



ScanOmatic

easy to use powerful scanning software



by interpersonal-computing

ScanOmatic

December 1994

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Offer:

interpersonal-computing offers to integrate nearly any popular scanner at no extra cost, if you supply us with a scanner and the documentation.

interpersonal-computing GmbH
ObjectNetwork Center Munich
Oettingenstraße 2
80538 München

Tel. : ++49 (0) 89 22 33 75
Fax. : ++49 (0) 89 22 33 76
e-Mail : info@interpc.de (intern. <20 kB)

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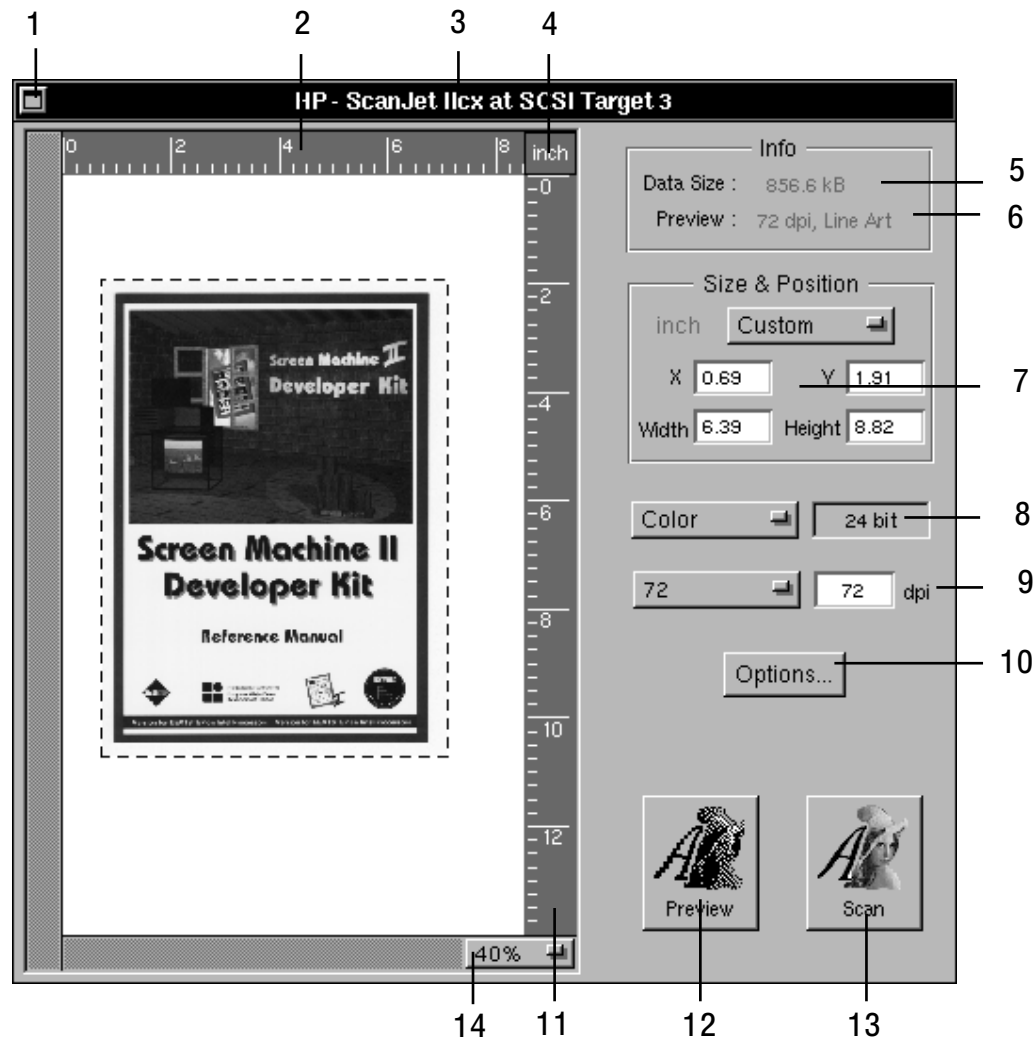
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The Main Window

This is where your main work will be done. It contains all necessary controls and a preview of the scan.



1 Miniaturize

This button miniaturizes the main window.

2 Horizontal ruler

The units can be changed in the units section of the preferences.

3 Title bar

The title contains scanner type and SCSI connection.

4 Units

This field shows the current ruler units. See units section of preferences for more information and how to setup units.

5 Data Size

This information field contains the data size of the image if it would be scanned with the current selections.

6 Preview

This line shows the preview settings.

7 Size & Position

This group contains the geometric size information and settings about the to be scanned area. If you have not checked the “Scan Expert” option in the general section of the preferences this field will contain the macro buttons.

Text (inch)

Currently used units.

PopUp (Custom)

This popup holds some often used sizes for quick access.

X, Y, Width, Height

Current size and position settings. Here you may change them manually.

All values are given in the current selected units. If values above the maximum are entered the system will replace the with the maximum.

If you change the selection rectangle with the mouse, these fields will display the new coordinates.

8 PopUp color depth

The selector for the used color depth. The field behind this popup gives the depth in bit. The available color depths may differ on the model of the scanner.

9 PopUp resolution

The selector for the used resolution in dpi (dots per inch). In the field behind this popup you may change the value manually. If the value is out of the scanner dependent range the system will set the next possible value.

10 Button Options

This button leads to the hardware option panel.

See also

- Hardware Options HP
- Hardware Options UMAX / HSD
- Hardware Options EPSON
- Hardware Options XRS Rayven
- Hardware Options XRS Other
- Hardware Options Océ

11 Vertical ruler

The units can be changed in the units section of the preferences.

12 Button Preview

Press here to start the preview scan. See preview section of preferences for more information and how to set preview resolution.

13 Button Scan

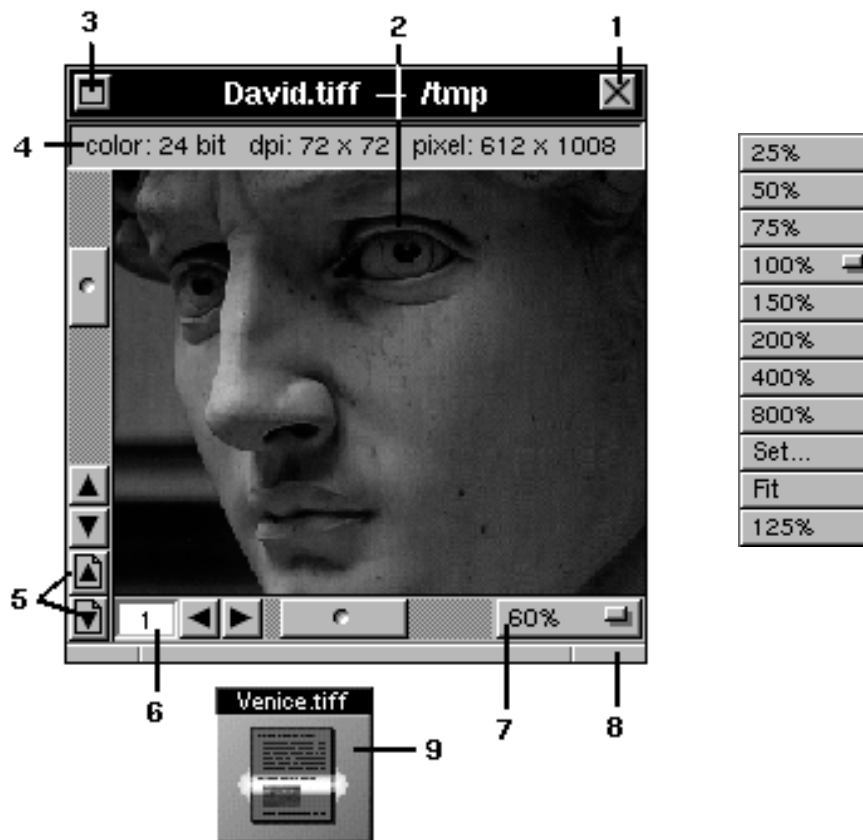
Press here to start the final scan.

14 PopUp ZOOM

To magnify the Preview area.

The Document

After each scan a new document window will be opened with the scanned image. The default name is Untitled_00x.tiff and so on.



1 Close button

The close button will close a document window. If the document is unsaved a panel will ask you to save the file.

2 Image area

In this area the scanned image is displayed in screen resolution (72 dpi).

3 Miniaturize

This button miniaturizes the document. See also #9.

4 Image Info Bar

This bar contains some valuable information about the current image. It can be turned on/off with Toggle Image Info from the Tools menu.

5 Page up/down

This page up/down buttons become visible, if the document was scanned as "batch mode" document. They allow to switch to the previous or next page in the document.

6 Page number

This text field shows the actual page number, if the document was scanned as “batch mode” document.

7 PopUp zoom

With the zoom popup you may scale the document on screen. This scaling doesn't change image data, that means it won't affect printing or saving.

The [Fit] status will fit the document into the actual window size using the image ratio.

With [Set...] you may specify a custom zoom factor.

8 Resize bar

Same handling as in any NEXTSTEP application. If the size reaches a certain pick distance to the optimal image size, the window will snap to it.

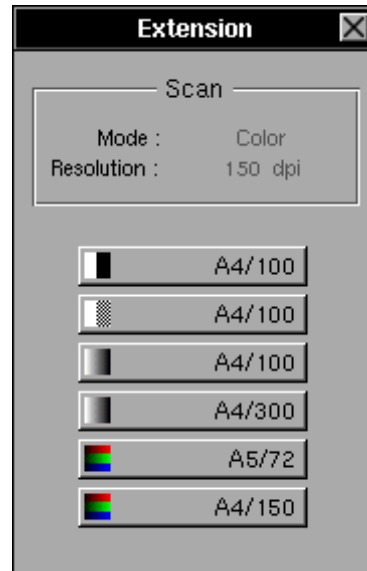
9 Document icon

This is the icon of a miniaturized document.

Extension Panel

The Extension Panel has two different “faces”. On the one hand the buttons shown in the main window in section “The Main Window” are displayed. On the other hand the buttons are shown below. This depends on the setting of the “Scan Expert” switch in the General section of the preferences.

For a further description of the other “face” see “The Main Window” description.



Scan Box

Gives you an idea of the currently set values of Resolution and Mode.

Macro buttons

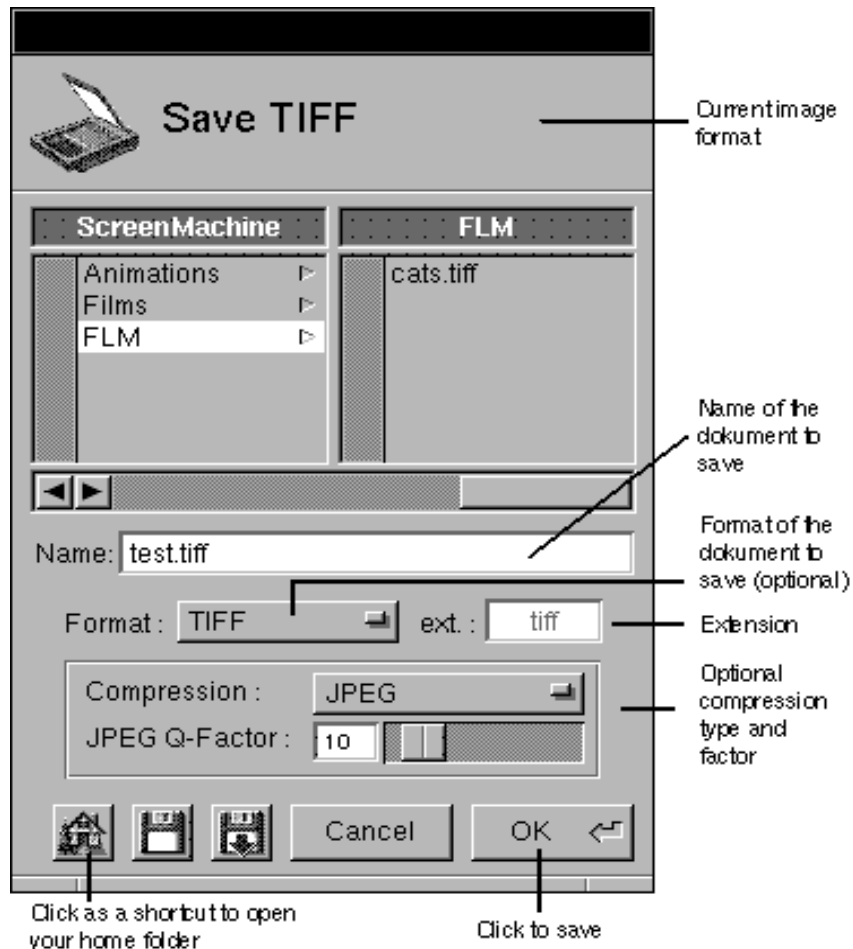
These buttons will automatically setup all important scanning values on one click. These values are:

- resolution
- scan mode
- scan area
- hardware filters

The values can be modified in the Macros section of the preferences.

Save scanned Images

The SAVE panel corresponds with its counterparts in all NeXT applications. It only has been extended for compression.

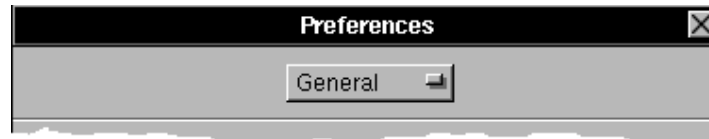


1. Activate the window which you want to save.
2. Select the menu item "Document" from the main menu.
3. Select the menu item "Save As" from the "Document" menu.
4. Here you may also choose the file format (PopUp), Extension (text field) and the optional compression.
5. Give the file a name and select the folder, into which you want to save this file.
6. Click OK.

Preferences

Preferences are used to make same basic settings, which define the handling of the application.

The PopUp in the upper section leads to the different preferences views.



General

Some basic handling features.

Units

Settings of the ruler and working units.

Preview

Color depth, size and resolution of the preview scan.

Macros

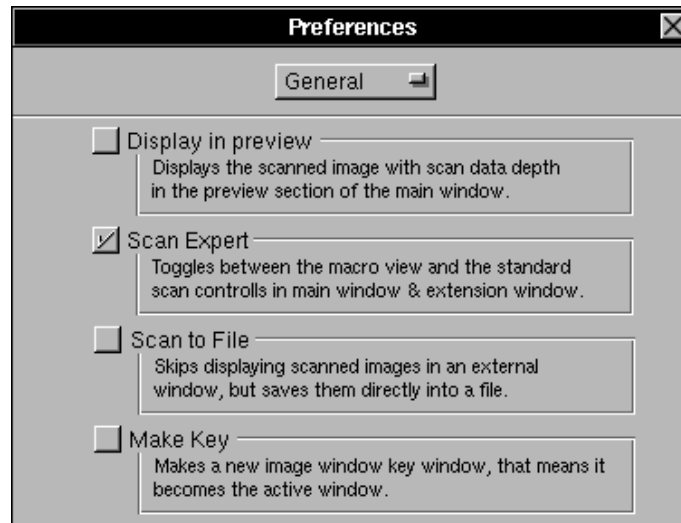
Easy user interface setup for quick access scanning.

Reporter

Mail setup for the suggestion and bug reporter.

Preferences General

The General Section is used to determine some basic user interface and handling methods.



Display in preview

Normally in the preview area of the main window only the preview color depth will be displayed. If this button is checked, the selected area in the preview will be updated after a final scan with the scan color depth. This may cause delays on large color scans.

Scan Expert

A part of the main window and the extension window can exchange their contents. This is useful e.g. when you often use well configured macros and rarely need access to the manual setups. Then may prefer to have the macro buttons in the main window.

Other people need to have the size, color depth and resolution buttons in the main window.

And here is, where you may change the default.

Scan to File

E.g. you have to scan a document with 1200 dpi and 24 bit and you need not to review it (may be because this machine has only 8 Meg RAM) then you want to save it after the scan directly to disk.

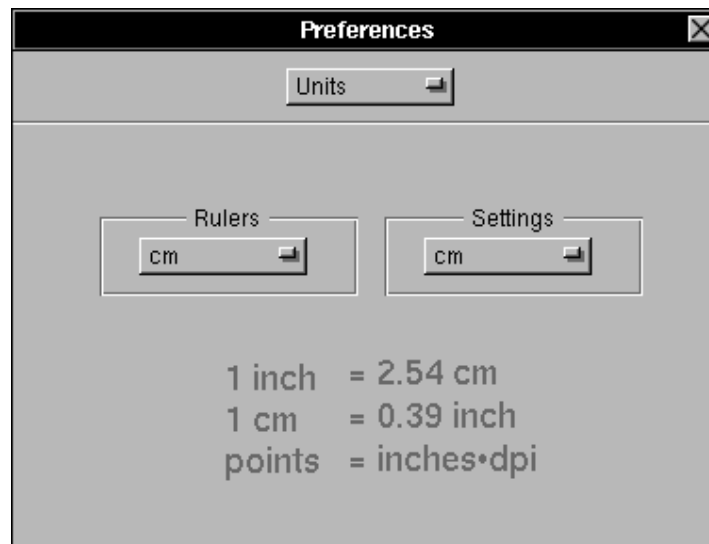
After the scan a save panel pops up and will ask you for the path and file name.

Make Key

Normally the last document would reside main. With this option active, the last filtered or scanned document will become automatically main. That means, that the image with the result will become main.

Preferences Units

This section of the preferences is to set up the units of the rulers and the all working fields.



Rulers

Units of the rulers around the preview area in the main window.

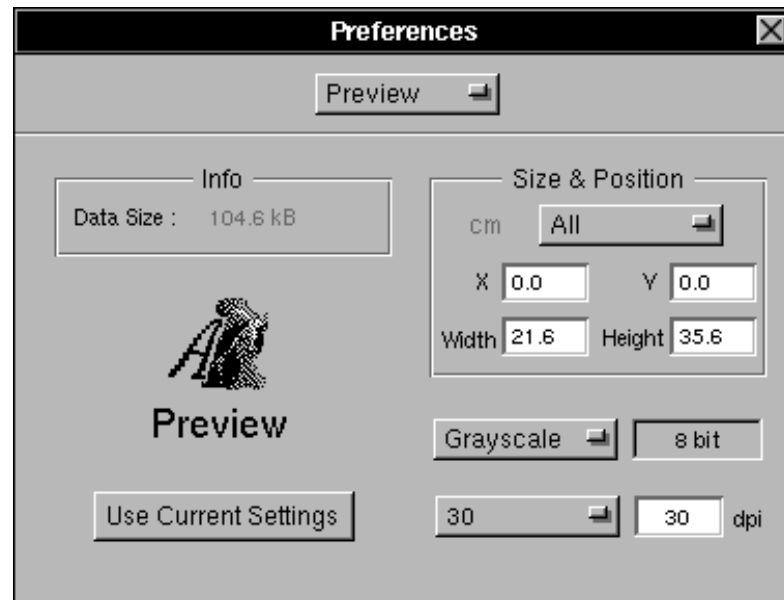
Settings

The units used in all input and output text fields.

Preferences Preview

This section of the preferences decides about the quality of the scan in the preview area of the main window.

Have in mind that the maximum of the screen resolution is 72 dpi. Because this view is scaled relative to the real scan area by a factor of 2.5 the maximum resolution would be 28.8 dpi, so a setting of 30 dpi is recommended. The color depth may be selected upon your scanner speed.



Info

Gives you an idea of the amount of data used for the preview scan.

Button "Use Current Settings"

This button will transfer the size, color depth and resolution from the actual main window. Sometimes extremely useful to get an idea about what you will scan.

Size & Position

This group contains the geometric size information about the area to be scanned.

Text (cm)

Currently used units.

PopUp (All)

This popup holds some often used sizes for quick access.

X, Y, Width, Height

Current size and position settings. Here you may change them manually.

All values are given in the current selected units. If values above the maximum are entered the system will replace them with the maximum.

PopUp (Grayscale)

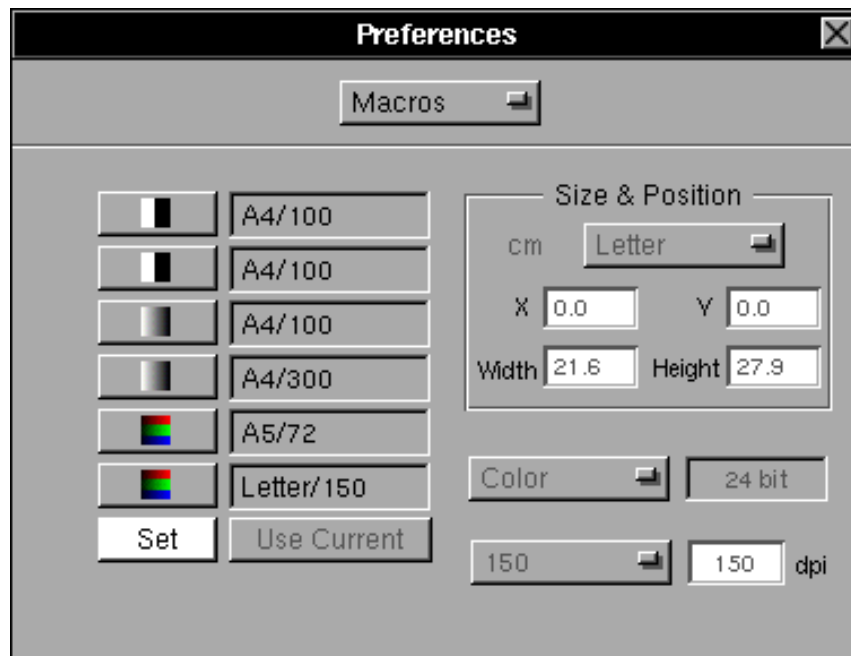
The selector for the color depth used. The field behind this popup gives the depth in bit. The available color depths may differ on the model of the scanner.

PopUp (30)

The selector for the used resolution in dpi (dots per inch). In the field behind this popup you may change the value manually. If the value is out of the scanner dependent range the system will set the next possible value.

Preferences Macros

This section of the preferences makes this application really useful, especially for non professionals. You will find that you have to scan for your daily work often the same sizes and color depths. With the “Scan Expert” switch unchecked in the General section of the preferences, a field of buttons will appear in the main window. These buttons will automatically setup all important scanning data on one click!



Size & Position

This group contains the geometric size information about the area to be scanned.

Text (cm)

Currently used units.

PopUp (Letter)

This popup holds some often used sizes for quick access.

X, Y, Width, Height

Current size and position settings. Here you may change them manually.

All values are given in the current selected units. If values above the maximum are entered, the system will replace them with the maximum.

PopUp (Color)

The selector for the used color depth. The field behind this popup gives the depth in bit. The available color depths may differ on the model of the scanner.

PopUp (150)

The selector for the used resolution in dpi (dots per inch). In the field beside this popup you may change the value manually. If the value is out of the scanner dependent range the system will set the next possible value.

Button field with color symbols

Click to setup one certain macro.

Text fields

Contains the text, that will appear on the macro button.

Button "Set"

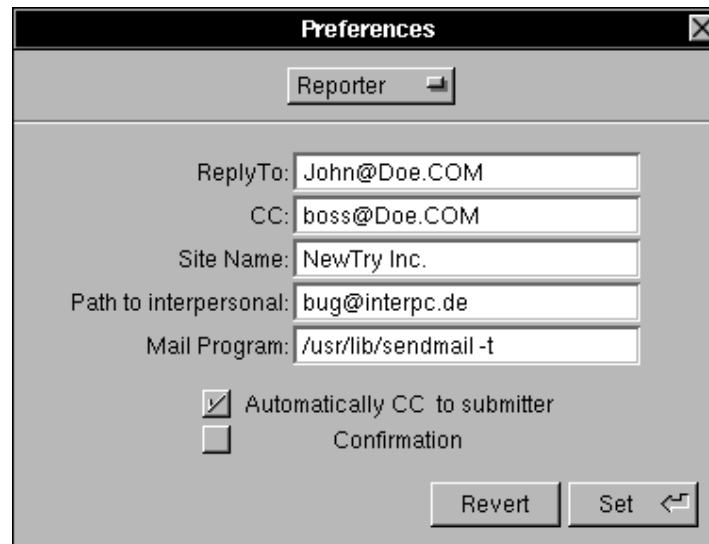
To accept current settings (including those of the hardware filters) as for the active selected macro.

Button "Use Current"

This button will transfer the size, color depth and resolution from the actual main window.

Preferences Reporter

The Reporter from the Info menu should be used to send questions, bugs and anything else you want to submit to us or the developer. Here you should setup some basic values for the automatic mailer.



The image shows a 'Preferences' window with a 'Reporter' tab. The fields are as follows:

- ReplyTo: John@Doe.COM
- CC: boss@Doe.COM
- Site Name: NewTry Inc.
- Path to interpersonal: bug@interpc.de
- Mail Program: /usr/lib/sendmail -t
- ☒ Automatically CC to submitter
- ☐ Confirmation
- Buttons: Revert, Set

Reply To

If the receiver is someone else than given in your mail preferences (of NeXT's Mail.app).

CC

If your submissions should be forwarded in a copy to another person.

Site Name

Only for us to keep track of the submissions.

Path to ipc

Sometime the internet naming convention won't work from your site. Change the address here.

Mail Program

It is the same parameter as given in the preferences of NeXT's Mail.app.

Automatically CC...

This would "mail" a copy to your mail account.

Confirmation

If you want to have an automatic confirmation from our site.

Revert

Resets all values to system defaults.

Set

Should be pressed after settings were changed.

How to setup a macro

Here we will explain stepwise how to set up a macro.

1. Select macro field

There are six macros which can be customized. Select that one you want to change and press on the button left of the text field.



2. Description

Enter a text (not more than displayed in the text field), which describes the selection this macro will do. It is recommended to use a combination of size and resolution, the color depth is not necessary, because an icon will represent it.

3. Select values

Now make your selection of the area to be scanned, color depth and resolution. Pressing the “Use Current” button would fetch these values from the current selection in the main window.

4. Save Settings

Finally press the “Set” button to store this settings in your default database.

If you want to have some certain settings available on a network you may change these settings in the applications AppWrapper. But be careful this could destroy the application. The macro files can be found in:

.../ScanOmatic.app/.macros/...

How to scan

This is a short introduction in how a normal scan process could look like. It is not an absolute must, but only a suggestion.

1. Adjust your Preview scan resolution and size

This step may be obsolete for the daily scanning, but should be done at least once.

You should set up the optimal size, resolution and color depth, which allow to recognize enough in the preview area, but doesn't produce too much data.

50 - 72 dpi (if you have a zoom factor in the main view of more than 40% you might go higher)

Colordepth **"Line Art"**, only if absolutely necessary go on **"Grayscale"**.

Size & Position should be on All, because you want to see what is on the scanner bed.

2. Start the Preview Scan

Place whatever you want to scan at the zero position on the scan bed and close the cover. If it is not-plain (like an open book) put something heavy (not too heavy) on the cover to get additional pressure. Press the Preview button:



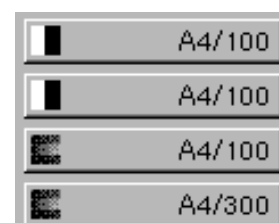
During the scan process you get a Progress Panel, it can be aborted if you press [Command - .]

You will finally get a preview in the main window. If it is not what you expected (position), open the cover and place it correctly again.

Don't worry about color or brightness, the final scan will look different.

3. Make your selection

Now click into the view and drag a rectangle with the mouse over the area of interest. This selection can be deleted simply by clicking into the image area but outside of the current selection. You may also use the text fields or the PopUp from the Size & Position section of the main window (only visible if you are in expert mode). You could also simply click on one of the predefined macro buttons.



4. Choose the color depth and resolution

Now you should decide what you want to do with your scan. Depending on that choose the color depth and resolution.

E.g.:

You want to scan a letter for being printed on your 600 dpi laser printer:

LineArt (1 bit) & 600 dpi

This letter should be faxed directly out of your computer system: **Line-Art (1 bit) & 200 dpi**

It is a photography or a picture to be printed on your 600 dpi laser at 1:1 size: **Grayscale (8 bit) & 150 dpi**

This photography has also text on it: **Grayscale (8 bit) & 300 dpi**

You have a color printer (ink jet 300 dpi) and want to print that photography: **color (24 bit) & 150 dpi**

It should be used for high end layout purposes: **color (24 bit) & max resolution**

5. Now check out hardware options

This is again a step, which might not be necessary everytime. Also we have normally the best overall values presetted.

This options differ depending on the scanner vendor and type. This option are filters being processed already during the scan process itself.

- Hardware Options AGFA
- Hardware Options EPSON
- Hardware Options HP
- Hardware Options Océ
- Hardware Options UMAX / HSD
- Hardware Options XRS Rayven

They are useful e.g. to optimize the basic contrast.

6. Scan

The next step would be to scan:

During the scan process you will get again a “Progress Panel”, it can be aborted if you press [Command - .]

The result is a satellite window with your scan result.

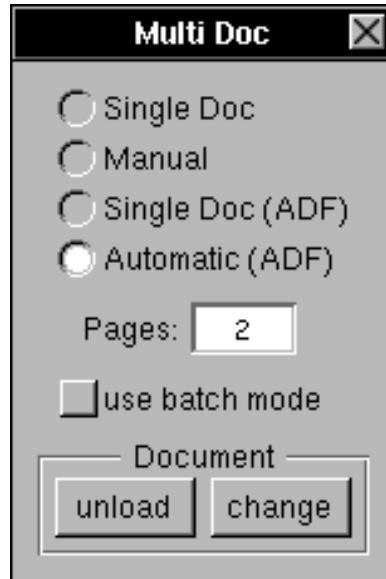
7. Apply filters

To optimize your result we added some useful software filters. They can't replace a professional image software, but will cover most needs.

If you are not happy with the result repeat the necessary steps. Please also check out the specific help topics for possible options like ADF for the generic app handling.

Multiple Documents

Contracts or correspondence consists in the most cases out of more than one page. That was the reason, why document feeders were developed. This little panel assist you to scan such multi page documents.



Single Doc

Standard scan mode. This option will scan the selected area only one time.

Manual

Check this, if you want to scan a multiple page document, but aren't the lucky owner of an automatic document feeder. The software will ask after each page to insert the next one and confirm the next scan.

Single Doc (ADF)

Once installed you may sometimes scan multi page documents which only consist out of one page with an ADF hardware option (not available for all scanners).

Automatic (ADF)

This option activates the automatic document feeder (ADF). After one scan is done the ADF will feed the next page and scan it in the same way. For each page the current settings of size, position and color depth are used (not available for all scanners).

Pages

Selects the amount of pages to be scanned.

use batch mode

When checked all scanned images will be inserted in one document. If not every scanned image will be displayed in a new window.

A batch document is a TIFF file with several image representations. Opening this document in an other application may only result in the first page. So you have to open it again in ScanOmatic for printing or any other operation.

This option is only available in Manual or Automatic mode.

Document

Use the change button to load a document with help of the ADF. The previous loaded document will be ejected.

Unload

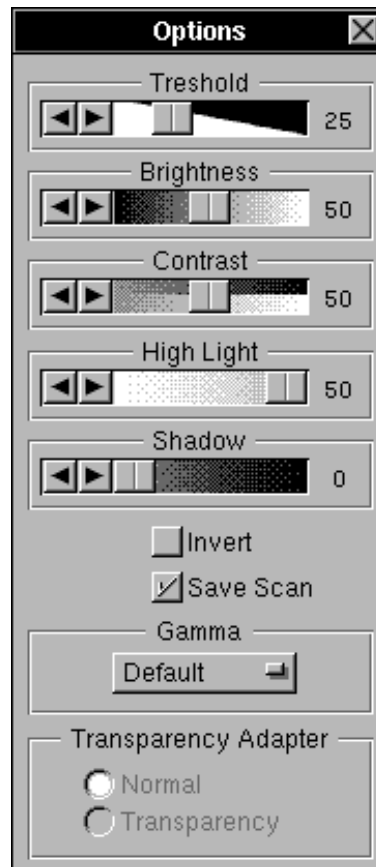
Use the unload button to eject a previous loaded document.

Exchange

This option is only available for ADFs which support the loading and unloading of a document.

Hardware Options Umax/HSD

Every scanner offers some hardware features, which can be accessed via this panel. Of course this panel may be different with different scanners. But this one is which we use for all UMAX / HSD scanners. Depending on the selected color depth some of the features may be disabled.



Threshold

The threshold defines whether a point is scanned as white or black. This option is only enabled in connection with the Line Art mode.

Brightness

Brightness indeed acts like a brightness adjustment. This option is only enabled in connection with the Dither mode.

Contrast

Adjusts the contrast of scanned grayscale images. This option is only enabled in connection with the Dither mode.

High Light & Shadow

Act together like a brightness Filter. This options are only enabled in connection with the Grayscale mode.

Invert

Inverts the color channel (even in gray or bw). The result is a negative image.

Save Scan

If you get sloping images use this option and scan again. A scan lasts longer when Save Scan is checked. So only use this option if really needed.

Gamma

You may choose between four different Gamma Curves and one Default Curve.

Transparency Adapter

This option is only available, when a supported transparency adapter was found.

Normal Turns backlight off.

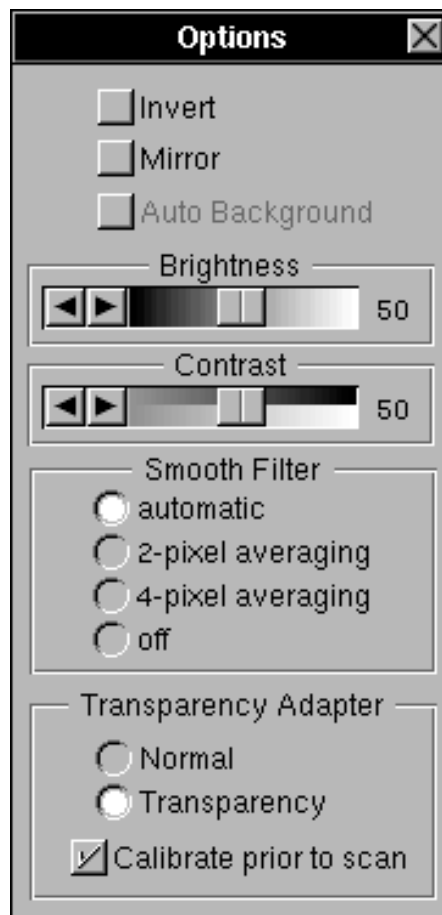
Transparency Turns backlight on.

Note:

These features enhance or manipulate image data before they are transferred into the computer system. Therefore there is no way to revert this conversions, than to repeat the scan with different values. This may be faster than a software operation on images.

Hardware Options HP

Every scanner offers some hardware features, which can be accessed via this panel. Of course this panel may be different with different scanners. But this one is what we use for all HP scanners. Depending on the selected color depth some of the features may be disabled.



Invert

Inverts the color channel (even in gray or bw). The result is a negative image.

Mirror

Mirrors the image.

Auto Background

The Auto Background option is only available in the 1 bit mode (Line Art). It does some automatic brightness/threshold estimation which excludes any manual brightness adjustment.

Brightness

The brightness has different effects depending on the color depth.

LineArt 1 bit:

Here brightness is used as threshold. The threshold defines whether a point is scanned as white or black.

Gray, Color:

In this case brightness indeed acts like a brightness adjustment.

Contrast

Adjusts the contrast of scanned grayscale images. This option is only enabled in connection with the grayscale mode.

Smooth Filter

This filter smooths the scanned image by averaging the given amount of pixel (horizontally). Off will switch this feature off, automatic should choose automatically the right amount of pixel.

Transparency Adapter

This option is used together with the backlight option for the HP scanner. When scanning films or slides the lower light is turned off and a different color correction is chosen. If the switch Calibrate prior to scan is marked the scanner will calibrate its color values right before each scan.

Note: This features enhances or manipulates image data before they are transferred into the computer system. Therefore there is no way to revert this conversions, than to repeat the scan with different values. This may be faster than a software operation on images.

Hardware Options XRS Rayven

Every scanner offers some hardware features, which can be accessed via this panel. Of course this panel may be different with different scanners. But this one is what we use for the XRS Rayven scanners. Depending on the selected color depth some of the features may be disabled.



OD

Larger values of OD (Optical Density) result in a higher resolution and brighter images. The OD value equals the integration time per line of the scanner. Be aware that higher OD values lead to a non linear rise of time per scan.

The enhanced OD-modes give you the possibility of getting a more detailed image, because a line is scanned two times and the data is mixed together. This modes are only available for grayscale images.

Brightness

The brightness makes the image brighter which may result in a loss of image data when the image gets to bright.

Halftone Maps

For halftone mode only you can select which halftone map you want to use for your scan. The number of grays give you an idea of how many different maps are used. That means the more grays you use the better image quality you have.

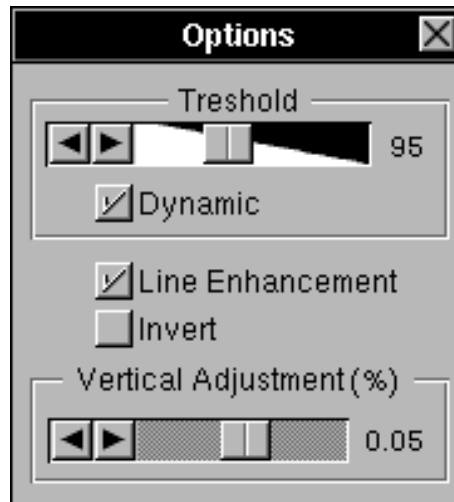
Calibration

With these switches you can decide whether the scanner should calibrate the ADC (Analog Digital Converter), the RAM (Random Access Memory) or preset with factory defaults prior to the scan. If no switch is marked the last values (e.g. Power Up Calibration) are used.

Note: This features enhances or manipulates image data before they are transferred into the computer system. Therefore there is no way to revert this conversions, than to repeat the scan with different values. This may be faster than a software operation on images.

Hardware Options Océ

Every scanner offers some hardware features, which can be accessed via this panel. Of course this panel may be different with different scanners. But this one is which we use for all Océ scanners. Depending on the selected color depth some of the features may be disabled.



Threshold

The threshold defines whether a point is scanned as white or black point. This option is only enabled in connection with the Line Art mode.

Dynamic

The built in DSP (Digital Signal Processor) does a two dimensional analysis on the scan line and adjusts the threshold automatically.

Line Enhancement

This process is a bit more difficult. It analyses the relative size of a scanned pixel in relation to the actual selected resolution. Any line, which would be smaller than one pixel, is increased to one pixel. Any larger line is increased by one pixel.

Invert

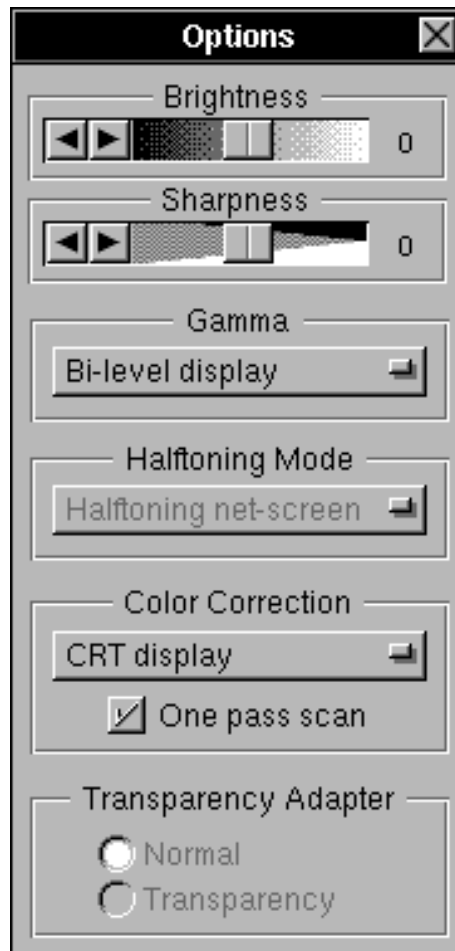
Inverts the color channel. The result is a negative image.

Vertical Adjustment

This value is to adjust the vertical scaling factor. It affects the scaling of the intermediate scan lines in the steps of 0.01%.

Hardware Options EPSON

Every scanner offers some hardware features, which can be accessed via this panel. Of course this panel may be different with different scanners. But this one is which we use for all EPSON scanners. Depending on the selected color depth some of the features may be disabled.



Brightness

Brightness indeed acts like a brightness adjustment. Positive values result in a brighter image, negative values lead to a darker image.

Sharpness

Adjusts the sharpness of scanned. Positive values result in a sharper image, and vice versa.

Gamma

The gamma correction refers to the gamma correction table stored in the scanner's internal memory, and adjusts the conversion ratio between the input intensity of the original image and the output image data values.

The various predefined settings have the following characteristics:

Bi-level display This setting is suitable for CRT display types that are incapable of displaying different tones of gray or colours. For example,

this setting is suitable for displays that can produce only 8 or 16 colours. **Multilevel display** This setting is suitable for high performance CRT display types that can display different tones of gray or colours. For example, this setting is suitable for displays that can show more than 16 colours.

High density printers This setting is appropriate for printing on high density printers, such as 24-dot printers and laser printers. Since high density printing increases the darker components of the image, this setting compensates by producing data that is lighter than that used by a CRT display.

Low density printers This mode is suitable for low density printing on 8 dot (9 pin) printers. This mode is similar to the Printer Output A mode, but the conversion curve is slightly different to compensate for the different printer characteristics. This mode is also suitable for printing on printers that produce finer dots, such as high-resolution laser printers and ink jet printers.

High contrast printers This setting is suitable for images that require more clarity and distinction, such as mixtures of text and graphics. It is also suitable for printing on laser printers that can produce more distinct images than impact dot matrix printers.

Halftoning mode

Sets the halftoning process modes for bi-level dither data. Each halftoning mode has the following characteristics:

Halftoning hard tone The image is processed to produce hard tones, to express distinction. This mode is suitable for most purposes.

Halftoning soft tone The image is processed to give soft tones. This mode is suitable for images that contain large areas of similar tones.

Halftoning net-screen The image is processed so that it is represented similar to the net screen used in newspaper printing. The gradations of the tones are represented by clusters of different numbers of dots.

Dither modes Different named dither modes. These modes are only available for newer scanner models.

Color Correction

Sets the color correction to suit the selected type of color output device. You may only use this option when selecting the 'one pass scan' - switch. This option is only enabled in connection with the Color mode.

Transparency Adapter

This option is only available, when a supported transparency adapter was found. Switching between those modes resets the selection rectangle. Be aware that also the rulers and object positions may change.

Normal Turns backlight off.

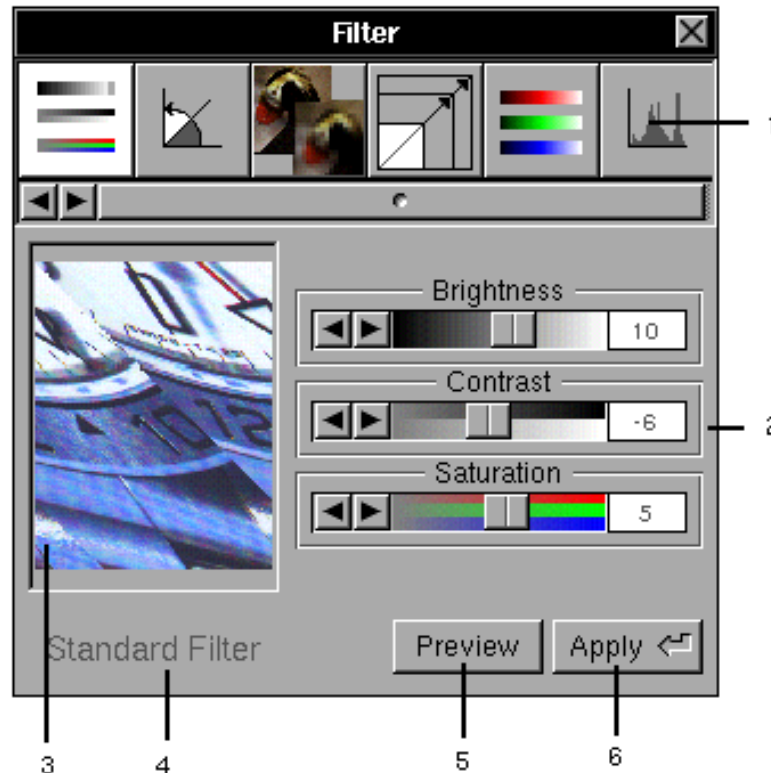
Transparency Turns backlight on.

Note:

These features enhance or manipulate image data before they are transferred into the computer system. Therefore there is no way to revert these conversions, than to repeat the scan with different values. This may be faster than a software operation on images.

Software Filters

The software filters were designed to enhance scanned images for basic use. These filters don't replace a professional painting application like WetPaint or Tiffany. This window can be accessed thru the main menu TOOLS -> FILTERS [Command-F].



1 Filter access scroller

In this ScrollView you have the direct access to the different filter types. Currently we support: Standard, Rotate, Mean, Scale, Tint Adjust and Histogram Equalization.

2 Filter values

This area contains the filter specific values.

3 Preview

In this view a preview of current filter values can be ordered. It always corresponds to the “active” documents window.

4 Name of the filter

5 Preview button

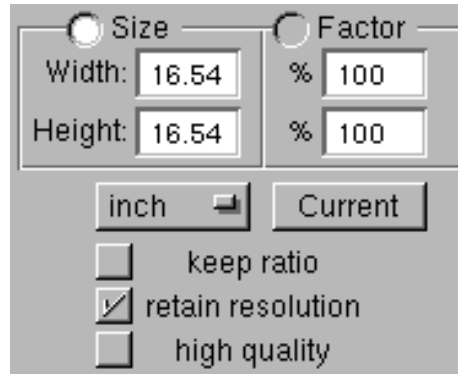
This buttons starts a preview of the current values used with the “active” document.

6 Apply button

Applies the selected values to the active document.

Scale Filter

The dependency of scaling and resolution is mostly misunderstood. You may use this filter to scale a document to a certain size.



Size or Factor

Chooses whether to use the given unit fields or the percent fields for scaling.

Width, Height

Selects the output size by unit.

%

Selects the output size by percent.

PopUp [cm, inch, points]

Determines the used units in the fields width and height.

Current, Button

Fetches the size from the current active document.

keep ratio

Checked it will automatically set the corresponding field of width or height. To check it you need an active document.

retain resolution

If this button is checked, the scaled image will have the same resolution (dpi) as the original image. That means, an image originally scanned with 100 dpi, scaled by 50% will again have 100 dpi but only half of the width and height. Corresponding the real data size is reduced to a quarter of the original image. Of course you lose quality when printing or in further image operations.

If the button stays unchecked, the real data size won't be changed. All we do is to scale some of the image information data, which contains the geometric size information. An image scanned with 100 dpi and scaled by 50% will then have half of the width and height, but the double resolution (here 200 dpi). Of course the real data size won't change and the quality when printing will be the same (or better).

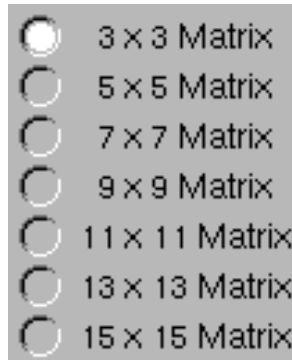
Note:

The units as displayed on screen or used in the datafields may not reflect the reality, but are calculated out of the relation of scanned resolution and size.

E.g. If you want to have an image where the real contained data is equal to the given unit pixel you would have to scan it with 72 dpi.

Mean Filter

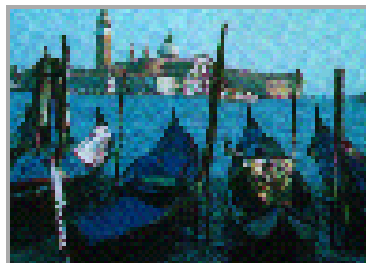
The Mean Filter creates a weighted average of neighborhood pixel. The result is a smooth, blurry image. The larger the matrix, the blurrier the result.



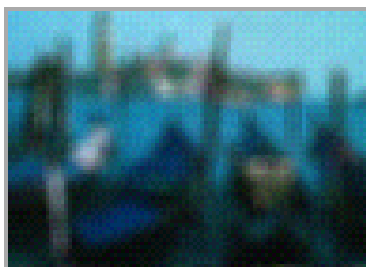
Matrix

Selects the diameter (matrix size), which is used for averaging.

Example:



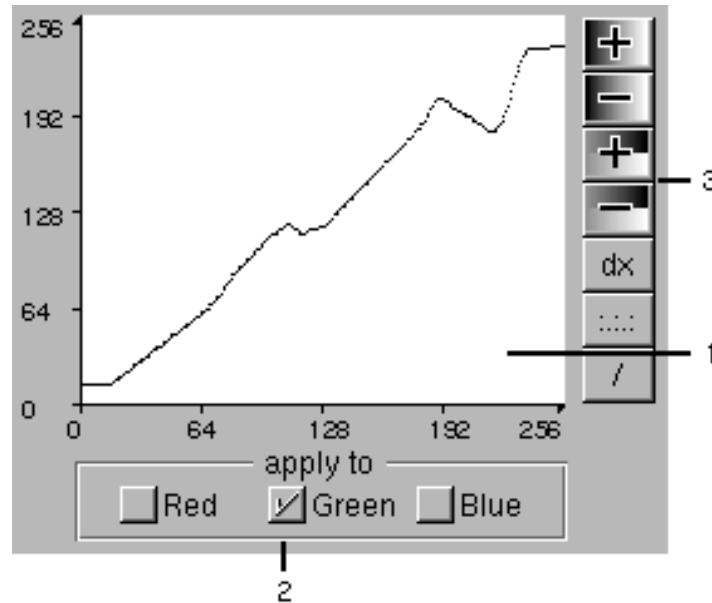
original image



blurred 5x5 Matrix

Color Correction Filter

This is some sort of LookUp table correction. Each specific values on the horizontal axes will be mapped to the according value on the vertical axes given by the curve.



1 Display

It visualizes the currently used mapping curve.

2 apply to

Choose the color channel, which will be altered by the given curve. In this example it would only alter the green color channel.

3 easy access buttons

These buttons will apply a predefined operation on the actual curve:



moves up all values (positive brightness)



moves down all values (negative brightness)



rotates the curve according to the mean value (positive contrast)



rotates the curve according to the mean value (negative contrast)

dx

smoothing

...

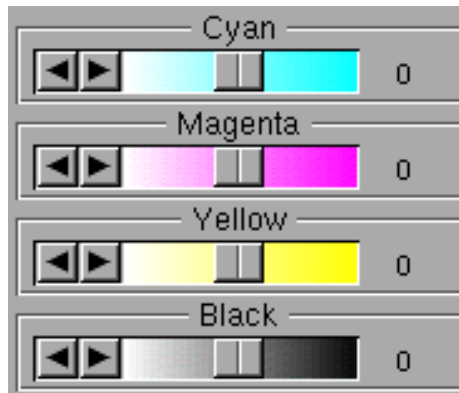
diffusion

/

resets the curve to a linear function (identity curve)

Print Adjust

With this filter you may adjust the tint of the separate color channels.



Cyan, Magenta, Yellow, Black

Higher values will increase the tint of the selected channel. The value behind the scroller has a range from -50 to 50. Setting all values to -50 won't result in a gray image but reduces the brightness, because this filter operates as “brightness filter” on the separate color channels.

This filter doesn't work with: grayscale, line art and dithered images.

Rotate Filter

Sometimes it is not possible to scan a document or image in portrait format. For further use you may have to rotate the scanned documents in certain steps.

If you scan books or documents which don't fit exactly under scanner cover you may have a “fault angle” in the result. This can cause problems with OCR or other image processing software. In this case you can rotate the scanned document with a custom angle.



90 degrees, 180 degrees, 270 degrees

Rotates the images with the selected angle. Odd steps (90, 270) will flip the width and height.

Custom

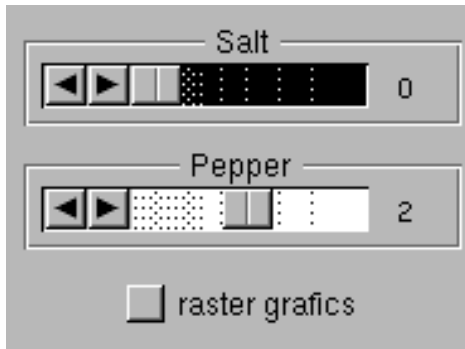
Rotates the document with the given angle. The output size depends on the maximum diameter. Background color will be replaced with white.

Mirror Image

Mirrors the image on the vertical axis.

Salt & Pepper Filter

The Salt & Pepper Filter removes white or black speckles. This filter can only be used for Line Art images.



Salt

The Salt values represents white speckles in black areas, where the value refers to the size of the speckle.

Pepper

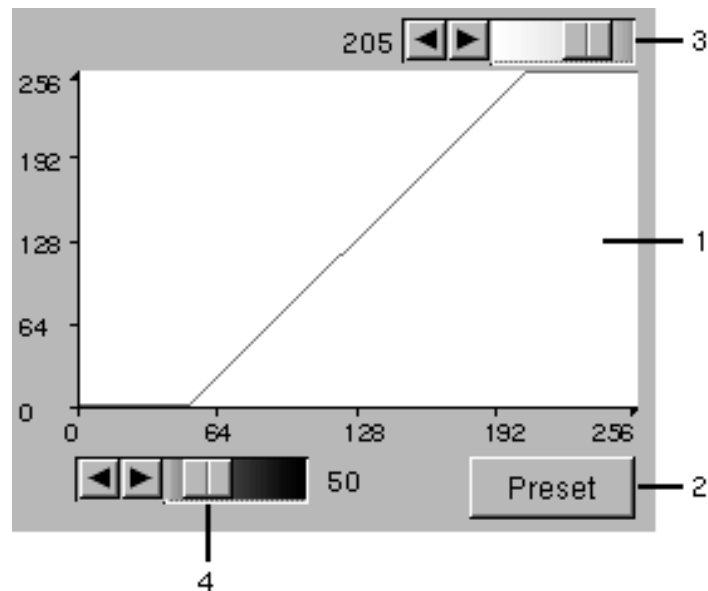
The Pepper values represents black speckles in white areas, where the value refers to the size of the speckle.

raster graphics

For dithered images (NOT dithered scan mode!) the area used for processing is increased.

Black/White Correction

Sometimes your scan results might not cover the full gray spectrum. This filter will aid you to find the best cut off values to receive the optimal results. All values larger or smaller than the given threshold will be mapped to clean white or black. The grayscales between will be recalculated to make use of the full spectrum.



1 Display

It visualizes the currently used correction.

2 Preset

Analyses the active image window and offers the best possible curve.

3 White Cut-Off

Upper threshold or white cut off. Larger values will appear as pure white, smaller values will be recalculated according to the resulting curve.

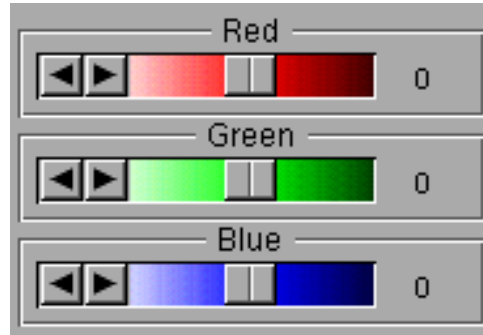
4 Black Cut-Off

Lower threshold or black cut off. Smaller values will appear as pure black, larger values will be recalculated according to the resulting curve.

Note: This filter doesn't support Line Art and other 1 bit image formats.

Tint Adjust

With this filter you may adjust the tint of the separate color channels.



Red, Green, Blue

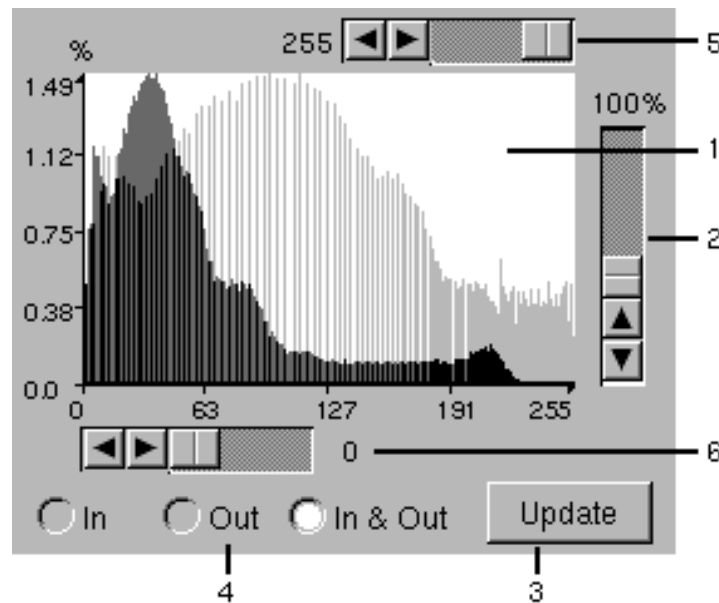
Higher values will increase the tint of the selected channel. The value behind the scroller has a range from -50 to 50. Setting all values to -50 won't result in a gray image but reduces the brightness, because this filter operates as “brightness filter” on the separate color channels.

This filter doesn't work with: grayscale, line art and dithered images.

Histogram Equalization

Some scans only partially use the available color depth and are therefore low in contrast. These images can be enhanced with the Equalization filter, which analyzes the used color shades and stretches the result over the whole available spectrum. The result may not look like perfect scan, but sometimes details can be found, which weren't visible in the original image.

This filter doesn't work with: line art and dithered images.



1 display

This display shows the actual distribution in dark grey and the recalculated distribution in bright gray.

2 scaling

The display will always use the correct scaling to have ALL values inside. This means the maximum peak will decide about the scaling. If you have one extreme peak the scaling for the other values might not be optimal, with that slider you adjust your scaling ignoring that one peak.

3 update

As it is a hard computing effort necessary to calculate the diagram, it will be done only on request!

4 display selector

In Only the original distribution will be displayed.

Out Only the resulting distribution will be displayed.

In & Out Both diagrams will be displayed.

5 White Cut-Off

Upper threshold or white cut off. Larger values will appear as pure white.
To update the display please press the button Update.

6 Black Cut-Off

Lower threshold or black cut off. Smaller values will appear as pure black.
To update the display please press the button Update.

Example:



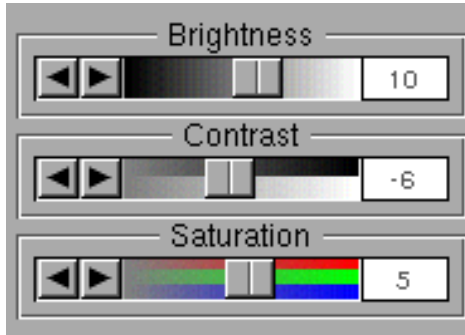
original image



after filtering

Standard Filters

Often used to adjust basic values.



Brightness

Adjusts the brightness of the complete image. Be aware that setting too high values will “wash out” the result. Too low brightness may have too much black areas as result.

Contrast

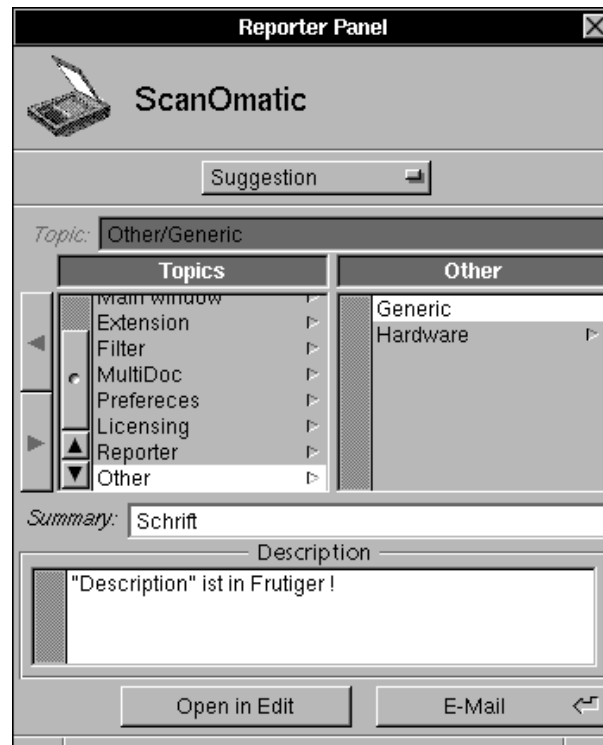
More positive values will increase the contrast, but decrease the amount of used colors. Higher values will increase the sharpness between dark and bright areas.

Saturation

Raises or lowers the saturation of a complete image. Be careful, you won't believe how many colors you have in your image!

Support

The integrated report system allows to reach us easily with bug reports or suggestions. It can be found in the Info menu.



PopUp (Suggestion)

To classify your message.

Browser

It contains all possible, basic topics, used like the WorkspaceManager.

Summary

A short description of your message. Not more than ten words.

Description

This is the place for your message.

Open in Edit

If you are not connect to e-mail use this button to print or fax your submission.

E-Mail

Fastest way to reach us. Your message will be on the developer desk within 24 hours

Of course you can reach us also by phone and fax. All numbers are printed on the legal page at the beginning of this manual.