Autodesk's Overhaul of AutoCAD Picks Up Pace; Release 14 gets boost from better graphics system, trimmer files

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AutoCAD Release 14 Beta

Running lean and more tightly INTEGRATED with WINDOWS and the Web, Release 14 of Autodesk's AutoCAD is a must-have upgrade that proved much faster than previous releases in PC Week Labs' tests of a late beta.

+: Speedier execution of tasks; better integration with Windows; ability to insert raster-based images in vector-based drawings.

-: Only one drawing can be viewed at a time.

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Scoring methodology: www.pcweek.com/reviews/meth.html

The feature in the just-shipped release 14 of Autodesk Inc.'s AutoCAD that veteran users will appreciate most is its speed, compared with previous releases: Regeneration, loading, saving and plotting of drawings are no longer yawn-inducing operations.

Autodesk accomplished this by replacing the old ADI (Autodesk Device Interface) graphics pipeline in its flagship CAD program with a more efficient, Heidi-based graphics system. Other welcome changes to the new version of AutoCAD, which PC Week Labs tested in late beta format just before its release earlier this month, include enhanced memory utilization and much tighter integration with Windows 95 and Windows NT.
Although the software's built-in Web tools, previously offered as plug-ins, were unavailable for testing when PC Week Labs examined the beta, the new Internet utilities let users create and edit URLs or hot links and place them in drawings. (For related story on what beta testers liked, see Page 60.)

The suggested retail price for Release 14, which runs on Windows NT and Windows 95, is $3,750. An upgrade from Release 13 is $495, and an upgrade from Release 12 is $695. Companies already using the earlier releases won't have to think twice about whether to upgrade--it's a must.

Much of the speed increase in AutoCAD Release 14 is due to improvements in the program's architecture that reduce the high memory demands inherent in previous versions. The system's workspace display is now handled by Microsoft Corp.'s GDI (Graphic Display Interface), which eliminates the snail-paced, memory-gobbling drawing refresh and regeneration operations in the product's model and paper-space work environments. PC Week Labs saw these improvements even when testing AutoCAD on a PC with 16MB of RAM, although Autodesk recommends a minimum of 32MB.

Files saved in Release 14 are smaller because of its pared-down method of drawing objects. We found drawing file size to be considerably smaller--40 percent to 50 percent--when saving drawings in Release 14 than when saving the same drawings in Releases 12 and 13.

One drawback still found in this release of AutoCAD, however, is that users can only view one file at a time. Even though most AutoCAD operations, such as opening and saving files, are not quite as instantaneous as we would have liked, Release 14 running under Windows 95 on a 120MHz Pentium-based PC boasted a speed twice that of AutoCAD Release 13 running under Windows 3.11 on the same machine in PC Week Labs' tests.

Another valuable improvement in AutoCAD Release 14 is the ability to insert raster-supported images on a vector-based CAD drawing. This means an image can be imported in either monochrome, 8-bit gray scale, 8-bit color or 24-bit color format and placed in a drawing. Release 14 supports 15 raster image formats, the most common of which are BMP, JPEG, PCX, GIF and TIFF.

The beta version of Release 14 produced errors when we tried to do a partial export of a drawing in DWF (Drawing Web Format). DWF is supposed to make vector-based CAD drawings viewable and transferable on the Web.
Autodesk officials said this was one of several bugs they knew about and planned to fix.

As for compatibility with previous versions of AutoCAD, Release 14 can read Release 12 and 13 files and can save them to both formats. For sites using AutoCAD Release 12 Lite 2 and Release 13 Lite 95, Release 14 exports files to these packages in DXF format.

Autodesk has improved AutoCAD's help features by including an interactive, multimedia AutoCAD Learning Assistance CD on the software's CD-ROM. In addition to online documentation, there are interactive tutorials and direct access to Autodesk's Web site. Experienced Release 12 and 13 users won't need to go through the tutorials, but novices will benefit.

The minimum recommended video requirement for AutoCAD Release 14 is a graphics card capable of displaying at 800-by-600-pixel resolution.

Autodesk recommends running AutoCAD Release 14 on Pentium-class PCs with at least 32MB of RAM. Despite this fact, PC Week Labs got respectable results running Release 14 on a 110MHz 486-based PC with 16MB of RAM. The bulk of our testing was done on a 120MHz Pentium PC with 16MB of RAM.

Depending on the installation option, Release 14 requires 60MB to 100MB of hard disk space. Also, at least 2.5MB of disk space must be free during installation, and 10MB is required for each concurrent networked session.

Network installation has been streamlined. The personalization disk required in earlier releases is no longer needed, and a new Installation Wizard simplified installation tasks on TCP/IP-enabled networks.

The Autodesk Network License Manager included in the product allows multiuser software license management without the need for hardware locks.

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COMPANY (TICKER): ACAD (ACAD)
Convert and edit 3D images with HiJaak Pro 4.0. (Quarterdeck's graphics capture and conversion package) (Software Review) (Evaluation)

Dale Evans

A few years ago I was searching for a good graphics capture and conversion package. I asked around and without exception, co-workers, friends, and software resellers recommended HiJaak. "Have you tried HiJaak?" they asked. I believe their answer today would be almost the same. "Have you tried HiJaak Pro, version 4.0? It's excellent."

HiJaak easily converts graphics files to more than 85 other formats, including 2D, 3D, raster, vector, and metafile formats and the program is very easy to use. The first step is to bring up HiJaak, select conversion from the File pull-down menu, and pick the file(s) you want to convert. Choose the new format from a drop-down list, type in the name of the new file(s), and press return. If the resulting file doesn't appear exactly the way you want it, you can edit it after or during the conversion. Raster processing options include smoothing, grayscale, changing all colors to black, reverse black and white, invert colors, and reveal background color objects. You can also use the 3D rotation feature by specifying an angle to rotate. You can adjust contrast, brightness, and gamma correction; reduce or expand the number of colors used; and even substitute colors one for another. Notice that you can convert multiple files with one command.

I was especially interested in HiJaak's capability to convert native AutoCAD files to and from DXF, GIF, and other formats. The conversion process is the same, although sometimes you'll need to make some adjustments to get the results you want. I experienced a few stray vectors in some conversions. You'll really appreciate the value of
HiJaak's conversion tools when you don't have the application that created the original graphics file. This happens often in the engineering business. A client, for example, may give you a set of files which you are unable to view or print. Since HiJaak Pro reads, writes, and converts so many formats (including PostScript), your chances of being able to work directly with the file or convert it to a format you can use are much better than they were only a few years ago.

HiJaak Pro's new Trace feature converts raster images to vector format and includes a large number of processing options to control raster-to-vector conversion. Vector format becomes very important if you'll be zooming in on graphics images. When you zoom in on a figure that is in vector format, lines and arcs remain smooth—unlike raster figures, in which the image becomes increasingly jagged the more you zoom in.

Along with the growth of the Internet and World Wide Web has come the increasing use of 3D. There are, however, few inexpensive tools available for working with 3D. I found HiJaak Pro to be an inexpensive yet powerful solution for 3D graphic editing. Its easy-to-learn 3D image editing tools include a 3D Viewpoint Palette, 3D Perspective Control, and 3D Rendering Options. Using these tools you can change your position (viewpoint) in relation to the image or change the direction you are looking (up, down, right, left, bit, etc.). You can even click on the 3D image with your mouse and drag it to the desired location. It's easy to turn perspective viewing on and off at any time.

I had no problem working with 3D Studio files, a new capability with this release of HiJaak. While it does not support moving objects and avatars (specifications included under VRML V2.0), the program does support VRML (Virtual Reality Modeling Language) V1.0 for up to 24-bit RGB color with no compression. Converting 3D Studio files to VRML format was as easy and fast as converting 2D files, and the resulting graphics were as clear and functional as the originals.

One of HiJaak Pro's most helpful tools is its thumbnailing feature. Windows 95 is meant to be a smart, object-oriented system that will run your applications straight from the file manager, Windows Explorer. When you double-click on a file in Windows Explorer, its associated program will start up and load the file you picked. Explorer's icons, however, are small and lacking in detail, and unless you remember the name of the file you want to load, you'll be left in a trial-and-error process when trying to find what you want. HiJaak Pro remedies this problem by surveying the files on your hard drive(s) and replacing the small Microsoft-generated icons with larger, detailed thumbnails. If the file is a graphics image, the new thumbnail actually displays the
image along with the filename. Creating thumbnails is easy. You can let HiJaak Pro do all the work automatically, or you can specifically select which files will have thumbnails displayed in Windows Explorer. Besides giving you an easy-to-recognize image, HiJaak makes it easy to find and manage your files by giving you a way to add keywords to each file in Explorer. The thumbnails are so convenient that I began using them immediately.

The capture utility provided by HiJaak Pro is one of the best I’ve seen. Not only does it capture the full Windows 95 screen, it also can capture a window or area and automatically load the captured image into HiJaak Pro for editing. You also can configure the software to apply automatically editing filters to the captured image before it is saved to disk. If you have more than one image to capture, you can capture as many as you want all in a row, without stopping to edit each one, and do editing later.

HiJaak Pro supports MDI by giving you the capability to load multiple images at one time. This feature is essential if you plan to copy and paste graphics from one image to another. It provides multi-user shared catalogs and user-defined attributes that can be used to tag an item with a manufacturer's name, price, date, or other textual and numeric information.

I ran HiJaak Pro on a 75MHZ Pentium with 20MB of memory. It ran smoothly and quickly. The only time I waited for it was when I was creating thumbnails interactively. Even then, the waiting time was not prohibitive. If you decide to have HiJaak Pro create thumbnails for every file on a system with thousands of files, I would suggest that you set the process to run automatically while you are at lunch. The time will vary depending on the speed of your computer.

HiJaak Pro 4.0 is a superset of the now-discontinued HiJaak 95. It supports all of its predecessor's capabilities and much more. It handles more file formats in read and write mode, including 2D and 3D formats, and gives you 2D and 3D viewing and editing tools to go with them.

HiJaak Pro is an impressive package—especially when you compare the wide range of capabilities with the price. Its long list of compatible formats makes it a leader in graphics conversion. It is also unique in the file management capabilities it provides. INTEGRATED with WINDOWS 95, these convenient and useful features can be accessed from within Windows Explorer. As with any purchase, you should check HiJaak's capabilities against your requirements. If you're thinking of buying it
for converting AutoCAD files, try it first. There are still a few small glitches in that conversion. Overall, this package is a good one. If you need an affordable software program to edit and render 3D graphics, this may be your solution.

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COMPANY (TICKER): QUARTERDECK CORP. (QDEK)

ORGANIZATION: QUARTERDECK CORP.

KEY WORDS: IMAGE PROCESSING
MICROTEK: Microtek Europe B.V. and Xerox announce worldwide co-operation

Microtek Europe B.V., a leading manufacturer of desktop scanners and computer peripherals for desktop processing, today announces a worldwide co-operation agreement signed with Xerox.

The agreement, which comes into effect immediately, has already led to a new bundle for Microtek's Colour PageWiz. The 24-bit, sheet-feed scanner will now come with Pagis SE, the new scanning suite from Xerox in which Xerox's TextBridge Classic, the proven OCR programme, is an integral part.

New Bundle For Microtek Europe B.V.'s Colour PageWiz

Microtek's Colour PageWiz offers a multifunctional solution for communications and document management. Lightweight and easy to operate, it can scan a variety of document masters in a matter of seconds, producing sharp and rich image quality. The single-pass colour CCD guarantees rapid scans in just one pass. Post scan, digital documents are easily manipulated with Pagis SE, where the easy-to-use structure allows the user to work by simply clicking the mouse and using the drag and drop facility. The result - scanned masters can be effortlessly filed, processed, sent by fax, e-mail or can be reproduced using a desktop printer.

Xerox's Pagis SE

Xerox's Pagis SE is easy-to-use, efficient and fully INTEGRATED into WINDOWS 95 and Windows NT environments. The automatic scanning function guarantees optimum scanning quality without the need for complicated settings and the XIF file format ensures scanned documents take up only a fraction of the size on the desktop you would have when scanning with other programmes.
Further features of Pagis SE include: Documents can be scanned directly from the preferred word processing programme; full text search for words contained in the text of filed documents enables users to find all documents administered in Pagis SE simply and in a matter of seconds; an editor for comprehensive text marking, footnotes and notes; various image processing tools for removing lines and spots and for optimising colour, grey scales and black-and-white images and a special function for scanning, indexing and filing business cards.

Pagis SE also comes with TextBridge Classic, Xerox's widely tried and tested OCR programme, which guarantees especially precise text recognition. The user only needs to drag a scanned document onto the TextBridge icon on the desktop to convert it automatically into fully editable text.

Within the framework of the co-operation agreement between Microtek Europe B.V. and Xerox, a range of Microtek Europe B.V.'s high-end scanners are to be bundled with Xerox OCR software TextBridge Pro: the SM6400XL A3 scanner and two high speed scanners.

Price and Availability

Available immediately from Dixons High Street stores and PC World at £99 incl. VAT, Colour PageWiz is supplied with Pagis SE for Windows 95/NT 4.0.

About Microtek Europe B.V.

Founded in 1980 in Taiwan, Microtek Europe B.V. is the world's leading manufacturer of PC and Macintosh desktop scanners and offers a comprehensive range of scanning equipment to everyone from the high-end publishing professional to the home user. Significant design developments have been implemented in Microtek Europe B.V.'s range of scanners, making Microtek Europe B.V., scanners even more versatile and user-friendly than ever before.

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