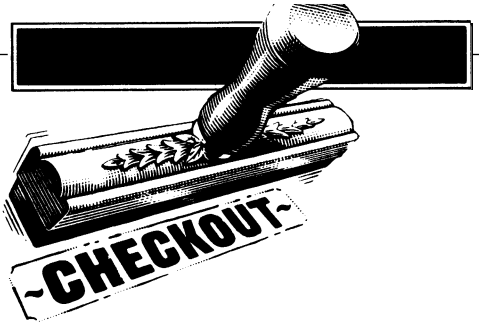


A new leaf on life

Interleaf Publisher is a powerhouse among desktop-publishing programs, but it needs a powerhouse desk (and its unorthodox interface takes some getting used to). Gregory Wasson reports.

In many respects Interleaf Publisher 3.0 is the ultimate desktop-publishing program currently available. It does have some negative aspects too, though. First, its hefty price tag (which will come in at just under $6000) and system requirements (a souped-up Mac II with hard disk) eliminate it from consideration by all but the highest-end users. Also, its rather unusual user interface may make you want to think twice. And finally, its cavalier attitude toward Adobe fonts may lead to excessive hair pulling and premature greying of whatever's left.

But, if you want features you can only dream about in other page-layout programs and if you want multi-user capabilities, Interleaf is unique among the flora and fauna of the desktop-publishing world.

Roots

Interleaf was the first 'workstation' DTP package to be ported to the Mac II. It's the first salvo in what could turn out to be a barrage of products (such as the forthcoming FrameMaker from Frame Technology) originally developed for Apollo, Sun, and DEC workstations.

Interleaf Publisher is based on an earlier Interleaf product called TPS (Technical Publishing Software) 3.0. TPS processed its first page in 1984 and was used primarily by large corporations and government departments in the heady environment of mainframes and workstations. In keeping with this background, Interleaf Publisher for the Mac is a program of bureaucratic proportions. The size of the packaging itself is intimidating — when I got the package in the mail, I actually thought I'd been sent the hardware by mistake.

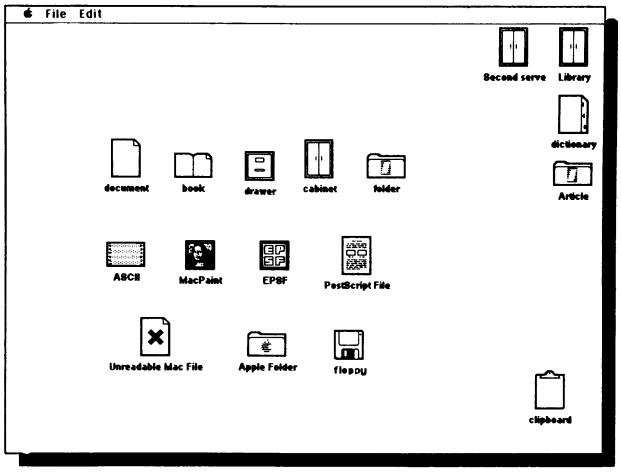


Fig 1 The main desktop of Interleaf. It replaces the more familiar Mac desktop and has rules all its own. The various program icons are visible, including the dictionary icon that represents the supplementary dictionary created by the user. Each user's desktop can include one such dictionary with up to 4000 words

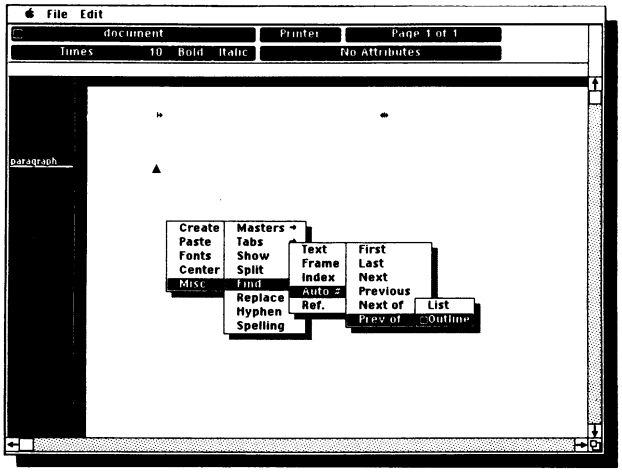


Fig 2 Menus popping up all over! Interleaf is one of the first Mac products to make extensive use of the new pop-up menu format

The program and related files come compressed on 15 800k disks. A 16th disk houses an installer program that decompresses and allows you to register the software with your name and company. The entire procedure takes 20 to 30 minutes.

A gargantuan program needs a gargantuan home: a Mac II with at least 5Mbytes of RAM and a 40Mbyte hard disk (although a company representative said it would 'probably' run on a 20Mbyte drive). The configuration I used for this article was a Mac II with 8Mbytes of RAM and a 49Mbyte hard disk with System 4.2 and Finder 6.0.

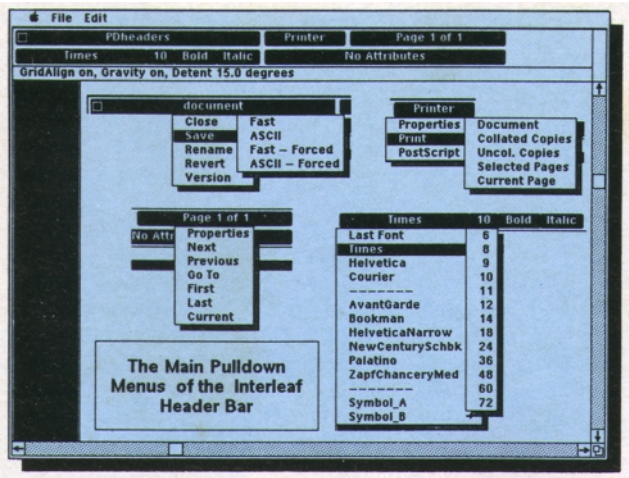


Fig 3 Interleaf also makes use of the more familiar pull-down menus — the main ones here displayed from the text-editing window You access them not by pressing on the titles in the header bar but by Command-clicking — another aspect of Interleaf's unusual interface and the result of the program's origins in a three-button mouse world

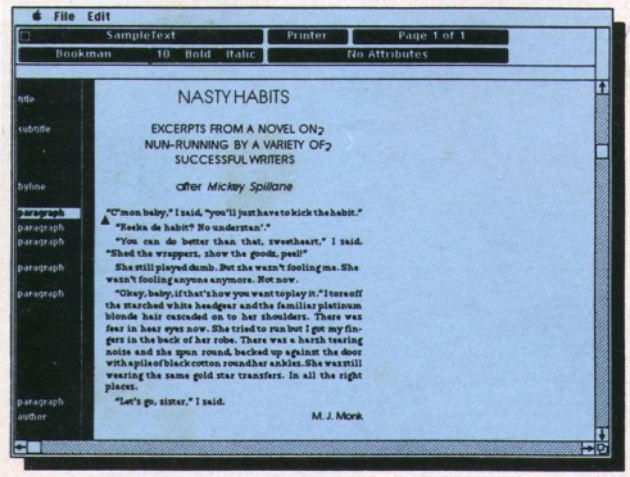


Fig 4 Interleaf's text-editing window, showing the text caret, chevron cursor and the component bar where much of Interleaf's power is to be found

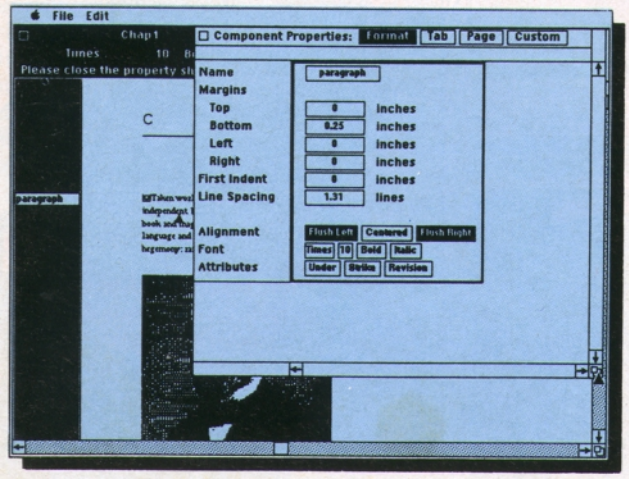


Fig 5 The Component Property Sheet lets you control all aspects of any component. The default measurement unit is the inch (or for line spacing or leading, the line). You can specify measurements in a variety of formats: centimeters, ciceros, picas, points, and the software converts the measurement into inches or lines. You can also enter calculated measurements, eg, 4in x .33, handy when sizing graphics

The interface: desktop dementia

Once you have finally installed Interleaf on your hard disk, the usual double-click sends it on its merry way. But most similarities to the Mac interface end abruptly once you're launched onto the Interleaf desktop. And it takes some perseverance before you reach the reward at the end of the rainbow.

Fig 1 shows the desktop with an assortment of the various icons you'll encounter while working with Interleaf. One of the program's most attractive features is that multiple desktops are possible: Each user on a network can have his or her own desktop with his or her private files and documents as well as files common to all desktops.

The usual menu bar seems to rule over the desktop as expected, but it functions more as a figurehead because the usual File and Edit menu commands, such as PRINT, SAVE, COPY, CUT, and PASTE, are greyed and useless while Interleaf holds court. You can access only a selection named Help — and it only serves to summon forth a rather mediocre on-screen help file for Interleaf.

Maybe those familiar-looking icons on the desktop will be easier to use? Nope. Just try to cut one, trash one, paste one, or even move one, relying upon old instincts, habits, and expectations, and nothing happens. Why?

Interleaf uses a different kind of menu that has just recently been publicly sanctioned by Apple and is now beginning to appear in some new products: the popup menu.

These menus (there are several according to when and where you access them) pop into sight at the cursor location when you press the Command key and hold down the mouse button (see Fig 2). As you move down the menu, the commands are highlighted in turn.

As in other Mac applications, releasing the mouse when you select a command implements that command. Popup menu items can have submenus (indicated by an arrow to the right of the command) which you access by moving the cursor over the arrow until any additional submenus either telescope in a kind of jagged dance across the screen or pop up on top of one another should you exhaust your screen space. Pop-up menus also tend to remember your last command or series of commands — they're so-called sticky menus, a real time-saver.

The down side of pop-ups

Pop-up menus contain all the usual commands for creating, deleting, and manipulating files. Most Mac users will grow fond of them, but they take some getting used to.

To move an icon, you must first select it by clicking on it once. You can select multiple icons by Shift-clicking or by dragging out a selection box around them in the customary fashion. The Command-key/mouse manoeuvre described earlier conjures up a pop-up menu, one of whose commands is MOVE. MOVE places the icon into an 'animation state', in which only a vague outline is visible.

Then when you move the mouse, the selected icon dogs your movements on the screen. Clicking the mouse again takes the icon out of animation state and locks it into its new position. You must then deselect it through a pop-up command or by clicking elsewhere on the desktop.

Movement is restricted, however, to an

icon's current window or the desktop (if it is already there). Want to move a document icon into a folder?

You can't just drag it over the folder and drop it in; in fact, technically, you don't even MOVE it.

First, you open the target folder by double-clicking on its icon. Then select the icon to be moved into it. Execute a CUT or COPY command from a pop-up menu, move the cursor to the now-open window of the folder, and execute PASTE from yet another pop-up menu. About as elegant as a hippo in tights, right?

And the usual keyboard equivalents of COMMAND-C, -X, and -V? Forget it. There are, however, keyboard equivalents of Interleaf's own devising, listed in an appendix at the end of the reference manual, for many of the word-processing operations. To use them most effectively, though, you really need an extended keyboard.

Does it do windows?

If several windows are open at once (up to 16 are allowed), they can, of course, overlap. You cannot, however, bring one window to the front simply by clicking on it. You have to move your cursor to that window and execute the FRONT command from a pop-up menu. You can also (if space permits) drag windows around on the screen and resize them (they do have size boxes and scroll bars!).

Finally, you might notice the icon labeled Clipboard in the lower-right corner of Fig 1. In Interleaf this icon functions as both Clipboard and Trashcan. Whenever you cut or copy something, it ends up here at least temporarily. And here it will remain unless you paste it elsewhere. To empty this ersatz Trashcan, you must open it, select the icons to be trashed, execute PURGE from a pop-up menu, and hope they go away. Occasionally, you will have to delete files at the Finder level.

You probably get the idea by now. The interface is different. The terminology is sometimes different, too: a dialog box, for instance, is called a stickup menu. You use the Command-key/mouse combination a lot.

Often enough, in fact, to raise the

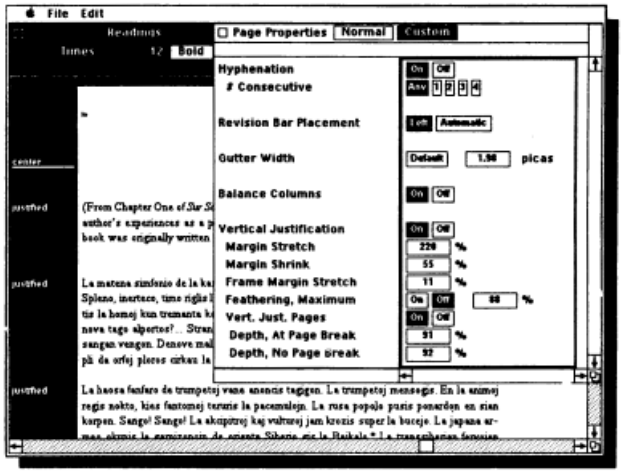
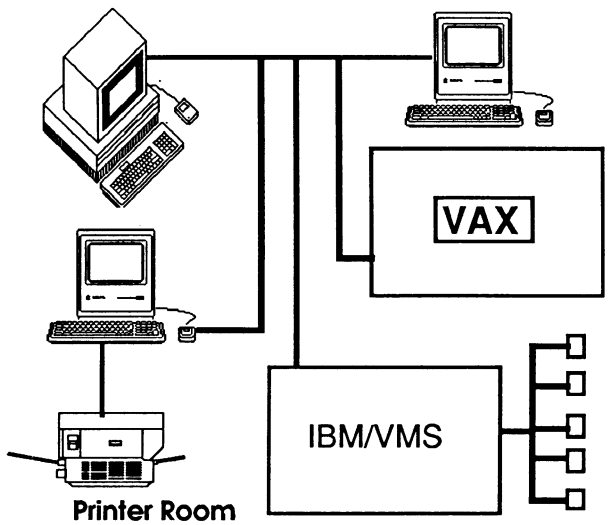


Fig 6 Like components, pages also can be controlled by a Property Sheet: options for margins, number of columns, hyphenation, vertical justification, and so on are all here

So these really connect !!



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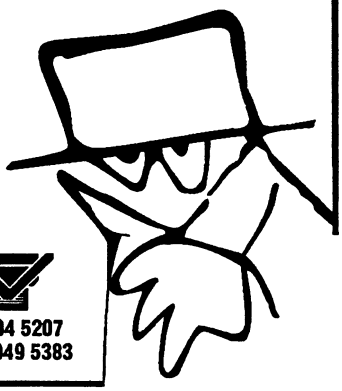

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spectre of an occupational hazard rampant among Interleaf users: Command-key finger — Interleaf's answer to tennis elbow.

You do get used to — or perhaps resigned to — the eccentricities of the interface, though. You should view Interleaf's form in tandem with its textual and graphic functions. Many of its sins can be forgiven in the light of its features for dealing with the organisation of both words and images and the processing of large documents. Let's take a look.

First is the word

Unlike most of the products in the electronic-publishing or DTP market, Interleaf includes a word-processing environment that surpasses anything now available in DTP. Up to now, desktop publishers have had to content themselves with the clumsy and sluggish wordprocessing tools in programs such as PageMaker or have had to rely on the usual method of typing the files in a word-processing program such as Word or MacWrite and then importing them into the page-layout application. Interleaf bypasses this step with a full-featured word processor that incorporates hyphenation and justification procedures and a satisfactory, if limited, 80,000 word spelling checker, among other features. The program can also import RTF files from Word and text-only files from programs such as MacWrite, although some limitations apply here as you'll see later.

What's more, it's incredibly fast — good news for anyone who has endured the rigours of entering text directly into other page-layout programs.

Entering text directly within Interleaf is straightforward. First you create a document and open it. The document window should be familiar to most Mac users. It is crowned by a document header bar with various items whose menus can be accessed by pressing the Command key and mouse button when the cursor is over the appropriate name. Fig 3 shows the main pull-down menus that control font, point size, file manipulation, and printer and save options. Some of the names are different from those Mac users might expect, but they're there The SAVE command allows you to save the document in Interleaf format (Save Fast) and in ASCII, and it even lets you

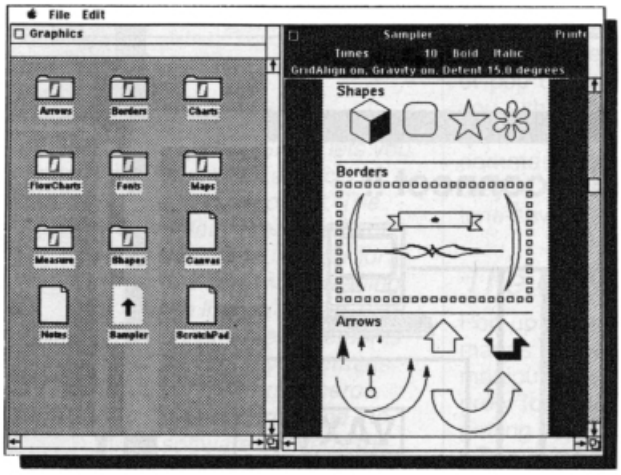

Fig 7 Interleaf comes complete with an extensive collection of 'click art'. A sampler contains examples of most of what is available

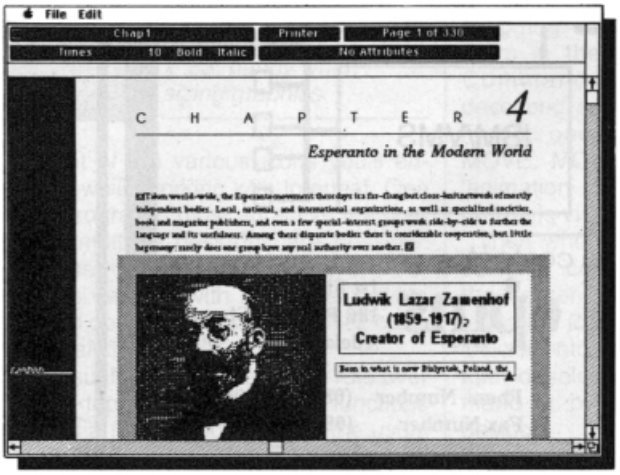

Fig 8 Unlike other electronic publishing programs, Interleaf allows the insertion of fully editable text into graphics. Text placed in graphics frames retains its ability to be reformatted via the Component Property Sheet and can even be spell-checked. Here, two examples of 'microdocument' text are shown within a graphic frame

force a save when you haven't made any changes to the document's content (if, for instance, you want to save the file with the cursor at a specific page or at a position different from the previous save).

Be cruel to Adobe week

Font sizes are restricted to 13 choices, ranging from 6 to 72 points. Custom sizes (for example, 7 points) are not allowed, but the traditional and usual point sizes generally used in high-quality typesetting are present.

Interleaf does not support Apple's font manager. It uses its own and its own versions of Adobe's PostScript typefaces, which you must copy to your hard disk. You may have all the LaserWriter Plus fonts in your System file, but you must still use Interleaf's versions instead. Downloadable fonts, PostScript or otherwise, are absolutely not supported, so put Garamond aside.

Moreover, Interleaf has completely remapped the keyboard (you're going to have to hunt and peck for 'smart' opening and closing typesetting quotes, for example) and has severely pruned Adobe's fonts, stripping most of the foreign-language letters (such as Ü), so you can forget about impressing cousin Hans in Germany or sending off company reports in a foreign language. So much for the international appeal of the Macintosh.

Interleaf's font management is, to my mind, its worst shortcoming. The company has effectively crippled the most delightful and progressive aspect of Adobe's fonts. It did this, according to company representatives, to maintain conformity with its workstation products and because it feels its screen fonts are better than Apple's. I don't see it, and besides it's too high a price to pay, even if true.

Text manipulation proceeds pretty much as usual, with some exceptions. When you select a range of text, if you begin to type in new text (expecting to enter a correction), the new text is inserted in front of the selected text — it does not replace it! Interleaf has several such variations from the usual Mac interface, and you probably won't like them.

But there are pluses in the Interleaf way of processing text that make up for all this. The program automatically repaginates and reformats documents as you enter text — and it does this almost instantaneously. I worked extensively with a 400-page document and it was a pleasure. I've typeset several books with 100+ pages using PageMaker or JustText. It can be done, but it isn't really worth the hassle.

Interleaf processes a lengthy document as a whole but also concentrates much of its power on what are known as components. Fig 4 shows a sample page. A thick black column at the left of the screen breaks down the text into its components — here defined as title, subtitle, paragraph, and so on. You can define or redefine each component via pop-up Component Property Sheets (see Fig 5), and you can exercise total control over the font, margins, and other attributes. And you can apply all this globally to all components with the same name within a document or even to linked documents (such as the chapters of a book), which makes the often tiresome job of reformatting or editing a 500-page book a snap.

The appearance of each page is affected by the Page Property Sheet (see Fig 6), which you access through a pulldown menu. It includes options for margins; hyphenation control; vertical justification; and even feathering, a relatively obscure (at least among DTPers) procedure that allows stretching leading between lines of a component — a neces-

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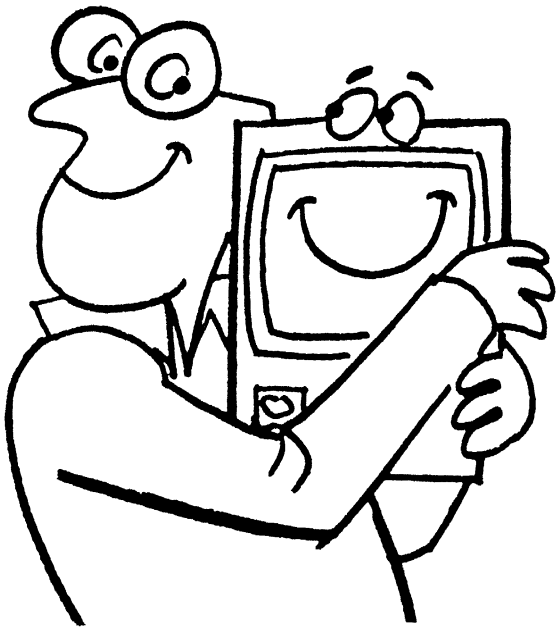

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sary feature for accurate vertical justification of multiple columns on a page. Surprisingly, though, kerning is not supported in this release of Interleaf. Why wasn't it there to begin with? Interleaf simply responds that none of its established customers have ever asked for it. That, I suspect, will change.

As I mentioned before, you can import files, but bear this caveat in mind: RTF files and Word that contain unsupported characters (remember Ü?), styles such as superscript (Interleaf does footnotes, but bizarrely, does not do superscript numbers), or non-LaserWriter Plus fonts can cause problems. Several such files I tried to import either elicited a message from Interleaf that the import procedure had been aborted or resulted in an Interleaf file that contained blanks where the offending item had been in the original file.

One of Interleaf's glories is its autonumbering feature. You can insert numbers referring to footnotes, illustrations, and outline items through a menu, and Interleaf automatically updates them all when you insert new material or change the position of existing references - even across multi-chapter files that have been linked in what is known as a book directory. Auto-referencing is a further enhancement to this feature. The software can also generate fully editable indexes and tables of contents.

You can create templates for document styles and place them in what is called the Create Cabinet. Thereafter, you can call up the template via a menu command. Most impressively, you can also devise graphic templates (to create a uniform illustration format, for instance) — a feature not available in any other Mac publishing software. The package provides several ready-made templates for frames, reports, newsletters, and books.

Picture this

Interleaf, priding itself on being a fully integrated publishing tool, supplies a MacDraw-like drawing environment. You create graphics by first selecting a comfy spot on the page - a graphic frame (à la Ready, Set, Go!) — and then by using Interleaf's formidable drawing tools, which support isometric projection for all you 3D fans. The usual options for rotation, fill, line width, snap-to-grid, snap-to-object, and so on are all present and accounted for, albeit through a pop-up menu rather than a toolbox as in most drawing programs. The program also comes with an impressive array of 'click art' (see Fig 7),

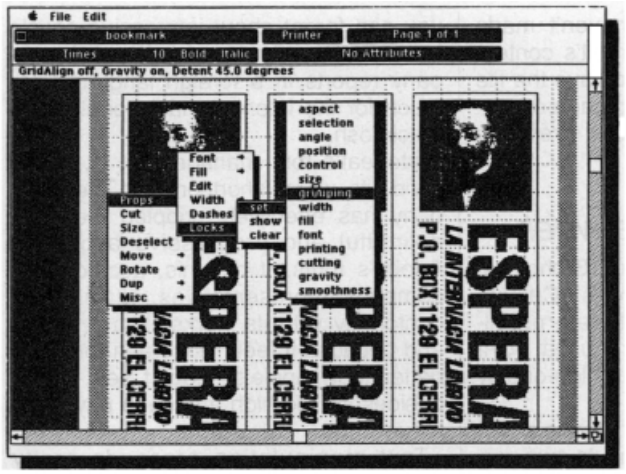

Fig 9 Lock 'em up! Almost any aspect of a graphic object can be locked in some way — a wonderful feature that lets you protect your work against accidental changes

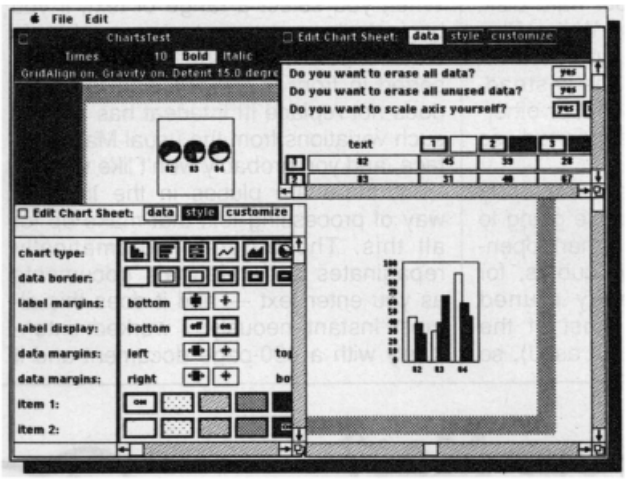

Fig 10 Interleaf can generate and control the appearance of charts and graphs. You can enter data directly or import it from another program, such as a spreadsheet Charts, once placed in a graphic frame, remain full editable from the Edit Chart Sheet

which includes graphic enhancements (Interleaf does not support Zapf Dingbats, alas), maps, display letters, and various shapes that you can copy, paste, and edit within documents.

The most useful feature of Interleaf's graphic frames is that you can anchor them to words, text, paragraphs, pages, or positions on a page. Anyone who has had to revise a document in any of the DTP products for the Mac knows what a boon this is. No longer do you have to replace illustrations or graphics whose related text has suddenly flowed onto another page or to another location. You can cement the relationship between the two with user-defined anchors.

Interleaf's graphic frames can also embrace inserted text (such as captions or legends) in the form of microdocuments or text strings, which as components can be fully edited, formatted, and even spell-checked. Fig 8 shows a graphic frame (the portion of the page enclosed in a grey-lined box) with such text additions.

Interleaf also includes an awkward paint-style environment, and freehand drawing is possible, but why bother? You can import Paint files (and edit them somewhat clumsily) via a special pop-up Edit window. Imported Encapsulated PostScript File (EPSF) images (which you cannot edit) appear as a grey box on the screen but print out fine. The documentation warns that Cricket Draw 1.0 EPSF files are not supported, but I imported Cricket Draw 1.1 EPSF files without incident. You can also bring in TIFF and PICT formatted files. MacPaint and TIFF files must have the extension .img added to their name (do this at the Finder level) for Interleaf to recognise them. Likewise, EPSF files must have the extension .eps tacked on (Big Blue rears its ugly head!).

Unfortunately, there are no rulers within frames (or within text documents for that matter), but Interleaf supplies some non-printing graphic rulers (in inches, centimeters, and picas) that you can copy and paste in frames — not the best way to do it, but at least it's possible. The rulers also demonstrate another powerful feature of Interleaf: its ability to set 'locks' on almost any conceivable aspect of a graphic (see Fig 9). This provides a way to place non-printing guides on a page or to protect an object from being cut.

It's easy to generate a wide variety of graphs and charts by entering data (or importing it from a spreadsheet) via a special pop-up menu (see Fig 10). Like other graphics, charts are placed in frames.

Accidental incidentals

Interleaf Publisher has some unusual techniques for dealing with PostScript files. An option from the Print menu in the document editing window lets you print PostScript files to disk rather than send them to the printer.

The manual explains: "This can be useful in conjunction with other applications that allow you to manipulate PostScript files." You would expect this file to be ASCII and readable as text only by MacWrite and Word or downloadable by Adobe's SendPS.

The problem is that once you go back to the Finder, the file steadfastly refuses to divulge its secrets. There is a workaround (although the manual doesn't tell you about it): Start up a file utility such as ResEdit or Hard Disk Util (with its Set FileInfo feature) and change the file type to TEXT. Return to the Mac desktop, and you'll find that you can now open up the document with MacWrite or Word. Not only will you be rewarded with the PostScript description of your document but you'll also have the chance to poke around in the Interleaf PostScript prologue.

I've already mentioned the manuals — or rather their size. They are beautiful and are generally well put together. They include a large volume with two sets of tutorials, an installation guide, a user-interface guide, a reference manual, and a condensed reference guide. The tutorial volume includes an ironic mistake in the table of contents: all the page numbers for Chapter 6 are wrong — an embarrassing error in light of Interleaf's boasts about its automatic table of contents generation and autonumbering abilities! The manuals, by the way, were not produced with the Mac version but with the Sun workstation product — this became clear when I spotted superscripts in one section — something that cannot be done with the Mac software.

Form and function

The Mac interface is not a sacred cow. It could stand just a tiny bit of improvement — let's admit it. But Interleaf's interface is definitely not an improvement. I found it most amusing to hear Interleaf's representatives at the 1988 Macworld Expo in San Francisco spouting company-line gibberish such as: "We feel most of the differences between the Interleaf interface and the Mac's are enhancements." But then, with the very next breath, they said that in the next release of Interleaf Publisher, the interface would turn over a new leaf and adhere more closely to the Mac interface. Which is it, chaps?

What's most exasperating about this sort of double-talk is that it really isn't necessary. Interleaf Publisher is an outstanding and welcome addition to the Mac and to the world of electronic publishing. Period. This statement is not meant to whitewash its shortcomings. It lacks many of the interface amenities now expected of Mac publishing software, but sometimes functionality is more important than form. If it is the only or best tool for the job, you use it. Interleaf's only real competitor at present for processing long documents on the Mac is TeXtures or MacTeX, but most people will prefer Interleaf, warts and all, over the code-driven TeX typesetting language.

Interleaf is not for the small-time desktop publisher (who couldn't afford it and the necessary hardware in the first place). But it will undoubtedly find a niche in the corporate world as an inexpensive alternative to the more costly workstation TPS version. It has the potential to be a top-notch Mac product, as soon as Interleaf releases it from the constraints of an inferior and disappointing interface.

END

Interleaf Publisher is sold by Delairco, tel: (02) 406 0300. Its recommended retail price has not yet been finalised, however Delairco has advised that it will be under $6000.

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- Any cartage involved in delivery or pick-up member's computer(s) are member's own expenses.
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