

# Leader Corporation

Software Engineering

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## Technical Field Notice: FontMaster v1.5 Operators Manual

From:	Rob D.
To:	Distribution
Subject:	FontMaster – Operators Manual
CC:	

### FontMaster v1.5

#### Overview

The FontMaster software provides the user the ability to generate an Eagle Series printer compatible bitmap font directly from a true type font on a host PC running Windows 95/98/NT. Both the standard 96 character and the extended 224 character fonts are supported. Live font target bitmap sizing, character cell centering and true type point size selection combined with real time edit/view capabilities provide the user with a robust editing environment.

#### Operation

##### Input (True Type Font) Selections

###### True Type Font (TTF) selection:

True type font face selections are limited *for now* to a few test true type fonts that are typically installed on a Windows host system. They are selected with the use of the TTF Face combo box selector. Just click on the drop down arrow, select the desired font face and click or release the mouse button to select. Font file browsing support *is planned* to allow the selection of any installed font from the system fonts or other source directory. Any file selected will automatically be added to the TTF Face combo box to provide quick re-selection.

FontMaster defaults the TTF Face to arial.ttf.

###### Point Size selection:

Point size selection is provided by the Point Size edit/spin control. The desired point size may be selected by typing a value directly into the edit control or with the use of the spin controls adjacent to the edit field to increment or decrement the current value to the desired one.

FontMaster defaults the Point size to 7.

###### First Character selection:

The first character selection allows the user to select the first or start character in the true type character map. The Eagle Series printer will ONLY support a start character selection of the space, ' ', or decimal 32 character. This selection is provided for future use.

FontMaster defaults the first or start character to the space, ' ' or decimal 32 character.

#### **Last Character selection:**

The last character selection allows the user to select the last or end character in the true type character map. The Eagle Series printer will support a last character selection of the tilde, '~'+ 1 or decimal 126 character for the standard 96 character font creation or a last character selection of 'ÿ' or decimal 255.

FontMaster defaults the last or end character to the tilde + 1, '~'+1 or decimal 126 character.

#### **Number of Glyphs/Characters selection:**

This edit field and associated spin control allows the user to select the number of glyphs or characters that they want in their target bitmap font file. The Eagle Series printer ONLY supports a 96 or 224 character bitmap font file.

FontMaster defaults the number of glyphs/characters to 96 in support of the *standard* eagle bitmap font file.

#### **Source TTF file path:**

The extended edit field directly below the TTF Face displays and allows direct edit of the source true type font folder.

FontMaster defaults this folder path to the default Windows font folder.

### **Output (Bitmap Font) Selections**

#### **Bitmap or BM Font file name selection:**

The BM Font Face edit box is provided to allow easy edit of the target bitmap font file name.

FontMaster defaults the BM Face file name to typical target Eagle standard (96 chars) or Extended (255 chars) file types. The standard 96 char font BM file name will be comprised of a three-letter font face abbreviation combined with either a point or bitmap height three-digit size component. E.g., Ari24.fnt, Cou64.fnt. Extended file names are comprised of a five-letter font face abbreviation combined with either a point or bitmap height three-digit size component. E.g., Arial007.fng, Outli032.fnt.

**Auto Name selection:**

FontMaster automatically creates the target BM Face file name according to the current Auto Name selection. If the Point size selection is checked then the target BM Face filename will contain a point size component. If the Pixel size checkbox is checked the target BM Face filename will contain a target bitmap pixel or Eagle jet height component. See Bitmap or BM Font file name selection above for details.

FontMaster defaults the auto name selection to point size.

**Target Bitmap Height:**

This edit field allows the user to tweak the target bitmap height as desired.

FontMaster defaults this setting to the compound-bounding box calculated on the character range selected using the source true type font metrics.

**Target Bitmap XDim or X dimension:**

This edit field allows the user to tweak the target bitmap width's X dimension as desired.

FontMaster defaults this setting to the produce a character width that is 75% of its' height.

**Target Bitmap Width:**

This edit field allows the user to tweak the target bitmap width as desired.

FontMaster defaults this setting to the compound-bounding box calculated on the character range selected using the source true type font metrics and the XDim selection as a reference.

**Target Bitmap YCenter:**

This edit field allows the user to tweak the target bitmap character cells' Y center as desired.

FontMaster defaults this setting to ½ the compound-bounding box height calculated on the character range selected using the source true type font metrics.

**Target Bitmap XCenter:**

This edit field allows the user to tweak the target bitmap character cells' X center as desired.

FontMaster defaults this setting to ½ the compound-bounding box width calculated on the character range selected using the source true type font metrics. Note: Enable the character cell grid checkbox to ease in the visualization of the changes made with this setting.

**Target Bitmap Grid Checkbox:**

This edit field allows the user to display a visual indication of the individual target character cell boundaries over the target bitmap character cells to ease horizontal and or vertical character centering. This selection is only used with the non-proportional fonts. Proportional font cell boundary visualization support will be added in a future revision.

FontMaster defaults this setting disabled or off.

**Proportional Checkbox:**

This edit field allows the user to select the creation of proportional fonts.

FontMaster defaults this setting enabled or on.

**Destination Bitmap BM Font file path:**

The extended edit field directly below the BM Face edit control displays and allows direct edit of the destination bitmap font folder.

FontMaster defaults this folder path to the current FontMaster execution path.

**Target Bitmap CCW Rotation Checkboxes:**

These selections provide the user with the ability to rotate the target bitmap file as desired. (As yet not implemented in v1.5).

FontMaster defaults this setting to a rotation angle of 90 degrees to support Leader printer font requirements.

**Target Bitmap Preview Window:**

The Preview window located directly below the output bitmap settings control box is used to provide the user with a real time display of the current input and output settings for the target bitmap.

FontMaster defaults this display to the current rendered BM Font file contents.

**General FontMaster Dialog Selections****Create Pushbutton:**

This pushbutton allows the user to force a rendering of the font at the current selections. It is typically used to force a re-draw of the preview window upon changes in source or destination selections that do not automatically force a re-draw of the preview window.

**Reset Pushbutton:**

This pushbutton allows the user to force the current settings back to the defaults provided upon font face and point size selection. It is typically used to back off current changes and revert to the standard default settings for the current face and point size. It also resets the auto font name action after a manual name edit back to the startup defaults.

**Save Pushbutton:**

This pushbutton allows the user to save a snapshot of the BM Face file at the current settings.

**Batch Setup Pushbutton:**

This pushbutton allows the user to edit the batch build point size and numerical name extensions for each batch font's parameters.

**Batch Build Pushbutton:**

This pushbutton allows the user to automatically build a batch of fonts at the current batch build settings. Typically this pushbutton is used when one desires to build multiple fonts from a single face (Arial etc.) and style (Bold etc.) as a batch.

**Exit Pushbutton:**

This pushbutton allows the user to exit the FontMaster program. Note: The user is responsible to affect a save of the current BM Face file if desired before exiting the program.

**Standard Pixel to Point Sizes:**

Pixel Size	Approximate Point Size
16	7
24	10
32	13
42	17
64	26
96	39
128	52
172	70

**Note:**

1. As the font file sizes are becoming ever larger to support these new extended characters the demands on Eagle resources soar as well. Users are advised to update both the Eagle ram and Eagle local storage (Sandisk) to meet their needs as their target font load dictates. Contact Leader for upgrade package specific information.
2. Leader does not provide True Type Fonts for the host systems as the standard operating system installation provides a myriad of true type font selections by default. Additional true type font selections are available on the WWW and from the various font foundries.
3. The FontMaster software requires at least a Unicode character mapping table to be present in the true type fonts supported.
4. Version 1.5 supports proportional fonts with the use of the following Eagle, TransEagle, and ImageMaster software.

5. New 224 character font file formats offer substantial bitmap file size savings.
6. Script fonts and other block type fonts that have designs that cause portions of the individual character glyphs or drawings to exceed a rectangular cell must be manually manipulated via the Bitmap width setting and tested with the Leader printer prior to use.
7. Default settings for FontMaster will typically create a Leader printer compatible font. Default settings should always be tried first and the new font tested on the Leader printer prior to use.
8. The creation of custom fonts such as the 172 , full 128 jet sized fonts are supported with version 1.5. Just select the character range of interest and bump the point size up or down until the desired character range fits the bitmap height.
9. To scroll through the available TT fonts just select the TT File edit box and use the down or up arrow keys to scroll the face/style selections.
10. To utilize a new font the font must be loaded onto the Leader printer. If an Ethernet connection is available simply cut and paste or drag and drop the fonts into the target printer's auto folder with TransEagle network running and connected. The fonts will be transferred to the Eagle and instantly available for use. Both TransEagle v3.00 and Eagle 6.00/N/X or later are required for this support. The files can also be copied to the Leader printer via floppy or direct compact flash copy with the appropriate interface adapter.
11. After editing a target bitmap font name it will be necessary to utilize the reset pushbutton to reset the auto naming functionality of FontMaster.
12. The 224 character fonts are easily selected via the [224] pushbutton. These fonts support the Latin accented characters etc.
13. The target bitmap font files that FontMaster creates can be viewed with simple graphics programs such as MS Paint. Just click on the newly created file and select open with, then select the utility executable file with the, "always open with this?" checkbox checked to save the new .fnt file association in Windows.
14. Custom bitmap fonts are available from Leader. Contact Leader for pricing and availability.

Leader Software TTF extended Bitmap font character support via  
FontMaster beta version 1.5,  
TransEagle version 3.00, and  
Eagle Software version 6.00/X/N.

Please feel free to contact Leader at the following for additional information:

Tel: 817.640.4610  
Fax: 695.2772  
Email: [leader@leadercorp.com](mailto:leader@leadercorp.com)  
WWW: [www.LeaderCorp.com](http://www.LeaderCorp.com)

Best Regards,  
Rob D.  
Software Engineer