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**BIM 360: Is it Me You’re Looking for?**

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**Description**

Is BIM 360 the software you’re looking for? Determine if BIM 360 software is right for your project. Discuss the various potential uses and benefits BIM 360 can bring to your own projects. Explore the pros and cons of the software. This class will walk through multiple case studies of projects at CannonDesign that incorporated collaboration using BIM 360. The case studies represent a variety of project sizes and market spaces. Each project is in a different stage of development and incorporating different levels of usage of collaborations with BIM 360. Learn from our teams’ hardships and successes.
Speaker

After obtaining her master’s degree at the University of Cincinnati, Julia Rine began supporting, teaching, and advising Autodesk products to firms around the world. This is where she found her love for Revit, coordination, communication, and problem solving. Julia then joined the industry as a BIM Manager. Julia is currently a Regional BIM Manager at CannonDesign, supporting a total of six offices along the east coast. She supports training, implementation, setting standards, and Autodesk products.
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What is BIM 360?

The name BIM 360 seems to be a catch-all for most cloud products offered by Autodesk. Some of the products include:
- BIM 360 Docs
- BIM 360 Design
- BIM 360 Plan
- BIM 360 Ops
- BIM 360 Coordinate
- BIM 360 Build
- BIM 360 Layout

This handout will specifically discuss BIM 360 Design and BIM 360 Docs.

Before Revit 2018.3, the old cloud platform, BIM 360 Teams/ Collaboration for Revit (C4R), allowed users to collaborate on the cloud. Starting with Revit 2018.3, users can now have access to the new platform, BIM 360 Design, when using cloud collaboration.

There are many modules that can be added to a project. You must activate at least one service, Document Management, with all projects. If not, BIM 360 Design will consider the project inactive. The other modules can be added at any time. They cannot be removed once activated.

![Activate Services](image)
Determine if a Project Should Use BIM 360 Design

There are many factors to consider when thinking about using BIM 360 Design on a project. At CannonDesign, we have an advanced network that allows local collaboration. On each project considering BIM 360, we ask questions based on the project’s needs.

Questions to Consider before using BIM 360 Design

- Do you have an advanced server, that allows local collaboration, set up in your firm?
- How many external offices or consultants are working on the project?
- How often do users need to see updated models from external consultants?
- What is your current workflow with external offices or consultants?
- How much time does it take for your team to transfer models to other offices or consultants?
- Do users want to track all changes in the same platform?
- Does the project want to keep all their information in the same place on the cloud?
- Does your firm upgrade Revit versions every year?
- Would the project benefit from BIM 360 Doc features?
- Are there remote teams working in the same model?
- Is added security needed for the project information?
Identify Collaboration Opportunities

The main collaboration opportunity is Cloud Worksharing. This feature alone allows users to work with others in different offices or outside of the firm.

Users can create Issues within 3D or 2D views.

BIM 360 Docs allows all users on the project access to the model or sheets at any time via the online portal. This is valuable because non-Revit users can view and mark up sheets and views at any time.

Creating packages and consuming other linked models. Decide when to consume models and see the differences between each model package.
View this link for more information: https://knowledge.autodesk.com/support/bim-360/getting-started/caas/simplecontent/content/understanding-revit-model-linking-bim-360-design.html

Creating, Tracking, and managing RFIs.
Learn about BIM 360’s Benefits to a Project

- Collaboration between different offices, countries, and firms.

- When using BIM 360 Docs all information on the project can be stored in one central location.

- BIM 360 Docs allows users to set up 3 different methods of linking Revit models in your project based on the team’s workflow. For more information: https://knowledge.autodesk.com/support/bim-360/getting-started/caas/simplecontent/content/understanding-revit-model-linking-bim-360-design.html
  
  - Method 1 is considered a controlled sharing version. It allows teams to created packages of published models. These published models can then be explored before being consumed by the host models.
  - Method 2 is another form of controlled sharing. After users create a package in Design Collaboration, a copy of the model will be updated in the Shared folder. Host models can link directly from the Shared folder. Linked models will only update when packages are created, and host models will not need to take the extra step to consume them.
  - Method 3 is the true live linking version. This involves giving other teams folder permissions to view the folder where your model is located. Host models will link directly from the linked model’s location on BIM 360. This allows live updating. This is also the only way BIM 360 Teams or C4R was able to link in models before BIM 360 Design.

- Tracking of sheet version and all markups are documented on one platform.

- Upgrading models in BIM 360 Design is simple.

- Users can now relinquish all worksets in BIM 360 Docs models under manage cloud models.

- Non-Revit users can interact in BIM 360 Docs.

- Can create and manage RFIs in the Project Management module.

- Provides security to who can access the project.

- After publishing, users can compare the changes per sheet.
Case Study 1

**Typology:** Medical Project  
**Version:** Revit 2019  
**Linking Method:** Controlled Sharing  
**Modules Activated:** Document Management, Project Management, Design Collaboration  
**Project Stage:** Construction Documents

*CannonDesign’s first project in Revit 2019  
*CannonDesign’s first project on BIM 360 Design  
*Been working in BIM360 Design for 1.5 years

Using BIM 360 Design implemented on for this project for many reasons. The project was originally working in BIM 360 Teams or C4R before the model was upgraded to Revit 2019. There are multiple teams, from different offices and firms, collaborating on this project. Multiple offices and firms are also working together in one Revit model. The users also wanted to take advantage of the BIM 360 Document Management features.

**Lessons Learned:**

- The whole teams must be trained on all aspects of BIM 360 Docs.

- Model size greatly impacts the sync, load, publish, and upload times.

- With the lack of Communicator, the team had to create other ways to communicate sync times.

- Creating packages and consuming other teams’ models, did not provide a big enough benefit to the project. CannonDesign is used to seeing changes to other models in real time. This way of linking impacted our workflow and generally cost more time to create packages and consume models. All other projects at CannonDesign are now live linked using method 3.

- Desktop Connector caused many loading and syncing problems on this project. Currently working with Autodesk for a solution. The team had to modify workflows to not use to Desktop Connector.

- Decided not to use the Issue tool because of lack of training for new staff. The project continues to use the markup tools.
• Found great use in the compare tool among published sheets.

• Always have a back up plan for the compare tools. In Document Management, the compare tool will sometimes not work for days. We have also seen this issue in the Design Collaborate module, when showing changes between packages.

Case Study 2

Typology: Education Project  
Version: Revit 2019  
Linking Method: Live Linking  
Modules Activated: Document Management, Project Management, Design Collaboration  
Project Stage: Construction Documents

*Been working in BIM360 Design for about 6 months

In the beginning, the team decided to use BIM 360 Design as mainly a way to collaborate between offices and firms. At the start of the project, multiple firms were working within one Revit model. The project team started taking full advantage of BIM 360 Docs after the team was trained on the platform.

Lessons Learned:

• The whole teams must be trained on all aspects of BIM 360 Docs.

• Provided Security to who can access the project.

• Desktop Connector caused many loading and syncing problems on this project. Currently working with Autodesk for a solution. The team had to modify workflows to not use to Desktop Connector.
Case Study 3

**Typology:** Science and Technology Project  
**Version:** Revit 2018.3  
**Linking Method:** Living Linking  
**Modules Activated:** Document Management, Design Collaboration  
**Project Stage:** Proposal

The team originally started using BIM 360 Design for collaboration between offices and firms. Currently, multiple firms are working within one model. Based on the proposal outcome, more training and features will be added to the incorporated.

**Lessons Learned:**

- The whole team must be trained on all aspects of BIM 360 Docs.
- Must establish shared coordinates before placing the model into BIM 360 Design. To establish shared coordinates, the models had to be pulled from the cloud and then reloaded.

Case Study 4: Template Management

**Typology:** Template  
**Version:** Revit 2018.3  
**Linking Method:** N/A  
**Modules Activated:** Document Management  
**Project Stage:** N/A

At CannonDesign, not only do we use the BIM 360 Docs platform for collaboration, we also use it for template management.

We do not use the standard Revit .rte format for templates to start projects. Our “templates” are e-transmitted files with worksharing and master coordinates enabled. We refer to these files as Seed Files. We loaded these Seed files onto the BIM 360 Docs Platform.
Advantages

- Multiple people can make changes at the same time to the “template” files.
- Users who are not in Revit, can view template changes at any time.
- Users can create markups on the sheets
- All markups are documented through BIM 360
- Easy upgrade process

Disadvantages

- Cost associated with using BIM 360 Doc
Discuss Challenges your Team must Overcome

- **Training** – It is important to get everyone on board with BIM 360 Design. It is not only a tool for Revit users, but for Non-Revit users as well.

- **Licensing** – Everyone working in Revit will need a license and username given to them from the User Management in the Autodesk Account portal. It is important to have go-to-people to hand out these licenses.

- **Creating a Folder Structure Template** – Before uploading models into BIM 360 Design, a standard folder structure should be created for the cloud models. Folders are important because they control a lot of the permissions seen in BIM 360 Docs.

- **Desktop Connector** – The Desktop Connector is involved in a lot of workflows in BIM 360 Docs. Make sure the Desktop Connector works on your system before deploying it across the firm. At CannonDesign, we are continuing to have problems with the Desktop Connector and had to remove it from all machines. This problem has changed many of our workflows with working with BIM 360 Design.

- **Establishing Shared Coordinates before placing models on cloud**. Publishing coordinates in models across the cloud can be difficult. We have found that we must establish shared coordinates before placing any models onto the cloud. In the past, we have pulled models from the cloud to fix the shared coordinates, and then reloaded them to the cloud.

- **Lack of Communicator for Revit 2018.3, 2019, and 2020**. For coordination and management, CannonDesign heavily relies upon the Communicator. We had to overcoming this issue by creating other forms of communication/chat.

- **Understanding that the cloud needs maintenance and services can be degraded or down**.