Green industry discovering CAD

Today's design software is affordable and easier to use, but it still takes a pro with a plan to make it work.

■ Computer-aided drafting, drawing, or design—call it whatever you want. Most people refer to it by its acronym, CAD. In the landscape business, it allows knowledgeable users to produce draftsman-like landscape plans more efficiently than they can by hand.

The key word here is efficiency. It's a tool that can make the landscape design/sell/implimention process more efficient.

Almost all professional users also describe it as a time-saving tool. This is particularly true when they revise landscape plans. It's easier to make changes on the computer rather than with a pencil.

But perhaps the real benefit of using CAD is its ability to more efficiently "marry" designs with their real-life financial parts. In a very real sense, it acts as a calculator, starting by providing material takeoffs of designs. Most programs can quickly provide volume calculations for cubic yards of mulch, crushed granite, or other landscape material, too.

Actually, you did the hard work prior to the design process by pricing your materials and figuring specific labor hours for each type of task. You inputted this data into the program before you made your first design.

But it's CAD's ability to turn out neat, colorful designs quickly that attracts most attention in the industry.

"I'm competing with guys who do sketches on a yellow note pad," says one contractor who claims he turns out full-blown, detailed residential plans in three hours where it used to take him almost a day. "When I hand a potential client one of my designs, who do you think is going to get the job?" he asks.

Explains another landscaper: "Two contractors come to your home. Both of them walk around your property, and you tell them all the things you want done—a brick walkway, a deck, flower beds.

CAD SUPPLIERS

LandDesignerPro for Windows Circle No. 311	CAD program to help landscape pros produce comprehensive proposals with full-color designs, plant and materials lists, and cost estimates. New feature: a grow option which portrays landscapes as they will mature over time.
LandWorks for MAC and PC Circle No. 312	Combines CAD power of PowerDraw (Engineered Software) with landscape features. Built-in plant symbol, irrigation symbol and construction details libraries, multiple layers (base sheet, irrigation layer, planting layer, etc.), color capability, easy calculation of square footage, linear feet, plant counts, etc. Output to Apple Imagewriter, LaserWriters, color PostScript printers, HP plotters and printers. System requirements Mac SE or better.
Professional CAD by UDS Circle No. 313	For IBM PCs and PC compatibles with Windows. Drafix modified with landscape symbols and tools. CAD drawing automatically converted into an estimate. Computer will do the take-offs. When combined with UDS Estimating software, can cost a project down to the last tree stake. Will also print a detailed work order.
Site Designer by Landcadd Circle No. 314	Site Designer by Landcadd. Windows-based. Stand alone. Provides comprehensive site planning and landscape design tools, irrigation and estimating capabilities. 3-D capabilities. Site planning. Irrigation design. Landscape design with growth simulator. Fully automated reports. Minimum requirements: 386 computer with a math co-processor, Windows 3.1 and 8 megabytes of RAM.
Gardenview Circle No. 315	Plant database (can be modified) and 3D garden and landscape design capability. 3-D views from any perspective and any day of the year for correct coloration. Needs IBM compatible.
ImageCELS Designer Circle No. 316	High-quality, photo-realistic texture maps including brick, block, pavers, cement, finishes, roofing, stone, fixtures, people, sky, trees and landscaping materials.
Landworks Circle No. 317	CAD system for landscape drafting on a Macintosh. Irrigation symbols, construction details and landscape tutorials. Needs Macintosh SE or better.
Mini CAD 5 Circle No. 318	Mini Cad 5 combines 2-D CAD, 3-D CAD, a database, spreadsheet, and a macro language into one program. Tools make landscape design easy. Both 68K and Power Mac versions included in one box. Requires Mac Plus or better, 4 MB RAM.
LLDesigns Package Circle No. 319	Driven by DeluxePaint II. Meticulous, colorful hand-drawn graphics for more than 550 cultivars of annuals, biennials, perennials, bulbs and woody plants. Disc containing cultivar info that can be imported into the word database of computer. Various packages available. Need IMB or compatible 386 or larger with minimum of 2 megabytes of RAM. Requires DOS 5.0 or higher.

Landscapers agree: they're more efficient, accurate with CAD

■ Patrick Burrier considers himself an artist.

He likes the feel of a drawing pencil in his hand. For years he drew meticulous and colorful landscape designs for clients. He learned the art at Michigan State University, and refined it at his own landscape business in northeast Ohio. He still dusts off his tee-square and pencil. But not often. Burrier designs landscapes mostly on his computer screen now.

The computer, and particularly the Landcadd design software, are tools that allow him to:

✔ Reduce the time it takes for designs and revisions, often in half. Clients usually spend less on design fees. Burrier himself can make more presentations and land more jobs.

✔ More efficiently and accurately calculate costs for designed projects.

✔ Bring customers more directly into the designing process.

Sometimes on a Saturday morning, in fact, he invites a prospective client to his office. Burrier encourages suggestions as he directs the computer's cursor in building a design on the electronic screen. Almost effortlessly he can widen a walkway, change the color and texture of pavers, or add a flower bed.

"Before, if I took a master plan out to client in pencil and the client decided to change some details, I had to go home and redraw the whole plan," says Burrier. "With the computer I can make changes in minutes. Then I just reprint it."

That's just one of the benefits that computer-aided design (CAD) provides Burrier's Mentor Landscapes & Supply Co.

"When I visit a property now I put a tape measure on it. We can be right on the money with the computer, down to a quarter of an inch on a design," he says.

This allows Mentor Landscapes to bid and estimate projects accurately. Once the design is complete, and all of the design elements are in place, the computer calculates the exact amount of materials needed—plant material, mulch, pavers, retaining walls, all materials, in fact, needed for the job.

Then, using real-life prices that Burrier has assigned (and periodically updates) for

Pat Burrier: CAD won't make you a better designer, just a more efficient one.

each of these elements, the computer calculates *his* cost for materials based on each design, and also the labor. It also figures an estimate for the client. Almost at the touch of a button.

"I'm not going to end up saying to a client, 'we forgot to figure these materials and we've got to charge you another $2,000.' We don't make those kinds of mistakes," he says.

Burrier attended classes at nearby Lakeland Community College to learn how to use AutoCadd, the drawing/designing software for designing everything from widgets to buildings. He then piggybacked the more specific Landcadd land planning software into his system.

By adding custom touches, like his own intricate and colorful plant symbols and an impressive company title block, Burrier makes his designs stand out even more.

Burrier estimates he's spent about $20,000 on his computer, a 486-series coprocessor with 66 mhz and two drives including a 540-megabyte hard drive, a 24-by-36-inch digitizing tablet and a plotter, plus his design software.

He plans to incorporate more 3-D into his designs. He's also investigating using animation.

But some landscapers say they don't need all the designing capacity of AutoCadd. They say newer stand-alone programs fulfill their design needs fine.

Robin Cloetens of Garden Keepers, a small design/install company in Lake Port, Mich., designs distinctive perennial gar-

dens, rose gardens, water gardens, Japanese gardens and herb gardens.

Cloetens uses a PC and LandDesignerPro software.

"When we design a project, we design what it's going to look like in 10 years," she explains. "We do a full-blown design and then, when we find out what the client's budget is for this year, we back the design down to what they can afford. Most clients love it."

Designs on the computer screen can be held in a client's hand after coming off a dot-matrix printer. They can be done on translucencies layered and put into a binder to show the project broken into its various phases, too.

Bruce de Wit of Rosemont Nursery, Grand Rapids, Mich., puts together booklet-sized presentations containing several different views of a client's property with his software from UDS. Moreover, each computer drawing is accompanied by a materials list and prices.

"I think AutoCadd is too difficult for a small landscaper who doesn't do designing or estimating every day," says de Wit, adding that he found the UDS program relatively simple to master.

"But convincing people that they can do this, too, can be difficult," he admits.

De Wit says that since he combined the computer drafting package with the UDS estimating software he'd been using for several years, he almost doubled the number of estimates he can prepare.

—*Ron Hall*

"One hands you a little drawing he's just done along with a business card. The other comes back the next day. He's got a cover letter kicked out on his laser printer, a drawing done on his computer. He's got a plant list, a reference list, a whole portfolio of information, including a professional estimate.

"Who's going to look more professional?"

CAD is finally seeping into the landscape industry, although some landscape pros still approach it like it's a snake in a shoe box. That's changing as design software gets easier to operate. Programs are also becoming more affordable. This is catching the attention of landscapers, most of whom run small companies.

Most CAD-type programs for the professional market come, thankfully, from people who know the landscape business, *then* developed programs for it.

Their advice to landscape pros: forget the "rinky dink" stuff costing $59.95 at the local builder supply store, software targeted primarily for do-it-yourselfers. Most of it was written by computer people who *think* they know landscaping.

The good landscape design software starts at about $400. In fact, landscape pros—including but not limited to landscape architects—who do a lot of designing can easily spend $20,000 and more for both their hardware and software. That's a lot of computer-related power, enough, in some cases, to moonlight as a rocket designer. No kidding.

Many landscape contractors don't need all of these accessories. Many can incorporate CAD—in 2-D plan views—for under $2,000 if they're already computerized.

To run CAD programs easily, your IBM-compatible computer system should be at
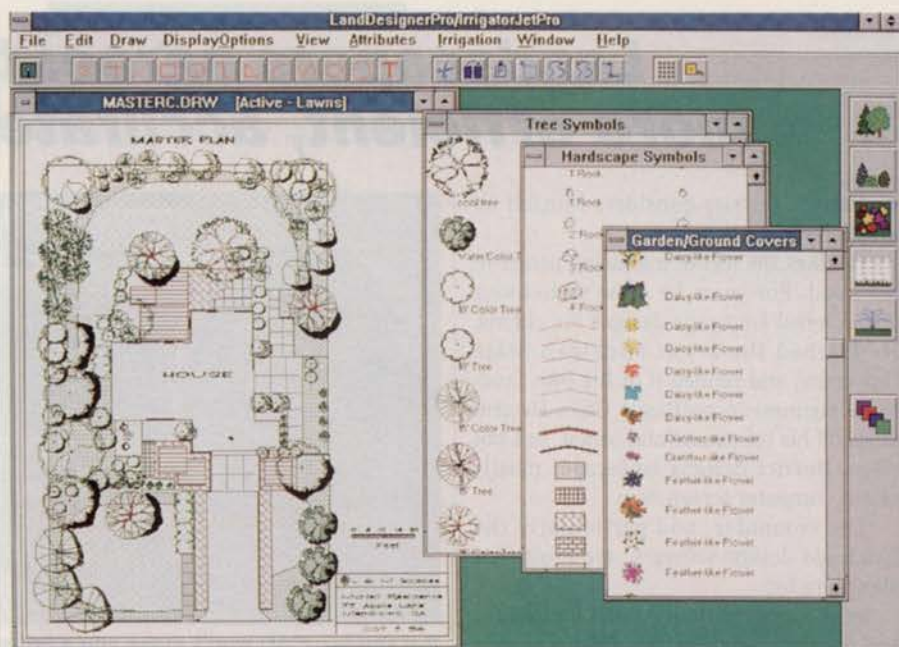
LandDesignerPro for Windows, from Green Thumb Software, displays landscapes as they will mature over time.

least as large as a 486-DX, claims one knowledgeable user. Smaller systems like 286, 386 and 4786-SX lack the math co-processor chip and speed needed to do calculations required by CAD software.

Whatever the software, your computer designs should not end up looking like they're done by a 13-year-old with too much free time. In fact, most landscapers customize their programs, particularly plant symbols and title blocks. They want their designs to be distinctive.

"We want to see drawings that look hand-drawn, except we do them on the computer where we have this spectacular editorial capability," says the owner of a small landscape firm. "Our designs serve as the calling card for our work."

But CAD, apart from its value for designs and presentations, can be a powerful business management tool, inasmuch as it has to work in tandem with all the other information related to running your business—costs, estimates, schedules, work orders.

"It's nice to have a drawing, and that adds to your professionalism, but the fact of the matter is you still have to count up how many plants there are. And you still have to put a price on those plants. And you still have to calculate how many hours are going into the job," says a Michigan contractor and CAD user.

With today's constantly evolving landscape CAD software it's just getting easier to do.

—Ron Hall

Salt-tolerant grasses to the rescue

Georgia researcher rediscovers long-neglected seashore paspalum; seed firms screen traditional turfs.

■ Salt kills or weakens most turfgrasses.

It wilts and desiccates them because salt in the soil solution creates a high osmotic pressure that restricts absorption of water and nutrients by turfgrass roots. But managers cursed with maintaining high-quality turf in saline environments can smile. Help is on the way in the form of a growing selection of salt-tolerant turfgrasses.

These grasses possess many of the characteristics of fine turf. In fact, they *are* fine turf, but they remain healthy in locations where turfgrass traditionally struggles:

✔ areas irrigated with recycled water (some effluents have high salt content),

✔ along highways "salted" during winter storms, and

✔ ocean-side golf courses.

While traditional species are being rescreened for salt tolerance, some scientists like Dr. Virginia Lehman at Lofts have been developing a newer alkaligrass, Salty. And others are readying grasses you may not be too familiar with yet.

Ronny R. Duncan, Ph.D., has collected—and is evaluating—270 ecotypes of seashore paspalum in turf plots at the University of Georgia, Griffin, Ga. He seeks varieties that thrive on golf courses with high salt levels.

"I'm confident I already have the grass-