

Newsletter

April
2001

autodesk
authorized reseller

www.autodes.com
Automated Design Systems
an Avalanche Networks
Corporation company
CDNX: AVH

Barrie
(705) 739-1818

Belleville
(613) 967-3694

Burlington
(905) 681-6760

Cambridge
(519) 242-5115

Kingston
(613) 546-6710

London
(519) 652-3825

Mississauga
(905) 565-8000

Richmond Hill
(905) 889-6662

Oshawa
(905) 404-1498

Ottawa
(613) 225-1717

St. Catharines
(905) 687-3931

Stoney Creek
(905) 662-5413

Sudbury
(705) 677-4428

Vancouver
(604) 647-2220

Windsor
(519) 972-8788

AutoCAD 2000
Mechanical Desktop®
Autodesk Inventor™
Architectural Desktop
Land Development Desktop
AutoCAD® Map
3D Studio MAX® / VIZ®

Note: Not all products are available from all offices.

Automated Design Systems AutoCAD® 2000 NEWSLETTER

Serving AutoCAD users for 13 Years 1988 - 2001

NEWSLETTER DISTRIBUTION OPTIONS:

Please **email** this newsletter to me. Name: _____ Email address: _____

Please **fax** this newsletter to _____ in addition to me instead of _____ Fax: _____

Please **mail** this newsletter to me instead of faxing. Name: _____ Address: _____

Please include the **mechanical parts design page** when you send the newsletter to me. Name: _____

Please include the **quarterly architectural/civil page** when you send the newsletter to me. Name: _____

Please **do not send** this newsletter to _____.

Please fax this sheet to (905) 662-4842 to have these changes made to our newsletter distribution list.

Rental AutoCAD

Autodesk has announced two new initiatives that will be implemented this year: 'Rental' AutoCAD licenses and AutoCAD 'Hosted' on a central server. These two initiatives will be rolled out in the summer and will provide AutoCAD users with some great alternatives for ensuring their licenses are up-to-date.

The Rental licenses will clearly be the most popular and will be available for AutoCAD, Architectural Desktop and CAD Overlay. This rental program is ideal for those customers in the A/E/C industry who work on a project basis.

Under the rental program, you'll be able to use a license for 30, 60 or 90 days – long enough to cover you for a specific project for which you need licenses over and above your current license count.

This program is also great if you want to evaluate AutoCAD 2000i or Architectural Desktop 3.0 on a project.

Or, if you have a bunch of paper drawings which you'd like to update using CAD Overlay, you can rent a license of this software for 30 days to get the job done.

And finally, if your design costs are reimbursable from your clients, the rental model allows you to expense your software costs rather than depreciate them as an asset.

If you plan on holding onto your AutoCAD license for a year or more, it will be more beneficial for you to purchase a new license. But for short-term usage scenarios, rental of AutoCAD, Architectural Desktop and CAD Overlay is a concept whose time has come!

Bruce Lamb, President

Architectural Desktop users reach 136,000

At its recent dealer conference, Autodesk announced that they have sold a total of 136,000 Architectural Desktop seats. And this incredibly quick adoption of technology has happened in the two short years since its introduction!

Now, just because all of your competitors are jumping off this bridge doesn't mean you have to...but, if you are in the building design industry, you certainly owe it to yourself to check out the latest version of this software. Call your Automated Design Systems rep to arrange a demonstration today!

On-site Demonstrations of 'Desktops' & Inventor

As mentioned in last month's newsletter, our people are very motivated to show you the how the latest versions of **Autodesk Inventor, Mechanical Desktop, Architectural Desktop, Land Development Desktop and AutoCAD Map** can make your company more productive. And if we do it at your office, the key decision-makers in your company can see for themselves how much more productive you can be with the software.

So give your nearest Automated Design Systems office a call and we can discuss whether a demonstration of the compelling new software at your site would make sense!

Quote of the month:

"As you requested, here is a schedule of all future unplanned network outages.

"I took the initiative to include a schedule of all future sick days, volcanic eruptions, earthquakes and hurricanes."

– Dilbert

Autodesk Building Services

Here (almost) at last!

At its recently held dealer conference, Autodesk showed demonstrations of the new Autodesk Building Services software which includes HVAC, electrical and building piping applications. For users of Softdesk S8 Building Services modules, this is welcome news as, finally, you will be able to migrate off your AutoCAD Release 14 implementations to the new and improved AutoCAD 2000i functionality – plus gain the compelling new feature set contained within the Autodesk Building Services software.

Beta testing – the final testing before the software is released to manufacturing – is scheduled for later this month, and the software will be released as soon as it is stable after this testing. That being said, Autodesk is looking for an extremely high-quality release, so it may be June or later before it is delivered to the dealer channel.

There are lots of great time savers for the engineers that design building services. For example, HVAC designs can be shown on a drawing in single-line, double-line, iso and 3D all at once in different views in your layouts. And if you change the length of a piece of ductwork, the labeling for that piece changes as well! When you connect one piece of ductwork to another, the correct fitting is automatically inserted, and if you change the size of one duct, the fitting changes automatically! And when you connect lights together within the electric module, the wattage is automatically totaled with each light you connect. With Autodesk Building Services, you can reduce errors and omissions, save time and save money!

As the release date draws near, we'll have more information. Contact your local Automated Design Systems office to be notified quickly of any new developments!

**Do it better... faster...
with training from
Automated Design Systems**

**How can you become more productive
with your Autodesk software?**

Take a training course from Automated Design Systems

Why take training from Automated Design Systems?

- ✓ Automated Design Systems is an authorized Autodesk dealer. We have been providing our clients with the total CAD solution for thirteen years.
- ✓ We offer a large number of courses for all Autodesk products, using Autodesk Certified Courseware designed for intensive instructor-led training.
- ✓ Our class sizes are small so that intimate, interactive training takes place between the trainer and student.

Contact your local Automated Design Systems office to reserve your seat in an upcoming course

AutoCAD 2000i Tips!

Understanding Proxies

The first time you see the message below when you open up a drawing, you might think that the drawing is corrupted. Don't worry, it's probably not corrupted – AutoCAD is just letting you know that you are opening the drawing in an AutoCAD 'flavour' that doesn't have the same functionality as the 'flavour' in which the drawing was recently edited.

When you create an item in a different flavour or version of software than what someone else has used, there are often objects or features that the different or older release of AutoCAD can't recognize.



For solid model compatibility reasons, some applications such as Mechanical Desktop simply won't allow you to save the files to a lower version. This restriction makes sense: if MDT5 allows you to create a type of 3D loft that MDT4 doesn't support, MDT4 won't be able to show the model -- so MDT5 doesn't even allow you to try this. You can still export the files out to a generic file format, such as a native ACIS (.sat) file format, but you generally lose your 2D views, assembly constraints, parameters, etc. when you do this. So, generally, you should never migrate 'down' with 3D models unless all you need is the core 3D ACIS model, such as for CNC code generation.

In the case of 2D drawings, there may be objects -- both visible and invisible -- that are included in one flavour of a drawing file that are of a different format than another flavour of AutoCAD can recognize. So AutoCAD provides a "proxy object" – an object that *looks exactly the same* as it would in the native flavour, but *without the "intelligence"*. You can move, erase, copy, plot, print, generate NC code, etc. from these proxy objects as you normally would, but you can't 'edit' a proxy object in the normal way. So whenever AutoCAD or a flavour thereof opens a drawing with objects it doesn't recognize, it uses proxy objects in their place and provides, by default, a message letting the user know that proxy objects are contained in the drawing.

If you find that the proxy messages are a nuisance in *your* session, you can prevent this dialog box from showing by turning off the toggle in the lower right corner of the [**Open and Save**] tab of the **Options** dialog box.

Inventor Release 4 continues to gain momentum

The stellar reviews and awards continue to pour in for Autodesk Inventor Release 4.

- *Autodesk Inventor 4 Wins CADALYST Best of Show Award at NDES 2001*
- *Lamb Technicon commits to Autodesk Inventor as the division's standard design solution and plans to replace more than 200 AutoCAD licenses with Inventor.*
- *CADALYST reviewer Bill Fane gives Autodesk Inventor Release 4 "5 out of 5", "Highly Recommended".*

Perhaps, though, the most telling tale comes from an associate of Automated Design Systems that specializes in high-end CNC solutions. This individual works with vendors from all the major players in the mid-range solid modeling arena, including the major Pro-Engineer, SolidWorks and SolidEdge resellers. His exact words were that *these competitors "are scared to death of Inventor"*. He indicated that they can see that Inventor's core architecture has significant key advantages over the platforms they are promoting. This technical superiority combined with the marketing clout of Autodesk means that these smaller players are going to be in for a rough ride in the coming years.

So if you are looking for a powerful feature-based parametric solid modeling solution, take a look at what Autodesk Inventor has to offer. Contact your local Automated Design Systems office to arrange a demonstration!

Web-Driven Parametric Design

Envision this: your company's sales representatives are in the field speaking to customers about your new widget assembly. A big customer asks about a configuration and size of widget assembly that you have never built before, but for which you already have the parametric solid model design developed. The sales rep hops onto your web site, enters a couple of parameters into a web interface, and voila – he produces accurate drawings complete with isometric exploded views and full bills of materials – in a matter of seconds.

Automated Design Systems has this technology today and it is live.

Imagine -- No sketches scrawled onto a paper napkin. No hand drawn, chicken scratch dimensions that you can't read. No parts lists that are missing major items.

Try it out at www.autodes.com/automation. This is a simple example of what we are able to do for our clients now by combining our powerful parametric design engines with a flexible, database-driven front-end interface.

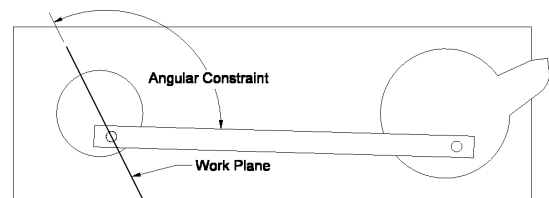
To learn more, we'll be happy to meet with you to discuss your application!

Inventor 4.0 Tips Driving Constraints

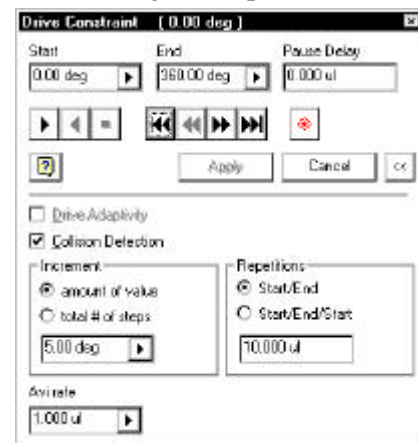
One of the powerful (not to mention cool) features of Inventor is the ability to move parts within your assemblies while maintaining the integrity of the assembly constraints. This feature is a great way to interactively analyze the logic of your design. However, you can take this ability one step further by "driving constraints" through a range of motion and even perform collision detection at the same time.

The process to drive a constraint is quite simple. To drive an X, Y, or Z motion constraint, simply right-click over the constraint (such as a "mate" or "flush" constraint) within the browser, select "Drive Constraint", and provide the distance to drive the constraint through each iteration.

Circular motion constraints require a bit more effort. Since you will be driving an "angular" constraint throughout a range of motion (say, 0 degrees through to 360 degrees), you need to have that angular constraint placed within the model. The easiest way to achieve this result is to place a work plane on a work axis that goes through center of the part that is to rotate. Then, you simply add the angular constraint between that work plane and another flat surface or work plane in the model.



Once placed, you can then "drive" the constraint through a range of motion by right-clicking over the angular constraint, and following the steps described above.



You can also record an AVI file throughout the range of motions you specify in the Drive Constraint dialog box, and you can perform collision detection throughout the range of motion as well. These tools allow you to build better designs *the first time*, and virtually prototype your designs on your PC!