VirtualWork
A newsletter for customers and friends of IES

Shear Flow in SB 5.0

ShapeBuilder 5.0 Upgrade Released

Go with the flow, shear-flow that is, and let ShapeBuilder 5.0 take some of the load off your shoulders. The **VQ/I** calculation is a new feature in ShapeBuilder 5.0, which was released in January. The new version adds a dozen great improvements without any dramatic changes in the UI so that you can upgrade easily.

IES engineers zeroed-in on stability and performance fixes as well as the new features, making ShapeBuilder 5.0 more stable and usable than ever. At just $170 for the upgrade, it will really pay for itself with just a couple jobs.

Cool New Features

- Export Shape Graphics to Clipboard
- Report Options: Graphics, Properties and Parts
- Optional Leader-Lines on Annotations
- Angular Dimensions
- Parametric Shape Orientation Setting
- Much Improved DXF Import
- Much Improved Advanced Analysis
- Fixed over 70 minor "issues" from version 4.5.

Above All: Keep it Useful!

While it is fun to add features in software, sometimes they can get in the way! We determined with this version that we would make ShapeBuilder better without making major disruptive changes that make it harder to use. Same great UI, just better and more stable.

ShapeBuilder Success Story

The Project
Section property determination of custom designed mullions

J Paul Leonard Library
San Francisco State University
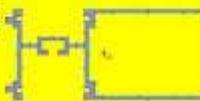www.library.sfsu.edu/about/building/index.php

The Engineer
Stephen L. Fisher, SE
Bagatelos Architectural Glass Systems, Inc.

The Problem
Prior to the manufacture of the extrusion dies section properties of assorted shapes must be determined.

The Solution
"Most of my analysis work is with custom aluminum extrusions for curtain wall design. In order to have the shapes extruded by our supplier we create detailed die drawings for each shape. From preliminary drawings a .dxf file is generated to allow importation of these shapes from CAD into ShapeBuilder to calculate the section properties.

ShapeBuilder is the easiest program I have found so far to accomplish this task"

Solve your next problem in minutes!
IES ShapeBuilder
www.iesweb.com   1-800-707-0816   info@iesweb.com

Does it Work for You?

But don't take our word for it, listen to your peers. We have added a new Showcase to our web pages for ShapeBuilder, showing how one IES customer solves problems with this tool. Check out Stephen Fisher's testimonial (pictured above). Then while you are there, download ShapeBuilder and try it for yourself.

[back to top]

WebApps: Anchors Away!

Cloud Computing Might Simplify Your Work

It's in the clouds: setting you free from installation and licensing headaches. You can just visit our web page, define your problem, and print your results. If we need to update or improve our software, you do not even have to think about it! That's the basic idea behind cloud computer. Those of you who are old enough will remember a similar scheme: the Mainframe accessed by dumb terminals! The only difference today is that the Internet replaces the Mainframe, and your terminal will be smarter.

Key Advantages:
- No downloads
- Nothing to install, automatic updates
- Fewer licensing headaches
- Available anywhere you need it
- Pay-per-use Licensing (may save you money)

Just better software for you. It really is that simple.

It is a nice idea, and one that everyone is starting to get comfortable with: Gmail, Google Docs, online banking, and Facebook are all examples of ways that many of us run applications in the cloud. Why can't we do the same with engineering applications?

Engineering in the Cloud?

There are in fact a few reasons why engineering programs may lag behind:

Key Disadvantages

- JavaScript vs. C++ for Speed
- Math Notation/Browser Issues
- Low-powered graphics on the Internet
- What if you are off-line (or fall off-line)?
- What about saving your work?

While these issues are not insurmountable, they do present challenges. At IES we think that the first-batch of cloud applications will be those for "quick calcs", such as determining the shear and tension capacity of a group of anchor bolts per ACI, or perhaps running through the AISC eccentric weld group procedures.

Introducing IES WebApps

IES is experimenting with a couple of online applications, we're calling them **WebApps**. You can check them out here:

www.iesweb.com/webapps

If you are *required* to use Internet Explorer, you will **need** to download a MathPlayer component to get things to look right, and even then your experience may be flawed. We highly recommend Firefox or Chrome for the best rendering.

For now the system is **free** and does not even require a login. So please take advantage of this free "beta" period and let us know what you think!

VisualAnchor is FREE and Online

First up: VisualAnchor which follows ACI 318-08 Appendix D to deal with a rectangular bolt group's shear and tensile capacity. Just enter your geometry, material information and loads and print the page directly from your browser to get a nice one or two page set of very easy to read (and check) calculations.
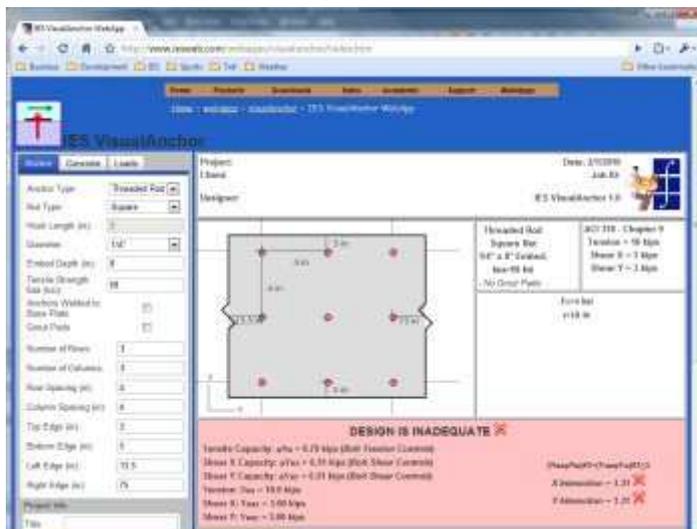
Coming Soon: VisualWeld

AISC eccentric loads on welds are not difficult, but do require some messy calculations and **VisualWeld** will do this for you. We are still developing this next WebApp and hope to bring it out in the next month (famous last words?). If you have ideas for similar general-purpose "one page of calculation" programs, please let us know.

[back to top]

Windows 7 x64? Yes!

A New OS? Or Just New Icons?

Most people **abhorred** Windows Vista. This was in part due to **annoying** UAC prompts, and in part to excellent marketing by a little red fruit company that bashed the PC quite effectively in 2007-2008. Vista was not really as bad as most people thought, as you can easily see from the renewed enthusiasm for Windows

7, which in our humble opinion is simply Windows Vista 1.1 with some minor changes: like turning down the UAC a notch so it is slightly less frequent but just as annoying.

True, there are nice new bells and whistles in Windows 7. For example on a home network, you no longer have to explicitly share the printer, it happens automatically. And the new **Libraries** feature lets you scatter documents all over the place and pretend they are in a single folder.

But this newsletter is not really about Windows 7, it is about IES tools and how great they run on Windows 7. Which they do. All of them. Even on the **64-bit platform**! In fact we were hard-pressed to find even an old IES application that did not install and run OK on Windows 7. So upgrade in peace, knowing that even though you have been assimilated by Vista 1.1, your IES apps will work great.

VA 7.0 Reports

Saved Reports in VisualAnalysis 7

Keeping track of what you have done may be one of the hardest jobs you face as a structural engineer. In VisualAnalysis 7.0, we have streamlined the reporting system simplifying some of the most confusing "features" away, and adding powerful capabilities to make it faster and easier than ever to document your work.
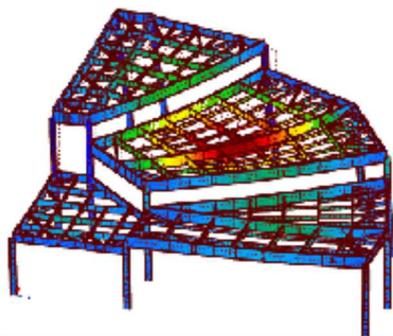
Some Tips for Making Reports

1. **Switch to Report View**. A new dedicated Report View replaces multiple separate windows that would collect in the workspace making it hard to find your way around. Now there is just one place to go to view and customize reports.

2. **Use the Command Bar**. You can access any report "Style" or any saved "Project Report" using the drop-down list at the top of the Report View window. If you don't like the report you are viewing, look at something else using this list.

3. **Name your Reports**. If you have a report you like and customize it by adding/removing items through the Modify tab, the report will automatically be converted to a "Project Report" that will be saved with your project. You can give your report a friendly name to help you find it in the Command Bar later.

4. **Add/Remove Items**: Use the Modify tab to customize how your report looks, what it contains, how things are ordered. Simplified dialog boxes make the whole process easier.

Read All About It

VisualAnalysis reporting features are deep and wide and you will not 'master' them without a deeper understanding of what features are available. Be sure to read up on the new reporting capabilities in the User's Guide. Five minutes here might save many trees, too.

[back to top]

Databases Plus

Supplementary Downloads

Everyone seems to need different shapes in VisualAnalysis. At IES we are learning this fact, slowly. In order to keep our product downloads as small as possible, we are separating out some of the lesser-used components, like foreign shapes. You will find that there are a number of Supplementary Downloads available on our web site now.

Foreign and Historic Databases

Shape Databases such as those from Europe or Australia are available. We have also recently added some historic AISC shapes from the turn-of-the-century (1901 not 2001) and the 1950's for help with forensic work.

Tutorials

VisualAnalysis Tutorials can help you understand more complex features, or help you get started when you are learning the software for the first time. While we ship a number of tutorials with VisualAnalysis, there are a whole bunch more that we don't. In fact there are over 65 tutorials available.

Utilities and Add-Ons

The **Code Combination Editor** lets you customize our load-combinations system for building codes. You can use it to add support for a specification we do not have built-in, or to hide (delete) combinations you do not use.

Finally the **VARevitLink** is available here, should you wish to import or export to Revit Structure.

[back to top]

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