Before we begin with the main reason you're here today, please take a moment and visit http://www.cadonline.com/cadpoll/cadpoll.html and vote this site as a good place to find information online!

Next, in previous articles I had mentioned ZDU, one of the new online schools that are popping up. Since I had suggested people might want to try them in the past I wanted to let people know of some of the problems they are having. At first glance, this is a great opportunity, small fees, easy access, learn when you want to, no trying to find a parking space in the rain on a cold winter night, etc. However, rather than spending time learning, I ended up spending hours online writing emails or sitting on the phone trying to get the book for the class. It turns out they are having problems supplying the books in a timely manner. Also when they did arrive they were printed in black and white, not in color, as was the example. It took about 6 weeks, countless phone calls and emails but I was able to finally get a refund. If you are in the same boat as I was, try calling 1-888-321-1357 between 9:00 a.m. and 5:00 p.m. New York time, Monday thru Friday. I'm still waiting for the refund to be credited. If you were interested in taking online classes, I'd suggest looking elsewhere, or at least waiting for a few months till they can get their shipping problems with Barnes & Noble sorted out.

Ok now, to the real reason you're reading this article. You want to know about Architectural Desktop. You want to know if you're ready to consider upgrading to ADT? Well, we were too and this article is on what we found in the box, what it took to install ADT, and some of the things we've found that are good as well as bad during our first 2 weeks of usage.

We started by going in the morning to AEC's demo of Viz at Kinetix in San Francisco followed by an afternoon at AEC in San Rafael looking at ADT, LT98, and other nifty stuff. As soon as we got back to the office we called back to place our upgrade order for 2 copies of AEC to ADT. Within about one week we had the new boxes sitting on our desk. First thing we were concerned about was destroying our current copy of r14 AEC. We had spent allot of time setting it up with AutoCAD, M-Color, Facade, countless customizations, and other programs tossed in here and there. We knew we wanted to keep these as a "just in case" measure.

We started by going through the boxes. Included in them were 4 CD's including the ADT which is a complete version of r14, the Learning Assistant CD (this is well hidden behind the ADT CD), a Viz Demo, and a CAD Overlay Demo. Next week I'll go into detail on what the CAD Overlay is and other new stuff. There are also 3 books – the Installation Guide, the User Guide and the Getting Started Guide. I should note that the version we received is the upgrade version, and not the full retail version. At this point I'm not sure what is added into the box of the full version. Also included is a coupon for

the free DesignBlocks CD's which for most people simply take up space on the shelves. I actually tried using them a few times myself and while I was impressed with the general layout, it lacked the amount of information that I wanted. If you start to read the installation book you will see that you needn't worry about overwriting the previous version of ACAD. When ADT installs itself, it creates a new directory. Both versions of ACAD will still run, the only catch is that you can't run both ADT and r14 at the exact same time, it's an either or ability. As we continued to read the book, we double-checked that the machines we were using could run it. You should know that while the book says that you need a minimum of 16 megs to run each concurrent session of ADT, we've found that number to much higher. On our PII350 with 256 megs of RAM we were actually over 30 megs per session. Where we used to be able to run 8 or more sessions of r14, we are finding ourselves limited to only 4, and even then with large drawings, the display driver becomes corrupted and in many cases the file must be closed and re-opened in order to see anything. While this doesn't damage the drawing, it is annoying. Actually we've found for almost every item that seems to be wonderful in ADT there's an equal annoyance. Once you start using ADT you should really read over the messages on the discussion forum hosted by Autodesk on ADT at news://adesknews.autodesk.com/autodesk.aec.arch-desktop So, you should now be ready to do your installation. You have a choice of either the full, normal or custom. Choose "Full Installation". This will require about 270 megs on your hard drive. If you choose normal you will probably end up going back and re-installing stuff. Once this is done, you must then install manually the various options on the CD in order to have a truly complete installation. The AEC options can be found on the CD in \AECTOOLS\SETUP.EXE and will create a new profile in the preferences for AEC. These include various Softdesk components including a routine to change a 3D view into a 2D drawing. You will also find the latest Whip! Drivers on the CD in \UPDATES\INTERNET\WHIP!3\WHIP3.EXE. Next, if you are in an office where you have a mixed environment, you should run the Object Enabler that is included on the CD for all machines that run r14. This will only work for r14. It will allow editing in r14 of the new objects drawn in ADT. For people still on r13, r12, or any of the LT versions, in order to use the drawings you will need to save them as a r12 drawing. However, doing so will loose all ability to edit the new objects in ADT as AEC_OBJECTS. If you save the drawing in r13 format, it is useless to everyone, as the result is not editable for everyone. The Object Enabler can be found at \OBJECTENABLER\WEB\OE.EXE. Next, if you are going to use this with Viz, there is a folder on the CD called VIZ that contains an update to the DWG Link extension. Now, this extension makes Viz see the DWG's like an X'ref. Anytime you save the file in ACAD and then update the link in Viz, the changes to the model will appear in Viz without loosing the lights, cameras, textures, etc. You will still save a Viz file. We tried this and found it worked quite well. Lastly, some people have reported (myself included) that even with a "Full Installation" that the Bonus tools from r14 don't install automatically. You will need to copy the directory and all files in the /ACAD/BONUS folder to your copy of ADT which should be at C:\PROGRAM FILES\ AUTOCAD ARCHITECTURAL\ if you didn't change any paths during installation. Now, you think you're done installing? Nope, not yet, you've only just begun. The next step is to actually make the program workable, especially if you have previous LSP, PGP, MNU, MNS and 3rd Party programs from previous versions

of ACAD that you want to plug in. Now, after you have installed your PGP and LSP files you will find you have a small problem. The problem is that Softdesk's AEC tools tries to load the file called MACROS.LSP automatically. When it does so, it disables the hotkeys in the PGP and LSP file. The best way I've found to get around this is to rename the file MACROS.BAK, and then choose from the pull-down menu AEC, find the Softdesk preferences and click off the menu demand loading function, which I find slows down the drafting process at the worst times. Lastly, you really need to visit http://www.autodesk.com/support/archdesk/patches.htm and download the Template Updates, because there are bugs that can be found in them when dealing with multi-level buildings that are fixed in the new versions online. There is also information on problems with AEC Tools regarding symbols and on installing S8 into ADT.

Ok, so no you are ready to begin drafting…. Not!
Sorry – but you're still not ready.

Now you have to setup your ADI drivers for your printer and plotter. We currently use the HP 450C and found that after installing the HP ADI drivers, that for some reason the 400 series was not listed in the selection set. We ended up generating the necessary information from the r14 PCP file and it let us then choose the 450C. However, it still was not in the regular Add list – very strange. Next are your fonts. Copy all your special SHX fonts to ADT's font directory. If you are using a modified version of the Bonus Tools in r14 that I wrote about several months back that reset all the long bonus layer commands to 2 letter combos, you will need to copy those into ADT's Bonus directory. Don't forget to adjust the Control-C to cancel if you prefer to use it that way rather than as a copyclip command. And then there's your directory that contains your PCP, templates, prototypes, etc. all of which also must be copied over as well. Now, before you can start to really use ADT you will need to re-create you office's prototypes and templates to make use of the existing DWT files that you downloaded since the ones that are included have a bug. Here's where it gets interesting… You see, ADT not only uses the layer commands to turn on and off layers in the various viewports, but also something new – display groups. These things I've looked at a little bit so far, and basically it's a new way to control how objects are viewed in different viewports depending on whether they are in plan, elevation, or 3D, and whether the viewport is for massing, or conceptualizing or something else. They can get very complicated very quickly and I've been told that it's best to leave them alone. Needless to say, I found that the basic installation went in without a hitch, and took only a few minutes. Tweaking it to my specifications and the office standards is something that will require many, many hours. Considering that r15 (a.k.a. ACAD2000) is due out in about 6 months and ADT2 only a few months after that, I'm not sure how much energy I can afford to put into this product.

Now, let's actually start to draw with this and take it for a proverbial test drive.

The idea with ADT is that you can start with a massing study, as you would on paper or with a "real" model and from that generate spaces, which in turn generate the floors and ceiling and the create the walls. Then you add the roof, doors and windows and presto, you have a building design. Since you can specify what type of walls you are using and

since you can create you own wall types, windows and doors, you are fairly free in what you design. You can also skip the first few steps there and go directly to creating the walls. Now, being a first release, it does have its problems. The walls can't be tapered, you must scratch your head a bit if you are creating an elevation that steps back, and when dividing spaces up, you cannot use a curved wall. You can however create any shape you want with a Pline and extrude it into a solid, and change that into an AEC_Object. However, even if the extrusion had a taper, the resulting walls would still be vertical.

You can create a mass object and on the fly switch it from one type of element to another, change it's size or shape. It's AEC blocks can be arrayed, rotated, or otherwise modified from within a dialog box found by right clicking on it. This is similar to working with max.

It has the ability to place doors and windows in walls, automatically clean up the result in both 2D and 3D, and allow you to change the shape, size and location of the window and the swing of the door at anytime.

You can create automatic dimensions simply by selecting the walls. This is really nice for exterior walls, but lousy we found on the interior walls since it is using grips as the Defpoints for the dimensions.

It has the best Boolean operational stack that I've seen anywhere. This means you can select mass items, choose if the are additive or subtractive and add and subtract them from other mass groups. You can rearrange the order in which the masses are subtracted or added, and if you change the shape, size or location of any of the objects, no matter how deep into the equation you get, you will always get an updated result on the screen to match you ideas. The interface is fairly easy, and if you can understand the idea of a "heap" or "stack" as it's referred to in Max, then this makes 3D Mass math a breeze.

A very nice touch is the object viewer. This is the best thing for viewing 3D that has been included with any ACAD product since it started to use 3D. You right click the items you want to view, like you would if you were doing a Dview, and choose Object Viewer. It then displays in a separate window you selection set and gives you the ability to view it from any elevation, axon, switch instantly between perspective and axon, save the image to your clipboard or apply it directly to ADT. Now, in all fairness, there isn't anything "new" with this command, it's simply DVIEW, DDVPOINT, your viewing icons and a few other things tossed together with a really easy to use interface and the ability to view it as your working in either a wireframe, hidden, shaded or rendered image.

You should know that all of your new objects are new to ADT. The mass objects are solids or meshes, although you can create a mass from a solid, but not from a mesh. This means you should have problems with previous releases……. You should, but you don't. Autodesk deserves some credit here for actually thinking this through. If you use r14 or AEC2, then you can use the Object Enabler plug in for r14 and AEC2 to view and edit

the new mass objects, the doors and windows, the walls, whatever. You simply cannot create new items in r14 or AEC2. This allows your office to have some breathing room in you upgrade. However, if you or your consultants or clients use r13, r12 or any of the LT's then you must save the ADT file as an r12 file – not r13 as this won't work – and it will turn the drawing into a 2D plan for you. You loose all the parametric editing capabilities found in the ADT file as well as the 3D information. However, you now have a basic drawing you can hand out to people. We found one strange thing though, and that is that it leaves the roof as a 3D object.

When rendering, the DISPSILH variable works as normal, however the FACETRES variable is backwards. This can cause some serious problems if you plan on doing any rendering and want to mix solids and AEC_Objects together. Only one will render smooth, the other will render very rough and jagged.

As for your Osnaps, the only way to actually work with them is to go into the Osnap dialog box, set which ONE single lone Osnap you want running, then switch to the AutoSnap Tab and turn off the Marker, magnet and Snap Tip, leaving on only the aperture box. This seems to be the only way to actually use them in real time without exorbitant delays in 3D, even on our Dual PII400 machine.

Finally, if you have ever tried to plot a large complex model with both solids and meshes in it, and only had it freeze the computer when you are ready to plot your final drawing with hidden lines, then ADT has the ticket. There seems to be something just a little different with the way that it plots, and whatever they have done, it has stopped ACAD from locking up when it tries to plot large drawings.

Well, that's just scratching the surface, but that's all for this week. As we play with ADT over the next couple of weeks we'll keep you up to date on new revelations. Also, look forward to an article on Autodesk new product called Actrix Technical, which I just got in. I'll let you know all about that as soon as we can find a machine that doesn't die every time during the installation process.

As a closing note, after 2 weeks of working with ADT here are my final thoughts:
1) It's great for working with masses.
2) Don't try to teach an architect to take his mass model and turn it into a plan – the plan might not like it.
3) Use this product to create the exact view you want, and to create your model if you are planning on doing a rendering.
4) Don't use this product to actually try and create a set of working drawings. If this is what you are looking for, come back in 8 months and see what ADT2 has to offer. The stepping stones are all there for what could become a really great product if they put as much effort into 2.0 as they did with 1.0
5) This is for creating standard normal, everyday, tract home plans (with no garage door). It will have problems when it encounters something out of the ordinary or you try to push its envelope.
6) I plan on keeping both ADT and r14 on my machine for quite awhile – the learning curve on ADT is high, it's cumbersome at times and like any design program, it tries to fit your design into it's known parameters. However, it has many benefits and time saving routines that can

be useful when starting a new project.