

CI500013

A Hitchhiker's Guide to ArcGIS GeoBIM and the Autodesk Construction Cloud

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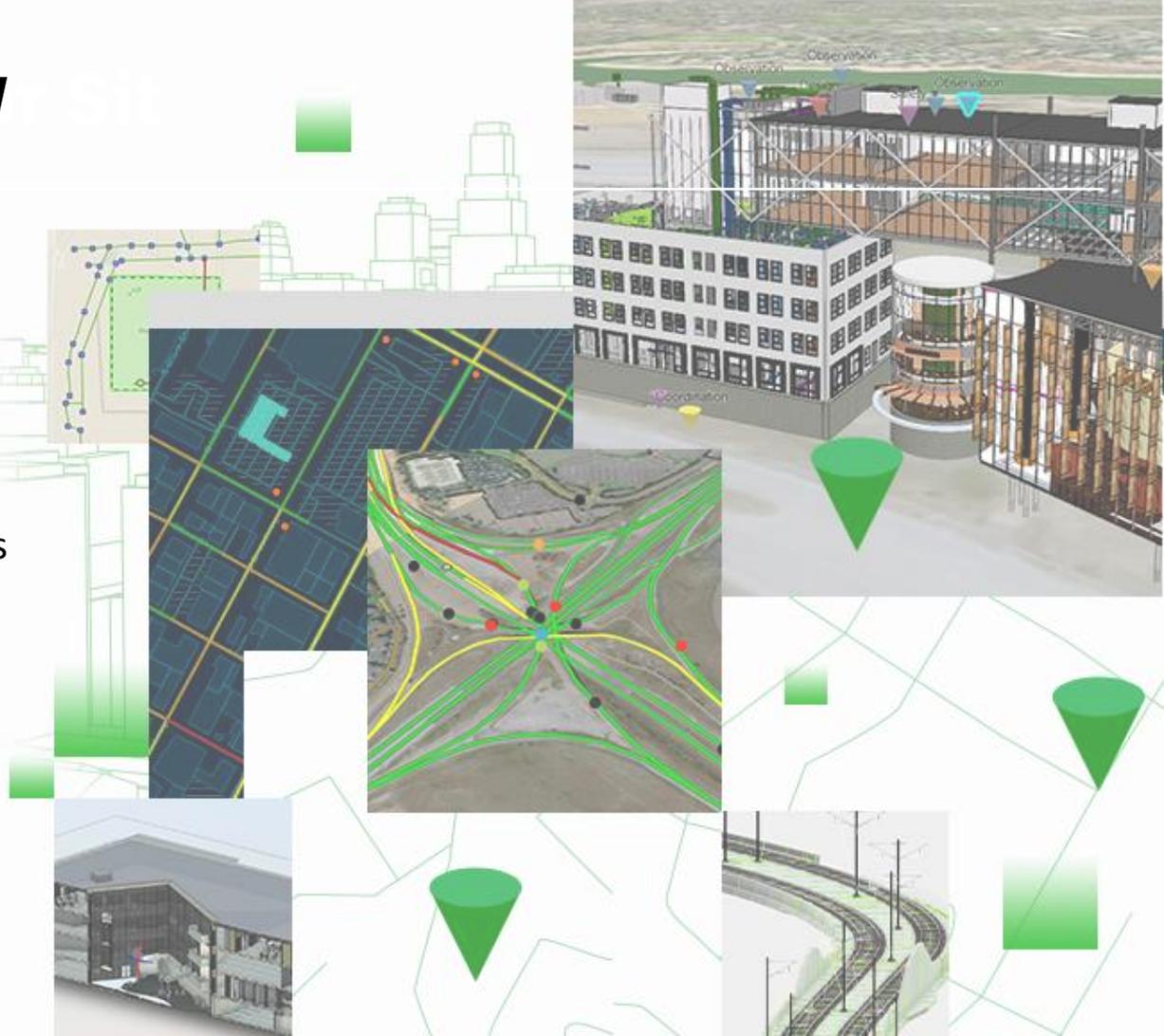
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Session Overview



Chapters:

1. Project Delivery **Galaxy**
2. A **Guide** is always helpful
3. All **Hitchhikers** need resources
4. Journey ahead into the **Future**
5. Questions? We have **Answers**



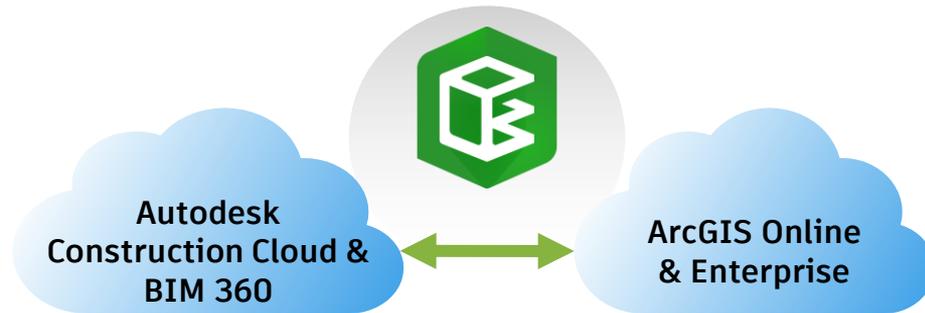


Safe Harbor Statement

This presentation includes forward-looking roadmap and schedule information that may include dates, release numbers, or scope that could change without notice. Customers and partners are advised not to make business or purchasing decisions based on such forward-looking statements.

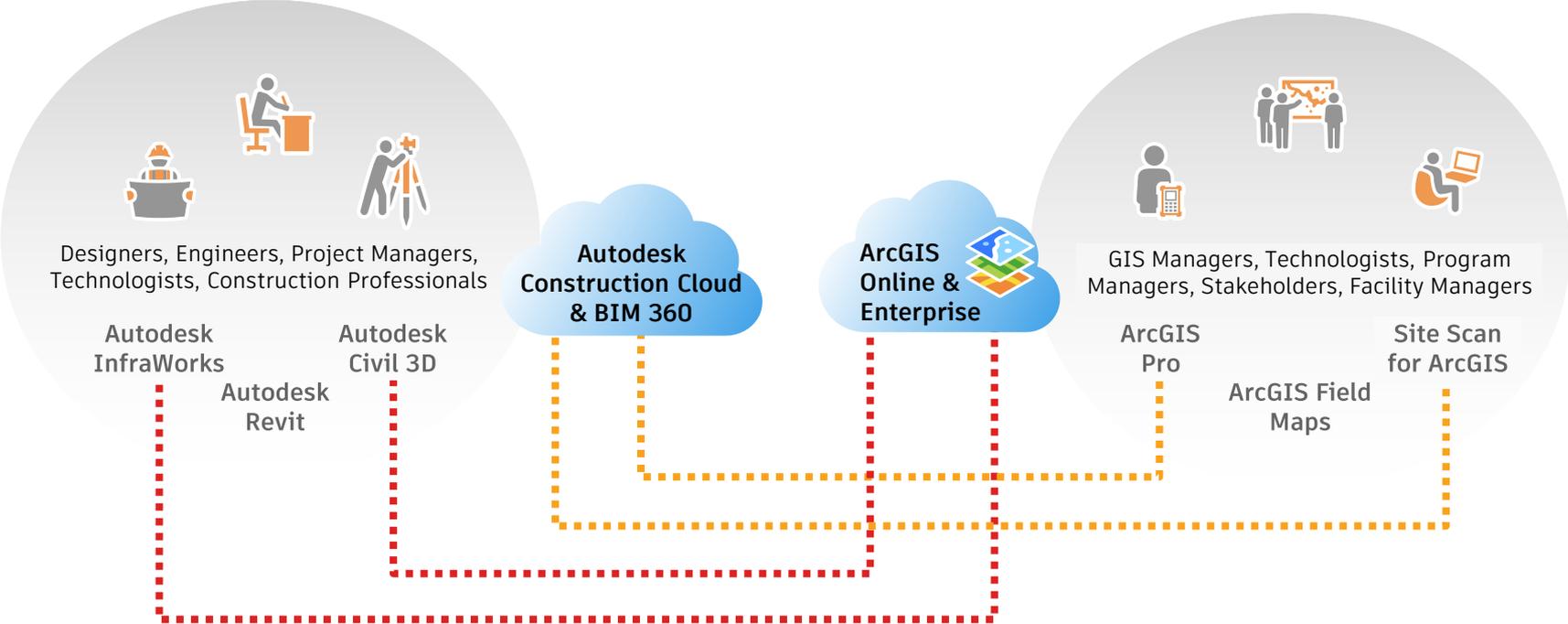
In this Galaxy...

ArcGIS GeoBIM delivers an innovative, easy-to-use web-based experience for project teams to explore and collaborate on BIM projects and issues using data from multiple systems in a geospatial context. AEC firms and Owner/Operators can easily work with linked data from multiple systems in configurable web apps that simplify the communication and collaboration with teams and stakeholders.



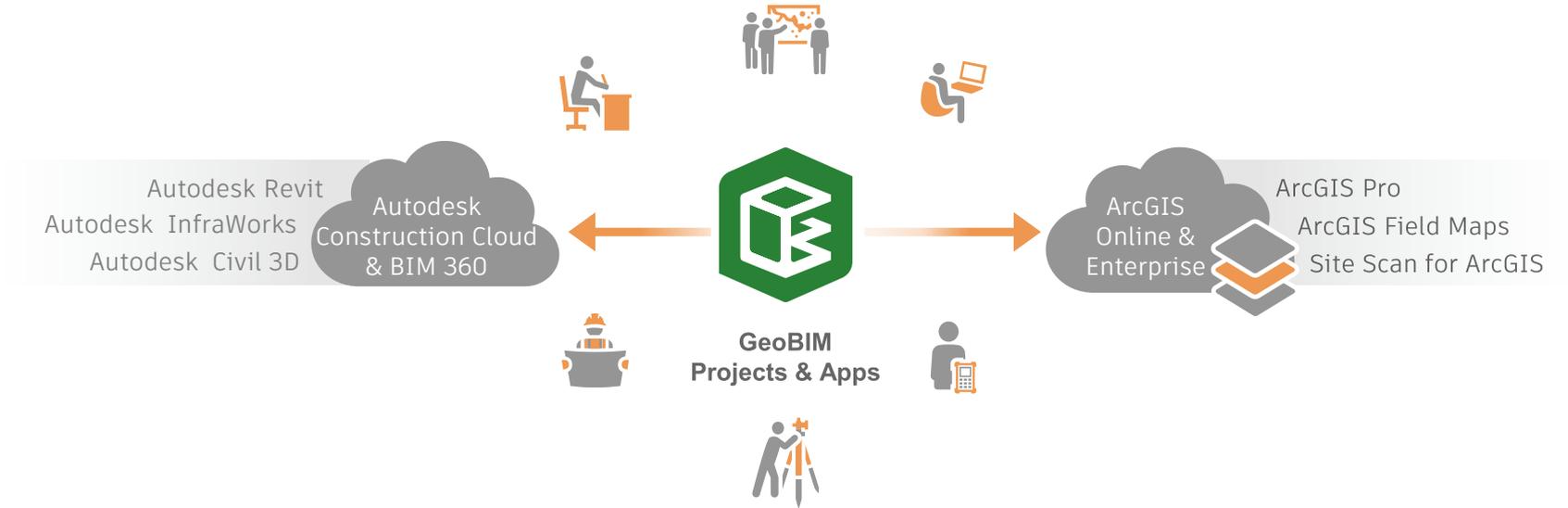
Integrations Today

BIM & GIS connection without ArcGIS GeoBIM



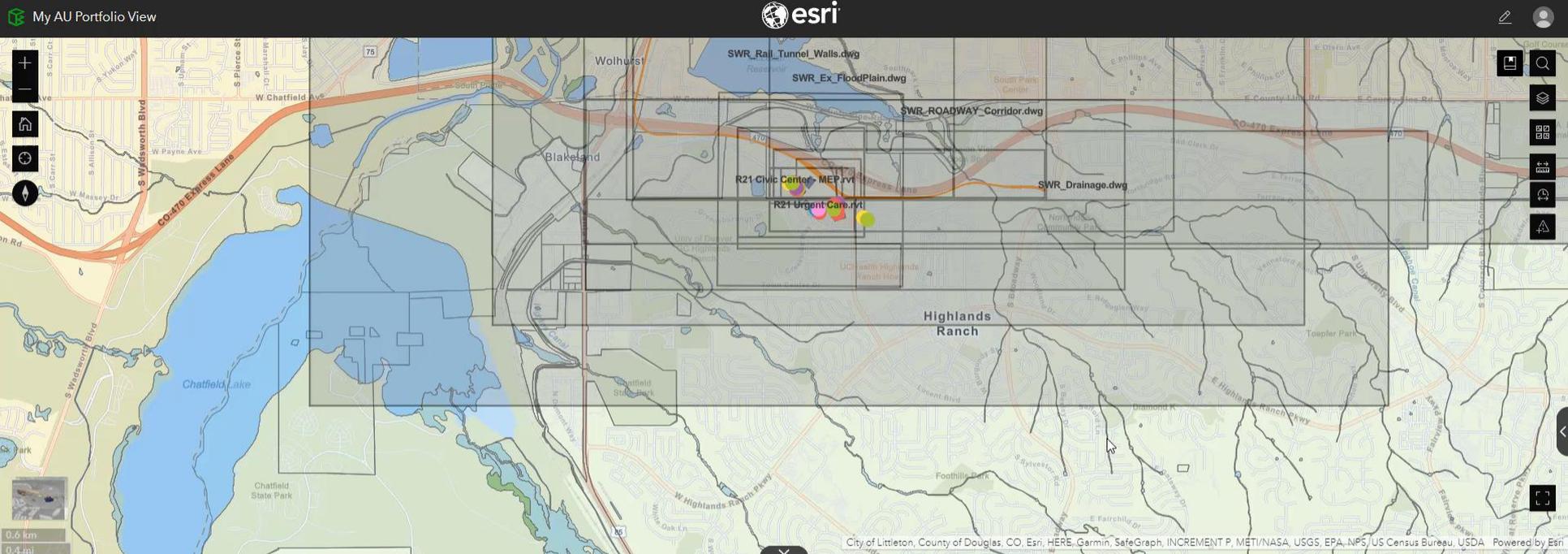
ArcGIS GeoBIM

Initial Releases





GeoBIM App Experience



Link Explorer

Add Links

Name	Account	Project

Documents

Search

Display Name	Boundary	Spatial Reference	Outlier	Outlier Message
SWR_Site_Grading.shared.dwg		2232		
SWR_Site_Grading.dwg		2232		
SWR_Roadway_Corridor_SOLIDS.dwg		2232		
SWR_ROADWAY_Corridor.dwg		2232		
SWR_Rail_Tunnel_Walls.dwg		2232		

There must be a guide...

Chapters in the Guide

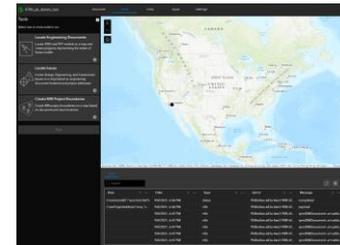
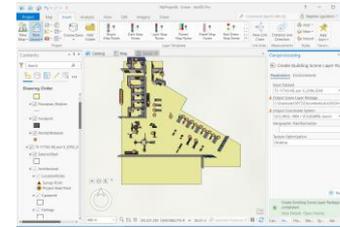
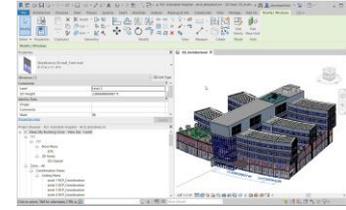
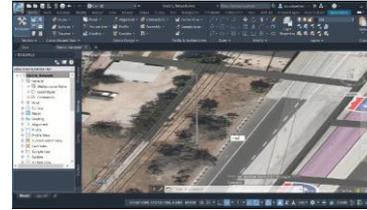
ArcGIS GeoBIM Concepts

Georeferencing basics

ArcGIS Pro basics

Create GeoBIM Apps

- Create an account
- Use Tools to locate documents and issues
- Define links between features and ACC documents
- Create viewer and dashboard apps



ArcGIS GeoBIM Concepts

Mid-Sized AEC Firm Project-Focused Approach

An account can refer to one, a set, or all Projects in an Autodesk account.

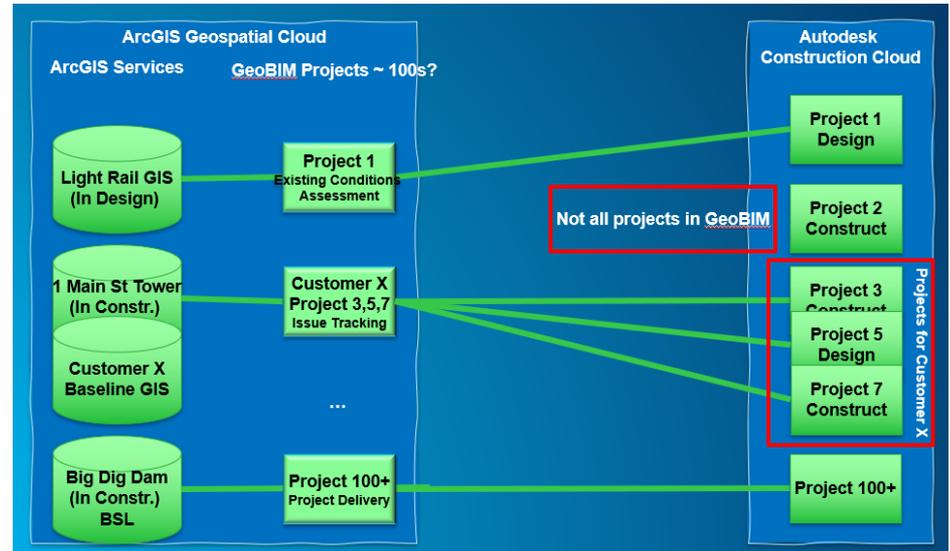
- Here a firm has two GeoBIM projects to try out ArcGIS GeoBIM
- Each GeoBIM Project refers to one ACC Project



Large AEC Firm Customer-Focused Approach

Create GeoBIM Projects for sets of customers or areas of interest

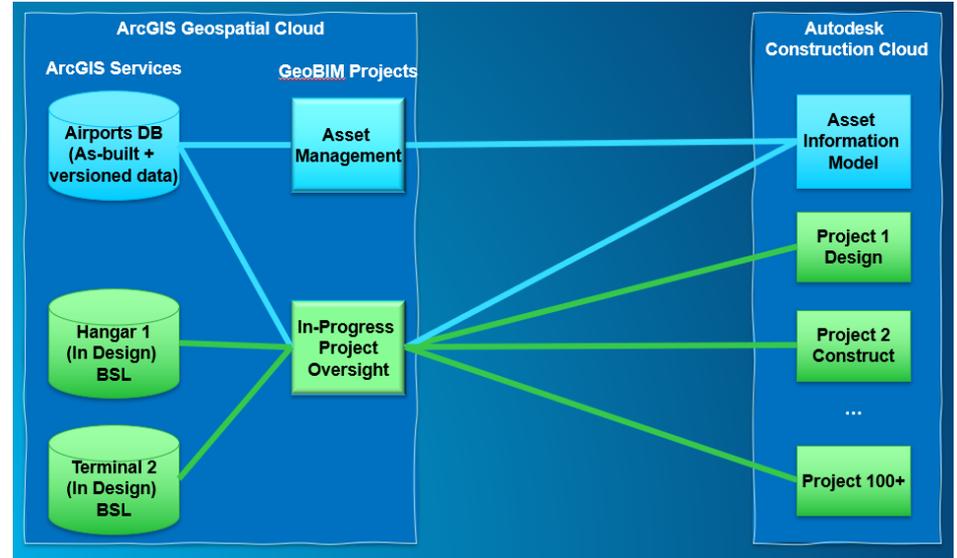
- A firm may want to create GeoBIM Projects that refer to the set of BIM projects for a specific customer



Portfolio GeoBIM Approach for Airport Projects

Combine in-progress projects with as-built projects

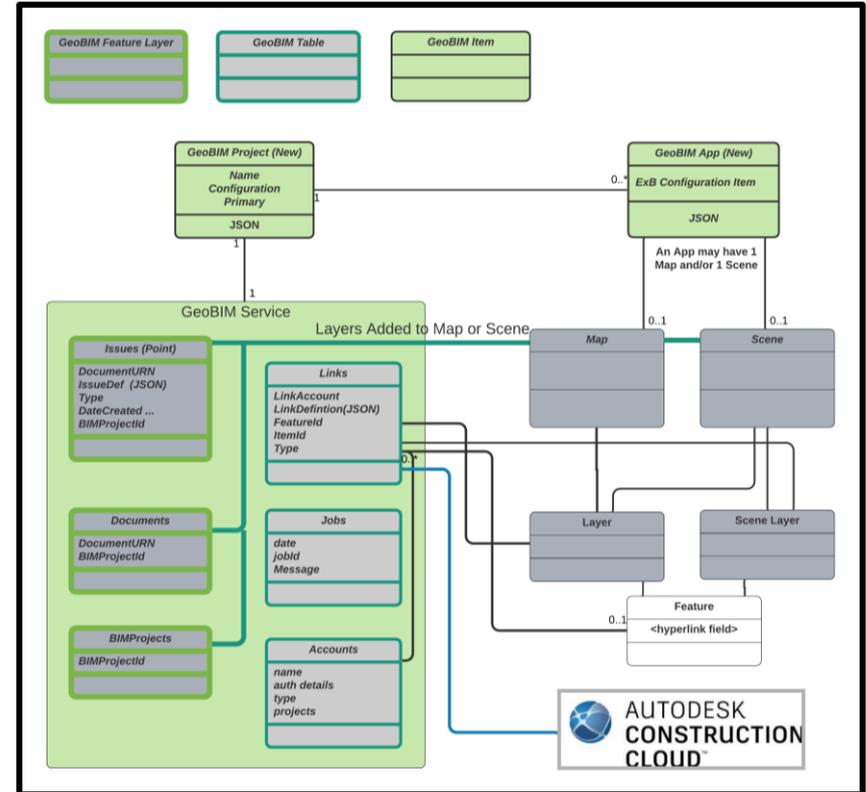
- In this scenario, an infrastructure owner establishes two GeoBIM Projects:
 - One for the as-built
 - Another for *all* projects to allow comparative issue studies, visualize relative progress, and compare in-progress work to the as-built infrastructure



Structure of a GeoBIM Project

ArcGIS Items and Services + Autodesk Cloud

- GeoBIM Project Item
- GeoBIM App Item
- GeoBIM Services
- ArcGIS web maps and web scenes
- An account link to Autodesk
- ArcGIS Dashboards
- Tip: GeoBIM adds georeferenced doc boundaries and issues to your map or scene. If you don't own the source map, you must make a copy.
- Tip: name the copied map or scene for easy re-use within the project.



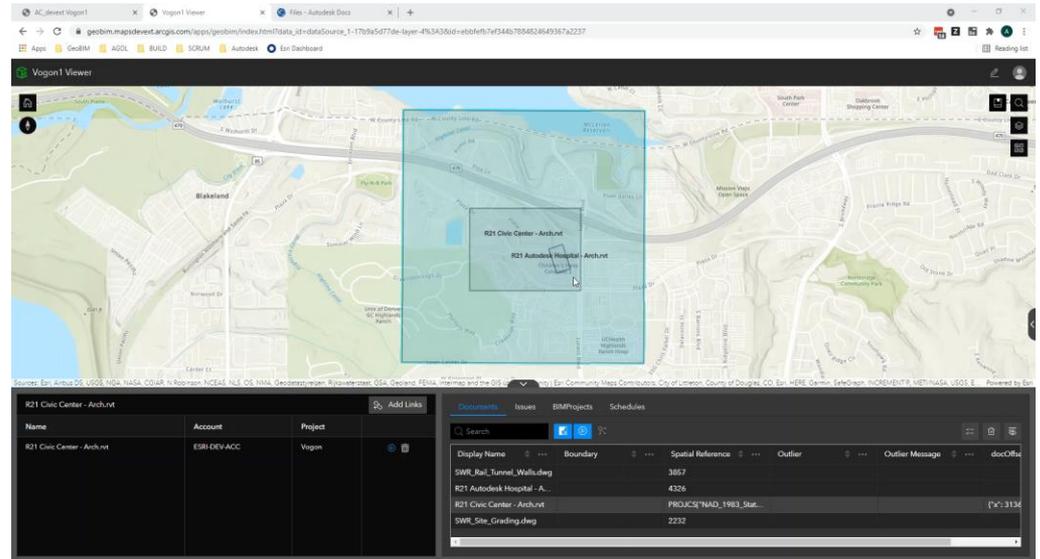


Georeferencing Models

Georeferencing Autodesk Documents

Basics for Revit files

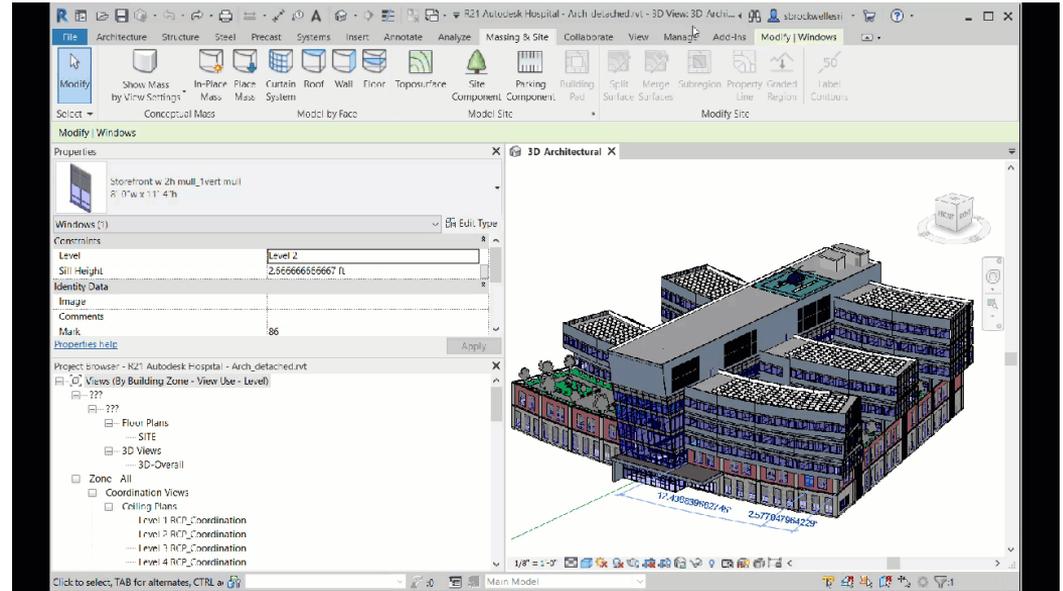
- Option 1: Shared Coordinates
 - Define coordinates in real-world in Civil3D
 - Correlate those coordinates with your Revit model
 - Tip: Use an Esri .PRJ file containing the *Esri* version of the coordinate system for the shared coordinates
 - Useful for custom coordinate systems
 - Tip: Keep Survey Point and Project Base Point close to the model



Georeferencing Autodesk Documents

Basics for Revit files

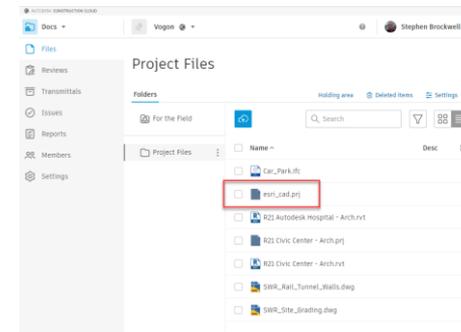
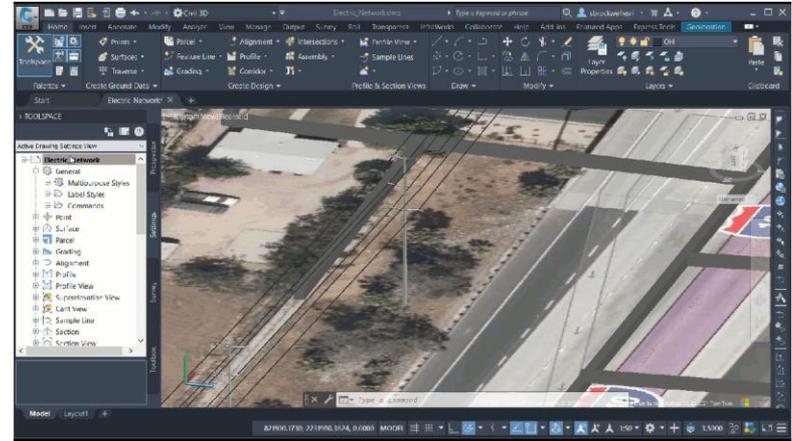
- Option 2: Project Location
 - Use the Latitude/Longitude of the location of the project based on its address.
 - Tip: Keep Survey Point and Project Base Point close to the model



Georeferencing Autodesk Documents

Basics for AutoCAD and Civil3D files

- Option 1: Use shared, standard WKID
 - Tip: GeoBIM will use this if it matches the WKID used by ArcGIS
- Option 2: Use Esri .PRJ file in the project folder
 - Tip: Best for custom CS or Autodesk CS that is not defined in Esri
 - Tip: you will still need an Esri.PRJ file to easily locate the DWG in ArcGIS Pro
- See the Pro [docs](#) for details.
 - <https://pro.arcgis.com/en/pro-app/latest/help/data/cad/about-cad-coordinate-systems.htm>



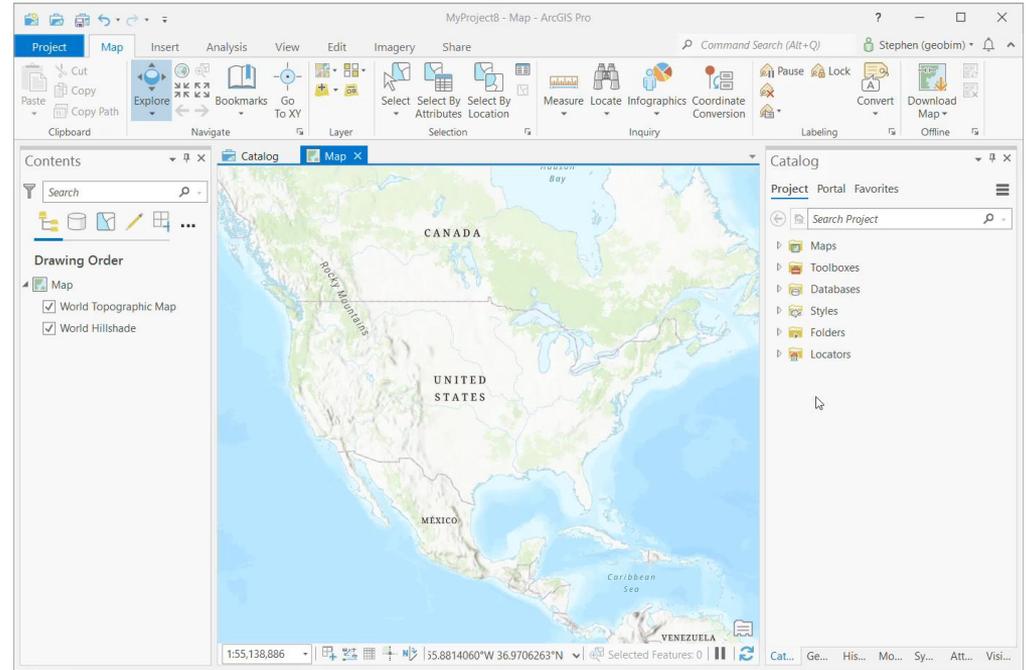


ArcGIS Pro

Using Autodesk Construction Cloud in ArcGIS Pro

Brief Overview

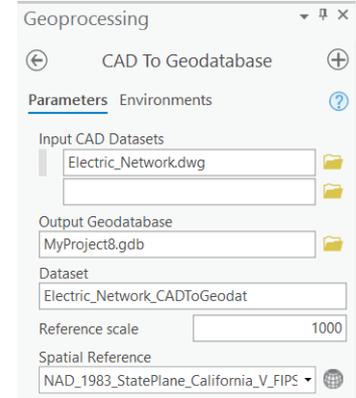
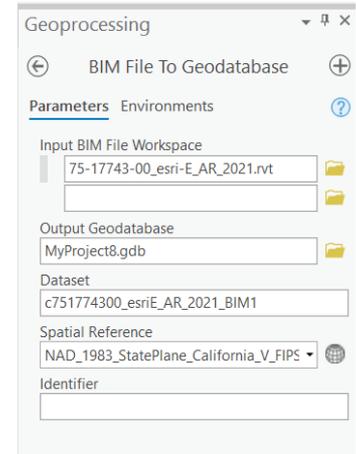
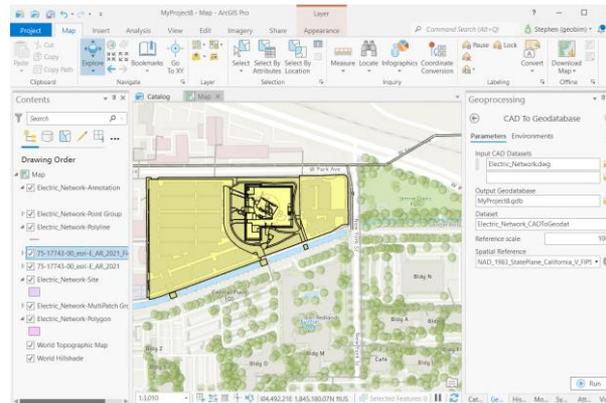
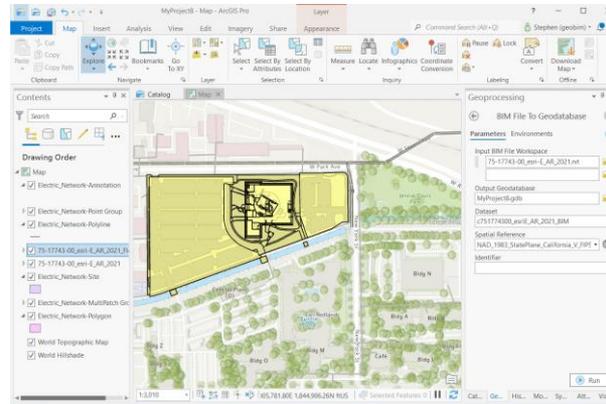
- Use the BIM Cloud Connection to access ACC and BIM360 documents from the ArcGIS Pro Catalog
- Use Esri .PRJ file in the project folder
- Download or drag and drop the files into your map or scene
- See the Pro [docs](https://pro.arcgis.com/en/pro-app/latest/help/projects/connect-to-bim-cloud-connection.htm) for details.
 - <https://pro.arcgis.com/en/pro-app/latest/help/projects/connect-to-bim-cloud-connection.htm>



Create Geodatabases from CAD or BIM

Brief Overview

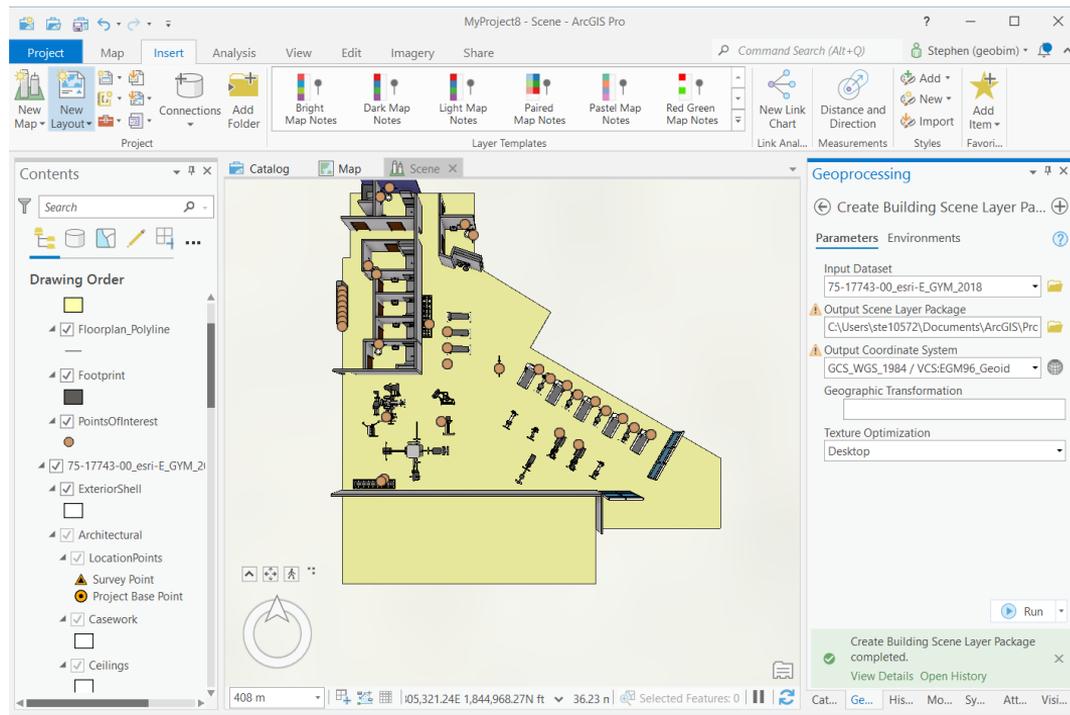
- Use the BIM File to Geodatabase and CAD to Geodatabase
- Projection will be known automatically
- See the Pro [docs](https://pro.arcgis.com/en/pro-app/latest/tool-reference/conversion/bimfile-to-geodatabase.htm) for details.
 - <https://pro.arcgis.com/en/pro-app/latest/tool-reference/conversion/bimfile-to-geodatabase.htm>



Create Building Scene Layer(s)

Brief Overview

- Use the Create Building Scene Layer Package Geoprocessing Tool
- Refer to the dataset created above
- See the Pro [docs](https://pro.arcgis.com/en/pro-app/latest/tool-reference/data-management/create-building-scene-layer-package.htm) for details.
 - <https://pro.arcgis.com/en/pro-app/latest/tool-reference/data-management/create-building-scene-layer-package.htm>





GeoBIM Project Manager

A night view of Earth from space, showing city lights and a bright horizon line against a starry background. The Earth's curvature is visible, with a bright blue-white glow at the horizon. The continents are dark, with numerous small yellow and white lights representing cities and urban areas. The background is a deep blue space filled with many small, distant stars.

To be continued...

**So you want to be a
hitchhiker...**

ArcGIS GeoBIM

Licensing Overview



Create GeoBIM
Projects, Link,
Configure Apps, &
Share!

Creator or GIS Professional
+
GeoBIM user type extension

Explore GeoBIM
Applications

Any ArcGIS named user
+
GeoBIM user type extension



Autodesk Subscription

Autodesk Subscription

For GIS & BIM Technologists

*For Project Managers, Engineers,
Designers, Construction
Professionals, Executives, Directors,
Program Managers, Owner/Operators*

Next on the journey...

ArcGIS GeoBIM

Product Vision

Comprehensive/Master Planning
for multiple construction sites

IoT Monitoring Dashboard

Infrastructure Delivery with
Project Controls Indicators



Many
Projects/Assets



Energy Consumption Modeling

Project portfolio dashboard



Project Delivery
Portfolio

Smart City & Assets
Portfolio



Campus Security & Rental Space Viewer



City Design Review
and Stakeholder Engagement

AEC Firms

2021
Release

Owner/Operators
EPC Firms

5D (Time & Cost) Construction Planning



Project Delivery
Management

Asset Inspection and
Management



Facility Management Integration

Design Coordination Tracking



Construction Progress
with Issue Entry and Management



Few
Projects/Assets



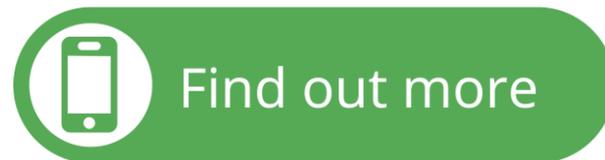
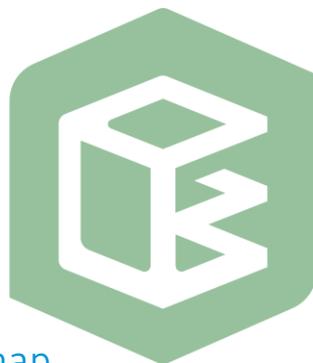
Commissioning & Handover

Virtual Inspection Dashboard with Reality Capture

Interested in learning more?

Visit the following related links

- Esri at Autodesk University
 - <https://www.esri.com/AU2021>
- ArcGIS GeoBIM overview
 - <http://go.esri.com/geobim-au2021>
- BIM & GIS StoryMap
 - <https://go.esri.com/geobim-storymap>
- ArcGIS GeoBIM Workflow StoryMap
 - <https://go.esri.com/geobim-aec>





Q & A

The background of the slide is black with several large, dark grey, metallic-looking geometric shapes that resemble parts of a computer keyboard or a modern architectural structure. These shapes are positioned in the corners and along the sides, creating a sense of depth and perspective. The lighting highlights the edges and surfaces of these shapes, giving them a three-dimensional appearance.

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