



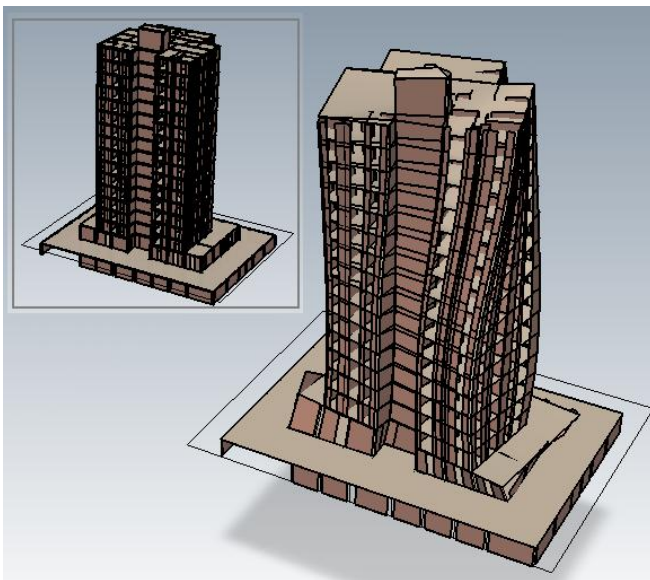
# E-Newsletter

## Spectral Analysis in R/C Building

***Did you know that Spectral Analysis can reduce Earthquake Load by up to 50%?***

The latest version of R/C Building can evaluate natural periods and mode shapes of structural models using the *Frequency Analysis* module. Then, the *Spectral Analysis* module can be used to perform a dynamic analysis and evaluate the maximum values of the displacements and all other internal forces in all structural elements.

The key advantage of *Spectral Analysis* is that it determines the distribution of earthquake forces based on the dynamic response of the structure. It takes into account the higher modes of vibrations of the structure, which produces more accurate earthquake load, when compared with the simplified triangular distribution of the equivalent static force method. This results in significant load reductions and more economical design. In AS 1170.4 usage of the Spectral Method is recommended for buildings over 50m.



15 Storey Building in Damascus, Syria  
Displacement Response of the 6<sup>th</sup> Mode obtained by Spectral Analysis

## Exclusive Offers

### Free Seminars for Graduates

For new graduates (up to 3 years) free software training is available at Inducta Engineering. Contact us for more information, and don't miss out on this great opportunity.

### Automatic Software Updates

'Automatic Update' tool is now available for R/C Building, SLABS, PT3D and R/Column. When new updates are made available this tool will inform you instantly. Become a supported user today and do not miss out on new features.

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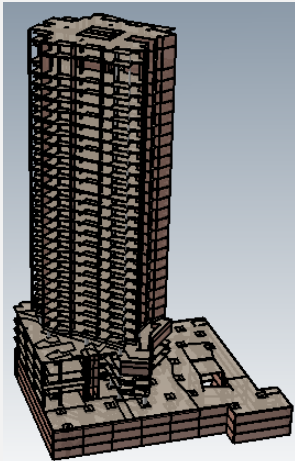
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## Column Schedule in R/C Building

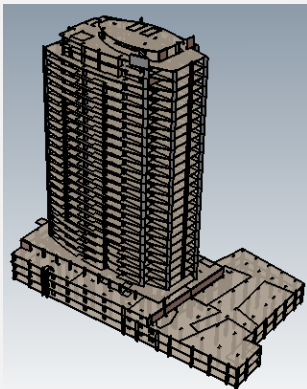
### Do you know about the NEW Column Design Tools?

- User Defined Column Design

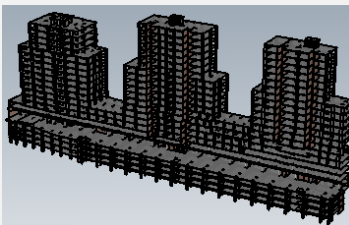
#### R/C Building Gallery 2010



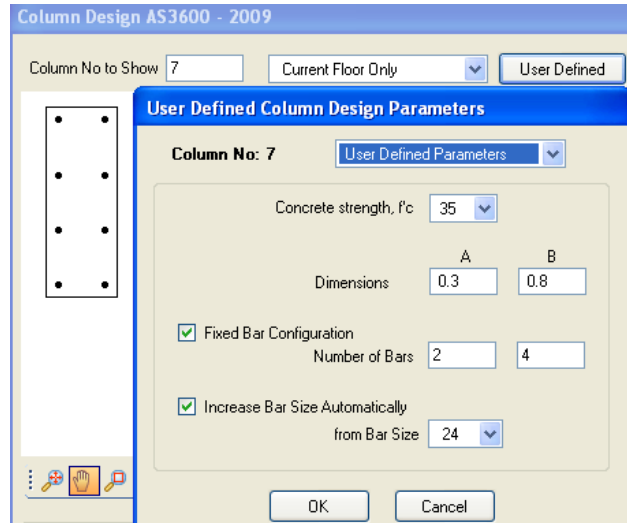
Courtesy of Brown Consulting



Courtesy of Meriton Apartments Pty. Ltd



Courtesy of Jones Nicholson Pty Ltd



This new feature allows you to change the design parameters of columns without re-running the analysis. Different concrete strengths and dimensions can be assigned to the selected column until a satisfactory solution is achieved. Once the new design parameters are adopted they will be stored in the model, to be used as default values in the next analysis.

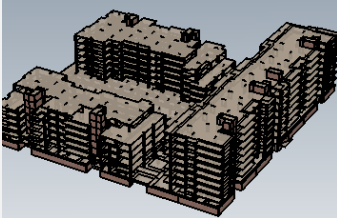
Now you can select certain bar configurations, and the software will try different bar sizes, while keeping the selected bar configuration.

- Design Summary

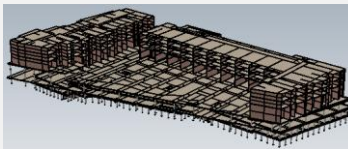
Column Number	Column Label	Level		Column Size		Number of Bars			Bar Size	f <sub>c</sub> (MPa)	Capacity(%)			Notes
		No	Label	A(m)	B(m)	A	B	Total			M	N		
1	c-1-01	1	Basement											Not designed
2	c-1-02	1	Basement	0.3	0.8	2	4	8	24	35	28	35		
3	c-1-03	1	Basement	0.3	0.8	2	4	8	24	35	28	29		
4	c-1-04	1	Basement	0.8	0.3	4	2	8	24	35	20	16		

The Column Schedule can be summarized either by Column Number or Column Label. All parameters related to the column design will be listed with the latest design solutions as well as with the axial and bending capacity percentages.

### R/C Building Gallery 2010



Courtesy of Australian Consulting Engineers



Courtesy of O'Hearn Consulting

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[www.inducta.com.au](http://www.inducta.com.au)



## PT3D 2010

### *New Version of PT3D released!*

Major improvements have been introduced into an already powerful software design tool that will dramatically increase design and analysis efficiency. New features include:

- An entirely re-developed method for generating models using slab geometry lines
- New method to import DWG and DXF files
- Revised display and edit Tendon Profiles
- New tools to display and edit Structural Elements (slabs, columns, walls and beams)
- Improved display and edit loads
- Numerous model integrity checks
- Undo/Redo



Bunning's Ashfield Extension: PT Design by Optima Consulting