Top 10 Revit Tools for Project Management & Panel Discussion

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Houston-Area Revit User Group Online

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Project Management Challenges

1. Juggle Time, Fees, Budget, Resources
2. Linework vs Modeling
3. Modeling vs Documentation
4. Maintaining Team Focus & Establishing Priorities
5. Revit “Rabbit Holes”
6. Managing and Using Revit
7. Getting in/out of model quickly and efficiently
Top 10 Revit Tools for Project Management

1. Find/Replace

2. Autodesk Seek

3. Search Tools
Top 10 Revit Tools for Project Management

1. 
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2. 
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4. 
5. 
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7. 
8. 
9. Render in the Cloud
10. Search Tools
Top 10 Revit Tools for Project Management

1. 
2. 
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5. 
6. 
7. 
8. Keynote Database
9. Render in the Cloud
10. Search Tools
Top 10 Revit Tools for Project Management

1. Detail Lines
2. Keynote Database
3. Render in the Cloud
4. Search Tools
Top 10 Revit Tools for Project Management

1. 
2. 
3. Object Properties 
4. 
5. 
6. 
7. Detail Lines 
8. Keynote Database 
9. Render in the Cloud 
10. Search Tools
Top 10 Revit Tools for Project Management

1. Dimensions
2. Object Properties
3. Detail Lines
4. Keynote Database
5. Render in the Cloud
6. Search Tools
Top 10 Revit Tools for Project Management

1. Schedules – Your View into the “Information” side of BIM
2. Dimensions
3. Object Properties
4. Detail Lines
5. Keynote Database
6. Render in the Cloud
7. Search Tools
Top 10 Revit Tools for Project Management

1.
2.
3. DWF
4. Schedules – Your View into the “Information” side of BIM
5. Dimensions
6. Object Properties
7. Detail Lines
8. Keynote Database
9. Render in the Cloud
10. Search Tools
Top 10 Revit Tools for Project Management

1. Project Views most worthy of your time
   - 3D Isometric
   - Section/Elevation
   - Plan Views
   - (Default Information View)

2. DWF

3. Schedules – Your View into the “Information” side of BIM

4. Dimensions

5. Object Properties

6. Detail Lines

7. Keynote Database

8. Render in the Cloud

9. Search Tools
Top 10 Revit Tools for Project Management

1. Launch Revit Viewer
2. Project Views most worthy of your time
   - 3D Isometric
   - Section/Elevation
   - Plan Views
   - (Default Information View)
3. DWF
4. Schedules – Your View into the “Information” side of BIM
5. Dimensions
6. Object Properties
7. Detail Lines
8. Keynote Database
9. Render in the Cloud
10. Search Tools
ME333-3 Implementing a BIM/Autodesk® Revit® Development Plan

Mark Mergenschroer
BIM Development Manager, TME, Inc.
Key Steps for Successful Implementation!
Guideline For Execution:

1. Picking the Modeling Team:

   - Select the Model team that is right for the project.

   - You need to be able to look at the project and see which person is best suited for the project rather than just handing someone a BIM Project.
Guideline For Execution:

2. Picking the Model Manager:

- Decide who will be the Model Manager.
- This person will be in charge of Model clean up.
- This person will be in charge of Model Maintenance.
- This person will be the Care Taker of our Valuable Central files.
Guideline For Execution:

3. **Project Model Kick Off Meetings:**
   - This meeting should set the guidelines and standards for the BIM Model.
   - This should include your Model manager and another Key BIM staff Member.

4. **Define Model Goals:**
   - What will be the goal of the BIM Model? (Facility Management, Design, Conceptual, Energy Modeling, Marketing) Level Of Development
Guideline For Execution:

- 5. Project Model Kick Off Meeting with BIM Team:
  - This meeting should set the guidelines and standards for the BIM Model.
  - This should include our Model manager and another Key BIM staff Member.
  - This meeting should set the expectations and goals of the Model.

- 6. Model Coordination Meetings:
  - Depending on the size of the project, this meeting should be held once at least every two weeks, to do a thorough interference check.
Guideline For Execution:

- **7. Project Model Coordination Meetings:**
  - This meeting will help all involved parties understand what is happening within the model.

- **8. Project Model Owner Meetings:**
  - This meeting will help the owner get a better feel for what is happening with his project and also will give the earlier buy in, into the design.
Guideline For Execution:

- **9. Weekly Interference Checks by Designer:**
  - Designers should be running weekly interference checks, and creating a log with their results.

- **10. Project Management in Models:**
  - The project management should be looking at the model for key issues. Since we have a great visual tool, why not use it. The Project Managers are the experts in their field and should be able to catch design flaws by looking at the model, instead of it being issued for construction.
Guideline For Execution:

11. Redlines:

If you are to be successful with Red lines for Design purposes, then these red lines should be detailed with Elevations and coordinated with the model. Drafters are not designers and just put redlines into the model. (Huge philosophy change here)
Level of Development

- AIA E202 – BIM Protocol Exhibit
- Designed to Support IPD and more traditional Projects.
- Establishes protocols and responsibilities for the development of the Model throughout the course of the Project
- Establish right of reliance on Model content as Project progresses
- Describes certain Model Management responsibilities
Level of Development

- **LOD 100** - Essentially the equivalent of conceptual design, the model would consist of overall building massing and the downstream users are authorized to perform whole building types of analysis (volume, building orientation, cost per square foot, etc.)

- **LOD 200** - Similar to schematic design or design development, the model would consist of "generalized systems or assemblies with approximate quantities, size, shape, location and orientation." Authorized uses would include "analysis of selected systems by application of generalized performance criteria."
Level of Development

- **LOD 300** - Model elements are suitable for the generation of traditional construction documents and shop drawings. As such, analysis and simulation is authorized for detailed elements and systems.

- **LOD 400** - This level of development is considered to be suitable for fabrication and assembly. The Model Element Author for this LOD is most likely to be the trade contractor or fabricator as it is usually outside the scope of the architect's or engineer's services or would constitute severe risk exposure if such parties are not adequately insured.

- **LOD 500** - The final level of development represents the project as it has been constructed - the as-built conditions. The model is suitable for maintenance and operations of the facility.

- The requirements for a LOD500 model should be driven by Lifecycle Applications, and could actually have less detail than a LOD 400 model.