

# EasyPrint

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<b>COLLABORATORS</b>
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## Chapter 1

# EasyPrint

### 1.1 EasyPrint.guide

```
...:: EASY PRINT :...
```

```
-----  
UTILITY FOR GRAPHIC PRINTING ON AMIGA  
-----
```

```
What is Easy Print?  
What Configuration does it Need?  
How to Install EasyPrint  
How to Contact the Author
```

```
How to Run Easy Print  
How to Use Easy Print  
How to Balance Colors  
How to Modify the Size  
How to See an Image with Colours  
How to Print in Few Minutes  
How to Print in Black & White  
How to Use External Modules
```

```
Thanks!
```

```
>>> Why to Register?  
How can you Register?
```

```
Appendix about Colours
```

### 1.2 What is Easy Print

```
What is Easy Print  
=====
```

```
Easy Print is an utility written to easy the printing of pictures  
(coloured or black & white) on Amiga.
```

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That which distinguish Easy Print from the numerous program of printing existing on the market, besides the exceptional quality of the results, is the capacity of maximum exploiting the possibility of the own Amiga, also with the cheaper CONFIGURATIONS

### 1.3 What Configuration does it Need?

What Configuration does it Need?

=====

Easy Print was created on a Amiga 1200 for Amiga 1200, but naturally it works on every superior configuration.

Really Easy Print needs only two things:

- A Graphic Printer (the selected one in the System Preferences)
- The Operative System 3.0 or superior

For example, on a Amiga 1200 not expanded, it is possible to print coloured pictures (with a 24 bit per pixel precision) on a full A4 page with the maximum density.

### 1.4 How to Contact the Author

How to Contact the Author

=====

Andrea Latina, the author of Easy Print, can be contacted at the following address:

Piazza Peyron 7  
CAP: 10143  
TORINO (TO)  
ITALY

Phone N: +39-11-4374307

or, at the following e-mail addresses:

FIDONET: 2:334/21.14  
AMIGANET: 39:101/402.14  
INTERNET: Andrea.Latina@p14.f21.n334.z2.fidonet.org

### 1.5 To Run EasyPrint

From Workbench

=====

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EasyPrint can be started from the Workbench like any other program: just doubleclick on its icon.

You can set a "PRIORITY" tool-type using the Workbench information menu choice.

Example:

```
PRIORITY=-1
```

From Shell  
=====

EasyPrint can be started from the Shell. Template:

FILE:                   The name of the image to load

PRIORITY/N:            The priority of EasyPrint's task

Example

```
1.> EasyPrint FILE image.iff PRIORITY=-1
```

## 1.6 Why to Register?

Why to Register?  
=====

Registering to Easy Print activates some options actually not working (why disabled):

- Saving of the elaborated image in the IFF24 format
  - Loading of images in the JPEG (16 million of colours) format
  - Loading of images through datatypes (GIF, X-BitMap, TIFF, Targa, QRT, PCX are enclosed in the archive)
  - Work screen with 256 colours for better rendering the 24 bit format of the image kept in memory
  - Possibility of CROPPING a section of the image, of elaborating and printing it separately from the whole picture (for example useful to eliminate borders, text or to print only a particular of the image)
  - Possibility of bending of a free number of degrees the dither of printing for each of the fundamental COLOUR (cyan, magenta, yellow and black) for minimizing the tendency of the human eye to remark the horizontal and vertical lines generated by the standard dithers.
  - Possibility of dephase the dithers of printing for each primary colour to optimize blending of colours.
-

- POSTER option, for printing Poster of every size!
- Possibility of using many EXTERNAL MODULES for S-FX!
- Use of Virtual Memory on disk (also on Amiga without MMU, as the Amiga 1200), for loading images of every size without being limited by the amount of RAM

To each registered user it will be sent from mail a parcel post containing:

- The last version of Easy Print written by me (with all the above mentioned function enabled).
- A lot of dithers of printing (actually 11) to be used with EasyPrint.

## 1.7 How can you Register?

How can you Register?

=====

To register it is enough to send me a Postal Money Order of \$25 (USD) and TO CONTACT ME (by phone, mail or electronic mail) and to give me your data.

## 1.8 How to Install EasyPrint

How to Install EasyPrint:

=====

To install Easy Print is very simple. You have only to click on the icon 'Install' to start the automatic sequence or to do the following actions:

- To copy the file 'iff.library' in your LIBS: directory
- To copy the file 'reqtools.library' in your LIBS: directory
- To be sure that in the same directory of EasyPrint there are the drawer "Dithers" and the icon-file "EasyPrint.info"

Warning:

First of using EasyPrint it is important to be sure that in the System Preferences the own printer is proper set.

## 1.9 How to Use Easy Print

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## How to Use Easy Print

=====

After running Easy Print it will be shown:

- the screen of working, in which two rulers indicate the size of the page and that of the image relative to it;
- the main window, which lets to enter all the function of the program.

The work screen, besides representing the page to print, lets to select the component of the image to be showed on it (cyan, magenta, yellow or black) through a gadget placed at the crossing of the two rulers.

The main window consist of the following three parts and gadgets:

### Part 1: Project

=====

Preferences	Iconify
Information	Exit

### Parte 2: Image

=====

Load	filename	Save
------	----------	------

dim_x	Aspect X
dim_y	Aspect Y

Balance	Crop
Modules	Show

### Parte 3: Print

=====

Dimensions	Density
Colour	Dither

PRINT

## 1.10 Preferences

### "Preferences" Window:

=====

This window consist of the following gadgets:

#### Display:

=====

It lets to select the screen mode of screen used by Easy Print.



## Aspect:

=====

Using the two numeric gadgets you can modify the aspect ratio of the pixels of the screen used by Easy Print to better fitting the own monitor. Instead, the gadget "Aspect" will calculate these values according to some predefined data.

## Size:

=====

It sets the size of the work screen of Easy Print.

## Palette:

=====

It changes the colour of the screen of Easy Print.

## Ruler:

=====

The first (cycle) gadget lets to choose which of the two rulers (horizontal or vertical) has to be set according to the quantity (expressed in centimetres or inches, see below) inserted in the second (numeric) gadget.

## Unit of Measure:

=====

The gadget lets to choose if EasyPrint must use the Decimal Metric System (centimetres) or the British Metric System (inches) for the units of measure of:

- The lenght of the rulers
- The dimensions of the paper in the window "DIMENSIONS"
- The dimensions of the picture if the MAIN WINDOW

## Easy Print De Luxe:

=====

OPTION NOT ENABLED!

It lets to access the 256 colour modality of Easy Print, useful for better rendering the 24 bit per pixel of the picture.

## Printing with Smoothing:

=====

For printing a picture, even if large few square centimetres, it

---

needs to be enlarged by a factor of at least 1:10. That causes the enlarging of the pixel of the image and so it can happen to obtain printing in which the "small square" of the pixel are well visible to the naked eye. Smoothing avoids that unpleasant effect by means of shading off the colours of two adjacent pixels.

#### Lines per strip:

=====

It sets how many lines will the program print in a passage. It must be noted that this lines are not picture-lines (that is in pixels), but printer-lines (so equal to the printer's Y density for inch). Obviously the more the lines the more the memory used by the program.

NOTE: The number of lines per strip does not have any influence on  
~~~~ the quality of the print.

#### Save Balancing:

=====

It snapshots the balancing settings for maintaining them when loading a new image.

#### Black:

=====

This parameter (VERY IMPORTANT) can range between 0 and 256.

The value set tells to Easy Print how many colours have to be replaced with the black and it has different meanings according to its value:

- 0: Easy Print will elaborate the black as the composition of the fundamental colours Cyan, Magenta and Yellow.

Warning: it does not mean that during printing the black ink will not be used, but simply that Easy Print does not consider the black as an independent colour.

- 1: Easy Print will consider as black only the pixels in which the compositions of the Cyan, Magenta and Yellow component results mathematically equal to the black colour ( $C=M=Y$ ).

- 2-255: Easy Print will substitutes all colours with black according to the value set. The higher the value the higher will be the number of point substituted.

- 256: ALL colours will be substituted. Easy Print will print a black & white picture.

#### Rendering:

=====

---

In the printing phase a screen will be opened (back to all the others existing) in this modality; here EasyPrint will show the rendering of the image to be printed.

NOTE: The modality has not any influence on the quality of  
~~~~ printing.

#### Virtual Memory:

=====

OPTION NOT ENABLED!

It lets to use the hard disk to memorize the data of the image instead of using the RAM.

It is possible to choose to use or not it by selecting one of the following possibility:

NEVER use:

~~~~~

EasyPrint will never use the virtual memory.

Use when NEEDED:

~~~~~

EasyPrint will try to memorize in RAM the picture's data; if the memory were not enough it will use automatically the virtual memory on disk.

ALWAYS use:

~~~~~

EasyPrint will use ONLY the virtual memory for memorizing the data, even if the amount of RAM were enough for doing that. This option can be useful on the Amigas with only few MB of RAM

#### Directory:

=====

OPTION NOT ENABLED!

It selects the directory where to save the data of the image to print.

#### Save:

=====

The previously listed parameters will be saved on disk.

#### Use:

=====

---

Use the previously listed parameters (these settings will be keep until the next computer reset).

Cancel:  
=====

It keeps unchanged the settings.

## 1.11 Iconify

Iconify:  
=====

Easy Print will be reduced to an icon on the Workbench screen. This do not cause the loss of the picture in memory.

When the icon of an IFF file (or, in the registered version, of any other format for which is present a datatype) is dropped on the EasyPrint's icon, the relative image will be at once loaded and the work screen will be reopened.

## 1.12 Information

Information:  
=====

Some information on the program, the author and the rightful THANKS..

## 1.13 Exit

Exit:  
=====

It will end Easy Print...

The settings about:

- Dimensions of the page
- Dimensions of the picture on the page sheet
- Density of printing
- Dither used

will be memorized in a file called "EasyPrint.def" placed in the same directory of EasyPrint for being utilized in the next session of work.

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## 1.14 Load

Load:  
=====

An IFF image of any type (normal Amiga, IFF24, EHB, HAM6, HAM7, HAM8, JPEG (in the registered version)) will be loaded in memory.

## 1.15 Save

Save:  
=====

OPTION NOT ENABLED!

The data in memory will be saved in format IFF24 applying the set BALANCE.

## 1.16 Aspect X Y

Aspect X Y:  
=====

It lets to see and/or modify the aspect of the image pixel. If nothing is inserted the value will be refreshed to the original ones of the image.

## 1.17 Balance

Balance Window:  
=====

The Window "Balance" lets to modify the colouring of the picture by operating on 5 different aspects.

Balancing:  
=====

It lets to increase or decrease the fundamental component of the colour (red, green and blue or, see the option "Mode", cyan, magenta and yellow).

Mode (RGBK/CMYK):  
=====

The COLOURS are modified respectively using the Red-Green-Blue modality (additive synthesis) or the Cyan-MagentaYellow one (subtractive synthesis).

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Gamma:

=====

It varies the gamma of tint of each colour. Positive values will clarify the intermediate tints keeping unaffected both the black and the white. Instead negative values will darken the intermediate tints (anyway black and white are not altered).

Contrast:

=====

Raising this parameter will cause the image to suffer a major separation between bright colours (which will be more brightened) and dark colours (more darkened); instead decreasing the parameter will cause the image's colours to be levelled on mean values.

Brightness:

=====

It is used to brighten (positive values) or darken (negative values) the image.

Saturation:

=====

It is useful to make colours more "live" (positive values) or more "gray" (negative values).

Use:

=====

It will apply the values of balancing to the picture, but letting to re-modify them after reopening the window.

Test:

=====

It will apply temporarily the values of balancing to the image showing on the work screen the result.

Apply:

=====

It will apply definitively the values of balancing to the image.

Cancel:

=====

---

It will cancel any settings, keeping the active precedent (at the opening of the window) ones.

## 1.18 Crop

Crop Window:  
=====

OPTION NOT ENABLED!

It can be used to select (also with the mouse) limited portions of images for being then printed. Anyway the part not selected will be kept in memory.

Top & Left:  
=====

They set the left upper limit of the box.

Base & Height:  
=====

They set the dimensions (expressed in pixels) of the base and of the height of the portion of image to be cropped.

Crop: It will execute the cropping of the image.  
=====

Cancel: It will keep unmodified the image.  
=====

## 1.19 Show

Show:  
=====

It will visualize the loaded picture (showing the effect of the BALANCING) in HAM8 modality (HAM6 on machines not AGA) the coloured images and in 64 tonality of gray (16 on machines not AGA) for the black and white ones.

By pressing the right mouse button it is possible to select the screenmode to use for showing the picture.

## 1.20 To Modify the Size

---

### Modify Size Window:

=====

It lets to set in a simple way the size of the printing. Here there are the gadgets:

#### Border:

=====

##### Top & Left:

=====

They let to modify the left or top border by inserting a value in centimetres, inches or printer-dots.

#### Picture:

=====

##### Width & Height:

=====

They let to modify the dimensions of the picture on the page by inserting a value in centimetres, inches or in printer-dots.

#### Keep Aspect:

=====

If this gadget is selected by inserting one of the two dimensions of the picture, the other one will be set automatically for respecting the right dimensions of the image.

#### Page:

=====

##### Width & Height:

=====

They let to select the dimensions of the paper used (expressed in the unit of measure selected in the PREFERENCES).

Note: the "Amplitude" cannot exceed the limits due to the printer.

#### Accept:

=====

It will accepts the selected dimensions.

#### Cancel:

=====



It will keep unchanged the dimensions of the page and of the picture.

EasyPrint can print POSTER, too.

It is sufficient to insert, as dimension of the image to print, some values which exceed the page limits; so EasyPrint will mark on the screen the number of pages effectively used during printing.

## 1.21 Density

Density:  
=====

This slider is used to select the wanted density of printing (expressed in dot per inch).

The number of dot per inch (DPI) depends only on the printer used.

## 1.22 Colour CMY

Colour CMY:  
=====

It lets to select what component of the colour will be print.

A numeric gadget visualizes the greatest number of colours that can be printed.

## 1.23 Dither

Dither:  
=====

This cyclic gadget lets to select what reticulating will be used in the printing phase.

The dithers are loaded from a directory called "Dithers", located in the same directory of Easy Print.

The dithers given are the following:

- Floyd-Steinberg & Burkes:  
=====

This dither is of algorytmic type, so not present as a file. It is excellent in the colours rendering, but needs a printer really able of reaching the specified density of printing (i.e.

---

practically none :)).

- Halftone:

=====

Dither used in the typographical printing. Very good quality on printers with density of printing very high.

- Ordered:

=====

Excellent quality with every printer.

- Ordered+:

=====

Equal to the 'Ordered' but more defined.

- Rhomboid:

=====

A variation of the Halftones.

Important:

=====

The unpleasant effect that can cause the excellent dithering "Floyd-Steinberg" with inkjet printers is due essentially to two factors:

- The printer does not reach the number of dot/inch declared on the manual.
- The paper used is of low quality. In that case it will be absorbed a quantity of ink superior of that needed; so causing the blending of colours.

For having further dithers it is sufficient TO REGISTER.

## 1.24 Print

Print:

=====

By pressing it the phase of printing will start.

To stopping the printing you can press the closing gadget of the window indicating the status (of completeness) of the printing.

## 1.25 Appendix about Colours

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#### Appendix about Colours:

=====

On the computer screen the colours are added to the black of the monitor using the fundamental ones Red, Green, Blue. Unlike what happens on the sheet where the colours are subtracted from the white of the paper using their complementary ones Cyan, Magenta and Yellow.

So adding to an image any of the RGB colours means to brighten it, and subtracting any of these three ones means to darken it.

On the contrary if any of the CMY colours are added to an image they will darken the picture (in fact when blending they give the black), if are subtracted they will brighten it (because they leave more space to the white of the paper).

## 1.26 How to Print in Few Minutes

#### How to Print in Few Minutes:

=====

To print with EasyPrint is very simple and needs REALLY a short time!

After starting EasyPrint, the step to do are the following:

- 1) To Open the window PREFERENCES for setting:
  - If to smooth the picture in the printing phase
  - How many lines have to be elaborated for each strip
  - The quantity of the black which have to replace the colours
- 2) To LOAD a picture
- 3) Eventually to modify the BALANCING and/or to CROP the image
- 4) To set the DENSITY of printing
- 5) To set the image DIMENSIONS on the paper
- 6) To choose the DITHER of printing
- 7) To press the PRINT gadget.

And the print phase will start!

## 1.27 How to Print in Black & White

#### How to Print in Black & White

=====

For printing a coloured image in the black & white modality it is enough to set the "Black" parameter, placed in the PREFERENCES window, to its maximum (256); so all the colours will be replaced by their black component.

## 1.28 THANKS!

Various Thanks:

=====

I seize the opportunity for thanking all the people which, directly or indirectly, have helped me to improve EasyPrint.

...THANKS TO:

- Alain Martini
- Alessandro Zummo
- Alessio Patrucco
- Diego Cortassa

Which have let me to test EasyPrint on their printers (okok... I confess it: I do not have a printer!!! :))

- Francesco Leonardi

For having translate the program in English for me...

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For having translate ALL THIS manual in English!!!

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- Rocco Colucelli

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- Christian A. Weber

For having written the very useful 'iff.library'...

## 1.29 How to Use External Modules

How to Use External Modules:

=====

OPTION NOT ENABLED!

Clicking on the gadget "Modules" appear a File Requester through which you can select a module to execute, among the following modules:

- Antique
- Convolve
- Negative
- ReliefMap
- FlipX/FlipY
- Grey to Color
- Color to Grey

A little description:

Antique:

=====

It will transform the picture in its "antique".

Convolve:

=====

Apply a convolution matrix on the image. It's possible enter matrixs 3\*3 or 5\*5. Through the gadget "Load" you can load a defined matrix (among 20+!), besides, clicking the gadget "Save" you can save your matrixs.

Negative:

=====

It will transform the picture in its negative.

ReliefMap:

=====

It will transform the picture in a bas-relief!

FlipX/FlipY:

=====

It will flip the picture on X axis (or Y axis).

Color to Grey:

=====

It convert a coloured picture into a black&white picture. You can set a weight to each component RGB.

Grey to Color:

=====

It convert a black&white picture into a coloured picture.

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