Using Frame Products on Multiple Platforms

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May 1995

FRAME

Important Notice

Using Frame Products on Multiple Platforms Contents

To get help on using this manual, <u>click here</u>.

To go to a section, click on a topic below.

Print Manual

Using Frame Products on Multiple Platforms

There are separate versions of FrameMaker® and FrameMaker+SGML™ for the UNIX, Windows, and Macintosh® platforms. This manual is primarily for those who use multiple versions of one of these Frame products and move documents among the versions. Some issues concern working on networks; other issues concern filename conventions on various platforms. Because working in mixed-platform environments often leads to working with different versions of a Frame® product (because users on one platform may upgrade before others do), this manual also covers using release 5 of FrameMaker with documents created with releases prior to 5.

The terms *version* and *release* can be confusing. This manual distinguishes them in this way.

Version   Refers to a Frame product running on a particular platform—the UNIX version as opposed to the Macintosh version, for example

Release   Refers to a revision of a Frame product, regardless of platform—the 5.0 release as opposed to the 4.0 release, for example

The main topics covered are:

Preparing for cross-platform compatibility

On the Macintosh, the main way to prepare for cross-platform compatibility is to choose Preferences from the File menu and specify either UNIX or Windows in the Cross-Platform

pop-up menu. In Windows, turn on the Preferences setting named Save FrameImage with Imported Graphics. You can also turn on file locking in Windows. UNIX versions automatically control graphics compatibility, but you will have to police filename compatibility yourself. The following table lists what the compatibility settings do.

Platform	Preferences setting	What the setting controls
Windows	Save FrameImage with Imported Graphics	Whether FrameImages are created for some files (see page 18)
	Network File Locking	Whether a lock file is created (see page 3)
Macintosh	Either UNIX or Windows from the Cross-Platform pop-up menu	Naming of generated files (page 7), lock files (page 3), autosave files, backup files, and recover files
		Whether a lock file is created (see page 3)
		Whether to alert you if a document you're opening has any referenced files in it whose names are illegal on UNIX or Windows (see page 5)
		Whether special characters in the Symbol font are preserved (see page 10)
	Save FrameImage with Imported Graphics	Whether FrameImages are created for some files (see page 18)
	Remember Missing Font Names	Whether the names of unavailable fonts are preserved so that the original font reappears when the file is opened on the original platform (see page 9)

Working on a network

If you work with different versions of a Frame product, it is probably because you work on a mixed-platform network. There are several things you should be aware of if you're using more than one version of Frame products on a network.

If you have a Windows version on your network, you should follow the Windows file-naming conventions—eight-character filename with a three-character extension—for template documents, site dictionary, and any other files that users will need. For more information, see "Windows filenames" on page 6.

Symbolic links created on UNIX platforms can cause problems in Windows and on the Macintosh. With a UNIX version, you can use a symbolic link to find a file to import by reference. But in Windows and on a Macintosh, the symbolic link might appear to the operating system as a file, not as a directory. If this happens, the referenced file can no longer be found. For network compatibility, don't use symbolic links in import paths on UNIX platforms.

Site dictionaries

All users on the network, whatever platform they use, can share a single site dictionary. The dictionary should reside on a server available to all users who need it.

In UNIX, edit the `Maker.siteDict` resource to point to the correct site dictionary (see the online manual *Changing Setup Files* for more information). In Windows, specify the site dictionary in `maker.ini` (for FrameMaker) or in `fmsgml.ini` (for FrameMaker+SGML). On the Macintosh, click Dictionaries in the Spelling checker window, choose Change Dictionary from the Site Dictionary pop-up menu, and identify the location of the site dictionary.

File locking

The UNIX version of FrameMaker always locks an open file to prevent changes to the file from being lost. It accomplishes file locking by creating a lock file.

If you use the Macintosh version and share files across a UNIX network, choose UNIX from the Cross-Platform pop-up menu in the Preferences dialog box. An alert box will then appear if a Macintosh user and a UNIX user both try to open the same document.

If you have a network of all Windows computers and want to share files, turn on Network File Locking in the Preferences dialog box or change the value under `[Preferences]` in `maker.ini` (for FrameMaker) or in `fmsgml.ini` (for FrameMaker+SGML). A lock file will then be created for a document when you open it, and an alert box will appear if another user tries to open the document.

To name a lock file, the Windows version removes the current extension and replaces it with `.lck`. In other versions, the `.lck` extension is added to the end of the entire filename. Because of this difference, network file locking between Windows and UNIX platforms is not possible. Network file locking is possible, however, between the Windows and Macintosh platforms if you choose Windows from the Cross-Platform pop-up menu in the Macintosh Preferences dialog box.

The following table summarizes file locking on the six combinations of platforms.

Platform combination	Locking method
UNIX-UNIX	Automatic file locking
UNIX-Windows	No file locking
UNIX-Macintosh	File locking only when the Macintosh Cross-Platform pop-up menu is set to UNIX
Windows-Windows	File locking only when the Network File Locking setting is on
Windows-Macintosh	File locking only when the Macintosh Cross-Platform pop-up menu is set to Windows
Macintosh-Macintosh	Automatic file locking (handled through the operating system; no lock file is needed)

Text translation errors

Different platforms have slightly different requirements and expectations for text-only files. FrameMaker can usually recognize text files that have been created on a different platform and interpret them correctly. Occasionally, FrameMaker might report that the file you're trying to open has been damaged due to a text translation error. The most likely cause of this error is one of these reasons.

- A FrameMaker document saved in regular format (a binary format) has been mistakenly "converted" to text format when it went through a network transfer from one platform to another.

- A Macintosh FrameMaker document was moved to another platform, where one of its supplementary files was deleted, and then returned to the Macintosh. Such a file might be mistaken as a text file. For more information, see <u>"Macintosh resource and data forks" on page 5</u>.

- A Macintosh FrameMaker document was moved to another platform, where the format of one of its files was modified, and then returned to the Macintosh. For more information, see <u>"Macintosh resource and data forks" on page 5</u>.

To avoid such problems, make sure your network transfer mode is binary, not ASCII, and never delete supplementary files created for Macintosh documents. Transferring the MIF version of a document also avoids text translation errors.

Working with filenames

Filename restrictions differ widely depending on what operating system your computer uses. The best strategy for cross-platform work is to use the shortest name possible (no more than eight characters plus a three character extension for files that will be used in Windows 3.1) and to avoid reserved characters in filenames, that is, those that have special meanings in some operating systems. For example, avoid filenames with colons, semicolons, slashes, backslashes, spaces, tabs, asterisks, question marks, greater-than or less-than signs, commas, dollar signs, percent signs, vertical bars, or initial periods.

Similarly, avoid using accented letters (for example, ü, ñ, or é) in filenames, even when using a localized version of a Frame product. On the Macintosh, avoid any symbol character accessible only by pressing the Option key (for example, • ° © ® ± » ≠ Ω ™).

If working in UNIX, do not differentiate filenames by case alone (for example, do not create two files like `MYfile.doc` and `myFILE.doc`). Although legal in UNIX, this will cause a file conflict in Windows and on a Macintosh system.

The following table illustrates the rules for portable filenames.

Nonportable filename	Problem	Fixed filename
`last?try.doc`	Uses reserved character	`last_try.doc`
`our_©.doc`	Uses special symbol	`copyrite.doc`
`first_quarter_results`	Filename too long for Windows	`1q_sales`
`UPdown.doc` `upDOWN.doc`	Uses capitalization as sole way to differentiate a file	`up-down.doc` `down-up.doc`

These restrictions also apply to graphic and text files imported by reference, files to which you create cross-references, and files in a book.

Referenced files with illegal names

On the Macintosh, if a document has references to graphic files or text files whose names are illegal on the Macintosh, the referenced names are changed automatically to legal ones. This is true even if the actual file is not present and cannot be located when you open the document. Illegal filenames are changed for graphic and text files imported by reference, files to which you create cross-references, and files in a book.

On the Macintosh, an illegal filename is one that contains a colon or exceeds 31 characters. These restrictions apply to both document names and folder names. For example, suppose you have a document in UNIX called `Chapt2` that has a graphic imported by reference whose filename is `Chapt2:Fig3`. If you open `Chapt2` on the Macintosh to work on the file, the Frame product will alert you that there is an illegal filename referenced in the file. If you click OK to continue opening the file, the referenced filename will be changed to `Chapt2-Fig3`.To avoid changing the referenced name, close the file without saving it. If you click Cancel, the document does not open and the referenced filename, `Chapt2:Fig3`, remains unchanged.

Opening documents in UNIX or Windows that reference files with illegal names usually does not change the filename. Even though the referenced file is not displayed and cannot be updated, the original name is usually retained so that the link can be restored when the document is returned to the original platform.

To avoid this issue, be sure all graphic and text files imported by reference, files to which you create cross-references, and files in a book conform to the naming conventions of the platforms they will be referenced on.

Macintosh resource and data forks

The Macintosh file system collects some of the file's data into code called the *data fork*, and leaves other, additional information in a *resource fork* and in the *file info* area. The data fork for a Frame document contains the actual file, and the resource fork and file info contain supplementary information such as the file type, file creator, print settings, and the preview image. When you move a document from a Macintosh to a Windows or UNIX platform,

some network software systems transfer the forks separately. For example, with some networking software packages on UNIX platforms, the resource fork and the file info are transferred as a discrete file that has the same filename as the data file but includes a percent sign (%) as a prefix (the AppleDouble format). If you plan to move the document back to the Macintosh, don't delete the supplementary files. A supplementary file will be moved back to the Macintosh with its document when you transfer the files. (Also, do not change the file format of the original file before bringing it back to the Macintosh. Doing this will cause text translation errors. For more information, see .)

If only the data fork is transferred back to the Macintosh when you transfer a file, the file may lose its Frame icon, may not immediately appear in the Open dialog box on the Macintosh, and may not have a preview image there. To make the file appear, turn on Show All Files in the Open dialog box. You can also open the file by dragging its document icon onto the Frame application icon. Once you reopen and save the file, the icon will return and it will reappear in the Open dialog box.

Windows filenames

Filenames in Windows 3.1 are limited to a maximum of eight characters plus a three-character extension (8.3). If the filename from another platform has more than 8.3 characters, the name is abbreviated to 8.3 characters in the Open dialog box and other file browsers for the Windows version.

Windows filenames are not case-sensitive. All filenames appear in FrameMaker dialog boxes in lowercase letters, even if uppercase letters were used in the name in another version.

Although Windows may change a filename for display (if the name is too long or uses uppercase letters), it does not change the name itself unless you save the document.

You cannot use spaces and some characters (such as asterisks and question marks) in Windows filenames. See your Windows or DOS documentation for a list of the characters that cannot be used.

Macintosh filenames

Filenames on the Macintosh cannot exceed 31 characters and cannot contain a colon (:). Filenames are not case-sensitive, but they can contain mixed capitalization. For cross-platform use, keep filenames to the 8.3 character limit, don't use any special characters available by using the Option key, do not begin a filename with a period, and avoid characters forbidden on other platforms.

UNIX filenames

Slashes (/) are not allowed in UNIX filenames. Also avoid using spaces, colons, semicolons, commas, asterisks, question marks, tabs, and dollar signs in filenames. Even though they're legal characters in UNIX filenames, these characters can cause problems when you try to copy or rename files.

Filename extensions for generated files

The Windows, Macintosh, and UNIX versions assign names for generated files such as indexes and tables of contents differently. For example, for a file named `myfile`, the UNIX version names a generated table of contents `myfileTOC.doc`. In the Windows version, the table of contents is named `myfile.TOC`. In the Macintosh version, the table of contents is named `myfileTOC`. If you generate a file from a document in one version, the other versions may not recognize it as a generated file.

If you use the Macintosh version, you can specify different naming conventions for generated files so that another version can recognize the files. To do so, choose UNIX or Windows from the Cross-Platform pop-up menu in the Preferences dialog box.

If you need to move generated files between versions that name generated files differently, generate the files from a book. All versions will then recognize the generated filenames. If you need to move the generated files between Windows and the other versions, use the Windows version to create the book and add the generated file to the book.

Filename extensions can differ across languages as well as across platforms. For example, the French versions of Frame products use TDM instead of TOC as the extension for a table of contents.

Acrobat filenames

When working with Frame documents to create Adobe Acrobat 2.0 files, you should observe the following naming rules if your files use cross-document Acrobat links.

- The PDF files you create must have the same names, except for the `.pdf` extension, as the original Frame documents. (In UNIX, you can simply use the filename that's offered by default in the Print Only to File text box.)

- If you intend your linked Acrobat files to be viewed on multiple platforms, the *original* Frame documents must have appropriate filenames for the target platforms. For example, the original Frame documents must conform to Windows naming conventions (8.3 characters) if it is necessary for the final Acrobat files to be usable with Acrobat Reader for Windows. They must conform to Windows conventions even if the original Frame files are on Macintosh or UNIX platforms. Simply renaming the final Acrobat files to conform to Windows will not work; the *original* cross-linked Frame documents must have Windows-compatible names.

Working with fonts

When you install a font in Windows or on a Macintosh computer, Frame products recognize the font when you start up. When you or your system administrator install a font for a UNIX version, you must edit the `fminit/fontdir/fontlist` file in the Frame product installation directory to make the font available to Frame products. Follow the font installation instructions in the online manual *Managing Frame Products*.

Fonts included with Frame products

The UNIX versions of Frame products include the 35 PostScript fonts found in most PostScript printers based on these font families: Avant Garde, Bookman, Courier, Helvetica, Helvetica Narrow, New Century Schoolbook, Palatino, Symbol, Times, Zapf Chancery, and Zapf Dingbats.

The Windows version of Frame products includes Adobe Type Manager with the LaserWriter 13 fonts (fonts based on the Courier, Helvetica, Times, and Symbol font families). The Macintosh versions include bitmaps. Additional fonts may be included in Windows and Macintosh system software (such as Arial TrueType in Windows and Geneva on the Macintosh). These fonts are not included on other platforms.

Windows fonts

The names of many fonts and font characteristics in Windows versions are different from those of equivalent fonts in other versions. Often the names differ because in Windows a variation such as Narrow is part of the font family, whereas on other platforms the variation is independent of the font family.

The Windows fonts have aliases that correspond to Frame font names in the `maker.ini` (for FrameMaker) or `fmsgml.ini` (for FrameMaker+SGML) file. Thus, font information appears in the Windows interface as it does in other versions of Frame products. For example, Helvetica-Narrow is normally a font family in Windows, but because of aliasing, Narrow appears in the Variation pop-up menu of the Character and Paragraph Designers.

Font aliasing also allows files to be moved easily between Windows and other platforms.

Some font aliases are already provided. You can add aliases for more fonts if you need them. For more information, see the online manual *Customizing Frame Products* for the Windows version.

Macintosh fonts

The Outline and Shadow styles in the Macintosh version aren't available in other versions. When you use another version to open a document that contains these properties, the characters appear as regular text. However, the document retains the outline and shadow information in case you open it later on a Macintosh.

Do not use QuickDraw GX or multiple master fonts if you plan on sharing your documents on other platforms.

For best cross-platform results, be sure you use the Courier font from Adobe, which is the one that Frame provides in the Fonts folder, and not the Courier font from Apple. Apple's version of this font uses a nonstandard character width, and it might not match the Courier font on other platforms.

Alternate math symbol fonts

If you open a document that uses an alternate math font on a computer that does not have that font available, the document reverts to using the default Symbol font. To avoid this font substitution, make sure the font exists on both computers or platforms.

Font choice

To minimize font substitution, use standard PostScript fonts that are available on all platforms. Don't use platform-specific fonts such as Chicago and Geneva on the Macintosh. TrueType fonts will not be recognized on a UNIX computer, although they transfer well between Macintosh and Windows platforms if they are identically named and have the same characteristics—same weight, same angle, and so on. Some line breaks, however, may be different.

Also, because of the differences in character shapes, the PostScript version of the Symbol font will look different from the TrueType version in equations. If you work with the Equations palette, Frame recommends removing the TrueType version and using the PostScript Symbol font instead.

To keep track of fonts on the Macintosh, choose Preferences from the File menu and turn on Remember Missing Font Names. This setting internally preserves the name of an unavailable font, even though another font has been substituted for it. When the file is reopened on a system where the font is present, it will again be used. When this setting is on, the original font name appears at the bottom of the Paragraph Designer default font window and at the bottom of the Character Designer window. If you use SuperATM on the Macintosh, turn on Substitution for Missing Fonts in the SuperATM control panel for best results.

If you are distributing a document online or on CD-ROM, either use fonts that you know your readers will have, such as the common PostScript fonts Times or Helvetica, or create an installation application to add the necessary fonts. If you choose to install fonts, be sure you have the rights to distribute the fonts in this manner.

If you are printing Encapsulated PostScript (EPS) graphics, be careful to follow the same font guidelines in the graphics as you do in the body of the document. For more information on using graphics, see <u>"Graphic file formats" on page 14</u>.

Working with character sets

The Frame character set is internally identical on all platforms. There are platform conventions, however, that make the character sets somewhat different.

Macintosh character set

The character fonts (such as Times and Helvetica) in the Macintosh version access a few characters (such as ≠, ∞, and ≤) that are available only in the Symbol font in the other versions. Although some of these characters may appear on the screen in the other versions, different characters or no characters may appear in print. If you share files between the Macintosh and other versions, choose a platform other than Macintosh from the Cross-Platform pop-up menu in the Macintosh Preferences dialog box. When you later save a document on the Macintosh, characters such as ≠ will be switched automatically to the Symbol font (and will be formatted with a Symbol character tag) so that they'll appear correctly on other platforms.

Windows character set

Microsoft Windows uses a character set that is different from the PostScript character set. For this reason, the Windows version of FrameMaker cannot display some characters that are present in the PostScript set: the fi and fl ligatures, the dotless *i*, and the breve, dot, and ogonek accents.

When you open a document in Windows that was created with another version or try to create one of these characters in the Windows version, you'll see an underscore in place of the unavailable character. However, the Windows version preserves the code of the original character. If you open the document in another version, the correct character reappears.

You can search for unavailable characters in your document by using the Find/Change window. To do so, type the backslash-x (hex code) sequence for a character in the Find text box. For example, to search for the fl ligature character, enter `\xdf` in the Find text box. Searching for hex codes using \x codes works only in the Windows version. The hex codes are listed in *Quick Reference* for the Windows version.

Windows fractions

The Windows character set contains characters for three fractions: 1/2, 1/4, and 3/4 (characters 0188, 0189, and 0190; hex codes \xb9, \xba, and \xbd). These characters do not appear in the UNIX or Macintosh text character sets. Windows documents using these characters will not display or print them correctly on the Macintosh or on UNIX versions.

To create a cross-platform fraction, use micropositioning or the Equations palette instead of Windows fractions.

Working with text files

When you save a FrameMaker document as a text file, special space characters such as em spaces and en spaces are treated differently on different platforms.

Because UNIX uses the ISO Latin character set by default, a document saved as text on a UNIX platform uses space characters for FrameMaker's numeric spaces and uses hex

codes for other special spaces. Nonbreaking spaces appear as `\x11`, thin spaces as `\x12`, en spaces as `\x13`, and em spaces as `\x14`. If you want all space characters to be saved as regular space characters in the text file, change the `Maker.textCharacterEncoding` resource to `ASCII`. For more information, see the online manual *Changing Setup Files*.

A document saved as text in Windows uses space characters for all the special spaces.

On the Macintosh, em, en, and thin spaces appear as regular spaces in a text file, but nonbreaking spaces and numeric spaces are converted to the Macintosh-specific nonbreaking space character.

Customizing FrameMaker

You customize Frame products in Windows and on UNIX platforms by editing setup files. In the Windows version, most setup information for FrameMaker is in the `maker.ini` file; setup information for FrameMaker+SGML is in `fmsgml.ini`. In UNIX versions, most setup information is in X Window System resource files. The Macintosh version doesn't have setup files. Instead, startup settings are stored in a preferences file in the System Folder. If you modify preference settings, line widths, spelling options, dictionary settings, or zoom values in the Macintosh or Windows version, the changes remain in effect until you change them again. You can delete the Macintosh preferences file to revert to the Frame defaults.

If you customize pen and fill patterns in one UNIX version and then open documents from that version with a second UNIX version, the patterns specified for the second version are substituted. Because you can't customize patterns in the Macintosh and Windows versions, those versions always substitute the default patterns shown on the Tools palette. If you later open the documents in the customized version, the customized patterns reappear in the document. Customized patterns in UNIX may not print as smoothly as the default patterns.

If you customize marker names in one version and then open documents from that version on another platform, the marker names specified for the second version are substituted. For example, if you change the Author marker name to Command in a UNIX version and then open documents from that version in Windows, the marker name appears in Windows as Author. But when you later open the documents in the UNIX version, the marker name appears again as Command.

Because you can't customize marker names in the Macintosh version, this version always substitutes the default marker names. But if you later open the documents in the customized version, the customized marker names reappear in the document.

Custom menus and commands

You can change the menus and commands for Frame products by creating a menu customization file. For information, see one of the following.

Platform	Online manual
UNIX	*Changing Setup Files*
Windows	*Customizing Frame Products*
Macintosh	*Customizing Frame Products*

You can create one menu customization file to be shared by several versions. However, there are some differences among the platforms.

- Each version interprets shortcuts differently.

  For example, UNIX versions interpret a tilde (~) in a menu customization file as the Meta key, the Windows version interprets it as the Alt key, and the Macintosh interprets it as the Option key. Also, the Macintosh interprets an asterisk (*) as the Command key, while the Windows and UNIX versions don't recognize an asterisk at all. All versions recognize shortcuts that use the Esc key, but only UNIX versions display these shortcuts on a menu, where Esc appears as an exclamation mark (!).

- Because the Macintosh version interprets an asterisk (*) as the Command key, you must precede it with a backslash (\) if you want it interpreted literally as an asterisk. Because the Windows and UNIX platforms don't use a Command key, they always interpret an asterisk as a literal character, whether or not it is preceded by a backslash.

  If you want to include an asterisk as a literal character (not as the Command key) in a menu customization file that will be shared between platforms, precede the asterisk with a backslash.

- The KeySequence keyword, used in creating keyboard shortcuts, accepts a different set of keysyms (abbreviations representing specific keys on the keyboard) on each platform. For best compatibility across platforms, use only keysyms that are common to all platforms: Up, Down, Left, Right, Home, End, Return, Tab, Delete, Escape, and F1 through F12.

Working with earlier releases

Working with documents on multiple platforms sometimes involves working with different releases of FrameMaker. The next sections discuss strategies for moving files saved in release 5 format to systems running earlier releases.

FrameMaker 4.x and 3.x documents

FrameMaker 4.x and 3.x cannot open documents saved in Normal format created with FrameMaker release 5. If you need to share a document saved in release 5 format with someone using FrameMaker 4.x or 3.x, save the document in Maker Interchange Format (MIF). When the MIF file is opened in FrameMaker 3.x or 4.x, the Console window reports

some errors but the file opens successfully. To reduce unexpected results, avoid formatting that is unique to FrameMaker release 5 (such as straddle heads or text runaround), since such formatting cannot be correctly interpreted in earlier releases. Also, micropositioning in equations will be lost when opening a release 5 document in an earlier release.

Book files

Book files generated in this release do not process documents that are saved in an earlier format. For example, if you try to print a book that contains a FrameMaker 4 document, the release 4 document will not be printed from the book window unless the document is already open and converted to a release 5 document format. In the same manner, you will not be able to generate a table of contents unless the release 4 document is open (and converted to release 5 format). However, you can still double-click the file's name to open it.

To process release 3 or 4 documents in book files, first convert them by opening and saving them with the current release.

Using keyboard shortcuts

Keyboard shortcuts vary from platform to platform because each platform uses different conventions and has different keys. Emacs Control-key shortcuts, which are UNIX-based, are rarely available in the Windows version because of conflicts with standard Windows keyboard mappings. For example, the Emacs-like shortcut Control-n in the UNIX versions of Frame products, which moves the insertion point to the next line, conflicts with the Control-n shortcut in Windows normally assigned to the New command from the File menu. Many Emacs shortcuts are available, however, in the Macintosh version of Frame products. (This is because the Macintosh Control key is not traditionally reserved for standard keystrokes.) Also, keyboard shortcuts sometimes vary across language versions because of different keyboard layouts.

Esc-key shortcuts, however, are available on all platforms. One exception is the small class of Esc-key shortcuts that govern windows like the Paragraph Designer. In Windows, such Esc-key shortcuts are not available.

For a list of the many keyboard shortcuts available, see online Help or the *Quick Reference* for your version.

Macros

In Windows or on a Macintosh system, you can create keyboard macros with a third-party utility such as Recorder or CE Software's QuicKeys. In the UNIX versions, you can create macros with the Keyboard Macros command. Because keyboard shortcuts differ from one platform to another, macros created for one UNIX platform may not work on another UNIX platform.

On the Macintosh, you can also create macros with AppleScript. For details, see the online manual *Using AppleScript with Frame Products*.

Using graphics

In most cases, graphics imported by reference display and print correctly when you move the file from one version to another. This section outlines a few differences you should be aware of.

When an imported graphic cannot be displayed, it appears as a gray box. This can happen for several reasons.

- The current platform does not support the graphic's format.
- The graphic has no preview image.
- You skipped the graphic when you opened the document.
- Your system doesn't have enough resources available to display the graphic.

When naming graphic files you expect to import by reference and use on multiple platforms, follow the appropriate naming conventions. For details, see .

Graphic file formats

The following tables list the graphic formats supported on various platforms and the type of support—either internal (that is, supported directly by FrameMaker) or by means of an installable filter. The first table lists vector (line art) formats; the second table lists bitmap (raster) formats; the third table lists mixed formats. All formats are for importing only.

Even if a format appears on these lists as supported, it will be unsupported if the necessary external filter is not installed. For example, CGM format, which is supported on all platforms, will be available only on computers that have installed the CGM filter that comes with Frame products. For this reason, Frame suggests that you install all filters.

For information on importing graphics, see "Importing Graphics" in the *Using FrameMaker* manual. For how to use a graphic format on an unsupported platform, see <u>"FrameImages, FrameVectors, and graphic facets" on page 18</u>. Also see the online manual *Using Frame Filters* for more information.

Vector graphic format	Platforms supported	How supported
CDR (CorelDraw) version 3	All platforms	Through filter
CGM (Computer Graphics Metafile) release 1 (ISO8632, ANSI X3.12201986)	All platforms	Through filter
DRW (Micrographx Draw)	All platforms	Through filter
DXF (AutoCAD Drawing Interchange Format) releases 10, 11, and 12	All platforms	Through filter
EPS, EPSF, EPSI (Encapsulated PostScript, Encapsulated PostScript Interchange)	Supported on all platforms. (EPS files contain PostScript code for printing the image to a PostScript printer and may contain a preview image for onscreen viewing. For details on preview images, see <u>page 17</u>.)	Internal
HPGL (Hewlett-Packard Graphics Language)	All platforms	Through filter
IGES (Initial Graphics Exchange Specification)	All platforms	Through filter
PICT, PICT2 (both raster and vector)	All platforms	Internal on the Macintosh; through filters elsewhere
PostScript, PS (special PostScript files imported as text into a text frame that is then defined as PostScript Code)	The image is printed correctly on all platforms. (See *Using FrameMaker* for details on how to print PostScript code as a graphic.)	Internal
WMF (Windows Metafile)	All platforms	Internal in Windows; through filters elsewhere
WPG (WordPerfect Graphics) both raster and vector	All platforms	Through filter

Bitmap graphic format	Platforms supported	How supported
BMP (DIB)	Windows only	Internal
DCS (Desktop Color Separation)	Printing DCS files is supported on all platforms. (The preview image is displayed if it is in a supported format.)	Internal
DIB (Device Independent Bitmap)	Windows only	Internal
GEM, IMG	All platforms	Through filter
GIF (Graphics Interchange Format)	All platforms	Internal
MacPaint	All platforms	Internal on Macintosh and in Windows; through filter in UNIX
PCX	All platforms	Internal
RGB-SGI (Silicon Graphics Inc. Red-Green-Blue)	UNIX only	Internal
Sun raster (1, 4, 8, and 24 bit)	All platforms	Internal
TIFF (Tag Image File Format) 1, 4, 8, 16, and 24 bit (level 5), and CMYK extensions (level 6)	All platforms	Internal
X11 xwd, X Window Dump	All platforms	Internal

Other graphic format	Platforms supported	How supported
OLE (Object Linking and Embedding)	Windows only	Internal
QuickTime	Macintosh only	Internal

Tips on choosing a graphic file format

Here are some tips to help you decide which graphic file format to use.

• Try to use a format directly supported on all the platforms you need. If the graphic needs to work on UNIX, Windows, and Macintosh, don't use BMP or RGB-SGI format. If this is not feasible, be sure to generate FrameImage or FrameVector facets so that your graphics will be portable to all platforms (see).

• If you're working solely on one platform, consider standardizing on the graphics format native to that platform (WMF in Windows, for example).

- There are many variations allowed in the TIFF and PCX formats. If you plan on using TIFF or PCX as a cross-platform standard, test extensively first. If you are working with color TIFF graphics, do a color-separation test.
- If disk space is an issue, consider the file formats supported on your platform that include compression, such as GIF, PCX, some TIFF formats, and some EPS formats. Avoid BMP, DCS, and uncompressed TIFF formats. If color is not important, gray-scaling the image will also reduce file size and improve printing time. Avoid creating extra graphic facets by turning off the FrameImage/FrameVector setting in the Preferences dialog box (see <u>"FrameImages, FrameVectors, and graphic facets" on page 18</u>).
- If the graphic is primarily for online viewing, choose a format that will look good on all your target platforms. Also avoid EPS formats, which use a lower-resolution bitmap for on-screen previewing, unless the target platform uses Display PostScript or unless you're creating files for processing in Acrobat Distiller.
- If you need to use special fonts in a graphic, don't use EPS unless you're sure the special fonts are available on all the necessary platforms.
- Consider using the built-in drawing tools to re-create simple imported graphics. These vector-based images are displayed and printed quickly, and they are fully supported on all platforms.

EPS files with preview images

EPS files usually contain some sort of preview image. The format of that image depends on where the EPS file was created, as the following table shows.

	Preview format supported				
Platform	**EPSI**	**PICT**	**TIFF**	**WMF**	**None**
UNIX	x				x [a]
Windows	x		x	x	
Macintosh	x	x	x		

a. An image appears only on computers equipped with Display PostScript.

The UNIX version cannot import an EPS file saved in Windows format with a WMF preview image. The easiest way to resolve this issue is to save the Windows EPS file without a preview image or header, or as an EPSI file. If this is not possible or convenient, UNIX users can modify the EPS graphic to remove the incompatible code. To do this, open the EPS file in a text editor and delete all lines prior to `%!PS-Adobe`. Then search for `%%EOF` and remove all lines of code following this line. Save the file as text. The modified EPS graphic appears as a gray box in your document (unless your computer is equipped with Display PostScript), but it is printed correctly to a PostScript printer.

EPSI files, which contain a preview image embedded in the comments of the header of the file, can be imported and their previews displayed on all platforms.

FrameImages, FrameVectors, and graphic facets

Because an imaged graphic can use more than one format, graphics in Frame products are said to be made up of *facets*.

As the tables in "Graphic file formats" on page 14 show, not every graphic format is directly supported on all platforms. To ensure that a graphic of any supported format appears and is printed correctly on other platforms, Frame products use two special, supplementary graphic formats—FrameImage facets and FrameVector facets. These two formats are supported universally.

The FrameImage and FrameVector facets are usually substituted automatically at import time for copied-in graphics, as needed, for cross-platform compatibility. The FrameImage facet is used for bitmap (raster) graphic formats, and the FrameVector facet is used for vector (line art) formats.

The mechanism that FrameMaker uses to create and save FrameImages and FrameVectors can be complex and depends on several factors.

- What platform the document is on
- Whether the image was imported by reference or by copying
- The graphic format being imported
- What external filters are installed on the current computer
- Whether the Save FrameImage with Imported Graphics is on or off in the Preferences dialog box (Windows or Macintosh only)

Ordinarily, a user does not need to track or worry about when or why a FrameImage or FrameVector is created, added, or substituted for the original facet. To see what facets make up an imported graphic, select the graphic and choose Object Properties from the Graphics menu.

Here are some tips to achieve best results.

- Install all available filters on all platforms.
- Do not turn on the Save FrameImage with Imported Graphics setting in the Preferences dialog box (Windows or Macintosh only) *unless* the primary use will be online viewing (but not printing) across platforms.
- Import by reference if you want to keep file sizes small (no extra facets are saved with graphics imported by reference).
- When the available facets are not supported, the image will appear as a gray box. If this happens, reinstall a full set of filters on the current computer or go back to the computer that created the file and resave with the Save FrameImage with Imported Graphics setting on.
- When a cross-platform facet is not available, FrameMaker will try to use the same filter it used originally to render the graphic. If this is not possible and when the image was imported by reference, you will see an alert explaining what filter was unavailable and

what substitute filter, if any, will be used. To avoid these alerts and minimize substitution, import by copying and install all filters when installing a Frame product.

Graphic insets

A graphic *inset* is a special type of embedded graphic linked to an external application called an inset editor. Graphic insets are supported in UNIX versions only. Even though the Windows and Macintosh versions do not support graphic insets, they can display and print the graphic's preview information, if present, as long as the preview image is in a supported format.

Publish and Subscribe

The Macintosh version supports Publish and Subscribe. If you open a document containing a publisher in the UNIX or Windows version, you can edit the publisher but its editions on the Macintosh will not be updated automatically. If you open a document containing a subscriber in the UNIX or Windows version, you can cut, copy, and paste the subscriber, but you can't update its contents.

To ensure that you can display and print a graphics subscriber in the UNIX and Windows versions, choose a platform other than Macintosh in the Cross-Platform pop-up menu in the Macintosh Preferences dialog box before you save the file.

Importing text by reference offers functionality similar to Publish and Subscribe. Here is some advice on choosing between the two.

- Use Publish and Subscribe if you edit only with a Macintosh, especially if you want to share editions with other applications that support Publish and Subscribe or if you need to import portions of files rather than whole files.

- Use import by reference if you edit your document on multiple platforms. (Import by reference lets you edit and update the imported text. Publish and Subscribe does not let you update on platforms other than the Macintosh.)

Using and creating non-Frame files

To use a file created with another application in a Frame product, choose the Open command or the Import>File command from the File menu. To create a non-Frame file from a Frame document, choose Save As from the File menu and pick a format from the pop-up menu.

The number of formats you can use depends on which filters you selected during installation and on which platform you are working. Not all formats have filters on all platforms, as the

following tables show. On the Macintosh, additional formats might be available if you are using the XTND technology.

Document format for import	Platform supported
ASCII (text)	All platforms
DCA/RFT, DisplayWrite 5	UNIX only
Interleaf Publisher 5 and 6	UNIX only
MIF (Maker Interchange Format)	All platforms
MML (Maker Markup Language)	All platforms
RTF (Rich Text Format)	All platforms
troff	UNIX only
Ventura Publisher 3.0 and 4.0	Windows only
Word, all versions for Windows and the Macintosh	All platforms
WordPerfect for DOS or Windows 5.1 and 6.0	All platforms

Document format for export	Platform supported
ASCII (text)	All platforms
Interleaf Publisher, IAF (Interleaf ASCII Format) 6.4	UNIX only
MIF (Maker Interchange Format)	All platforms
PDF (Portable Document Format, Acrobat)	Various PDF features are supported on all platforms when you print to a PostScript file and then use Acrobat Distiller
RTF (Rich Text Format)	All platforms
Windows Help	No direct support; various Windows Help features are supported through the RTF export filter (see the online manual *Using Frame Filters)*
WordPerfect 5.1	UNIX only

To move a Frame document to or from a format not supported on a platform, use an intermediate format. For example, to export a Frame document to WordPerfect format in Windows, export it first to RTF, then open the RTF file in WordPerfect.

Printing

Regardless of platform, a Frame file always looks the same when printed. Nonetheless, there are some small differences among platform versions when printing.

Colors and color separations

In the Windows and Macintosh versions, you use a dialog box to specify whether to print colors as gray scale or as black. On UNIX platforms, you edit the `ps_prolog` file to print colors as black and white instead of gray scale on a black-and-white printer. For more information, see the online manual *Changing Setup Files* for UNIX versions.

The Macintosh version supports separating tinted and overprint EPSF spot colors (such as Adobe Illustrator custom colors at less than 100%). The UNIX and Windows versions support only 100% spot colors without overprinting in EPSF files.

Font download

The Windows and Macintosh versions support automatic downloading of fonts to PostScript printers. UNIX versions require all fonts to reside on the printer's ROM or hard disk, or to be downloaded manually or by the print spooler.

Print settings

The Windows version has settings that apply to specific printers. For details on printing in Windows, see the online manual *Release Notes*.

The Macintosh version supports the Apple LaserWriter 8.x and Adobe PSPrinter 8.x printer drivers, which use PostScript Printer Description (PPD) files to support printer-specific features such as halftone screening and arbitrary paper sizes.

In the Macintosh version, the Print dialog box doesn't include the Low-Resolution Images print setting. In Windows, this setting results in graphic images printing as gray boxes; in UNIX, it results in images printing with less detail.

Some printer preferences stored by the Macintosh version are ignored by other versions. These include the Invert Image, Flip Horizontal, and Flip Vertical preferences. The preferences can differ among the various Macintosh printer drivers.

The Macintosh version supports all combinations of the print dialog settings, but some combinations are not allowed on other platforms. For example, thumbnails with registration marks are not allowed in UNIX versions.

Also, the Last Sheet First option is an application setting in the Macintosh version. In the Windows (and UNIX) versions, it is a document setting.

PostScript files

Because of platform differences, PostScript files generated by Macintosh, Windows, and UNIX versions are different. Nonetheless, all three have been thoroughly tested and have been certified to work in a variety of desktop and high-end prepress environments.

To keep differences to a minimum, Frame recommends that you use the latest Apple LaserWriter or Adobe PSPrinter driver on the Macintosh. Newer versions generate PostScript that conforms more closely to the Adobe Document Structuring Conventions. For best results in Windows, open the Printers Control Panel and click Setup, then click Options, and then click Advanced. Finally, in the Advanced Options dialog box, turn on Conform to Adobe Document Structuring Convention and click OK.

Here are some differences in PostScript files generated on various platforms.

- Only the Macintosh version supports PostScript Printer Description (PPD) files to obtain printer-specific information. UNIX has a built-in table of common settings for various printer resolutions. Windows uses a dialog box to set screen angles, frequencies, and so forth.

- Windows and the Macintosh support automatic downloading of fonts that are not resident in the printer. UNIX does not.

- Only Unix supports the `(atend)` EPSF file comment convention—for example, `%%BoundingBox: (atend)`.

Creating view-only documents

A view-only document looks the same on all supported platforms when opened in a Frame product. There are some platform-related issues to consider, however, when creating view-only or hypertext documents.

Alert boxes

The hypertext command `alerttitle` lets you specify the text to use in the title bar of an alert. Because alerts on the Macintosh do not have title bars, the alert title does not appear on that platform.

Titles in pop-up menus

When you create a pop-up menu, the first line of text you enter is the title for the pop-up menu. The Windows and Macintosh versions ignore this text and do not display a menu title. UNIX versions use this text to show a menu title.

Zoom percentages

Because of imaging differences among the platforms, the zoom percentage saved with a document might appear different from platform to platform. For example, a document saved at a zoom percentage of 100% on a UNIX version of FrameMaker might look bigger when

opened in Windows. If you're creating a view-only document on one platform meant to be viewed on another, be sure to save it at a percentage that's best for the viewing platform.

Hypertext pathnames

The only cross-platform hypertext links that are fully supported are those that use UNIX naming conventions—that is, using slashes (/) to separate directories or folders—and that do not contain spaces. Be sure to follow the other guidelines on cross-platform names in <u>"Working with filenames" on page 4</u>.

If you are working solely on the Macintosh, you can use spaces in filenames and pathnames, but such hypertext links will not be cross-platform compatible. If you are working solely in Windows, you still should use UNIX-style pathnames for best results.

Absolute pathnames (those that start at the root or drive designation) are by nature not cross-platform compatible. Use relative pathnames whenever possible.

Relative pathnames start with a period or a double period, signifying the current directory or the directory above the current one, respectively. The syntax for relative pathnames is the same on all platforms.

If you use absolute pathnames, be aware that the syntax is different on the different platforms. In UNIX, an absolute pathname must start with a slash and then the root directory. In Windows, an absolute pathname must start with a drive letter and colon (for example, `d:`). On the Macintosh, it starts with a slash and then the drive name.

The following examples illustrate the differences in absolute pathnames. For more information, see the *Using FrameMaker* chapter on hypertext and view-only documents.

Platform	Absolute pathname
UNIX	`gotolink /mybook/chapts/ch5:firstpage`
Windows	`gotolink d:/mybook/chapts/ch5:firstpage`
Macintosh	`gotolink /MyDiskDrive/mybook/chapts/ch5:firstpage`