

A Discussion About Overcoming the Challenges Involved in Multi-Firm BIM and IPD Projects

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Class summary – CM1482-R

We all know that sharing CAD and Building Information Modeling (BIM) data with project team members who are outside of your organization has its challenges—especially in an Integrated Project Delivery (IPD) environment. Each project faces hurdles/questions such as data-sharing methods, how often to share data, how to work with geographically dispersed teams, the potential of working with different partners on each project, figuring out who owns what, and solving how the team accesses the data.

Attendees of this roundtable session have the benefit of learning what works and what doesn't work on these types of projects based upon real-world, honest feedback from a group of their peers who are living through the same project-related challenges. Participants also have the opportunity to share their BIM/IPD experiences with others.

Key learning objectives

At the end of this session, as a result of open discussion with your peers, you will be able to:

- Determine the best methods for sharing data (WAN, FTP data transfer, exports, and so on) throughout the project team – regardless of geographic location
- Acquire the proper information to develop best practices for BIM and IPD collaboration among multiple disciplines and multiple firms
- Assemble lessons learned for working in a multi-firm, BIM and IPD process based upon real-world feedback from others
- Get real-world tips from others about working with team members who are not using the same software as the rest of the team

This session will be recorded

In an effort to put together the most complete set of notes possible, in addition to the efforts of our volunteer scribe - I will be recording this session.



Agenda – approx. 10 Minutes per topic

1	How?	How do you share data on your BIM / IPD projects?
		Via FTP, PIM System, etc...? What type of posting schedule (daily, weekly, etc...)? Direct link into a team member's network? Cloud Solution?
2	What?	What have you found to be the best method for working with “other” software packages (non-Revit)
		Regular exports? How to deal with Coordinate System issues?
3	Problems...	Common Pitfalls
		What type of issues have you come across? DWG linking, etc...
4	Step by Step	Documenting the proper steps and responsibilities (BIM Document)
		Putting together a “how-to” document for sharing project data
5	History	Lesson's Learned
		What to watch our for... / In other words - what NOT to do...

How?

Sharing data among the IPD project team

- On your IPD projects what level(s) of IPD have you reached?
 - Ex: Co-Located Team Members (all under one roof)

- Methods for Sharing Data
 - PIM System (Newforma, Buzzsaw, etc...)
 - BIM Cloud
 - FTP
 - Direct Network Connection to one team members network
 - How to deal with security concerns?
 - Adding “last minute” team members...

What?

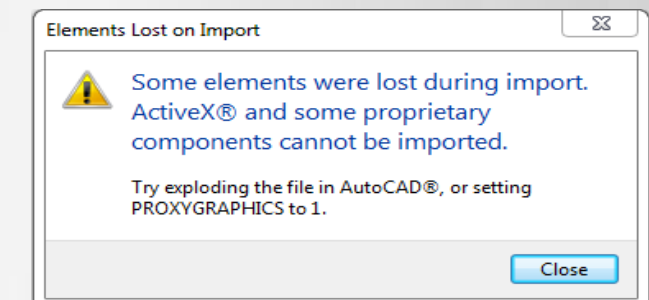
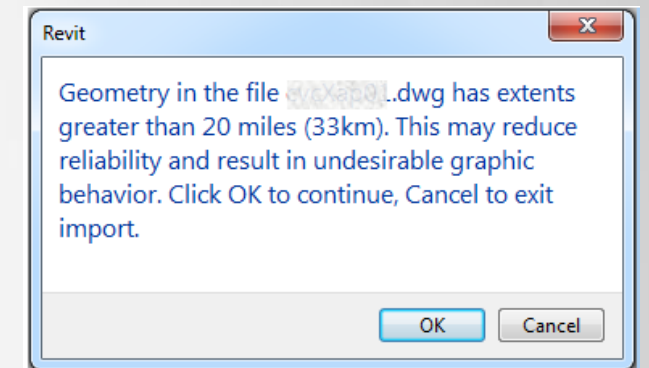
Methods for working with partners who are using “other” software packages

- What “other” formats are you working with?
- Exporting to required formats (DWG, DGN, NWC, etc...)
 - How often should you export? Is it per a predetermined schedule?
 - Where does the exported data get sent / stored?
- Importing AutoCAD DWG data
 - 2D base files only or do you work with available 3D data?
- What type of Coordinate System is used?
 - Shared Coordinates? Project Internal?
 - Who owns the Coordinate System (Arch model, linked Civil/Survey)?

Problems?

What are some of the common pitfalls you may encounter when working on a multi-firm BIM / IPD project?

- Revit difficulties with files created in “other” software packages
 - Unable to reconcile the origin from a linked file
 - Visibility problems with DWG data
 - Revit cannot properly display the necessary information
 - Revit sometimes “loses” AutoCAD links
- Data supplied by project partners
 - Not posted promptly – per the agreed upon schedule
 - Incorrect or out-of-date data is being posted
 - Ever changing file names and content



Step-by-Step

Documenting data sharing steps and project responsibilities for project partners

Putting together and sharing a BIM / IPD Coordination Document (The “How-To”)

- What topics to include?
 - Who is working in Revit?
 - What version/build of Revit is being used?
 - What other software packages are being used?
 - How often to post / share data?
 - How is the data being shared?
 - What formats are required?
 - Who is performing the Navisworks “clashing”?
 - Primary contacts info for each project partner

BIM Coordination Checklist
HARLEY ELLIS DEVEREAUX

Client Name: _____
Project Name: _____
Revit Version: _____
Disciplines in Revit: Arch Stru Mech Elec Int FP
Organization performing Navisworks Coordination: _____

7. Export formats and versions required for project collaboration.
Exports to be posted: *Daily / Weekly / Bi-Weekly / Monthly / Other (As Needed)* _____

Navisworks (.nwc). Version: _____
Are Level by Level Exports required? Yes No

AutoCAD (.dwg). Version: _____
 Other _____ Version: _____

8. Exports to be shared using the following method (ex: FTP hosted by __, PIM System hosted by __): _____

Note: The hosting organization must send login/ access information to the necessary project team members as soon as it is available

Project Team – Primary Contacts

	Name	Email Address	Phone Number
Architectural:	_____	_____	_____
Interiors:	_____	_____	_____
Structural:	_____	_____	_____
Electrical:	_____	_____	_____
Mechanical:	_____	_____	_____
Civil/Site:	_____	_____	_____

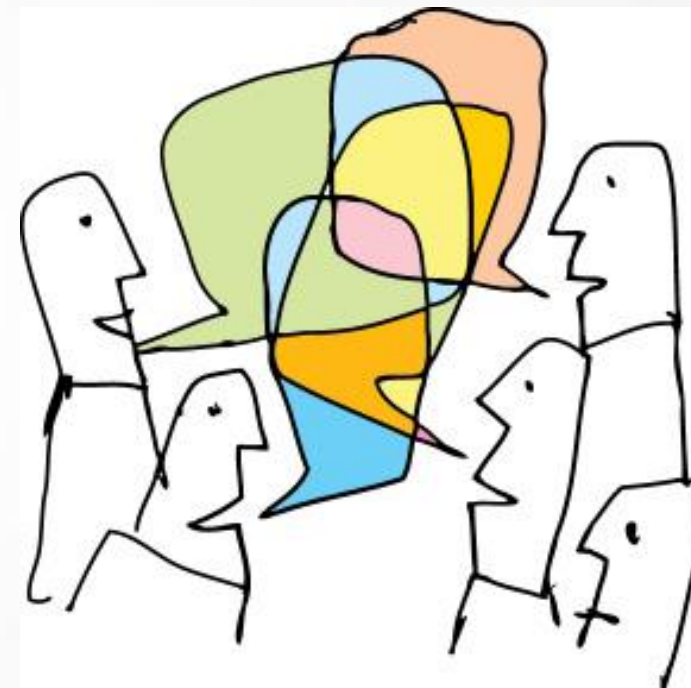
History

Documenting “Lesson’s Learned” from your experiences with multi-firm BIM / IPD projects:

- Do you have a running list of “Lesson’s Learned” to refer to in the future?
- What has worked well for you?
- What didn’t work out as expected?

Open Discussion

Is there anything that we missed in the earlier topics that needs to be discussed?



Recap / What we talked about today...

During this afternoon's Roundtable session we discussed:

- Identifying and working around potential problems that may occur when team members are working within different software packages
- Determining the best methods for sharing data throughout the project team and establishing a “sharing schedule”
- Putting together a BIM / IPD Coordination document to help outline specific project information, requirements and responsibilities
- Putting together a “living” Lesson's Learned document for working in a multi-firm, BIM / IPD process based upon real-world feedback from others

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Thank you for your time!

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