

# The Arch Way



## The Newsletter for Friends of Archway Systems

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### Upcoming Events:

- Feb 16** — STAAD.Pro Online Academic Workshop  
**Feb 18** — Hevacomp Online Academic Workshop  
**Mar 18** — STAAD.Pro Online Academic Workshop

### Bentley Integrated Structural Modeling (ISM)

What is ISM? Bentley Integrated Structural Modeling, or ISM, is the new name for Bentley Structural. With this new name comes a new methodology for users of structural project information, whether creators or consumers. With this new methodology, creators and consumers can participate in "multidisciplinary, integrated project workflows." With its flexible workflows, you will be able to review designs of a variety of structural assets, including buildings, bridges, or towers. ISM is now capable and innovative for taking part in BIM solutions for your structural projects!

Along with the new methodology and name comes two new applications on top of ISM which are both free to download from Bentley. These two applications, Structural Synchronizer V8i and Structural Dashboard V8i, allow structural engineers to work with ISM.

Structural Synchronizer allows engineers to share structural model data, track and compare revisions, coordinate across products, review drawings and models, integrate projects and data, as well as "enable third-party vendors to integrate with the ISM workflow."

Structural Dashboard allows an engineer to manage workflows, use a unified interface for all structural applications, create customized workflows, receive news from RSS feeds, be a part of a structural online community, download product upgrades, and manage project files and links within workflows.

Overall, ISM is a much more complete product now. Contact Archway for more information.

### Upcoming BE Careers Online Workshops

Beginning in the middle of February, Archway will be offering several free BE Careers Online Workshops specifically for Academics. These workshops will cover products such as STAAD.Pro, Hevacomp, and Integrated Structural Modeling (ISM).

Each of these workshops is a three hour (9a-12p, PT), hands-on workshop conducted by one of our authorized Archway employees. Bentley's Elluminate Online Classroom technology will be employed for each of these workshops as well.

The **STAAD.Pro** workshop will be offered February 16th and then again on March 1st. The **Hevacomp** workshop will be offered February 18th and then again on April 15th. The **ISM** workshop will be held on April 13th and then again on May 4th. More of these workshops will most likely be scheduled through the Spring and then again in the Fall.

Feel free to contact Archway for more information concerning these great opportunities including information on how to register or about any of the products which are covered in the workshops.

### Bentley Bash 2010 was a grand success!

On January 23rd, 2010, approximately 250 people showed up at Rio Hondo College in Whittier, CA to take advantage of our free hands-on workshops of Bentley products including MicroStation, InRoads, and Water Modeling software.

It was a great opportunity for all involved, especially in these hard economic times, and was proved successful once again. A new edition to the Bash this year were the morning and afternoon seminar sessions which also proved to be quite useful for those attending.

We hope that next year's event will be just as big a success and even bigger. Thank you to all who attended and don't forget to take advantage of your coupons for discounts on more training and software!

## Who's Who at Archway Systems

<b>Tom Lazear</b>	Administration, Sales & Training	<b>Josh Lazear</b>	Webmaster , Z Support and Programming
<b>George McMeans</b>	Sales & Training in Nor. Cal.	<b>Daniel Lazear</b>	Programming
<b>Mike Lazear</b>	Programming & Support	<b>Stephen Peters</b>	Application Engineer
<b>Phill Frye</b>	Training & Consulting	<b>Chris Grubb</b>	Civil Engineering Software
<b>Greg Hamano</b>	Training & Support	<b>Lauren Jansen</b>	Marketing & Sales
<b>Sandy Lazear</b>	Accounting	<b>Shannon Lazear</b>	Marketing
<b>Linda Grubb</b>	Support and administration		

## REPORT

## ProjectWise, BIM and the Future

If you asked a field of experts in building for a definition of BIM, you will be amazed at what answers you will receive.

The US Army Corps of Engineers, has been working for nearly 10 years on BIM for their projects (currently \$50 billion worth). They define BIM this way:

BIM is not a product or a software, it is a “process, a way of working” to eliminate the most serious problem in construction, “fragmentation.” The industry is fragmented between people, tasks and tools. The people involved include surveyors, civil engineers, architects, consulting engineers, contractors, fabricators, and owners/operators. They perform tasks such as requirement planning, space planning, design, build, and operate. And they use many tools to manage the associated information and processes such as survey instruments, survey calculations, site planning, road and rail layout, architectural design, foundation design, structural, electrical and more. In short, computers are used for about everything, but all, or at least most, are separate tools.

The goal of BIM is to integrate the flow of information in such a way that it would cover the entire lifecycle of a construction project, including all relevant information such as contracts, specifications, models, drawings, budgets, operating procedures and more. BIM would define and simulate

the project, its delivery, and operation, ahead of time when changes are expensive.

The promise of BIM offers many advantages: a more effective design environment; increased coordination between design, documentation and concentration; reduced errors and omissions; shortened project delivery time; reduced project and construction costs; higher quality built environment; and enhanced operations including reduced emissions and reduced energy consumption.

There are many computer tools for various parts of the project:

**Site Preparation** — Bentley’s InRoads or Autodesk Civil3d. **Storm Analysis** — Bentley’s CivilStorm. **Water**

**Distribution Planning** — WaterCAD. **Architectural Modeling** — ArchiCAD, Bentley or Revit.

**Mechanical Design** — Bentley Mechanical or AutoCAD MEP.

**Schedule Simulation and Clash Detection** — Bentley’s ProjectWise Navigator or Autodesk Navis Works.

Also many estimating programs. The primary goal of all software vendors should be to ensure that their software communicates well, or interoperates, with all other software related to BIM. This is asking a lot, but it is doable.

Bentley alone has over 150 software products related to BIM in one way or another. Their top goal is to ensure that all those products talk to each other. Even more than that, is to ensure that

the products are compatible with relevant standards such as IFC (Industry Foundation Class), gbXML, CIS, and more. The thing about standards is that there are so many to choose from. Bentley is clearly the king of interoperability. Open up MicroStation and see all the file formats that it is compatible with. You will be amazed.

So where does ProjectWise fit in? ProjectWise is the only software on the market that addresses the Information aspect of BIM head on. ProjectWise provides the basis for the “process or way of working.” ProjectWise can insure that the correct files get to the correct place at the correct time. Work flow procedures can be automated. The content of files of different formats can be searched. For example, find all the files that refer to ACME pump 123. ProjectWise will search through the contents of AutoCAD, MicroStation, or any office files and will provide back a list of all such files.

ProjectWise can run as a web based service, or deployed to the user’s site. Searches can be on contents or geography. Connection can be made to the entities ERP or GIS software. This has been proven on multi-firm, large scale projects such as the London Olympics, Corps of Engineers, and more. ProjectWise does for the “I” in BIM what CAD has done for drawings. More and more large scale projects are now adopting ProjectWise.

## 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**). 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 MicroStation Classes

- **MicroStation Essentials** — This 4-day course is designed for the new MicroStation user and builds a solid foundation in the concepts, tools and features found in the MicroStation drawing environment. Starting with setting up a drawing and concluding with plotting, students walk through a typical workflow using the tools and features on the latest version of MicroStation. Cost is \$1400. Location: **HB**
  - ◇ **V8 XM Edition** — 3/9 to 3/12; 4/20 to 4/23; & 5/25 to 5/28
  - ◇ **V8i Edition** — 3/23 to 3/26; 4/27 to 4/30; & 6/8 to 6/11
- **MicroStation V8 XM for CAD Users** — This course is designed to ease the transition to MicroStation for experienced CAD users by continually giving parallel references, showing how MicroStation handles operations familiar to the CAD user. Cost is \$1250. Location: **HB**
  - ◇ **Dates** — 2/24 to 2/26
- **MicroStation for AutoCAD Users** — This course is specifically for experienced AutoCAD users wanting to transition their CAD knowledge to MicroStation skills. The student will learn a wide range of topics beginning with how to incorporate existing data from AutoCAD into a new design file. Cost is \$1250. Location: **HB**
  - ◇ **Dates** — 3/30 to 4/1; 5/4 to 5/6; & 6/29 to 7/1
- **MicroStation User Update** — This course covers all of the major new capabilities of MicroStation V8i are covered in a series of hands-on exercises. Students will learn about Workflow Task based interfaces and Project Explorer among other topics. Cost is \$1025. Location: **HB**
  - ◇ **V8 XM to V8i** — 2/22 to 2/23; 4/13 to 4/14; 5/11 to 5/12; & 6/15 to 6/16
- **MicroStation: Everything 3D** — In this course users will navigate and work in a 3D design file, create and edit 3D geometry in MicroStation, create parametric 3D models and develop a basic knowledge of the rendering capabilities of MicroStation.. Cost is \$1350. Location: **HB**.
  - ◇ **V8 XM Edition** — 4/6 to 4/9 & 6/1 to 6/4
- **MicroStation Advanced User** — This course is intended for the experienced MicroStation user and focuses on the features of MicroStation designed to improve user and work-group productivity. Cost is \$1250. Location: **HB**
  - ◇ **V8i Edition** — 3/17 to 3/19 & 6/22 to 6/24

### Other Upcoming Bentley Classes

- **Bentley Building Suite (3D) and Bentley Fundamentals V8i** — These courses allow users to learn different software products in order to create 3D building projects. Cost is \$1025. Location: **HB**
  - ◇ **Architecture** — 3/2 to 3/3
  - ◇ **Structural** — 3/4 to 3/5
- **InRoads Survey Fundamentals XM Edition 8.9 with MicroStation** — This course introduces surveyors and designers to using InRoads Survey. This hands-on training walks students through software the project design cycle. Cost is \$1025. Location: **HB**
  - ◇ **Dates** — 3/30 to 3/31
- **Bentley Building Electrical Systems Fundamentals V8i** — In this course, students learn to design and edit with different tools with an emphasis on modeling electrical subsystems. Cost is \$1025. Location: **HB**
  - ◇ **Dates** — 3/16 to 3/17
- **VBA** — The first course (Getting Started) introduces MicroStation Visual Basic for Applications (VBA) by teaching you how to set up a VBA 'project' and much more. The second course (Professional) is intended for VBA programmers but who want more instruction. Location: **Online**
  - ◇ **Getting Started** — 3/8 to 3/9
  - ◇ **Professional** — 3/10 to 3/11
- **ProjectWise V8i User Essentials** — This one day course is for individuals who need to manage documents throughout a project cycle. Students will learn ProjectWise to manage CAD content, project data, Office documents and more. Cost is \$800. Location: **HB**
  - ◇ **Dates** — TBD

### Upcoming Rhino Classes

- **Rhino I & II** — In this class you'll learn to create and edit accurate free-form 3D NURBS models. This fast-moving class covers most of Rhino's functionality, including the most advanced surfacing commands. Cost is \$695. Location: **HB**
  - ◇ **I** — 4/6 to 4/8
  - ◇ **II** — 4/27 to 4/29

### Bentley Passport Subscription Comparison Chart

	Navigator	Schedule/Clash	BIM Passport
<b>Software Included</b>	Navigator	Navigator plus Schedule Simulation and Clash Detection	Navigator, Schedule, Clash plus Bentley Architectural and MicroStation
<b>Price</b>	\$120	\$795	\$2295
<b>Training</b>	Included	Included	Included
<b>SELECT</b>	Included	Included	Included
<b>BIM Requirements</b>	Many	Most	All
<b>Files Supported</b>	Revit, dwg, 3DS, skp, dgn, & more	Revit, dwg, 3DS, skp, dgn, & more	Revit, dwg, 3DS, skp, dgn, & more

## 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
- Hevacomp & Tas Software
- Solid Edge and applications
- Promis\*e

### 3D GRAPHICS & ANIMATION SOFTWARE:

- Rhino 3D, Flamingo, Penguin & Bongo
- 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.

#### PRODUCTS

## ZPrinter<sup>®</sup>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.

### ZPrinters

New 3D printing products from Z Corp are transforming how schools, architects, designers and engineers are creating their 3D models. Offering full HD color and pure white models that only need water to cure, Z Corp is turning the 3D printing world upside down. There has never been a better time to purchase a new Z Corp Printer. If you need information, would like us to create a 3D model for you, or would like to purchase a new Z Corp Printer, please give us a call.