Adobe FrameMaker 7.0

Japanese Publishing with Adobe FrameMaker 7.0

Overview

Japanese users as well as multinational business users can take full advantage of the sophisticated Japanese publishing features in Adobe® FrameMaker® 7.0 software. The ability to define “combined” fonts of western and Japanese characters in the same document, integrated Japanese menus and messages, and composition rules are just a few features in FrameMaker 7.0. Targeted for Japanese authors and workgroups who need to create business-critical documents—such as product documentation, engineering specifications, work instructions, catalogs, manuals, and policies and procedures—FrameMaker is both flexible and powerful.

FrameMaker users, such as multinational companies needing to exchange information with their business partners in Japan, do not have to purchase a special Japanese version of FrameMaker. Users can access the Japanese features of FrameMaker 7.0 with a familiar user interface as long as a Japanese operating system is installed. Documents created in these western operating system environments can be directly opened and edited in the Japanese environment, and then printed, distributed, and translated.

Understanding the Japanese written language

With a vocabulary and sentence structure all its own, the Japanese language reflects the entire Japanese way of thinking. In a word, it is unique.

Japanese characters

Traditionally, Japanese is written vertically starting in the upper-right-hand corner. Japanese can also be written horizontally and from left to right. A growing number of publications follow the left-to-right, top-to-bottom western style. This is particularly true for professional publications.

Japanese character systems

The Japanese script is a mixture of three different systems called kanji, hiragana, and katakana. Hiragana and katakana are known collectively as “kana.”

Kanji, adopted from the Chinese, consists of the basic ideograms or characters, each representing one word. To date, there are more than 8000 kanji characters that constitute more than 300,000 words.

Hiragana characters are used for words of Japanese origin. Hiragana characters are often used for particles (such as to, at, and other prepositions) that designate subject or object and for endings or words spelled in kanji.

Katakana, a more squared-off character set, duplicates the same set of sounds that exist for hiragana, but katakana is often used for writing English and other foreign words and names—similar to a shorthand system.
Sample kanji

<table>
<thead>
<tr>
<th>mountain (yama)</th>
<th>river (kawa)</th>
<th>water (mizu)</th>
<th>fire (hi)</th>
</tr>
</thead>
<tbody>
<tr>
<td>山</td>
<td>川</td>
<td>水</td>
<td>火</td>
</tr>
<tr>
<td>sun (taiyou)</td>
<td>moon (tsuki)</td>
<td>star (hoshi)</td>
<td>earth (daichi)</td>
</tr>
<tr>
<td>太陽</td>
<td>月</td>
<td>星</td>
<td>大地</td>
</tr>
</tbody>
</table>

Sample hiragana

<table>
<thead>
<tr>
<th>a あ</th>
<th>ka か</th>
<th>sa さ</th>
<th>ta た</th>
<th>na な</th>
<th>ha は</th>
<th>ma ま</th>
<th>ya や</th>
<th>ra ら</th>
<th>wa わ</th>
</tr>
</thead>
<tbody>
<tr>
<td>i い</td>
<td>ki き</td>
<td>shi し</td>
<td>chi ち</td>
<td>ni に</td>
<td>hi ひ</td>
<td>mi み</td>
<td>ri り</td>
<td></td>
<td></td>
</tr>
<tr>
<td>u う</td>
<td>ku く</td>
<td>su す</td>
<td>tsu つ</td>
<td>nu ぬ</td>
<td>fu ふ</td>
<td>mu む</td>
<td>yu ゆ</td>
<td>ru る</td>
<td></td>
</tr>
<tr>
<td>e え</td>
<td>ke け</td>
<td>se せ</td>
<td>te て</td>
<td>ne ね</td>
<td>he へ</td>
<td>me め</td>
<td>re れ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>o お</td>
<td>ko こ</td>
<td>so そ</td>
<td>to と</td>
<td>no の</td>
<td>ho ほ</td>
<td>mo も</td>
<td>yo よ</td>
<td>ro ろ</td>
<td>(w)お を</td>
</tr>
</tbody>
</table>

Sample katakana

<table>
<thead>
<tr>
<th>a ア</th>
<th>ka カ</th>
<th>sa サ</th>
<th>ta タ</th>
<th>na ナ</th>
<th>ha ハ</th>
<th>ma マ</th>
<th>ya ヤ</th>
<th>ra ラ</th>
<th>wa ワ</th>
</tr>
</thead>
<tbody>
<tr>
<td>i イ</td>
<td>ki キ</td>
<td>shi シ</td>
<td>chi チ</td>
<td>ni ニ</td>
<td>hi ヒ</td>
<td>mi ミ</td>
<td>ri リ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>u ウ</td>
<td>ku ク</td>
<td>su ス</td>
<td>tsu ス</td>
<td>nu ヌ</td>
<td>fu フ</td>
<td>mu ム</td>
<td>yu ユ</td>
<td>ru ル</td>
<td></td>
</tr>
<tr>
<td>e エ</td>
<td>ke ケ</td>
<td>se セ</td>
<td>te テ</td>
<td>ne ネ</td>
<td>he ヘ</td>
<td>me メ</td>
<td>re レ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>o オ</td>
<td>ko コ</td>
<td>so ソ</td>
<td>to 托</td>
<td>no ノ</td>
<td>ho ホ</td>
<td>mo モ</td>
<td>yo ヨ</td>
<td>ro ロ</td>
<td>(w)オ を</td>
</tr>
</tbody>
</table>

Sample Japanese text

A typical Japanese newspaper consists of approximately 70 percent kanji, 20 percent hiragana, and 10 percent katakana. Consider the following sentence:

Japanese: 私は、このコンピュータを使います。

Pronunciation: watashi wa kono konpyu-ta wo tsukaimasu

English: I will use this computer.

Note: The Japanese word konpyuta is adopted from the English word computer.
Japanese text input

Front-end processor
The most widely used method for entering Japanese characters is via built-in or third-party software that allows text to be entered by typing the word phonetically at the keyboard (usually using Roman letters). The user then searches via the software for the proper kanji character because many characters have the same pronunciation.

This input software is called a front-end processor (FEP) or, sometimes, an input method editor (IME).

User types in: FEP shows:
fu ふ (hiragana)
ji じ (hiragana)
<space bar> to convert into kanji
富士  富士  富士  富士

most common kanji (the Fuji mountain)

Japanese double-byte character sets
Because there are so many Japanese characters, it is impossible to represent them all with a single 7-bit or 8-bit data type. The Japan Industrial Standard (JIS) Committee (the Japanese equivalent of ANSI) has established a standard character set, known as JIS X208, that determines the characters to be defined and the code to be assigned to the characters. There are at least three distinct encodings for JIS X208:

JIS  Operates in a 7-bit environment and supports single-byte ASCII as well as two-byte Japanese characters by using special character sequences that begin with the “escape” (ESC) character.
Shift-JIS  Operates in an 8-bit environment and is the native Japanese encoding on Windows® and Mac OS platforms.
EUC (Extended Unix Code)  Operates in an 8-bit environment and is widely used on UNIX® platforms.

Shift-JIS versus Unicode
Unicode is a fixed-width, 16-bit character set that covers most of the world’s written languages that are in current or expected use in computers. Since type families are generally designed and limited to a particular writing system, a software program still needs type family, language, and formatting information. FrameMaker 7.0 uses Shift-JIS as its internal encoding system for Japanese so users can take advantage of large and growing font sets as well as the tools that extend and manipulate fonts.

Using FrameMaker 7.0 for Japanese publishing
FrameMaker 7.0 includes the ability to create Japanese language documents—all you need is a Japanese operating system to input and display Japanese text. In the Mac OS environment, users can add Japanese capabilities to a western operating system.

Japanese character support and fonts
FrameMaker 7.0 software supports the most popular Japanese text encodings (JIS, Shift-JIS, and EUC) so that workgroup users can exchange text files on various platforms with different formats. FrameMaker also supports Enhanced Type 1 fonts as well as TrueType fonts on Windows and Mac OS platforms.
Inline input
FrameMaker 7.0 supports in-line or on-the-spot input, which allows users to directly type Japanese characters in a WYSIWYG environment instead of creating text in a separate window and placing it on the page. Users can use any compatible FEP or IME of their choice.

Rubi
Rubi characters are very small characters that appear above other characters. Rubi characters annotate characters by indicating their pronunciation or by augmenting their meanings. FrameMaker 7.0 provides precise typographical control of rubi characters and supports in-line input (see the example that follows), which very few applications offer.

Combined fonts
It is common in technical documentation to mix Japanese and western characters in the same Japanese document. For example, western characters are used for product names, numbers, and the names of people.
FrameMaker 7.0 software allows users to create custom “combined” fonts. When a combined font is used, western characters are displayed using the western fonts, and Japanese characters are displayed using Japanese fonts. This allows users to include both Japanese and western fonts in a line of text, retaining a consistent look as well as the proper proportions for both fonts.

**Line breaking and hyphenation (composition rules)**

FrameMaker 7.0 complies with Japanese publishing standards by supporting Kumihan (Japanese composition) rules for line breaking and hyphenating text. FrameMaker also allows fine-grain customization of these rules to conform to corporate typographic standards.

**Variables**

FrameMaker 7.0 supports both Japanese and western country-specific notations of dates, including the use of native Japanese imperial and kanji dates and pages in documents. (Note: 年 is the year unit, 月 is the month unit, and 日 is the day unit. 時 is the hour unit, 分 is the minute unit, and 秒 is the second unit.)

For example, the expression of dates in the United States and Japan could be written as:

United States   Sunday, April 2, 1995, 10:10:10 p.m.

Japan           平成7年4月2日（日）午後10時10分10秒
**Autonumbering**

FrameMaker 7.0 software includes 10 types of Japanese autonumbering. This feature adds automatic Japanese numbering for volumes, chapters, paragraphs, footnotes, and pages, letting users easily create and maintain numbering for headings, sections, illustrations, tables, figures, and footnotes.

**Autonumber building blocks**

<table>
<thead>
<tr>
<th>Type</th>
<th>Example</th>
<th>Characters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zenkaku lower case alphabetic</td>
<td>&lt;zenkaku a&gt;</td>
<td>a, b, c, d, e, f, g, h, i, j</td>
</tr>
<tr>
<td>Zenkaku upper case alphabetic</td>
<td>&lt;zenkaku A&gt;</td>
<td>A, B, C, D, E, F, G, H, I, J</td>
</tr>
<tr>
<td>Zenkaku numeric</td>
<td>&lt;zenkaku n&gt;</td>
<td>0, 1, 2, 3, 4, 5, 6, 7, 8, 9</td>
</tr>
<tr>
<td>Kanji numeric 1</td>
<td>&lt;kanji&gt;</td>
<td>〇, 一, 二, 三, 四, 五, 六, 七, 八, 九</td>
</tr>
<tr>
<td>Kanji numeric 2</td>
<td>&lt;kanji kazu&gt;</td>
<td>〇, 一, 二, 三, 四, 五, 六, 七, 八, 九</td>
</tr>
<tr>
<td>Old-style kanji numeric</td>
<td>&lt;daiji&gt;</td>
<td>〇, 壹, 貳, 參, 四, 伍, 六, 七, 八, 九</td>
</tr>
<tr>
<td>Hiragana gojuon (alphabet)</td>
<td>&lt;hira gojuon&gt;</td>
<td>あ, い, う, え, お, か, き, く, け, こ</td>
</tr>
<tr>
<td>Hiragana iroha (old-style order of hiragana alphabet)</td>
<td>&lt;hira iroha&gt;</td>
<td>い, ろ, は, に, ほ, へ, と, ち, り, ぬ</td>
</tr>
<tr>
<td>Katakana gojuon (alphabet)</td>
<td>&lt;kata gojuon&gt;</td>
<td>ア, イ, ウ, エ, オ, カ, キ, ク, ケ, コ</td>
</tr>
<tr>
<td>Katakana iroha (old-style order of katakana alphabet)</td>
<td>&lt;kata iroha&gt;</td>
<td>イ, ロ, ハ, ニ, ホ, ヘ, ト, チ, リ, ヌ</td>
</tr>
</tbody>
</table>

It may appear that three Zenkaku numbering styles are identical to several of the existing paragraph numbering options available in western-language versions of FrameMaker today. But these styles are indeed different: They are fixed width, while the western text equivalents are not fixed width so will not suit the needs of users who are manipulating Japanese text.

**Index sorting**

For Japanese text, kana and kanji characters are sorted by “yomi-gana,” which means pronunciation. The rest of the characters that are symbol characters are usually sorted by code value. The typical sorting order is symbols, numerics, Roman alphabetical, kana characters, Japanese symbol characters, and kanji characters.

FrameMaker 7.0 provides the ability to sort Japanese and western characters to automatically and simply produce indexes.
Color libraries
FrameMaker 7.0 software includes DIC Color Guide for spot colors, and Toyo™ Color Finder with more than 1,000 colors based on the most common printing inks in Japan. In addition, Tombo crop marks are available when printing for proper registration.

Index sorting
For Japanese text, kana and kanji characters are sorted by “yomi-kana,” which means pronunciation. FrameMaker automatically recognizes the pronunciation of kana and sorts them correctly. For kanji, a user needs to provide pronunciation using kana in Marker dialog, so that kanji characters are sorted correctly by pronunciation.

The typical sorting order is as follows: symbols, numerics, Roman alphabetical, kana characters, Japanese symbol characters, and kanji characters.

Electronic publishing
FrameMaker 7.0 software provides powerful electronic publishing options. The Japanese version of Adobe Acrobat® 5.0 software is tightly integrated into FrameMaker 7.0 for Windows and Mac OS, allowing customers to output directly to Japanese Portable Document Format (PDF) in one step.

FrameMaker 7.0 also supports output to HTML and XML with contents written in Japanese.

FrameMaker 7.0 key features

Word processing
• Use preset styles, or define and store your own.
• Highlight revisions with change bars, and compare differences between documents with detailed reports.
• Check spelling and hyphenation for 17 western languages with a 130,000-word dictionary, and find just the right word with a built-in thesaurus.
• Import text from a variety of word processing applications, including the English and Japanese versions of Microsoft Word and the English version of WordPerfect®.
• Drag and drop objects, text, and graphics from your desktop directly into a FrameMaker document (Windows and Mac OS).
• Number pages, paragraphs, and figures automatically.

Layout
• Choose from more than 30 document templates or design your own.
• Easily create paragraph styles for side heads and run-in heads.
• Precisely control typography with font stretch controls.
• Import custom page layouts and colors.
• Create double-sided documents.
• Automatically flow your text around graphics.
• Combine portrait and landscape pages in one document.
• Straddle headlines, tables, graphics, and footnotes in a multiple-column layout.
• Automatically reformat existing pages by changing the master page.

**Graphics and color**
• Manipulate graphics objects with grouping, alignment, layering, and distribution tools.
• Create custom colors from a variety of color libraries: Crayon, DIC Color Guide Spot, Focoltone®, Greys, Munsell® Book of Color, Munsell High Chroma Colors, PANTONE® ProSim EURO, PANTONE Coated, PANTONE Process CSG, PANTONE Process Euro, PANTONE ProSim, PANTONE Uncoated, Toyo, and Trumatch® 4-Color Selector.
• Use the tinting feature to create more colors without increasing printing costs.
• Create layered colors that overprint automatically.
• In FrameMaker for Mac OS, gain enhanced trapping capability and color control with support for TrapWise® software.
• With support for PressWise® software in FrameMaker for Mac OS, position objects and automate the printing process.
• Make OPI 1.3 software part of your prepress workflow with FrameMaker for Mac OS.
• Draw rectangles, polygons, ellipses, and Bézier curves.
• Set the image resolution on imported graphics to the optimal DPI for printing or on-screen delivery.
• Work with the highest-quality type—FrameMaker includes Adobe Type Manager® rasterizer software and supports Adobe Type 1 and multiple master fonts.

**Long documents and book building**
• Automatically maintain numbering for headings, sections, steps, illustrations, tables, figures, footnotes, and equations.
• Automatically maintain cross-references within and between files.
• Use conditional text to create and store several versions of a document in a single file.
• Apply condition tags to text, graphics, and table rows.
• Automatically generate tables of contents, indexes, and lists that serve as hypertext links for HTML and PDF.

**Tables**
• Use the sophisticated table editor to create complex tables.
• Straddle table cells, apply periodic and custom cell shading and ruling, and create multipage tables.
• Export FrameMaker tables to other applications.
• Sort table data alphabetically and numerically, and by rows or columns.

**Integration**
• Easily access commands specific to text, tables, equations, and anchored frames, with context-sensitive menus.
• Share FrameMaker files across Windows, Mac OS, and UNIX platforms.
• Expand FrameMaker functionality and link to other applications with an open, C-based Application Programming Interface (API).
• Customize the user interface.
• Include text and graphics imported by reference.
• OLE 2.0 support for Windows.

Electronic distribution
• Automatically convert FrameMaker files to HTML for publishing on the World Wide Web.
• Save FrameMaker files—even books—complete with bookmarks, article threads, and hypertext links, to PDF in one step, using Adobe Acrobat Distiller® software (Windows and Mac OS) or an internal distillation process (UNIX). (Acrobat Distiller is included with FrameMaker 7.0 software, except on Japanese UNIX workstations.)
• Automatically insert hypertext links within and among documents for efficient on-screen navigation.
• Distribute FrameMaker documents online using a WebDAV server (Windows and Mac OS).

International support
• Designate language dictionary at the character level to be used in multilingual documents.
• Check spelling and hyphenation in multilingual documents with 17 language-specific dictionaries: Brazilian Portuguese, Canadian French, Catalan, Danish, Dutch, English, Finnish, French, German, Italian, Norwegian, Nynorsk, Portuguese, Spanish, Swedish, Swiss German, and U.K. English.
• User interfaces are available for international English, French, German, and Japanese.
• All language versions of FrameMaker now support Japanese technical publishing with in-line input, rubi, Japanese composition rules, mixed Japanese and western text, and Japanese numbering options for paragraphs, page numbers, and footnotes when running on a Japanese operating system.

Japanese system requirements
For system requirements, please see the Adobe Web site at www.adobe.co.jp/products/framemaker/systemreqs.html.

Availability and pricing
Adobe FrameMaker 7.0 products with the Japanese user interface are sold in the United States through AsiaSoft, Inc. Contact AsiaSoft (800-992-9894) for pricing and availability.

International English language versions of FrameMaker 7.0 products are available from the Adobe direct sales force and selected resellers worldwide. For more information, customers in the United States and Canada can contact Adobe Systems at 800-843-7263. Outside the United States and Canada, contact your local distributor. You can also check the Adobe web site at www.adobe.com.