What annoys me about Revit
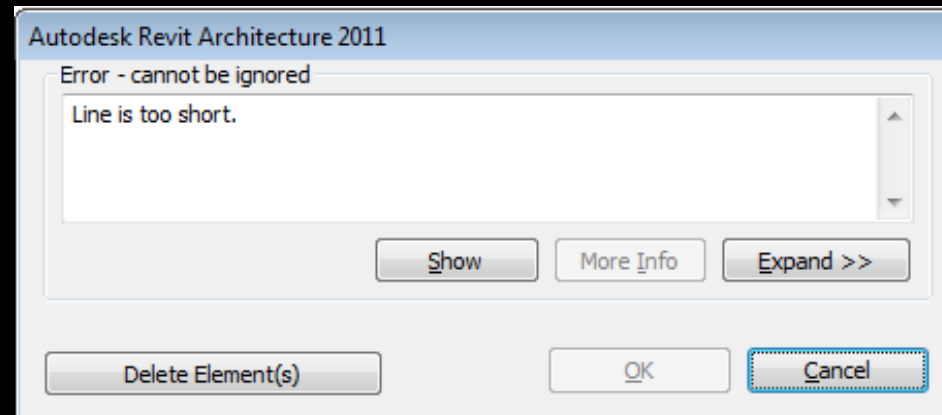
David Light, Revit Specialist
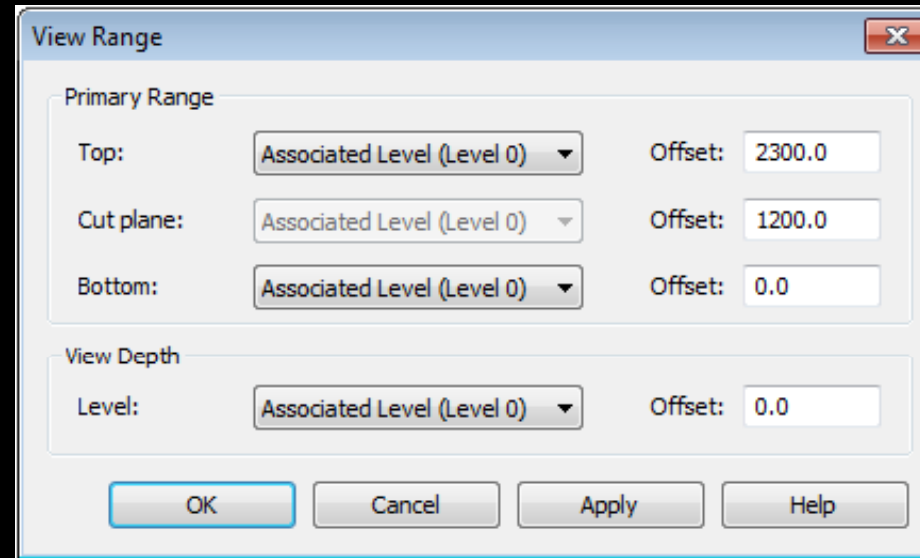HOK London

What annoys me about Revit?

- Users who don't embrace it!
- Users who constantly say AutoCAD is better
- Users who constantly say Sketchup is better
- Architects and Designers who consider Revit as just a fast drawing tool
- People who think BIM is a fad!

Size of elements

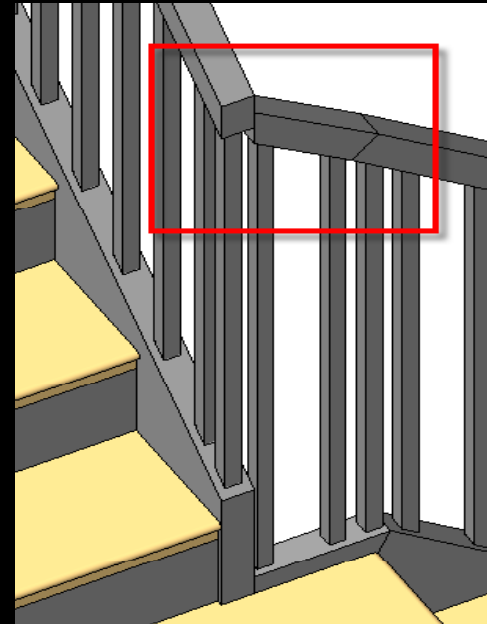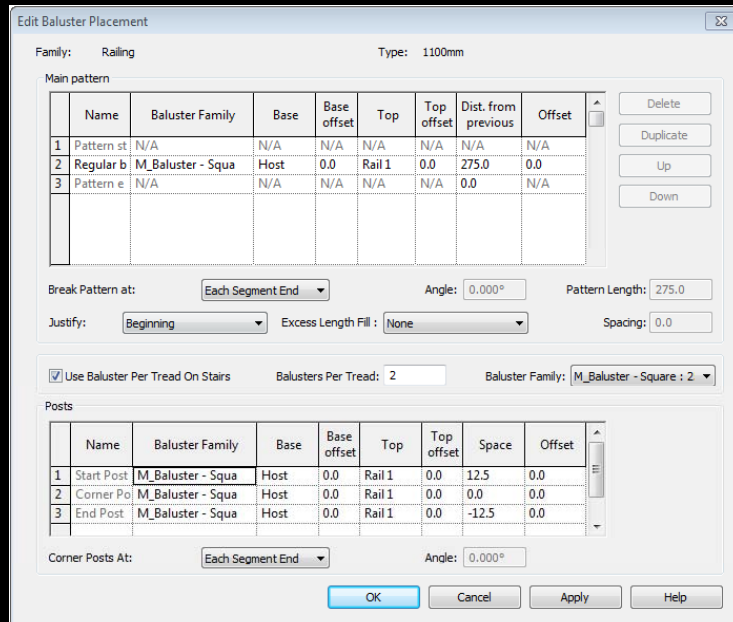- Elements which are just too small.

The view range dialogue box

- Controlling the view range
- Confuses most users
- Throw in plan regions and you have a headache

Railings

- Controlling Railings
- The Baluster dialogue box......say no more
- The way you construct and design railings makes no sense
- Railings do not mitre and join correctly

Stairs

we need to be able customise the display arrow which shows the run of the stairs
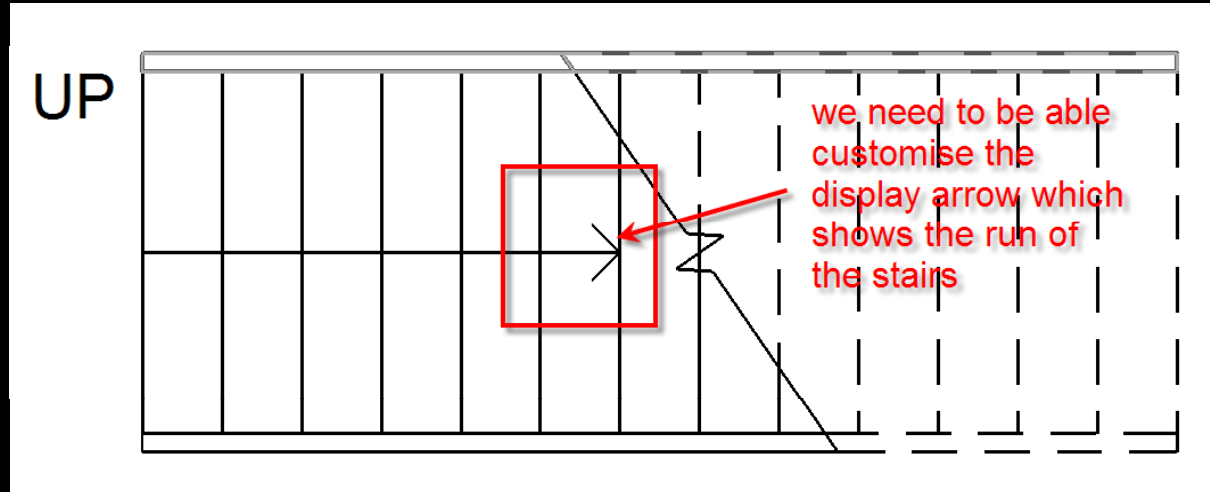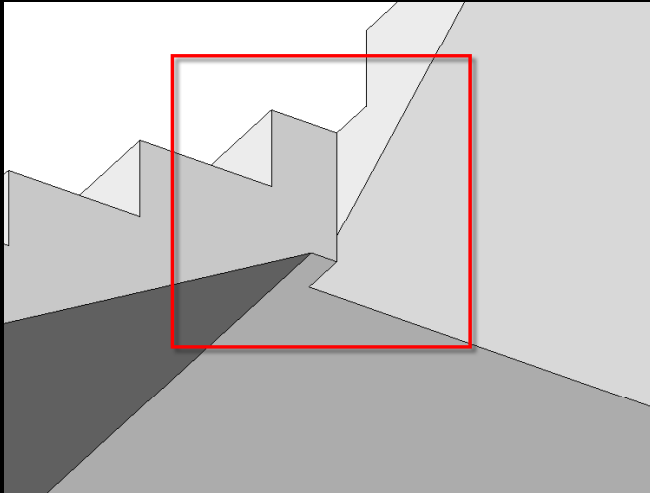
- The display poorly
- Controlling parameters and terminology is confusing
- Sometimes they don't build correctly
- Building stairs between half landings is not easy
- You can't display numbers on the treads

Site Tools

- Slow to use
- Cannot model roads, paths, pavements parking lots correctly
- You can't model vertical drops correctly
- Slabs can't overlap
- Sometimes it refuses to allow you to place slabs

More than shared coordinates
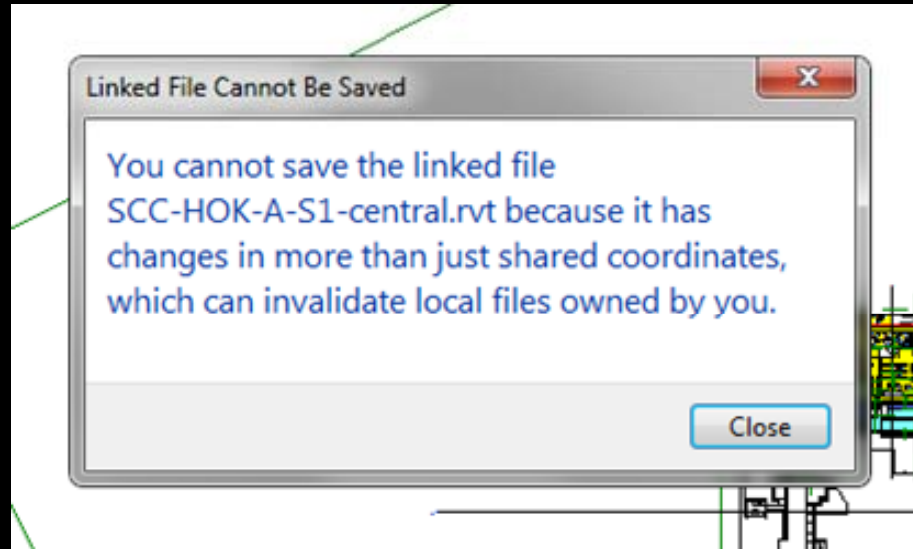
- Seen this message before?
- Occurs a lot when you have multiply linked nested files and something moves within the nested file

Error messages
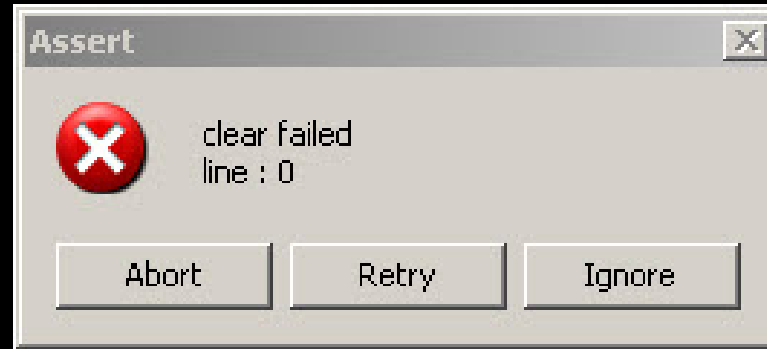
- Cleared failed line : 0
- Even Autodesk do not know what this error means!
- Has occurred a lot when exporting large projects to DWG

Management of shared parameters

- Controlling shared parameters is a nightmare!

- You have to swap shared parameter files when using different shared parameter files between projects

- Great concept, but you need a proper management dialogue box to control and manage shared parameters

Auditing tools

- What happens your database corrupts?
- Sending your model to Autodesk to be rebuilt is not an option
- A proper set of auditing tools which allow you to manually reconstruct the Revit database
- The ability to strip worksets when they are no longer required

Visibility control

- Too many ways to control elements...........

    - VG graphics
    - Hide individual elements
    - Workset visibility
    - Phasing visibility
    - Design option visibility
    - View range

Thank You!

David Light, Revit Specialist
HOK London

Peter McCarthy Arch tech Dip

B+R ARCHITECTS

Revit user for 3 years


http://revit-detail.blogspot.com/

What Annoys Me About Revit!

- The fact that the conceptual mass modelling technique is limited to conceptual mass families only and is not available in the regular family editor.

  In most cases with a difficult shaped object instead of using a system family which is more rigid I want to model a family instead and have it as a solid element in my project file.

  The easiest way to model these is to use the advance conceptual mass tools but instead I have to use the 5 basic modelling tools otherwise it come in as a mass and not a solid element. I usually have to run several void cuts to create a similar effect and it becomes more difficult to control

Conceptual mass modelling technique
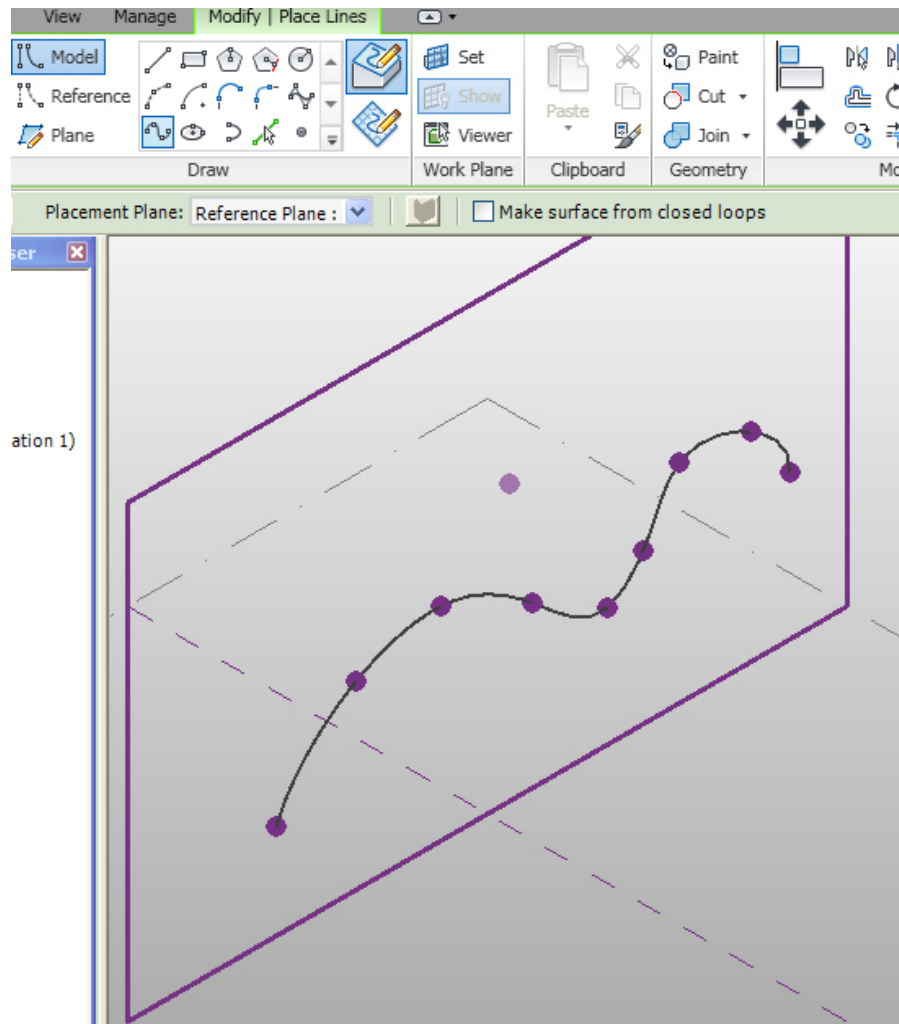
Standard modelling technique

Extrusion Blend Revolve Sweep Swept Blend

Seuss's curvy railing

"What Annoys Me About Revit?"

Paul Oakley
Oakley CAD Services Ltd

What Annoys Me About Revit (But not Revits fault….)
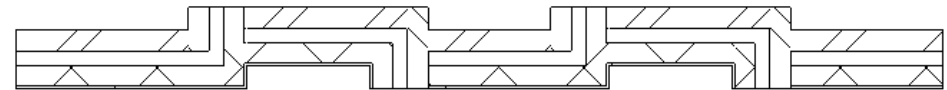
- Autodesk Marketing / Industry Perception
- Terminology ("Bidirectional Associativity")
- "BIM" and the misconception

- "No Layers"
  - Standards
  - Visibility / Graphics overrides
  - Worksets
  - Families / Types
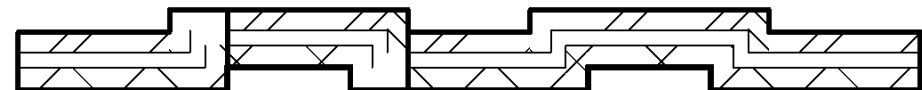 - System Family Classifications

Wall Dimensional issues

- Returns of 112.5 (Half Brick)

- Revit 2010

- Revit 2011

Drafting Views

- Try drawing Small lines
  - "Element is too small on screen"
  - "Line is too short…"

BOARD

BOARD

10.4

COMBINATION POLE

IMPORTANT REFERENCE

Custom Scale

Ratio: 1 : 0.2

☑ Display Name :   1 : 02

OK   Cancel

Revit

Enter an integer.

Close

New Drafting View

Name: Drafting 1

Scale: Custom

Scale value 1:   0.2

OK   Cancel

Revit

Please enter a valid integer

Close
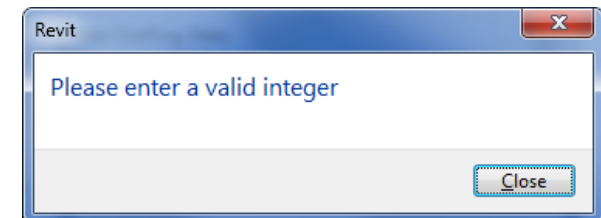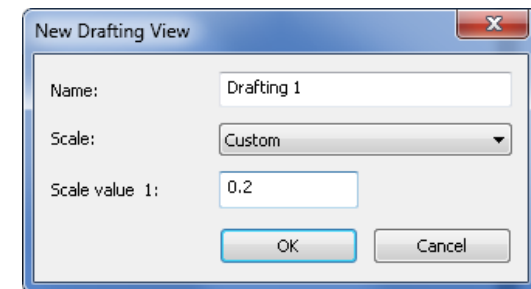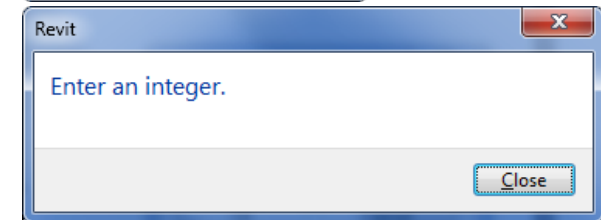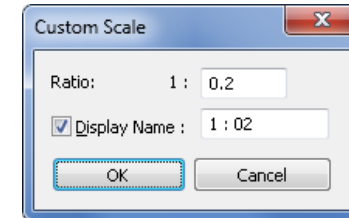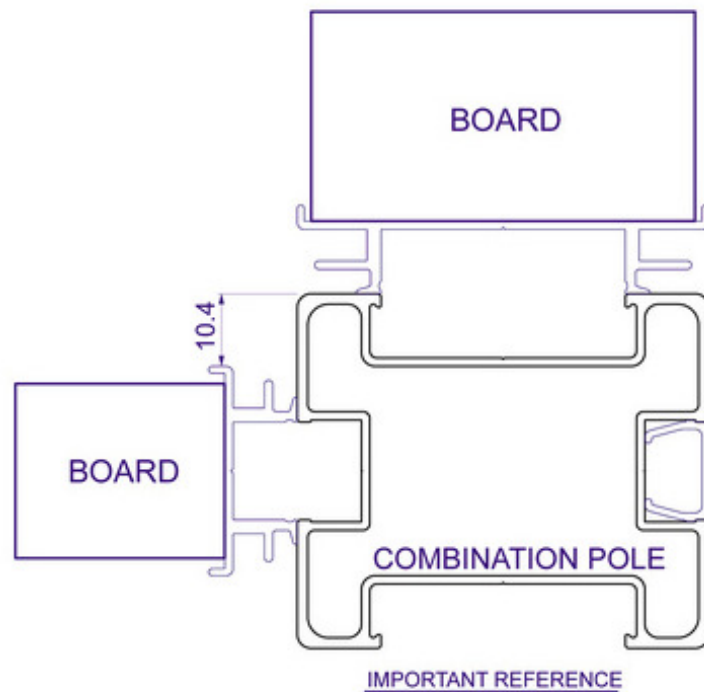
"What Annoys Me About Revit?"

- Command"
  - Units
  - ~~Editing~~
  - ~~Element properties~~

- Units (Small Units)
  - Walls
  - Detail Lines

- Door Numbers
  - Zone-Level-Room-Number (Z1-G-100-A)

Numbering

- Rooms
  - Zone-Level-Number (Z1-G-100)
- Door Numbers
  - Zone-Level-Room-Number (Z1-G-100-A)
- Renumbering

Thank You

'WHAT ANNOYS ME ABOUT REVIT' (Currently using Revit Arch 2009)

Michael Richardson – Pascall and Watson Architects

Copying / renaming multiple sheets (keeping both sets of sheets live)

Project Example:

We have a project at tender stage with 300 to 400 sheets, all set up with views placed and a drawing name and a numbering system in place.

For an authorities submission we need to produce these sheets with a different name and numbering system, keeping some (but not all) view specific annotation. We also need to filter some of the graphics and tagging.

We need to keep both these sets of drawings live and swapping out the titleblock each time we issue isn't really practical with the differences in detail notes etc.

Our solution was to create new sheets and duplicate (with detailing) all views and place these on to the new sheets, removing unnecessary notes and adding new notes along the way.

Being able to copy sheets with the ability to either duplicate views as this was done automatically, or carry over the same view on to both sheets would have made our lives a lot easier.

+ Open to other ideas and work arounds?

Legends

1 - Not being able to paste to multiple sheets at the same time.

+ Work arounds:
Using 2D Groups
Integrating in to title blocks
Using separate sheet for Legend, i.e. not showing it on every sheet.

2 - Not being able to directly pull items in to legends such as a floor finish hatches. (May be this has changed in later revisions?)

At present we do this by creating a generic model solely for the purpose of applying the floor material to it and using in the legend.

It would be nice if we could just drag in the floor, like you can with a wall for instance.

+ Any better solutions?

Callout tags

Not being able to easily rotate callout tags

(See work around http://hokbimsolutions.blogspot.com/2010/04/rotating-callouts.html)

Resolving errors

At present this is a fairly painful process for us and can slow down working on our model considerably.

I think there is a case for a more intuitive and efficient way of finding and resolving errors in projects, including a way to suppress some of the less important (if I'm aloud to call them that) errors.

Darren Snook ~ Watermans
d.snook@waterman-group.co.uk

What Annoys Me About Revit – In the form of a Wishlist.

These are my suggestions for all flavours of Revit that may be useful

- Zoom extents function on middle mouse button double click (As Autocad)
- 'Create Similar' Command. Extend to 'Clone' type command that copies all parameters (level, material etc), not just the family type
- Hidden levels function for all Elevation/Section Views like the one in Graphical Column Schedules in RST
- Add bullet points to text
- 'Title on Sheet' for Schedules
- Print Window function
- Boolean switch to control whether a void cuts a solid
- Purge unused materials
- Transfer Project Standards. Ability to select items to transfer (currently all or none)
- Alphanumeric Revision numbers to match UK project stage system or have the ability to add shared paramaters to revisions & view titles to give the revision system a bit more flexibility
- Ability to pass filled/masking region area to a shared parameter for tagging/Scheduling
- Ability to lock model text off in two planes in family
- Figure input. Have to put = in front or type number. Make = invisible for all input (ie do away with having to type = in every time)
- Extend Filter Rules to 'Or'
- Improve the revision clouds along Autocad 'RevCloud' type functionality
- Spot Coordinates to intersection points (specifically grid intersections)

My suggestions for RST:

- Extend 'Common Edges' to Structural Columns and Framing to allow better clean up of different concrete grades
- Slanted Columns to show up on Graphical Column Schedules
- Ability to tag Slab edges and Shaft openings. You can currently add shared to parameters to these, but can't tag the information
- Ability to save different set-ups in the Beam Annotation tool. Also, extend the tool to be used on beams in elevation as well as plan

What Annoys Me About Revit

Julian Jameson, Revit MEP User
JJ PHE Services Ltd/Buro Happold, London &
Michael Bartyzel, Buro Happold

Revit as the latest "Buzzword"

- Senior Management/Partners believing that Revit does everything it "says on the tin" and then using this as a marketing tool and forcing it to be used on projects when it may not be the most suitable tool for that project.

- People who have been on a two/three day training course then purporting to being Revit MEP Users but have never used the software in a real life scenario – a totally different experience!!

- Revit being defined as BIM whereas in truth BIM encompasses more than just one piece of software and more than just graphical modelling.

Practicalities of MEP Modelling

- Splitting models into small components and no data flow through seems to defeat part of the object of Revit MEP.

- Increased risk of user input error appearing which may slip through if users are not certain of expected results.

- Possible size limits on models at present due to 'strain' applied to currently available hardware

The Autodesk Tutorial Building

- This building is annoying purely because once people have done the careful crafted (fairly simple) tutorials, they fall into a false sense of ability and think that using Revit on a project will be as simple.

- The tutorials could do with tailoring to the UK way of doing things to at least provide an idea of how the software can be used to suit the UK way of doing things.
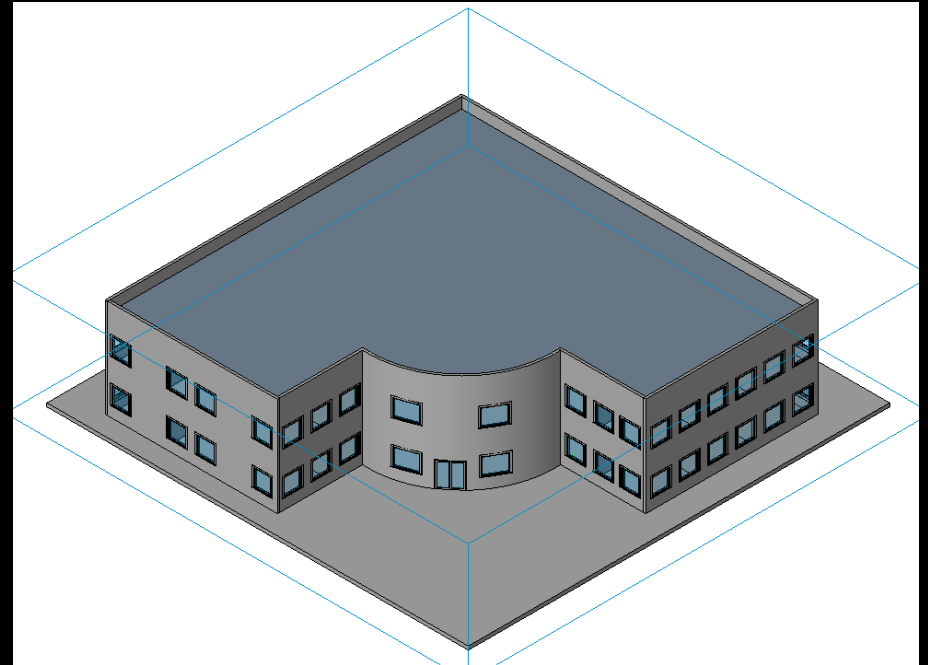
Exporting Deliverables Issues

- Unstable user interface causes the warning shown on the right after the first export.

- Similar issue when printing, where the progress bar at the bottom left of the screen, by the scale button, never disappears once you have plotted for the first time.

- Getting deliverables out of Revit is difficult unless it's a PDF or DWF. CAD export facility is prone to issues and PLT creation requires a suitable network plotter.
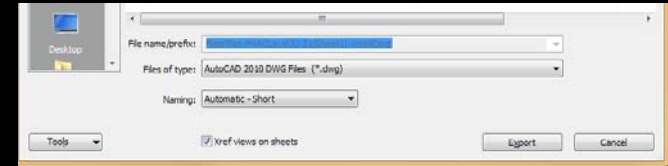

Correct Version
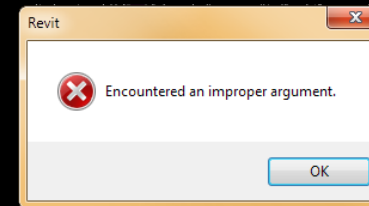

Error Message
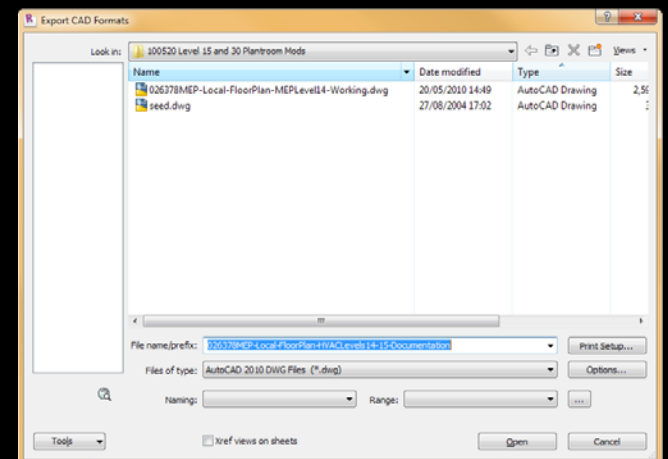
Error Version

Size and Offset Drop Down Boxes

- When modifying objects such as pipe and duct, these can be quickly modified by selecting the drop down boxes.

- However, if you forget to 'complete the command' and use the wheel mouse to zoom then the sizes of the selected elements to change, taking Revit ages to calculate and often getting loads of warnings.

- Unlike previous versions, you can't seem to add 4 digit duct widths and heights in the drop down boxes and Revit then add them to the master size list. You now have to add them to the master list for them to show up.
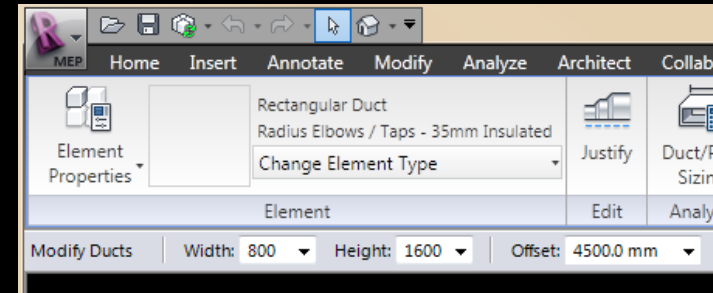
Annotation

- Despite the beauty of annotative text and tags (most of the time) the association of the leader to the text/tag is often dire in certain instances.

- Due to the variable nature of descriptions, multiple styles of a tag need to be created depending on justification, text size, etc.

- For the leader to look right when drawn from the right, either we have to accept gaps between the end of the leader and the text or have 'right justified' text which looks rubbish.
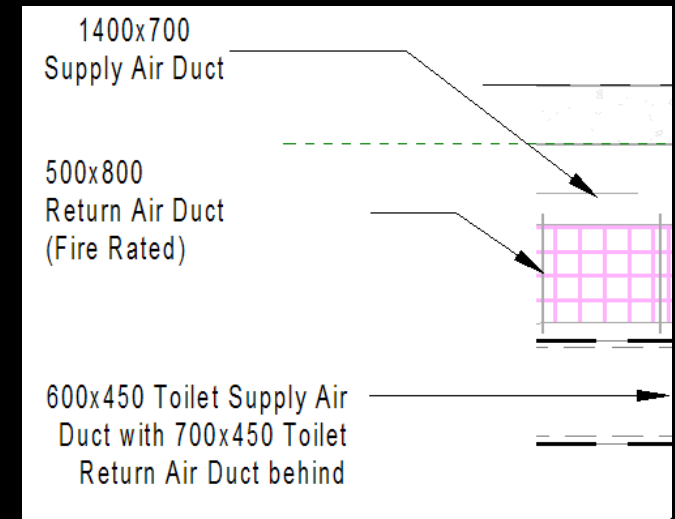
View Ranges and Plan Regions

- Normal view ranges can be difficult to get right occasionally but Ceiling Plans are even worse. The help dialogue box is not totally clear and the help file is not overly useful so often it is trial and error to get the view right.

- Plan Regions do not appear to work properly in MEP, unlike the other versions of the software, with pipe and duct fittings outside the region sometimes appearing. Even when changing the plan region to values where there is no possibility of the fittings being within the region, the fittings still appear.

Copy and Paste

- Pasting between different levels achieves odd results where plant appears on levels above or below rather than on the required level. This then makes the ducts/pipes attempt to compensate and break the systems/connections

- Copying and pasting tags to a layout exactly the same as the floor below does not always work properly as Revit reckons that there are not elements to tag. However this is sometimes overcome by using the simple Paste option.

Level Anomalies

- Connecting between elements with different host levels achieves odd invert levels for one end of the element.

- This appears to affect exporting to Autocad in 2D and 3D with fittings either disappearing or being grouped some distance away from the model, most likely at the negative level shown.
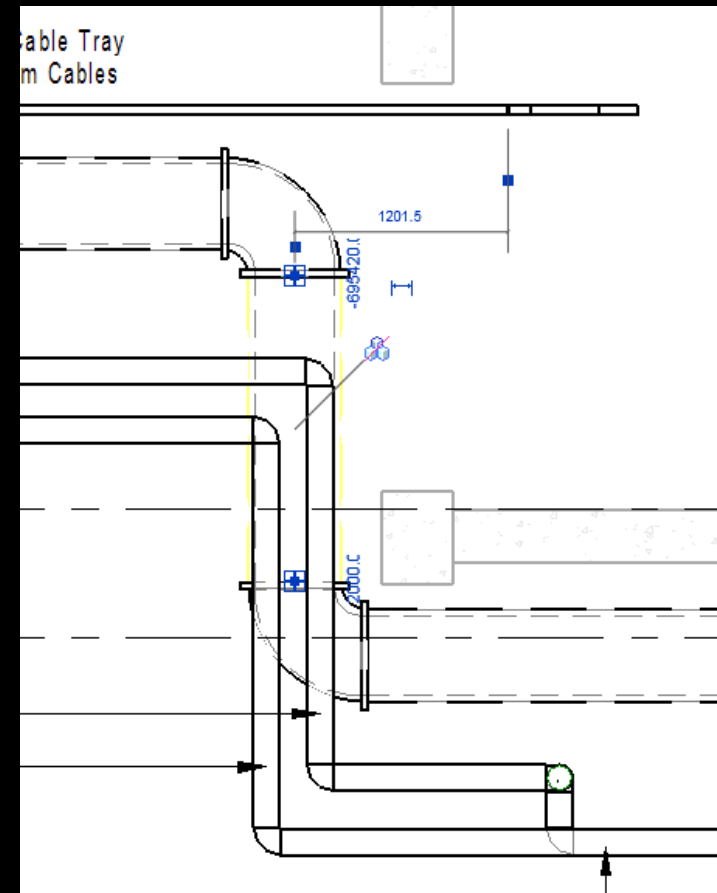
Family Creation/Use

- When using out the box content or other custom made content often the template used for creating the content was object based, such as ceiling based, etc. These families are not ideal for use in Revit MEP as we don't often use ceiling/walls/roofs in our models and as such the families won't host.

- The annoying thing is that the family doesn't easily show what template was used to create the family and the hosting can't be removed to make it either just face based or non-hosted.

- System families have no material control for rendering purposes on such as pipe/ducts without setting globally.
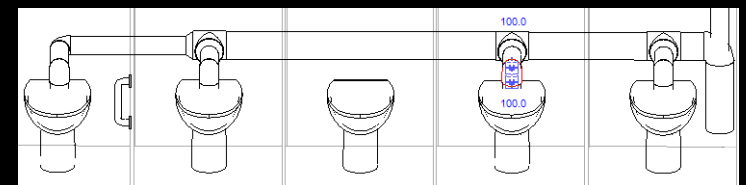
Auto-Route Solution

- The Auto-route solution does not work as well as advertised and can do some strange things. Most of the time the MEP systems we create in the model are not as straight forward as shown in the tutorial and thus render this tool pretty ineffective.

- To make better use of it the settings need to be adjusted often and this can take longer than just modelling the system.
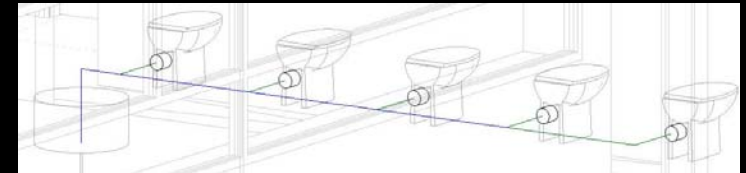


Auto Route Solution – Preliminary
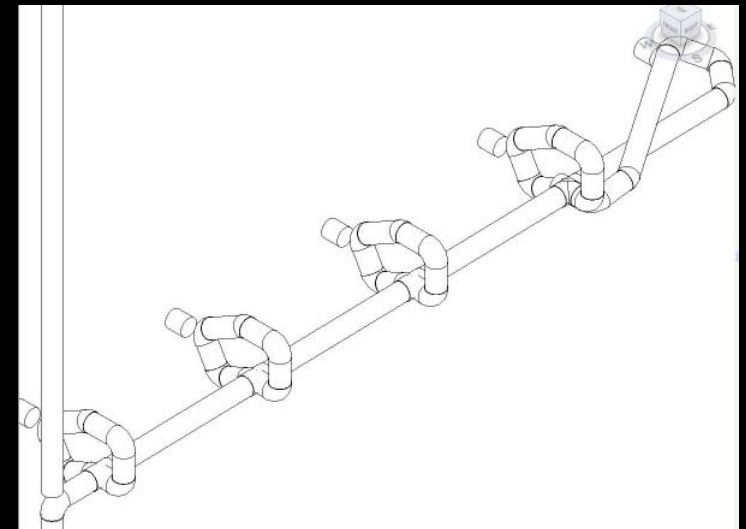
Auto Route Solution – Revit Solution

Auto Route Solution – Alternative Revit Solution

Visibility Controls

- There are multiple ways to control visibility of views and getting these right seems to take up a large percentage of the time.

- There are many shortcuts such as VG, VP, but why not one for 'View Range' as this is often used.

- Revit seems to view the display order of insulation and linings differently for ducts v duct fittings. This applies to surface patterns.

- The patterns also don't display well on round ducts.
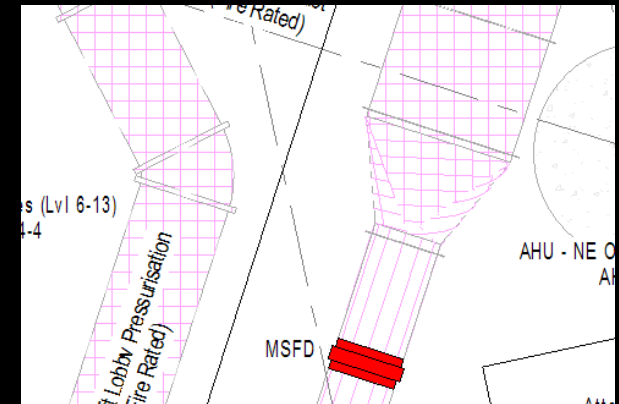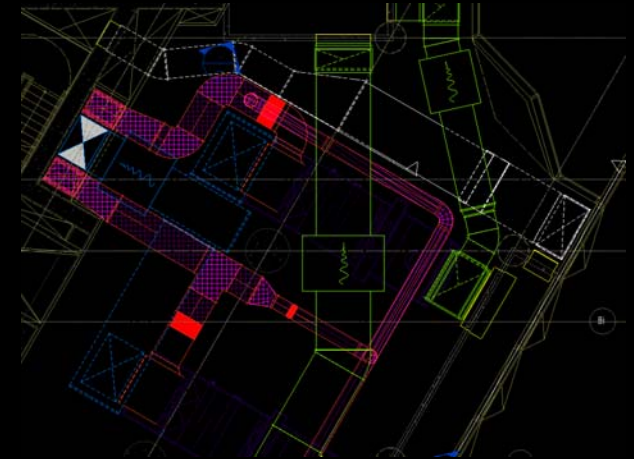
Addictiveness

- An AUGI User's signature – "I could stop, if I wanted to"

- I think the above sums Revit up pretty well. As frustrating as Revit can be, it can start to become obsessive with its challenges and trying to overcome them and not be defeated by the software. It is easy to fall into the trap of just doing 'one more little bit' and several hours later you finally decide to go home before you miss your last train. Even then you can find yourself thing about what you need to do and trying to resolve issues ready for the next day's work.

- Or that could just be me!!!

Revit Wishes

Scott Grant

The Obvious

- Generic model editing tools that work on any element
- Text
    - Bullets/Columns
- Gradient/Transparent Hatches
- Selective 'Create Similar' & 'Match' tools
    - Choose element parameters
- Non-rectangular Viewports
- True Elevations (Curved/Faceted)
- Auto-hide/Fullscreen modes
- Visual Style - Sketch Effects

Selection Tools

- Filter that works using any parameter
  - Save option
- 'Fence' type option

File Management

- Open linked files in same instance of Revit
- Save backups to designated folder
- Automated stage archive process

Content Development

- Version tracking
- Default behaviour controls for families
- Improve visual distinction between parameter types
- Link to library and provide checks against standards

Export

- DWG
  - Map element sub-categories to separate layers
- FBX
  - Selectively reduce detail during export

Export directly to Excel

- Standard in ADT/ACA practically since day 1
- Not overly difficult to process 'txt' file but....
- Come on, it's not a lot to ask for the convenience!
- The Revit DB Link tool is a partial answer
- Needs to provide ability to export formatted schedules

Intelligent Numbering

- Numbering tool would be good, but....
- Would prefer to see intelligent, rule-based system
- Layout rules in terms of direction/axis
- Ability to define numbering to standards such as BS4157
- Better capabilities to identify locations and associate/concatenate door & room numbers

Site Modelling Tools

- More accurate terrain

- Point cloud support

- Proper feature modelling tools

Rendering

- Render process in separate frame buffer
- Retain previous in-session render iterations
- Restore panoramic rendering functionality

Version Control & Revision Tracking

- Store model versions

- Track element changes

- Highlight all sheets affected by changes between versions

Revamp the following features

- Coordination Monitor
- Groups
- Design Options
- Phasing
- Stairs & Railings
- Site Tools

Some common sense

- Once license, any version
    - Architecture
    - Structure
    - MEP
- Architecture has the Structural features now
- Structure & MEP have the Architecture
- Architects often want the MEP tools
- MEP engineers often want the site tools
- Unnecessary headache for multidiscipline & contractors

That's it!

Andrew Dobson

PURCELL MILLER TRITTON LLP
architects, designers and historic buildings consultants
andrewdobson@pmt.co.uk
www.purcellmillertritton.com

I didn't have time to prepare a presentation, but for reference my four main annoyances (aside from missing features such as PDF support) are:

1 – Wall junctions don't clean up as I expect/want. This is particularly frustrating with small steps in the walls. This was demonstrated by others. David said that he has a work around, which I recall seeing on his blog sometime ago. This didn't reliably work for me, as with the split region issue below, the wall junction randomly messes up again. I use fill patterns as a work around...! Not sure what Autodesk are doing about this, I opened a support request and they told me to model wall layers separately at junctions...

2 – Small Radius Curves display faceted. Improved in 2011, but still not enough to show a drip on a window cill correctly. (Work around, use linework tool to make small radius curve on object an invisible line and then trace and lock a detail line over the top as attachments 12 and 13).
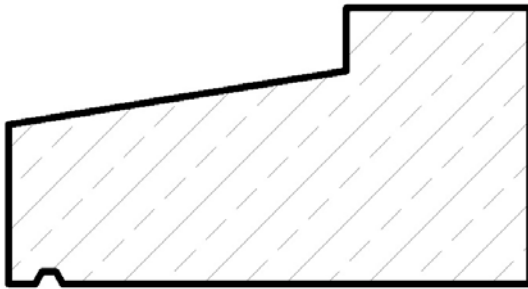
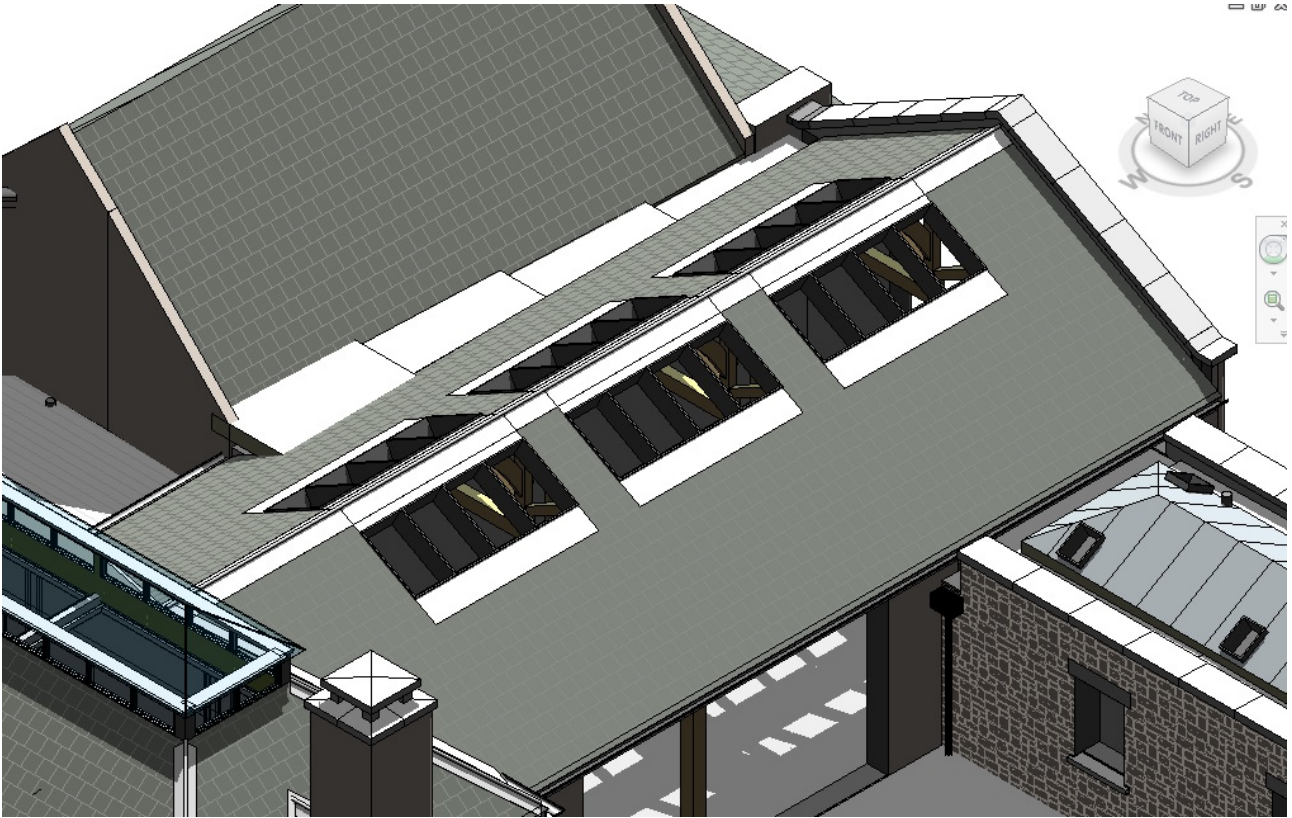12   13
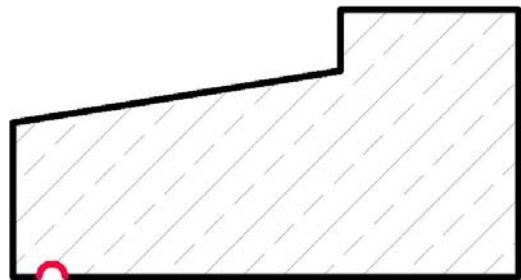
 I have discussed this a lot with Autodesk who have been pretty helpful. With support as a long standing bug.

3 – Levels. You delete a level, and all of the objects related to that level get deleted too. I would like to option to relate them to the project datum level instead of deleting them (with them staying in the same place). Also an option to relate all objects to the project datum so that I can delete all levels would be useful.

4 – Split region is useless (but would be fantastic if it worked). We would like to use split region to indicate lead flashings on roofs (and for all sorts of other things). Trouble is, randomly, the main body of the area containing a split region seems to inherit the painted material of the split region. This always seems to occur before an urgent drawing issue when we forget to check.... Work around – use other tools. With support as a long standing bug. Shown on screen shots 10 and 11.

10

11