Roundtable: One-Year Post Collaboration for C3D

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Learning Objectives

- Discuss various approaches to the successful implementation of C4C3D.
- Connect with industry leaders who have implemented C4C3D amid a global pandemic.
- Help others benefit from mutual success and failures.
- Get advice on how to implement your next Civil 3D project on BIM360

Description

This year marks the first anniversary of Collaboration for Civil 3D on BIM 360 software. During this roundtable discussion, the Civil 3D community will share ideas and techniques for a smooth transition to BIM 360 so that others may benefit from the successes and failures of the past year. You will have the opportunity to ask direct and specific questions to those who have embraced the platform, and hear what impact the global pandemic of COVID-19 has had on collaboration efforts. You will also have an opportunity to provide the ideas or workflows you discovered. The goal is to have seasoned Collaboration for Civil 3D users share their successes, failures, knowledge, and advice with those that have not yet made the transition or are considering integrating Collaboration for Civil 3D into their firms.
Speaker(s)

Stacey Morykin works with AEC professionals to enhance their workflow through innovative technology. After spending nearly two decades in design, development, implementation, support and management of computer and non-computer-based technologies, Stacey truly understands the importance of communicating product design intent and constructability. She believes the effective use of technology within all phases and aspects of BIM optimizes project results by increasing value and reducing waste. Stacey has worked with small and large engineering firms within Central and Eastern Pennsylvania and fostered the redevelopment of an Autodesk User Group in the Mid-Atlantic Region. She is currently a Certified Professional in the current version of Civil 3D, holds an Associate Degree in Computer Science, and won “Top Speaker” at AU 2019 for a hands on Lab on Dynamo for Civil 3D.

Beth holds an Associate Degree in Architectural Engineering and currently works as a Design Technology Specialist for Pennoni providing technical support, consulting, and implementation services related to the survey practice. Beth has worked for an Autodesk reseller providing training, installation, and implementation of Autodesk products since 2005. And has worked for various AEC firms in PA, DE, MD, and DC since 2002 and is particularly drawn to the survey industry from past experience as a survey crew member. Her most recent accomplishments includes being part of the implementation team for BIM 360 at Pennoni and speaking at AU 2019 Getting Started with BIM 360 for Civil. Beth is passionate about BIM 360 and seeing the successful adoption on the horizontal infrastructure side.

Michelle has extensive experience and a comprehensive understanding of the technical and practical business and human dimensions of implementing technology. A specialist in the civil engineering industry, she has written training guides, provided training, support, and implementation on all Autodesk infrastructure solutions, as well as general AutoCAD. She now manages AEC learning content for Autodesk’s CSO Learning Services division.
Roundtable Expectations and Class Format

This roundtable intends to provide you with the opportunity to share and discuss your experiences with other attendees on a variety of topics revolving around Collaboration for Civil 3D on BIM360. We have provided topics and discussion points within this handout which will provide some direction; however, this roundtable is largely based on your participation.

In the end, this class is about you! We will do our best to facilitate the discussion and have examples of our own experiences as Design Technology Managers to spur conversation. This class format offers attendees a chance to share their experiences with others in attendance.

Roundtable classes at Autodesk University 2020 are limited to 75 attendees on a first-come-first-serve basis which creates a supportive environment where everyone is given equal rights to participate. Please come prepared (if you're willing) to share your experiences, both positive and negative, which will foster group discussions on how we, as AEC Industry professionals progress through the constant challenges of providing effective, efficient solutions—aimed to reduce frustration while applying the best practices and protocols.

The format used in this virtual roundtable is Zoom, and we will be using the “Rose, Bud, Thorn” method to collaboration via “Mural”. It is our intention to update this document with snapshots and findings from our roundtable discussion.

We very much look forward to our discussions during the roundtable, see you all virtually!!!
Roundtable Discussion Topics
These are the general topics and questions around Collaboration for Civil 3D we will answer during the roundtable.

Initializing BIM360
You have decided as an organization to make the transition to BIM360 for all your Civil 3D projects. Consider the following questions;

Suggested Topics, Concepts and Discussion Points
• Are you setting up projects in BIM360 manually or have you utilized Forge to create projects?
• Does everyone in your organization get the same permission?
• Start a project new in BIM360, or Migrate?
• What are some of the challenges in starting a new project?
• What are some of the challenges when migrating?
• Is folder structure important prior to migrating projects?
• Are you using it? Why? What is the adverion if not?
• Deployment of software like Desktop Connector?

Working inside C4C3D
Your project is now on BIM360, consider the following;

Suggested Topics, Concepts and Discussion Points
• Workflow changes with xrefs and/or drefs?
• How is SSM working?
• Survey database migration tool?
• What works well on BIM360, what could be done better?
• BIM360 Design – is this activated on your projects or just Docs?
• How do you foresee DESIGN working in the future?
• Are you experiencing syncing issues?
• How well does it integrate with other products like Revit?

Change Management – Implementing BIM360 across an organization
Now that you have found C4C3D to be beneficial, consider the following;

Suggested Topics, Concepts and Discussion Points
• How do you train the organization? Project Specific? By Office? By only Civil 3D users?
• How do you support staff during the project?
• What metrics do you have or should you have to measure success?
• Communication
• Planning
• Best way to get everyone user access
• What are some of the strategies that worked for you?
Roundtable Discussion Key Takeaways

Being at the forefront of innovation requires taking risks. It means launching new products and processes in highly complex organizational structures. Our goal was to learn the challenges others face when walking away from the traditional model. To achieve this goal, we asked the Civil 3D community worldwide to share their experiences.

Using the **rose, bud, and thorn** approach with the 50+ A/E/C industry attendees in smaller breakout groups to evaluate the new product was challenging, but effective. We found less than 30% of attendees have embarked on the platform in the last year, although all had a vested interest to learn how to make this transformation for themselves or the firms they represent. The discussion quickly took a surprising, but valuable turn in understanding the challenges, opportunities, and successes behind digital transformation initiation.

Here are the key takeaways from the discussion:

- **Get executive leadership and buy-in.** When trying to shift the organizational culture to a digital age, leadership must be ready to step away from the norms. Because C4C3D for BIM 360 is a collaborative tool, high-level buy-in is important for all involved stakeholders on your project teams, even those outside of your immediate organization.

- **Start small.** When introducing a new way of working, start at the project level and train the individuals who will be using BIM360 as a way to collaborate first. This brings value by helping to build organizational knowledge of the product and provide a broader knowledge base to support larger-scale implementation.

- **Make it easy.** Take the time to teach your early adopters how to use shortcuts and automation to avoid manual work. Develop strong resources and documentation to support the transformation and update teams regularly.

- **Use interactive videos.** Most instructors agree that interactive videos will be the future of personalized learning, and we heard that from our session as well. They wanted more from Autodesk. When learning a highly technical workflow and process, self-paced virtual learning is a must-have.

- **Understand the concerns so that you can solve for them.** Attendees shared apprehensions that their organizations had other ways of sharing files, so why should they use C4C3D in BIM 360? They were worried that not all parties had access to the product. Data security and archiving capabilities were common questions. With the Autodesk product team participating in our session, we were able to address many of those concerns at the onset for continuous quality improvement. Being prepared for these concerns and having the right team in place to solve them is critical for accelerating digital transformation successfully.

In the end, what started as exploring our passion to see the new C4C3D for BIM 360 product succeed provided a surprising number of lessons on how to improve the seeds of digital transformation efforts and ultimately improve the outlook for industry change long-term.

To all attendees, contributors, and the Autodesk team, thank you for coming together virtually during the conference to discuss Collaboration for Civil 3D.

Please see the PDF of the complete MURAL in the additional documentation.
Snapshots of Rose, Bud, Thorn method in MURAL

2. Poll to get us started

Are you currently using Collaboration for C3D in a production environment?

- Not Currently Using C4C3D
- Currently Using C4C3D

ZOOM Poll Results
3. Poll to get us started

What version of Desktop Connector are you currently using?

OLDER  1063  1074  NEWER (BETA)
Main Session
Initializing BIM360 (IT/DTG Team)

- Are you setting up projects in BIM360 manually or have you utilized Forge to create projects?
- Does everyone in your organization get the same permission?
- Start a project new in BIM360, or Migrate? Have you tested the migration tool?
- What are some of the challenges in starting a new project? When migrating?
- Is folder structure important prior to migrating projects?
- Are you using BIM360? Why? What is the version if not?
- Deployment of software like Desktop Connector?

Common Data Environment for all teams

file switches to read only when you are in it

Related Data files being pulled that aren’t in CAD File

remote workforce connectivity

issues with transfer...migration may solve

Start projects new

Canada where is the data stored? Patriot Act andbeen local government

Data security -- do we “own” the data?

Archiving/Backing it up and confidence has held people back

can store everything there

Migrating new projects to BIM 360 - only start new projects on the platform.

Creating SCCM packages can be time-consuming in a large organization that is very busy.

Barriers to adopting BIM 360 with C20

Not using BIM 360 at this point. I’m putting together a plan to try and integrate it in our organization

Backup workflow and infrastructure confidence

We try not to migrate projects to BIM 360 - only start new projects on the platform.

Not a domain-specific reason, but accommodating everyone in the group is managing a transition through the company

I have others in my organization who are interested in the idea of the product but already have other means of sharing files

Creating SCCM packages can be time-consuming in a large organization that is very busy.

Need better guidance from Autodesk on how to do this

Large projects too much to migrate and different folder structure

Grouping for permissions is great but only when create project from scratch

Migrating new projects to a different folder structure and doesn’t include permissions

Maybe have the option to bring files with the template

Migration - select folder after upload and export files to that folder

Sync speed - need just data

Existing Data to Connector

Not all users have access

Production teams understand value but not yet understood by the broader IT org.

User Permissions out of Windows Active Directory

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VOTING RESULTS

Connected = Initializing BM360

Voting results

Main Session

7 votes

- Archiving/Back up and confidence has held people back
- Data security — do we "own" the data?

Unique voters 7

6 votes

- remote workforce connectivity
- Backup workflow and infrastructure confidence

Unique voters 6

5 votes

- Migrating new projects to a different folder structure and doesn't include permissions
- Need better guidance from Autodesk on how to do this
- File switches to read only when you are in it

Unique voters 5
Working within C4C3D (End Users)

- Workflow changes with xrefs and/or drefs? Things to be aware of?
- How is SSM Working for you?
- Survey database migration tool?
- What works well on BIM360, what could be done better?
- BIM360 Design - is this activated on your projects or just docs?
- How do you foresee DESIGN working in the future?
- Are you experiencing syncing issues?
- How well does it integrate with other projects like Revit?

We are setting up projects manually, but exploring the Forge option in 2021.

Hatch patterns with small dots printed to PDFs and previewed in the web BIM 360 interface often disappear. The reason for this is because the BIM 360 platform compresses PDFs for faster viewing but if you download the PDFs, you can view the native resolution.

SSM doesn't work well. It helps to have only one person in charge of the sheet set.

Almost NO Integration with Revit

I have others in my organization who are interested in the idea of the product but already have other means of sharing files.

New data not present without a forced refresh

Not all users have Access

Better workflow to work with Revit - Pipe Networks!

SSM locking should be drawing being edited based

Pipe Catalog support?

Surface coordination between C4C and Revit with shared coordinate system works great

SSM locking in general needs work (jams, issues, sync,产值/Style issues, etc)

User Permissions outside Windows Active Directory

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Messaging from Desktop Connector

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User Permissions outside Windows Active Directory

XREF files on local copy that don't change often shouldn't be always stopping Civil 3D or ACAD, causing software lag, Local copy should be like a local copy, aka super fast.

I like monthly updates to the Connector app.

Deltasync

Large orgs struggle to run frequent updates live require SCCM packages UAT’d for every desktop connector version.

Sync Speed (MetaData)

SSM needs to be accessed and stay live in a central cloud location so it can be simultaneously be accessed by multiple users in different locations.

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Pipe Catalog support?
VOTING RESULTS

Main Session

11 votes

Pipe Catalog support?

Unique voters 11

9 votes

SSM needs to be accessed and stay live in a central cloud location so it can be simultaneously be accessed by multiple users in different locations.

Unique voters 8

8 votes

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Unique voters 8
Implementing BIM360 (Firmwide/Executives)

- How do you train the organization? Project specific? By Office? By only C3D users?
- How do you support staff during the project?
- What metrics do you have or should you have to measure success?
- Communications
- Planning
- Best way to get everyone user access?
- What are some of the strategies that worked for you?
- What 'easy buttons' do you wish you had or worked better?

| users have access to install DC | Not so many DC updates every month | Make videos on how to work | more content | struggle to place non-design authoring info on BIM360 |

Train - Trainers

Train, train, train. I'd like to host my own data and use it with the BIM360 interface tools.

Users frequently mistake/reuse "Plain" Section

We are doing it manually - haven't figured out how to automate.

Project Provisioning

It helps to start implementing/training on a project basis over time to help build organizational knowledge. It provides a broader knowledge base to support the larger implementation.

Setup up good standards

Teach people who will be using it for a project to start.

Get executive leadership buy in

Need to train entire organization

Need Synch of user accounts thru Active Directory - Leave permissions to larger IT team

SSO / AD

 require training before accessing hub, start with C3D users

Connection to SSO / AD

Get executive leadership buy in

Training is needed

AD account syncing / SSO
VOTING RESULTS

- 12 votes: AD account syncing / SSO
- 11 votes: Make videos on how to work
- 10 votes: Setup up good standards