ESCUtil

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COLLABORATORS

	TITLE : ESCUtil		
ACTION	NAME	DATE	SIGNATURE
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Chapter 1

ESCUtil

1.1 Documentation for ESCUtil

```
                              ESCUtil

        The EPSON Stylus Color Utility for the Amiga
              Version 1.87beta (03.07.1998)
                    by Stephan Rusdorf

        English and Dutch guides by
                Willem Schaaij

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                    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 pursuaded 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 too.

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   |
| 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   |
| ESPhoto  |     X            X             X            N   |
| ESC1520  |     X            X             X            0   |
 ------------------------------------------------------------
```

X – This function is implemented
N – THE PRINTER does not perform this function
0 – Under construction; not supported yet

About software-controlled interrogation of ink capacity:
I have no information about it. If I get my hands on the
required developer-information, I will support that too.

1.5 Requirements

Requirements

 – An Amiga (an Intel inside won't work here)

 – EPSON Stylus (Color) Series Printer

 – AmigaOS 2.04 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 Schaaij)
- Spanish      (D.Domínguez)
- Swedish      (Krister 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

- 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.

1.11 Thanks

Thanks

 A lot to Willem Schaaij 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

 email: sru@informatik.tu-chemnitz.de

Address: Vettersstr. 11
         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 Schaaij   email: schaaijw@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:

 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 over-
ridden 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 /
```