

Structural Design inside a Family
SE5004-L

Florian Neumayr
Dipl. Wirtsch. Ing., Application Specialist
<http://www.bim2.tv>

ALTCODES UNIVERSITY 2014 Join us on Twitter: #AU2014 AUTODESK

Class summary

- structural analysis software was presented and spoiled over many years.
- structural engineers stay still with their Microsoft Excel Spreadsheets
- not all software supports all codes
- faster to use those light spreadsheets
- spreadsheets can be implemented into the parameter fields
- makes use of the formula capabilities of Revit
- and also nested families
- Examples:
 - a concrete retaining wall (poles)
 - reinforced concrete footing design
 - timber joists design
 - timber joist cantilever design

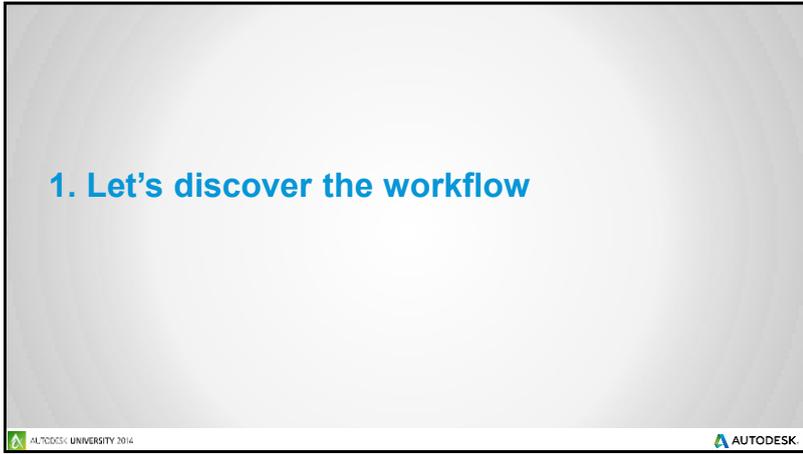
ALTCODES UNIVERSITY 2014 AUTODESK

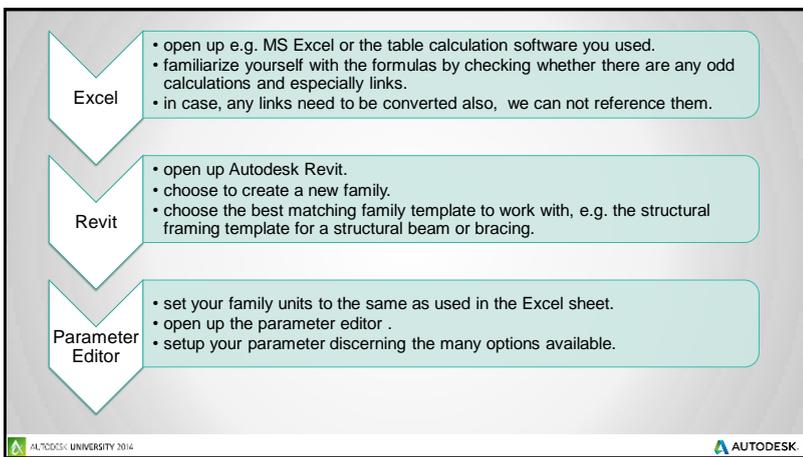
Key learning objectives

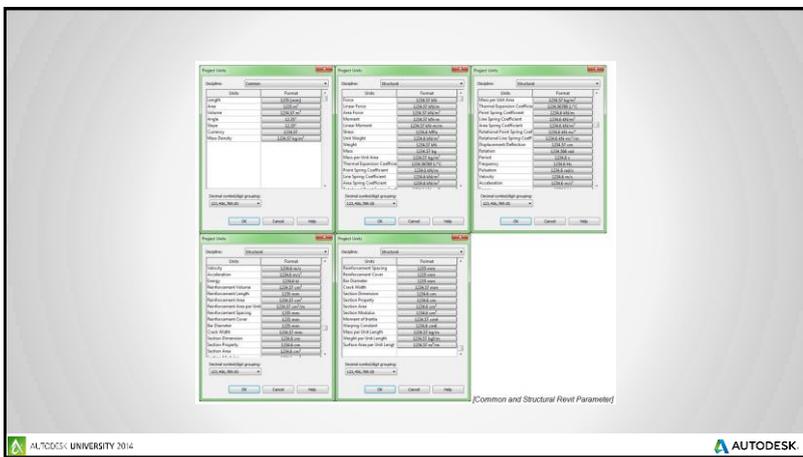
At the end of this class, you will be able to:

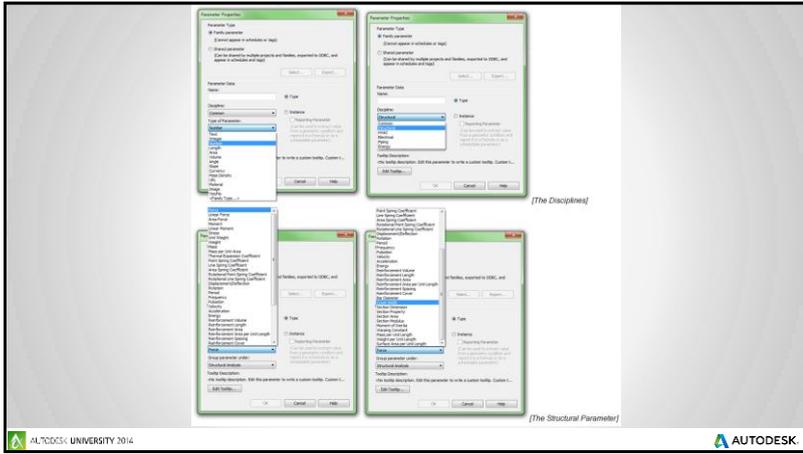
- Discover the capabilities of the Revit families for structural engineers
- Discover how Revit software families can simplify the workflow and kill repetition
- Implement the country code into Revit and design around clashes visually.
- Discover what Excel can do and Revit software can do

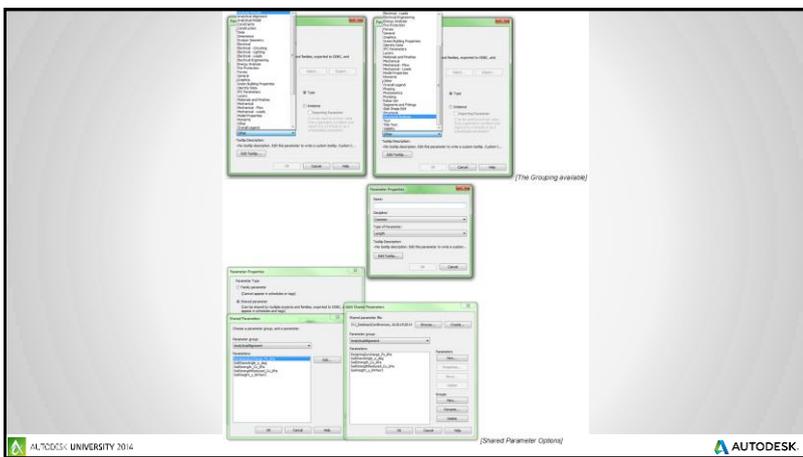
ALTCODES UNIVERSITY 2014 AUTODESK











Parameter Editor

- create your parameter with the name of the Excel field. Parameter names can be changed at any time later.
- so the names can be E5, E6, E7, E8 a.s.o. or F4, F5, F6, F6 a.s.o.
- best to have Revit and Excel open next to each other. A wide screen or a two screen workflow are of best choice.
- after you have all your parameter setup, set them to initial random values to avoid a division by zero error later.

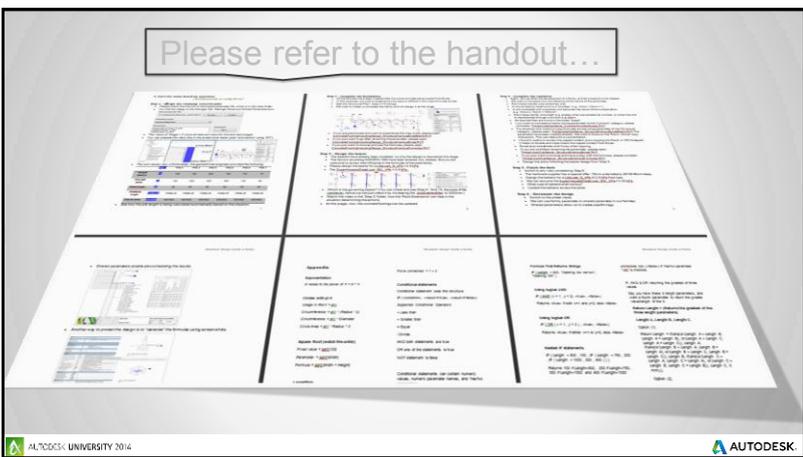
Excel

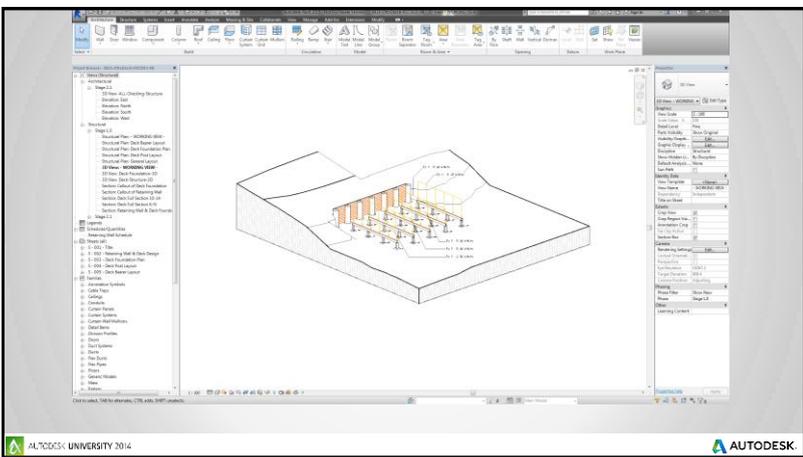
- markup the formula in the Excel formula bar.
- use <CTRL> + C to copy the content.
- complex formulas can be pasted into 'Notepad' for rectifying

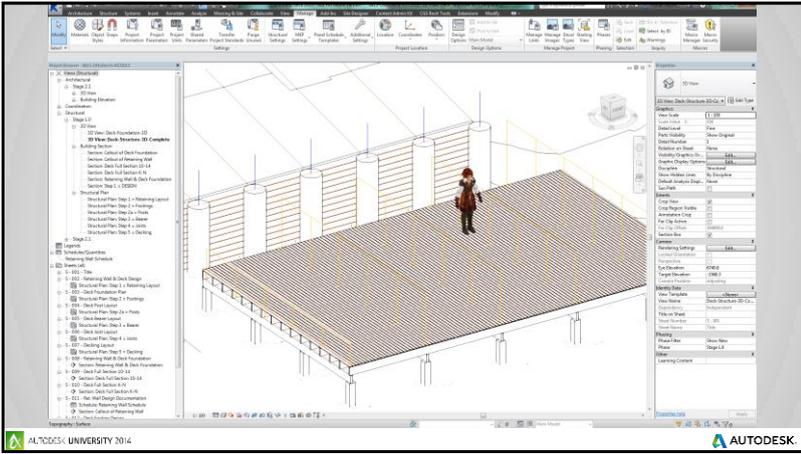
Parameter Editor

- paste the belonging formula in to the formula field next to the parameter value.
- you can use <CTR> + V to paste the content.
- do this for all the parameter.
- rename all your parameter according to the Excel sheet.









Session Feedback

- Via the Survey Stations, email or mobile device
- AU 2014 passes given out each day!
- Best to do it right after the session
- Instructors see results in real-time





Students, educators, and schools now have
FREE access to Autodesk design software & apps.
Download at www.autodesk.com/education

AUTODESK UNIVERSITY 2014 AUTODESK



Earn your professional Autodesk Certification at AU
Visit the [AU Certification Lab](#)

AUTODESK UNIVERSITY 2014 AUTODESK
