Bend...

Bends a brush, e. g. to fit it onto an object at your picture. The Bend-Requester offers two sliders (accompanied by direct number input at numeric gadgets) for configuring the effect. The horizontal slider specifies the maximum amplitude, the vertical slider its position.

A preview rectangle shows you the settings online. A click on "Produce" generates the brush.

Slant...

Distorts a brush horizontal. The amount of the shift can be set in a requester.

Perspektive...

Tilts a brush into the depth of the picture. The Perspective-Requester has two sliders for setting. The upper one specifies the effect left and the right on the effect right. You can check your setting immediately with the preview rectangle.

With this function you can put a brush three-dimensional into space and use it as a texture for other objects. Try out the possibilities of this function, you'll be surprised.

3.1.2 Manual Brush-Queueing

As mentioned above, now there is a possiblity to do the brush queueing manually (please see section 2.3.2).

Ξ-Paint 3.2

Changes since Manual 3.0

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August 1995

3.2 System-Configuration by a Notebook

The major change in the operation of Ξ-**Paint** is the collection of all system settings into a notebook.

It combines the windows "System Settings" and "Parameter", but also contains new settings such as "Load" or "Save". Most of the buttons occured in version 3.0, too (on other locations). For a description of this function, please refer to the "Manual 3.0".

3.2.1 Overview

The notebook is opened by "Menus/Settings". It contains a index-card for every group of settings. A click at a name of a card pop it to front. Are there more cards than space for names, you can switch beetween pages using the arrow buttons in the upper right area.

The settings window is as asynchronous as all other Ξ-**Paint** requesters are. This means, you can keep the window open the whole time.

Now a listing of the different index-cards and the buttons and sliders contained within them:

3.2.2 Line

Supplied Controls:

Line-Aliasingfactor: specifies the strength of the antialiasing smoothing of lines

Pixel-Current: see Manual 3.0, 17.9 (Parameter-Requester)

1-Pixel-Current: see Manual 3.0, 17.9 (Parameter-Requester)

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3.2.3 Brush

Supplied Controls:

Darkness: see Manual 3.0, 17.9 (Parameter-Requester)

Brightness: see Manual 3.0, 17.9 (Parameter-Requester)

Antialias: switches the smoothing of brush and paint operations

3.2.4 Picture

Supplied Controls:

Fast-Fill: see Manual 3.0, 17.9 (Parameter-Requester)

Keep Mask: see Manual 3.0, 17.9 (Parameter-Requester)

3.2.5 Printer

Contains a list with recognized printer modules.

This function is currently not supported and reserved for future enhancements.

3.2.6 In/Out

Supplied Controls:

Save Settings: see Manual 3.0, 17.8 (Settings-Requester)

Minipic Save: generates a preview picture at time of saving a project

ASL-Requester: see Manual 3.0, 17.8 (Settings-Requester)

Minipic Requester: see section 2.7.3

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3.2.7 Load

Shows the list of supported loaders:

Internal DEEP
Multipic_Loader
JPEG(Xi)
Targa(Xi)
ReproStudio(Xi)
PPM(Xi)

You can select a loader by clicking on its name. In doubt of a picture format, you should always select the "Multipic_Loader", as it supports the most formats. For more informations, please see section 4.2

3.2.8 Save

Shows the list of supported save formats:

Internal DEEP
DEEP
ILBM
PGM
PPM
SUNRASTER
JPEG(Xi)
Targa(Xi)
SGI(Xi)
PPM(Xi)

A click at a name selects the corresponding format for saving (see section 4.3).

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For the JPEG-Saver there is a Slider "JPEG-Quality" for specifying the compression rate (100 means good quality but low compression, a smaller value leads to smaller files but cuts down quality, too).

If a saver is capable of saving the alpha channel (contains the mask of a picture), you can enable this feature by checking the alpha switch.

3.2.9 Scanner

A list of recognized scanner drivers

This function is currently not supported and reserved for future enhancements.

3.2.10 System

Supplied Controls:

SystemFontName: see Manual 3.0, 17.8 (Settings-Requester)

SystemFontSize: see Manual 3.0, 17.8 (Settings-Requester)

Number of Brushs: see Manual 3.0, 17.8 (Settings-Requester)

Number of Pens: see Manual 3.0, 17.8 (Settings-Requester)

Move to Default Copy: The contents of the color requester are taken as system colors.

CAUTION!!
Only change the first 4 colors, because the rest is responsible for the display of tool icons, etc. At some 8-bit versions (e. g. Retina 8-bit) you cannot choose the color directly. You specify the number of the color-register (of the hardware screen) by the red part of the color you set at the requester.

This can lead to unbearable combinations of colors. Be very careful with this! The Amiga-Intuition versions ignore the color settings for the first 4 colors since they are take from the Amiga system.

You have to quit and restart **Ξ-Paint** to see your changes working! If you messed up all colors you should delete the files "ENV:XiPaint_User" and "ENVARC:XiPaint_User" before you start **Ξ-Paint** again to reset to factory settings. This kills your other **Ξ-Paint** settings, too (except the ones at Xi-Prefs).

Move to Requester Assign: To set the system colors you must copy them into the color requester. But caution: they'll replace your current colors!! If you need them later, you should save the palette before clicking on the "Assign" button.

Locale Mode: see Manual 3.0, 17.8 (Settings-Requester)

3.2.11 Paths

Contains three string gadgets for the program paths

Macro-Path: see Manual 3.0, 17.8 (Settings-Requester)

Global-Path: see Manual 3.0, 17.8 (Settings-Requester)

Palett-Path: see Manual 3.0, 17.8 (Settings-Requester)

3.2.12 Maus

Supplied Controls: (for explanation see Manual 3.0, 17.8)

Eat-first-Click:

Click-to-Font:

Chapter 1

New Output Driver

1.1 Overview

Because of the splitting beetween painting and output functions in **Ξ-Paint**, it's easy to support new graphic boards. The result of this efforts can be found on this CD: a variety of new drivers for **Ξ-Paint**.

Although it's been said many times, once more: Regardless of the output driver you choose to for use with **Ξ-Paint**, the program internally works at a color depth of 24 bit. This means, every picture you save is 24 bit deep. Even if the driver dithers your output screen, there will be not dither patterns in the resulting picture.

After correct installation of the package, you can choose the output drivers within the Xi-Prefs program. For more detailled information, please refer to the "Manual 3.0" section 3.2 "setting of the graphic adapter".

Brush-Opaque-Move:

Ticks/s:

Mouse-Queue:

Pointer Offset X:

Pointer Offset Y:

3.2.13 User-Port

Contains only the button "Free them".

Under bad conditions, it may occur that buggy User-Port applications leave a picture locked. As a result such pictures cannot be saved, manipulated or closed. "Free them" unlocks the active project.

This function does no checking, if the lock is needed by an external program, it just removes it. So be sure, that the external application really failed, because it may be doing a long calculation. Removing the lock in the latter case may cause a system crash.

3.3 Color-Requester

3.3.1 Simplified Handling

There is no "Assign"-Button any more, any changes take place immediately. So you can't undo any more (like done by closing an reopening the window), but it prevents errors caused by forgetting to press "Assign".

The undo isn't possible at an asynchronous color requester, because **Ξ-Paint** cannot know, *which* state you want to restore.

Further, Drag & Drop is supported. Dragging of a color register onto another one copies the color.

1.2 Features of the Drivers

1.2.1 Picasso II

For the Picasso there is a 16 bit and a 24 bit version available. The 16 bit version offers a limited range of 65535 display colors, but can be used with higher resolutions or refresh rates than the 24 bit driver. The available resolutions depend on the size of the video memory installed on your Picasso. They can be selected using the Picasso screenmode requester.

1.2.2 EGS

The EGS driver can be switched beetween 24 bit and 8 bit displays with the EGS-Mode requester. It doesn't depend on the type of graphic device you're using. But notice that in 8 bit setting the EGS system uses software dithering (**Ξ-Paint** has no influence on that). The algorithm used leads to regular patterns at unicolored areas (there is nothing **Ξ-Paint** can do against ist).

1.2.3 HAM6, HAM8

Ξ-Paint supports the HAM mode of the Amiga custom chips as well (even HAM-8 at AA/AGA machines). **Ξ-Paint** uses a special mapping algorithm for converting the internal 24 bit colors into HAM display. This sometimes causes the typical HAM stripes, but they have (as mentioned above) no influence at the resulting picture. You can select the available resolutions at the standard ASL screenmode requester.

The **Ξ-Paint** screen is also an Amiga Public-Screen. This means, programs like the Clock or the Shell can open their windows at this screen (try the parameter "PUBSCREEN=XIPAINT")

3.3.2 New RGB-Triangle

The new implementation complies better to the natural impression and to the CCITT standards than the old Maxwell RGB-Triangle.

3.3.3 CMY instead CMYK

In the color requester, all CMYK operations are changed to CMY operations.

This became necessary since a conversion from CMYK to RGB is not definite. A simple switching to RGB and back to CMYK could cause the CMYK values to change completely, though the color was still the same.

3.4 Shade-Requester

The shade requester is handled completely by Drag & Drop. Four "Drop-Areas" are located around the preview area. If you drag a color from the color requester into one of them, the corresponding corner gets this color. The fifth area in the lower right is for the fifth color. So you are independent of the setting of the first 5 color in the color requester.

The "Assign"-Button was removed, changes are shown immediately.

The cycle gadget only allows 4 and 5 colors shades any more. All other ones can be obtained by arranging the corner colors (e. g. two corners with the same color). This feature doesn't slow down program operations, since every color arrangement is optimized internally by **Ξ-Paint**!

For a more detailled usage of shades, please refer to Manual 3.0.

1.2.4 AA 256 Colors

In order to use the 256 color mode of AA Amigas (1200, 4000) a tricky dither algoritm has been developed, which reduces the apperance of regular patterns on unicolored regions. As with the HAM drivers you can select a resolution from the ASL screenmode requester.

If you own a graphic board with a Workbench emulation capable of doing an emulation of the AA modes, you can use this version with higher resolutions than the normal AA screens. For more information refer to the manual supplied with your board.

The screen is also a Public-Screen (like at HAM modes).

1.2.5 CyberGraphX

There are 2 different versions for the CyberGraphX system. One of them accesses your graphic hardware more directly by using the special **Ξ-Paint** window system (looks just like the Amiga windows). Here you can have screens 16 and 24 bit deep.

The other is based on the feature of the CyberGraphX of opening Intuition screens with a depth of 16 or 24 bit. This screen has normal Intuition windows and is a Public-Screen. With both versions, the resolution is selected at the ASL screenmode requester.

1.2.6 VD2001

This driver enables the owners of the VD2001 from Koehler Corp. to use an up-to-date paint-program. The resolution is fixed by hardware and cannot be changed.

3.5 Cycle-Requester

The usage of the Cycle-Requester has changed completely to supply you with easy Drag & Drop handling.

At start, the color bar in the lower region of the window is plain black. If you drop a color of the color requester, it would be taken as base point for the cycle calculation. More dropped colors give more base points. The count of base points is limited by the number of steps (adjustable by a slider).

Due to the method of generating the cycle range, it is not possible to delete single base points. "Delete" remove the whole cycle.

The "Cycle" switch arranges the base points, so that no color jump occurs at resetting the current cycle-color from end to start of the range.

"Reset" sets the current cycle-color to the begin of the range. You can use this to start lines with the same colors, regardless of their length.

3.6 Mask-Requester

The Mask-Requester also got Drag & Drop support. The slider for selecting the mask color was replaced by a drop area. the mask color can now be dropped in directly from the color requester.

Since this is the only diffence, you can look up the complete usage at the manual for **Ξ-Paint** 3.0.

3.7 Lighttable-Window

At the "Misc"-Menu, there is an item "Lighttable". this opens the Lighttable-Window, where you can adjust the brightness ratio beetween foreground and background picture.

1.2.7 Framemaster

Things said with the VD2001 apply here, too. The resolution is also fixed.

1.2.8 Graffity

This board is not very common, but is supported by **Ξ-Paint** with a 24 bit version. The choice of resolution can be made with the Graffity requester.

1.2.9 Merlin

The Merlin from ProDev (former product of X-Pert) is supported as well. But this driver is only a hack.

A faster and more flexible driver is available directly from ProDev in Germany.

1.2.10 Retina

Since the update rights for **Ξ-Paint** Retina are covered by MacroSystem, a retina driver couldn't be included with this CD.

It is available as an update from MacroSystem. With this driver you can use all programs on this CD. In the meantime you can use the AGA 256 color version under the Retina-WB-Emulation.

There are two versions, one for a direct retina screens in resolutions of 24 bit, 16 bit an 8 bit (dithered).

The second one uses the 24 bit WB feature of the retina software. With this you can paint in 24 bit or 16 bit at a normal intuition screen. The choice of resolutions can be made with the ASL screenmode requester.

The other handling of the lighttable is just as it was in Ξ-**Paint** 3.0.

3.8 Filter-Requester

The item "Menu/Filter" opens a window with a list of installed filter modules.

A click on a name renders a preview picture of this filter applied to your current project. The previews are cached internally, so you can switch easily beetween filters in order to find out the right one.

A click on "OK" applies the chosen filter to the project. The operation is asynchron, you can continue working with your other projects.

Currently there are only few filters available, since this expansion is still being worked on. The situation may change in future, its possible for third party vendors to produce and sell their own modules (the base source and specification is available for free).

Chapter 2

Improved Features

2.1 Support of Graphic Tablets

2.1.1 Overview

If you own a WACOM tablet, you can use it for Ξ-**Paint** with the driver from Roland Schwingel (Shareware, on this CD). Best is version 1.17 or higher.

Other tablets like Summagraphics are currently not supported (may change in future).

You can select the tablet in the Xi-Prefs programs at the list "Available Mouse-Drivers". In the main program Xi-Paint you must switch on the button "Use Tablett?" in the pressure menu (open the menu with "Misc/Pressure Menu").

2.1.2 Pressure Menu

If you switch off the "Use Tablett?" at the pressure menu, you can adjust the pressure manually by using a slider. You can use this feature even if you have no tablet.

You can do so to print fonts with full intensity while using a tablet (just switch off the "Use Tablett?" and move the slider to full pressure). You can switch on and off more easily by using the shortcut ALT P.

2.1.3 Some Hints

If you paint regularly using the freehand airbrush, you should switch off the Antialias mode in the system settings (notebook, page "Brush"). Otherwise the lines will not be smooth.

TO SPEED UP: Set the Pixel-Current at e. g. 7 (system notebook, page "Line")! After this you can paint more fluent with freehand line 'Shift D'. Basic rule: the Pixel-Current should be a quarter to a third of the diameter of the brush (if possible, an odd number, so circles are painted correctly). With an airbrush of 30 pixel diameter the optimum Pixel-Current would be 9.

2.2 Zoom

Now you can move the zoomed location without closing the zoom window.

With a zoom window active you can move the location by using the cursor keys or increase/decrease the zoom factor by the '+' or '-' keys.

To change from enlargement to reduction you still have to close the window and change the setting in the zoom menu.

Chapter 4

New Load- and Save-Modules

4.1 Overview

The load and save functionality of Ξ-**Paint** moved into external modules, which operate asynchronously. This means for you, that while Ξ-**Paint** is loading one picture (progress shown by a gauge) you can continue working on another.

So it's no bug that the normal pointer shows up after choosing "Open". The progress gauge will inform you about the current state of the operation.

4.2 Loaders

The desired loader can be selected at the "Load"-page in the system notebook. Ξ-**Paint** only tries to load pictures supported by the selected loader.

There is no generic loader, which combines all loaders to an unified module trying every single one to load the picture until success. If

2.3 Brush Operations

2.3.1 Antialias at Brush-Manipulations

Up to the previous version, any resize or squeeze of a brush resulted in ugly edges and pixel artefacts. From now on this is elimninated by new smoothing and interpolation algorithms.

To use this feature, just switch on the button "AntiAlias" at the page "Brush" in the system notebook. It works for all brush operations.

2.3.2 Changes at the Brush Queue

If you switch off the button "Auto" at the brush window, a new brush is no longer automatically included to the queue. Only if you choose menu "Misc/Keep Brush", the current brush is stored into the queue.

2.3.3 Creating a Brush out of a Picture

If you apply the function "Misc/Make Brush", the contents of the active projekt window are transformed into a brush. It depends on the setting at the brush queue window, if it's included into the queue automatically. From this on, it's also possible to save it as brush, too.

2.4 Image-Processing Functions for Projects

2.4.1 Frame/Field Conversion

In video processing there is often a need for dividing a frame into fields or a composition of a frame from different fields.

you're in doubt (picture load failed), you should choose the "Multipic_Loader", since it supports a wide range of formats like DEEP, ILBM24, JPEG, PPM, SUNRASTER, Amiga IFF, including all installed DataTypes (OS 3.x only). The other loaders only support the named format.

Overview about loaders:

Loader	Formats
Internal DEEP	IFF DEEP
Multipic_Loader	all "'multipic.library"-Formats
JPEG(Xi)	JPEG
Targa(Xi)	Targa
ReproStudio(Xi)	Repro-Studio, proprietary format
PPM(Xi)	PPM

4.3 Savers

The current save format is selected at the "Save"-page in the system notebook.

For a compressing saver (like the JPEG saver) ther is a Slider called "JPEG-Quality", where you can supply a convenient compression rate (100 means good quality but low compression, while smaller values reduce the size of the picture file at cost of poor quality).

If a saver module is capable of saving the alpha channel (contains the mask of the picture), this feature can be switched on with the "Alpha"-checkmark. Doing so saves the mask within a picture (e. g. in DEEP format).

Overview about savers:

"Misc/Make Field" produces two fields out of the active project. You can manipulate or save them as two single pictures (like normal **Ξ-Paint** projects).

"Misc/Make Frame" opens a list with the projects available. There you can choose the first field for the frame, afterwards the list pops up again and you may select the second field. **Ξ-Paint** uses both to convert them into a frame.

If you have only *one* field of a frame, you can select it twice in order to create a frame (called "scanline dubbing").

2.4.2 Rotating Projects

Now you can rotate projects, without having to cut them out as brushes:

<Amiga><Z> turns the picture by 90°
<Amiga><Y> turns the picture by 180°

This function is highly optimized in order to keep memory consumption as low as possible. Therefore you can use the function to convert a portrait into a landscape format (and vice versa) even on large pictures.

2.5 Improvement of Paint-Functions

2.5.1 Antialiasing for Lines

A major drawback of computer painting that straight lines with a small brush get ugly aliasing defects. Therefore **Ξ-Paint** offers a smoothing algorithm designed especially for thin lines.

It is enabled at the system notebook (page "Brush", gadget Antialias"). The strength of the smoothing is set at page "Line" with the slider "Line-Aliasingfactor".

Saver	Formats	Alpha
Internal DEEP	IFF DEEP	Yes
DEEP	IFF DEEP (multipic)	Yes
ILBM	IFF ILBM 24	No
PGM	PGM	No
PPM	PPM	No
SUNRASTER	SUNRASTER	No
JPEG(Xi)	JPEG	No
Targa(Xi)	Targa	No
SGI(Xi)	SGI-Format	No
PPM(Xi)	PPM	No

CAUTION!!!
This function should only be applied for painting thin lines (1-pixel brush). Because of the nature of our algorithm, there may be irregularities in the thickness of continued lines when used with the airbrush.

2.6 Support of Extrenal Programs

2.6.1 Printing with Studio 2.0

For high quality printing of pictures, Ξ-**Paint** supports the program Studio 2.0 by Wolf Faust.

The menu "Misc/Studio-Print" offers the two functions "Synchron" and "Asynchron". With asynchronous printing you can proceed manipulating your picture immediately, but some free space on your hard drive is required. "Synchron" prints the picture out of the Ξ-**Paint** memory. This lowers usage of ressources, but the picture is locked from further painting. Anyway, the other projects may be manipulated as normal.

After start of printing, the settings window of the Studio program will pop up on the Workbench. Please read the corresponding informations at the Studio manual.

2.6.2 Printing with Turboprint Professional 3.0

Caused by the much more simple external interface of Turboprint, "Misc/Turboprint" writes the current project to disk and starts the Turboprint program for printing.

2.6.3 Improvements of the User-Port

Ξ-**Paint** offers an external interface, the User-Port. In the Ξ-**Paint** drawer there is a drawer named "User", where you can find an example program in C describing the use of the User-Port.

Just a short overview on its features:

- Open a new project
- Manipulate a project
- Manipulate a brush
- Supply DPI-chunk and author for a picture
- Proceed gauge
- Error requester
- Access to the palette

2.7 Comfort Functions

2.7.1 Drag & Drop

The way of choosing colors for shading or cycle in **Ξ-Paint** always was a bit complicated. Now there is the possibility of doing Drag & Drop with color registers.

It's simple to use. Just click on a color register (left mousebutton), hold it down and drag the rectangle with the mouse (without lifting the button) to its destination (lift the button). Now the action is started.

The simpliest application of Drag & Drop is within the color requester. If you drag one register onto another the color is copied there. This is a simple version of the "Copy" function.

More sophisticated applications are the shade-, the cycle- and the mask-requester. Please see the sections 3.4, 3.5 and 3.6.

Chapter 5

Fixed Bugs

The following Bugs of Ξ-**Paint** 3.0 were eliminated:

- Error at VLAB-Digitizing fixes, shouldn't crash anymore.
- Speedup at the color requester

2.7.2 Saving of System Settings

In order to keep you starting as fast as possible at a new session with Ξ-**Paint**, the program saves the open windows, their position and size, as well as the last user font and its size (and a lot more ...).

Therefore you must leave Ξ-**Paint** with "Project/Quit" before switching off the Amiga, otherwise Ξ-**Paint** has no chance of saving your preferences.

2.7.3 Switchable Mini-Pic Generation

The generation of minipics by Ξ-**Paint** at saving of a picture can be suppressed now.

This can be done by switching off the gadget "MiniPic Save" in the system notebook, page "In/Out".

2.7.4 Minipic File-Requester

If "MiniPic Requester" in the "In/Out" notebook is switched on, a notebook with previews of pictures in a directory opens instead of the normal filerequester.

They are sorted alphabetically in "index-cards". A click on a letter pops the card in front. If there are more cards than space available in the window, you can switch beetweeen the pages using the arrow buttons.

A click on a preview picture loads the picture as project. Is there is no Ξ-**Paint**-minipic for a file in the directory or the file is no picture at all, the corresponding field remains empty.

To avoid this you should generate minipics with all your pictures you want to use with Ξ-**Paint**. This can be done easily at the *normal* filerequester by clicking into the empty preview frame. A minipic is generated an displayed.

You can change the displayed directory either by a filerequester (click on the disk symbol) or entering a text at the string gadget.

2.7.5 Notify at the Filerequester

If the contents of a directory have changed, it is reread at opening of the filerequester.

Chapter 6

Frequent User-Errors

Can't choose resolution of display (screen) I like

Help: Look at the Retina-Workbench-Emulation's **Ξ-Paint** entry, whether the selected group is capable of doing your resolution. In doubt of that, choose the biggest group listed (e. g. Group 30-38kHz 50-91 Hz).

It's better to switch off the emulation for the retina direct version, since its Intuition screen is only for input purposes and therefore may stay at the Amiga display hardware. So it uses only few (Retina-)memory.

Ξ-Paint-screen doesn't pop to front

Help: Activate a window on Workbench, then change the screens by pressing Amiga-M or clicking the screen-cycle-gadget.

Help2: Install the FKey program of your original Amiga OS (>= 2.0) disks. Map the program "xsend" to any key you like. This program is supplied with **Ξ-Paint** in the drawer "User". A presss on the selected key will pop the **Ξ-Paint** screen to front.

Chapter 3

Changes at Requester and Menus

3.1 Brush-Requester

3.1.1 New Menus

There is a new "Manipulation"-Menu, containing the following items:

Freehand airbrush lines suffer from irregularities in thickness

Help: Switch off the Antialias function in the system notebook (page "Brush").

Ξ-Paint can't load my pictures

Help: The default loader after installation is "Internal DEEP". It is only capable of loading IFF DEEP pictures. So you should change this setting to "Multipic_Loader" and try again.

If you know the exakt format of your pictures, you can choose another loader carrying this name as well.

Manipulation	Shortcut
Half	A-h
Half X	A-X
Half Y	A-Y
Double	A-H
Mirror X	A-x
Mirror Y	A-y
Transpose	A-Z
Turn 90°	A-z
Turn...	A-$
Size...	A-%
Bend...	A-)
Slant...	A-(
Perspective...	A-&

The manipulation function always operates on the current brush. The smoothing for brush operations can be switched on in the system notebook at "Brush" (highly recommended!).

At some operations (e. g. slant) the brush may get black borders. You can mask them out by selecting the color 'black' at the color requester and pressing the '/'-key.

Half

Halfes the size of the current brush

Half X

Half size horizontal

Half Y

Half size vertical

Chapter 7

The Future

Up to now, **Ξ-Paint** was a pure 24/32 paint program for still pictures. Although improvements and new concepts like Drag & Drop, asynchronous load, save, print, scan or notebook handling, **Ξ-Paint** 3.2 is only a step up to **Ξ-Paint** 4.0.

Ξ-Paint 4.0 will include many features for animation, like inserting of text in picture sequences, mixer effects, automatic changes for hundereds of single frames, an so on. The generated single pictures can be played and recorded using a hardware like VLAB Motion by MacroSystem.

Further a raytracer will be included, which renders objects like bowls, cylinders, rings with various surface materials. So you can use 3-D objects in conjunction with a 2-D paint program. This shouldn't replace a full featured raytracer. It's just a small help for painting a new object.

Even **Ξ-Paint** 3.2 has the possibility to paint with natural brushes, you can design for your own. This will be enhanced in future. Painting on surfaces without destroying their structure and more nature pencils will be a major feature of **Ξ-Paint** 4.0.

Double

Doubles the size of a brush (with interpolation, if switched on)

Mirror X/Y

Mirrors the brush at the X- resp. Y-axis

Transpose

This function transposes the brush (exchange beetween pixel-rows and -columns)

Turn 90°

Rotates the brush by 90°

Turn...

Opens a requester for input of the rotation angle. This can be done with a slider. A preview rectangle informs you about the actual position (the white border represents the upper edge of the brush).

With the button "Draw Angle" you can paint the angle directly at your picture, in order to ease the fitting of a brush into a painting.

"Produce" generates the brush. If auto-queueing is switched on (see above), the new brush is put into the brush queue.

Size...

Changes the size of the brush arbitrarily. The destination size can be set at numeric gadgets in the requester, that opens before, or by drawing directly at the project for fitting purposes (Button "Draw Size").