ArtPRO

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COLLABORATORS

	TITLE : ArtPRO		
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REVISION HISTORY

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Chapter 1

ArtPRO

1.1 ArtPRO v0.90 © 1994/1995 Frank Pagels / Defect Softworks

```
                            ArtPRO v0.90

          multi-purpose graphics converter
                and image processor

          © 1994-1995 by Frank Pagels
                Defect Softworks




     ~Copyright~~~~~~~~~
        Copyright notes

     ~Disclaimer~~~~~~~~
        Warranties? No way.

     ~Distribution~~~~~~
        How to distribute



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1.2 Copyright

```
                              Copyright
```

The   entire   ArtPRO package was created and is copyrighted © 1994/1995 by Frank ←
   Pagels,
except for reqtools.library which is copyrighted © by Nico François.

1.3 Disclaimer

```
                             Disclaimer
```

This documentation and the ArtPRO program are provided "as is" without any ←
   warranty,
either expressed or implied. Use this software on your own risk.

1.4 Distribution

```
                            Distribution
```

The   ArtPRO package may be redistributed freely, as long as there are no changes ←
   made
to any part of this software or documentation. No parts of this package may be
omitted or altered by any means except for archiving. You have to reproduce the
package completely. Please refer to the list of contents for verification:

```
   ArtPRO  (dir)
      ALoaders (dir)
         BMP
         PCX
      Icons (dir)
         ARTProLace.info
         ARTProMagicWB.info
         ARTProNoLace.info
      libs  (dir)
         reqtools.library
      ArtPRO
      ArtPRO.guide
```

```
        ArtPRO.guide.info
        ArtPRO.info
        libs.info
        Orderform.doc
        Orderform.dok
     ArtPRO.info
```

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 4,- must not be exceeded for a disk containing ArtPRO.

1.5 Shareware

                                                Shareware

ArtPRO is shareware, which means that this software may be used and ←
    redistributed
freely. Nevertheless, you're requested to
                ~register~
                 if you wish to use ArtPRO
frequently. First of all this helps to ensure further development. Second, ←
    registered
users will get a private keyfile along with the latest version available, and
finally, you'll be able to use ALL the features provided by ArtPRO.

Keep in mind that ArtPRO is still under heavy development. There will be many
additional features available in the future. If you register, you'll be preferred ←
    in
different ways:

– You get one major update for free.

– More free updates are available if you send in a disk and include
  either german stamps or enough money for postage.

– Suggestions for improvements proposed by registered users will be
  taken into consideration first.

– Some oncoming features will be reserved for registered users.

The limitations for non-registered users are almost neglectable, though: The
requester for a customized sprite control-word calculation doesn't show up, the
screenmode   lock   doesn't   work,   and a
                ~registration~
                 reminder pops up on exit –
that's all. The number of features reserved for registered users will grow in ←
    the
future, of course.

The shareware idea behind ArtPRO is that development stays transparent to you. ←
    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, bring it to paper 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 receive a sending by mail, including your personal ←
   keyfile
and the latest ArtPRO revision. More updates are available if you send disks ←
    and
additional money or stamps for postage. Updates should also be available at your
local bulletin board systems.

1.7 Author

Author

Submit suggestions, bug reports, registrations to:

Crazy Copper / Defect SoftWorks

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Subject: ArtPRO

Ostseesparkasse Rostock
BLZ   : 130 500 00
Konto Nr.: 1450003946

1.8 Overview

<div align="center">Overview</div>

ArtPRO was designed to combine these features:

  - Image conversion
  - IFF-to-RAW conversion for programmers
  - Palette and image processing
  - Comfortable graphical user interface
  - Programmable interfaces

<div align="center">IFF-to-RAW conversion</div>

The IFF-to-RAW conversion for programmers is the most finished part of ArtPRO so ←
    far.
Highly flexible source code generation is supported as well as binary and ←
    linkable
output. Images can be saved as bitplanes, chunky and truecolor in many ←
    variations.
Copperlists and sprite control-words can be generated automatically. The   ←
    AGA
hardware features are extensively supported by ArtPRO. ArtPRO even creates ←
    labels
for your source code and lets you convert raw data back to images.

<div align="center">Image conversion</div>

In this context, image conversion means interchange of different file formats for
graphics. This part has been heavily improved, lately - ArtPRO now supports OS3 ←
    .x
datatypes as well as external loaders and savers.

<div align="center">Palette and image processing</div>

There are two such operators available so far. Color-Bias is a great means for
fine-tuning an image's palette. Pack colors helps to eliminate unused and
double entries from an image's palette. The palette editor is still not ←
    finished,
sorry. The truecolor and rendering features are also being worked on.

<div align="center">Comfortable GUI</div>

ArtPRO doesn't consist of an empty screen with dozends of menues, driving you
berzerk with unsuitable colors and weird screen resolutions - instead, it ←
    has
got an expensive GUI which can be driven by both gadgets and keyboard shortcuts. ←
    It
can be configured in many ways to suit your taste.

<div align="center">Programmable interfaces</div>

Weeell... not too much to tell you about in this section. ArtPRO still lacks of ←
   an
ARexx port. External loaders and savers are included, and their interfaces will ←
   soon be
documented for public use.

ArtPRO is far away from being finished. Many essential functions are yet ←
   complete,
though. You'll find IFF to RAW conversion (and vice versa) in quite   ←
   innumerable
ways implemented. ArtPRO is not yet a replacement for commercial image ←
   processors
like Art Department 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 ←
    more
color and image processing features in the future.

1.9 System requirements

System requirements

ArtPRO requires an Amiga with operating system 2.04 (V37) or above. If not present
(either no Amiga or no V37), it won't work. ArtPRO makes use of some features of ←
   OS3.x
(V39), too.

One MB of memory is enough for most operations on small pictures. The presence of ←
    a
hard disk and a lot of memory is no bad idea, but not required.

1.10 Installation

Installation

Just double-click on the install icon. All steps to ensure proper ←
   installation
will be performed there. Note: The installation script won't add a new directory
automatically.

1.11 Usage

Usage

After starting ArtPRO from either Shell or Workbench, you find its main window
open. Most actions can be performed by both clicking the appropriate buttons and
pressing their keyboard equivalents.

```
~Main~Control~Panel~

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

~File~Operation~~~~~

~Image~Operation~~~~~~~~~

~Brush~Operation~~~~

~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 ArtPRO'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".

```
       ~
                About~~
                        ~
                Settings~~
                        ~
                Iconify~~

                Exit~
```

1.13   About

About

"About" opens a stunning about requester with   some information concerning ←
   the
ArtPRO revision running, the
                ~author's~address~

                                and stuff like that.

If you're a registered user, you can activate the "key" button for further
information on your registration key.

1.14 Iconify

                                        Iconify

As the name suggests, "Iconify" leads to iconification of ArtPRO and frees as ←
   much
memory as possible. ArtPRO 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
                ~system~settings~
                 section for details.

You can now use a own external appicon. Add on the ArtPRO icon the tooltype: ←
   APPICON.
Complete this with the path und name of the appicon. The name of the icon in the
tooltype must not end with a .info. But the icon-file must have a .info!

1.15 Exit

                                          Exit

Clicking this button quits ArtPRO. You'll be requested to confirm if the ←
   associated
switch in the
                ~global~settings~
                 section is enabled.

On exit, ArtPRO saves the current load/savepath, window positions, the screen-lock
setting and the current loader/saver to ENV:ArtPRO/.

1.16 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 which loaders and savers are selected, and they ←
   inform
you about the image file you're working on.

                ~Load~

                ~Selecting~a~Loader~

~Save~

~Selecting~a~Saver~~

1.17 Load

Load

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

ArtPROs mainwindow is now a appwindow! This means that you can move a icon or ←
    whatever
on the window to load. Its useful with Dopus V. Select a item and put it on the
mainwindow to load.

1.18 Save

Save

Clicking this button opens a file requester, thus allowing you to specify a ←
    path
and name for an image or brush or palette to be saved. You find the selected saver
displayed in the text field on the right.

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~
            ~section.

1.19 Selecting a loader

Selecting a loader

This is the tiny question mark button on the right hand of the text field ←
    displaying

the selected loader. On activation, the loaders window will be opened for you ←
      to
select a loader. Please refer to the ~
                  module~selection~~
                   section for details and the
~
                  loaders~~
                  section for the available file formats. Use alternativ also the ←
                     cursor-arrows
and the enter-key to select.

1.20   Selecting a Saver

                              Selecting a saver

This is the tiny question mark button on the right hand of the text field ←
    displaying
the selected saver. On activation, the savers window will be opened for you to
select a saver. Please refer to the
                  ~module~selection~
                    section for details and the

                  ~savers~
                   section for the available file formats.

1.21   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 image.

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 ArtPRO, for changing it is not yet implemented.

                      ~
                  ~~~~~~~Screenmode~~~~~~~
                                  ~~
                  Render/ReDisplay~~
                  ~Lock~

1.22   Selecting a Screen Mode

                        Screen Mode Selection

This button is located right to the text field displaying 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.

1.23   Render / Redisplay

                           Render / Redisplay

In this release of ArtPRO, this button will just display a previously loaded ←
   picture.

1.24   Brush Operation

                             Brush Operation

This area displays the selected brush operator, a brush's dimensions and its ←
   size in
bytes. There is only one brush operator available in this release of ArtPRO –
"normal cut" – and therefore the brush operation selector appears ghosted.

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

               ~~Control~Screen~~~

               ~Selecting~a~Frame~

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

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

1.25   Control Screen

Control Screen

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

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

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

BW   – the current brush width

BH   – the current brush height

Wrd   – counts the brush width as words

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
            at its outmost edges
             Accept   – to accept a brush selection

Cancel   – to leave this section without a new brush

1.26   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. Press the left mouse button once again to use ←
   the
frame.

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".

Press space for behind the control-screen. Useful for Cybergfx cards!

If you're too lazy to cut your brush at its exact borders, try clicking

```
                           ~AutoCut~
                            after you've selected a rough frame.
```

After you've selected a frame, you can easily modify it with the cursor keys.

Cursor   will move the frame on your screen

SHIFT-Cursor   to resize the frame at the lower-right

ALT-Cursor   to resize the frame at the upper-left

You can also move the frame with the mouse if you click in the frame and move ←
   around.

1.27   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~window~
                   .

1.28   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".

1.29   Selecting a Module


```
                                    Selecting a Module
```

Whenever you wish to select another ~
               ~loader~
                or
               ~saver~
               , you'll be confronted with

a list window displaying the internal and external modules being available to ←
    ArtPRO.

To select a module, activate an entry in the list view, then hit "Okay" or
"Accept and Operate". The second one 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 ←
    Operate"
and leads to immediate execution.

You can also move the cursor arrows (up,down) to select a entry. Hit Enter to use ←
    the
selectet entry.

"Add" opens a file requester for adding an external module, "Add dir" adds the ←
    modules
inside a directory, "Kill" removes an external module from the list, "Kill all"
removes all external modules. Internal modules cannot be killed.

Activate the "Info" gadget to get brief information on a selected loader/ ←
    saver.

1.30 Loaders

                                    Loaders

In this version, ArtPRO supports the following internal loaders:

                    ~IFF~ILBM~~~~~~~~~

                    ~DATATYPE~~~~~~~~~~

                    ~SCREEN~~~~~~~~~~~~

                    ~RAW~~~~~~~~~~~~~~~

                    ~RAW~INTERLEAVED~~

                    ~PALETTE~RAW~~~~~~~

                    ~PALETTE~IFF~~~~~~
                    There are three external loaders supported so far: PCX, BMP and ←
                        TIFF. They can be found
in the ALoaders directory. ArtPRO includes the contents of that directory
automatically.

You may ask what sense it could make to use ArtPRO's loaders on formats ←
    that are
also accessable via Datatypes. Datatypes provide a great concept, but loading is
slower and requires more memory. In addition to that, you can't load truecolor ←
    images

via Datatypes, and truecolor processing will become a feature of ArtPRO.

1.31 IFF ILBM

                                  IFF ILBM

Simply loads an IFF-ILBM picture.

1.32 SCREEN

                                  SCREEN

With this handy function you can grab any screen currently open on your system ←
   .
Simply select a screen of your choice after the screen selector has popped up.

1.33 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. Select " ←
   Do it"
to load the raw image file. You will then be prompted to select a screen mode, and
finally, the raw picture will be loaded.

1.34 RAW INTERLEAVED

                              RAW INTERLEAVED

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. Select "Do it" to load ←
   the raw
image file. You will then be prompted to select a screen mode, and finally, the ←
   raw
picture will be loaded.

1.35 Savers

Savers

In this version, ArtPRO supports these internal savers:

~IFF~ILBM~~~~~~~~~

~PALETTE~~~~~~~~~~~

~RAW~~~~~~~~~~~~~~

~MASK~~~~~~~~~~~~~

~RAW~INTERLEAVED~~

~MASK~INTERLEAVED~~

~SPRITE~~~~~~~~~~~

~CHUNKY~LEFT~~~~~~~

~CHUNKY~RIGHT~~~~~

~RGB~CHUNKY~12~~~~~

~RGB~CHUNKY~24~~~~
There are three external savers available, too: PCX, BMP and TIFF. ←
They can be found in
the ASavers directory.

1.36 IFF ILBM

IFF ILBM

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

1.37 RAW

RAW

This will save an image or brush in non-interleaved RAW format. Please refer to
the~
~settings~window~
section for the available options.

1.38 RAW INTERLEAVED

RAW INTERLEAVED

This will save your current picture or brush in interleaved RAW format. ←
   Please
refer to the~
                ~settings~window~
                  section   for   the available options.

1.39 SPRITE

                                    SPRITE

This will save your current brush as one or multiple sprite(s). Please refer to ←
   the

                ~settings~window~
                  section for the available options for the sprite conversion.

1.40 PALETTE

                                    PALETTE

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

                ~settings~window~
                  section for the available options for the palette conversion.

1.41 MASK

                                      MASK

This will save your image 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 global settings section, you will be prompted ←
                    to
enter a specific mask color instead.

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

1.42 MASK INTERLEAVED

                                        MASK INTERLEAVED

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 enabled in the global settings section, you will be prompted ↩
                    to
enter a specific mask color instead.

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

1.43 Settings Window

                                      Settings Window

Here you can adjust all your preferred settings and options for the use with
ArtPRO.

                ~Global~Settings~

                ~System~

                ~Source~Format~

                ~Image~Format~

                ~Color~Format~

                ~Sprite~Format~

                ~Save~as~

                ~Save~

                ~Load~

                ~Use~

                ~Cancel~

1.44 Show Pic

                                      Show Pic

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

1.45   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.

1.46   Overwrite

                                            Overwrite

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

1.47   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 save its ←
   palette
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 .asm for source ←
   code or
.col for binary etc. This switch appeared useful to me, because I sometimes forget ←
    to
save the colors :-).

1.48   Ask Mask-Color

                                            Ask Mask-Color

When saving a
                ~MASK~
                 or
                ~MASK~INTERLEAVED~
                , 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.

1.49   Iconify Mode

```
                              Iconify Mode
```

ArtPRO   offers   three   different   ways   of   iconification   – AppItem, AppIcon, ←
    and
Window. You can adjust your preferred mode here. An AppItem named "ArtPRO" ←
    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 ArtPRO, select the menu ←
    item,
double-click the appicon or click the zip gadget in the tiny window's title bar.

1.50 Screen Palette

```
                              Adjust Palette
```

This button is available for custom screens only. A palette requester will pop up ←
    .
Adjust your favourite screen colors there.

1.51 Source Format

```
                              Source Format
```

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


```
              ~Language~~~~~~~~~~

              ~Labels~~~~~~~~~~~~

              ~Indent~~~~~~~~~~~~

              ~Width~~~~~~~~~~~~~

              ~Indents~~~~~~~~~~~

              ~Line~Entries~~~~~~
```


1.52 Language

```
                              Language
```

Here you can adjust the programming language for the source code generation.
Choose between Assembler, C, Pascal, E, and Basic.

1.53   Indent

Indent

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

1.54   Number of Indents

Number of Indents

In this text gadget you can specify the number of indents for your source code
generation. This applies either to the number of tabs or spaces (see section
                ~Indent~
).

1.55   Line Entries

Number of Line Entries

This text gadget allows you to specify the number of data entries for each line ←
    of
the source code. Enter 0 here if you want to omit line feeds in order to fill up a ←
     line
completely. Be careful with this, not all editors can handle lines with extreme
lengths.

1.56   Image Format

Image Format

In this area you can configure all the settings associated with the image ←
    output.

                ~Output~~~~~~~

                ~BlitWord~~~~~

                ~Image~Struct.

1.57   Image Output

Output

With this cycle gadget you can configure the image data output. Choose between
"Source", "Binary" or "Link".

Source   This one will output your brush or image as source
               code, using the settings defined in the
                   ~source~format~
                             section.

Binary   This one will generate raw data for your image or brush.

Link   With this setting enabled, your image will be saved as
               a link-object. Before saving, a requester will pop up
               and prompt you to
                   ~specify~the~link-object~
                     .

1.58   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.

1.59   Image Struct.

Save Imagestructure

If you have choose as output Source and this button selectet you can also save a
complete imagestructure. A imagestructure looks like this:

```
 STRUCTURE Image,0

    WORD ig_LeftEdge                    ; starting offset relative to something
    WORD ig_TopEdge                     ; starting offset relative to something
    WORD ig_Width                   ; pixel size (though data is word-aligned)
    WORD ig_Height                   ; pixel size
    WORD ig_Depth                   ; pixel size
    APTR ig_ImageData                   ; pointer to the actual image bits
    BYTE ig_PlanePick
    BYTE ig_PlaneOnOff
    APTR ig_NextImage
```

```
    LABEL ig_SIZEOF
```

Its needed for example the DrawImage routine of the intuition.library.

1.60 Save Prefs

                                    Save

Click this gadget or press its keyboard equivalent "s" to save the current ↩
    settings
under an existing name. A file requester won't show up.

1.61 Load Prefs

                                    Load

Click this button to load a previously saved ArtPRO settings file. A file ↩
    requester
will pop up and prompt you to specify a path and file name for your settings file.

1.62 Use Prefs

                                    Use

Activate this button to accept and use ArtPRO's current settings. The settings ↩
    window
will be closed and you'll get back to the main screen.

1.63 Cancel Prefs

                                    Cancel

Activate this button to forget the actual settings and to go back to the main ↩
    screen.

1.64 Global Settings

                                Global settings

All switches affecting ArtPRO's general behaviour are grouped together in the ↩
    settings
window's upper left.

```
                         ~Show~Pic~~~~~~~~~~~~

                         ~Auto~save~Colors~

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

                         ~Ask~Mask-Color~~~

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

                         ~Confirm~Exit~~~~~
```

1.65   Image Operation

                                 Image Operation

There is only one image operator implemented to ArtPRO so far:


```
                         ~Pack~Colors~~~~~~
```


1.66   Color Format

                                 Color Format

In this area you can configure all the settings associated with the
                ~PALETTE~
                 saver
output. These settings also apply to the
                ~PALETTE~RAW~
                 loader.


```
                  ~Output~~~~~~~

                  ~Format~~~~~~~

                  ~Depth~~~~~~~~
```


1.67   Color Output

                                    Output

With this cycle gadget you can configure the color output. Choose between
"Source", "Binary", "Link" or "IFF".

Source   This one will output your palette as source code, using
             the settings defined in the

```
                    ~source~format~
                     section.
```

Binary   This one will generate raw data for the palette.

Link   With this setting enabled, your palette will be saved
             as a link-object. Before saving, a requester will pop
             up and prompt you to
                 ~specify~the~link-object~
                 .

IFF   This will save the image's palette as IFF.

1.68   Color 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 copper 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.

1.69   Color 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.

1.70   Sprite Format

                                     Sprite Format

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

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

              ~Cols~

              ~Width~

              ~~~Ctrl.~Words~~~~

1.71   Sprite Output

                                          Output

With this cycle gadget you can configure the sprite output. Choose between
"Source", "Binary" or "Link".

Source   This one will output your sprite(s) as source code,
              using the settings defined in the
                 ~source~format~
                            section.

Binary   This one will generate raw data for your sprite(s).

Link   With this setting enabled, your sprite(s) will be saved
              as a link-object. Before saving, a requester will pop
              up and prompt you to
                 ~specify~the~link-object~
                 .

1.72   Sprite 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 ArtPRO, there's no need to bother. Just select 16 colors, and ArtPRO does ←
    the
rest for you - Your brush selection is interpreted as one or a multiple of 16 ←
    colored
sprites. If you select ArtPRO's
                  ~control~~word~~calculation~
                , even that position and
attach-bit stuff will be performed automatically.

1.73 Acknowledgements

– and of course all members of Defect

1.74 Sprite 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.

1.75 Sprite 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.

ArtPRO supports sprite control words in four ways: None, Empty, Auto, or Prompt. ←
   Use
the cycle gadget to adjust one of these.

None   ArtPRO doesn't care about control words. They will be
          omitted.

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

Auto   ArtPRO includes sprite control words containing ALL the
          information needed for proper display. The control word
          calculation will be performed as follows:

VerticalStart   = raster line $2c + brush's top edge inside your
                    picture

VerticalStop   = raster line $2c + brush's top edge + brush's
                    height

HorizontalStart   = DMA start $80 + brush's left edge inside your
                    picture

Prompt   ArtPRO will bring up a requester for a customized control
           word calculation when saving one or multiple sprites.
           Here you can adjust the VerticalStart and HorizontalStart
           values as well as the image-relative brush coordinates.

The latter two settings can be extremely useful for you, if you're one of those
hardware programmers who use static sprites for complex screen layouts. ←
   Experienced
programmers will have noticed that the values used with the "Auto" setting ←
   apply to
standard non-overscan screens. Use the Prompt setting if these don't fulfill your
needs.

1.76 History

                              History

V0.94   01.02.1996

           - Palette Editor added.

           - TIFF loader available (saver is still missing :-)

           - ArtPro uses now an appwindow.

           - External appicon can be changed by tooltypes.

           - Can save a image structure (only for sources)

           - The loader/saverwindow can now handled by
             keyboard completely.

           - Should work better on GFX cards. ;-)

           - The cut-frame can now moved by mouse.

           - Shortcuts for 'Add dir'/'Kill all' fixed.
             Also shortcut for 'Execute Operator' and
             'Change ID-Mode.'

           - View Pic can now exit by ESC.

           - To exit while ArtPRO is iconified as window
             should work.

           - Now there is an error message while loading IFF24.

           - To exit without saving the config can reached
             by pressing Shift+'x' or Shift+Exit button.

           - Removed a bug in autocut

V0.90   18.06.1995

    - Saving RAW HAM8 produced wrong output. Fixed.

    - Ask Mask-Color didn't work 100% all the time.
      Problem solved hopefully.

    - The sprite control word calculation for 32
      and 64 pixel wide sprites generated non-AGA
      control words - bug removed.

    - The "Kill" gadget shortcut had no effect -
      finally, it works

    - An "Info" gadget has been added to the
      module windows for quick reference on the
      loaders and savers.

    - Automatic and semi-automatic label generation
      implemented (assembler only so far).

    - Serious bug fixed: If you saved a brush having
      an odd with with one of the CHUNKY savers,
      the machine crashed. (Yuck)

    - Another heavy bug: Saving a link object with
      no object name crashed.

    - Finally, an installation script has been
      included to the distribution package.

    - External savers included: PCX and BMP.

    - Pack Colors image operator included.

    - The cut-frame is now kept when re-entering
      the control screen.

    - Minor bug removed that caused problems with the
      control screen and screenmode promoting programs.

V0.88u 05.04.1995

    - Special release for the Amiga Inside CD by UMD!
      Read the ArtPRO.readme file!

V0.87 03.04.1995

    - Cosmetic: "ART-Pro" changed to "ArtPRO".

    - GUI completely reworked. ArtPRO now opens a
      font-sensitive window on the Workbench or on a
      public screen, or opens an own public screen.
      A font can be selected.

- Color-Bias screen overwork.

- The windows' positions and a locked screenmode
  are saved on exit now.

- External loaders included: PCX and BMP.

- The Settings section has got a "Save" and a
  "Save as" button now.

- "Confirm exit" included.

- Bug removed when selecting a frame NOT from
  upper-left to lower-right. The brush size
  should be correct now.

- The logo is scaled according to the window's
  dimensions and is rendered to a screen's palette
  (V37) or its sharable/obtainable pens (V39).

- The "Center Pic" option caused some problems.
  Believe it or not, this mighty important feature
  has been REMOVED.

- Few minor bugs removed.

V0.79 4.1.1995 (major bugfix)

- Parts of the guide have been rewritten for V0.78. Some
  passages were linked incorrectly, some were completely
  wrong, some were malformatted. Fixed.

- Saving images which have been loaded as RAW HAM6 crashed.
  Fixed.

- Displaying or saving images which have been loaded as RAW
  EHB could crash under certain circumstances. In addition
  to that, saving images which have been loaded as RAW-EHB
  led to 64color non-EHB images. Fixed.

- Iconify plus un-iconify "un-registered" ArtPRO. Solved.

- The Load-RAW screenmode requester will now keep the last
  selected screenmode.

- The RGB-CHUNKY-12Bit and RGB-CHUNKY-24Bit savers crashed
  on 68000 and 68010 based machines. This has been fixed.
  Now the code differenciates correctly between 68000 and
  680x0 based machines for the use of optimized routines.

- Minor bugs and several Enforcer-hits removed.

V0.78 30.12.1994 (The Party 4 release)

- After cutting a brush and iconifying, ArtPRO saved the
  complete picture instead of the brush. Solved.

- GUI layout in the preference section changed, for the
  source code settings are now global and apply to all
  output formats.

- RAW-CHUNKY (LEFT/RIGHT) savers implemented.

- RGB-CHUNKY-12BIT and 24BIT savers implemented.

- COLOR-RAW and COLOR-IFF loaders implemented.

- First public release with a keyfile for registered users.

- Color-Bias included.

- Ask Mask-Color crashed sometimes. Fixed.

- User prompt for customized control-word calculation
  included to the sprite output settings. (Registered
  users only.)

- various minor bugs fixed.

V0.77 ... V0.70   (several internal releases)

- Screenmode lock implemented. (Registered users only)

- ArtPRO crashed when saving an 8bit copperlist as binary.
  This has been fixed.

- Source-generator completed. ArtPRO now supports
  Assembler, C, Basic, E, and Pascal.

V0.641 12.11.1994   (quick update)

- ArtPRO crashed on 68000 based machines – now fixed

- ArtPRO did strange nosense when having no directory name
  in the file requester! Oops...

V0.64 05.11.1994   (Coma Party Köln)

- removed a major bug – ArtPRO crashed on exit if a
  screenmode wasn't available/supported – now fixed

- bug in AutoCut fixed – left box edge not set correctly
  sometimes

- added a text field at the control screen and inside
  the main window, displaying a brush's width in words

        – ArtPRO now saves the selected loader/saver modules
          to its default prefs path on exit

      – now a busy-pointer appears when needed

      – some minor bugfixes

V0.62 21.10.1994

      – added link-object

      – ArtPRO now saves its load/save paths to its default
        prefs paths on exit

      – some bugfixes

V0.60 08.10.1994

      First puplic release for the tool competition at
      the Doomsday Party.

1.77 Specify Link-Object

                                    Specify Link-Object

After selecting
            ~Save~
             and specifying a filename, a requester will pop up and prompt
you to configure the link-object. The string gadget entitled "External ←
   definition"
allows you to define a label for external reference. Using the cycle button
labelled "Memory Type", you can adjust the memory type for the object to be ←
   linked
to. Choose between any, chip, or fast. Select "Save" to save the link-object or
choose "Cancel" for abortion.

1.78 Lock

                                Lock

Using this checkmark button, you can lock the screen mode that is currently ←
   being
selected. Whenever you load another image, ArtPRO will try to keep the screen mode ←
    that
you've adjusted before.

This feature is reserved for registered users only.

1.79   PALETTE RAW

PALETTE RAW

This loader allows you to load a raw palette over a previously loaded image. The ←
    raw
color data will be interpreted according to your preferred
                 ~color~settings~
                 . Please
note: a RAW palette format cannot be identified automatically, so don't blame ←
    ArtPRO
if you find your image colors scrambled after you've loaded a palette in a ←
    false
format.

1.80   PALETTE IFF

PALETTE IFF

With this loader you can load an IFF palette to be used for the image currently ←
    being
loaded.

1.81   CHUNKY LEFT

CHUNKY LEFT

This saver will generate chunky output, with the bits corresponding to their ←
    bitplanes
adjusted to the left. Have a look at this scheme:

                 chunky byte: %12345678

Each digit represents its corresponding bitplane. CHUNKY LEFT is a rather
unconventional format,   mainly   used   for   extremely fast chunky-to-bitplane
conversion with the ADDX opcode. With this format there's no need to shift ←
    the
chunkies when having less than 8 bitplanes.

See also the
                 ~CHUNKY~RIGHT~
                  section.

1.82   RAW CHUNKY RIGHT

CHUNKY RIGHT

This saver will generate chunky output, with the bits corresponding to their ←
    bitplanes

adjusted to the right. Have a look at this scheme:

                        chunky byte: %87654321

Each digit represents its corresponding bitplane. CHUNKY RIGHT is the more common
chunky format. Refer to
                ~CHUNKY~LEFT~
                 for more details.

1.83   RGB CHUNKY 12

                            RGB CHUNKY 12

We've got you demo coders here, haven't we? This saver will generate truecolor ←
   12bit
output, with each pixel represented by a word in the format $0RGB. Pictures and
brushes in HAM6 and HAM8 are treated correctly, of course.

1.84   RGB CHUNKY 24

                            RGB CHUNKY 24

This saver will generate truecolor 24Bit output, with each pixel represented ←
    by a
longword in the format $00RRGGBB. Pictures and brushes in HAM6 and HAM8 are ←
   treated
correctly, of course.

1.85   Palette Operation

                                Palette Operation

Right now, there's only two palette operator implemented to ArtPRO:

                ~Color-Bias~

                ~~Palette~~~

1.86   Color Bias

                            Color Bias

Color-Bias is a great tool for global palette adjustments. Select the color-bias
palette operator to enter your current picture with a tiny control screen at its
bottom.

This   control   screen   contains   six   sliders, entitled Color, Bright, Contrast, ←
   and
R/G/B. In addition to these, you find three buttons at the right hand, entitled ←
   Use,
Keep, Cancel.

Moving a slider to the left will reduce the appropriate value, moving it to the ←
   right
will increase it. Check it out to see the effect, that's much easier than trying ←
    to
explain this in a trivial way. The color bias palette modification will be ←
   performed
real-time. This is a great means for fine-tuning your palette.

Press the Use button to leave this section with the new palette. If you select
Cancel, you abort the Color-Bias operator and undo all changes. Select Keep to
re-adjust the slider knobs to zero with the current settings. Press the Color,
Bright, R/G/B etc. buttons to re-adjust the associated value to zero.

To behind the control-screen press the right mousebutton. Useful for CyberGfx!

1.87   Source Code Data Width

                                Width

Use this cycle gadget to adjust your preferred data width for the source code
generation. Choose between bytes, words, and longwords.

1.88   Save Prefs as

                            Save as

Click this gadget to save the current settings under a new name. 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 ArtPRO's settings is ENV:ArtPRO respectively
ENVARC:ArtPRO. The default name is ArtPRO.prefs.

1.89   Confirm Exit

                            Confirm Exit

Activate this checkmark if you want a "really exit?" requester to pop up on exit.

1.90   DATATYPE

```
                              DATATYPE
```

This loader is ArtPRO's interface to the operating system's Datatypes. They've ←
   been
introduced to OS3.0 (V39) and therefore this loader isn't available under OS2.x.

Datatypes provide a general technique for the access to different data formats,
especially to formats that are unknown to a specific application. Many
datatypes (stored in   SYS:Classes/Datatypes and DEVS:Datatypes) are available.

Use this loader whenever you want to load an image format that is not supported ←
   by
ArtPRO. Maybe you're lucky and you've got a datatype for that image format.

1.91   System Settings

```
                                     System settings
```

These settings apply to ArtPRO's system interface. They are grouped in the ←
   settings
window's upper middle.


```
                    ~Iconify~~~~~~~~

                    ~Font~~~~~~~~~~~

                    ~Screen~/~Set~~~

                    ~Adjust~Palette~

                    ~Pool~~~~~~~~~~~
```


1.92   Font

```
                          Font
```

Select your favourite Font here!

1.93   Screen Mode

```
                          Screen / Set
```

Use the cycle gadget to select either of these screen modes:

Workbench   For ArtPRO to open its windows on
                    the Workbench. The "Set" gadget is
                    disabled in Workbench mode.

PublicScreen   For ArtPRO to open its windows on
                    a public screen that is currently
                    open on the system. Select a screen
                    with the "Set" gadget.

CustomScreen   For ArtPRO to open an own public
                    screen for its windows. Select a
                    screen mode with the "Set" gadget.

1.94 Pool

                                  Pool

The Memory Pool option is not yet available and for that reason this gadget ←
    appears
ghosted.

1.95 Labels

                                 Labels

Adjust this switch to either "Auto" or "Prompt" for automatic or semi- ←
    automatic
label generation. This applies to saving sprites as source code.

If you're cutting a brush wider than 16/32/64 pixels, it will be divided ←
    into
several data segments when saving as sprites. If you select "Auto", each ←
    segment
will be named as "Sprite<n>:". If you select "Prompt", a requester will pop up ←
    before
saving. You can enter the label name and the starting index there. Use "Create" ←
    to use
this definition for a single sprite, or "Create all" to use it for all ←
    sprites
with the index increasing automatically.

Label generation is supported for assembly language only, so far. (This is a
beta-feature.-)

1.96 Pack Colors

                              Pack Colors

This image operator will find and eliminate double and unused colors from an ←
    image's
palette. A requester will pop up and inform you about how many double and unused
entries have been found.

If your image contains redundant palette entries, ArtPRO asks if you wish to

compress the palette. The Pack Colors feature won't work with HAM and EHB pictures ←
   .

1.97 ArtPRO index

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     Settings Window

A
                 ~Ask~Mask-Color~~~
                         I
                 ~Iconify~~~~~~~~~~

                 ~Auto~save~Colors~

                 ~Image~Output~~~~~
                  B
                 ~BlitWord~~~~~~~~~

                 ~Indent~~~~~~~~~~~
                  C
                 ~Color~Depth~~~~~~
                         L
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                    ~IFF~ILBM~~~~~~~~~

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                    ~PALETTE~RAW~~~~~

                    ~MASK~~~~~~~~~~~~~

                    ~PALETTE~IFF~~~~~

                    ~MASK~INTERLEAVED~

                    ~CHUNKY~LEFT~~~~~~

                    ~CHUNKY~RIGHT~~~~~

                    ~RGB~CHUNKY~12~~~~

                    ~RGB~CHUNKY~24~~~~
```

1.98 Palette

                                    Palette

The palette editor makes it possible to change the color of a picture.

You can see only 28 colors at the time if the number of colors is bigger. You can
scroll the palette. That means to reach a color you only have to move the slider ←
    until
the correct color is shown. Which colors are able to see is written in the field ←
    beside
the slider. The first and the last number of the colors in the area is shown. To ←
    find a
color in the area faster it was divide into smaller areas which are marked with ←
    little

strokes in diverent colors.

```
white       - every 4th color
blue        - every 8th color
black       - every 16th color
```

If you want to choose a color you only point on it and press the left mousebutton
(LMB). The choosen color seems to be deeper than the other.

To behind the controls-screens press the right mousebutton. Useful for Cybergfx!

With the three horizontal slider you can edit the color. With the cycle gadget ←
    above
the three slider you can choose the standart you want to edit the color with. ←
    ArtPRO
can handle following standarts:

```
RGB  R - Red         CMY  C - Cyan          HSV  H - Hue
     G - Green            M - Mangenta           S - Sateration
     B - Blue             Y - Yellow             V - Value

YUV  Y - Luminance   YIQ  Y - Luminance
     U - Colorvalue        I - Colorvalue
     V - Colorvalue        Q - Colorvalue
```

~Copy~

~Swap~

~Spread~

~Remap~

~Pick~

~Sort~

~OK~

~Undo~

~Reset~

1.99 Pick

Pick

With the Pick function you can pick a color out of the picture directly. Just ←
    select
the Pick gadget. The Pointer should change into a syringe. Press the LMB while the
needle points on the color to pick. The color will be shown in area selected.

1.100 Copy

```
  Copy
```

With the copy function you can copy a color. First select the color you want to ←
    copy
and then the Copy gadget. Search the color number you want to change and select ←
    with
LMB.

1.101 Swap

```
  Swap
```

With the Swap function you can swap two colors. First select the color you want to ←
     swap
and then the Swap gadget. Search for the color you want to swap with and select ←
    with
the LMB.

1.102 Undo

```
  Undo
```

With Undo you can set back the settings of a color. Only press the Undo gadget.

1.103 Reset

```
            Reset
```

With Reset you can set the palette back to the last
              ~Remap~
              . Only press the Reset
gadget.

1.104 Remap

```
            Remap
```

Use the Remap function to correct the colors of a picture. After using functions ←
    like

```
            ~Sort~
             ,
            ~Swap~
             , or
            ~Spread~
```

there is the possibility that the colors of the picture
change. The Remap function looks for a color of the picture in the palette. If the
color is not in the palette the function will take the best possible color. Else ←
   the
function will correct the picture palette. Only press the Remap gadget to use the
function.

1.105 Spread

   Spread

With the Spread function you can make a color range. Only select the start color ←
   an
press the Spread gadget. Then select the end color. Remember that at least one ←
   color is
situated between the start color and the end color.

1.106 Sort

   Sort

With the Sort function you can sort the palette. Select the Sort gadget with the ←
   LMB.
Then must open a window with three gadgets in it.

    Dark to Light   sort the palette from dark to light
    Light to Dark   sort the palette from light to dark
    Cancel   cancel the operation

1.107 OK

   OK

With the OK gadget you can confirm all changes you made. The changes will be over ←
   take
into the picture.