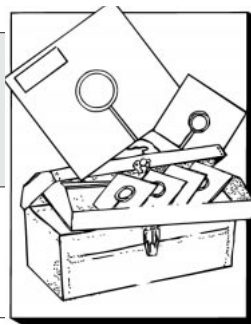


STATE - OF - THE - ART CONTRACTOR



Magic Act

by Craig Savage

If you're looking for simple-to-use unit price estimating software for either the Mac or Windows, try *Bid Magic* from Turtle Creek. Like its predecessor, HyperEstimator, Bid Magic blends a liberal use of icons with task-specific screens, called cards, that lead users step-by-step through the building process.

The program performs an estimate using quantities and costs that are calculated from information entered on several general information cards. The first card, called Basic Costs, stores information on contingency percentages (called "fudge factors"), geographic location, and construction quality (Figure 1). In the section called Locality Factor, for example, three different icons indicate pricing defaults for three different markets. Relatively inexpensive rural construction is represented by a log cabin icon; suburban costs, by a ranch house; and urban pricing, by a brick townhouse. The effect is to increase or decrease the database costs by a percentage, similar to the way construction cost books use geographic location modifiers to alter listed prices.

On the right half of the Basic Costs card shown in Figure 1 is a section that displays Basic Wage Rate information. Costs are stored under the headings "skilled" and "unskilled" (you can change these labels to suit your busi-

ness), which represent a high and low labor pricing structure. If you need to estimate a high-end job, just zero out the unskilled labor column, and all labor will be priced at the higher rate. Do the opposite for low-end jobs.

An Overhead and Profit card, and a Soft Costs card (for sales tax, interest, inflation, and other cost adjustments) round out this section. All of the cards in the program use "nudge buttons" — two small triangles pointing up and down — to raise and lower numerical entries.

The cards also have several icons near the top that perform the same function on each card. Clicking on the question mark calls up on-screen help; the compass point displays a menu from which you can choose to move to any other part of the program; and a pair of left- and right-pointing arrows make it easy to move to the next or to the previous card.

Size, Shape, and Quantity

The Dimensions section of Bid Magic uses graphics to elicit information about the physical size and shape of the building. There are seven cards — Basic, Foundation, Roof, Structure, Exteriors, Miscellaneous, and Finish — each of which stores information used to calculate unit prices once you begin

to estimate. The Basic Dimensions card, for example, records the square footage of various rooms, linear footage of interior and exterior walls, and ceiling height (Figure 2). If you indicate that the building has two stories, a double row of floor-plan icons will be displayed so you can enter different dimensions for each story. Icons are specific to each card, so that the Roof dimensions card will display icons showing several different types of roofs, the Exterior Dimensions card will display windows and doors, and so on. Again, nudge buttons and graphic icons make it easy to navigate among cards, and to recognize what kind of information you need to supply.

You will spend most of your actual estimating time using the 31 cards in the Specifications section (Figure 3). On the main menu for this section, each card is represented by an icon signifying a specific phase of construction. Clicking on an icon opens a series of screens arranged in the familiar database hierarchy of phase, category, and subcategory, ending with the line items that will finally appear on the estimate summary screen. Behind the Structure icon, for example, is a Framing category, which contains subcategories such as Sills and Basements, Beams and Trusses, and Exterior Wall Assemblies. Within each subcategory — there are 14 subcategories under Structure — are individual line items, such as "2x4 walls at 16 in. o.c." You can alter category, subcategory, and line item labels to suit your business (but you cannot change the titles of the 31 Specification phases).

Once you select a line item, the screen displays the quantities the program has calculated based on the general information entered earlier. You can accept these figures, enter new numbers from the keyboard, or use the nudge buttons to change amounts. The formulas used to calculate the unit prices can also be modified. For instance, the default unit formula for duplex outlets is one outlet every 12 feet. But you can easily change this to one outlet every 6 feet, for example, by making changes on the Rough Utilities formula screen.

The last section displays a bid summary card showing the total cost of labor, materials, and subcontracts for each unit-price line item in your estimate. Bid

	Skilled	Unskilled
Net Hourly Cost of Labor	20.24	12.52

	Skilled	Unskilled
BASE WAGE RATE	15	9
FICA (soc. sec.)	7.65	7.65
State & Federal Unemployment	3.2	3.2
Worker's Compensation	20	24
Disability & Liability Insurance	1	1
Health Insurance & Other Bennies	0	0
Holidays/Vacations (paid days/yr)	6	6
Burden Percentage	32.60	36.70

Figure 1. By clicking on and dragging the house icon along a graph (lower left), Bid Magic users can raise or lower overall estimate prices. The Basic Wage Rate chart (right half of screen) records total labor burden and allows you to select high or low labor costs, or a mixture of the two.

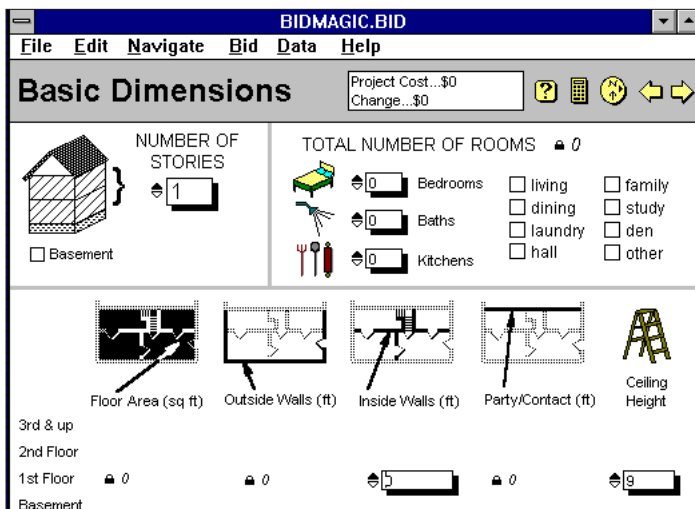


Figure 2. The Basic Dimensions card is one of seven screens used to set the size and shape of the building. The data is used in formulas that calculate unit-price quantities.

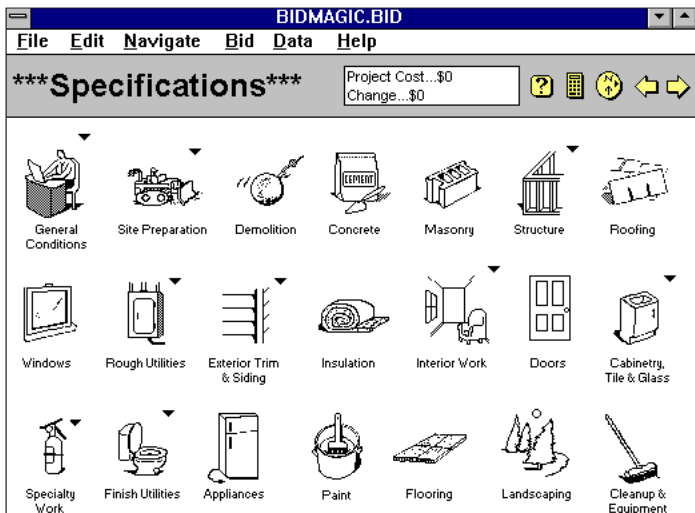


Figure 3. Use the 31 Specifications cards for quantity takeoff. Behind each icon is a hierarchical database of phases, categories, subcategories, and line items. You can use quantities automatically calculated by the program, or enter your own.

Magic does not yet produce a complete bill of materials, although this report will be included in an upgrade scheduled for this spring. You can, however, print a report that breaks down costs according to the 31 Specifications phases, and one that organizes costs according to the 16 standard CSI divisions.

Bid Magic comes with several completed estimates set up as templates — estimates prefilled with dimensions and specifications. You can use these templates to start a new estimate (rename it first so you're not working on the template), and simply change the dimensions and specs that need updating to match your project. And, of course, you can build templates of your own.

Turtle Creek is well known for its MacNail Estimating and Construction Management System — a set of macro-driven overlays for Microsoft Excel on both the Mac and Windows platforms. Bid Magic comes with a translator that sends data to MacNail for further manipulation, job costing, and scheduling. Turtle Creek is also working on a link

between Bid Magic and Chief Architect, the object-oriented CAD program from Advanced Relational Technologies (see *State-of-the-Art Contractor*, 2/94).

Bid Magic's unit-price method of arriving at estimated construction costs is much faster than stick-by-stick estimating. However, the "rules" the program uses to calculate costs may not match the way you build. Turtle Creek suggests that you enter data from several completed jobs to "calibrate" Bid Magic before using the program on a live estimate. ■

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.

Bid Magic (\$295; \$195 competitive upgrade) is available for both Macintosh and Windows. For more information, contact Turtle Creek Software, 118 Prospect St., Suite 201, Ithaca, NY 14850; 607/272-1008; turtlecrk@aol.com.