ART-Pro

Timm S. Müller and Frank Pagels

COLLABORATORS			
	TITLE : ART-Pro		
ACTION	*NAME*	*DATE*	*SIGNATURE*
WRITTEN BY	Timm S. Müller and Frank Pagels	February 7, 2023	

REVISION HISTORY			
NUMBER	DATE	DESCRIPTION	NAME

Contents

Chapter 1

ART-Pro

1.1   ART-Pro v0.62 © 1994 Frank Pagels / Defect Softworks

```
                             ART-PRO v0.62

          multi-purpose graphics converter
               and image processor

             © 1994 by Frank Pagels
                Defect Softworks

    the Doomsday Party tool-competition winning tool




        ~Copyright~~~~
           Copyright notes

        ~Disclaimer~~~
           Warranties? No way.

        ~Distribution~
           How to distribute


        ~Shareware~~~~
           About the shareware concept

        ~Registration~
           How to register

        ~Author~~~~~~~
           How to reach the author


        ~Introduction~
           Introducing ART-Pro

        ~Requirements~
           What's required to run ART-Pro
```

```
            ~Installation~
               How to install ART-Pro


            ~Usage~~~~~~~~
               How to use ART-Pro


            ~Future~plans~
               What's up to come

            ~Acknowledges~
               The people involved

            ~History~~~~~~
               The History of ART-Pro
```

1.2 Copyright

```
                        Copyright
```

The entire ART-Pro package was created and is copyrighted © 1994 by Frank
Pagels, except for reqtools.library which is copyrighted © by Nico François.

1.3 Disclaimer

```
                              Disclaimer
```

The
                ~author~
                 makes no guarantee of any kind for the reliability of the
software described in this documentation, and thereof he is in no way liable
for any damages or loss of data directly or indirectly caused by the use or
misuse of this software. This documentation and the ART-Pro program are
provided "as is" without any warranty, either expressed or implied.

1.4 Distribution

```
                       Distribution
```

The ART-Pro package may be redistributed freely, as long as there are no
changes made to any part of this software. No parts of this package may be
omitted or altered by any means except for archiving. You are not allowed to
copy single parts, you have to reproduce the package completely. Please refer
to the list of contents for verification:

```
   ART-Pro  (dir)
      icons (dir)
         ARTProLace.info         5306
         ARTProMagicWB.info      8758
```

```
     ARTProNoLace.info        2854
  libs  (dir)
     reqtools.library        43628
  ART-Pro                     45888
  ART-Pro.guide              48011
  ART-Pro.guide.info           503
  ART-Pro.info                3567
  Orderform.doc               4082
  Orderform.dok               4391
ART-Pro.info                  2657
```

Neither fees may be charged nor profits may be made by distributing this
piece of software. Only a nominal fee for costs of magnetic media is
acceptable, whereby the amount of US $3 or DM 5,- must not be exceeded for
a disk containing ART-Pro.

1.5 Shareware

                                    Shareware

ART-Pro is shareware, which means this software may be used and
redistributed freely, as long you accept the conditions and
limitations stated in the
                ~distribution~
                 and
                ~disclaimer~
                 sections. Please
consider
                ~registration~
                 if you wish to use ART-Pro frequently.

This initial release of ART-Pro is no way restricted, that means no
functions are disabled, no nasty registration reminder will pop up. You may
use and test this unregistered version of ART-Pro as long as you wish.

Keep in mind that ART-Pro is under heavy development. There will be many
additional features available in the future and registered users will be
preferred in some ways. First of all, registered users will get one major
update for free as soon it is completed. More free updates are available
if you send in a disk and include either german stamps or enough money for
postage. In addition to that, a lot of oncoming powerful features will be
available to registered users only, e.g. an ARexx port and some external
modules. Ideas and suggestions for improvements proposed by registered
users will be taken into consideration first.

The ~shareware~ idea behind ART-Pro is quite different from that of
shareware groups like SASG. The development is and   will stay
transparent to you, and there are no uniformed update conditions imposed
on the user. The earlier you register, the better your demands can be taken
into account. Last not least, updates stay free until doomsday.

1.6 Registration

Registration

To register, fill out the registration form included, print it out in some
way and send it to the
                    ~author~
                    . The registration fee is DM 20,- or US $15
or UK £10. Try to get a registration with other currencies if you dare.
Include cash, international money order, or cheque. Coins in currencies
different from German Marks cannot be accepted. Cheques are only acceptable
from within Germany. Make international money orders and cheques payable to
Frank Pagels.

Registered users will get one major update for free, whereby "free" implies
postage. More updates will be available if you send disks and additional money
or stamps for postage. Futural   releases will differenciate between
evaluation and registered versions, whereby some features will be reserved for
the registered version only.

1.7 Author

Author

Submit suggestions, bug reports, registrations to:

Crazy Copper / Defect Softworks

Frank Pagels
Kolumbusring 39
18106 Rostock
FR of Germany

Phone +49 (0)381 1207938

E-Mail: henryk.richter@stud.uni-rostock.de

1.8 Introduction

Introduction

Have you ever been looking for a tool that cross-converts graphics in several
popular formats, enables powerful color and image control, allows you to
cut brushes and offers saving them in various formats, such as binary, source
code, IFF, etc. - supporting all the additional AGA features, such as AGA
sprites, and copperlists?

With ART-Pro, you've found a program to satisfy these needs. Or let's say
you've found another one, due to the fact that there are numerous programs
available offering features included in the list above. So why should I use
ART-Pro then, you may ask.

The idea behind ART-Pro is to combine image format conversion with
IFF-to-RAW conversion for programmers with powerful image and color
processing with a well-designed and comfortable graphical user
interface.

Though ART-Pro is just at the beginning of its development, the basic
functions are yet complete, and you'll find IFF to RAW conversion (and vice
versa) in quite innumerable ways implemented. There are features included to
ART-Pro you won't find in any other program of that kind, and several great
ideas are implemented that will help you making life easier.

If you take a first look at ART-Pro, you'll find a fully-featured,
comfortable GUI - rather than an empty screen with dozens of menues, driving
you berzerk with unsuitable colors and screen resolutions. Having a closer
look, you'll get a first impression of the modular concept provided by
ART-Pro. This is in some ways similar to Artdepartment Professional (as
you might have guessed, the names "ART-Pro" and "AdPro" are more than
mere coincidence :-). Various loaders and savers, image, color, and brush
operators are available. Talking of image and color operators, those will be
avaible, to be more precise - as mentioned before, ART-Pro is under
development and many features are still to come.

ART-Pro is not yet a replacement for commercial high-tech image
processors like Artdepartment or ImageFX and it will never be one. Right
now, it's a great image converter for programmer's purposes and in addition
to that, it will offer many essential color and image processing features
in the future. Last not least, ART-Pro was written in carefully
hand-optimized assembler code and is for that reason quite short and pretty
fast.

Some people urged me to release this very early version of ART-Pro in order
to get your interest and to find out what are the demands for a program like
this in the world outside. So feel welcome to submit your suggestions.

Some features of ART-Pro 0.62:

    * comfortable GUI:
        * all functions driven by gadgets or keyboard equivalents
        * no menus on screens with weird resolutions and colors
        * lots of options and settings for your individual taste
        * comfortable brush cutting controlled on a seperate screen

    * highly flexible source code generation

    * save load/savepath after Exit and load it at the Start

    * image converting:
        * handles IFF to RAW as well as RAW to IFF
        * supports interleaved blitter formats
        * outputs as source / binary / linkobjekt
        * includes additional blitter words for shifted blitting
        * automatically saves the colors associated with an image

    * extensive sprite support:
        * handles sprites in either 4 or 16 colors
        * handles sprites being 16 / 32 / 64 pixels wide
        * outputs as source / binary / linkobjekt

           * allows you to cut several sprites in a single go
           * automatically calculates sprites' control words
             according to their screen positions

    * color functions:
        * supports LoadRGB / RAW / copperlist formats
        * generates AGA copperlists
        * handles 4 and 32 bit color depths for LoadRGB
        * outputs as IFF, source, binary or linkobjekt

    * masking functions:
        * generates brush masks for either interleaved
          or noninterleaved blitting
        * supports specific mask colors

1.9 System requirements

                            System requirements

ART-Pro requires an Amiga with operating system 2.04 (V37) or higher. If not
present (either no Amiga or no Kickstart 2.04), ART-Pro won't run. ART-Pro is
very compact and handles low-memory situations, so you are able to use it
even with a minimal memory supply. The amount of additional memory required
for images depends on the pictures' dimensions and depths you're working
with. The presence of a hard disk and a lot of memory is no bad idea, but not
required.

1.10 Installation

                            Installation

There is no installation script for ART-Pro supplied right now, sorry. This
initial public release is so easy to install to your system that you should
be able to perform that task manually. If not, you're not advised to use
ART-Pro anyway.

This is subject to change – with external modules becoming part of
ART-Pro, installation gets more complicated and therefore, an
installation script will be included some day.

Copy ART-Pro and ART-Pro.info to any location on your hard drive or
working-disk. If not already present, copy reqtools.library into your
sys:libs drawer. In addition to that, you should create a new
directory in ENVARC: named "ART-Pro" which will be ART-Pro's default path to
its preferences.

After these steps, ART-Pro can be started via Shell or Workbench.

1.11 Usage

Usage

After starting ART-Pro from either Shell or Workbench, you find its main
screen opened. Most actions can be performed by both clicking the appropriate
buttons and pressing their keyboard equivalents.

~Main~Control~Panel~

~File~Operation~~~~~

~Image~Control~~~~~~~~~~~

~Brush~Operation~~~~

~Image/Palette~Operation~

~Selecting~Modules~~

~Settings~Window~~~~

1.12   Main Control Panel

Main Control Panel

There are four buttons and several text fields located in this area,
affecting global operations and displaying general information.

The status line reflects ART-Pro's current status – errors are
displayed here as well as messages of any kind. At startup, you find a welcome
message there.

The three text fields below inform you about the memory currently being
available, seperated into "Memory" (total free), "Chip" and "Fast". I
suppose you know what this is for. Images to be displayed require chip
memory. Futural versions of ART-Pro will additionally keep the image in 8 bit
internally, using fast memory for that purpose if available.

~About~

~Settings~

~Iconify~

~Exit~

1.13   About

About

"About" opens a stunning about requester with some information
concerning the ART-Pro revision running, the
                ~author's~address~
                 and stuff
like that.

1.14 Settings

Settings

This button will open the
                ~settings~window~
                 which will be described in the
settings window section.

1.15 Iconify

Iconify

As the name suggests, "Iconify" leads to iconification of ART-Pro, thus
freeing as much memory as possible. ART-Pro opens a tiny window on the
Workbench then, appends an AppItem to the tool menu, or leaves an AppIcon on
your Workbench, depending on the selected iconification mode. Refer to the

                ~settings~window~
                 section for details.

1.16 Exit

Exit

Clicking this button or triggering its keyboard equivalent "x" quits ART-Pro
without verification.ART-Pro will save the load/savepath to ENVARC:.

1.17 File Operation

File Operation

You find four buttons and three text fields in this area. They allow you to
import and export files, they reflect the status of currently selected loaders
and savers, and they inform you about the image file you're actually working
at.

                ~Load~

~Selecting~a~Loader~

~Save~

~Selecting~a~Saver~~

1.18 Load

Load

Clicking this button opens a file requester, thus allowing you to select
an image file to be loaded. You find the actual loader displayed in
the text field right beside. Read the
~loaders~
section for details and the
available formats.

1.19 Save

Save

Clicking this button opens a file requester, thus allowing you to specify
a path and name for an image or brush to be saved. You find the actual saver
displayed in the text field right beside. Refer to the
~savers~
section for
details and the available formats. By default, you will be prompted to
confirm overwriting files which already exist. This behaviour can be changed
in the
~settings~window~
.

1.20 Selecting a loader

Selecting a loader

This is the tiny button on the right hand of the text field displaying the
currently selected loader. On activation, the loaders window will be opened
for you to select a loader that suites to your needs. Please refer to the

~module~selection~
section for details. See the
~loaders~
section for the
available file formats.

1.21 Selecting a Saver

                            Selecting a saver

This is the tiny button on the right hand of the text field displaying the
currently selected saver. On activation, the savers window will be opened for
you to select a saver that suites to your needs. Please refer to the

              ~module~selection~
               section for details. See the
              ~savers~
               section for the
available file formats.

1.22 Image Control

                              Image Control

There are three buttons and three text fields located in this area. They
affect the screen's resolution, display mode, and depth, and they reflect the
size and depth of the picture currently being loaded. The screen mode is
displayed in the topmost text field. You find the image size and depth below.
The cycle gadget reflecting the image's depth is ghosted in this release of
ART-Pro, for changing it is not yet implemented.

              ~Screenmode~Selection~

              ~~Render~/~ReDisplay~~

1.23 Selecting a Screen Mode

                        Screen Mode Selection

This button is located at the right hand of the text field that
displays the screen mode. It brings up a list of all screen modes
available to your system. The set of screen modes offered here depends on your
machine's chipset revision and on the monitors located in your Devs/Monitors
system drawer.

With this feature you can easily change a picture's screen mode. It depends
on the picture's depth and your machine's chip set whether a screen mode
modification will succeed or fail. E.g. it's not possible to change a 32 color
LoRes picture to HighRes on an OCS/ECS machine in this version of ART-Pro.
This is subject to change – futural versions will handle this by rerendering
the image.

1.24 Render / Redisplay

Render / Redisplay

In ART-Pro's current version, this button will just display a
previously loaded picture. In future, this gadget will additionally render a
picture when necessary. This will occur when changes of the screen's mode or
depth require color reduction.

1.25 Brush Operation

Brush Operation

This area displays the selected brush operator, the actual brush's
dimensions and its size in bytes. There is only one brush operator
available in this version of ART-Pro - "normal cut" - and for that reason
the brush operation selector appears ghosted.

Select "Execute" to cut a brush. You will then enter your currently loaded
image with a tiny control screen at the bottom.

~Control~Screen~~~~

~Selecting~a~Frame~

~Grid~~~~~~~~~~~~~~

~AutoCut~~~~~~~~~~

1.26 Control Screen

Control Screen

There are three buttons and four text fields located on this control screen.
They are named as follows:

X   - displays the current horizontal position of the cursor,
              relative to the left screen border

Y   - displays the current vertical position of the cursor,
              relative to the upper screen border

BW   - the current brush width

BH   - the current brush height

empty box   - indicates whether the brush width is a multiple of 16.
              Check it out to see the effect.

~AutoCut~
   - to automatically enclosure the brush

```
Accept    - to accept a brush selection

Cancel    - to leave this section without a new brush
```

1.27 Selecting a Frame

Selecting a Frame

Move your mouse to an appropriate location inside your picture, press the
left mouse button and size the rubber frame to the dimensions of your choice.
There's no need to keep the left mouse button pressed. If the frame's size
suites to your needs, press the left mouse button once again.

To redo that operation, press the right mouse button and reselect another
brush.

If you're satisfied with your brush selection, leave this section by either
clicking the "Accept" button or by pressing its keyboard equivalent "a"
- or just press "ESCape" for the same purpose. To abort, click on "Cancel"
or press "c".

If you're too lazy to cut your brush at its exact borders, try
clicking
              ~AutoCut~
              after you've selected a rough frame.

1.28 Grid

Grid

You may toggle the grid by pressing the "g" key. The grid's width amounts
to 16 pixels which corresponds to the number of 16 bit words your brush is
wide. You might wish to switch off the grid on heavy DMA torture screens such
as SuperHiresInterlace HAM8 :-).

By default, a grid is drawn. This can be changed in the ~settings~settings

              window~
              .

1.29 AutoCut

AutoCut

This feature is very handy when there's no need to cut a brush at its exact
borders. The rubber frame will automatically enclosure your brush at its
outmost edges. The keyboard equivalent is "u".

1.30   Selecting a Module

Selecting a Module

Whenever you wish to select another
                ~loader~
                 or
                ~saver~
                , image or color
operator, you'll be confronted with a list window containing the modules
currently being available to ART-Pro. The gadgats "add", "add dir", "kill",
and "kill all" appear ghosted due to the fact that there are no external
operators available in this version of ART-Pro.

To select a module, highlight an entry in the list view, then hit "Okay"
or "Accept". Accept will execute the selected operator immediately.
Hitting the close gadget will abort the module selection, as well as
selecting "Cancel". Doubleclicking an operator is equivalent to "Accept"
and leads to immediate execution.

1.31   Loaders

Loaders

In this version, ART-Pro supports the following loader formats:

            ~IFF-ILBM~

            ~RAW~~~~~~~

            ~SCREEN~~~

            ~RAW-BLITT~

1.32   IFF-ILBM

IFF-ILBM

Simply loads an IFF ILBM picture.

1.33   Screen

Screen

This handy function allows you to grab any screen currently open on your
system. Simply select a screen of your choice after the screen selector has
popped up.

1.34 RAW

RAW

This loader allows you to load a standard (i.e. non interleaved) raw file.
After selecting "Load" a requester will pop up and prompt you to specify the
raw-formatted picture's width, height, depth, and display mode. The cycle
gadget entitled "Display" allows you to choose between normal, halfbright and
HAM display mode. Using the TAB key, you can cycle between the string gadgets.
Select "Do it" or press its keyboard equivalent "d" to load the raw image
file, or "Cancel" for abortion. You will then be prompted to select a
screen mode, and finally, the raw picture will be loaded.

1.35 RAW-BLITT

RAW-BLITT

This loader allows you to load an interleaved raw picture file. After
selecting "Load" a requester will pop up and prompt you to specify the
raw-formatted picture's width, height, depth, and display mode. The cycle
gadget entitled "Display" allows you to choose between normal, halfbright and
HAM display mode. Using the TAB key, you can cycle between the string
gadgets. Select "Do it" or press its keyboard equivalent "d" to load the
raw image file, or "Cancel" for abortion. You will then be prompted to
select a screen mode, and finally, the raw picture will be loaded.

1.36 Savers

Savers

In this version, ART-Pro supports the following saver formats:

~IFF-ILBM~~

~COLOR~~~~~~

~RAW~~~~~~~

~MASK~~~~~~~

~RAW-BLITT~

~MASK-BLITT~

~SPRITE~~~~

1.37 IFF-ILBM

```
                            IFF-ILBM
```

This saver allows you to save your current picture or brush as
IFF-ILBM.

1.38 RAW

```
                                              RAW
```

This will save your current picture or brush as RAW non-interleaved. Please
refer to the
                ~settings~window~
                 section for all the available settings and
options for this.If you have selected "Link" as outputformat then you must

                specify~the~linkdata
                 before save.

1.39 RAW-BLITT

```
                                        RAW-BLITT
```

This will save your current picture or brush as RAW interleaved. Please
refer to the
                ~settings~window~
                 section for all the available settings and
options for this.If you have selected "Link" as outputformat then you must

                specify~the~linkdata
                 before save.

1.40 SPRITE

```
                                         SPRITE
```

This will save your current brush as one or multiple sprite(s). Please refer
to the
                ~settings~window~
                 section for all the available settings and options
for this.If you have selected "Link" as outputformat then you must
                specify~the

                linkdata
                 before save.

1.41 COLOR

COLOR

This will save your current picture's palette. Please refer to the

~settings~~window~
section for all the available settings and options for
this.If you have selected "Link" as outputformat then you must

specify~the~linkdata
before save.

1.42 MASK

MASK

This will save your current picture or brush as a mask for
non-interleaved blitting. All colors different from the background color
will be taken into account. If
~Ask~Mask-Color~
is enabled in the

~settings~window~
, you will be prompted to enter a specific mask color
instead.If you have selected "Link" as outputformat then you must

specify~the~linkdata
.

A normal mask save results in a single-bitplaned mask to be used for each
bitplane-oriented blitter operation.

1.43 MASK-BLITT

MASK-BLITT

This will save your current picture or brush as a mask for interleaved
blitting. All colors different from the background color will be taken into
account. If
~Ask~Mask-Color~
is selected, you will be prompted to enter a
specific mask color instead. Please refer to the
~settings

window~
section
for details. If you have selected "Link" as outputformat then you must

specify~the~linkdata
.

A blitter mask save results in an interleaved, multi-bitplaned mask, whereby
the masking bits appear identical for each bitplane.

1.44 Settings Window

                                   Settings Window

Here you can adjust all your preferred settings and options for the use of
ART-Pro.

            ~Global~Settings~

            ~Source~Format~

            ~Image~Format~

            ~Color~Format~

            ~Sprite~Format~

            ~Save~

            ~Load~

            ~Use~

            ~Cancel~

1.45 Show Pic after Load

                          Show Pic after Load

With this switch enabled, any picture will be displayed right after
loading.

1.46 Center Pic

                            Center Pic

This one will automatically center your picture to the middle of the screen.

1.47 Draw Grid

                                 Draw Grid

This switch represents your preferred setting whether a grid shall be drawn
when you're
            ~selecting~a~frame~
             for cutting a brush.

1.48   Overwrite

                                 Overwrite

With this option enabled, you'll be prompted to confirm overwriting already
existing files.

1.49   Auto save Colors

                              Auto save Colors

If you want to automatically save a picture's palette along with the image,
this switch is the right one for you. When active, saving~an image will
generate a color output as well, whereby your preferred color settings will
be used. The name will be the same as of the image, with an appropriate
extension added, such as .s for source code or .col for binary etc. This
switch appeared useful to me, because I sometimes forget to save the colors
:-).

1.50   Ask Mask-Color

                                           Ask Mask-Color

When saving a
                ~MASK~
                 or
                ~MASK-BLITT~
                , normally all colors are taken into
account, except for the background color which will appear transparent.
When this switch is enabled, you will be asked for a specific, single mask
color instead.

1.51   Iconify Mode

                                        Iconify Mode

ART-Pro offers three different ways of iconification - AppItem,
AppIcon, and Window. You can adjust your preferred mode here. An AppItem
named "ART-Pro" will be appended to the Workbench's tool menu, an appicon will
be put somewhere on your Workbench, or a tiny window will be opened. To
re-enter ART-Pro, select the menu item, double-click the appicon or
click the zip gadget in the tiny window's title bar. Be careful, clicking
the window's close gadget is equivalent to
                ~Exit~
                .

1.52   Screen Palette

Screen Palette

Adjust your favourite screen colors here.

1.53   Source Format

Source Format

In this area you can configure all the settings associated with the source
code generation.

~Language~

~Indent~~~

~Tabs~~~~~

~Spaces~~~

1.54   Language

Language

In this release of ART-Pro, only Assembler source code generation is
supported. With other words, the "Language" cycle gadget has no effect on the
language right now. At least C, Pascal, E, and Basic will be supported in the
future, other languages, such as Modula2, Oberon etc. may be taken into
consideration as well.

1.55   Indent

Indent

This cycle gadget allows you to specify the character to be used for
indenting. This can be either Tabs or Spaces.

1.56   Tabs

Tabs

Enter the number of tabs to be used for indenting here.

1.57 Spaces

Spaces

Enter the number of spaces to be used for indenting here.

1.58 Image Format

Image Format

In this area you can configure all the settings associated with the image
output. In this ART-Pro release, this will affect the
             ~RAW~
             and~
             ~RAW-BLITT~
              savers, as well as
             ~MASK~
              and
             ~MASK-BLITT~
             .

             ~Output~~~~~~~

             ~Width~~~~~~~~~

             ~BlitWord~~~~~

             ~Line~Entries~

1.59 Output

Output

Specify either "Source" or "Binary" here for the image data output. In
oncoming versions of ART-Pro, more output formats will be available as well,
such as "LinkObject".

1.60 Width

Width

This cycle gadget will only be available if the
             ~Output~
              selector is
adjusted to "Source". Here you can specify the data width to be output -
choose between bytes, words, or longwords.

1.61 BlitWord

BlitWord

You can adjust this cycle gadget to "None", "Left", or "Right". To treat a
brush in a normal manner, select "None". For shifted blitting, you may wish
to add extra words at either the left or right side, whereby the brush will
be enlarged by one word (16 pixels) in width.

1.62 Line Entries

Line Entries

This string gadget will be disabled when
                ~Output~
                 is adjusted to
"Binary". It allows you to specify the number of data entries per line when
source code generation is enabled. Enter 0 here if you want to omit line
feeds in order to fill up a line completely. Note: Not all editors can handle
lines with extreme lengths.

1.63 Save

Save

Click this gadget or press its keyboard equivalent "s" to save the current
settings. A file requester will pop up and prompt you to specify a path
and file name for your settings file. Remember, the default path for
ART-Pro's settings is ENV:ART-Pro respectively ENVARC:ART-Pro. The default
name is ART-Pro.prefs.

1.64 Load

Load

Click this button or press its keyboard equivalent "l" to load a
previously saved ART-Pro settings file. A file requester will pop up and
prompt you to specify a path and file name for your settings file.

1.65 Use

Use

Activate this button or press its keyboard equivalent "u" to accept and use
ART-Pro's current settings. The settings window will be closed and you'll get
back to the main screen.

1.66 Cancel

                              Cancel

Activate this button or press its keyboard equivalent "c" to forget the
actual settings and to go back to the main screen.

1.67 Global Settings

                                 Global settings

All switches affecting ART-Pro's general behaviour and global
appearance are grouped together in the settings window's upper left.

                    ~Show~Pic~after~Load~

                    ~Auto~save~Colors~

                    ~Center~Pic~~~~~~~~~~

                    ~Ask~Mask-Color~~~

                    ~Draw~Grid~~~~~~~~~~~

                    ~Iconify~~~~~~~~~~

                    ~Overwrite~~~~~~~~~~~

                    ~Screen~Palette~~~

1.68 Image / Palette Operations

                       Image / Palette Operations

These functions are not yet implemented.

1.69 Color Format

                                 Color Format

In this area you can configure all the settings associated with the
                ~COLOR~
                saver output.

                    ~Output~~~~~~~

~Format~~~~~~~

~Depth~~~~~~~~

~Line~Entries~

1.70 Output

Output

Using this cycle gadget, you can configure the color data output. Choose
between Source, Binary, or IFF.

1.71 Format

Format

Here you can specify the color format defining the source or binary

~output~
. Choose between Copper, LoadRGB, or Pure.

Copper will generate a copperlist. Depending on the
~Depth~
 setting, this
applies to standard or AGA copperlists. Copperlist means in detail that
there are MOVE commands included for the appropriate color registers.

LoadRGB will generate color data for the use with the graphics.library LoadRGB
function. Depending on the
~Depth~
 setting, this applies to LoadRGB4 or
LoadRGB32 (V39).

Pure will generate a raw color table.

1.72 Depth

Depth

Adjust this to either 4 or 8 Bit. This will affect all color
~output~
 and

~format~
 settings, except for IFF.

If you plan to use AGA color resolutions in your software projects, adjust
this switch to 8 Bit.

1.73   Line Entries

                                          Line Entries

This string gadget will be disabled when
                ~Output~
                 is adjusted to Binary
or IFF. It allows you to specify the number of data entries per line when
source code generation is enabled. Enter 0 here if you want to omit line
feeds in order to fill up a line completely. Note: Not all editors can handle
lines with extreme lengths.

1.74   Sprite Format

                                          Sprite Format

In this area you can configure all the settings associated with the
                ~SPRITE~
                saver output.

                ~~~~~~Output~~~~~~

                ~Cols~

                ~Width~

                ~~~Ctrl.~Words~~~~

                ~~~Line~Entries~~~

1.75   Output

                                Output

Using this cycle gadget, you can configure the sprite data output. Choose
between Source or Binary.

1.76   Colors

                                Number of Colors

Here you can adjust the number of colors for the sprite conversion. Select
either 4 or 16 colors.

The Amiga customchip hardware supports sprites in either 4 or 16 colors.
For the use of 16 colors, a sprite pair of two 4colored sprites has to
be "attached". Attaching means, the positions of sprites belonging to a
pair have to be identical (the sprites would appear in the normal 4 color

display otherwise), and the attach-bit of at least the second (odd) sprite has to be set.

Using ART-Pro, there's no need to bother. Just select 16 colors, and ART-Pro does the rest for you - Your brush selection is interpreted as one or a multiple of 16colored sprites. If you select ART-Pro's

          ~control~~word~~calculation~
               , even that position and attach-bit stuff will be performed automatically.

1.77 Width

                              Width

Select a sprite width for your purpose here. Choose between 16, 32, or 64 pixels. Keep in mind that sprites wider than 16 pixels are not supported prior to AGA.

1.78 Control Words

                         Control Words

Sprite datalists for hardware-proramming purposes require control words at their beginning. These control words contain all the information needed for the sprite display, such as horizontal and vertical start positions, vertical stop position, and the attach-bit mentioned in the

             ~colors~
              section.

ART-Pro supports sprite control words in three ways: None, Empty, or Position. Use the cycle gadget to adjust one of these.

None   ART-Pro doesn't care about control words. They will be
         omitted.

Empty   ART-Pro includes control words at the beginning of the
         sprite datalists, but they're empty, i.e. set to zero.

Position ART-Pro includes sprite control words containing ALL the
         information needed for proper display.

The last setting can be extremely useful for you, if you're one of those hardware programmers who use static sprites for complex screen layouts. In this release of ART-Pro, the control word calculation will be performed as follows:

```
VerticalStart      = raster line $2c + brush's Y position inside your
                     picture

VerticalStop       = raster line $2c + brush's Y position + brush's
                     height

HorizontalStart    = DMA start $80 + brush's X position inside your
                     picture
```

Experienced programmers will have noticed that these values apply to
standard non-overscan screens. In futural versions of ART-Pro, these
calculations might be customized to the user.

1.79   Line Entries

                              Line Entries

This string gadget will appear ghosted when
                ~output~
                 is adjusted to Binary.
It allows you to specify the number of data entries per line when source code
generation is enabled. Enter 0 here if you want to omit line feeds in order
to fill up a line completely. Note: Not all editors can handle lines with
extreme lengths.

1.80   Future Plans

                              Future plans

This is just a list of ideas that may become part of ART-Pro some day. Don't
belt
                ~me~
                 if you don't find your favourite ideas realized in the next ←
                   release
- you should rather get in contact with
                ~me~
                 in order to lay stress upon
features listed herein, or if you've got other suggestions.

                         Savers

      RAW-CHUNKY-LEFT   left-justified 8Bit chunkies

      RAW-CHUNKY-RIGHT   right-justified 8Bit chunkies

      RAW-16BIT-RGB   any pixel represented by a $0RGB
                                color value

      STENCIL MASK   mask generated with a specific
                                set of colors
```

```
STENCIL MASK-BLITT      interleaved mask generated with a
                        specific set of colors


                        some popular gfx-formats



                        Loaders

DATATYPE                universal loader using system
                        datatypes

RAW-CHUNKY-LEFT         left-justified 8Bit chunkies

RAW-CHUNKY-RIGHT        right-justified 8Bit chunkies

RAW-16BIT-RGB           any pixel represented by a $0RGB
                        color value

                        some popular gfx-formats


                Brush operators

MULTICUT VERTICAL       allowing multiple brushs to be
                        cut, and linked vertically

MULTICUT HORIZONTAL     allowing multiple brushs to be
                        cut, and linked horizontally


                Image operators

SCALE                   flexible scaling

LESS COLORS             to reduce the number of colors used


                Palette operators

PALETTE                 RGB/HSV palette adjustments

BIAS                    global color adjustments for
                        saturation, brightness, contrast, RGB

PACK COLORS             removing unused colors and
                        re-ordering the palette


                Miscellaneous

Implementation of C, Pascal, Basic, and E source code
generation

Customized sprite control word calculation

ARexx port
```

Don't forget that it depends on YOUR feedback what ideas will be
implemented first or if at all.

1.81 Acknowledges

                                Acknowledgements

- Thanks to Captain Bifat / The Electronic Knights for suggestions,
  testing, redesigning the graphical user interface, drawing the logo
  and icons, and writing the documentation.

- Thanks to Buggs / Defect for suggestions, additional help, and
  testing.

- Thanks to M.U.D.U. / Defect for the nice Mona Lisa-Icon

1.82 History

                                  History

V0.62 21.10.1994

        - added save LinkObjekt
        - added save Load/Savepath after Exit
        - some Bugfixes

V0.60 08.10.1994

        First puplic release for the Tool-Competition at
        the Doomsday Party.

1.83 Specify Linkdata

                             Specify Linkdata

After selecting "Save" and define a Filename a requester will pop up and
prompt you to specify the Linkdata.The Stringgadget entitled "External
definiton" allows you to enter a Labelname for the Objektfile.With the
Cyclegadget "Memory Type" you can specify a Memory Type for the data.
Select "Do it" or press its keyboard equivalent "d" to save the linkdatafile,
or "Cancel" for abortion.