

ProjectWise for Autodesk Users

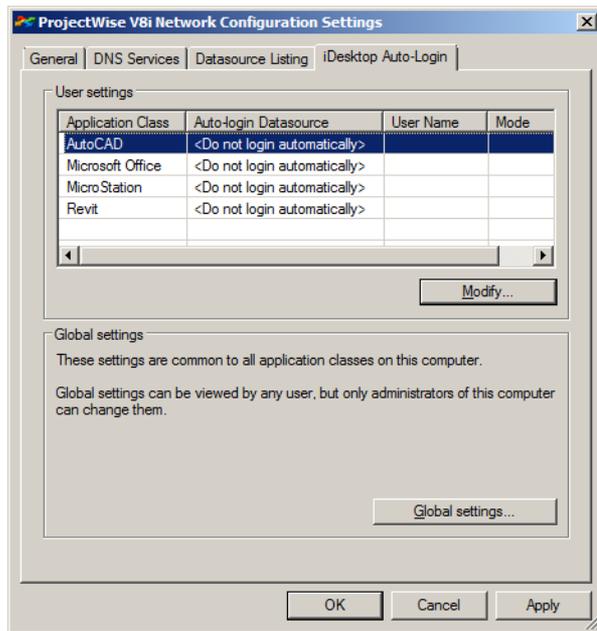
Arnold van der Zijden
ProjectWise Consultant

Agenda

- **Working with Integrated AutoCAD**
 - AutoCAD Integration Settings
 - AutoCAD Ribbon Bar
 - Session File Manager
 - AutoCAD Datalinks
- **Working with Integrated Revit**
 - Configure Revit application associations in ProjectWise Administrator
 - Converting Revit Central files to work in ProjectWise
 - Basic worksharing operations in a ProjectWise-integrated Revit environment
 - Revit Best Practices

AutoCAD Integration Settings

- AutoCAD iDesktop Integration
 - ProjectWise V8i Network
 - Setting iDesktop Auto-Login for AutoCAD



AutoCAD Integration Settings

- Commands for Integrated AutoCAD
- Complete List of Commands in ProjectWise Explorer Help

Command	Description
DMSNEW	Same as NEW, or File > New.
DMSOPEN	Same as OPEN, or File > Open.
DMSQSAVE	Same as QSAVE, or File > Save.
DMSSAVE, DMSSAVEAS	Same as SAVE and SAVEAS, respectively, or File > Save As.
DMSQUIT	Same as QUIT, or File > Exit.
DMSSESSIONFILEMANAGER	Same as ProjectWise > Session File Manager.
DMSPLACEONSHEET	Same as ProjectWise > Place On Sheet
DMSINSERT	Same as INSERT, or Insert > Block.
DMSWBLOCK	Same as WBLOCK (used to save a block as a ProjectWise document)
DMSEXPORT	Same as EXPORT, or File > Export, or ProjectWise > Export.
DMSIMPORT	Same as IMPORT, or File > Import or ProjectWise > Import.
DMSFILEOPEN	<i>(This is an internal command used by the integration module and is not intended for use by the user.)</i>

AutoCAD Integration Settings

- DMSSET variables
 - To configure ProjectWise integration variables
- List of DMSSET variables in ProjectWise Explorer Help

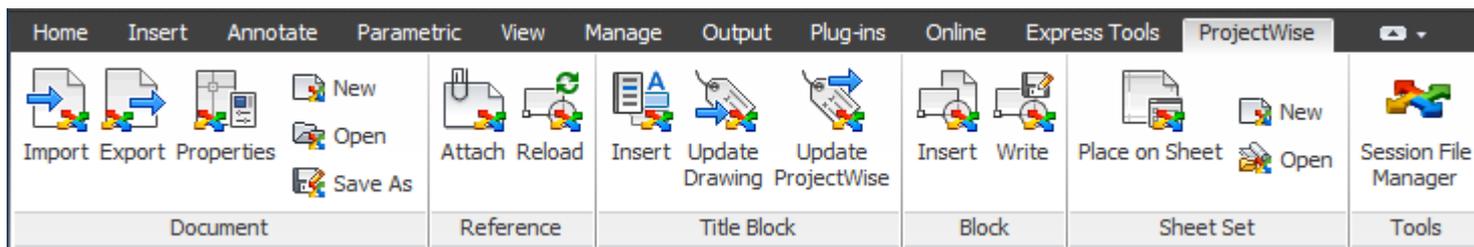
Variable	Value / Description
REFTIME	Sets how often (in minutes) integrated AutoCAD checks for updated references. See Reloading External References for details.
REFMODE	Controls how references are to be reloaded into the master document, if any of the master document's references happen to be updated or checked in by another user. See Reloading External References for details.
REFMISSINGMODE	Instructs integrated AutoCAD what to do when it detects a missing external reference, and the reference is from ProjectWise:

- REFMODE controls reload of updated Xref:
 - REFMODE=1: opens notification dialog to reload xref
 - REFMODE=2: silent update
 - REFMODE=3: no reloading

```
Command: DMSSET
Enter variable name or [?]: REFMODE
Enter new value for REFMODE <1>:2
```

AutoCAD Ribbon Bar

- AutoCAD Ribbon Bar for ProjectWise integrated commands (useful for non-integrated mode)
 - Document Section
 - Reference Section
 - Title Block Section
 - Block Section
 - Sheet Set Section
 - Tools Section

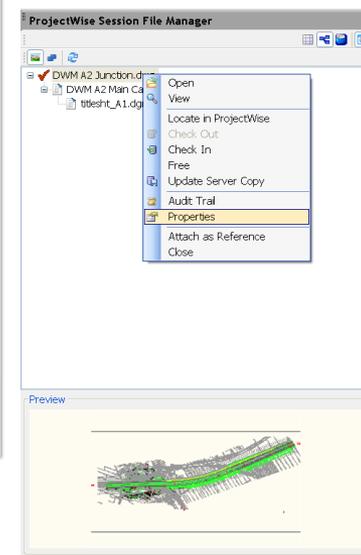
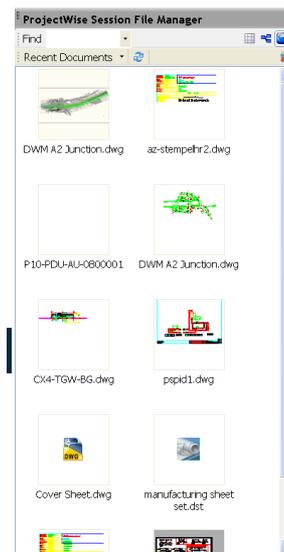


Session File Manager

- Access files used during AutoCAD session
- Select Session File Manager from Ribbon bar or use DMSSESSIONFILEMANAGER from command line
- Used for:
 - Navigate content
 - Locate files in ProjectWise
 - Open, Check in and out, Free, etc.
 - Display Preview, Properties, Audit Trail
 - Show Xref hierarchy

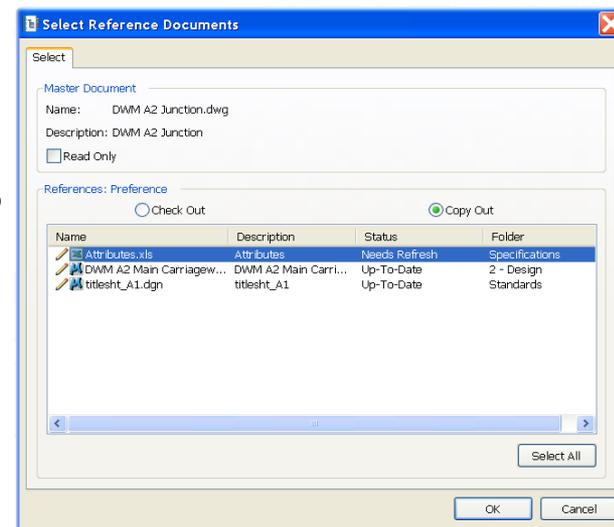


Session File Manager



AutoCAD Datalinks

- Bidirectional link between AutoCAD DWG and Excel sheet
- Embed a link in DWG document to Excel document in ProjectWise
- Dynamic links
 - Notification when Excel content changes



AutoCAD support in V8i SELECTseries 4

- AutoCAD support in ProjectWise V8i (SELECTseries 4)
 - AutoCAD 32-bit versions 2008, 2009
 - AutoCAD 32- and 64-bit versions 2010, 2011 and 2012
 - Separate install supports basic AutoCAD 2013 and:
 - AutoCAD Architecture 2013 (32- and 64-bit)
 - AutoCAD Civil 3D 2013 (32- and 64-bit)
 - AutoCAD Map 3D 2013 (32- and 64-bit)
 - AutoCAD MEP 2013 (32- and 64-bit)
 - AutoCAD P&ID 2013 (32- and 64-bit)
 - AutoCAD Raster Design 2013 (32- and 64-bit)
 - AutoCAD Mechanical 2013 (32- and 64-bit)

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ProjectWise Revit Integration Components

- Orchestration Framework – for thumbnail extraction of RVT, RFA, RTE, and RFT files. Revit does not need to be installed on the server for extractions.
- ProjectWise Administrator – to be able to select/change the drive letter mapping used for the datasource (default is R: drive). Revit does not need to be on the client or server used for administration.
- ProjectWise Explorer – for the desktop integration components for Revit integration.

Revit support in V8i SELECTseries 4

- Revit support in ProjectWise V8i (SELECTseries 4)
 - Autodesk Revit version 2010, 2011, 2012
 - Separate install supports Autodesk Revit 2013, including:
 - Revit Architecture 2013
 - Revit MEP 2013
 - Revit Structure 2013
 - 32- and 64-bit versions

Configure Revit Application Associations

- Use ProjectWise Administrator
- Delivered RevitVersion.appinfo.xml for import definitions

The screenshot displays the ProjectWise Administrator V8i (SELECTseries 3) interface. The left pane shows a tree view of servers and data sources, with 'PWBCM (BENTLEY\Bobby.Mullenax)' selected. The main pane shows a list of application associations with columns for 'Name' and 'Web viewer'. The 'Autodesk Revit 2012' entry is highlighted. An 'Autodesk Revit 2012 Properties' dialog box is open, showing the 'Web viewing' tab. The 'Open' action is selected, and the 'Association' is 'Autodesk Revit'. The 'Properties of Open action (Autodesk Revit)' section shows the 'Program class name' as 'Revit.Document.PW' and the 'Command line that will be used to start application' as 'gram Files\Autodesk\Revit Architecture 2012\Program\Revit.exe'.

Name	Web viewer
General Programs	
Acrobat PDF	Windows IE Association
Adobe InDesign	
AutoCAD	ProjectWise Publishing Server
Autodesk Revit	
Autodesk Revit 2010	
Autodesk Revit 2012	
AutoPIPE	
AutoPLANT Equipment	ProjectWise Publishing Server
AutoPLANT Isometrics	ProjectWise Publishing Server
AutoPLANT P&ID	ProjectWise Publishing Server
AutoPLANT Piping	ProjectWise Publishing Server
AutoPLANT Raceways	ProjectWise Publishing Server
AutoPLANT Structural	ProjectWise Publishing Server
Batchplot	
Bentley Architecture	ProjectWise Publishing Server
Bentley Architecture / SpacePlanner	ProjectWise Publishing Server
Bentley Building Electrical Systems (DE)	ProjectWise Publishing Server
Bentley Building Electrical Systems (UK)	ProjectWise Publishing Server
Bentley Building Electrical Systems (US)	ProjectWise Publishing Server
Bentley Building Mechanical Systems	ProjectWise Publishing Server
Bentley Building Suite	ProjectWise Publishing Server
Bentley CivilStorm	
Bentley CulvertMaster	
Bentley Digital Print Format(DPR)	ProjectWise Publishing Server

Action	Association
Open	Autodesk Revit
Open	Non-integrated Autodesk R...

Properties of Open action (Autodesk Revit)

Program class name:
Revit.Document.PW

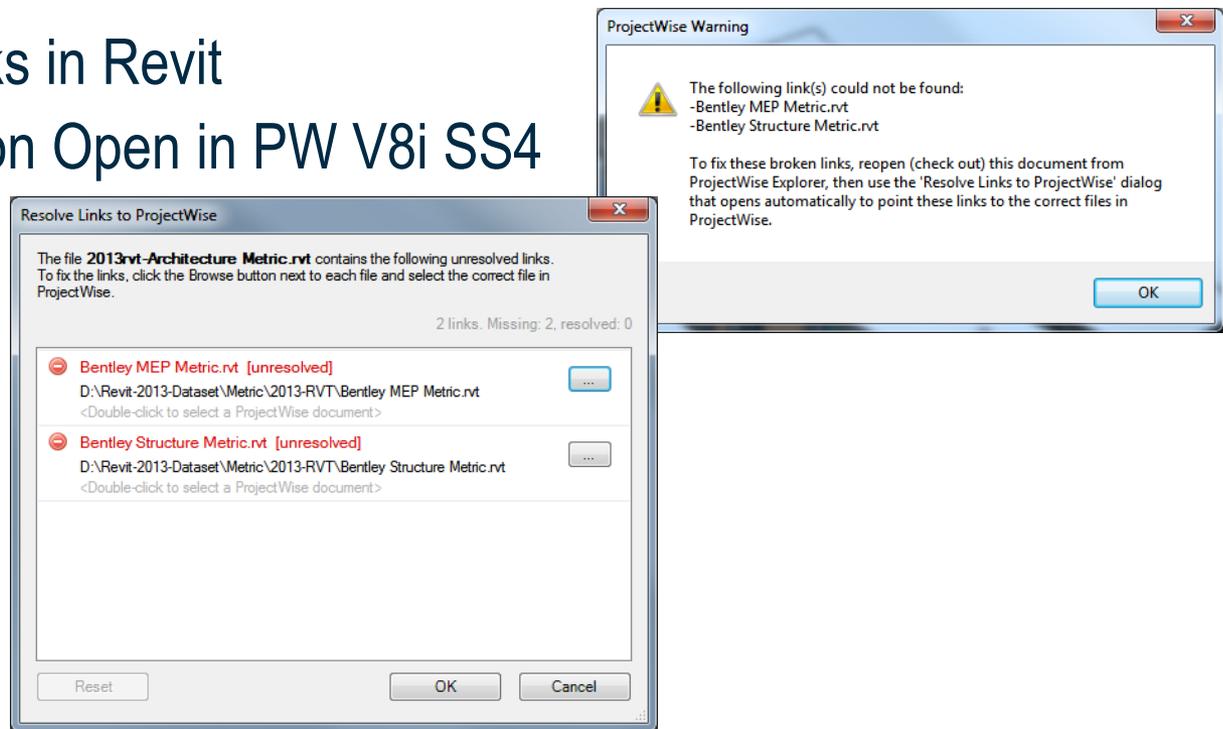
Enable legacy integration: No

Replace default arguments: No

Command line that will be used to start application:
gram Files\Autodesk\Revit Architecture 2012\Program\Revit.exe"

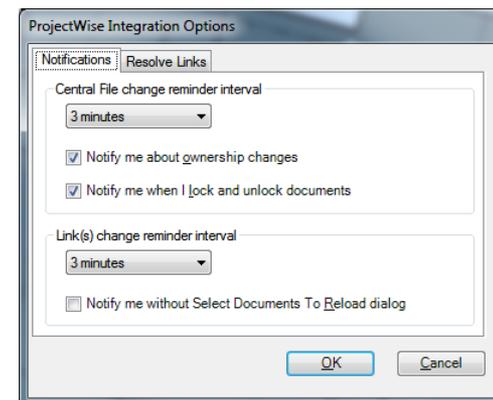
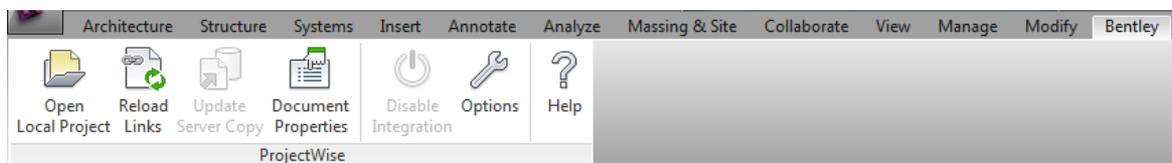
Convert Revit Central files to ProjectWise

- Move Revit Central models to ProjectWise
- Resave Central models
- Remap broken Links
 - Manage Links in Revit
 - New dialog on Open in PW V8i SS4



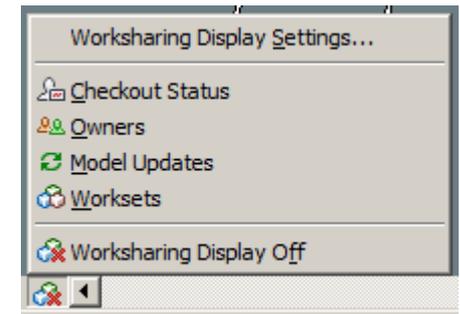
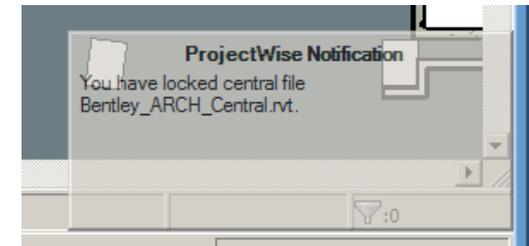
Bentley Ribbon Bar in Revit

- The Bentley Ribbon bar contains the following tools:
 - Open Local Project: Open projects and templates from local disk
 - Reload Links: Refresh local copies of linked models which are updated in ProjectWise
 - Update Server Copy: Update document copy on ProjectWise server
 - Document Properties: Displays ProjectWise document properties
 - Disable Integration: Turns Integration off
 - Options: ProjectWise Options
 - Help: Help on ProjectWise integration



Worksharing operations in integrated Revit

- Create Revit Local file
- Synchronize changes with Central model in ProjectWise
 - Notifications (locking/updating Central file)
- ProjectWise Revit Integration Options
- Worksharing Concepts
 - Optimize file sharing and element borrowing
 - Worksets – break-up e.g. in disciplines, floors



Revit Best Practices

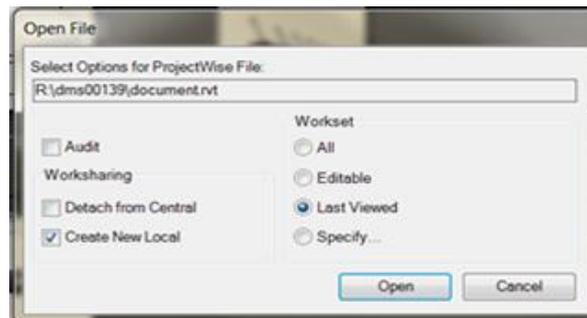
1. Rule of thumb you should have 1-2 worksets per user on the project.
2. Do not treat worksets as if they are layers in a CAD program. A workset is a collection of building elements like doors, walls, floors, etc
3. Worksets should be planned out in advanced to optimize the size of the Project and number of team members. Look at the project as a whole rather than isolating individual components.
4. When dividing up worksets consider the building elements and the number of people working on each of those elements.
5. Once you have 6-8 people working on a Revit project performance will begin to slow down inside or outside ProjectWise.

Revit Best Practices (Cont.)

6. If your Revit Project is large enough to have more than 6-8 people concurrently in a model you should consider dividing the model into multiple files.
7. Use the word Central in your file naming convention when creating the central file.
8. Divide your model up before it reaches a size of 200 MB (64-bit).
9. Avoid Groups if possible, the more groups in a file the slower the file becomes. If using Groups in Revit files avoid having different parts of an object in a group being in different worksets.
10. Try to Sync to Central every hour is possible.

Revit Best Practices (Cont.)

11. Take ownership of the entire workset if you are the only one working on that workset, this will help the need to borrow elements on the fly.
12. If you cannot take ownership of the entire workset try to take ownership of the group of elements you will be working on at the same time, to avoid borrowing elements on the fly.
13. Opening a Revit file from ProjectWise Explorer by double clicking on the Revit File is the preferred method. File is only locked when “Open File” dialog appears. After Open: Delta File transfer runs and any changes are downloaded then the file is unlocked and ready to be worked on.



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What's Next for Autodesk Users in ProjectWise V8i (SELECTseries 4)

- Enhanced Support for Civil3D 2012 and 2013 - delivered as an add-in for current PW Explorer V8i (SELECTseries 4) users - expected in Q4- 2012
 - Data Shortcuts\References (Create, Edit, Delete, Import/Export)
 - Links to objects / items (Surface, PipeNetwork or Alignment) stored in a companion XML file.
 - Working Directory Support
 - Place on local system where Civil 3D stores Data Shortcut for the Projects.
 - Prospector palette Integration
 - Used in Civil3D is used to create and manage Data Shortcuts
 - Surface features of Civil3D (MMS and GRS)
 - MMS and GRS files are satellite references to the DWG

