

NITRO SoftKeyboard

Quick Start Guide

Version: 060508

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1 Introduction

This document explains the steps necessary to create font data, integrate that font data into the SoftKeyboard, and create a sample program using SoftKeyboard.

2 Preparation

The following tools are necessary to use SoftKeyboard.

- LC Font A font by Sharp Corporation
- fontcvtr A converter included in NITRO-System Library
- SoftKeyboard This SoftKeyboard package

2.1 LC Font

LC Font is a product of Sharp Corporation. A separate agreement is required to use of this font. Please check with Nintendo support for details.

2.2 fontcvtr

fontcvtr is a Windows tool for creating NITRO fonts. See the fontcvtr manual in the NITRO-System Library to learn more about this tool.

3 Procedure

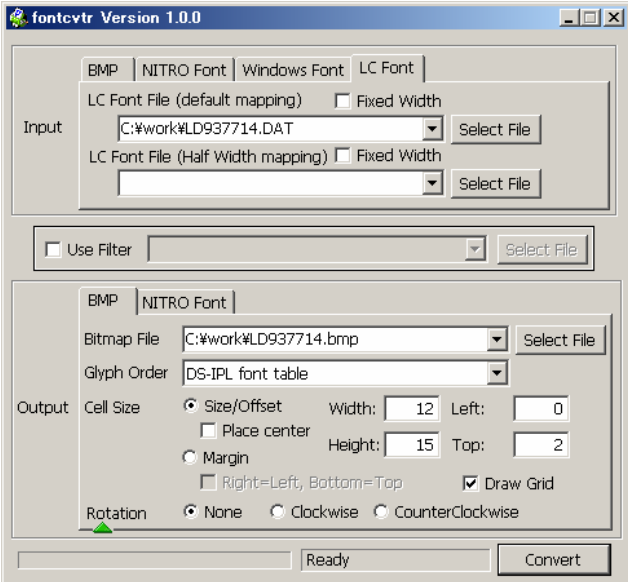
This section describes the procedures.

3.1 Starting up fontcvtr.exe

Start `fontcvtr.exe`.

3.2 Converting LCFont to BMP File

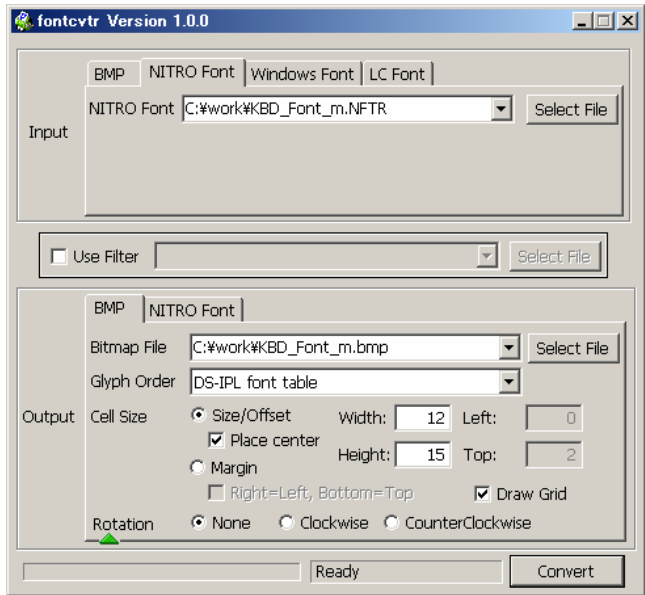
Use the following settings to convert LC Font to BMP file for output.



Input:	
Format	LC Font
default mapping	LD937714.DAT
Fixed Width	Unchecked
Filter:	
Use Filter	Unchecked
Output:	
Format	BMP
Bitmap File	LD937714.bmp
Glyph Order	DS-IPL font table
Cell size	Size/Offset
Width	12
Height	15
Left	0
Top	2
Draw Grid	Checked
Rotation	None

3.3 Converting NITRO Font to a BMP File

Use the following settings to convert the NITRO font to a BMP file for output.

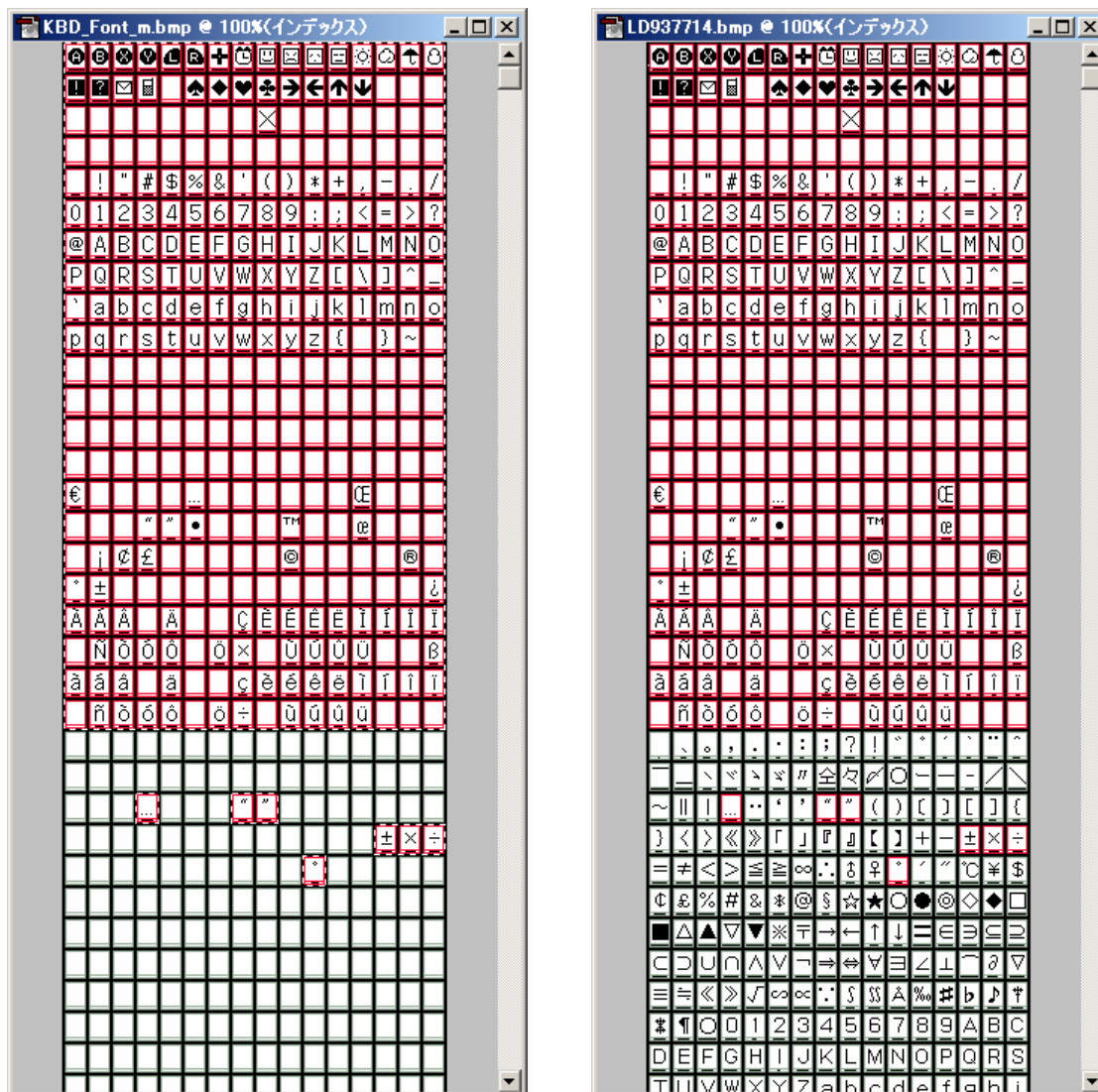


Input:	
Format	NITRO Font
default mapping	KBD_Font_m.NFTR
Filter:	
Use Filter	Unchecked
Output:	
Format	BMP
Bitmap File	KBD_Font_m.bmp
Glyph Order	DS-IPL font table
Cell size	Size/Offset
Place center	Checked
Width	12
Height	15
Draw Grid	Checked
Rotation	None

3.4 Merging BMP Files

Merge the BMP file output in 3.2 (LD937714.bmp) with BMP file output in 3.3 (KBD_Font_m.bmp) to generate a BMP file of combined LC Font and NITRO font (combined.bmp).

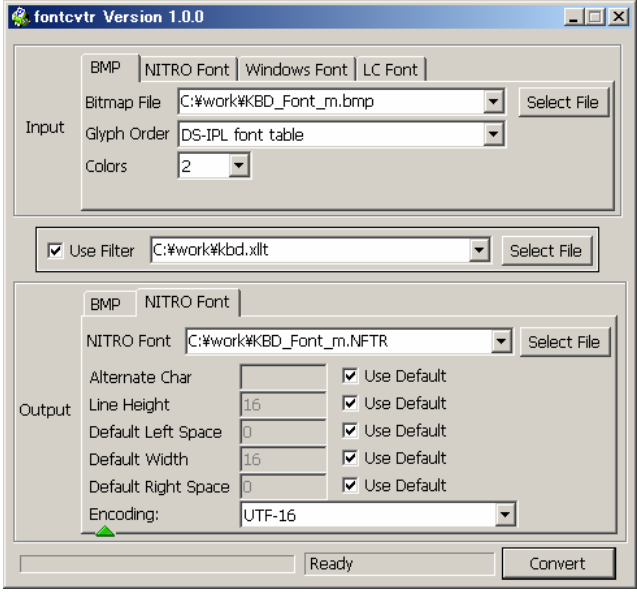
Below is an example of the merger process.



1. Use an image editing tool to copy the usable data in KBD_Font_m.bmp (selected range above).
The selected range is colored red above to make it easy to see. The user simply can copy the range in actual use.
2. Paste the copied data to the front of LD937714.bmp (see above) and save the resulting file as combined.bmp.
Always save the BMP file as an index image. (It may cause an error later on if the file is saved as RGB or grayscale)

3.5 Converting the Merged BMP File to NITRO Font

Convert the BMP file created in 3.4 to NITRO Font and output the result.



Input:	
Format	BMP
Bitmap File	combined.bmp
Glyph Order	DS-IPL font table
Colors	2
Filter:	
Use Filter	kbd.xlft
Output:	
Format	NITRO font
NITRO font	KBD_Font_m.NFTR
Alternate Char	Use Default
Line Height	Use Default
Default Left Space	Use Default
Default Width	Use Default
Default Right Space	Use Default
Encoding	UTF-16

3.6 Rebuilding the kbd Library

Place the generated KBD_Font_m.NFTR in SoftKeyboard\kbd\data\bin and rebuild the library and sample.

3.7 Testing Operation

Load the generated ROM image (SoftKeyboard\sample\bin\ARM9-TS\Release\main.srl) in the debugger, and verify the proper operation of the program on the DS.

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