

## Chapter 1 : Revit Architecture Training Files

*Getting Started Video Tutorials for Autodesk Revit Architecture This tutorial is conceived to allow an easy start with Autodesk Revit Architecture and to get an extensive overview of the.*

IFC Revit Server Revit Server was introduced as part of the mid-year subscription drop; my blog article back in October provides an overview of RS if you need to know more. RS has been further enhanced in and provides new platform server support for VMWare and Windows server release 2. More detailed historic information is available from the Revit Server administration tools and there is now support for editing requests and notifications. RS also provides support of all the new working sharing enhancements in this release, more about those later. Linking Improvements As project teams push Revit harder and the tools gets utilised on more challenging projects the concept of linking models together has become more prevalent. The original concept of one super model which can do everything has migrated to a more holistic and realistic approach of linking models. With this in mind, the need to enhance the linking abilities between models has become a user priority. The release saw a number of key improvements within this area, sees these extended further. Spaces can be tagged in linked MEP files. Keynoting tags now work across all linked file types whether they are Architectural, MEP or Structural files. Area tagging now works on linked Architectural and MEP models. The ability to Tag Rooms alone is worth its weight in gold as this limitation causes projects teams major headaches with the need to setup linked views etc to accommodate this previous limitation. The managed links dialog also see some minor tweaks. The Revit links tab is now positioned first, Users can now sort the columns by clicking the header of the columns. The default columns sizes have been improved to make reviewing and reading easier. Working Sharing I would have to say that one of the biggest areas of improvement for Revit is within the Worksharing workflow. It pulls together a number of outstanding requirements, requests and disconnected technology implementations and delivers something which addresses everything that I personally saw as a shortfall in Worksharing. A new feature called Worksharing Visualization allows you to view in canvas the ownership status of elements, specific owners of elements, when elements are out of date as well as which elements are assigned to a particular Worksets. A new view control bar has been added to each window which allows you to access these new Worksharing graphic features. When you go into a particular mode text in canvas is used to indicate which temporary display mode you are using. The tool tip feature has also been expanded providing the user with more Worksharing information as you hover over a particular element; where once you had to wait a fraction of a second for the tool tip to appear it is now instantaneous. A major limitation of Revit in previous years has been the inadequate functionality of the edit requests feature. This tool, has from my memory never been improved? Where project teams have been disconnected geographically or just within the office, the use of instant message tools has become the norm to let team members know that you have placed a request or borrow an element or to get someone to relinquish and sync to central. The Worksharing monitor released a few years back did go some way to assist, but it was really on stop gap solution. However, when Revit Server was introduced, you quickly discovered that the Worksharing monitor was not supported in the environment! So it is refreshing to see that Revit now provides balloon notifications when editing requests. When you receive request, you can use the buttons provided to show the elements that need to be relinquished. No more throwing items at your team members to get them to relinquish borrowed items! Its pleasing to see that Workset Visibility can now be managed by view templates! Another minor improvement is the introduction of a Starting View. We at HOK along with many other firms, choose to have a starting view. This view in our case is a drafting view which indicates project details and is the neutral view we encourage all our users to save in. This ensures that everybody gets the same view when they create a new local copy and experience has shown that this view opens quicker than having to wait for a large 3d view to appear on the screen. Therefore, the new Starting View command allows you to specify which view appears by default when you open the file. Another minor tweak is the ability to change the Workset parameter without first needing to borrow an element. This really has been a long standing request, because once Worksetted, officially you were unable to

disable Worksets. Technically this is not true, as this functionality has been lurking around in the background for some time, but it has never been exposed to the user. Whilst it will be a very useful feature, without careful and proper management it could spell disaster if it gets into the hands of the Revit novice! Therefore, this feature has been hidden out of the way and has been integrated into the detach from central workflow. When detaching from central you can detach and preserve Worksets or you can detach and discard Worksets which in effect turns it back into a standalone file. But it has been a long standing request by many to improve the output that Revit provides. Now this creates a tricky challenge as you are trying to convert the output from one technology suitable for use in another technology. So in this occasion the best quality dwg export is the order of the day. As more firms become Revit enabled this will be less of an issue. Revit sees improvements across the board; the export user interface has been updated, pre-sets can be saved once you have configured the output to your requirements. The export settings can be transferred between projects, using the Transfer Project Standards command. Revit is now able to export style based dimensions; this will ensure that the dimension text is controlled by the text style and the tick mark is controlled by the arrow heads properties; no more proxy graphics to represent dimensions in the DWG export. Lines, Patterns, Text and Fonts, Colours, Geometry type, Units can also be customized to a far more granular level of detail. In the case of Lines types you can map Revit to use a LIN file and Hatch Patterns you can map to a use a. All this should help to improve the clarity of DWG exports from Revit. General Platform Improvements Revit release also sees a number of improvements to the user experience. You will find that the highlight and selection colours have been updated. Another obvious improvement is the New Grip Graphic; these now appear visually better on the screen. The temporary Dimensions graphics have been tweaked and these are now blue rather than black. These are just minor tweaks, but they do improve the interaction experience and it genuinely improves the fit and finish of the product. The Graphic Display Options Dialog box has also gone through a major overhaul. You are now able to create a View Template directly from this reconfigured Dialog. After user feedback from Revit , there are now a number of additional visual styles such as: Realistic with Edges mode with Realistic views. Ambient Occlusion for Hidden Line mode. Ambient Occlusion along with Shadows for Consistent Colours mode. Another sneaky little gem is the ability to print Ambient Occlusion! You will also find the introduction of Ghost Surfaces. This is particularly useful and will provide the user with additional control over complex 3D visualisations. The Ghost Surface feature can be applied to whole view, by category, by element or as a filter. Below you can see the image has had the Ghost Surfaces applied. One of the foremost benefits of working in Revit and 3d is the ability to generate assembly 3d views and 3d details. I have said it many times, but give somebody a 3d isometric of an assembly and they will have a better understanding of how the components go together. The guys over at Lego have been doing this for years!!! So Revit now includes a new 3d view lock feature which allows you to lock to an orientation of a 3d and then tag elements within the view. The user has 3 possible options available; save orientation and lock the view, restore orientation and lock the view, unlock the view. This is control via the View Control Bar. Whilst I am on the subject of 3d, final Revit sees 3dconnexion device support. You will need to install the current drivers for you 3dspace mouse, but when you do an appropriate 3dspace mouse icon will appear on the Navigation Bar. When Autodesk switched to the Ribbon, one rather nice feature in was the ability to have Type Selector positioned in the Ribbon. Revit stole us of this feature and the Type Selector migrated its way to the Properties Palette. But I am glade to say the Type Selector in the Ribbon is back. Schedule and legends views can now be created directly from the project browser. Other user experience tweaks include the ability to export Family Types from a Project to a TXT file, import types into a family from TXT file, save all families from a project or a family, customizable equality text, a number of improvements to Dimension Leaders and a new Round Function for Formulas. As with every release of Revit, Autodesk strive to improve the product performance. Purge Unused now includes unused Imported Categories and Object Styles, loading elements into memory now has multi-threading support. Also Multi-threading has also been extended to the calculation of silhouette edge graphics as well as graphical representation of model elements in open views, when changing view properties of a view. The solid-solid cut tool can now be used on family instances. The creation of surface sub-regions on non-planar surfaces in the Conceptual Environment, which first appeared as part of the

subscription drop, has been enhanced further. It is accessible via the Split Face tool in the Geometry panel. This allows you to draw on the surface of non-planar surface and apply different materials to the sub-region using the Paint tool. An essential feature when apply materials to masses for energy analysis exercises. A long standing request from the Revit community is to allow families to cut other families. So now allows face-based void families to be hosted on and cut Structural Framing, Columns, Structural Foundations or Generic model families within the Project. This starts to resolve a number of use cases such as holes in beams or the ability to automatically cut an opening in a worktop when placing a sink. A number of contractors have made a serious investment in Revit and are utilising the tool in their workflow. If anybody has seen what Tocci Construction are doing with Revit, you will know exactly what I mean. Therefore, to start to move into this arena and to address the complexities and finesse of Construction Modelling, Revit introduces the ability to Create Parts and Divide the model. These features are purely focused at construction engineer who needs to split the model into smaller component parts. Parts are produced by breaking down the compound components which make up walls, roofs, ceilings and floors. When you select a wall for instance and choose to create parts, the wall will break down into its individual component layers. The individual parts do retain the geometric relationship with its original element.

## Chapter 2 : Free Software for Students & Educators | Revit | Autodesk

*The Workplane first appeared in the Revit , but was restricted to the conceptual massing environment only. Fortunately, for UI consistency & to help improve your workflow, Autodesk have made the Workplane Viewer available in the normal Revit modelling environment as well as the family editor.*

From the outset, Revit was intended to allow architects and other building professionals to design and document a building by creating a parametric three-dimensional model that included both the geometry and non-geometric design and construction information, which is also known as Building Information Modeling or BIM Eastman C. At the time, several other software packages such as ArchiCAD and Reflex allowed working with a three-dimensional virtual building model, and allowed individual components to be controlled by parameters parametric components. Two key differences in Revit were that its parametric components were created using a graphical "family editor" rather than a programming language, and all relationships between components, views, and annotations were captured by the model so that a change to any element would automatically propagate to keep the model consistent. The concept of bi-directional associativity [3] between components, views, and annotations was a distinguishing feature of Revit for many releases. The ease of making changes inspired the name Revit, a contraction of Revise-Instantly. At the heart of Revit is a parametric change propagation engine that relied on a new technology, context-driven parametrics, that was more scalable than the variational and history-driven parametrics used in mechanical CAD software. The company was renamed Revit Technology Corporation in January The software progressed rapidly, with version 2. Licensing was controlled by an entirely automatic process, an innovation at a time when human intervention and manual transmission of authorization codes was required to buy other types of design software. Autodesk has released several versions of Revit since After the release Revit Building was renamed Revit Architecture. In [9] Revit LT [10] became the newest version of Revit on the market. It is a light version of Revit with a number of features such as rendering and multi user environments removed. In , Autodesk released the feature limited Revit LT for the entry level market alongside the full featured Revit Revit is included in the Premium and Ultimate suites. Use and Implementation[ edit ] Revit can be used as a very powerful collaboration tool between different disciplines in the building design sphere. The different disciplines that use Revit approach the program from unique perspectives. Companies that adopt the software first examine the existing work flow process to determine if such an elaborate collaboration tool is required. Modeling[ edit ] The Revit work environment allows users to manipulate whole buildings or assemblies in the project environment or individual 3D shapes in the family editor environment. Modeling tools can be used with pre-made solid objects or imported geometric models. Revit families can be created as parametric models with dimensions and properties. This lets users modify a given component by changing predefined parameters such as height, width or number in the case of an array. In this way a family defines a geometry which is controlled by parameters, each combination of parameters can be saved as a type, and each occurrence instance in Revit of a type can also contain further variations. For example, a swing door may be a Family. It may have types describing different sizes, and the actual building model will have instances of those types placed in walls where instance-based parameters could specify the door hardware uniquely for each occurrence of the door. Due to the copyright nature of project work, it is rare and impractical to be able to buy fully 3D modelled Revit project models. Indeed as most projects are site specific and bespoke, obtaining an existing model is in many instances unsuitable. However, there are circumstances where new practices or students that are training to learn Revit, do have a need to refer to completed models. Sources for these are limited, however they can be purchased at websites like BIMGallery and downloaded from websites like GrabCad. In Dynamo [18] was released in beta form allowing first glimpses of directly programming the behavior of hosted components through a drag and drop node interface. This is similar to the way the visual programming language Grasshopper 3d works on objects in Rhinoceros 3D. This is accomplished by either using the premade model, wall, floor, etc. The user can also begin with a "Generic" material. With this, the user can set the rotation, size, brightness, and intensity of textures, gloss maps also known as shinemaps ,

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transparency maps, reflection maps , oblique reflection maps, hole maps, and bump maps , as well as leaving the map part out and just using the sliders for any one or all or none of the aforementioned features of textures. Cloud-based rendering with the experimental plug-in dubbed Project Neon, located on Autodesk Labs is in the beta phases and allows for the user to render their images through their Autodesk account instead of locally through their own computers. Revit models may also be linked directly into Autodesk 3ds Max release and later for more advanced rendering and animation projects with much of their material and object information maintained.

### Chapter 3 : Revit Structure Training Videos on DVD

*Join Date December 7, Location Melbourne, Australia Posts 1, Current Local Time AM.*

### Chapter 4 : Autodesk Revit Architecture Tutorial Videos

*Getting Started Video Tutorials for Autodesk Revit Architecture This tutorial is conceived to allow an easy start with Autodesk Revit Architecture and to get an extensive overview of the power of building information modeling.*

### Chapter 5 : Free Online Classes and Tutorials | Autodesk University

*The Tutorials option on the Autodesk Revit MEP Help menu provides a link to the installation website for the tutorial content and training files. When you install the training files as instructed, they are copied to the default location C:\Documents and Settings\All Users\Application Data\Autodesk\RME \Training.*

### Chapter 6 : Autodesk Revit | IMAGINiT

*Our objectives in this video are to understand how to navigate the User Interface and to be able to use the view tools in Autodesk Revit. Free design software for your UK school or college.*

### Chapter 7 : Autodesk Revit - Wikipedia

*The new Autodesk Revit Architecture Tutorials are really awful, and it's a mistake to call them "tutorials". They were not produced by anyone who's ever done any Revit training themselves. Really, anyone, feel free to check out the "Working with Parameters" one for example if you think I'm exaggerating.*

### Chapter 8 : AUTODESK REVIT STRUCTURE SUITE - Civil Engineering Community

*Revit Architecture Tutorial - Managing and Applying View Templates Optimizing Building Designs with Autodesk Revit MEP & 3ds Max Design. theinnatdunvilla.com di*

### Chapter 9 : Revit Tutorials - Revit libraries, Revit rendering,Bim revit, Autodesk Revit Tutorial:

*Revit® BIM software includes features for architectural design, MEP and structural engineering, and construction. Revit supports a multidiscipline, collaborative design process.*