

PBM

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PBM

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# **Chapter 1**

# **PBM**

### 1.1 PBM Tool

PBM Tool
A great application for all us lazy people
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You can get help about the different gadgets in this program by simply placing the mouse pointer on top of the object you want some help about and press the help key. A of MUI's fantastic possibilities.

What is PBM? A short description of PBM What is PBM Tool? A short description of PBM Tool

Installation Describes the installation

Main window Describes all the functions of the main windows Add window Describes all the functions of the Add window

Arexx Describes how to use the Arexx port

Thank you A big thanks to all who have supported me

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### 1.2 pbm description

PBMPLUS is a toolkit for converting various image formats to and from portable formats, and therefore to and from each other. The idea is, if you want to convert among N image formats, you only need 2\*N conversion filters, instead of the N^2 you would need if you wrote each one separately.

The package is broken up into four parts. First is PBM, for bitmaps (1 bit per pixel). Then there is PGM, for gray scale images. Next is PPM, for full-color images. Last, there is PNM, which does content-independent manipulations on any of the three internal formats, and also handles external formats that have multiple types.

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You can get the pbm toolkit from aminet, /gfx/pbm.

Here are a list of supported format, I don't know if it's the most recently but here it is anyway:

PBM handles the following black&white formats:

Sun icon file reading writing
X10 and X11 bitmap file reading writing
MacPaint reading writing

CMU window manager format reading writing MGR format reading writing Group 3 FAX reading writing Group 3 FAX reading writing GEM .img format reading writing Bennet Yee's "face" format reading writing Atari Degas .pi3 format reading writing Andrew Toolkit raster object reading writing Xerox doodle brushes reading writing ASCII graphics HP LaserJet format writing writing GraphOn graphics BBN BitGraph graphics writing Printronix format writing Gemini 10x printer format writing writing Epson printer format Unix plot(5) file writing

PGM handles the following grayscale formats:

Zinc Interface Library icon writing

Usenix FaceSaver(tm) file reading writing
FITS reading writing
Lisp Machine bit-array-file reading writing
raw grayscale bytes reading
HIPS reading
PostScript "image" data reading

PPM handles the following color formats:

GIF reading writing

IFF ILBM reading writing

PICT reading writing

Atari Degas .pil format reading writing

XPM (X Window System ASCII pixmaps) reading writing

PC Paintbrush .pcx format reading writing
TrueVision Targa file reading writing
HP PaintJet format reading writing
Abekas YUV format reading writing
MTV/PRT ray-tracer output reading
QRT ray-tracer output reading

Img-whatnot file reading
Xim file reading

Atari uncompressed Spectrum reading
Atari compressed Spectrum reading
NCSA Interactive Color Raster writing

X11 "puzzle" file writing
Motif UIL icon file writing
DEC sixel format writing

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PNM handles the following multi-type formats:

```
Sun raster file reading writing
TIFF reading writing
X11 window dump file reading writing
X10 window dump file reading
PostScript writing
```

# 1.3 pbm tool description

What PBM Tool does is to simplify the use of PBM, by popping up a intutioton interface which lets you click your way instead of using the cli. It's created using MUI which mens it's very user friendly. To convert a picture to an other format all you have to do is to select the picture from an standard asl file requester, chose the output format, and click go. Now just wait and you'll have your new picture. In most cases that is :-) It's also very easy to add new formats, all you need is a PBM like program...

Now if you already have installed the program, and feel like reading some more documentation before start the use of PBM-Tool, you can read the section about the Main window to get a description for every function of that one.

#### 1.4 installation

First you got to get and install mui (se separate readme file), then you got to get the PBMconversion programs for the formats you are planing to use. They can be found on aminet in  $\frac{gfx}{pbm}$ . The currently installed formats can be found in these files:

```
pbmbin.lha
pgmbin.lha
pnmbin.lha
ppmbin1.lha
ppmbin2.lha
```

When you got what you want, put them in your path.

Then it's time to install this program, the simples way to do that is to run the install script by typing "execute install" in a shell window. If you the want a more freely use of the porgy you could put it in your path. Type pbm to start it.

If you don't like scripts messing around with your system this is what the script does:

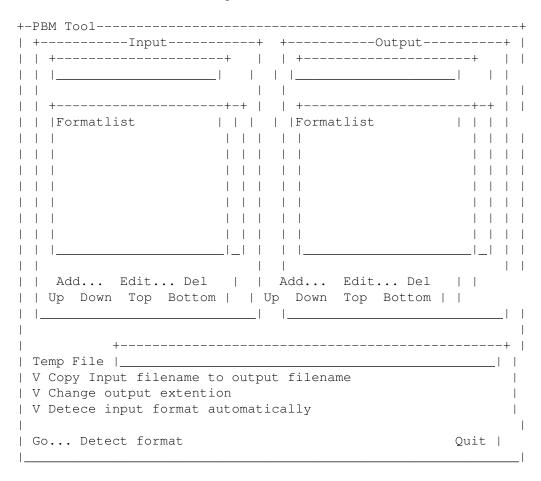
- 1. Copy the config (the env dir) to env:mui and envarc:mui
- 2. Copy the manual (PBM-Tool.guide) to help:english

That's it. If you have any trouble with this feel free to drop me a mail.

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#### 1.5 main window

The main window looks something like this:



# 1.6 input filename

Here is where you specify the input picture filename. If you click at the disk to the right of this field a ASL filerequester will pop up and let you chose your picture.

Se also: Main window

# 1.7 output filename

Here is where you specify the output picture filename. If you click at the disk to the right of this field a ASL filerequester will pop up and let you chose the new pictures name.

Se also: Main window

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# 1.8 input formatlist

To be abel to convert a picture PBM must know the format of the picture that you want to convert. In this list you can chose that format. If you have the Detece input format automatically switch turned on PBM-Tool will try to select this format itselfe. But to do this the Magic number of the format that it is supposed to detect must be specifyed. And since I don't have the magic number of most the formats it will not work to good yet. If you know any of the missing magic numbers I would be very happy if you could contect me.

Se also: Detect format button Main window

# 1.9 output formatlist

Select the format you want to convert your picture to here.

Se also: Main window

### 1.10 add button

Clicking here will pop up the Add window where you can add new formats.

To add a format you need a PBM type program. That, to become a input format, shall convert the picture to PBM, and to become a output format, shall covert from PBM.

Se also: Main window

#### 1.11 edit button

This button will pop up the Add window and let you edit the selected format.

Se also: Add button
Main window

#### 1.12 del button

Take it easy with this one. It will delete the selected format, and there are no way to get it back, except for typing it in again.

Se also: Main window

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### 1.13 move buttons

The buttons Up, Down, Top and Bottom, will move the selected format up, down to the top of the list respectivly to the bottom of the list. The idea is to let you put the formats you use often at the top so that you can find them easyer and faster. But they can ofcaurse be used in anyway you want...

Se also: Main window

# 1.14 temp file

PBM needs a temprary file to save a "half converted" picture. The main reason that I let you specify that file is to let you specify where it is supposed to be put i.e. in ram or on you HD. So if you are out of memory and this file is put in ram: try to change it to you HD. Anyway, its in this field that you specify that file.

Se also: Main window

# 1.15 copy input filename

If this checkmark is selected the input filename will as soon as you change it be copied to the output filename.

Se also: Change output extention Main window

### 1.16 change output extention

If this checkmark is selected the output filename's extention will be changed to the one of the selected output format.

Se also: Main window

# 1.17 detece input format automatically

If this checkmark is selected PBM-Tool will try to select input format automatically. But to do this the Magic number of the format that it is supposed to detect must be specified. And since I don't have the magic number of most the formats it will not work to good yet. If you know any of the missing magic numbers I would be very happy if you could contect me.

Se also: Main window

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# 1.18 go button

When input file, output file, input format, output format is chosed, and are ready to start the covertion click here and it will start.

Se also: Main window

# 1.19 detect button

This button will try to detect the format of the input file. This can be done automatically, se Detece input format automatically

Se also: Main window

# 1.20 quit button

This is the worst button of them all. It will quit the program and save the config.  $\$ 

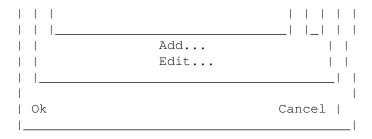
Se also: Main window

### 1.21 add window

The add window look ssometing like this:

+-Add window		+
The state of the s	I	⊦     
1	l	-   
	l	'  -   
		⊦ ¦   
1		- 1
+	Options+	
	Options+	

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Se also: Main window

Main window -> add button

### 1.22 add window file

Here is where you select the convertion progam to be used. The disk to the right of this field will pop up a ASL file requester to let you chose your file there.

Se also: Main window -> add button
Add window

### 1.23 add window format

Here do you specify the comand line of the program. You can use the two variabels \$in and \$out for input and output filename.

Se also: Main window -> add button Add window

### 1.24 add window title

In this field shall the title of the format be specified. The title is the string that you see in the formatlists in the Main window.

Se also: Main window -> add button Add window

# 1.25 add window magic-ext

If you are specifying a output format this field shall contain the extention to be used when Change output extention is switched on.

If you are specifyiing a input format this field shall contain the magic number of the format. The format is:

x, aaabbbccc...

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Where x is the start possition and aaa is a 3 digit dec number being the first byte at possition x, bbb is the second, ccc the third and so on.

# 1.26 add window options

In a later version I am planing to also let each format contain a set of options that the user can specify at convertion time, but thats not in this version so just ignore this field.

### 1.27 add window ok

Click here when you are ready with your format.

#### 1.28 add window cancel

Click here if you want to abandom the changes you made.

### 1.29 arexx

Since the MUI documentation says that MUI will do the job to add a Arexx port to your code is it probably very simpel to add one. But it got to be done and documented, and I have not looked at that just yet. But it will probably show up a Arexx port in a later version.

### 1.30 thank you

My greatest thanks is pointed to Lionel VINTENAT <vintenat@irit.fr>, the guy how brought E to muibuilder, the guy who created the phatastic Mac2E, the guy who taught me E, the guy who taught the use of MUI. Without you Lionel VINTENAT this tool of mine would not ben reality untill several years later, and you saved me a lot a lot of work. My bad english is not enought to express my gratitude to you, you're just grate.

I would also like to thank Stefan Stuntz (stuntz@informatik.tu-muenchen.de) for the creation of mui, a phantastic thing that have maked my life a lot easyer.

And then I thank Wouter van Oortmerssen for the Amiga E compiler, a lovely piece of work.

And before I end I just got to thank internet for its exsistance and for bringing this wonderfull world of grate PD program and its huge quatities of people willing to help, especially Lionel VINTENAT.

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# 1.31 contacting the author

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Or the very last one is by phone:

+46 46 130188

# 1.32 copyright

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