## STATE-OF-THE-ART CONTRACTOR

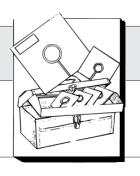
## How Suite It Is

by Craig Savage

 ${f A}$  builder who uses a computer almost needs a hard hat to protect himself from the falling price of software. That's especially true if you buy one of the new product "suites" being offered by several major software developers. A suite is a group of applications — usually a word processor, spreadsheet, database, and personal scheduling program — that is sold as a package at a huge discount from the purchase price of the individual applications.

Although suites are available from Lotus and Novell, I chose to look at Microsoft Office because I think it has the best integration between elements — at least at the moment. The theory behind any software suite, however, is the same regardless of manufacturer and specific programs: The combination of applications is greater than the sum of the individual parts. The main advantages, besides lower purchase price, are shortened learning time and increased productivity.

Shared interface. The most immediate benefit of using a software suite is that all of the applications share a common interface. The screens are not





Microsoft Office Standard for Windows includes Word (word processor), Excel (spreadsheet), **PowerPoint** (presentation program), and a license for Microsoft Mail (an e-mail program that

must be purchased separately). Microsoft Office Professional adds a database called Access. Microsoft Office Standard for **Macintosh** is also available. For more information, contact Microsoft Corp., One Microsoft Way, Redmond, WA 98052; 800/426-9400.

identical, but there are enough similarities to make it easy to adjust when switching back and forth between applications. The applications in Microsoft Office, for instance, share common commands in the menu bar and common buttons in the tool bar, both of which appear at the top of the screen (Figure 1). Once you learn what these commands and buttons do in one application, you can be sure they will do the same thing in all the other applications.

explaining that the button is the Sum tool (Figure 2).

SmartSuite for Windows) is designed to work with Lotus Notes, and includes Lotus 1-2-3 (spreadsheet), Ami Pro (word processor), Approach (database), Freelance Graphics (presentation program),

and Lotus Organizer (time management). For more information, contact Lotus Development Corp., 55 Cambridge Pkwy., Cambridge, MA 02142; 800/343-5414.

Microsoft also uses a feature called Tool Tips in all of its applications.

Whenever you pass the cursor over a button on a tool bar, a little yellow

note pops up to explain what the button does. The original idea of putting little pictures, called icons, on the but-

tons was to make it easy to divine their purpose. Unfortunately, some icons are

so obscure, you need a cryptologist to

puts an end to all that. For example,

bol for  $sigma(\Sigma)$  activates a note

decipher what they stand for. Tool Tips

moving the cursor over the Greek sym-

Features such as this reduce the amount of time it takes to learn how to use the software. Each application has unique features as well, but features that are shared among applications only have to be learned once.

Linking. Probably the biggest advantage of using a software suite is the way information can be exchanged between applications. In addition to OLE (Object Linking and Embedding), Microsoft Office provides a feature called OfficeLinks to enable users to combine information from different applications, and to create, edit, and publish documents from several different sources. It makes a big difference in how office work gets done.

For example, when you prepare a proposal for a client, you need three separate applications: a word processor to write a cover letter and the specs, a spreadsheet to tally the estimated cost, and a database to store client names, addresses, and phone numbers. It used to be that each application ran separately, and to switch between them you had to close down one before opening up the other. More time was wasted and more errors were introduced when data needed in two applications

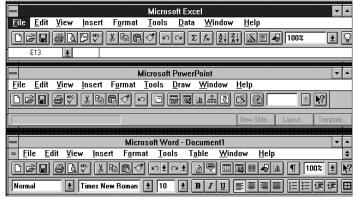
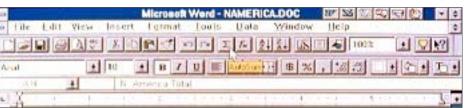


Figure 1. The menu and tool bars at the top of these three Microsoft Office applications share many common commands and buttons. This speeds learning time and improves productivity when switching between suite applications.



**Figure 2.** Microsoft Office takes the mystery out of the pictures, or icons, on tool buttons Whenever you move the cursor over a button, such as the sigma icon shown here, the Tool Tips help feature pops up a brief note explaining what the button does

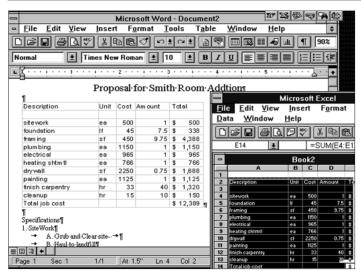


Figure 3. Using OLE (Object Embedding and Linking) and the OfficeLinks feature, this spreadsheet from Excel (right-hand screen) also appears in Word (left-hand screen). Changes made to the spreadsheet numbers in either application appear in both.

had to be entered separately in each.

With OLE and OfficeLinks, however, you can paste data between applications, and — even more useful — the applications remained linked. An estimate done in Excel, for example, can be embedded in a job proposal prepared in Word (Figure 3). (You can embed actual data or an icon that represents the data.) But the spreadsheet data doesn't merely appear in the Word document; it can be manipulated just as if you were working in Excel. And the changes you make to the spreadsheet data in the Word document are simultaneously made to the data in Excel.

Many OLE programs can be integrated right into the menu bar of the Microsoft Office application you're using to become part of the working environment. I often embed Excel icons or data, for example, in documents I'm working on in Word. When I want to work on



Perfect Office Standard includes WordPerfect (word processor), Quattro Pro (spreadsheet), WordPerfect Presentations (graphics), Envoy (workgroup publishing),

InfoCentral (application manager), and GroupWise (formerly WordPerfect Office, an e-mail scheduling program). The **Professional** version adds Paradox (relational database) and Visual AppBuilder (a custom development tool). The CD-ROM version, called **Select**, includes all applications in the other two versions, plus other WordPerfect and third-party applications. For more information, contact Novell Applications Group, 1555 N. Technology Way, Orem, UT 84057; 801/225-5000.

the spreadsheet numbers, I simply double-click on any embedded spreadsheet cell. This makes available the Excel tool bar, and activates the spreadsheet data and formulas. When I'm done, a double-click on the background document gets me back into Word.

Streamlining. Microsoft has made a real effort to simplify the application tools people use most frequently. Instead of throwing in every feature imaginable (whether users need it or not), Microsoft developed IntelliSense, a group of software technologies that correct errors, speed routine tasks, and even anticipate what the user wants to do and "intelligently" produce the desired result. A tool called AutoFormat, for example, applies professional document design to spreadsheets in Excel, and to tables in Word. And a tool called AutoCorrect jumps in and corrects common misspellings before you finish mis-typing them.

Another part of this streamlining effort is designed to help users get to where they want to go without having to read 300 pages in a manual. Microsoft's Wizards, for example, are dialog boxes that make complex, multi-step processes easier by walking you through a set of menu choices. The newsletter wizard, for example, calmly leads you through the process of formatting a Word document into a three-column newsletter — a daunting task unless you are a Word expert.

Microsoft also includes Cue Cards and Tip Wizards, two help systems that keep track of the way you work, then offer assistance on how to accomplish your goal more quickly or in fewer steps. When the program "sees" you doing something the hard way, the screen starts blinking, and a message politely explains the shortcut. (If you find this feature too distracting — or humbling — you can turn it off.)

**Network ready.** One of the popular terms in computer techno-babble these days is "groupware" — software that can be used by groups of people simultaneously. Microsoft Office applications all have a Send button under the File Menu that automatically distributes the document you are working on to everyone logged-on to the network. Or you can choose to route a document sequentially, sending it first to one person, then to another, with revisions made at each stop along the way. You can also enable group revision and annotation, as well as document merging. All of these features make it possible for several people to collaborate on-line on a single document.

For those of you who enjoy going under the hood, Microsoft Office includes Visual Basic for Applications, a scripting language that creates custom applications by "gluing" together parts of the suite and other third-party programs that support OLE. As programming goes, it's comparatively easy to create custom links between, say, an estimating program in Excel and a schedule in Microsoft Project, so that the schedule is built as you do your estimate. These tools are definitely not for beginners, but they are accessible to users willing to learn a little about programming.

You may not need all of the features Microsoft Office or one of the other software suites offer. But chances are good you're already using some of the applications. Next time you upgrade, give software suites a look. They are a good way to save money and get the power of several applications all in one neat bundle.

Craig Savage, a longtime builder and computer user, owns Savage Co. in Carpinteria, Calif., and publishes the Macintosh Construction Forum and Window On Construction newsletters.

If you have a question about computing in construction, address it to State-of-the-Art Contractor, JLC, RR 2, Box 146, Richmond, VT 05477.