Revit 2010 Tricks and Tips

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Selecting elements in Revit 2010 SP3

- Transparent change of tools when you have a selection of elements

- Make a selection of elements and you can switch to any tool without dropping the selection set

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Conditional formatting in Schedules

- Introduced during Service Pack 3, you can do conditional formula in Architecture and Structure

Improving Draft Renderings

- When producing draft renderings the default settings are set very low and "soft shadows" is also unchecked. This can result in a very rough render.

Improving Draft Renderings

- Instead, try copying the draft settings to custom..

- Then Increase the image Precision (Antialiasing) between 4 and 6 Under Shadow options tick the box "Enable Soft Shadows"
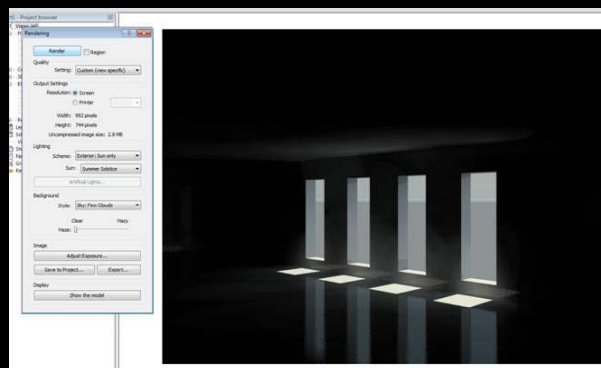
Improving Draft Renderings

- Render times will be slightly longer, but you will get a better quality draft render.
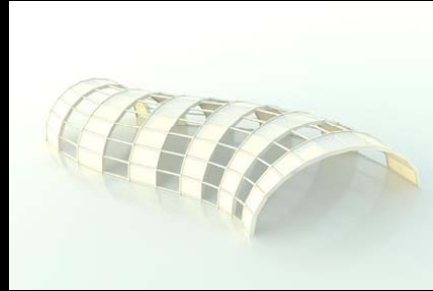
Render in the dark!

- This will work in both Revit 2009 and 2010.

- You achieve this result by setting the Revit Mental Ray render engine to an early morning setting of say 2am and then adjusting the exposure control from 14 to between 2 to 2.5.

- What this actually does, is turns off the sun (as its night time), but keeps the sky image map and the low level ambient lighting.

Jeddah, Middle East – Master Plan
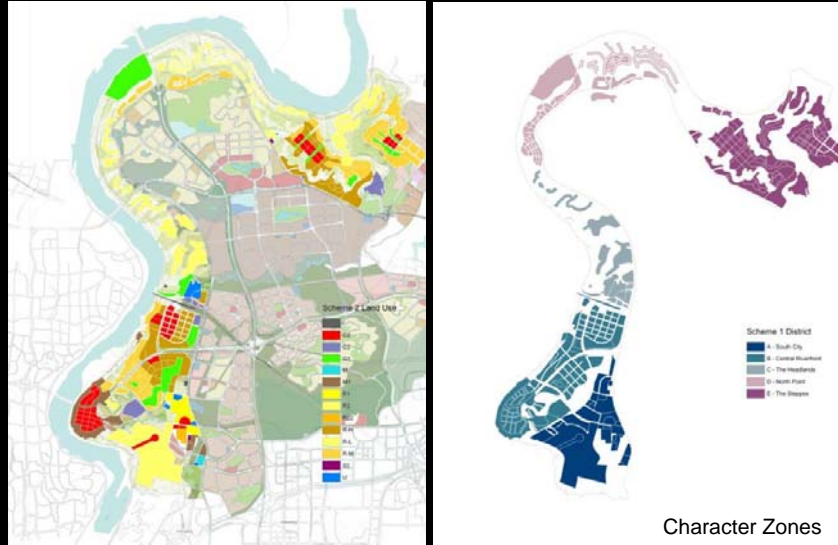
- Residential and mixed-use
- 530 hectares
- 7 districts
- Project shared between 3 offices

Area Parameters V Different Area Diagrams

Character Zones

Area Parameters V Different Area Diagrams

Density (FSI/PR)

Composite Diagram

Area Calculation

Parcel code, land use, gross land area, FAR and gross building area sorted by zone.

Road Diagrams

Road Schedule

Tags for Mass Objects

Building Footprint -
Mass Floor Tag
Ground Floor Retail

Retail
979 m²

Building Tag
above Retail

0
10
Hotel

Hotel
979 m²

Building Footprint -
Mass Floor Tag
above Ground Floor
Retail

Building Tag
Ground Floor
Retail

0
1
Retail

Mixed-use Example:
Ground Floor - Retail,
L1 and above Hotel

Families

- Mass Prototypes – Based on Building Typologies
  - Annotations
  - Tags
  - Arrows
  - Symbols
  - Roads
  - Walls
  - Floors
  - Mass

Property Tag

Property
boundary

Drafting→Symbols
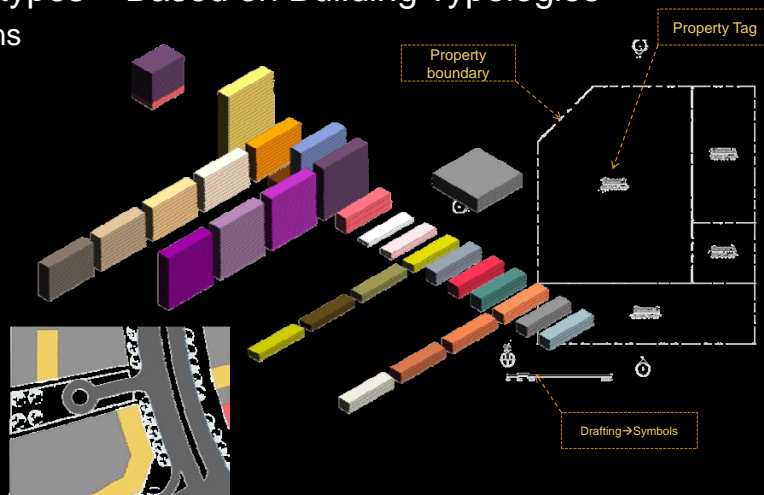
Areas

- Colour Schemes
- Area Types
- Objects
- Area Plans
- Area Tags
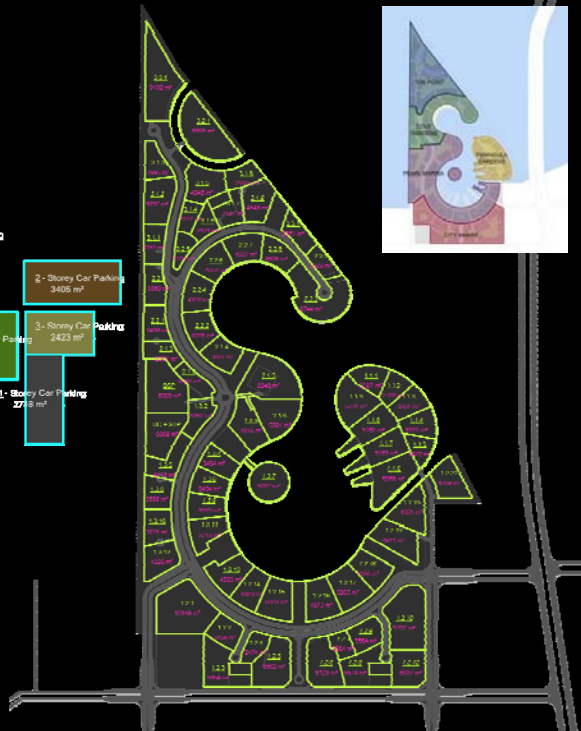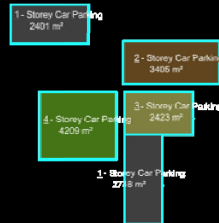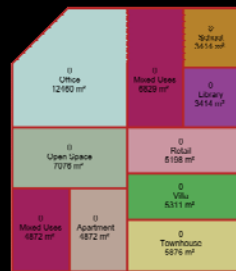
Cheat the Units!

Revit

Revit cannot import
C:\Users\david.light\Desktop\urban
design\3-importing large DWGS\large site.dwg
because it will create a Revit model that is larger
than 2 miles across. This can cause inaccuracies
and instabilities. Either select a different Import
units setting or adjust the project size before
importing.

Close
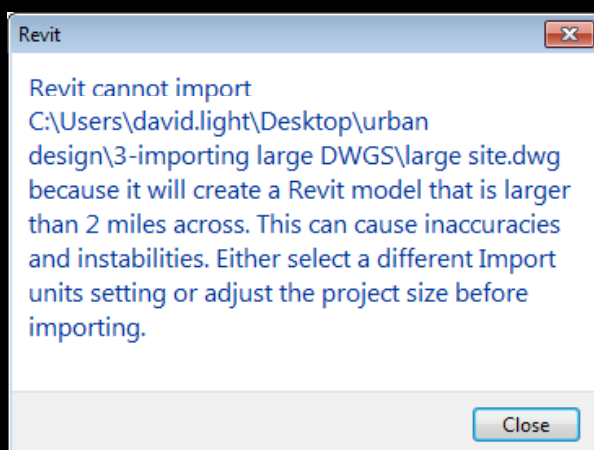
Cheat the Units!

- Importing large DWG files can be problematic

- Import and set the units to custom

- Set manual unit number, so one unit in Revit is equal to one unit in DWG file

- Scale the imported DWG

Using 2009 mass families in 2010

- Utilized massing families created in Revit 2009, within Revit 2010

- Allows the sketch mode to be retained

Edit Extrusion

Using 2009 mass families in 2010

```
Build mass          Load and use          Edit sketch
families in Revit    these in Revit        mode in Revit
2009                 2010                  2010 family
                                           editor
```
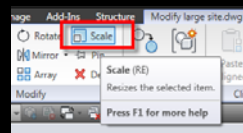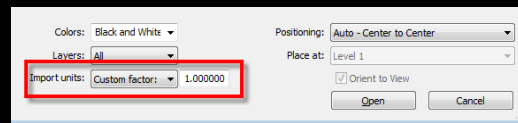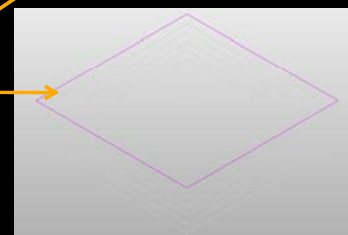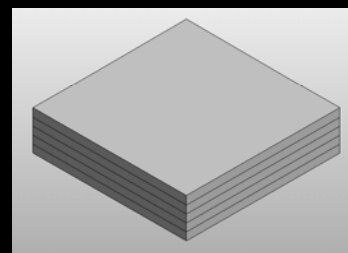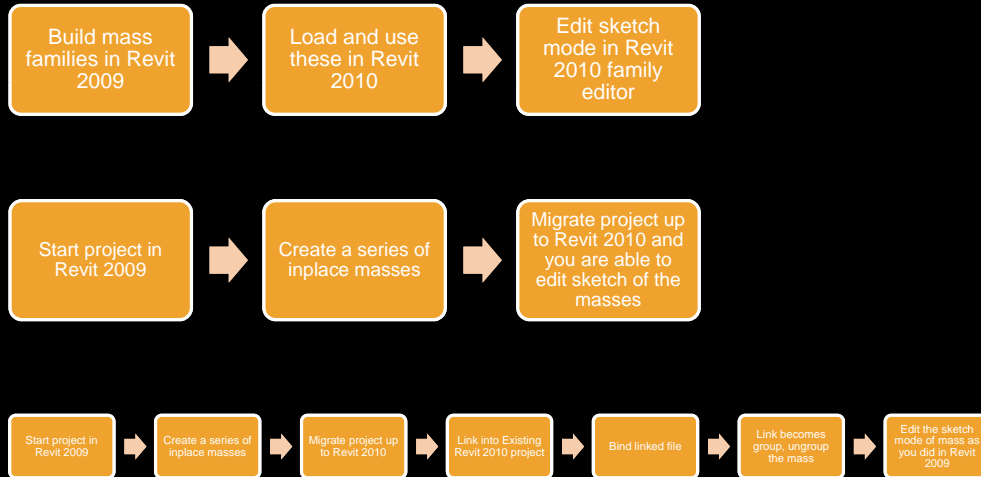
```
Start project in     Create a series of    Migrate project up
Revit 2009           inplace masses        to Revit 2010 and
                                           you are able to
                                           edit sketch of the
                                           masses
```

```
Start project in   Create a series of   Migrate project up   Link into Existing   Bind linked file   Link becomes        Edit the sketch
Revit 2009         inplace masses       to Revit 2010        Revit 2010 project                       group, ungroup      mode of mass as
                                                                                                      the mass            you did in Revit
                                                                                                                          2009
```

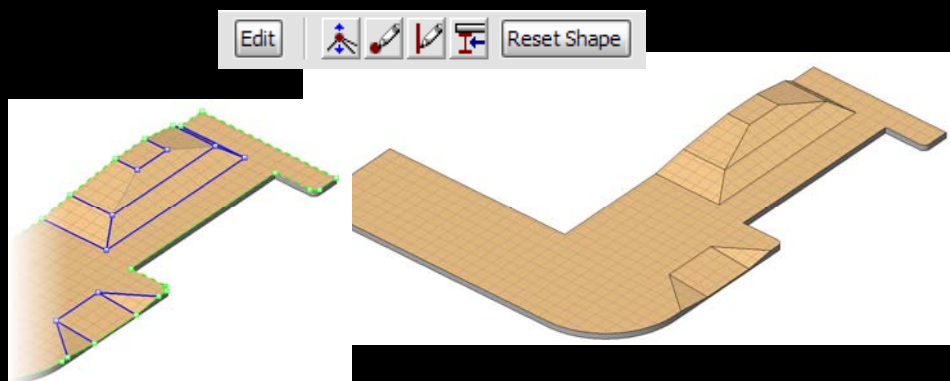http://www.lrug.org.uk/   **LRUG London Revit User Group**

Pavements and Roads – modify a slab

- You can also use a slab or floor as a pavement and then use the sub editing tools to modify the slab or floor to dropped kerbs and embankments.
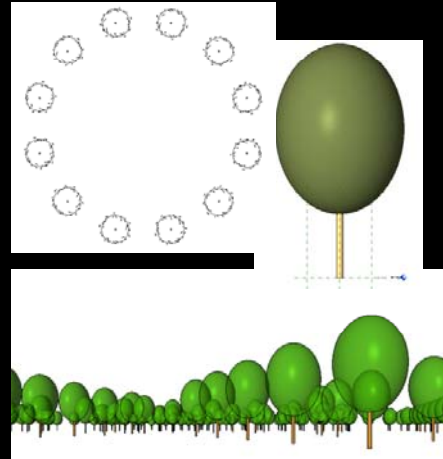
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Curtain Walls for repeating items

- Used Curtain Wall tool to create rows of items such as trees, street lighting

- Benefits include –
  - Rapid placement of inline items
  - Curves allows flexibility of design
  - Items can be scheduled
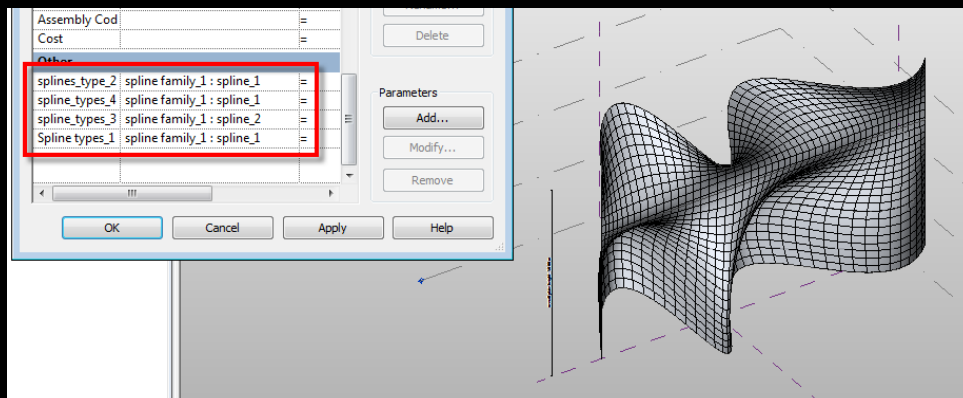 - Curtain panels can be removed when not required

Nest families in Concept massing

- A neat trick in 2010 is the ability to nest mass families into other mass families to build complex forms.

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Do Revit ? Get the hardware!!!!

- HOK don't do things by half measures!
- Large and small projects
- Continually updating hardware
- Current Workstation specs:
  - 16gigs of RAM, 8 gig page file (24 gigs)
  - 512mb Nvidia Quadro cards
  - 2.8ghz quad-core
  - Stripped hard drive setup
  - 24" wide screen 1920x1600 screens
  - XP64, migrating to Win 7 64

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Revit for fun!!!!

- Revit into Unity
- Unity can read FBX
- Unity can publish to WII and Iphone
- Free Unity is free
- Real time rendering
- Using game technology
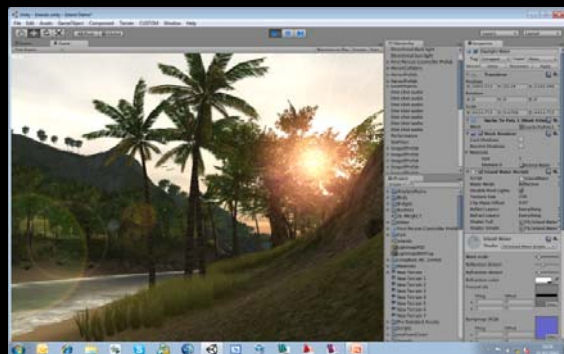
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Thank You!

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