



CMP

United Business Media

# CADENCE

Leading Design Into The Future

July 2002

editors' choice



Our selection of software, hardware, and CAD-related services that have done the most to move the CAD industry forward in the first half of 2002.

## Editors' Choice Awards

Abby Albrecht  
Heidi Hill  
Peter Sheerin  
Arnie William  
Kenneth Wong

July means many good things to many people. For the youngsters among us, it's summer vacation with all the wonder non-school-days have to offer. And for the teachers of those youngsters, well, let's just say they, too, look forward to July. And yes, even we in the busy adult CAD world manage to squeeze in a vacation day or two in July. But for the staff editors of CADENCE as well as our contributing editors and frequent reviewers, July marks one of the two times each year that we formally recognize the leading vendors in the CAD industry with our Editors' Choice Awards. The development teams behind these CAD-related software and hardware products and services are all to be congratulated on bringing to market high-quality products and services that help move the industry forward. They've all raised the bar for themselves and their competitors and you all now have the opportunity to reap the rewards of those high standards.

So without further ado, we give you the winners of our July 2002 Editors' Choice Awards. Congratulations to all.

**Actify SpinFire**  
**Actify, Inc.**  
[www.actify.com](http://www.actify.com)

Described as "Acrobat for 3D" by its makers, Actify SpinFire is a unique product that allows users of CAD products to view, share, exchange, and annotate 3D files without the native programs—unhindered by incompatibility. Like the Acrobat Reader, SpinFire Viewer is downloadable free of charge. SpinFire Professional (formerly SpinFire 3Dview) can be purchased with selected modules, depending on the number of CAD systems a buyer wants to support. In addition to the viewing/markup capabilities generally found in other competing products, SpinFire Professional allows measuring, dimensioning, cross-sectioning, rotation, exporting/importing, and a host of other functions.



**trial runs**

Robert Green

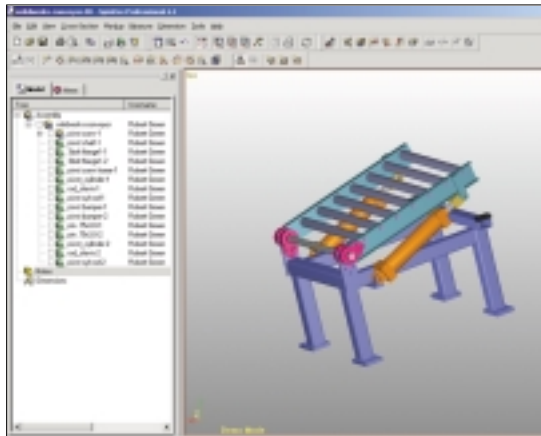
**Actify SpinFire Professional**

In the last couple of years, the viewer market has shifted away from multi-disciplinary 2D commercial CAD viewers towards downloadable free-ware 2D/3D CAD viewers. In this same time span the MCAD market space has become much more complex with Inventor, Mechanical Desktop, Solid Edge, and SolidWorks honing in on the traditional high-end MCAD market leaders such as Pro/E, SDRC, and Unigraphics. Consequently users have to download more and more viewing tools, all with different interfaces, to accommodate data viewing from a variety of manufacturers. Moreover, the old multi-discipline 2D/3D viewers don't recognize the complex assembly context of MCAD tools.

SpinFire Pro goes back to the classic concept of multidiscipline viewing but adds full 3D capability, assembly/part structure browsing, redline/markup annotations, intelligent measuring, and dimensioning for a wide variety of MCAD file formats. SpinFire Pro even deals with old and new industry standard data-translation formats such as STEP, DXF, and IGES. SpinFire Pro isn't cheap at its starting price of \$495, but it does cover a lot of ground other viewing products don't.

**Getting Started**

You can obtain SpinFire Pro from an Actify reseller or from Actify directly. Either way you'll need to start your quest at Actify's Web site armed with a list of the formats you want SpinFire Pro to support. The basic SpinFire Pro package includes support for 3DS, DWG, DXF, DWF, HPGL, IGES, ISO G, RAW,



**Figure 1.** SpinFire Pro employs a standard pop down and toolbar command interface with the viewing window on the right and assembly/layer browser on the left. MCAD users will feel at home right away in the Model browser, which allows them to turn parts/layers on/off, and the optional View tab, which lets them set viewing angles.

SAT, STL, VRML, and VDA file formats for \$495, which should cover most Autodesk-centric shops with modest translation needs. For those in need of Inventor, Parasolids, Solid Edge, or SolidWorks support, those file formats can be added for \$95 each. Additional support for IDEAS and STEP is available for \$245 each while CATIA, Pro/E, and Unigraphics modules are \$495 each. Actify also offers a SuperPack bundle (\$795), which supports about 15 mid-range systems, and a Grand Slam bundle (\$1,795), which supports about 40 CAD/CAM file formats.

Once you've downloaded your software (or obtained a CD), you can proceed with installation simply by selecting the file format filters you wish to install and running the installation routine. When installing Inventor support, there will be a secondary setup routine that runs after SpinFire Pro's routine, so be ready to acknowledge it. Upon initialization, you'll need to input your Seat ID code, which Actify provides, and complete the Web-driven authorization process. After this you'll be up and running with all your installed import filters. The

hardest part of the process is understanding which file support modules you'll need and how much they'll cost. (For a list of supported file versions, go to [www.actify.com/v2/products/3dview/formats.htm](http://www.actify.com/v2/products/3dview/formats.htm).)

**CADENCE Verdict**



SpinFire Professional from Actify is a well-conceptualized, multi-platform product that enhances viewing and graphics exporting. The ability to view/share many file formats via a 3D display list makes SpinFire Pro a good choice for firms that need to collaborate with multiple MCAD packages.

**Pros:** Good functionality; good 3D performance; 2D/3D measuring and dimensioning; associative notes; freeware companion viewer; graphics exporting to other packages.

**Cons:** Somewhat slow 2D performance; high cost for Autodesk-only users.

**Price:** \$495 to \$1,795, depending on the number of file formats supported.

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Feature Report Card	
Scoring from 1 (lowest) to 10 (highest) only	
Installation and Setup:	9
Interface:	9
Features:	9
Expandability/Customization:	n/a
Interoperability:	8
Support:	8
Value:	7

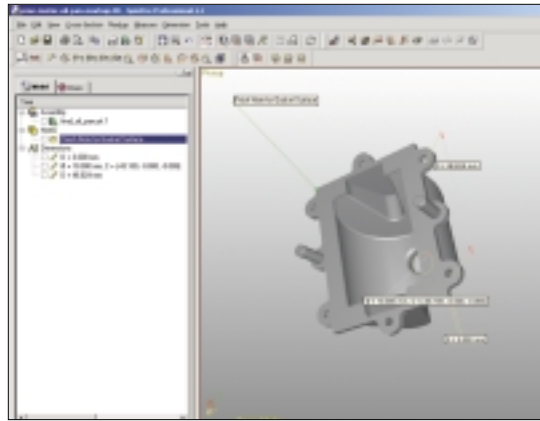
## How It Works

SpinFire Pro lets you open the drawing/model format of your choice directly from its File menu or standard toolbar, as shown in Figure 1. As the file opens, it's imported into the viewer and, depending on the file format, the Model tab of the assembly browser is populated with assembly parts or layering information, which can be switched on or off. An additional View tab lets you switch viewing angles using an *xyz* triad.

Once you've set the correct viewing angle and the display to include only the assembly parts desired, you can set your viewing parameters such as axes, grid lines, shading, or wire frame from the View pop-down. Zooming is supported in the windowed, fitted (think Zoom Extents), recentering (think panning), and previous modes. The zooming is relatively quick and accurate on the files I checked, even with some picky examples involving AutoCAD fonts and linetypes.

If 3D visualization is high on your list, then switch off the zooming controls and the cursor becomes a lightweight rotation control that shows real-time rotation of the model. Upon releasing the mouse button, the previously selected shading mode returns. Sections are viewable via the Cross Section Active control in the pop-down menu. For the 3D models I examined (Inventor, MDT, Pro/E, and SolidWorks), the 3D manipulation was quick and accurate in all viewing modes.

Though not apparent while working with SpinFire Pro, you're actually dealing with a display list (savable as a 3D file) of the CAD model. The 3D files may then be distributed to others for



**Figure 2.** SpinFire Pro supports annotation features such as dimensioning for placed objects (note the 10mm diameter hole), linear dimensions along coordinate axes, and general annotation with a tool-tip type summation.

use with the freeware SpinFire Viewer. This has benefits in some curious ways; the display list of the model/assembly can be exported into BMP or JPEG files or copied onto the clipboard and pasted into technical documents generated by Microsoft Office applications. The additional export to VRML 1.0 and 2.0 formats allows motion-based views of the model to be integrated into Web pages for peer review—even by those who don't use the SpinFire viewer. Technical writers may want to consider SpinFire Pro simply to manipulate and render MCAD models for documentation.

## Beyond Viewing

Besides viewing models, SpinFire Pro has a solid set of dimensioning and annotation features, as shown in Figure 2. The standard toolbar has a number of functions you can use to annotate placed features (such as holes); distance annotations can either be constrained to a coordinate axis or allowed to float freely between vertex points. While not as good as the dimensioning

features you'll find in the native MCAD packages, SpinFire's tools are certainly adequate for conducting basic measurements. By saving the annotations in a 3D file format, SpinFire Pro lets you retrieve them without making the model files available for editing—an important security consideration.

Another impressive annotation feature is the noting function, which allows placing notes in the viewing window. The notes can be a simple storage of data in a Notepad-type format but they can also include hyperlinks to external documents, which is unique to 3D View. The ability to attach design documents or change orders to a 3D file, complete with annotations, places SpinFire Pro in the realm of collaboration tools beyond simple viewing utilities. The option to deploy those information-rich 3D files with embedded notes via a WAN or intranet goes a long way towards facilitating engineering review over great distances.

## Conclusions

SpinFire Pro 4.1 proves that an MCAD viewer can do more than just view; it can, in fact, support multiple products via a single interface. The additional capabilities such as markups, dimensioning, hyperlinking, and graphics exporting make it a solid MCAD tool for anybody who deals with CAD data. **C**

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