NINTENDO NITRO-System

fontcvtrc

Operation Manual

Version 0.1.0

Contents

Revision history

Version	Revision Date	Description
0.1.0	5/25/2005	Initial version.

1   Introduction

1.1   About fontcvtrc

fontcvtrc is the command line version of fontcvtr, the GUI version of the NITRO Font Converter. Although fontcvtrc uses the command line, the functions of the command line and GUI version are the same. fontcvtrc is designed specifically for use with makefiles and batch files.

1.2   About this Manual

This manual only covers topics specific to fontcvtrc. Shared topics for both versions are discussed in the fontcvtr manual; therefore, read the fontcvtr manual first.

1.3   Font Licenses

fontcvtr can convert any font installed on a PC to a NITRO font for us on the DS. However, a user license is required to use these non-NITRO fonts in game software that will be sold. You need to obtain licenses for each game software title.

fontcvtr and NITRO-System do not come with licenses for any fonts.

2 How to Use fontcvtrc

A fontcvtrc command line is shown below.

```
fontcvtrc -i <input format> <input option> -o <output format> <output option>
[-f <character filter file path>]
```

As shown in Table 2-1, `-i`, `-o`, and `-f` are used to specify input, output, and filter options, respectively.

`<input option>` and `<output option>` change based on the specifications for `<input format>` and `<output format>`, respectively. These elements are discussed in subsequent sections.

Enclose elements that contain spaces between words with quotation marks (`"`).Quotation marks cannot be used inside of quotation marks.

Table 2-1 fontcvtrc Options

Option	Can Be Omitted?	Comments
-i <input format>	No	The input format can be bmp, nitro, win, or lc.
-o <output format>	No	The output format can be bmp or nitro.
-f <character filter file path>	Yes	—

2.1 Input Options

Use the following options with `<input option>` based on what is specified for `<input format>`.

2.1.1 Input: BMP (-i bmp)

If you specify `bmp` for `<input format>`, the input options in Table 2-2 can be used.

Table 2-2 BMP Options

Option	Can Be Omitted?	Comments
-if <BMP file path>	No	Specifies the conversion source
-io <letter order file path>	No	Selects the letter order of the BMP file.
-ib <number of colors>	Yes	Specify the number of colors by entering the power value with base 2. The default value is 1.

```
-i bmp -if font.bmp -io xlor/Latin1.xlor -ib 2
```

As shown above, the letter order file `xlor/Latin1.xlor`, the BMP file `font.bmp` will be read as input. The ouput will be data for the first four colors (2^2) in the BMP color palette.

2.1.2 Input: NITRO Font (-i nitro)

If you specify `nitro` for `<input format>`, the input options in Table 2-3 can be used.

Table 2-3 NITRO Font Options

Option	Can Be Omitted?	Comments
`-if <NITRO font path>`	No	Specifies a NITRO font as the conversion source.

```
-i nitro -if font.NFTR
```

In the above example, NITRO font `font.NFTR` will be read as input.

2.1.3 Input: Windows Font (-i win)

If you specify `win` for `<input format>`, the options in Table 2-4 can be used.

Table 2-4 Windows Font Options

Option	Can Be Omitted?	Comments
`-in <font name>`	No	Specifies the conversion source
`-is <font size>`	No	The conversion source font size in pixel units.
`-ib <no. of gradations>`	Yes	Specify the number of levels in the gray scale output with using the power value of base 2. The default value is 1. This options is not available for raster fonts because they are always set to 2.
`-it <output width>`	Yes	Specify one of the following for <output width>. • *glyph*—Same as "glyph only" in fontcvtr. • *char*—Same as "include margin" in fontcvtr. • *fixed*—Same as "fixed width" in fontcvtr The default value is *char*.
`-iw <monospace width>`	Required when `-it fixed` is specified. Invalid for all other cases.	

```
-i win -in "MS Gothic" -is 16 -ib 4 -it glyph
```

The above statement reads Windows MS Gothic font with a size of 16 pixels and 16 gradations (2^4). The glyph width is used for the character width.

2.1.4   Input: LC Font (-i lc)

If you specify `lc` for `<input format>`, the input options in Table 2-5 can be used.

Table 2-5 LC Font Options

Option	Can Be Omitted?	Comments
`-if <LC font with default mapping>`	Only one of these options can be omitted	Specify the conversion source LC Font file. Stores full width characters.
`-if <LC font with half-width mapping>`		Specify the conversion source LC Font file. Stores half width character codes.
`-it`	Yes	If not specified, the left and right space around the glyphs with normal mapping will be removed and a one pixel space will remain on the left during conversion.
`-iu`	Yes	If not specified, the left and right space around the glyphs with half-width mapping will be removed and a one pixel space will remain on the left during conversion.

Example:

```
-i lc -if LD937721.DAT -ig LD937749.DAT -iu
```

LC font `LD937721.DAT` is read as full width characters, and LC font `LD937749.DAT` is read as half-width characters. With the full-width characters, the left and right spaces on glyphs will be removed.

2.2   Output Options

The following options can be used with `<output option>`, depending on `<output format>`.

2.2.1   Output: BMP (-o bmp)

If you specify `bmp` for `<output format>`, the options in Table 2-6 can be used.

Table 2-6 BMP Output Options

Option	Can Be Omitted?	Comments
`-of <BMP font path>`	No	Specify the conversion destination BMP file.
`-oo <letter order file path>`	No	Selects the order to output the text characters in the BMP files.
`-oc <rotation direction>`	Yes	Specify one of the following for `<rotation direction>`. The default value is no rotation. • *Clk*—Clockwise • *Cnt*—Counterclockwise
`-og`	Yes	When specified, the grid lines will not be drawn.
`-ow <cell width>`	Yes	The default specifies a width sufficient for output. Cannot be specified concurrently with `-or` or `-ob`.
`-oh <cell height>`	Yes	The default specifies a height sufficient for output. Cannot be specified concurrently with `-or` or `-ob`.
`-ol <cell left margin width>`	Yes	The default is 0.
`-or <cell right margin width>`	Yes	The default specifies the same value as `-ol`. Cannot be specified concurrently with `-ow` or `-oh`.
`-ot <cell top margin width>`	Yes	The default is 0.
`-ob <cell bottom margin width>`	Yes	The default specifies the same value as `-ot`. Cannot be specified concurrently with `-ow` or `-oh`.

```
-o bmp -of font.bmp -oo xlor/Latin1.xlor -or cnt -og -ol 1 -ot 3
```

In the above statement, glyphs are rotated counterclockwise, each cell is given 3 pixel top and bottom margins, and 1 pixel left and right margins. The conversion is output with a grid into the file `font.bmp` and has the letter order specified in xlor/Latin1.xlor.

2.2.2   Output: NITRO Font (-o nitro)

If `nitro` is specified for `<output format>`, the options in Table 2-7 can be used.

Table 2-7 Output Options for NITRO Font

Option	Can Be Omitted?	Comments
`-of <NITRO font path>`	No	Specify the output target NITRO font file.
`-oe <encoding>`	Yes	Specify one of the following for `<encoding>`. as the default value is **utf16**. • *utf16*—Specifies UTF-16 • *utf8*—Specifies UTF-8 • *sjis*—Specifies Shift_JIS • *cp1252*—Specifies CP 1252
`-oa <alternate character>`	Yes	The default is based on the input.
`-oh <line feed width>`	Yes	The default is based on the input.
`-ol <default left space>`	Yes	The default is based on the input.
`-ow <default glyph width>`	Yes	The default is based on the input.
`-or <default right space>`	Yes	The default is based on the input.

Example:

```
-o nitro -of font.NFTR -oe sjis -oa ?
```

Outputs to `font.NFTR` using Shift_JIS encoding and alternate character '?'.

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