

ESCUtil

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COLLABORATORS

	<i>TITLE :</i> ESCUtil		
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REVISION HISTORY

NUMBER	DATE	DESCRIPTION	NAME

Contents

1	ESCUtil	1
1.1	Documentation for ESCUtil	1
1.2	Introduction	2
1.3	Distribution	2
1.4	Features	3
1.5	Requirements	4
1.6	Installation	4
1.7	Supported languages	4
1.8	Known bugs	5
1.9	Future	5
1.10	Statistics	5
1.11	Thanks	6
1.12	The Author	6
1.13	Translator	7
1.14	Using	7
1.15	Nozzlecheck	7
1.16	Headcleaning	8
1.17	Calibration	9
1.18	Printer Setup	10
1.19	Test Page	10
1.20	Init Printer	11
1.21	Preferences	11
1.22	ToolTypes	12

Chapter 1

ESCUtil

1.1 Documentation for ESCUtil

ESCUtil

The EPSON Stylus Color Utility for the Amiga
Version 1.93beta (26.12.1999)
by Stephan Rusdorf

English and Dutch guides by
Willem Schaaïj

Introduction

Distribution

Capabilities

Requirements

Installation

Locale

USING ESCUtil

History

Known Bugs

Future

Statistics

Thanks

Author

1.2 Introduction

Introduction

Because there was no tool available for the Amiga computer that could access the built-in functions of my new printer (an EPSON Stylus Color 800), I wrote a program myself. An aquaintant looked at it, and wanted these too for his Epson Color 600. So began the ESCUtil story...

Because it is more fun to code a program than it is to write documentation for it, there was, at first, only a simple doc available. Many users of ESCUtil wrote asking me for more documentation. The program and the details of its use needed more explanation and without good docs too many questions were left unanswered.

I came to the point where I persuaded myself to write more complete documentation in the Amigaguide format and here it is.

1.3 Distribution

Distribution

This Program is e-mailware.

If you use it, please send an e-mail message to the
Author

.

Bug-Reports and suggestions are also welcome (via e-mail).
If you think this program is useful to you, you can send
a donation to the

Author

to compensate the cost of the
high ink and paper consumption which are required for all
the testprintouts. Your own-made software (or keyfile)
will also do, or something else you made. :)

Including this program in any package (pd or commercial)
without permission from the author is NOT allowed.

Spreading a modified archive is also NOT allowed.

Distribution of the unmodified archive on the AminetCD and
MeetingPearlsCD IS allowed.

Distribution of this program with the Turboprint package
from IrseeSoft IS allowed.

It is allowed to distribute this program on ANY official
Amiga -only- Magazine's CD or disk, but the specific issue
inclusive CD or disk has to be sent to the author. Please,
send an email to the author first.

1.4 Features

Features

ESCUtil performs about the same functions as the programs included with the printer (for the PC or Mac), and more...

Supported printers and implemented functions are shown in the following table:

Function	NozzleCheck	Headcleaning	Calibration	Setup
ESC	X	X	X	X
ESC2	X	0	X	X
ESC2s	X	X	X	X
ES300			X	
ES400			X	
ES800(+)			X	
ES820	X	X	X	X
ESC500	X	0	X	X
ESPro	X	X	X	X
ESPro XL	X	X	X	X
ES200	X	X	0	X
ESC200	X	X	0	X
ESC300	X	X	X	N
ESC400	X	X	X	N
ESC600	X	X	X	X
ESC800	X	X	X	X
ESC850	X	X	X	X
ESC1520	X	X	X	X
ESC440	X	X	X	N
ESC640	X	X	X	N
ESC740	X	X	X	X
ESC900	X	X	X	X
ESPhoto	X	X	X	N
ESPhoto700	X	X	X	N
ESPhotoEX	X	X	X	?
ESPhoto750	X	X	X	?
ESPhoto1200	X	X	X	?

X - This function is implemented

N - THE PRINTER does not perform this function

0 - Under construction; not supported yet

About ink-measurement:

Because I got some infos about that I think I'm able to implement this feature for those who own an io-card which supports the needed bidirectional nibble mode (eg. Hypercom, IOBlix, maybe other too)

I got the required money from Kurt Berghaus (Thanks very much!), but there is no support from VMC -> Hello Harald Frank :(

It seems I bought the wrong IO-Board (arrggh!)

For the IOBlix there is a developer-archive on Aminet, but not for the HyperCom. I tested something but no success.

1.5 Requirements

Requirements

- An Amiga (an Intel inside won't work here)
- EPSON Stylus (Color) Series Printer
- AmigaOS 2.1 or later and 68020+ CPU
- MagicWB-like Workbench colors >=8

1.6 Installation

Installation

- Decrunch the archive
- Copy the directory with its contents to the place of your choice (disk/harddisk)
- If you wish to use other languages, place one or more of the included catalogs in the directory:

SYS:locale/catalogs/<language_name>

- See also at
Locale

1.7 Supported languages

Languages

The following languages are supported at the moment:

- English (built-in)
- German (Stephan Rusdorf)
- French (Gilles Vigner)
- Italian (Gabriele Greco)
- Dutch (Willem Schaaïj)
- Spanish (D.Domínguez)
- Swedish (Kristen Larsson)
- Hungarian (Varga Lajos)
- Russian (Efim Shuvikov)
- Polish (Adam Bartniczak)

Again thanks to all translators.

To use a language other than English you must select it using the workbench Preferences AND

you must copy the catalog for your language to the directory:

```
SYS:Locale/Catalogs/<language_name>
```

1.8 Known bugs

Known bugs

- Calibration for ES820 and IIs is not yet correct

1.9 Future

Future

- Support for more printers
- Addition of new functions (suggestions?)
- Removal of bugs
- Possibly interrogation of ink capacity for the new models

1.10 Statistics

Statistics

Printer	# of Users
ESC	18
ESC2	9
ESC2s	11
ES820	4
ESC500	10
ESC200	5
ESC400	12
ESC600	44
ESC800	15 (+me)
ESPhoto	6
ESPro	5
ES300	8
ESC1520	1
Photo700	1
unknown	20

A total of 169 users have mailed me already.

Because of the many users (> 750 emails) the

statistic will be no longer updated.
Thanks for all the emails!

1.11 Thanks

Thanks

To Kurt Berghaus who sponsored my HyperCOM-Board (Great!)

A lot to Willem Schaaïj for

- sending me some sources for supporting ESC/Pro/II(s)
- testing the ESC-support
- verifying and correcting the English catalog
- his Dutch catalog
- his English, improved translation of the documentation
- his Dutch documentation
- a lot of other tips

To Tilo Steiner for his nice graphics

To Steven Woelk for testing the 600-version (only V1.0).

To D.Domínguez for the Spanish catalog (included)
and translation of the documentation

To Krister Larsson for the Swedish catalog (included)

To Gilles Vigner for the French catalog (included)

To Gabriele Greco for the Italian catalog (included)

To Varga Lajos for the Hungarian catalog (included)

To Efim Shuvikov for the Russian catalog (included)

To Adam Bartniczak for the Polish Catalog (included)

To Christian Kunig who helped with the english guide

To Johan Otterstrom for testing Draco-compatibility

To Bahman Moallem for his tips

To EPSON for their fantastic printers but not for the
non-existing developer support. What's the problem?

and to all other who sent suggestions, bug reports and email.

1.12 The Author

The Author

The producer of this program and archive is:

Stephan Rusdorf

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D-09126 Chemnitz
Germany

Suggestions, comments, bugreports and new catalogs are welcome.

- they will be included in the next public version.

And of course: Donations are very, very welcome. :)

1.13 Translator

The English and Dutch translation has been done by:

Willem Schaaïj

email: schaaïjw@club.tip.nl

Who has helped Stephan with this project with great pleasure.

Since 1977 working with computers as a technician and made his own DIY 'Junior 6502' system in begin 1980, changed to a Commodore64 in early 1983. Bought an Amiga500 in 1987 and an Amiga4000/030-desktop in begin of 1993. Which is now greatly enhanced to an A4000/060-desktop with a lot of 'whistles and bells' (to be short). Loves to work with MIDI, per example Music-X2.0 and a Roland E96 keyboard/synth.

1.14 Using

USE of ESCUtil:

Nozzlecheck

Headcleaning

Calibration

Printer Setup

Testpage

Init Printer

Preferences

ToolTypes

1.15 Nozzlecheck

Nozzlecheck

The nozzlecheck uses all the nozzles of the available printhead(s) to print a test pattern so you can easily

see if all of them are functioning perfectly. Depending on the printer model some horizontal lines will be printed. The newest models (* ESC400/600/800/1520/Photo) have a different output, namely steps of lines.

Intermittent lines in this pattern are due to clogged nozzles or an empty ink-cartridge. You may have to use the Headcleaning option in the first case or change the empty or malfunctioning ink-cartridge in the latter. See also

HeadCleaning

.

You may use the Nozzlecheck several times in a row to try to clear clogged nozzles, but there will come a point when it is better to use the Headcleaning option for this.

1.16 Headcleaning

Cleaning the printhead(s)

Normally EPSON inkjet printers are filling the ink-system and clean the print head(s) automatically once at power-on.

In spite of this, it is possible that stripes or errors are beginning to appear in printouts as a result of clogged nozzles in one or more printheads. The best way to troubleshoot this is by use of the

NozzleCheck
function.

Even though you may use the Nozzlecheck several times, DO NOT EVER use the Headcleaning option more than 3 times in a row per head! Otherwise there will be a lot of ink spilled and the result could be even worse than before. If the printout still has errors, it might be necessary to change the associated ink-cartridge. It is also possible that an ink-cartridge is empty.

The time needed for a Headcleaning procedure could be about 2 minutes, depending on the printer model.

Some printer models have the ability to clean the black-head(s) and the color-head(s) separately.

Note: Cleaning a printhead uses ink!

Tip: For persistant problems there is another

possible solution: (NOT all models!)

Turn off the printer or disconnect it from the net. On some printer models it is possible to unlock an ink-cartridge by gently pushing some kind of small lever against the left side of the cartridge. Pushing gently downward and simultaneously moving the cartridge gently to the left may allow you access to the ink-loading system. There is a sponge which could be saturated with ink. Try to soak up the excess ink with a piece of paper towel, then move the ink-cartridge back to its original position until it is locked again. Power-On the printer to continue.

Warning: The risk of this procedure is completely yours!

1.17 Calibration

Calibration

When the printed output continuously shows stripes or irregularities, it's likely that the printhead needs Calibration.

The best thing to do, of course, is to Calibrate the printhead(s).

There are 2 types of Calibration: The Bi-directional (Hi-Speed) calibration software-compensates for the play of the mechanism when it is going back and forth in that mode. This is needed when using the bi-directional print mode because the printer prints then in both directions, right to left and left to right, resulting in a higher printspeed. The other calibration is the alignment of the Black and Color Printheads with each other to get optimum results when printing in color. Which type of alignments are available is merely depending on the printer model. Read in the printer manual which are available on your printer.

Calibration prints a specific set of patterns. You must check these patterns and locate the best aligned ones. Take the number corresponding to the best aligned set.

P.e:			
-----	correct alignment		
		or:	
-----	bad alignment		
		OK	BAD

Move the Slider to the number you have chosen as the best alignment. Use the OK-button to send this value to the printer.

When the Calibration procedure is done, you must turn off the printer with the Power-Off button to save the parameters to the printer's memory.

Some models have several Calibration options for each print mode. Use the same procedure for each one separately, but the principle is however the same. Other models have just one calibration and does the other internally.

1.18 Printer Setup

Printer Setup

The purpose of this function is to change the default settings of the printer to match your preferences and needs. These settings tell the printer how to print unless another program instructs it otherwise.

There are differences in the sets of options between the various printer models.

Depending on the model you can set, for example:

- Character table(s)
- Font
- Pitch

- Print direction
- Auto Linefeed
- Network Mode
- Economy
- Condensed
- etc.

For further specific information about which settings are available for your model and what effect they have, you should check the manual for your specific printer.

It is possible for the Printer Preferences to be overridden by various printer application programs. When that occurs, changes made here may appear to have no effect, but that may merely be the result of another program changing the settings just before actually printing a document or a graphic. Most of those types of programs can send codes that control the printer.

1.19 Test Page

Printing The Test Page

With this button it is possible to print a detailed test page to verify if the printer is working correct: Alignments, all colors printing, printing quality etc.

Don't try to interpret this page without the required know how!

I don't explain the printed patterns here because you can't change anything that don't work correct. The exceptions here are the points 3 and 6.

Warning:

This Page is designed for the (standard) EPSON Stylus COLOR and may not work correctly on other models !!!

1.20 Init Printer

Reset The Printer

With this button you can reset the printer and flush the printing buffer without switching it off and on.

1.21 Preferences

Preferences for ESC-Util

You can change the defaults in ESC-Util to suit your taste and to match your printer model.

Configurable Preferences:

The printer model

Merely choose the model of the printer! Because of the differences between the models, there could be strange and unpredictable results if you do not set this to match the model of the printer to use.

Printers not listed here are not implemented.

Choice of printerdevice

To accomodate different Amiga-hardware configurations you may need to choose a custom printerdevice to use. It is also possible to use devices that are not listed here simply by typing the devicename in the Text-input field manually. You can set here the Unitnumber for the

used printer device too. For most users this value will be normally 0.

The Preferences of ESC-Util should then be confirmed by using the OK-button. The Preferences will be saved in the

ToolTypes
of the icon when ESC-Util is closed/quit.

1.22 ToolTypes

The following tooltypes are supported:

DEVICE The outputdevice (eg.: DEVICE=parallel.device)

UNIT The unitnumber of the device which is used for the printer

PRINTER The printer to be used.
This must be a capital letter following the
order in which the printers are listed.
(eg: PRINTER=A for ESC or =N for ESPhoto)

CHARTAB The selected character table
(use a capital letter like for PRINTER)

FONT The selected printer font (number, starting with 0)

PITCH The selected pitch (number, starting with 0)

DIRECTION The selected print direction
(0 = bidir, 1 = unidir, 2 = auto)

LINEFEED Automatic linefeed (0 = off, 1 = on)

NETWORKIF Network I/F=Mode (0 = off, 1 = on)

ECONOMY Economy=Mode (0 = off, 1 = on)

CONDENSED Condensed (0 = off, 1 = on)

IFMODE IF Mode (0 = Automatic, 1 = Parallel)

SPEED Printing speed (ESC200/ES200)
(0 = 125cps, 1 = 167cps)

SETCOLORS set the color fix on/off (0 = off, 1 = on)
(for cases where MWB colors are wrong)
(only changeable directly in the tooltypes)

CALIBVALUE0 \

CALIBVALUE1 \

CALIBVALUE2 > Calibration settings saves by ESCUtil

CALIBVALUE3 / (Number of values used, depends on printer type).

CALIBVALUE4 /
