PerfectPaint

Georges HALVADJIAN"

	COLLABORATORS		
	TITLE : PerfectPaint		
ACTION	*NAME*	*DATE*	*SIGNATURE*
WRITTEN BY	Georges HALVADJIAN"	July 10, 2022	

REVISION HISTORY			
NUMBER	DATE	DESCRIPTION	NAME

Contents

Chapter 1

PerfectPaint

1.1 PerfectPaint

```
                                                ###
########                          #   ##
  ##     ##                        #
  ##       ##                      ##                           #
  ##       ##                      ##                          ##
  ##       ##   ####    ## ### #####  ####    ####   #####
  ##       ##  #   ##  ####### ##   #  ##   ## #    ##
  ##    ###  #    #   ###    ##    #    #    #    ## ##
  ######    ########  ##       ##  ######## #       ##
  ##         #        ##      ##  #        #        ##
  ##         #        ##      ##  #        #        ##
  ##        ##        ##      ## ##       ##        ##
  ##       ### #     ##      ##  ### #  ### #    ##
  ##        ######   ##      ##   ######  ######  ## #
####        ###   ####    ####    ###     ###    ##
```

```
        ########            ##
         ##   ###           ##                     #
         ##   ###                                  ##
         ##   ###                                  ##
         ##   ## #####   ###   ## ####   #####
         ##   ### ##  ##  ##   ## ###  ##   ##
         ####### ##  ##  ##  ##   ##  ##   ##
         ##         ##  ##  ##   ##  ##   ##
         ##      #####  ##  ##   ##  ##   ##
         ##       #  ##  ##  ##   ##  ##   ##
         ##       ## ##  ##  ##   ##  ##   ##
         ##       ## ##  ##  ##   ##  ## #
        ####     #### ## ## ####  ####   ##    V2.0
```

          Introduction

          Installation

1.2 To do

- more effects, script,less bugs :-)
- your sugestions

1.3 Popup Menus

Popup menus are activated by pressing the right mouse button.

- Over the toolbox:

      New

      Load Picture
      Save Picture

```
        Load Animation
        Save Animation
        ---------------
        Paths
```

  – Over the 'pickup brush' icon:

```
        Load Brush
        ---------------
        Save without mask
        Save with mask
        Save Deep
        ---------------
        Restore  Brush
        ---------------
        Smooth border
        Density mapping
        Opacity
        ---------------
        Free brush
```

  – Over the 'Stencil' icon:

```
        Edit stencil
        ---------------
        Smooth border
        Invert stencil
```

  – Over the 'Spare' icon:

```
        Copy Spare to Main Picture
        Copy Main Picture to Spare
        Swap Spare and Main Picture
        ---------------------------
        Copy stencil to spare
        Copy spare to stencil
```

  – Over the 'Effects' icon:

```
        Compose requester
        Paint effect
```

  – Over the 'Text' icon

```
        Make text
        Convert text to brush
```

  – All tool icons associated with Arexx activate a popup menu which lists the
    contents of the Arexx script's drawer.

1.4 Extra tools

```
These tools can be found in the directory 'PerfectPaint:Tools/',
with their original manuals.
They can also be found on Aminet.
```

```
Jpeg2Mov
```

```
  Short    : Creates a QuickTime-Movie
  Uploader : ALeX Kazik <alex@kazik.de>
  Author   : ALeX Kazik <alex@kazik.de>
  Type     : gfx/conv
  Version  : 2.3
  Requires : 68020+, AmigaOS 2.04? (Tested: 3.x)

  The latest Version can be found under:  http://www.kazik.de/en/jpeg2mov.html
                             My HomePage:  http://www.kazik.de/alx/
```

```
BUILDAnim
```

```
  BuildAnim can do one of three operations: 1) It can build an
  animation out of individual ILBM pictures, 2) it can split an
  animation into ILBM pictures, or 3) it can convert an animation
  from one compression type to another.
```

```
Auteur
  Christer Sundin (d8sunch@dtek.chalmers.se)
```

```
MKANIM
  Allows you to construct an animation in ANIM5 format.

  Author
    John Bickers
    214 Rata St
    Naenae 6301
    New Zealand

  E-Mail
    jbickers@templar.actrix.gen.nz
```

```
NewConvert
  Converts IFF images using datatypes.

  Author
    Alexander Lärz
    Neustädter Str.45
    07768 Kahla
    Germany
```

```
  E-Mail
    alexlaerz@t-online.de


tapgif
  Converts an IFF image to GIF format.

  Author
    John Bickers
    Level 6, Grand Arcade
    16 Willis St
    Wellington
    New Zealand

  E-mail
    jbickers@templar.actrix.gen.nz


WhirlGif
  Converts a series of GIF images to a GIF animtion.

  Author
    Kevin Kadow kadokev@msg.net
```

1.5 Example Scripts

```
                    Directory PerfectPaint:Rexx/


                    Box

                    Circle

                    Ellipse

                    General

                    Line
                        Point

                    Spline
```

1.6 Box

```
AnimPainting_Box.rx
  Simulates AnimPainting with the Box tool.
  You need to create an animation beforehand.
  The box will be drawn throughout the length of the animation.

Funny_Border.rx
  Several ways to draw a border.
```

1.7 Circle

```
AnimPainting_Circle.rx
  Simulates Animpainting with the Circle tool.
  You have to choose the circle's direction of rotation.
  You need to create an animation beforehand.
  The circle will be drawn throughout the length of the animation.


AnimPainting_Circle_Whirl.rx
  Simulates Animpainting with the Circle tool.
  You have to choose the circle's direction of rotation.
  The circle will be drawn starting from its centre.
  You need to create an animation beforehand.
  The circle will be drawn throughout the length of the animation.


Anim_Pulsar.rx
  Creates a pulsar effect (an expanding circle).
  You need to create an animation beforehand.


Make_AnimStar.rx
  This script will create a star. You may choose the number of
  points it has and whether it is empty or filled.
  Then the star will be drawn on each frame of the animation,
  rotating through 90\textdegree{} throughout the animation's length.
  You need to create an animation beforehand.


Star.rx
  This script will create a star. You may choose the number of
  points it has and whether it is empty or filled.


Total_Circle.rx
  This script will create a circle with the specified number of points.


Sun.rx
 This script will create a cartoon's sun.
```

1.8 Ellipse

```
AnimPainting_Ellipse.rx
  Simulates AnimPainting with the Ellipse tool.
  You have to choose the ellipse's direction of rotation.
  You need to create an animation beforehand.
  The ellipse will be drawn throughout the length of the animation.


Make_Star.rx
  This script will create a star. You may choose the number of
  points it has and whether it is empty or filled.


Total_Ellipse.rx
  This script will create an ellipse with the specified number of points.
```

1.9   Spline

```
AnimPainting_Spline.rx
  Simulates AnimPainting with the Spline tool.
  You need to create an animation beforehand.
  The spline will be drawn throughout the length of the animation.

Total_Spline.rx
  This script will create a spline with the specified number of points.
```

1.10   General

```
FadeInBlack.rx
  This script will fade an animation to black.
  You must specify the start and end frames, and whether it
  should fade in or out.

SaveAnimGif.rx
  Saves the current animation in AnimGIF format.

SaveGif_Brush.rx
  Saves the current brush in GIF format.

SaveGif_Picture.rx
  Saves the current picture in GIF format.

SaveNewIcon.rx
  Takes the two supplied brushed and creates a NewIcon.
  This script needs the executable 'Injectbrush' in your C: directory.

Warp.rx
  Uses the current picture to create a 10-frame animation, performing
  a random warp on each frame. The animation is then played.

Communication with ADPro
  LoadADPro_Brush.rx
  LoadADPro_Picture.rx
  SaveADPro_Brush.rx
  SaveADPro_Picture.rx
```

1.11   Line

```
AnimPainting_Line.rx
  Simulates AnimPainting with the Line tool.
  You need to create an animation beforehand.
  The line will be drawn throughout the length of the animation.

Funny_Line.rx
  Several ways to plot a line.

Line_Measure.rx
  Gives the exact length of a line.
```

```
Angle repare.rx

Arrow.rx
 Make Arrows.
```

1.12   Arexx Port

```
The Arexx port may be accessed in different ways.

If the script is started from within PerfectPaint, the first parameter
passed to the script is the name of the port to use.

Example:
    /* Title of script*/
     Options results
     parse ARG Port ..... b
     ADDRESS value Port
     .....


There are many ways to execute a script from PerfectPaint:

In the simplest way, the script is not associated with any tool.

Example:
    /* Title of script*/
     Options results
     parse ARG Port b
        ADDRESS value Port
     ......


If the script is associated with a tool:

        Line:
           parse ARG Port x1 y1 x2 y2 b
         /* x1, y1: co-ordinates of the start of the line
            x2, y2: co-ordinates of the end of the line */

        Circle:
          parse ARG Port x1 y1 r b
          /* x1, y1: co-ordinates of the centre of the circle
             r: the circle's radius */

        Box:
          parse ARG Port x1 y1 x2 y2 b
          /* x1, y1: top-left corner of the box
             x2, y2: bottom-right corner of the box */

        Ellipse:
          parse ARG Port x1 y1 r1 r2 b
          /* x1, y1: centre of the ellipse
             r1, r2: the ellipse's radii */
```

```
        Point:
          parse ARG Port x1 y1 b
          /* x1, y1: co-ordinates of the point */

        Spline:
          parse ARG Port x1 y1 x2 y2 x3 y3 b
          /* x1, y1: Co-ordinates of the start of the spline
              x2, y2: Co-ordinates of the end of the spline
              x3, y3: Point of curvature */
```

If the script is associated with the Bridge function:

```
        parse ARG Port1 Port2 b
        /* Port1: Source port
            Port2: Destination port */
```

If the script is not started by Perfectpaint, an instance of PerfectPaint
must be searched for and its port found.

Example:
```
    /* Script name */

     found=0
     Port="Perfect_Paint."
     DO i=1 to 7
        IF SHOW('P',Port||i) THEN DO
           Port=Port||i
           found=1
           LEAVE
        END
     END

     if found=0 then EXIT
     /* No instances of PerfectPaint are running, so quit */

     ADDRESS value Port
     ...
```

If a script is called 'StartUp.rx' and is found in the PerfectPaint drawer
along with the main program, this script will be executed at startup.

1.13 History

```
            V2.0
         August 2000

            V1.3
```

```
                   18 April 2000

                  V1.2
                30 Nov 1999

                  V1.1
```

1.14 V2.0

```
  - Sorry for AGA users, but this version works only with graphics card
    and Cybergraphics or Picasso 96.
  - Works well now with Picasso 96
  - Improve GUI
  - One aplication to manage pictures and animations from 1Bit to 24Bits.
  - More Arexx commands.
  - Add brush effects with real time preview.
  - Improve zoom with real window
  - you can convert pictures, animation or brush to CMAP or RGB.
  - add several tools to edit your mask: magic wand,lasso, polygon,elliptical ←
      marquee...
  - Print command with TurboPrint
  - New Boing effect: Grab alpha-channel, Grab RGB
  - Color and Gamma correction
  - New arexx script: Button_On, Button_Off, LensFlare
  - Add arexx drawer: Anim
  .......
```

1.15 V1.3

```
  PerfectPaint (1-8bits) & PerfectPaintPro (24bits)
  -------------------------------------------------

  - Right mouse button on Undo icone: Redo Object
  - Improve Shine Effect
  - Improve popup menus
  - Improve polygone filling
  - Fix a bug with very big antialiasing circle
  - Improve Spray Effect
  - New text effect:
        - Azzaro
        - Emboss
  - New Arexx command
        - pp_UpdateUndoBox (Undo only a part of the picture)
        - pp_GetWidthT (Width of curent text)
        - pp_GetHeightT (Height of current text)
        - pp_freebrush
        - pp_PickBrush
        - pp_ScaleBrush
  - Improve Pick-Brush
    if you pick a brush with shift key, Background color will not be transparent.
```

– Improve memory allocation, Now PerfectPaint & PerfectPaintPro are compatible ↩
  with
  virtual memory (Gigamem, VMM)

PerfectPaintPro (24bits) only:

– Big work on Brush:
    – Load & Save With or without alpha chanel.
    – Effect: Smooth border, Mapping density, Opacity
– Animation is available
– Palette menu is available
– More effects available
– New text effect:
    – Stone
    – Motion_Toolkit
– SpeedUp undo,brush preview (zoom)
– little bug fixed with Load&Save Jpeg
– Improve Compose requester and add a popupmenu for it.
– Load HAM6 and HAM8 Picture
– New commands: 'save Render Image' 'Save Render brush' 'Save Render Anim'
  With the help of "render.library" you can reduce nb of colors of
  your picture, brush or animation with various dithering.
  (you need render.library)
– New arexx command

  COMPOSE REQUESTER
  * pp_ComposeReqOn
  * pp_ComposeReqOff
  * pp_Compose

  CONVOLUTIONS
  * pp_ConvInit
  * pp_Conv y C1 C2 C3 C4 C5

  RENDER REQUESTER
  * pp_RenderReq
  * pp_Render

  * pp_BrushOpacity
  * pp_SavePrefs
  * pp_PickBrush x y width height
  * Improve pp_Bsave
  * pp_AskMultiFile

– Improve Gif script (Save GIFPicture,GIFBrush,GIFAnimation)
  Now these scripts can work on 24Bits version of Perfectpaint
– New script: – Save QuickTime movie (you need Jpeg2mov)
              – Load Postscript (you need Ghostscript)

1.16   V1.2

```
                1-8 Bits
```

- Some bugs fixed with PopUp Menus and animation
- Better look with VisualPrefs
- Improve cloud effect
- Little bug corrected with arexx
- Little bug corrected with the spreadcolor
- Little bug corrected with Antialiased line.
- Some shortcuts are changed (see doc)
- Improve displace effect
- Xdpi and Ydpi can be used with the font requester
- New tool on the toolbox: Symmetry (see doc)
- Fastest antialiased circle
- Improve 'Pick brush', you can now directly select in the tool box,
  the way to pick it.
- Brush deformation:
        - Size (with or without antialiasing)
        - Rotation (with or without antialiasing)
        - Shear

24 Bits

- Beta version
- Load ilbm (1-24 bits)
- Load & Save Jpeg (with
            Jpeg.library
)
- Not all menus, effects, commands are available, it's really a beta version.
- Fastest then 8bits version
- Improve effect with compose requester (add,sub,alpha...)
- Improve convolutions, fastest, preview, popupmenu...
- New palette requester

1.17 V1.1

- New function: "Adjust Palette", you can modify your palette
   with R,V,B,Contrast,Color and Brightness.
- Improve GUI:
        * All Window can be moved.
        * Buttons are more system friendly
- Stencil icon have now a PopUp menu with
        * Clear Mask
        * Invert Mask
        * Edit Mask
- Add a tooltype: 'DPAINLIKE', with this toltype, toolbox will always
   be opened on the right of the screen, and zoom window on the left.
- Improve Popup Menus
- No more assign is needed.
- Improve zoom window:
        * Add a popup Menu
        * Add a closed button
        * Window can be moved
        * less bugs

- 22 new Arexx commands
- Animation keep in memory Jiffies.
- Improve 'GifAnim' script
- New script:
        * Arrow for line tool
        * Sun for circle tool
        * Angle repare
- Improve texture requester with popup menu (">"), Preview guide ("?")
- Improve Text:
        * Special effects (Bicolor,Deco,Granit,Relief,Shadow...).
        * Full animation.
        * rotation, Shear, scaleX and ScaleY.
- Improve text requester with popup menu (">") and preview guide ("?")
- 'Make/Redo Object' are now Ok with polygons,freedraw, Text and arexx.
- Picture and brush can be saved with thumbnail (with NewIcons)
- and many more improvements

1.18 XPKmaster.library

Short: V5.2 Compression package, user edition
Author: Dirk Stoecker, Christian von Roques, Urban Dominik Mueller, ...
Uploader: stoecker@amigaworld.com (Dirk Stoecker)
Version: 5.2
Type: util/pack

on Aminet: util/pack/xpk_User.lha

Description
XPK is an interfacing standard between application programs and packer
libraries. Every XPK application program can pack data with any XPK packer.

Distributability
XPK is copyrighted, but freely distributable for non-commercial use. Some
parts of XPK have a different legal status, ie. PD, GPL or shareware.

This is the main part of the xpk distribution. In this archive are all the
files you really need.

How to install the files: Decrunching XPK archives you want to install into
ONE directory and double click Install icon in xpk_User directory.
You need at least Installer program version 42.9 to do that. Installer can
be found in Aminet (util/misc/Installer*.lha). Current version is 43.3.

Changes to last release:
bug work around in Query function

Try WWW addresses
    http://www.amigaworld.com/support/xpkmaster/
or http://home.pages.de/~Gremlin/xpkmaster.html

Here all files are accessable (also the xpk_Crypt.lha archive).

Please contact me or any of the other authors stated in the docs:

****

```
* snail-mail:                    * e-mail:                              *
*   Dirk Stoecker                *   stoecker@amigaworld.com            *
*   Geschwister-Scholl-Str. 10   *   dstoecker@gmx.de                   *
*   01877 Bischofswerda          * world wide web:                      *
*   GERMANY                      *   http://home.pages.de/~Gremlin/     *
* phone:                         * pgp key:                             *
*   GERMANY +49 (0)3594/706666   *   get with finger or from WWW pages  *
*********************************************************************
```

1.19 Render.library

```
Short:    image processing kernel
Author:   Timm S. Müller
Uploader: Timm S. Müller (timm.mueller@darmstadt.netsurf.de)
Type:     dev/misc
Version:  30.0
Requires: Kickstart 2.04 (v37), MC68020


on Aminet: dev/misc/RenderLib.lha


render.library
----------------------------

  render.library  is  an amiga shared library that serves an image
  processing  kernel.  it  is  an  interface between truecolor and
  chunky  graphics,  and  it supports all amiga-specific pixel and
  color  schemes.  render.library  provides palette-management,
  histograms,  alpha-channel processing, color reduction, scaling,
  rendering,  dithering,  texture-mapping, and many conversion and
  support functions.



author
--------------------------

  bifat / TEK neoscientists

  timm.mueller@darmstadt.netsurf.de

  http://come.to/neoscientists

  Timm S. Müller
  Bartningstraße 15
  64289 Darmstadt
  ++49 (0)6151 715917



requirements
----------------------------

  - mc68020 or better
  - kickstart 2.04 (v37) or better
```

```
features
----------------------------

  - histograms up to 24 bit
  - rendering
  - dithering
  - color quantization
  - heavy alphachannel support
  - HAM mode support
  - custom memory management
  - scaling
  - low-level texture-mapping
  - conversion functions
  - fully documented with autodocs, charts, tutorials
  - supplied with C, Assembler, and E includes
  - freeware
```

1.20 Jpeg.library

```
Short:    V5.1 shared library to load/save jpegs
Uploader: paulh@mafeking.scouts.org.au (Paul Huxham)
Author:   paulh@mafeking.scouts.org.au (Paul Huxham)
Type:     util/libs

On Aminet: jpeglibrary50.lha
```

For anyone who wants to use/manipulate jpeg files in their own applications, this library makes it very easy.

jpeg.library is a shared library that can be used to examine, load and save jpeg images. You can have multiple jpegs objects (load/save), supports all the standard jpeg quality and smoothing parameters and can scale loaded images (smaller). Jpeg image data can reside on disk or in memory.

Example programs included.

* Version 5.1 fixes a problem with previous 020ffp and 040ffp versions of the library.

** This software is based in part on the work of the Independent JPEG Group.

For the latest version of jpeg.library and to check out other software I have written, check my home page at:

http://mafeking.scouts.org.au/~paulh/

© 1998, 1999 Paul Huxham

1.21 Keyboard Shortcuts

```
Space  Puts a pattern on the window to aid precision
j  Activates or disactivates the spare page
p  Activates the palette editor
u  Undo
HELP  Brings up the documentation
DEL  Gets rid of the cursor

Up/down arrow keys + right Alt  Change the pen size

n  New
l  Loads a picture
s  Saves the current picture
q  Quit

b  Loads a brush
c  Saves the current brush

|  Displays co-ordinates
/  Bridge function

x  Flips the brush about the X-axis
y  Flips the brush about the Y-axis
z  Rotates the brush by 90\textdegree{}

X  Flips the picture about the X-axis
Y  Flips the picture about the Y-axis
Z  Rotates the picture by 90\textdegree{}

F5  Lets you specify an object's dimensions manually
     (circle, line, curve, ellipse, box)
--------------------------------------------------------------------------
ZOOM :
   +  Increase the zoom factor
   -  Reduce the zoom factor
   Enter  Refocus the zoom
   arrow keys  Move the zoom or current picture

--------------------------------------------------------------------------
BROSSE :
   F1  Transparency
   F2  Colour
   F3  Solid
   F4  Previews the brush in box form
       Pressing F4 again shows only the brush's mask.

--------------------------------------------------------------------------
ANIMATION :
   1  Previous frame
   2  Next frame
   3  Go to frame...
   4  Play animation
   5  Play animation once
   6  Ping-pong animation

  During animation playback:
```

```
   Space   Stop the animation
```

1.22 Author

```
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69340 Francheville FRANCE

gothic.fr@chello.fr
HTTP://gothic.fr.free.fr/amiga/index.html
```

1.23 Introduction

```
   Throughout the documentation:
   LMB = Left Mouse Button
   RMB = Right Mouse Button
   Bg = Background
   Fg = Foreground
```

```
  Paint, Anim and manipulate pictures from 1bit to 24bits
```

```
Requirements:

   68030 minimum + Coprocesseur
   OS 3.0 minimum
   Graphics card (Cybergraphx min cgxv41_r71 or Picasso96)
   Jpeg.library
   Render.library
   XPKmaster.library (used to save your 24bit animation)
```

```
Some features of PerfectPaint:
    Drawing in 1-24 bits
    Antialiasing
    Spare page
    Stencil
    Symmetry
    Multiple-level undo
    Text with antialiasing, bevel, outline and effects
    Different types of pen
    Animation
    Real-time zooming (1-8bits)
    Arexx
    Brush: Mapping density, Opacity, Smooth border (24bits)
    Several effects
    *Colour:
          - Shade
          - Light
          - Transluency
          - Inverse color
          - False color
          - grey
```

```
            - Treshold
            - Airbrush
            - Spray
     *Wrap:
            - Texture
            - Brush
            - spare
            - Cloud
            - Gradient
     *Distortion:
            - Displace
            - Fish eye lens
            - FlipX
            - FlipY
            - Fractal
            - Ripple
            - Rotate
            - Sin
            - Straw
            - Twirl
            - Wave
     *Convolution
     *Other:
            - Shadow
            - Grain
            .......
```

Read the documentation for more information.

1.24 Installation

                 Unarchive the file PerfectPaint.lha and copy the
entire "PerfectPaint" drawer wherever you like.

This drawer contains a font called "Xen.font".
Copy:
  Xen.font
  Xen.font.info
  Xen.info
  The XEN directory
to your FONTS: directory.

Installation of RexxMast:
If it is not already there, copy the RexxMast
executable to your WBStartup drawer.

Install
                 Render.library
               Install
                Jpeg.library
               Install
                XPKmaster.library
                Last version of Cybergraphx V3 can be found here
http://www.vgr.com/v3/cgxv41_r71.lha
ftp://ftp.vgr.com/cgxv41_r71.lha

http://www.vgr.com/meanmachine/cgxv41_r71.lha

1.25 Toolbox

                        All icons with a dog-ear have an action accessible with the ←
                            right mouse
button.(*)

```
 _____
| _____ |
||            ||
||    Pens    ||
||_____||
|            |       A : Circle tool - empty, filled, Arexx (*)
| ___  ___  ___ |     B : Box tool - empty, filled, Arexx (*)
||   ||   ||   ||     C : Line tool - empty, filled, Arexx (*)
|| A || B || C ||     D : Spline tool - empty (*), filled (*), Arexx (*)
||___||___||___||     E : Fill tool
| ___  ___  ___ |     F : Point tool - freehand, joined, filled, Arexx (*)
||   ||   ||   ||     G : Ellipse tool - empty, filled, Arexx (*)
|| D || E || F ||
                 H
                 : Text tool (*)
||___||___||___||     I : Polygon tool - empty, filled, empty bézier, filled  ←
   bézier
| ___  ___  ___ |
||   ||   ||   ||
                 a
                 : Capture brush (*)
|| G || H || I ||
                 b
                 : Grid (*)
||___||___||___||     c  : Zoom
|            |
                 d
                 : Spare page (*)
| ___  ___  ___ |
                 e
                 : Effects (*)
||   ||   ||   ||
                 f
                 : Stencil (*)
|| a || b || c ||
                 g
                 : Symmetry (*)
||___||___||___||
                 h
                 : Special tools: Warp (*),Grab alpha-channel,Grab RGB
| ___  ___  ___ |
                 i
                 : Antialiasing
||   ||   ||   ||
|| d || e || f ||     j : Colour selector
```

```
||___||___||___||      k : Current colours
| ___  ___  ___ |      l : Colour inversion
||   ||   ||   ||      m : Palette
|| g || h || i ||
                   Palette Editor
                  ||___||___||___||
|               |
                   n
                  : Trashcan (*)
|       ___     |
                   o
                  : Undo/Redo (*)
|   |   |       |
                   p
                  : Arexx (*)
|  j  | k |  l  |
|     |___|     |
.               .
.               . All drawing actions with the left mouse button will be made in  ←
   the
.       m       . primary colour.
.               .
| ___  ___  ___ | All drawing actions with the left mouse button will be made in  ←
   the
||   ||   ||   || background colour.
|| n || o || p ||
||___||___||___||
|_____|
```

The circle, box, line, spline, ellipse and point tools may have an Arexx script
associated with them.
You can select this script by right-clicking on the tool icon, when it appears
with the Arexx crown symbol.

Some example scripts are supplied:

                   Circle script

                   Box script

                   Line script

                   Spline script

                   Ellipse script
                        Point script

1.26 Palette Editor

 Image

You can edit a palette using either the RGB or HSV systems.
To select a colour, click with the LMB on the required colour.

```
  COPY Copies one colour to another
Select a colour, click on 'COPY' then select the destination colour.

  EX Exchanges two colours in the palette
Select a colour, click on 'EX' then select a second colour.
The first colour will become the second colour and vice-versa.

  SWAP Exchanges two colours in the palette (<= 8Bits)
...but without modifying the current picture.
(The current image will be remapped.)

  SPREAD Creates a colour gradient
Select the start colour, click on 'SPREAD' then select the destination
colour. A colour gradient will be made between the two colours.

  CANCEL Closes the requester and discards any changes made

  OK Closes the requester and keeps any changes made
```

1.27 Undo/Redo

```
LMB: Activates Undo
RMB: Activates Redo Object

  10 levels of undo are allowed.
```

1.28 Symmetry

```
  Symmetry can be used with all tools.

LMB: Activate Symmetry
RMB: Lets you choose the type of Symmetry, center and radius
```

1.29 Arexx

```
            LMB: Activates an Arexx script
RMB: Brings up a requester which lets you select a script for that icon
     as well as for the circle, box, line, spline, ellipse and point
     icons.


            Arexx Port
              Arexx Commands

            Example Scripts
```

1.30   Trashcan

```
LMB: Erases the current picture, replacing it with the background colour
RMB: Brings up an erase requester for animation, allowing you to erase
     one frame or a series of frames

   The stencil will be used, if it is active.
```

1.31   Boing tools

```
Warp
LMB: Activates the warp tool
RMB: Lets you choose the warping strength

   Deforms the picture using a warping technique.
   If the 'Antialiasing' icon is selected, the effect will be antialiased.

Grab alpha-channel
   This command let you copy the brightness of your picture
   over your current brush (useful for texture or pre-defined mask}

Grab RGB
   This command let you copy the RGB value of your picture
   over your current brush.
```

1.32   Stencil or Mask

```
LMB: Activates the stencil
RMB: open the popup menu

   Creating a stencil allows you to paint around an image without painting
   over it, as if it were protected by a mask.
```

1.33   Antialiasing

```
   If the icon is selected:
    - Any reduction in size of the picture will be antialiased.
    - Certain distortion effects will be antialiased.
    - Drawings are antialiased
```

1.34   Effects

```
LMB: Activates the current effect. If you haven't chosen an effect a
     requester will appear listing all the available effects.
RMB: Brings up the effect requester or the compose requester
     (the compose requester will allow you to compose
     between the current effect and the current picture)
```

```
    compose: Opacity, Add,Sub,Darken,Alpha,Inv-Alpha
```

```
 You can apply an effect to all the tools.
 There are 4 types of effect:
 - Colour
 - Wrap
 - Deform
 - Pixelate
 - Other
```

```
 Effects
```

1.35   Spare page

```
LMB: Activates the spare page (if you have enough memory) or disactivates it.
     The spare page has the same size and depth as the current picture.
RMB: Parameters
```

```
You can:
  copy the spare image to the current image
  copy the current image to the spare image
  exchange the spare and current images

  All modifications to the current image (loading, size and depth changes)
  initialise the spare page.
```

1.36   Grid

```
RMB: Activates the grid
LMB: Grid parameters
```

```
'X spacing' and 'Y spacing' represent the grid's size.
'View grid' makes the grid visible in the window, you can also choose
           its colour.
'Grab' is not currently available.
```

1.37   Text tool

```
 If you select the text tool with the right mouse button, the text editor
 will appear.
```

```
 If you select the text tool with the left mouse button, the text brush
 will become active. If one does not exist, the text editor will appear.
```

```
 Accepted fonts:
```

```
    - Vector:
         Options: Outline and Bevel with a specified thickness
                  Two levels of antialiasing
                  Rotation, Shear, ScaleX, ScaleY and Animation.
```

```
   – Bitmap:
         Options: Outline and Bevel with a specified thickness
                  Two levels of antialiasing
  - Colour: (available soon)
         Options: Use the font's palette
                  Remap the brush without modifying the current palette
                  Colourize: For greyscale or antialiased fonts
```

Once the brush has been created, you may at any time choose a primary
colour. The brush will automatically adapt itself to the new colour.

The text brush may have all the available effects applied to it.

Text Requester (picture)

1.38   Capture brush

```
To capture a brush,
   - select 'pick brush' icon
   - select a tool (box, circle...)
   - draw the object on your picture
```

 If you press Left Shift, the background colour will
 not be transparent.

You may use 2 brushes simultaneously. To go between the two brushes, click
the right mouse button on the 'Brush' icon in the pen part of the toolbox.

If you capture the brush with the right mouse button, the captured image will
be erased from the picture.

There are 3 brush modes:
 F1 Transparent
 F2 Colour
 F3 Solid

 F4 The brush appears as a preview (in box form)

The captured brush may be placed on the page with all the available effects.