

bfont.guide database

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Chapter 1

bfont.guide database

1.1 BFont Multibyte Font Rendering System

BFont

MultiByte Font Rendering System for the Amiga Computer

(C) 1993-1995 Murray Gilbert

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=====

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```

1.2 Introduction

Introduction

BFont is a multibyte font rendering system for the Commodore Amiga.
It allows use of fonts of size larger than the 256 characters currently

allowed in the font system of the Amiga's graphics renderer. BFont supports the use of 16 bit EUC encoded characters (up to approximately 9000 characters) at the same time as using standard ASCII characters (96 characters). Full 16 bit characters (up to 65536 characters per set) are also supported.

The font rendering system exists as a patch program for the font rendering routines of the operating system, with preferences program for the user's convenience of customization, and several useful utilities.

1.3 Copyright

Copyright

BFont is not in the public domain. All the files contained in this distribution including, but not limited to, source files, documentation, executables, and font files, with the exception of files explicitly public domain or copyrighted by another author, are copyright by Murray Gilbert.

See @{"Distribution" link distribution } for distribution details.

1.4 Distribution

Distribution

Distribution is limited to the original distribution archive only, none the member files may be omitted. Furthermore, no profit or other material gain may be realized for the distribution of BFont with the exception of normal distribution fees, not to exceed \$7.00 US. BFont may not be included with any commercial product without written permission from Murray Gilbert.

BFont must NOT be used on any machine which is used for the research, development, construction, testing or production of weapons or other military applications. BFont also must not be used on any machine owned by or used by concerns involved in the research, development, construction, testing or production of pharmaceuticals. BFont must not be used by entities using or promoting chemotherapy, radiotherapy, mammography, mastectomy, vivisection (animal testing), flouride/chloride water treatment, usury (lending of money with interest), or any individual or group involved in the use or promotion of human or non-human misery or misinformation. This also includes any machine which is used for training persons for *any* of the above mentioned purposes. Government departments, agencies, quasi-agencies, etc., must get explicit written permission from the author to use BFont.

Explicit permission is given, subject to all other mentioned conditions, to individuals and groups promoting the use of natural therapies, oxygen therapies, non-usurous financial and trading practices (e.g.

LETS), ethical investment, free speech, thinking, and association.

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1.5 Disclaimer

Disclaimer

This software is provided as-is, without warranty of any kind, either expressed or implied. In no event will the author be liable for direct, indirect, incidental or consequential damages or data loss resulting from the use or application of this software. The entire risk as to the results and performance of this software is assumed by the user.

1.6 System Requirements

System Requirements

Any Amiga computer with AmigaOS release 2.0 or above. At least one megabyte of chip memory is recommended for use; though it should run with only 512 kilobytes chip memory if only using small (i.e. 8 bit) fonts, this has not been tested.

A hard disk drive is recommended for use with 16 bit fonts as the font files are rather large. E.g. a typical japanese 16x16 pixel font in this implementation of about 7000 characters is over 300 kilobytes in size. A similar font in 32x32 pixel form should come to around a megabyte.

Test and development machine is currently an Amiga1200 with 2 megabytes of (chip) memory, 4 megabytes of fast memory and 40 megabyte harddrive. Creation and use of 16x16 pixel, 24x24, and 32x32 fonts have been tested on this machine. Creation and use of 16x16 pixel fonts has been tested on this machine before the acquisition of the fast memory.

1.7 Installation

Installation

Copy the patch program 'patchbfont' to somewhere in the system path,

perhaps C:, but SYS:System maybe more appropriate, or maybe to a BIN: assignment if such exists.

If you want to run it each time you boot, add the following command to your s:user-startup file:

```
run >nil: <nil: patchbfont
```

Copy the provided fonts directory contents to your FONTS: directory, or better, create a new fonts directory somewhere, and add this to the FONTS: assignment list; e.g.:

```
makedir work:bfonts          ; do this line once only
assign FONTS: work:bfonts add ; add this line to s:user-startup
```

Copy the preferences program to somewhere in the system path, either the same place as the patch program went, or the system preferences directory.

The utilities programs put with the patch program or where convenient.

Probably best (especially if using a hard drive, and to make updates easier to install) is to create a directory for the whole distribution, transfer the whole distribution to that, and add that directory to the system path, and add the assignment for the FONTS: assignment to the fonts subdirectory; e.g.:

```
copy clone df0:BFontDistribution work:BFontDistribution all

path work:BFontDistribution add
assign FONTS: work:BFontDistribution/fonts add ; in s:user-startup
```

or use Workbench to copy the drawer over, and then add the assign and path commands to your s:user-startup file.

To use a bfont as a system font, you will need to put your chosen system font(s) in the normal FONTS: directory or make the bfonts FONTS: assignment addition before IPrefs is run in s:startup-sequence, e.g.

```
...

assign bfont: work:BFontDistribution    ; added
assign FONTS: bfont:fonts add          ; added

C:IPrefs                               ; originally there

...
```

There it is, easy!

However, all other changes that you might like to make should be made in s:user-startup.

Preferences File:

The preferences file "bfont.prefs" should be placed in the envarc:sys/

directory.

1.8 Usage

Usage

The patch program can be run from the Workbench or from the CLI/Shell. From Workbench just double click on the icon. If you will be using it often, you could put it in your sys:WBStartup drawer and it will be run automatically by Workbench when it is started.

To start the font patch from the CLI type the following command:

```
run >nil: <nil: patchbfont
```

While the program is running the patches to the font system remain in force. To quit, send a control-C signal to the program, by means of the break command, with process number found by doing the status command. Alternatively, bring up the Commodities Exchange window, select PatchBFont from the list, and press the 'Remove' button gadget. Running the program a second time also has the effect of removing the program and its patches (i.e. only one copy may be running at any one time on the one machine). Note that quitting the program disables any other patches done to the affected system font routines done during the time that patchbfont was in effect. It is also recommended that you don't have any other patches affecting the routines so patched after the BFont patches are applied as you will then likely lose the multibyte font ability due to this being patched out.

To start the preferences program, just type its command name or double click on its icon.

1.9 Utilities

Auxilliary Programs

Several auxilliary programs and utilities are provided in the package. These include the preferences editor; JIS2EUC, japanese format converter; and kprintpage, a simple printing utility.

```
@{ " BFPrefs    " link bfprefs    } BFont Preferences Editor
@{ " JIS2EUC   " link jis2euc    } JIS to EUC format converter
@{ " BDF2Font  " link bdf2font   } BDF font to BFont converter
@{ " kprintpage" link kprintpage } Printing Utility
```

1.10 BFPrefs Perferences Editor

BFPrefs

The BFont Preferences Editor

This preferences editor is to adjust various parameters that the font routines will use, primarily when using an EUC font in ASCII mode that does not have glyphs in the ASCII range, thereby requiring a separate Amiga font to be used to render the ASCII portion of text to be displayed.

The prefs editor is designed to be reasonable similar to the standard system preferences programs in layout. At the bottom of the window lie the standard three exit buttons, consisting of Save, Use, and Cancel, respectively saving permanently, using during the current session only, and not keeping any change made. These buttons also, like the other gadgets on the display, have keyboard shortcuts, the keys 'S', 'U', and 'C' respectively.

There is the choice of using the system default font selected by the user using the standard 'Font' preferences editor, or to use the font chosen by the user in this editor with the Get gadget and shown in the text box beside it. This choice is determined by what is currently appearing in the cycle gadget with label above entitled 'Ascii Default Font Selection'. The two choices, mentioned above are 'System Default Font' to use the system default font chosen in the 'Font' preferences editor, or 'Use Shown Font' to use the one chosen in this program. To switch between the two either click on the cycle gadget or press the 'F' key.

Next is the Current Default Font section which consists of the the 'Get' button (shortcut key is 'G') which brings up an ASL font requester from which the user can select their font to use which, once the user selects 'OK' from the font requester, is displayed in the text box beside the 'Get' gadget, along with size in a separate box beside the name text box.

In addition to these, there are two checkbox gadgets with which certain characteristics of the rendition of the ascii characters of this font are modified. 'Ascii Adjust' (shortcut key 'A') selects whether the width of the text is adjusted to match half that of the main bfont. Setting this is to primarily to keep the fixed width nature of the bfont being used. 'Ascii Adjust Baseline' (shortcut key 'B') adjusts the location of the baseline of the ascii font to be rendered to try to best fit the font vertically with the bfont. For ascii fonts the same height or shorter than the bfont, this is generally successful, for ones taller you can hope for the best, that is all.

The menu options are fairly standard except that only the 'Reset to Defaults', 'Last Saved', and 'Quit' (equivalent to Cancel button) are currently implemented.

1.11 JIS2EUC - JIS to EUC text format converter

JIS2EUC

JIS to EUC Text Format Converter

This program is a simple converter from various JIS formats (which use an escape sequence to introduce the JIS (Japanese) encoded text and to finish using JIS text, back to ASCII) into EUC (high bit set, i.e. bit 7 is set in the character byte) double byte format.

```
e.g.  NewJIS      <ESC>$B<0x24><0x31><0x2b><0x7a><ESC>(B
becomes EUC      <0xb4><0xc1><0xbb><0xfa>
      (Japanese pron.)      'kan'      'ji'
      (English meaning)     "Han"/Chinese character
```

which is 'Á»ú' (kanji) in actual EUC text if you are using a kanji font with patchbfont to view this.

This program will also convert one of the Chinese encodings (the one using <ESC>\$A as its introducing sequence) to EUC format. Note well, that this is not a language translation utility! The output will only make sense when using a Chinese EUC font.

Its usage is quite simple, being a command line program only:

```
JIS2EUC <infile >outfile
```

where 'infile' and 'outfile' represent the names of the input (JIS/ etc. encoded) file and output (EUC encoded text) files respectively.

1.12 BDF2Font - BDF Font to BFont converter

BDF2Font

This program converts BDF source fonts to BFont run time font files. As there are many of these fonts available, for example, in the X11 distribution, it makes sense to be able to convert them to something more useable for us. BDF2Font does this job for us.

BDF2Font is available in the registered version only.

1.13 KPrintPage - Printing Utility

KPrintPage

Simple text printing utility. Registered release only.

1.14 Bugs and non-implemented features

Bugs and other features of interest

What is program without some extra features? :^)

- * Text rendering not completely clean :^(
- * refresh of console device occasionally renders what appears to be garbage (presumably because console device starts sometimes half way through a character) :^(A multibyte aware console device/handler would improve this situation.

1.15 Things to do

Things to do

- * Finish implementation of spacing and kerning code.
- * Generalize code slightly to allow 24 and 32 bit fonts.
- * Speed up character rendering.
- * Cleanup Bdf2Font BDF to BFont font format converter, add wider range of options, and possibly add a GUI to it to make options selection easier. Add option to write standard Amiga font file format for 8 bit fonts (relatively simple to do).
- * Improve the font specification.
- * Finish writing an input handler or commodity to ease entry of kanji and kana for Japanese, later an input handler for Chinese, etc. Work out how to use WNN - anyone have english docs for V4 (or even V3)?
 - this is well on the way with ascii, jisalpha, hiragana, and katakana output currently. It is tentatively named the "Nihongo Input System" or "NIS Preprocessor". See the NIS doc for more information and use.
- * Write a word processor/text-editor for easy composition and editing.
- * Font editor?
- * Improve kprintpage
- * An improved console handler and device that are multibyte character aware.

1.16 History

History

(Pre 1.0: Internal work only)

Version 0.9: (January 1995) Limited release.

Version 1.0: (June 1995) Slight changes to font spec. Main release.

1.17 Registration Details

Registration

This product, BFont, is Shareware. If you use BFont please send \$30 in US funds to register, in a form easy and cheap for me to convert into local currency (e.g. International Money Order). Personal cheques drawn non-Australian banks or non-Australian postal money orders will be ignored.

Australian and New-Zealand users may send \$AUS30 instead of US currency. Japanese may send 3000 Yen. Again all cases must meet the cheap and easy criterion.

See @{ " Author Contact Information " link author } for mail details.

In return you will be sent the latest version of each of the software contained in this package plus the BDF2Font BDF font converter and a few other goodies, yet to be determined. Note that source BDF fonts may be found in many places including the X11 distribution and several FTP sites.

At the current stage (version 1.0) registration of NIS and BFont is being handled together as a combined registration of both products. This can and probably will change in the future. Once the next release of either software occurs this offer can be considered NULL and VOID, and whatever the new documentation says will take effect, even for version 1.0 (It will be treated as registration for whatever the current version is).

A postcard of your home town/city would also be much appreciated :^)

1.18 Author Contact Information

To Contact the Author

Any ideas and suggestions would be much appreciated. Copies of freely distributable BDF fonts or useful texts in Japanese (or even Chinese or Korean even though I cannot read those two at all) would be useful indeed!

Please send registration and general correspondence to the following

mail address:

Murray Gilbert
P.O. Box 2609
North Parramatta
NSW 2151
AUSTRALIA

Email: uminchu@zip.com.au

Please be patient for a reply. Allow up to eight (8) weeks for response to registration please. If using ordinary mail, but have an electronic address, please provide that so that we can communicate via that medium.

See also the [Amiga_jp-list](#) mailing list. Send a friendly request to subscribe to:

jamiller@neko.ec.t.kanazawa-u.ac.jp
