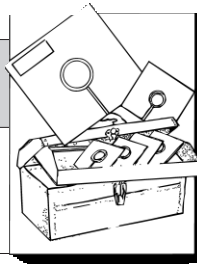


DOS With a View

by Craig Savage



I can already hear the howls of "traitor" and cries of "turncoat" coming from loyal Macintosh users. That's because in this article I'm going to begin to address the "other" computing platform — Windows, the graphic operating system from Microsoft that turns IBM PCs and compatibles into simple-to-use, mouse-driven computers that are (dare I say it?) something like a Mac. Why would I do this? Well, over 9 million copies of Windows were sold in the last ten months, a growth in popularity that's hard to ignore.



Windows 3.1 requires an IBM or compatible PC with an 80386, 640K of conventional RAM and 1024K of extended memory (4MB is better), DOS 3.1, and at least 8MB of free hard disk space. A mouse is highly recommended.

What Is Windows?

Windows is a "shell" that covers DOS, the ancient PC disk operating system written in Martian. Using Windows means you no longer have to know Martian to

run your computer. Instead of cluttering up your brain with obscure commands, Windows helps you put your computer to work.

Mousing around. Except for entering text or numerical data, a mouse is the primary means of communicating with your computer in the Windows environment. For instance, pointing at and clicking on a picture (called an "icon") representing the Excel spreadsheet program causes the program to start. Dragging a picture (by clicking and holding down the mouse button) of one of your spreadsheet documents from one folder to a different folder simply moves it there. Sound easy? It is. Gone forever is arcane DOS command-line jargon, like: "copy C:\Excel\Jones.est A:."

Standardization. Windows also standardizes the interface between the user and any made-for-Windows application. This means that if you learn something once, you can use it in every other program. For instance, to save a spreadsheet in Excel for Windows, you open the "File Menu" and click on the word "Save." Every other Windows application saves files the same way. This kind of standardization cuts way down on

the learning curve.

Another nice feature of Windows is that all of the data generated in one Windows program is usable by other Windows programs. If you make your estimate on an Excel spreadsheet, for example, you can use the "clipboard" to cut and paste it into your word processing program, where it becomes part of a proposal you might be writing. The clipboard eliminates the duplication of effort and errors associated with entering data more than once.

Two's company. Windows will also let you run more than one program at a time, and using a technology called DDE (Dynamic Data Exchange), you can link data between programs. To use the example of a spreadsheet estimate again, you could link the data in Excel to a Gantt chart in the *Time-line* scheduling program so that when you modify the duration of a task in the estimate, the scheduled finish dates change on the Gantt chart.

Linking computers together into networks is also much easier using Windows. *Windows For Work Groups*, a subset of Windows, lets you send electronic mail and transfer files between computers, and generally provides easy access to information for all users on the network. Gone is the dark art of the network wizards, who sat in judgment of who would be granted access to what kind of information. No longer. Work flow on the network allows projects with associated documents to move from computer to computer, where they can be tracked, scheduled, and

managed.

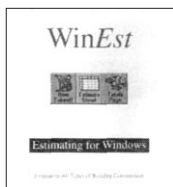
Finally, Windows is on the leading edge of a technology called "multi-media" — the integration of more than one type of information. Windows documents that once used only words and pictures can now include sound and video. CD-ROM disks (similar to music CDs) can hold enormous amounts of information, and Windows gives you easy access to it.

Who Needs Windows?

If you've been following my Macintosh column, you know that a lot of what Windows has to offer has been around on the Mac for years. But if you want to pin me down as to which is the "best" platform for you, here's my answer. If you're brand new to computing and there is no pressure to use a PC, and if you are not terribly budget conscious, and you enjoy being the odd man out, then the Mac is for you. Overall, it is slightly easier to learn, more graphically based, and still ahead of the multi-media pack. On the other hand, if everyone around you uses a PC, if you have experience with and own a lot of existing software running on DOS, or if your budget is tight, then move to Windows. The differences are minimal, the standard is here to stay, and Windows software is being introduced at a feverish pace. For ordering information, call Microsoft Corp., 800/426-9400. ■

Craig Savage, a longtime builder and Macintosh user, owns Savage Co., in Carpinteria, Calif., and publishes

Review: Estimating With Windows



The Macintosh Construction Forum. WinEst (\$990) requires Windows 3.1, a 386 processor, and 2 megs of RAM (4 megs

recommended). For more information, contact WinEstimator Inc., 8209 South 222nd Street, Suite B, Kent, WA 98032; 800/950-2374.

WinEst. One of the best new Windows products for contractors is WinEst v. 1.0, an elegant, point-and-click estimating program. The program is a "stick" estimator that uses a built-in database of materials and labor (organized according to CSI codes) to compile an estimate item by item. It looks like a spreadsheet, and those familiar with Excel will feel very comfortable using it.

Tools and filters. The "Takeoff" screen provides nine "tools," displayed across the top as standard Windows "buttons," that let you

navigate around in the program, add or edit items in the estimate, activate the calculator, and print reports. One button launches a drawing program you can use in conjunction with your takeoff.

Clicking on the "Estimate Sheet" button takes you to a spreadsheet display, and six of the tool buttons become "filter" buttons. The filters let you arrange your data so you see only what interests you at the time, and include Item Details, Labor, Materials, Subs, Equipment, Major Sections, and Divisions. To get a view of labor data only, for example, you click on the "Labor" filter, and the estimate displays Item Descriptions, Quantities, and such labor details as Mix (a list of crew classifications), Productivity, Unit Price, Hours, Rate, and Total. You can also modify and input data in the filter views.

Using the database. WinEst builds estimates by adding together specific tasks from a database. You begin an estimate by clicking on

The screenshot shows the WinEst software interface. At the top is a menu bar with File, Edit, View, Options, Database, Reports, and Help. Below the menu bar is a toolbar with icons for Item Takeoff, Estimate Sheet, Totals Page, Print Report, Add Items, Unique Item, Drawings & Notes, Activate Calculator, and Edit Items. The main window displays the 'Calculate Takeoff Quantity' dialog box. It has fields for 'Continuous Footing Length' (200), 'Continuous Footing Width' (24), and 'Concrete Footing Depth' (12). There is a 'Location' dropdown menu set to '(none)' with 'Accept Location' and 'Cancel Location' buttons. Below these fields is a 'Vol CY - Continuous Footing' field showing 14.8148, with 'Next', 'Previous', 'Add', and 'Subtract' buttons. At the bottom is a table with columns: CSI, Item Description, Quan, Unit, Lab Mix, Lab Prod, Lab Unit\$, and a plus sign. The table contains three rows of data: 2 1300 Small Tool Storage 24 week, 3 3302 Footing Concrete 5000 psi 15 cuyd, and 4 6100 Miscellaneous Rough Carpentry 2,450 lum. The table is titled '3302 Continuous Footing Conc'.

| CSI | Item Description | Quan | Unit | Lab Mix | Lab Prod | Lab Unit\$ | |
|-----|------------------------------------|-------|------|---------|----------|------------|--|
| 2 | 1300 Small Tool Storage | 24 | week | | | | |
| 3 | 3302 Footing Concrete 5000 psi | 15 | cuyd | | | | |
| 4 | 6100 Miscellaneous Rough Carpentry | 2,450 | lum | | | | |

WinEst's built-in formulas, like this one for concrete, prompt you to enter width, length, and depth dimensions, and then automatically convert this data into order units — in this case, cubic yards (left on screen). You can also specify a location for each takeoff item (at right on screen).

the "Add Items" button in the main tool bar, which superimposes on the takeoff screen a window with five scrollable menus. The first menu displays the major CSI divisions, such as *General Conditions* and *Concrete*. By choosing items from subsequent menus, you move down the hierarchical rankings, from division to section and finally to specific items, where a double click on an item enters it into your estimate. Navigating to one of the 5,000 items in the resi-

You can get to any one of the 5,000 items in the database with just three clicks of the mouse

dential database takes only three clicks, and is a very fast way to build the estimate. The fast point-and-click database search method is great for subcontractors who need to bid from huge parts inventories. And if you need to put an item in the estimate that isn't in the database, you can click on the "Unique Item" button and create the item on the fly.

Entering quantities. Once you've built a list of items in your estimate, clicking on the "Done" button returns you to the takeoff screen, where you calculate and enter quantities for each item in the estimate. A "Takeoff Quantity" box automatically adjusts to the proper parameters for each item. For instance, if you are taking off cubic yards of concrete for a footing, you are asked to provide three pieces of information: the total length of the footing in feet,

its width in inches, and its depth in inches (see sample screen). The program returns the total quantity in cubic yards of concrete and enters it into the estimate. On the other hand, if you are counting doors, you only need to fill in one box, labeled "Each."

You also have the option of assigning each item a location, such as "First floor deck" or "Roof system." Later you can sort the estimate by location and get a report of what materials will be used for specific parts of the building.

After entering all quantities, a click on the Totals Page button calls up two very important button tools — the Edit Markup and Edit Bonds buttons — which can be used to add overhead and profit to the total of raw costs for the estimate. Finally, the Print Report button displays several print options, including "fit to page," a handy feature that configures the printer to print the estimate to fit the paper you're using.

Just the beginning. WinEst adheres strictly to the Windows look and feel, and is a pleasure to use. In conversations with the manager at WinEstimator, Inc., I discovered that WinEst is the first step in a very sophisticated estimating and project management tool for the Windows operating environment. By the time you read this, version 2.0 will be on the market. It includes many additional features, like work breakdown structure and labor and equipment tables. Several databases are available for WinEst, as well as a digitizer module. And links to Microsoft Project and Excel are also planned.

— Craig Savage