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## **MultiView/X Fonts**

MultiView/X includes the complete set of X11R6 fonts, converted to the FON format required by Microsoft Windows. During MultiView/X installation, you can elect to install some or all of these fonts. The font sets you install are stored in appropriate subdirectories within the FONTS subdirectory of your installation directory. The FONTS subdirectory also contains the MISC subdirectory, which contains general-purpose fonts. You can later delete fonts using the File Manager or install fonts that you did not initially install without changing other parts of your MultiView/X configuration.

MultiView/X supports scalable fonts and the X11R6 font server, which allows one or more hosts on a network to serve as a central storage area for all X fonts.

Additional support is provided for users who wish to integrate their own fonts. These fonts must be in either the Bitmap Distribution Format (BDF) or the Portable Compiled Format (PCF). Through Font Manager, you can convert these fonts into the Microsoft Windows FON format.

# **Selecting Font Sets**

When installing MultiView/X, you can choose to install font sets in resolutions of 75 and 100 dots per inch (dpi). Custom font packages for DEC and Hewlett-Packard are also available for installation.

If you require Asian language characters, you can also install the character set named Kanji. Because each of these font sets requires three to four megabytes of hard drive space, you may wish to install only the fonts that your display can support. Consult the following table to select the best font set for your monitors resolution and display size. If you are using a font server, you do not need to install any of the MultiView/X fonts on your computer.

| DISPLAY SIZE     | RESOLUTION | FONT SET |
|------------------|------------|----------|
| 13-inch, 14-inch | 640x480    | 75 DPI   |
| 13-inch, 14-inch | 800x600    | 100 DPI  |
| 13-inch, 14-inch | 1024x768   | 100 DPI  |
| 16-inch, 17-inch | 800x600    | 75 DPI   |
| 16-inch, 17-inch | 1024x768   | 100 DPI  |
| 19-inch          | 1024x768   | 75 DPI   |
| 19-inch          | 1152x900   | 100 DPI  |
| 19-inch          | 1280x1024  | 100 DPI  |
| 21-inch          | 1152x900   | 75 DPI   |
| 21-inch          | 1280x1024  | 75 DPI   |
|                  |            |          |

## **Font Path**

MultiView/X installs fonts into several subdirectories within your MultiView/X directory.

| Directory     | Contents  |
|---------------|---|
| \FONTS\MISC   | Several general-purpose fixed-width fonts and the cursor font |
| \FONTS\75DPI  | 75-dpi fixed- and variable-width fonts                        |
| \FONTS\100DPI | 100-dpi fixed- and variable-width fonts                       |
| \FONTS\HPR875 | Hewlett-Packard Roman, 8 point, 75-dpi                        |

Note that the 75DPI and 100DPI directories contain the same font sets in different resolutions. Only one set is installed.

These directories comprise the servers default font path. The font path can be viewed by selecting the Fonts option from the Configuration dialog. You can add directories or change existing directories by editing the Font Path field. Separate each font directory with a comma.

You can also change the font path by using the *fp* option to the *xset* program. This method changes the font path for the current session only. The font path (together with other information about server defaults) can be listed with an *xset* query. All fonts in the font path can be listed with the *xlsfonts* command. See your X Window System documentation for details.

# **Scalable Fonts**

MultiView/X supports scalable fonts. If you request a scalable font in a size that is not available, MultiView/X scales the font from the closest matching font. For a font to be scalable, its name must conform to the standard X Logical Font Description (LFD) name convention. This format is fully defined in the MIT X Consortium Standard *X Logical Font Description Conventions Version 1.4*.

In addition, the directory containing the scalable font must contain an LFD with the digit zero (0) in the PIXEL-SIZE, POINT-SIZE, and AVERAGE-WIDTH fields, as illustrated in the following example:

-Adobe-Courier-Bold-R-Normal-0-0-75-75-M-0-ISO8859-1

where the zeros in the name string are used as place holders for the above-mentioned fields.

## **Monospace Fonts**

The *xterm* program requires the use of monospace fonts. These fonts are composed of fixedwidth characters that each occupy the same amount of horizontal screen space, much like the output of a typewriter. Monospace font families include Courier, Lucida, Typewriter, and Term. These font families and other general-purpose fonts are specified by their horizontal and vertical size (for example, 8x12).

The other supplied fonts contain proportionally spaced characters. These proportional fonts are used by X programs that are designed to vary the horizontal spacing between characters. X programs such as *xterm* that are not designed to use proportional fonts may produce displays that are difficult to read.

## **Font Server Access**

MultiView/X supports font access through the X11R6 font server. Font server access allows one or more hosts on the network to serve as central storage areas for all X Window System fonts. This eliminates the need for each PC to store the large set of fonts locally. It also provides access to a greater variety of fonts, since the font server supports transparent conversion of Speedo, PCF, BDF, and Type 1 fonts to Xcompatible format.

To access fonts through the font server, you must add information to the font path. From the MultiView/X Control Panel, select Configuration from the Options menu, then click the Fonts tab. Select the Font Path option to display the current setting.

In the text entry field, enter a string similar to the following:

tcp/hostname:port\_id/catalog

where tcp indicates that the font server will be accessed over the network, *hostname* is the internet name of the font server machine, *port\_id* is the default port number, and *catalog* is the full path to the directory containing the fonts you want to use. Separate multiple paths with commas.

For example,

tcp/art:7000/usr/R5fonts/75dpi,tcp/art:7000/usr/R5fonts/100dpi

will allow access to the /usr/R5fonts/75dpi and /usr/R5fonts/100dpi directories through host port number 7000 on the art machine. Alternatively,

#### tcp/art2:7000

will allow access to all the font directories that are catalogued with the font server running on the art2 machine.

## **Font Manager**

New fonts are often distributed with application programs. To use them with MultiView/X, you will usually need to convert them into the format used by Microsoft Windows. Font Manager allows this conversion. Font Manager enables you to convert Bitmap Distribution Format (BDF) and Portable Compiled Format (PCF) font files into the FON format used by Microsoft Windows. BDF format files are text format fonts released for the X Window System. PCF format files are already-compiled fonts that can handle any server-specific byte order.

Both of these formats must be converted (recompiled) to FON format files for use by Microsoft Windows. Font Manager performs this conversion automatically by selecting BDF or PCF font files and converting them with the press of a button. Font Manager also provides tools that allow you to select, delete, and preview fonts easily. You can also manually edit the files that control the naming, association, and selection of fonts, if you wish.

### Launching Font Manager

Launch Font Manager by double-clicking the icon.

The top left and right panes function much like the MS Windows File Manager application. Both panes display directory structures and allow you to navigate within those directory structures. You may think of the left pane as the source drive and directory and think of the right pane as the destination drive and directory. The first time you start Font Manager, both panes will display the MultiView/X installation drive and directory. All network drives that are available through the File Manager are also available through the Font Manager.

The bottom left and right panes display the font files available in the current directory. Typically, you would point at a drive and directory containing BDF or PCF files using the top left window, then select the fonts you wish to convert from the lower left window. Select the destination directory using the top right pane and view the resulting conversion in the lower right pane.

### **Font Files**

Font file names include a root, consisting of a concatenation of meaningful abbreviations, plus an extension indicating the file format. In the following examples:

#### timb12.bdf timb12.pcf

tim stands for Times Roman, b designates bold, and 12 indicates the point size. The extensions indicate the file formats Bitmap Distribution Format and Portable Compiled Format.

While this naming convention is typically used, the actual file name can be anything and need not relate to any font specifications.

### Navigation

As noted, Font Manager opens with the contents of the MultiView/X installation directory displayed in both left and right panes. Open the specific font source directory by clicking on the folder as you would when using File Manager.

### Commands

The following commands are available as option buttons in the Font Manager dialog:

### **Convert**

Converts BDF or PCF format font files appearing in the lower left pane to FON format files that can be used by MultiView/X. Navigate through the left pane to locate BDF or PCF font files, then select the files you wish to convert by clicking on each. In the upper right pane,

open the directory in which the converted files should be placed. Click the Convert button to begin conversion.

The newly converted FON format files will be listed in the lower right pane. The Convert function automatically updates the FONTS.DIR file of the directory affected.

### Select All/Deselect All

Allows you to select or deselect all files in the lower left and right panes.

### <u>Delete</u>

This button becomes active whenever a FON format file is selected. You may delete one or several FON files at a time. Choosing Delete displays a message allowing you to confirm or cancel your operation. The Delete function automatically updates the FONTS.DIR file of the directory affected.

The following three commands are available under the Action pull down menu:

### Build FONTS.DIR

If you have manually added fonts from an outside source, you must use this command to update the FONTS.DIR file. If you have used Font Manager to convert fonts to FON format, you do not need to use this command, since Font Manager updates the FONTS.DIR file automatically.

### Edit Fonts Database

This menu command opens the dialog that allows you to create, edit, and delete font aliases in the font database. Font aliasing is described completely in the next section.

### Show Font

This command allows you to preview any FON font converted by the Font Manager. Select a desired FON font from the right pane and click on the Show Font menu item. The Show Font window will open, displaying all of the font glyphs (characters) for the selected font set in the correct size and style.

If the font glyphs are too large to be displayed within the window, scroll bars will be activated to allow you to view the entire font set.

The Show Font window includes the fonts X Logical Font Description (XLFD), located immediately below the title bar. The XLFD is the legally registered font name as listed in the FONTS.DIR file. Note that you can preview only one font at a time. Only fonts converted with Font Manager can be previewed using Show Font.

#### <u>Help</u>

Complete online help for all Font Manager operations is available by clicking on the Help button.

## **Font Aliases**

The font alias dialog allows you to specify aliases for fonts used by X programs. For example, suppose you are running an X program that uses a font named times by default for startup. To open the program with a font called timb24.fon instead, alias the timb24.fon font with the name times.

Select the font directory you wish to access using the upper right pane of the Font Editor main dialog. Enter the font alias dialog through the Edit Fonts Database menu command. You can show a font and add, edit, or delete an alias with this dialog. Simply select the font you wish to alias from the window name Font Files. The XLFD name is displayed in the right pane. Click on Add Alias and enter the alias in the new dialog, then click on OK. Similarly, if you select a font that already has an alias displayed in the XLFD/Alias Names window, you can click on the alias name and either edit or delete it.

## **Microsoft Windows Fonts**

All fonts used with MultiView/X can be installed in Microsoft Windows, making them available to all Microsoft Windows applications. Adding or removing Microsoft Windows fonts is accomplished through the Microsoft Windows Fonts utility.

To open the utility, click on the Control Panel icon in the Program Managers Main program group, then click on the Fonts icon. This opens the Microsoft Fonts dialog box from which you can add and remove fonts. For further details on this utility, refer to the Microsoft Windows Users Guide.

## **Automatic Font Substitution**

The unique Automatic Font Substitution (AFS<sup>m</sup>) feature allows the X server to match an X program font request with the most similar Microsoft Windows font available, if the requested font is not found. This ensures that all font requests are satisfied. Note that only Unix fonts (.FON) may be used.

To enable this feature set Match to Window Font on the MultiView/X Fonts dialog box, accessed by choosing Options - Configuration - Fonts from the Control Panel.