

The Arch Way



The Newsletter for Friends of Archway Systems

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ASEE EDGD

Rick Plummer will deliver a paper at the Engineering Design Graphics Division of ASEE at their annual, nationwide conference at UC Berkeley Jan 4-7. Rick's paper clearly describes the benefits of Synchronous Technology for mechanical part and assembly design. Copies of the paper will be available directly from Archway in January.

Upcoming Events:

Jan 4-7 ASEE EDGD	Berkeley
Jan 24 Bentley Training Day	Whittier
Feb 10-12 Pacific Design	Anaheim
Mar 3-5 EAST Conference	Hot Springs
Mar 19-21 CITEA	Fresno
Mar 22-25 TechEd	Ontario

Bentley's V8i Release

The new V8i release (previously named Athens) began shipping in November. This is a concurrent release meaning that MicroStation and all the applications are released at one time. V8i offers many new features and benefits. A large part of the work is in 3D. For example, dynamic sections allow cutting a model, sliding the cutting plane dynamically and seeing the model cut complete with pattern fill and hatching, all dynamically. Also, dynamic views so the model and the drawing cut from the model are in synch dynamically. In simple terms, the drawing cut from the model and the model are updated concurrently rather than a static drawing cut from the model, and then updated later on request. Many more advances, call for an online demo.

VersaCAD 2008 User Comments

Roy Holder, Auto-Systems and Services, North Carolina. We truly appreciate the service that you have given us over the years. I have never expected to get the kind of service from any software company that we have received from your folks,
Tim Barnett, BarnettOffshore Design, Ltd "I have been a loyal and very satisfied VersaCAD user since 1994. VersaCAD is the only software that I could say comes close to perfect.
David Cosgrove, Manual Technologies : Congratulations on the release!

MicroStation Training Day 1/24

Upgrade your MicroStation and application skills. Join us for a day of free V8i training at Rio Hondo CC on Saturday, Jan 24. Hear keynote presentation, attend MicroStationV8i and/or InRoadsV8i and/or Bentley BIM V8i and enjoy a super lunch. All complimentary. RSVP your reservation to Linda@archwaysystems.com See you at Rio!

Did You Know?

The Port of Long Beach is converting their entire engineering operation over to Bentley software through an Enterprise License Agreement. Michael Kolster, CAD Manager and Jim Santa Ana, Director Engineering were awarded a certificate of excellence for their foresight and planning at the 2008 BE



Who's Who at Archway Systems

Arlene Black	Administration and sales	Greg Hamano	Training & Support
Tom Lazear	Administration, sales and training	Josh Lazear	Webmaster , Z Support and programming
George McMeans	Sales and training in Nor. Cal.	Sandy Lazear	Accounting
Mike Lazear	Programming and support	Linda Grubb	Support and administration
Phill Frye	Training & consulting	Daniel Lazear	Programming
Rick Plummer	Consulting and sales	Chris Grubb	Civil Engineering software

REPORT

The Case for 2D

If you read the blogs and CAD newsletters, you know that 3D, BIM and other advanced topics fill the air. And, there is no doubt that these newer technologies will and have already helped improve the productivity of design. But, there is a case to be made that there is still a very strong role for plain old 2D drafting.

Firstly, there are many applications that cannot benefit from 3D. Schematics for example.

Secondly, there is a basic tradeoff to be made before jumping into 3D. What types of work does the user do? What are the benefits to 3D for that type of work? And, what are the costs to get there and to perform the work in 3D? Let's look at a few examples:

Store or distribution center layout comes to mind. The store is built, the walls are up. Now it is time for the merchandisers to decide where to put which department, where to locate the display devices, how traffic will flow and the like. This has always been done in 2D for good reason. It is quicker, easier, more suited to the type of people that do the work, and it works! Now, it might be interesting to be able to "walk thru" a 3D model of the store, but, does the benefit outweigh the cost? Usually not. Way more important to have a great, accurate library of symbols to be quickly grabbed and placed precisely on the 2D layout.

How about sports complexes. Sagamore Publishers classic book "Facilities Planning for Health, Fitness

and Sports", edited by Thomas Sawyer is a good example. They include a copy of VersaCAD 2D with each book, knowing that 2D is all that is required to layout a new badminton court.

Mechanical part and assembly design was one of the earliest applications to go to 3D. And, with software like Solid Edge, SolidWorks and the like 3D is good. But, there are still simpler applications where 2D can do the job just fine.

Civil always works in what looks like 2D, but is actually backed by 3D models.

Architecture has been a favorite target for 3D or BIM software. It just seems logical that a building which is naturally a 3D object should be designed in 3D. And, of course, all buildings are and always have been designed in 3D. The question is whether the design should continue to be in the mind of the architect or on the computer. Then, the next question is how to display the design in a fashion that is easily understood, economically prepared and satisfactory to be built from. There is an argument that, for simpler buildings, experienced architects can move more quickly using their collection of information such as standard details, previous projects, catalogs and the like, than they can putting all of that information into a computer. Here again, there are complex, multi-designer projects where the overhead work of dealing with the computer can pay off large benefits when everyone works off a common 3D model. But, that argument does not apply for a number of

simpler, smaller architectural projects. Certainly, if industry standards are enforced that all buildings must be done in 3D, then the architect has no choice but to adapt or run the risk of not being awarded projects.

So, the bottom line is that the user needs to make a business decision based on facts and not marketing hype. Here is a short outline on how that analysis might be performed:

INVESTMENT NECESSARY

Software (from \$500 to \$5000)

Training (\$500 to \$3000)

Setup (better plan on couple of months)

Retraining for turnover (plan for it)

Computer hardware (need bigger)

People (takes different skills than 2D)

BENEFITS TO BE DERIVED

If GSA, or other dictated, gotta do it.

If multi-designer, better coordination

If owner accepts idea, fewer change-orders

Earlier, more accurate estimates

If done right, maybe more satisfied customer.

When added up for a specific project, if the rate of return is not high enough, stick with 2D, the benefits of which are:

Easier to find capable employees

Less costly employees (may need more)

Think more about the project and less about the computer software.

Way less costly software.

Less demanding on computer hardware.

If you do stick with 2D, some good choices are MicroStation PowerDraft, or AutoCAD LT or VersaCAD 2008 for Windows or VersaCAD for Mac.

Training Class Schedule

Archway offers a variety of training classes using the latest of each software. All classes use certified materials and are held from 8:30AM to 5PM. Locations: Huntington Beach training center (**HB**) and S.F. Bay area (**BA**). Plus, some open enrollment classes are now taught at the training centers at LADWP and at the Port of Long Beach. Classes can be delivered on-site and online.

Call or email Archway for the latest class schedule.

For the latest Bentley courses, see also:

<http://www.bentley.com/en-us/training/>

Upcoming open enrollment classes:

- **MicroStation Essentials XM**-All the basics of MicroStation V8 XM Edition. This 4-day class is basic for new users. Cost is \$1440. HB: 1/6 to 1/9; 2/10 to 2/13; 3/17 to 3/20. BA: 1/20 to 1/23 at LADWP: 2/23 to 2/26
- **MicroStation V8i User Update**- Covers improvements since V8 2004. 1/27 to 1/28; 3/12 to 3/13
- **InRoads Survey XM**-This is a Bentley certified, 2-day class using Bentley's InRoads 8.9 training manual. Cost is \$900, which includes course book and instruction. HB: TBD
- **InRoads Fundamentals XM**-This is a Bentley certified, 3-day class using Bentley's InRoads 8.9 training manual. Cost is \$1350, which includes course book and instruction. HB: TBD
- **STAAD.Pro Standard**-Introduction to FEM. Cost is \$1500. HB: TBD **STADD.Pro Standard**-Introduction to FEM. Cost is \$1500. HB: TBD
- **Bentley Architecture**-Introduction to 3D building modeling with Bentley Architecture Cost \$1000 HB: 1/29 to 1/30; 3/10 to 3/11
- **Everything 3D**-Learn how to design in 3D using MicroStation's surface and solid modeling capability. Cost is \$1350. HB: 1/13 to 1/15; 3/31 to 4/2
- **Bentley MAP**-Covers the fundamentals of setting up a map database, mapping tools and more. Cost and time TBD.
- **Rhino Level I**-Learn to make 3D NURBs models. Cost is \$695 (Discounts available for educators). HB: TBD
- **Dealing with Caltrans**-Learn Caltrans standards. Includes Iplot, workplaces and more. 2-day class. Cost is \$1500. HB: TBD BA: TBD
- **Generative Components**- Learn elements of parametric design with GC. HB: Cost \$1550 2/17 to 2/18
- **Water Modeling Hec-RAS**-Fundamentals of water modeling using Hec-RAS. Cost is \$2500. HB: TBD
- **Solid Edge ST**-Fundamentals. Cost is \$1600 1/12 to 1/15

Generative Components

Generative Components workshops have now been given to over 40 of the leading architectural schools in the U.S., Canada and around the world. Workshops include 3 day official Bentley Institute classes and shorter online workshops.

For those who can't make the three day workshop, many took one of Archway's half day, online GC workshops. Cost is only \$300 (educators free). Students receive a CD with all necessary software, a tutorial pamphlet, and four hours of online instruction. When completed students have worked two fairly comprehensive exercises and will be positioned to continue learning on their own. More workshops will be conducted in 2009. Schedule to be determined.

Haestad Tops in Industry Survey

Haestad Methods product line has been selected as the No. 1 water resources modeling software in a national survey. The survey was conducted across the readership of CE News' Civil Connection, a leading civil engineering newsletter published by ZweigWhite. This follows on the heels of the People's Choice Award that Bentley's [WaterGEMS](#) product in its Haestad line won at the American Water Works Association Annual Conference and Exposition and is being celebrated by Bentley through special limited-time promotional offers.

The survey asked licensed civil engineering professionals employed by leading consulting engineering, survey, and construction firms and key public works departments, utilities, and municipalities about their software preferences in seven categories of water resources modeling software. Bentley's Haestad solutions earned the No. 1 position – receiving up to more than three times the top responses of the closest competing products [Visit the CENews Web site for full survey results](#)

<http://www.cenews.com/bentleysystems/>

Florida DOT goes ELS

The Florida DOT, longtime user of MicroStation and Geopak for all their road design has just concluded an Enterprise License Subscription with Bentley that provides them access to over 80 Bentley products, on unlimited number of computers plus SELECT subscription and more. Florida DOT joins a growing number of companies who find the ELS to be a terrific way to increase productivity

Archway's Product Line

Archway is a full service provider of technical software serving the Academic, Architectural, Civil and Mechanical Engineering markets.

DESIGN & ENGINEERING SOFTWARE:

- MicroStation, ProjectWise and applications
- VersaCAD Win & Mac
- Bentley Architecture & Generative Components
- InRoads, PowerCivil & Geopak Civil Software
- Haestad Hydraulic Analysis Software
- Solid Edge and applications
- TransMagic-translation software

3D GRAPHICS & ANIMATION SOFTWARE:

- Rhino 3D, Flamingo, Penguin & Bongo
- Softimage
- Bentley ProjectWise Navigator
- ArchVision libraries

COMPUTER PERIPHERALS:

- Z Corp 3D Printers

SERVICES:

- Training
- Phone support
- On-site support
- 3D Printing
- Customizing
- Consulting
- Contract software development
- CAD file translation

Archway Training Center

Checkout the training classes on page 3. Classes for every need for MicroStation, Haestad, InRoads, STAAD.Pro, RAM, Rhino, Solid Edge and VersaCAD. Increase your design productivity.

MyCADvideos.com

Checkout this site for free introductory videos and one hour webinars on the latest in CAD, FEM, and more.

Brand New ZPrinter 650

Z Corporation just released their newest top-of-the-line model, the Z650. One housing (similar to the 450 pictured at left) that houses both the printer and depowdering unit. Handles larger models (10x15x8 inches), higher resolution (600x450), multi color including true black. Includes all the automation features of the Z450 such as automatic recycling of powder and easier maintenance. The Z450 continues the midrange workhorse.

PRODUCTS

ZPrinter®450

World's Most Automated and Affordable Color 3D Printer



\$39,900*

* Manufacturer's Suggested U.S. List Price for Printer only. Options, shipping, local taxes and duties not included.

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