

## FrameMaker 3.01 for the Apple Macintosh

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FrameMaker 3.01 (Frame Technology Corp., San Jose, CA) is advertised as a "document preparation" package, and a brief survey of the features of this multiplatform program would convince the neophyte that this is not a program for the casual user. Common with "full-featured" word processors, FrameMaker provides a spelling dictionary, hyphenation, and stylesheets. Additionally, FrameMaker includes an equation editor, a rudimentary graphics module for drawing figures and a table construction tool. While this list of features does not sound atypical in this age of bloated word processors, it is noteworthy that the previous major release of FrameMaker had all of these features except for the table construction facility. Yet the popularity of FrameMaker among technical publishers is based on more than word processing features. In short FrameMaker is oriented toward the design and production of books, technical manuals, and other complex documents that require a consistency of style and a mix of graphics, text, and equations or other scientific or mathematical notation. Given the power of this program, one would expect that the learning curve would be steep, and hence Frame Technology Corp. has not achieved a broad market penetration except in those organizations that require production of complex business and technical documents.

For this review FrameMaker was installed on both a Macintosh II (System 7.0.1) and a Powerbook Duo 230 (System 7.1). The application and supporting files were provided on nine disks, and the installation procedure was documented adequately. No difficulties were encountered in either installation. Installation required ca. 7 MB of disk space, which included learning files, examples, clip art, and templates. FrameMaker 3.01 requires Macintosh System software 6.02 or higher, and the default application memory requirement is nominally 2 MB; however this allocation resulted in random system crashes. Increasing the application memory allotment to 2.5 MB corrected this problem. A "minimal" configuration of FrameMaker (the application and dictionaries, ca. 2.6 MB) can be installed in the RAM disk of portables. In contrast to Microsoft Word 5.1a, the leading word processor on the Macintosh platform, FrameMaker is "Powerbook friendly" and can be utilized without requiring disk access while the hard disk is spun down, an important consideration for mobile computing which relies on the internal battery. Documentation is extensive; the document set includes ten manuals as well as an elaborate hypertext-based help system. The hypertext language used in the on-line help is accessible to users for the generation of application specific help systems or multimedia demonstrations.

A variety of import filters are provided, most notably for Microsoft Word (Versions 3 and 4) and for MacWrite 2. Since FrameMaker release 3.0 dates from 1991, the current version is unable to import Word 5.x files which contain equations. Additionally the Macintosh version of FrameMaker is unable to take advantage of the most powerful and useful features of System 7.x, such as Publish and Subscribe and Balloon Help. However inclusion of graphics by importing and placing by reference is supported, hence allowing graphical

material to be shared among a number of documents and thus decreasing disk storage requirements. The Macintosh port of FrameMaker supports import of a variety of graphics formats including PICT, EPSF, TIFF, and MacPaint.

The heart of a FrameMaker document is the template, a style sheet that contains and specifies the character and paragraph formats for the document. Formats in FrameMaker are versatile and powerful. For example paragraphs or equations can be numbered, bulleted, and cross-referenced to specific text. In addition separate documents in FrameMaker can be linked to form a book; the document design, page numbering, footnotes, and bibliography are specified by the template design. A new and useful feature for FrameMaker 3.0x is the conditional text feature that permits variety of versions of a document to be created from a master, the variable text specific to a version denoted by a conditional tag. This feature is particularly useful in the preparation of proposals, for example, in which "boiler plate" text is supplemented by material specific to the funding agency.

While templates are the key to FrameMaker's power, their complexity and the effort required for mastering them preclude the casual user from obtaining maximum benefit from this program. Indeed, while FrameMaker has the versatility and power to satisfy the majority of chemists' word processing needs, it is unlikely that this product will ever achieve wide acceptance at the bench. One negative aspect is the price; FrameMaker 3.01 for the Macintosh retails for \$795, although street prices range from \$550. An academic version is available for ca. \$100, which makes this product an impressive value for research and instructional purposes.

Product support by Frame Technical support is better than average for the industry. This reviewer found the consultants to be knowledgeable and courteous. Telephone support is available at no charge for 30 days after an initial inquiry. Additionally Frame Technology maintains an E-mail account for product information and technical inquiries (comments@frame.com). For users with access to the Usenet News network, the group **comp.text.frame** provides a worldwide base of FrameMaker enthusiasts that provide solutions and information to novice and expert alike.

For all the notable features of FrameMaker that simplify the development of complex and lengthy publications, there are some noteworthy shortcomings. FrameMaker does not support the automatic flow of text around graphics or provide a kerning editor. A word count utility is not available and variables, special text that is defined once and is accessible for multiple use, are not updated automatically. FrameMaker lacks an integrated outline facility and does not support fully the Apple extended keyboard, i.e. the "page-down" and "page-up" keys do not work as expected.

One important feature for any prospective adopter of FrameMaker is the multiplatform support that Frame Technology Corp. has designed into this product. Supported platforms include Unix (Sun View and Motif), Macintosh, and Microsoft Windows. This platform independence permits FrameMaker documents to be read or edited by any host

running FrameMaker. At Rensselaer, the computing environment is heterogeneous and FrameMaker is supported campuswide on a variety of Motif-based, Unix workstations. To provide background for this review and to take advantage of the instructional facilities being developed at Rensselaer, I developed a series of 12 lectures for my introductory Biochemistry course using FrameMaker for the text and equation content, Igor (WaveMetrics) for data display, and ChemDraw Plus (Cambridge Scientific) for chemical structures and reaction diagrams. The lecture files were saved with bit-mapped images which enabled display on computer hardware other than the Macintosh. Copies of the lecture files were transferred to a campuswide accessible file server for student access from any of the Unix workstations. Additionally the lecture notes were displayed "live" in lecture using a network-attached X-terminal with a projection system. In general my experience with using FrameMaker on multiple platforms and as a lecture aid has been quite positive. Although the Macintosh-derived graphics were less than optimal when viewed in an X-window application (due to screen resolution differences), the images were always comprehensible and printed output was indistinguishable between platforms. In designing documents that are platform independent, care should be exercised to use standard Adobe fonts and avoid the system-specific meta-characters (i.e. option-m for the Greek letter  $\mu$ ) which will not transfer to the Unix or Windows version of FrameMaker.

After completion of the initial draft of this review, Frame Technology announced release of FrameMaker 4.0 for all supported platforms. The preliminary product literature indicates that many of the deficiencies in version 3 have been corrected. For example, the Macintosh version now supports System 7 features such as Publish and Subscribe, Apple Events,

and the multimedia tool, QuickTime. Additionally color support has been improved substantially with support for PANTONE, CYMK, HLS, and RGB color models. The user interface has been updated according to Frame Technology with the inclusion of an Icon Bar and configurable menus, both features that are familiar to users of Microsoft Word 5.0, and a thesaurus has been added. Although the many new features are sure to be welcomed by FrameMaker users, the competitive market place has not remained stagnant. Microsoft and Word Perfect Corp. have incorporated many of FrameMaker's capabilities in their products. Although this reviewer has not yet obtained first-hand experience with the new release, initial reports on the Internet suggest that version 4 for the Macintosh is notably sluggish and that Frame Technology is working to correct this problem.

While I find FrameMaker more than satisfactory for my needs, this program cannot be recommended to the casual computer user, whose word processing requirements are limited to memo, letter, and text manuscript composition. I suspect that this criteria would exclude many readers of this journal from considering FrameMaker as their primary word-processing solution. Yet, for those professionals who generate many structured and lengthy documents that mix text and graphics (proposals, technical manuals, brochures, etc.), FrameMaker should prove an indispensable accessory. Indeed, while the focus of this review has been the text and graphics capabilities of FrameMaker, this product melds the features of a word processor and a desktop publishing program. However, in terms of the feature set and general ease of use, FrameMaker 3.01 does not compete with the latest release versions of Aldus PageMaker and QuarkXPress, the leading general-purpose applications for Macintosh desktop publishing.