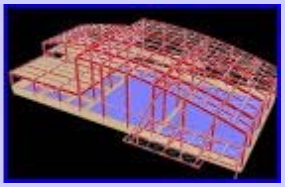
10 Years (1994-2004)

VirtualWork

A newsletter for customers and friends



Volume 10.10, October 2004

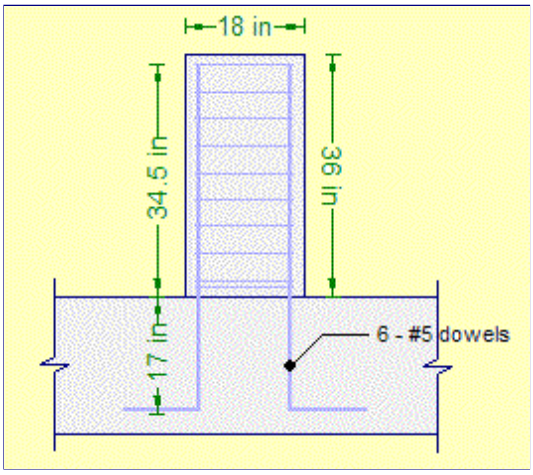
Planting A Firm Foundation

Standing on One Foot

Last week we officially released QuickRFooting 1.0. This new tool provides a *stand-alone* implementation of reinforced concrete spread footing design. It is easier to use and much more powerful than our current footing design 'report' in VisualTools. The new tool will also allow IES to expand into more complicated footings in the near future.

Walking with Both Feet

Our immediate goal with this new footing tool is to integrate it with VisualAnalysis and QuickRDesign so that you can easily take the necessary information about your loads into the footing design tool to complete the design. Many customers have asked about this and we are working to get this done sooner rather than later. Whether it will appear in an update next month, or in the next major upgrade is still not clear, but we will keep you posted.



Running with QuickRFooting

Right now QuickRFooting will help you get your job done quickly and efficiently with a tremendous set of features in a very easy to use package. You may currently be doing these calculations by hand or with a home-grown spreadsheet, but our new tool will quickly prove more capable and more reliable than either of those methods. Each and every check, each and every assumption is spelled out in the program with clear algebraic equations and full-color graphics. There will be no doubts about your

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The Customers Speak

Thanks

Many thanks to all who participated in our customer survey last month. We are learning quite a bit about what you need from IES and how we can change our ways and our products to better meet those needs.

We would especially like to thank those who invested a few minutes to write out specifics regarding problems or suggestions. Whenever we get all this information at once it is difficult to send personal replies, even though they may be warranted. Rest assured that we have received your comments and will be working to address them.

Interesting Facts

- 85% of your models contain less than 500 members or components.
- While 40% of you import DXF files, only 22% of you export to DXF from VisualAnalysis.
- 33% of customers are designing in Aluminum, while 71% are designing in Masonry.

General IES Praises

Over 70% of survey respondents had

footing designs or their documentation.

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Practical Management

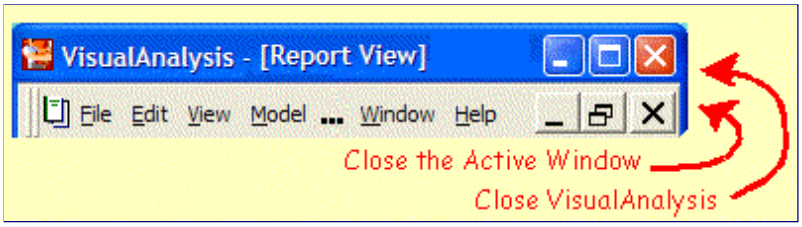
Hidden Features in VisualAnalysis, Part 5

Window Management

Judging from the project files that we receive for technical support inquiries with 25-80 open windows, many of which are identical, we have come to the conclusion that the **Window** menu is a hidden feature!

The majority of you use "Maximized" windows while running VisualAnalysis and this means that other windows are hidden behind the 'active' window.

There is really no *major* problem with having 80 windows open in VisualAnalysis, yet they will consume more memory, slightly hinder performance, increase file sizes, and make it more difficult to find the one window you need.



Here are some keys to better manage the windows in VisualAnalysis:

- *Close Result Views* that are created automatically after each analysis, or turn off this feature under **Tools | Customize Behavior**, on the **Desktop** tab.
- *Close Report Views* after you have viewed or printed them.
- Use the **Window | Cascade** command to see all the open windows you have. Then use the **Big Red X** in the upper right corner of each window to manually *close windows you no longer need*.
- *Switch the window type* using the drop-down in the Status bar (at the bottom) rather than using the **Window | New | *XYZ* View** commands.

File Management

VisualAnalysis comes with two nice file features to help protect you against disasters. You should take 5 minutes to understand these features and use them to your advantage. Or you may wish to turn them off because you

some specific praises for IES software and operations. They fell primarily (3 of 4) into the following categories:

1. Software is *Easy/Intuitive*
2. Responsive Technical *Support*
3. Overall *Quality*, Dependability
4. Overall *Value* (benefit/price ratio)

General IES Criticism

The criticism we received was more scattered. While many offered criticism there were no "big themes" that were consistent among all customers. The most common complaints were related to *stability*, *reporting*, and *documentation*.

More Questions than Answers?

As is typically the case, we learn afterwards that we have not asked the right questions. For example, why do you work with 'small' models? Perhaps it is because your jobs are small. But it could also be because our tools do not handle the larger jobs very well?

Our goal is to use the information we have to create better products, and new products that you could use. And, as always, we are listening intently to every suggestion or complaint so that we can continue to know you better. Feel free to *drop us a note* anytime to let us know how we are doing.

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Updated Installs

New Installs, Same Software

IES has refreshed the ShapeBuilder 3.0 and AnalysisGroup 2.5 installation packages so that you no longer need to separately install *'hot fixes'*. These are not really updated versions, so there is no reason to get updates that you already have installed. But should you need to install these products on another system or re-install for some reason, you will find the installation process a bit smoother, and future updates will be easier and smaller.

The new installations are different than the old ones and use the new update mechanism (introduced with

already have a disaster management plan and our system is redundant and wasting your time and disk space!

Timed Backup: VisualAnalysis will automatically create a '*crash protection*' file every *X* minutes as you work. If the shuts down unexpectedly, you would lose at most *X* minutes of work. When you exit VisualAnalysis normally, this file is automatically deleted. When you start VisualAnalysis after a crash, this file is found and VisualAnalysis offers you the option to use it or delete it.

History Files: Whenever you open a project file VisualAnalysis can automatically save a copy of the current file in a safe place, marked with a version number. This way, if you make a major change to your project AND SAVE IT, but then later decide that was a major mistake, you can go back to a previous version of the file. By default, these files are tucked away in your TEMP folder. (The location is defined by Windows but normally "*C:\Documents and Settings\<your login>\Local Settings\temp*"). You may specify a more convenient path in the Customize Behavior box.

You will find the settings for *Timed Backup* and *History Files*, under **Tools | Customize Behavior**, on the **Files** tab. You may also read more in the VisualAnalysis help file.

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Ask Dr. Dan

Caution: Theory Zone Ahead!

A Customer Asks:
"I created a custom shape in the Database Editor and now I get really goofy deflections in VisualAnalysis.
What is going on?"

Dr. Dan Replies:
VisualAnalysis and ShapeBuilder both have the ability to use Shear Areas (or Shear Factors) to calculate specific contributions from shear, which are normally neglected because they are small. In certain problems, such as short and deep beams, shear can play a significant role. In general, though shear deflections are neglected.

There was a problem with our tutorial "*Custom Shapes using the Database Editor*". The tutorial said to use a zero shear area, but then gave the value as 0.01 in^2. This tutorial has recently been corrected to show a true zero value (0.0 in^2).

It turns out that 0.01 (or some other relatively small value compared to the cross section) is a really bad number to use in the matrix formulation and causes deflection values to 'explode'!

Accordingly, we have also updated VisualAnalysis to ignore VisualAnalysis 5). So if you do install these products you will want to uninstall the previous ones first.

VisualAnalysis Build 16
IES is in the process of updating VisualAnalysis with a fix for a bug in thermal loading. If you are using thermal loading, you will want to investigate any impact of this upcoming change and install the update. Details will be posted in the change log as soon as the update is available.

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Off the Wall

The indispensable first step to getting the things you want out of life:
decide what you want.
-Ben Stein

The hard and stiff break.
The supple prevails.
-Tao Te Ching

Fast, Cheap, Good: Choose any two.
-anonymous

To invent, you need a good imagination
and a pile of junk.
-Thomas Edison

When ideas fail, words come in very handy.
-Johann Wolfgang von Goethe

Any sufficiently advanced bug is indistinguishable from a feature.
-Rich Kulawiec

It is all very well in practice,
but it will never work in theory.
-anonymous

Hardware: The parts of a computer system that can be kicked.
-anonymous

Time is a great teacher, but unfortunately it kills all its pupils.

shear areas by default and to guard against unreasonable values so that 'stray' numbers in the database do not cause future problems for customers.

In order to use shear areas you will need to have the advanced level of VisualAnalysis, **and** you will need to specifically turn on this feature under **Tools | Customize Behavior**, on the **Analysis** tab. The rationale for this change is that most customers do not need or truly understand shear areas, they just make the software more complex.

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-Hector Berlioz

Luck is the residue of design.
-Branch Rickey

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