and white point corrections.

Color preservation is recommended for technical drawings, maps or mixed originals with strong black and white point corrections.

Gamma (Brightness/Color Intensity)

When performing a gamma correction, both the white and black points remain constant. Only the brightness, or color intensity, of the values between the points will be enhanced or lowered. When setting the gamma values you can choose between the color models RGB (red, green, blue) or CMY (cyan, magenta, yellow).

Usually, all three color values are changed simultaneously. If you want to change each color value separately, deactivate the check box to the right of the RGB or CMY values. The gamma value is set to a standard of 1.000 for all colors. With the Reset button all changes that have been done are cancelled and the values are set back to their original values.

Gamma			
1.000	•		_
1.000	•		8 🔽
1.000	•		
	🗩 RGB	🗩 СМҮ	

Special Filters

With difficult originals we recommend working with special filters in order to achieve an optimal print quality. You may choose from Soften, Sharpen and Descreen. If you do not want to use a special filter, choose None from the combo box.

Descreen

Descreen combines the advantages of the two filters Soften and Sharpen. Therefore, these filters are best suited for rastered originals. Depending on the raster of the original either the special filter Descreen 1 or Descreen 2 can be more effective.

Soften

With the help of this filter the image sharpness is reduced by smoothing the color transitions of clearly defined image lines and shaded areas. The functions Soften and Soften More are excellent for photos and only differ in the intensity of their effect.

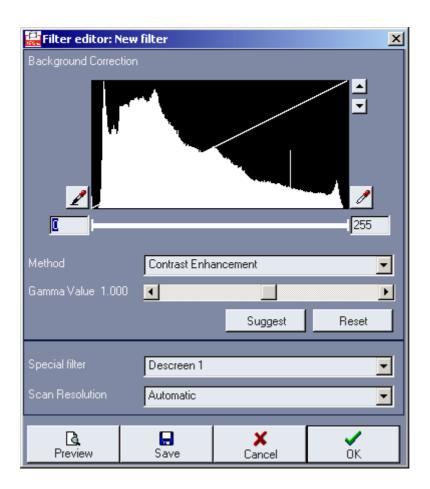
Sharpen

If your image is blurry, you may use this filter to enhance the image sharpness. This filter increases the contrast between bright and dark pixels and significantly enhances the edge sharpness for text and lines. With the filters Sharpen more and Sharpen most the intensity of the edge sharpness can be increased even more.

Scan Resolution

From the combo box Scan Resolution select the dpi value you would like to scan with. The list of dpi values depends on the device used and is different for each scanner type. We recommend accepting the standard value "Automatic". XEScan uses the optimal dpi value for scanning, depending on the device and the scaling factor used.

Filter Editor in Grayscale Mode



The Histogram Window

In the histogram window the x-axis shows the brightness values and the y-axis the frequency of occurrence of each grayscale value. The left side of the x-axis represents values of low intensity (black), while the right side displays values of high intensity (white). The black point (left side) is controlled with the left mouse button, whereas the white point (right side) is set with the right mouse button.

Black and White Points

For an optimal contrast adjustment, the black and white points can be set. A contrast filter determines two points for each grayscale value. Every grayscale value below the first point is interpreted as black. Similarly, each grayscale value above the second point is seen as white. This adjustment ensures that during scanning a "pure" white without a gray haze and a "pure" black with full saturation is read. The values between the two points will be transformed to the full contrast range of 0 % to 100 % to achieve an optimal reproduction of the grayscale values.

Automatically Setting the Black and White Points

For most applications it is sufficient to let the program determine the black and white points automatically, using the Suggest button. The program sets the black point where it spotted the darkest pixel and sets the white point at the highest intensity.

Manually Setting the Black and White Points

Set the black point with the left mouse button and the white point with the right mouse button or with the color pickers at each side of the histogram.

Method for Background Correction

Under Method you can choose between Color preservation and Contrast enhancement. The background correction is strongly dependent on the black and white points and the sort of the original that has been scanned.

Contrast enhancement is suited for printed originals, photos and imported graphic files (RIP) with low black and white point corrections.

Color preservation is recommended for technical drawings, maps or mixed originals with strong black and white point corrections.

<u>Gamma</u>

When performing a gamma correction, both the white and black points remain constant. Only the brightness and intensity of the grayscale values between the points will be enhanced or lowered. The gamma value is set to a standard of 1.000.

Special Filters

With difficult originals we recommend working with special filters in order to achieve an optimal print quality. You may choose from Soften, Sharpen and Descreen as the special filters. If you do not want to use a special filter, choose None from the combo box.

Descreen

Descreen combines the advantages of the two filters Soften and Sharpen. Therefore, these filters are best suited for rastered originals. Depending on the raster of the original either the special filter Descreen 1 or Descreen 2 can be more effective.

Soften

With the help of this filter the image sharpness is lessened by smoothing the color transitions of clearly defined image lines and shaded areas. The functions Soften and Soften More are excellent for photos and only differ in the intensity of their effect.

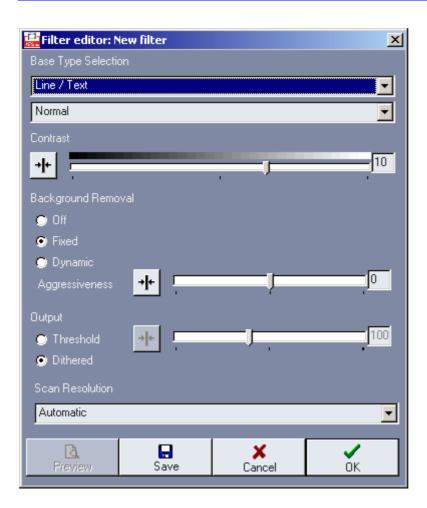
Sharpen

If your image is blurry, you may use this filter to enhance the image sharpness. This filter increases the contrast between bright and dark pixels and significantly enhances the edge sharpness for text and lines. With the filters Sharpen more and Sharpen most the intensity of the edge sharpness can be augmented even more.

Scan Resolution

From the combo box Scan Resolution select the dpi value you would like to scan with. The list of dpi values you will get is device-dependent. We recommend accepting the standard value "Automatic" as XEScan uses the optimal dpi value for scanning, depending on the device and the scaling factor used.

Filter Editor in Black and White Mode



Base Type Selection

Please select the type of document in the upper list box. Depending on this selection you can choose further special modes in the lower box.

Contrast

With the contrast slider you can arbitrarily change the contrast. In the window Zoom you will immediately see each change on the screen.

Background Removal

You may perform a background removal. If you select "Fixed", the same parameters are used for the entire document. If you select "Dynamic", the parameters are adapted according to the content of the original. The level of this adaptation can be changed using the input box "Aggressiveness".

<u>Output</u>

Threshold

Using threshold, the scanner reads several lines and then defines different thresholds for bright and dark areas. With the variability slider you can determine how many different thresholds are to be defined

Error Diffusion

The black and white pixels are arranged in order to form grayscale patterns, depending on the location of the neighboring pixels.

Scan Resolution

From the combo box Scan Resolution select the dpi value you want to scan with. The selection of the dpi values is device-dependent. We recommend accepting the standard value "Automatic" as XEScan uses the optimal dpi value for scanning, depending on the device and the scaling factor used.

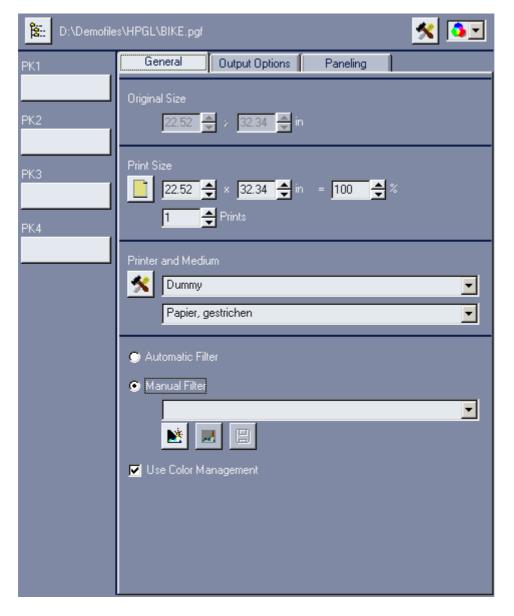
Import Raster or Vector Files

(XEScan Reflection only)

With the speed button RIP mode or the corresponding function under File you can import raster and vector files, enter different settings and print directly.



You will first get to the window Open. Using the field Look in you can change to the directory or the external device where the file to be printed should be loaded from. If you click on the desired file, it is transferred to the field Filename. The field Type of Files serves as a filter. If you select e.g. PCX here, only files with this extension will be displayed. If you then click on the menu field Load, the window General appears. Here you can still change the output size or the scaling factor, the printer type, the medium and count as well as the output options. If you then confirm with OK or press the function key F8, the file will be printed. Using the menu field Rescan you can take a look at the file in the preview window before printing it. Here you have the option to select or print only a specific area or do a paneling.



If your operating system allows, you can determine via the button Edit ICC options whether a special profile should be used.



Depending on the color space you can use different ICC profiles or determine a path to a profile. You can specify different ICC profiles for RGB and CMYK sources. With postscript files you have to choose the most suitable color space.

🔛 ICC Options	×
RGB ICC Profile	embedded profile, else sRGB
	Ê.:
CMYK ICC Profile	embedded profile, else Euroscale
	Ê::
	✓ OK X Cancel

HPGL Files

Gener	al 📗	Outpul	t Optior	ns 📗	Paneling			HPGL	
Pen Settings as Defined in File User Pen Settings									
Pen #	mm				mm				
1	0.35	-	•	-	0.00	0	0	0	
2	0.35	•	•		0.00	0	0	0	
3	0.35	•	•		0.00	0	0	0	
4	0.35				0.00	0	0	0	
5	0.35				0.00	0	0	0	
6	0.35	•	•		0.00	0	0	0	
7	0.35	•	•		0.00	0	0	0	
8	0.35	•	•		0.00	0	0	0	
·									
Rotate			0	degre	es				•
🔽 Paper	Size as :	set in F	ïle						
🔽 Use Pen Widths as Defined in the File									
🔽 Use Pen Colors as Defined in the File									
🗾 Use Count as Specified in Plot									
	🕞 👈 Preview								

If you are working with HPGL files (vector files) the tab HPGL will be available from the main window.

Pen Settings

Pen Parameters from File

With HPGL/2 files you have the option to save the pen width and pen color in the file. XEScan Reflection determines the pens used, the defined pen widths in mm and the pen color as an RGB value from the file. These parameters are entered in the field Pen parameters from file. They only serve as additional information and can not be altered. If you would like to transfer one or all of the determined parameters for the print-out, activate the menu fields Paper size as set in file / Use pen widths as defined in the file / Use pen colors as defined in the file in the lower part of the HPGL window.

User-Defined Pen Parameters

In the block User-defined pen parameters on the right-hand side, you can alter the line thickness and RGB colors and overwrite the values determined from the file. If you are working with a HPGL file (not HPGL/2), you have to coordinate the pen width and the pen color in any way. These files can only be edited when the menu fields Use pen widths as defined in the file / Use pen colors as defined in the file are not activated. The user-defined pen parameters can be saved or loaded if required using the icons in the lower part of the HPGL window.

Change Pen Color

To change the color values click on the box to the right of the RGB value of the corresponding pen. The window

Color appears on the screen.

Select one of the 48 basic colors and then confirm with OK. The selected color is assigned to the corresponding pen. Repeat this process for each color. With the menu field Define Custom colors you can define more color tones and save or assign them to the corresponding pen as User-defined colors.



Save / Load Pen Parameters

You have the option to save the altered pen parameters of the file for later applications using the icon Save. The parameters will then be saved under the filename (e.g. customer, employee or project) with the addition "pen".



Using the icon Load, the parameter file can be reloaded at any time.



Use Count as Specified in Plot

If you want to keep the number of copies set in the plot, activate this check box.

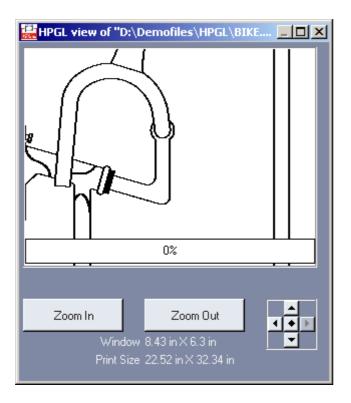
Rotate Print

The combo box offers the alternatives to rotate the file by 90°, 180° or 270°.

Preview

If you click on the button Preview, you will get to the window "HPGL view of...". The HPGL file is displayed with the current settings (line thickness, colors, rotate file etc.). The status line in the lower part of the window shows the size of the window as well as the size of the drawing in mm.

You can enlarge a detail from the preview. Draw a rectangle with the left mouse button and click the menu field Zoom In. To return to the full image, click Zoom Out.



Enlarge / Reduce

If you want to check details of the drawing, you have the option to enlarge sections. To do this, draw a rectangle with the left mouse button and click on menu field Zoom in. This can be repeated several times. With the menu field Zoom out, the drawing can progressively be reduced again.

Move Section

With the cursor keys to the right of the menu field Zoom out, you can move the enlargement half the size of the section to the right, left, up or down. With the rhombus in the middle, the complete picture of the drawing (full picture) is recovered.

Scan to File

2

With this menu item you can directly scan into a file and save in any directory on your hard disk or on an external device. With the button Scan into file mode or the corresponding item under File you will get to the window Scan to file.

🕺 🔵 Demo	Scanner 📃	-
PK1 grey PK2	Original Size	
PK3	File Format and Name	
PK4	 Eigene Bilder>\default.tif ✓ Increment File Name ✓ Flotate by 901 ✓ Load to Editor 	
Auto Start	Output size Auto 🖨 × Auto 🖨 in = 100 🚭 % Resolution 200 🚭 DPI	
	Automatic Filter Photo Contrast]
	PIre 2	

Scanner

At the top of the window you will find the name of the selected scanner and its current state of operation, given by the color of the depicted LED:

- no response
- warming up
- error
- operational

If you move the mouse cursor over the LED you will get additional information about the scanner status (balloon help).

Scan Mode

You can select color, grayscale or b&w mode from the drop-down menu.



Scanner Configuration

With the speed button Scanner configuration you will get to the scanner dialog.



🚟 Synergix Scan System - :	5A (Color)		×
Scan job			
Centered			
Document	Rewind (up to 36" wide and/or 60" long)	•	
Power saver (min.)	30	_	
Scan speed			
Max. data rate (MB/s)	5		
Max. speed	max ips	•	
Winding speed	max ips		
		🗸 ок	🗙 Cancel

Centered

If you select Centered, you will stage document in centered position; if this is not checked, you will have to stage them to the right side.

Document

Select the rewind and unload options.

Scan speed

Select the transmission rate and the speed.

Scanner help

If you click at scanner help, you will get to additional hardware information.

Original Size

Under Original Size enter the size of the original that is to be scanned. Click the right mouse button in the entry field or the left mouse button on the button Set size to obtain a list of common DIN or ISO sizes.

File Format and File Name

Under File format you can choose between different file formats, which can be configured with the button Options. Depending on the file format you can select different file format options.



TIFF Tagged Image File Format
BMP Windows Bitmap
EPS Embedded Postscript
PCX ZSoft Paintshop
PNG Portable Network Graphics
TGA Truevision Targa
GIF Graphics Interchange Format
JPEG Joint Photographic Expert Group
J2K JPEG-2000
IFF Interchange File Format (Amiga Paint)
PDF Adobe Portable Document Format
6RN 6RN Format

Please note: dependent on the color mode not all file formats will be available. The file formats you will not be able to select will be displayed with red letters.

For example, TIFF in color mode will show the following option dialog:

Coptions	x
Compression Format	 CCITT G4 CCITT G3 G2 RLC LZW Unpacked
 Single Strip With Strips Lines per Strip With Tiles 	8
Lines per Tile Columns per Tile Byte order	32 512 Intel Motorola

When you select a file format, you should bear in mind that some are lossyless, while others achieve a high compression by leaving out some (not necessary) image information.

JPEG is the preferred file format for transferring photographs and true color images (millions of colors) over the Internet because files can be compressed to a fraction of their original size. This compression is lossy, i. e. image data is discarded and cannot be retrieved. It supports 24 bits of color information, and is most commonly used for photographs and similar continuous-tone bitmap images. The JPEG file format stores all color information in an RGB image, then reduces the file size by compressing it or saving only the color information that is essential to the image. (For reference to the legal dispositions, see page 90)

GIF is used mainly for computer generated graphics and is limited to 256 colors. It uses lossyless compression (LZW). GIF is recommended neither for color photographs nor images with a multitude of tones and colors.

PNG (Portable Network Graphics) is a true color file format that uses lossyless compression and has some features associated with GIF files (e.g. interlacing, transparency).

BMP is the native image file format that works with Microsoft's Paint program included under Windows. This format can be opened by both Windows and DOS platforms as well as in major image editing programs. BMP images can be saved in millions of colors, although this is more than is humanly perceptible for display on monitor screens.

EPS (Encapsulated PostScript) is a metafile format that can be employed for vector or bitmap images. The EPS file format can be used on a variety of platforms, including Macintosh and Windows. When you place an EPS image into a document, you can scale it up or down without information loss. This format contains PostScript information and should be used when printing to a PostScript output device. The PostScript language, which was developed by Adobe, is the industry standard for desktop publishing software and hardware. EPS files can be graphics or images of whole pages that include text, font, graphic, and page layout information.

PDF files are similar to PostScript files in that they are platform-independent and contain information that allows the scaling of the fonts and objects in the file. There are additional features, however, that aid in the exchange of documents. PDF files store metrics and information about the fonts used to create the file without including the fonts themselves. If a receiver of a PDF file does not have a called for font on his system, the Acrobat software simulates the absent fonts with a special Multiple Master font from Adobe. There are two Multiple Master fonts with characteristics that allow them to be used to simulate almost any typeface. PDF files are also stored and transmitted as compressed files, and may contain various navigational enhancements to the original file (like bookmarks and links) to aid in its viewing. There is also the capability to cut out sections of a PDF file for pasting into other applications, and simple searches that can be performed on the textual content of the file.

TIFF (Tag Interchange File Format) is a tag-based format that was developed by Aldus (now Adobe). TIFF, used for bitmap images, is compatible with a wide range of software applications and can be used across platforms such as Macintosh, Windows, and UNIX. This format is complex, so TIFF files are generally larger than GIF or JPEG files. TIFF supports lossyless LZW (Lempel-Ziv Welch) compression.

TGA is widely used by high-end paint programs and ray tracing packages. It can handle images with up to sixteen million unique colors. The TGA format was designed for use on systems that use MS-DOS color applications. TGA files may be saved compressed (run length encoded) or not compressed. Since Windows does not recognize 16 x 32 bits per pixel, some applications will treat them as 24 bits per pixel. A 16-bits-per-pixel image will be upgraded to 24 bits per pixel, and a 32-bits-per-pixel image will be downgraded to a 24-bits-per-pixel image. This procedure will not affect the image since the 8 extra bits of a TGA 32-bits-per-pixel file are used to store Alpha or transparency information.

CALS files are used for document imaging and therefore only store black-and-white, 1-bit image data. CALS Type I files only store a single image per file and the data is always compressed using the CCITT Group 4 encoding algorithm. CALS Type II files may stored multiple images per file, the image data may be tiled, and tiles stored as raw data or as data compressed using CCITT Group 4 encoding.

Under Filename you find the path of the standard file name Default and the current file format as the extension. If you do not enter a filename, by default the scan is saved under Default.

Further Options

Increment Name File

Activate this check box if you want your files to be automatically numbered. This is a useful function if you are to work in batch mode.

Rotate

With this option, you will have your file rotated by 90°. Rotate cannot be performed if you selected the automatic format recognition.

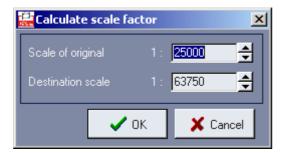
Load to Editor

You can choose to load your file in the editor directly after scanning. To do so, tick the box Load to Editor. This option does not work if you activated the batch mode.

Copy Size and DPI

Enter the size or the scaling factor as well as the dpi value for the output in the fields Output size and DPI. By default, the original size entered is taken as the copy size. The copy size can be increased or reduced by a percentage. To this end, you may enter a percentage or select one from the list you get through the context menu. You may of course enter the desired copy size directly in mm. The copy width or length always changes proportionally.

You will get to the window for factor scaling with Alt and M or with the context menu from the percentage entry field:



Automatic Filters

Please select the type of document.

Maps
Photo
Line/Text
Prints
CAD Plots
Unchanged

You can choose further special modes in the black and white mode.

💿 Aut	omatic Filter	
	Line / Text	•
	Normal	•

Normal			
Light			
Dark			
Variable	Background		

Contrast

With the slider control Contrast you may influence the contrast of the copy. When using normal originals, we recommend setting the value of the slider to "0". Moving the slider to the left (negative values) will result in a copy darker than the scanned original; moving the slider to the right (positive values) will give a brighter copy.

Contras	st		
+ +		. J	10

Manual Filters

All filters that were saved in the filter archive are displayed in the drop-down list under Manual Filter. Depending on the active mode, only the corresponding filters will be displayed. The filter *Current* is a temporary filter featuring the current settings in the filter editor. With the buttons Change and New you will get to the filter editor. In black and white mode you will be able to choose among further options in the filter editor.

Base Type Selection	
Line / Text	-
Normal	-

Scan into Email

With the speed button Scan into Email Mode or the corresponding menu item under File you can directly scan into an email. Settings are made under Configuration / Preferences / EMail.

🕺 🔵 Synerg	jix Scan System - SA (Color)	
PK1 grey	Original Size	
PK2	Fileformat Fileformat TIFF Tagged Image File Format	•
PK4	Recipient and Subject user.name@example.com <subject></subject>	_
Auto Start	Output size Auto 🚽 × Auto 🚔 in = 100 🗳 % Resolution 200 🚽 DPI	
	 Automatic Filter Line / Text Normal 	• •
	Contrast	0
	 Manual Filter Manual Filter 	¥

Scanner

At the top of the window you will find the name of the selected scanner and its current state of operation, given by the color of the depicted LED:

- no response
- warming up
- error
- operational

If you move the mouse cursor over the LED you will get additional information about the scanner status (balloon help).

Scan Mode

You can select color, grayscale or b&w mode from the drop-down menu.



Scanner Configuration

With the speed button Scanner configuration you will get to the scanner dialog.



🧱 Synergix Scan System -	5A (Color)		×
Scan job			
Centered			
Document	Rewind (up to 36" wide and/or 60" long)	-	
Power saver (min.)	30	_	
Scan speed			
Max. data rate (MB/s)	5		
Max. speed	max ips	•	
Winding speed	max ips	•	
		🗸 ок	🗶 Cancel

Centered

If you select Centered, you will stage document in centered position; if this is not checked, you will have to stage them to the right side.

Document

Select the rewind and unload options.

Scan speed

Select the transmission rate and the speed.

Scanner help

If you click at scanner help, you will get to additional hardware information.

Original Size

Under Original Size enter the size of the original that is to be scanned. Click the right mouse button in the entry field or the left mouse button on the button Set size to obtain a list of common DIN or ISO sizes.

File Format and Addressing

Under File format you can choose between different file formats, which can be configured with the button Options. The option dialog is device-dependent.



It is recommended to use JPEG as the output format for emails because it achieves maximum compression.

Please note that many mail-servers restrict the file size of email attachments.

Use the Recipient entry field to enter the address the email will be sent to. You may indicate the subject of the email in the Subject field.

Copy Size and DPI

Enter the size or the scaling factor as well as the dpi value for the output in the fields Output size and DPI. You can enter a scaling factor manually or select a predefined one from the context menu. You will get to the window for factor scaling with Alt and M or with the context menu from the percentage entry field:

🙀 Calculate scale fac	tor		×
Scale of original	1:	25000	÷
Destination scale		63750	÷
 C)K	🗶 Cano	el

Automatic Filters

Please select the type of document in the drop-down list.

aps	
hoto	
ine/Text	
rints	
AD Plots	
nchanged	

You can choose further special modes in the black and white mode.

💿 Auto	matic Filter	
Γ	Line / Text	-
Γ	Normal	-
Normal		
Light Dark		
Dark		
Variable I	Background	

Contrast

With the slider control Contrast you may influence the contrast of the copy. When using normal originals, we recommend setting the value of the slider to "0". Moving the slider to the left (negative values) will result in a copy darker than the scanned original; moving the slider to the right (positive values) will give a brighter copy.

Contra	st	
+ +		10
		1

Manual Filters

All filters that were saved in the filter archive are displayed in the drop-down list under Manual Filter. Depending on the active mode, only the corresponding filters will be displayed. The filter *Current* is a temporary filter featuring the current settings in the filter editor. With the buttons Change and New you will get to the filter editor. In black and white mode you will be able to choose among further options in the filter editor.

Base Type Selection	
Line / Text	
Normal	•

Archive

(XEScan Reflection only)

The archive is designed similarly to the Windows Explorer of your operating system. The intuitive structure makes the printing, importing and editing of files easy. The archive is the place where to store ready-to-print images which include the dithering and color correction for a certain printer or printer group. The archive is not meant to store images which still need adjustments in size or filtering.

The batch-printing feature is also based on archive files.

To get to the archive, click the Archive speed button or the corresponding item under File or use the function key F5.



Archive				
File Edit View Actions			Fin Din Din 1 Mart	
$\leftrightarrow \rightarrow \rightarrow \overline{2}$	X 🖻 🗳	≻ 🖆 ⊞ - °	h 🔓 🔓 - 🖄	ව / ්
🚮 Desktop ⊕ 😋 Eigene Dateien	Import Files	Processed/Ripped		General Outp
🖃 🖳 Arbeitsplatz	Name △	Last changed File size 3/8/2002 5:59:26 PM 30.0 M		Comment D:\Demofiles\Ra
	Bagrot05 dt-e	3/8/2002 5:59:26 PM 30.0 MI 3/7/2002 5:36:36 PM 15.7 MI		
DATEN (D:)	🗧 Bauplan3.tif	3/7/2002 4:47:10 PM 8.2 M		Original Size
	CYROA_Neu Golden mask.tif	3/8/2002 4:00:18 PM 45.1 MI 3/8/2002 4:23:58 PM 16.2 MI		10.17 🚔 2
EPS_P	KFZ-Karte-SC	3/7/2002 5:42:12 PM 14.5 MI		
HPGL	🔹 Luftbild-BadG Kreta.tif			Print Size
⊕ 🔁 Forehelp	🐻 NRW-West-H			10.17 🖨 × 🛉
	SCP-Testfile-E			1 🕂 Print:
🕀 🧰 Programme				
⊡ ⊡ Projekte Ro ⊡ ⊡ SCP-Install				Printer and Medium
⊡ 💭 Spool				
Ci SUBSYSTE				Papier, gestriche
<u>C</u> WUTemp ⊕ neuver auf "pic				Automatic Filter
🕀 👳 Robohelp Proje				
i				💭 Manual Filter
🕀 👮 Mp3 auf ''Neeli:				
i∃⊋ marketin auf "ril i∃⊋ utils auf "riker"				
⊡ 🚔 apps auf "riker"				🗹 Use Color Managem
ia⊡⊋ user auf "riker" ia⊡⊋ transfer auf "rik				
🕀 🚉 Netzwerkumgebung				
⊕ Addprn Bilder				
kitten[1]				
۲ ۲				🛛 🔍 🖂 🚔

Importable files are displayed under the tab Import Files, while archived files are shown under the tab Processed/Ripped. You can drag and drop importable files to the tab Processed/Ripped to start a file import.

Introduction in Working with PGF Files

Page files with the extension pgf contain the image data in a special format. Since the image data is already dithered it can be instantly sent to the printer. Pgf files can be backuped easily, they can be printed in batch modus and the special features of the editor can be used. But, as the data is dithered, some output options may no longer be available.

Functions in the Archive Window

All actions are invoked from the speed buttons or the items in the menu bar. When the mouse pointer is on the individual buttons, a short help message about its function appears.

Back / Forward



With these menu fields you can change back or forward to the directory that was used last. The history to the right of each button enables to pick up folders quickly.

Up



With Up you will move up one directory in the directory structure. In order to get back to the initial directory, click on the menu field Back as often as necessary.

Cut / Copy / Paste



Use Copy or Cut to copy or move a file or a directory, e.g. to save the data of your archive on an external device. Mark the corresponding file or directory and click on the menu field Copy or Cut to move the data. In the archive move to the desired directory or drive and then click on the menu field Paste.

Delete



Using the menu field Delete, the selected file is moved into the recycle bin. If files have been deleted accidentally, they can be moved back into the archive with "drag and drop".

Properties



A click on this icon leads to the window Properties, which contains important information on the selected file. In this window you can assign different file attributes in several tabs.

View



Under View you can select how the symbols are to be displayed: large, small, as a list or with details. You can switch to a different view by using the combo box or by clicking on the menu field View. Under Details you will get important information on the file e.g. date of creation or date of last change, file and output size, and the output device.

Insert Current



To archive the last or current copy, click on the menu field Insert current. The file is then placed in the archive.

RIP to File



With this function you will turn a selected file into a pgf file. The function is enabled when you have selected a file. After evoking the function, the window RIP file and archive appears.

🧱 RIP File and Archive
File View Pre-View Info
General
C:\\BD_metabarons_Honorata.jpg
Original Size
Print Size 1.45
Printer and Medium Image: Second system Papier, gestrichen
 Automatic Filter Manual Filter
🗹 Use Color Management

If your operating system allows, you will be able to determine a special profile via the button Edit ICC options.



Depending on the color space you can use different ICC profiles or determine a path to a profile. With postscript files you have to choose the most suitable color space.

Furthermore you can change the copy size or the scaling factor, the printer and the medium. During file import you can select an automatic mode or a manual filter. The field Use Color Management gives you the option to deactivate the color calibration (3-D filter) during file import. If you then confirm the dialog with OK, the file will be transferred to a pgf file. This file gets a symbol and the initial filename and can be printed or edited at any time.

Scan Image



With this menu item you can start a scan process and determine how the data is to be proceded:

Scan and RIP	the scanned data will be stored in the archive
Scan into File	the scanned data will be stored in a file; different file formats are available
Scan into Email	the scanned data will be sent via email; different file formats are available
Сору	the scanned data will be printed
Copy and RIP	the scanned data will be printed and stored in the archive

Editor



(XEScan Reflection b&w mode only)

Archived files can be edited with the internal SCP editor. Highlight the file you intend to edit and click the Editor button or the corresponding menu item under Actions.

Rotate Image



Using the menu field Rotate image the archived files can be rotated by 90°, 180° or 270°. You can select the degree of rotation in the combo box to the right of the menu field. After the rotation process, a new file is created bearing the same filename but with the addition "rotated".

Print Set



When you call up this function, a window will open, containing the files you selected.

Print Picture



In the archive highlight the file you want to print. Then click on the icon Print picture. Only the printer the archived file has been created for can be used for the output. You will automatically reach the tab General and be able to alter different output options. However, a later scaling of archived files can result in quality losses. In the tab General the selected file appears as a preview. With this preview you can avoid mix-ups. If you then confirm with OK the output process is started.

Print and RIP



Only the printer the archived file has been created for can be used for the output. You will automatically reach the window "General" and be able to alter different output options (number of copies, additional white margins, paneling etc.). However, a later scaling of archived files can result in quality losses.

If you decide to save your changed archive data, please use the button Save parameters.

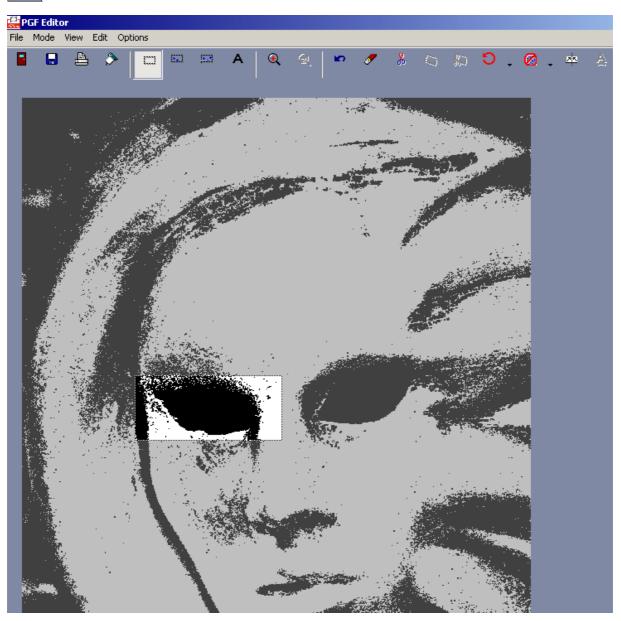


PGF Editor

(XEScan Reflection only in grayscale and b&w modes)

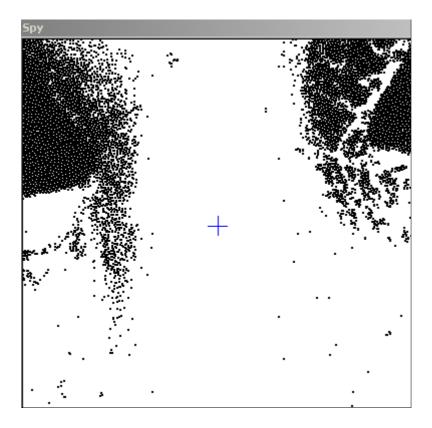
The editor can also be used to process archived copies and scans. To do this, click on the thumbnail of the archived scan, and click on the Editor icon. The editor is started and the selected scan from the archive appears in the overview window.





In the editor two windows will appear. The overview window shows the complete scan (see picture above). In the spy window you will see details enlarged. Place the mouse pointer on a detail in the overview window and you will see an enlargement in the zoom window. You can change the size and position of the overview and spy window to your liking.

When you exit the program the current screen settings will be saved for the next program start.



Functions in the Overview Window

All actions that can be invoked from the speed buttons of the editor are also accessible from the menu bar. We have listed the functions in order of their appearance in the menu bar. When a function has a corresponding speed button, its icon will be illustrated.

<u>File</u>

Under File you have the options to save or directly print the edited files, scan originals or exit XEScan Reflection's editor.

Save Picture



The edited file can be saved directly on the hard disk or an external device using through this function.

Print Picture



When you have clicked on Print Picture, a window with the tabs General, Output Options and Paneling opens. Here the output options Scaling, Count, Margins, Nesting, Label and Mirror can be set or altered as usual. For very large prints or posters the tab Paneling is available.

Scan Picture



With Scan Picture you can scan directly from the editor and edit immediately. The tab General opens. Enter the input and output size or the scaling in %, select the printer and medium on which you want to print the scan. Depending on the input activate the corresponding menu field for a grayscale or black and white scan. The selection of the filters under Automatic or Manual Filter is identical for both copying and scanning. Then start the scan process with the button OK. The scanned original is displayed in the overview window of the editor and can be processed further.

Close Editor



With Close Editor you can close the editor and return to XEScan Reflection main window or to the archive. If, by accident, the file had not been saved, answer with "cancel" to the safety inquiry that will appear before the editor closes.

<u>Mode</u>

Under Mode you can activate the menu items Mark area or Set 2 Skew points / 3 Skew points as well as Text mode / Insert text.

Mark Area



Open a rectangle in the overview window keeping the left mouse button pressed. With Edit / Area the marked area can then be deleted, cut, inverted, blackened or, with View / Zoom in, enlarged on the screen. If you only want to print the AOI, you have the option to assign it a fixed DIN or ISO size. Click the right mouse button in the overview window; a list will appear from which you can select the desired size.

The selected area can be arbitrarily moved, enlarged or reduced with the mouse. Its size is displayed as Picture size in the status line in the lower part of the overview window. When you want to remove the selection, click in the overview window with the left mouse button on any point outside the marked area.

Set Skew Points



With the skew-function an obliquely scanned image can be adjusted.

It is recommended to use 3 skew points - this will avoid a possible distortion of the image and will allow the function Skew and crop. It might be easier to deskew with two skew points first, then - if you are familiar with this feature - use the 3-skew points method.

To adjust the image you can choose between two and three skew points. To position the skew points, follow the actual position of the mouse pointer (red cross) in the spy window. To set the skew points click first with the left mouse button on a starting point, and then set a second reference point in horizontal and/or vertical direction. If the reference points are not set correctly, the buttons for skewing will remain gray. The number of reference points depends on whether you have selected the function with two or three skew points. The skew points are marked with blue crosses. Then click on the button Skew and the image is straightened out.



With the button Skew and crop the image is straightened out and cut at the same time. This function requires you to set three skew points.



Text Mode



If you want to insert a text into your scan, you first have to change into text mode. Draw a rectangle keeping the left mouse button pressed. Using the mouse, the marked area can be moved, enlarged and reduced. Then click on the menu field Insert Text and enter the desired text.



View

Under View, you can incrementally enlarge the marked area in the overview window. By default the menu item

View is deactivated and only activated by selecting a region in the preview window.

Zoom in



To enlarge a picture detail mark the area you want to enlarge by drawing a rectangle around it. Then select View / Zoom in or click on the corresponding speed button.

Zoom out



With Zoom out the initial image is again shown in the overview window. The function Zoom out is only active when an enlargement of the region has been done.

Arrange Spy Window

You can set the position of the spy window to the left, right, at the top or bottom of the window.

<u>Edit</u>

Undo

2

With this function the last action (e.g. rotate, mirror, cut image) that was performed can be undone.

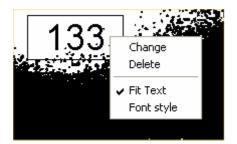
Area

There are several options under this menu item. You can delete, crop, blacken, invert the selected area or insert a text in it.



When you have activated the text mode (see menu item Mode) and selected <u>Insert text</u> you can enter any text. If you then evoke the context menu, you will be able to change delete, adjust or, with Font, change the font and

you then evoke the context menu, you will be able to change, delete, adjust or, with Font, change the font and font size. As soon as you exit Text Mode / Insert Text, e.g. click on the menu field Mark Area or Save Picture, the text is merged into the picture.



Despeckling



This function eliminates dirt particles that have been scanned in. You can choose between the grades Fine and Coarse. In most cases Fine should be sufficient. Please note that when selecting the setting Coarse detail information of the scan might get lost.

Rotate



The complete image can be rotated by 90° , 180° or 270° to the left. Depending on the output device paper can be saved when using this function.

Skew



You can only click this menu item when two or three skew points have been set. Three skew points are necessary to skew and cut the image. If you only want to adjust an obliquely scanned image, you can choose between two and three skew points.

Mirror Area



With this function the selected region will be mirrored. If no region has been selected in the overview window, the complete image will be mirrored.

Options

Unit

The unit you want to work with is set in the menu bar in the main window. In the editor, however, you can temporarily switch between mm, inch or pixel. The current unit is displayed in the status line of the overview window.

Scale to Gray

For performance reasons the scanned image is displayed by default with low resolution in the mode Middle. If you activate the menu item Scale to Gray / Median, the display will be shown in a higher resolution. This will enable you to detect details and fine structures easily.

Hide Spy Window

You can switch the spy window on or off.

RGB Editor

In the RGB-editor you will have the following commands to work with.

Import and Export Functions



Load

You will first have to open the desired file. Click on the Load icon: a directory dialog will appear. The icons and the drag and drop menus at the top of the window will facilitate the search for the desired file in the directory. Under Filetype select an extension or a file type if you want to search the file through a filter: Only the files corresponding to the selected file type will be displayed. The color model and the default or user-defined settings of the selected file are loaded in the editor.

<u>Save</u>

When you click the Save button, a dialog opens, in which you have here to determine a folder, a filename and a file format. Under Options you can enter quality settings such as color resolution and Palette. Indeed, this function calculates an automatic color palette. It saves the content of the editor to the specified filename or options.

<u>Scan</u>

When you click on the button Scan in Editor, the corresponding window appears, in which you can make settings as usual:

🔜 Scan to Editor	
File Filter Pre-View Info	
<u> </u> Demo Scanner	
Original Size	
Output size ▲uto ★ × Auto ★ mm = 100 ★ % Resolution 200 ★ DPI	
Automatic Filter	•
Contrast _+ +_	0
 Manual Filter detail detail 	-

Viewing Functions



<u>Zoom</u>

The editor is in Zoom mode when an image was scanned or loaded with the load function. Hence, the zoom mode button is pressed and the mouse pointer turns to a magnifying glass when on the copy:



There are several ways of invoking the Zoom function: Zoom in or out by clicking on the corresponding buttons. Or left-click to magnify the image and right-click to scale it down. This action can be performed several times. When you left-click on a particular area several times, it becomes the focus of the enlarged image. If you want only a detail to be zoomed in on, draw a rectangle with the left mouse button around the desired area. The magnified area is then centered in the active window.

Scroll bars appear when the image does no longer fit on the actual window surface.

Zoom to Window Size

This function is active when at least one action was carried out. Click on the icon to reset its best resolution.

Edit Functions



<u>Undo</u>

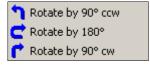
Undo will only reverse the last action.

Horizontal / Vertical Mirroring

Images can be mirrored on the horizontal or vertical axis.

Rotate

You have the possibility to rotate images by 90° and 180° to the left, 90° to the right. By default, the image will rotate to the left by 90°. If you open the menu, you can choose one of three values:



Thereafter the arrow icon shows which action was last carried out, for example "rotate by 180°". If you then click on the icon, the last action will be performed anew.



Reverse

If you click on Reverse, you will obtain a color negative of your image. That is to say that the original colors

are replaced by their complementary colors:



Despeckling

The Despeckling button is only active when you work with black and white files.

Manual Deskew

Press the Deskew icon in the toolbar to activate the function. The mouse pointer shows deskew points when on the image:



In order to define a line, you can position point A and point B by clicking on two different spots on the image or proceed as follows: click the mouse button for point A without releasing it, then move the pointer to the desired point and release it for point B. You will see the line as you search for point B. The points you set are displayed as crosses. You can redefine the settings by placing another point that will be point B. Consequently the former point B turns to point A.

When two points are set, the Deskew button displays an active feature:



You can now click on the active button to enable the Deskew process. The Zoom function is now active and the mouse pointer accordingly changes to a magnifying glass when on the image. The maximum shearing angle is 30°. You can read the angle value at the bottom of the window. When you exceed this limit, the red arrow is no longer displayed in the Deskew icon.

<u>Crop</u>

To remove image parts with Crop, first press the Crop icon in the toolbar to activate the function. Now the mouse pointer, when on the image, shows a rectangle:



You can define an area by pressing the left mouse button on a corner point, holding it while you drag a rectangle and releasing it on the second corner point or simply place two corner points with two individual leftclicks.

When you have selected an area, the Crop icon displays an active feature:



Click then on the Crop button to invoke the crop process.

While selecting an area, the position of the pointer on the abscissa and ordinate is displayed at the bottom of the window and, as you move the mouse, you can see the rectangle lines move correspondingly.

Depending on the position of the mouse pointer in the selected area, one of the two following symbols appears:



The cursor is on one of the area's edges. Drag the arrow to modify its width or height.



The cursor is within the area, allowing to move it to any point in the active window.

A new area can be defined after a click outside the frame. This click sets the first corner point of the rectangle.

At the bottom of the window you can read: the position of the cursor, the positions of point A and point B as well as the size of the selected area:

(1024, 687); (357, 651) - (843, 768) = (486, 117)

Print Set

<u>_</u>

(XEScan Reflection only)

The Print Set mode allows the successive printout of pgf files. The number of copies and some print parameters can still be altered. To get to the Print Set window highlight one or more files in the archive and select the corresponding speed button. Or drag and drop pgf files from the archive into the batch window.

File Edi								
LIC LU	it View Ar	tions .						
B			P6F	a 🗳)	×			
介		Name	Set Count 0/1	File size 1.4 MB	Width 3.33 in	Height 4.47 in	Printer Dummy	Comment
		CU	0/1 0/1	1.4 MB 84.0 KB	0.15 in	4.47 in 0.27 in	Dummy Demo	
Ŷ								
-								
-								
-	•							•
L	1							
C								
164								
ø								
Set Count	t			1	\$	Dista	nce	

Functions

The actions you invoke from the speed buttons are accessible from the menu bar. You will find these functions listed above in order of their appearance in the menu bar, illustrated by their corresponding speed buttons.

<u>File</u>

Load Print Set



With this menu item you can load saved print sets.

Add Print Set



With this menu field you can add existing jobs to the selected ones.

Save Print Set



With this menu item you can save and name your print set.

Close Print Set Window



With Close Print Set you will quit the window.

Edit: Management of Composing Function

You will see check boxes in the first column (Compose). When selected, the corresponding files will be composed, i.e. the outputs will be automatically placed next to each other for an optimal use of paper width.

Compose	Name	Set Count	File size	Width	Height	Printer	Comment
	cur	0/1	1.4 MB	3.33 in	4.47 in	Dummy	
	CU	0/1	84.0 KB	0.15 in	0.27 in	Demo	

Up / Down



The jobs in the batch window are processed and printed in the order of their entry. You may change their order or priority by selecting a job and clicking on Up or Down until the job is at the desired position or with drag and drop.

Print Set Selection

Now you have three other possibilities to make your selection (If no jobs are highlighted, all jobs will be done).

You can select all files



· You can cancel your selection



· You can invert your selection

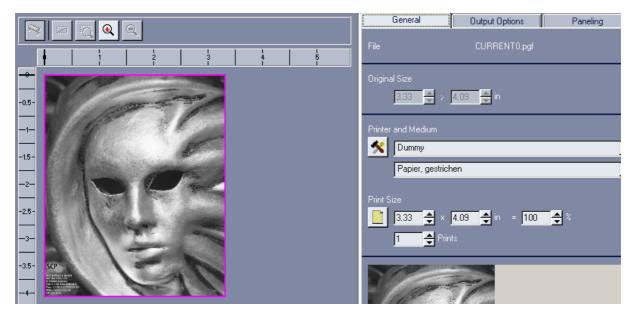


View

Pre-View



This function is activated when you have selected a file. If you then click the icon or select the menu item, the file preview will appear. A number of settings can still be varied in the tabs General, Output Options and Paneling.



Show Roll Pre-view

The roll preview is displayed below the list of batch entries. The preview shows the placement of the composed copies as well as the number of copies.



Refresh



This function carries out an update.

Show Button Caption

Select this function to display, or not, the speed buttons with a short description of their respective functions.



Actions

Print

₽.

When you have completed or checked all settings, click on Start batch. One job after the other will be processed.

Insert Current



With this menu field the last copy or the last scan worked on will be added to the batch job.

Import PGF File



With the menu field Import PGF-files pgf files can be imported into the batch.

Scan Picture



You can also scan directly into the batch. To do this, click on Scan Picture. A dialog appears in which you can enter the familiar output options such as original size, scaling, output device, medium, quality settings etc.

After entering the scan settings click on OK. The original will be read and you will be asked for the name of the pgf file and will have to save it.

🚔 S	can and RIP	
File	Pre-View Info	
	General	
*	C Demo Scanner	
Orig	ginal Size	
L	Auto 🚖 × Auto 🚔 in	
Prin	nter and Medium	
8	Dummy	•
	Papier, gestrichen	•
Prin	nt Size	
	Auto 🖶 x Auto 🗲 in = 100 🜩 %	
0	Automatic Filter	
	Photo	•
	Contrast	
	**	4
۲	Manual Filter	
		<u> </u>

Delete



With Delete or the context menu you can remove the selected file from the batch window.

Comment Field

Into the comment field you can enter a text for every batch job, which will be saved with the batch job.

Comment	
	*
	*

Copy Count Control

You will see two numbers in the column Set count.

Compose	Name	Set Count	File size	Width	Height	Printer	Comment
	cur	0/1	1.4 MB	3.33 in	4.47 in	Dummy	
🗹 🖢	CU	0/1	84.0 KB	0.15 in	0.27 in	Demo	

The first number indicates how often the job has already been printed, whereas the second number shows how often the job is to be printed. The latter number is determined in the field Batch count at the bottom of the window.

Set Count	1	•
-----------	---	---

Distance

You may specify the distance between the images that are composed. By default the distance is "0".

Distance

	0	\$.in	
--	---	----	-----	--

Subsystem

(XEScan Reflection only)

The subsystem only serves as an output system, and offers the option to work even faster and more effectively with XEScan Reflection. With the XEScan Reflection system the scanned data is placed in a common poll directory. The subsystem polls the scan data from the spooling folder and processes the print jobs in sequence. **The subsystem cannot be used with the Batch-Composing function.**

Software Installation

If you are working with a Windows NT, 2000 or ME operating system, you will have to log in as an administrator before installing the subsystem. Exit all other applications and insert the XEScan Reflection CD into the CD-ROM drive.

If Autostart is activated in your operating system, the installation program is started automatically. Should the Autostart function be deactivated, click on Start / Settings / Control Panel and then on Software, menu button Install.

When using the Standard installation of XEScan Reflection, the subsystem is automatically installed as well. When the installation is finished you will find an icon to start the subsystem on your desktop.

System Configuration

In XEScan under Configuration / Hardware install the printer connected to the subsystem and enter a path for the poll directory. To do this, click the red arrow: you will get to the window Connection. Activate the button Output System.

Connection	
Printer name	
HPDJ 1050c	
🗩 Windows Printer	
	T
flumber of pooled printer:	
🗩 ТСРЛР	
Host name or IP address	
D LPTx:	
Output System Constitut System	
	e [
C:\Programme\XESystems\SynergixScanSystem-SA\XEScan\15\3_44_0_218	je:-

If you choose the installed printer for the subsystem in XEScan Reflection's main window, all copies will be automatically placed as print jobs in the common poll directory. If the poll directory does not exist yet, it will automatically be opened by the program with the first copy that is to be saved.

Subsystem Configuration

You will reach the hardware dialog via Configuration / Configuration.

🚰 Ausgabesubsystem					- D ×
<u>J</u> ob <u>A</u> llgemein <u>K</u> onfigurat					
	◆◆御				
Name	Geändert am	Dateigröße	Breite	Höhe	Anzahl
Name	Geändert am	Dateigröße	Breite	Höhe	Anzahl
HPDJ 55	500 60"				

In the window Hardware under Poll directory enter the path for the common poll directory or accept the suggested path: "C:\SPOOL\".

Both systems must have user rights for the poll directory!

<table-cell-rows></table-cell-rows>		×
Poll directory	C:\Programme\XESystems\SynergixScanSystem-SA	
Available Printers	Installed Printers	
Dummy XES 8825 XES 8830 XES 8850 XES X2-TECH 36 XES X2-TECH 54		
	🗸 OK 🔀 Cancel	

Then, as usual, install the printer type that is connected to your subsystem. Enter the settings in the tab Connection.

Connection
Printer name
HPDJ 500 24"
Windows Printer
Number of pooled printers
C Windows Printer
Network queue name
Number of pooled printers
C TCP/IP
Host name or IP address
O LPTx:
O Novell Queue
Network queue name

Job Processing

Start the subsystem and switch on the printer. Once print jobs are placed in the poll directory by your XEScan Reflection system, they will successively be processed and printed by the subsystem. All settings such as Count, Scaling, Output options etc. are set by the XEScan Reflection system when creating the jobs. The job processing can be interrupted or restarted with the menu bar or the speed buttons. You can change the output priority of individual jobs using the arrow keys. Processing the jobs can be stopped using the Esc key.

In the subsystem interrupted or failed copy jobs are displayed in the lower part of the window. These failed copy jobs can be sent to the printer once again using the menu field Restart job.

To delete a job from the spool queue, highlight it and click the trash can.

Clicking at the magnifying glass will give information on the error that occurred.

Info

Keycode Entry

Under Keycode enter your personal XEScan/XEScan Reflection keycode. The keycode is part of your XEScan/XEScan Reflection package. You can enter it manually or with the help of keycode targets. For a detailed description, see page 15.

Online Registration

When you have entered your keycode and restarted your computer, the confirmation dialog will automatically appear. Provided your PC is linked to the Internet, you will be able to connect directly with the SCP server. The following data will be transmitted:

- the language of your software
- the name of the software
- its version number
- its serial number
- the date of installation

Please follow the hints on the web site.

Check for Update

(not in XEScan Reflection Demo)

With this menu item you can connect to the SCP server. To check for an update, the following data are transferred:

- Your language
- The name of your SCP software
- · The version number of your software

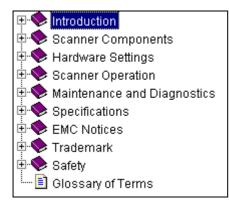
Please follow the hints on the web site.

Help

Under Help you will find an index from which different topics can be looked up. Alternatively you can reach the help section by using the function key F1.

Scanner Help

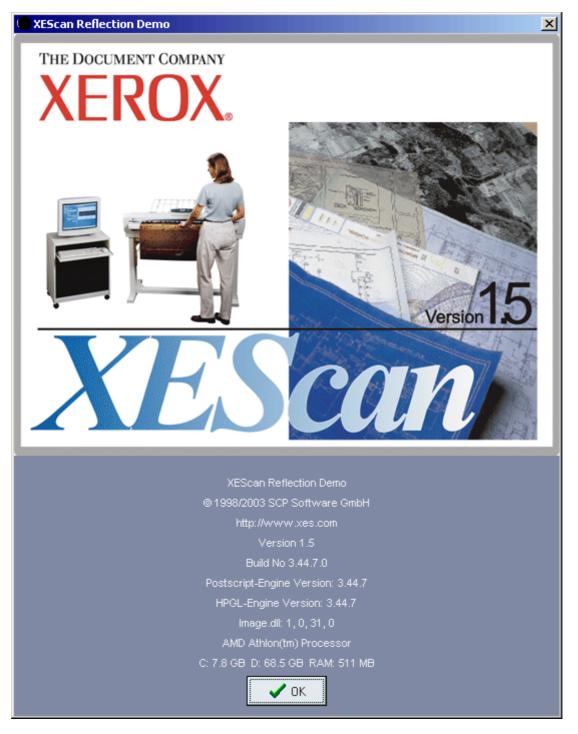
If you need information on your scanner, you may consult the scanner help. It contains a detailed description of the operating and maintenance of your device. This help register is found under C:\Programme\XESystems\SynergixScanSystem-SA\XEScan\11\hwhelp\eng\hh start.htm



<u>About</u>

(not in XEScan Reflection Demo)

Under About you will find the version number of your software and the serial number of the hardlock (dongle).



JasPer Software License

Copyright (c) 1999-2000, Image Power, Inc. and the University of British Columbia, Canada. Copyright (c) 2001 Michael David Adams. All rights reserved.

IMAGE POWER JPEG-2000 Public License

Whereas:

Permission is hereby granted, free of charge, to any person (the "User") obtaining a copy of this software and associated documentation, to deal in the JasPer Software without restriction, including without limitation the right to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the JasPer Software (in source and binary forms), and to permit persons to whom the JasPer Software is furnished to do so, provided further that the License Conditions below are met.

License Conditions

A. Redistributions of source code must retain the above copyright notice, and this list of conditions, and the following disclaimer.

B. Redistributions in binary form must reproduce the above copyright notice, and this list of conditions, and the following disclaimer in the documentation and/or other materials provided with the distribution.

C. Neither the name of Image Power, Inc. nor any other contributor (including, but not limited to, the University of British Columbia and Michael David Adams) may be used to endorse or promote products derived from this software without specific prior written permission.

D. User agrees that it shall not commence any action against Image Power, Inc., the University of British Columbia, Michael David Adams, or any other contributors (collectively "Licensors") for infringement of any intellectual property rights ("IPR") held by the User in respect of any technology that User owns or has a right to license or sublicense and which is an element required in order to claim compliance with ISO/IEC 15444-1 (i.e., JPEG-2000 Part 1). "IPR" means all intellectual property rights worldwide arising under statutory or common law, and whether or not perfected, including, without limitation, all (i) patents and patent applications owned or licensable by User; (ii) rights associated with works of authorship including copyrights, copyright applications, copyright registrations, mask work rights, mask work applications, mask work registrations; (iii) rights relating to the protection of trade secrets and confidential information; (iv) any right analogous to those set forth in subsections (i), (ii), or (iii) and any other proprietary rights relating to intangible property (other than trademark, trade dress, or service mark rights); and (v) divisions, continuations, renewals, reissues and extensions of the foregoing (as and to the extent applicable) now existing, hereafter filed, issued or acquired.

E. If User commences an infringement action against any Licensor(s) then such Licensor(s) shall have the right to terminate User's license and all sublicenses that have been granted hereunder by User to other parties.

F. This software is for use only in hardware or software products that are compliant with ISO/IEC 15444-1 (i.e., JPEG-2000 Part 1). No license or right to this Software is granted for products that do not comply with ISO/IEC 15444-1. The JPEG-2000 Part 1 standard can be purchased from the ISO.

THIS DISCLAIMER OF WARRANTY CONSTITUTES AN ESSENTIAL PART OF THIS LICENSE. NO USE OF THE JASPER SOFTWARE IS AUTHORIZED HEREUNDER EXCEPT UNDER THIS DISCLAIMER. THE JASPER SOFTWARE IS PROVIDED BY THE LICENSORS AND CONTRIBUTORS UNDER THIS LICENSE ON AN ``AS-IS" BASIS, WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES THAT THE JASPER SOFTWARE IS FREE OF DEFECTS, IS MERCHANTABLE, IS FIT FOR A PARTICULAR PURPOSE OR IS NON-INFRINGING. THOSE INTENDING TO USE THE JASPER SOFTWARE OR MODIFICATIONS THEREOF FOR USE IN HARDWARE OR SOFTWARE PRODUCTS ARE ADVISED THAT THEIR USE MAY INFRINGE EXISTING PATENTS, COPYRIGHTS, TRADEMARKS, OR OTHER INTELLECTUAL PROPERTY RIGHTS. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE JASPER SOFTWARE IS WITH THE USER. SHOULD ANY PART OF THE JASPER SOFTWARE PROVE DEFECTIVE IN ANY RESPECT, THE USER (AND NOT THE INITIAL DEVELOPERS, THE UNIVERSITY OF BRITISH COLUMBIA, IMAGE POWER, INC., MICHAEL DAVID ADAMS, OR ANY OTHER CONTRIBUTOR) SHALL ASSUME THE COST OF ANY NECESSARY SERVICING, REPAIR OR CORRECTION. UNDER NO CIRCUMSTANCES AND UNDER NO LEGAL THEORY, WHETHER TORT (INCLUDING NEGLIGENCE), CONTRACT, OR OTHERWISE, SHALL THE INITIAL DEVELOPER, THE UNIVERSITY OF BRITISH COLUMBIA, IMAGE POWER, INC., MICHAEL DAVID ADAMS, ANY OTHER CONTRIBUTOR, OR ANY DISTRIBUTOR OF THE JASPER SOFTWARE, OR ANY SUPPLIER OF ANY OF SUCH PARTIES, BE LIABLE TO THE USER OR ANY OTHER PERSON FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY CHARACTER INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF GOODWILL, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, OR ANY AND ALL OTHER COMMERCIAL DAMAGES OR LOSSES, EVEN IF SUCH PARTY HAD BEEN INFORMED, OR OUGHT TO HAVE KNOWN, OF THE POSSIBILITY OF SUCH DAMAGES. THE JASPER SOFTWARE AND UNDERLYING TECHNOLOGY ARE NOT FAULT-TOLERANT AND ARE NOT DESIGNED, MANUFACTURED OR INTENDED FOR USE OR RESALE AS ON-LINE CONTROL EQUIPMENT IN HAZARDOUS ENVIRONMENTS REQUIRING FAIL-SAFE PERFORMANCE, SUCH AS IN THE OPERATION OF NUCLEAR FACILITIES, AIRCRAFT NAVIGATION OR COMMUNICATION SYSTEMS, AIR TRAFFIC CONTROL, DIRECT LIFE SUPPORT MACHINES, OR WEAPONS SYSTEMS, IN WHICH THE FAILURE OF THE JASPER SOFTWARE OR UNDERLYING TECHNOLOGY OR PRODUCT COULD LEAD DIRECTLY TO DEATH, PERSONAL INJURY, OR SEVERE PHYSICAL OR ENVIRONMENTAL DAMAGE ("HIGH RISK ACTIVITIES"). LICENSOR SPECIFICALLY DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR HIGH RISK ACTIVITIES. USER WILL NOT KNOWINGLY USE, DISTRIBUTE OR RESELL THE JASPER SOFTWARE OR UNDERLYING TECHNOLOGY OR PRODUCTS FOR HIGH RISK ACTIVITIES AND WILL ENSURE THAT ITS CUSTOMERS AND END-USERS OF ITS PRODUCTS ARE PROVIDED WITH A COPY OF THE NOTICE SPECIFIED IN THIS SECTION.