

Revit Management Training

“Revit your CAD Standards”



Lecture Topics

Summer Series 2009 : Autodesk® Revit® 2010

Course Syllabus: Summer Series 2009: Autodesk® Revit® 2010

Revit Management Training

Instructor:	William C. Harris
Session Time:	M-W 1:00PM - 2:00PM (GMT-08:00) Pacific Time
Webinar Link:	https://www1.gotomeeting.com/register/730235670
Email address:	Connect@Will2Play.com
Office Hours:	Friday 1:00 pm - 2:00 pm (PST)
Office Hours Link:	

Class Dates and Topics

Week	Date & Day	Session	Lecture Topic
1	Jun-16 : Tuesday	01	Revit User Manual
	Jun-18 : Thursday	02	Revit Manager Manual
2	Jun-23 : Tuesday	03	Central files / Local Files
	Jun-25 : Thursday	04	Standard Family Standards
3	Jun-30 : Tuesday	05	Title Blocks
	Jul-02 : Thursday	06	Managing System Families
4	Jul-07 : Tuesday	07	Project Templates
	Jul-09 : Thursday	08	Detailing
5	Jul-14 : Tuesday	09	Design Process and Workflow
	Jul-16 : Thursday	10	Phasing
6	Jul-21 : Tuesday	11	Design Options
	Jul-23 : Thursday	12	Give me My CD's
7	Jul-28 : Tuesday	13	Printing Archiving
	Jul-30 : Thursday	14	Moving from 2009 – 2010
8	Aug-04 : Tuesday	15	A BIM Manager Guide to Success
	Aug-06 : Thursday	16	Q&A

Course Objectives:

Over the 16 session class you will learn both the conceptual and practical process of standardizing all of the Revit product solutions. Each session addresses key topics first conceptually, then in the product, followed by open discussion. Each Sessions Major and Minor topics additional Class Resources are provided for some sessions.

Required Materials:

1. Web Access
2. Audio Device with Mute Control
3. Autodesk Revit Building 2009

Missed Live Presentation:

Should you have an emergency and miss a Session you will have access to that Session until the end of the Series. You are responsible for scheduling time to view the Archive, review and understand the material. Questions specific to the Session should be emailed to the instructor in a timely manner.

GreenBoard:

The course syllabus, important course announcements, Presentation Outlines, Briefing Notes, Instruction Manuals, or Additional Session Resources, will be made available via GreenBoard. Please contact the Instructor as soon as possible if you cannot access the website or if you have any [technical difficulties](#).

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Session01 BIM User Manual

Topics

- 📌 INTRODUCTION & CAD STANDARDS CONCEPT
 - 📌 BEST PRACTICES
 - 📌 HOW-TO'S
 - 📌 DETAIL LIBRARY
 - 📌 PLOTTING
 - 📌 ACKNOWLEDGEMENT FORM
-

Introduction & CAD Standards Concept

- Who
- What
- When
- Why – the big one

My thoughts

If they don't understand your position, your reasons and the value to their **own working environment** they will not follow your standards

KISS / Path of least Resistance

Best Practices

CAD v. Revit

Job Numbers, Project Folders & Project Setup

All these are the same / however; you will want to specific who sets up the new project

- Key points
- Folder location / Structure
- Project Template
- Title Blocks
- Loading
- Using
- Local File / Central File issue

File Naming AND Sheet Numbering

- Now Sheet and Sheet number naming

- I suggest building these into the project template
- However have documented Examples of names / prefixes / numbers

Layers

- Becomes Categories for basic modeling views
- Becomes linetypes for Drafting views

Standard Color Table

- Explain that this doesn't matter
- When you are printing in black and white
- Understand / explain Gray scale equivalent
- LOCATION FOR PRINT SETUPS
- WHO IS IN CHARGE OF THEM

Best Practices

Project open and close

- Opening a Project = opening all Views that were open when the project was saved
- Window>>Close Inactive Windows
- [TIP: The Open/Close or Welcome Page](#)

Central File / Local File

"Save before Standing"

- Save locally
- Save to Central
- Relinquish All

Dimensions locations

- Include picture
- Keynotes

Tips and Tricks

- Create Similar (CS)
- Select All Instances
- Project Browser View Settings
- "Activate View" on Sheets
- View Templates
- Family Creations

Text Style, Fonts & Drawing Scale Factors

- Scaling is irrelevant in Revit.
- All Model Categories scale based on the view settings
- All Annotation is Scale independent

How-to's

Loading System Families

- Loading
- FILE>Transfer Project Standards
- Both the Current and the Standard Content Project have to be open!
- Location
- Server\BIM Standards\2009\Revit Templates\System Families
- File Information
- Include a Screen shot of files
- Include a table with file names and families contained

Loading Standard Families

- Default
- Company
- Internet

Process for bringing in CAD drawings

- Always bring in from sub folder under Revit.

Import/Link Dialog

- I suggest you take a screen capture of this dialog

Always

- Use link
- Origin to Origin
- Invert colors

Sometimes

- Scaling
- Orient to view
- Know what level you are placing at

Detailing

- One of Two ways

The Good Process – Using the Revit Model and Views

- Use Sections and Callouts of the Model
- Set Detail Level and Scale
- Finish up detail using
- Masking and Filled Regions
- Detail Components
- Detail Linework
- Text with leaders

The Real Process – Using Imported CAD Details

Real Process - Start with a Blank Drafting View

- Import CAD Drawings (see “Import link Dialog”)
- Finish up detail using
- Masking and Filled Regions
- Detail Components
- Detail Linework
- Text with leaders
- Placing the CAD Detail location
- Use Sections or Callouts
- Before placing the Section / Callout
- In the Options Bar Check “References another View”
- Select the Drafting View
- Place the Section /Callout appropriate to the detail

Detail components

Are Revit Families that are 2D representations of 3D objects? Use these in Drafting / Detail Views of the model to convey specific Design Intent.

- Loading
- FILE>Load from Library>>Load Family
- Location
- Revit Standard Content> Detail Components
- Placing
- Drafting Design Bar >> Detail Component

Multi-category tag

- This is up to you.
- This is a Tag that can reference parameters common to all families

- Quick Demo.....

Detail Library

- Location / folder name
 - [\\Server\Revit_Standards\Revit_Details](#)
 - Instruction Documentation
 - Revit_Details.rfa
 - \CAD_Details
- Who can update it?

Plotting

Revit

- Plotting Standards Project location
 - Contains plot settings for all printers a`d print types
- View/Sheet Sets
 - Reasons for using
 - Saving

Exporting to CAD / PDF

- Uses Same View/Sheet Sets
- Archiving / Saving location

Project Development - PD –DD – CD

Primary Design Key Points

- Minimal custom content – Place Holders
- Almost no new families
- Shell and Core
- Design Intent
- Form and Function
- Schedules and Costs can be generated
- Project Information flushed out

Design Development

- Flushing out the Model
- Cleaning major construction components
 - Wall and Floor/Roof Joins
- Moving “Placeholders” to Final Components
- Project Browser showing “Views not on a Sheet”
- Sheet layouts built

Construction Document

- Use of Drafting tab for View Specific Content
- Use of “Lines” for 3D Linework
- Lots of Sections and Callouts
- Drafting Views Created where necessary
- Importing Revit Details
- Project Browser showing “Views on a Sheet”
- Use of “Activate View” for “White Space Management”

Acknowledgement Form

- BIM Standards - Acknowledgement Form
 - Team member signature
 - BIM Manager Signature

Session02 All the Pieces of the Puzzle

Topics

- 📁 PROJECT TEMPLATES
 - 📁 VIEW TEMPLATES
 - 📁 OPTIONS
 - 📁 RENDERING
 - 📁 IMPORT/EXPORT SETTINGS
 - 📁 FAMILIES AND FAMILY TYPES
 - 📁 SHARED PARAMETERS
 - 📁 WORKSETS
 - 📁 PROJECT SETTINGS
-

Project Templates

- File location
- Template Types
- Settings within them – Project Unit

View Templates

- System Family – Separate Project
- Location: Office BIM Standards \ Revit Templates\System Families
- Best Practices = each view has a “Default View Template”
- I’m wondering about naming the folder “System Families”

Options

- General
- Saving interval
- User Information
- Journal File Clean up
- File Locations

Rendering

- SteeringWheels
- ViewCube

Import/export Settings

- Don't change export to CAD
- IFC Import/Export settings

Families and family types

- System Family – Separate Project
- Location: Office BIM Standards \ Templates \ Settings
- Standard Families
- Location: Office BIM Standards \ Office Content \ division?
- Naming: + W2P
- Be aware of Schedule names....

Shared Parameters

- Danger! Check/ Read/ understand them
- Location: Office BIM Standards \ Shared Parameter files
- Group appropriately
- Once created, can't be modified
- Some need to be added to "Project Parameters"

Worksets

- The hardest of all to understand
- Best Practices – Don't open Sets not in use
- Editable v. useable
- Naming issues
- Management of worksets
- User Name
- Local File – Location – server / Project / Project Standards_ADMIN
- Don't relinquish

Project Settings

- Pre-work for project
- Advancing the CD will set object styles
- 3 projects to finalize
- See excel file