مجموعة مايكروسنتر
MICROCENTER GROUP

3D Survey, ArcGIS GeoBIM development

(Proof of Concept / POC)

Digital Integration of Information

The digital integration of information is a challenge that needs to be addressed. The challenge is how to blend the physical and digital world in a way that is seamless for the customer. The process of integrating digital technology with physical world has been challenging.

BIM & GIS integration allows planners to explore a model of a proposed building site - identify such as infrastructure, landslides and to examine current conditions such as topography or access roads.

The integration of information between the BIM and GIS is an essential part of the design process. This integration allows for faster and more accurate design, construction, and management of buildings.

ArcGIS GeoBIM

BIM is a digital representation of physical and functional characteristics of a facility.

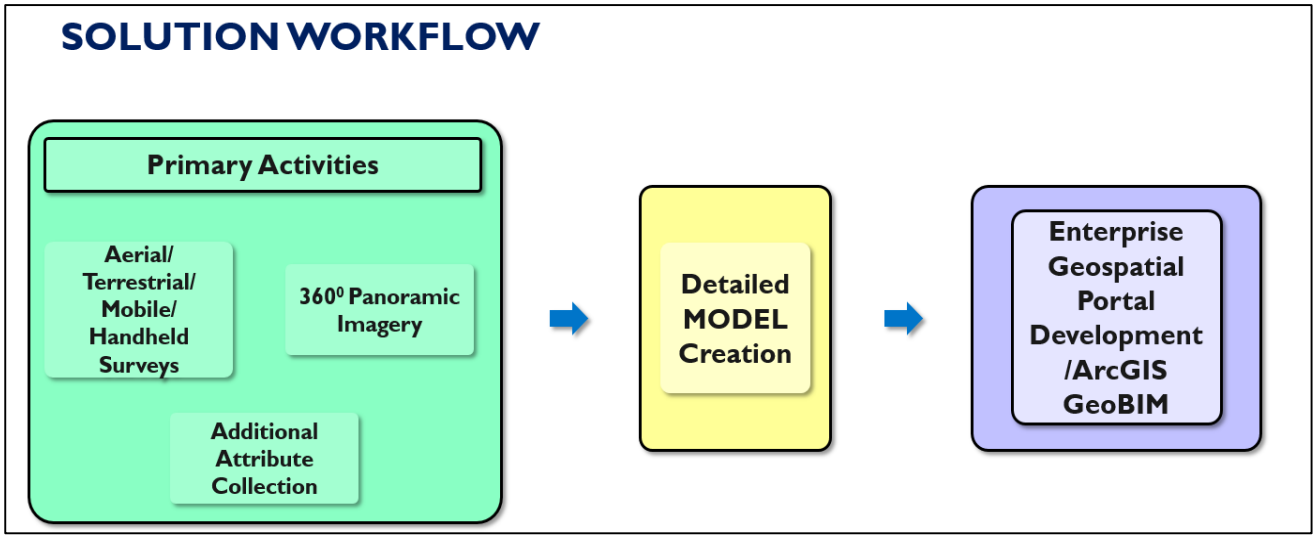
ArcGIS GeoBIM delivers an innovative, easy-to-use web-based experience for teams to explore and collaborate on building information modeling (BIM) projects and issues, using data from multiple systems in a geospatial context. Architecture, engineering, and construction (AEC) teams can work with linked data from multiple systems in configurable web apps that simplify the communication and collaboration with teams and stakeholders.

The combination of GIS and BIM will create a virtual world with the best features of both technologies and they are used for mapping, design, analysis, scheduling and execution.

Esri ArcGIS GeoBIM brings spatial context to AEC operations

ArcGIS GeoBIM enables secure access to project information, including BIM content, reality capture, documentation, and issues so that project teams can see active information for better decision making and collaboration.

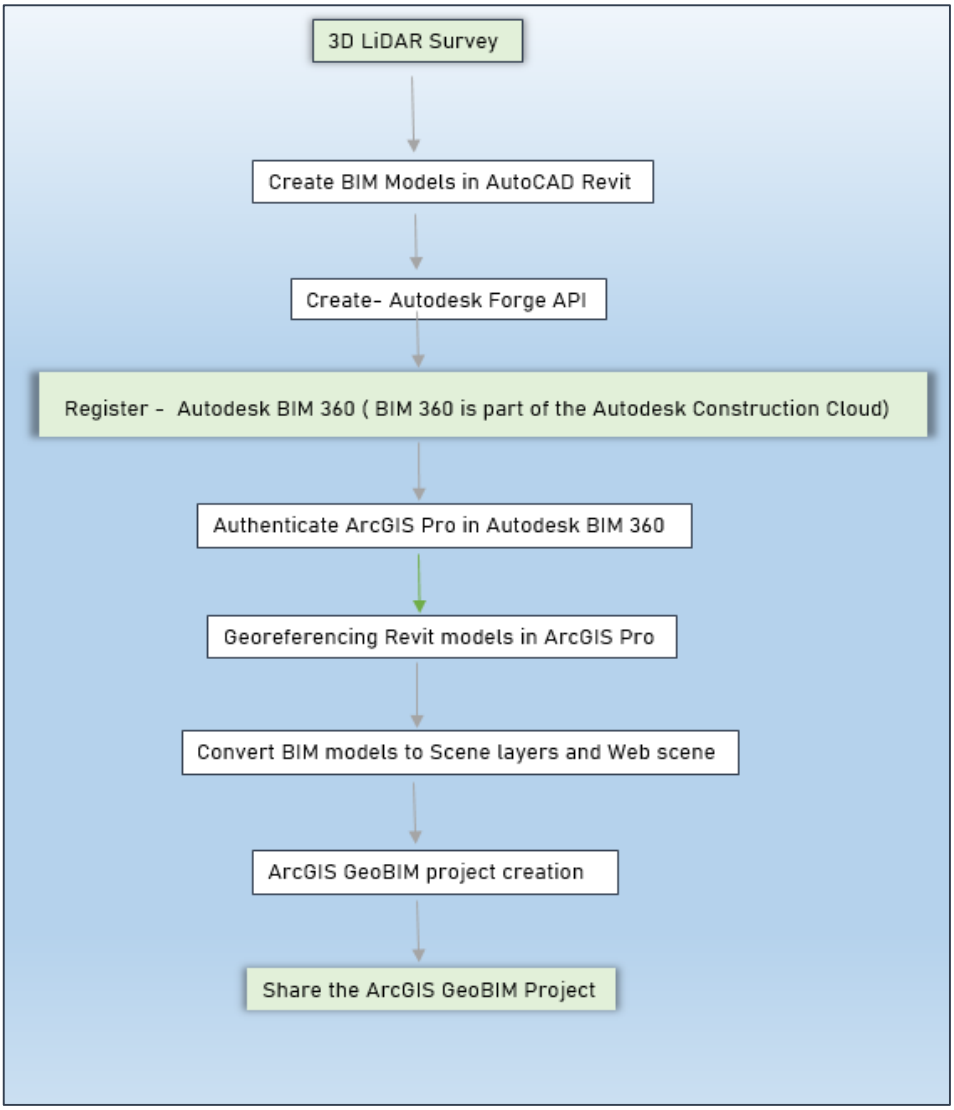
3D Survey, BIM (work flow)

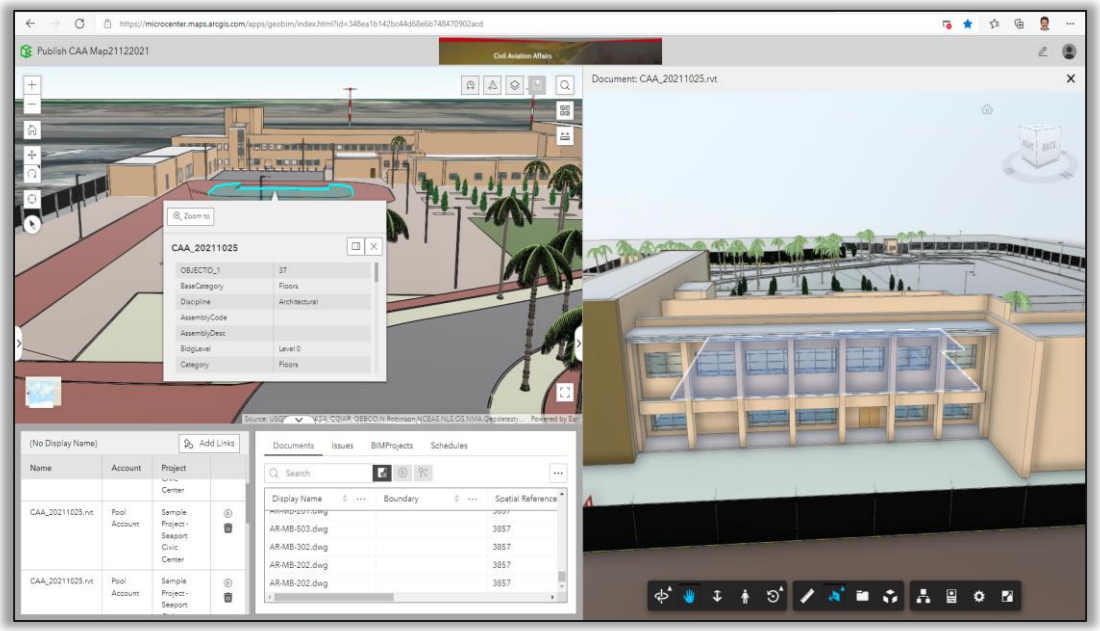


ArcGIS GeoBIM (Proof of Concept) work flow

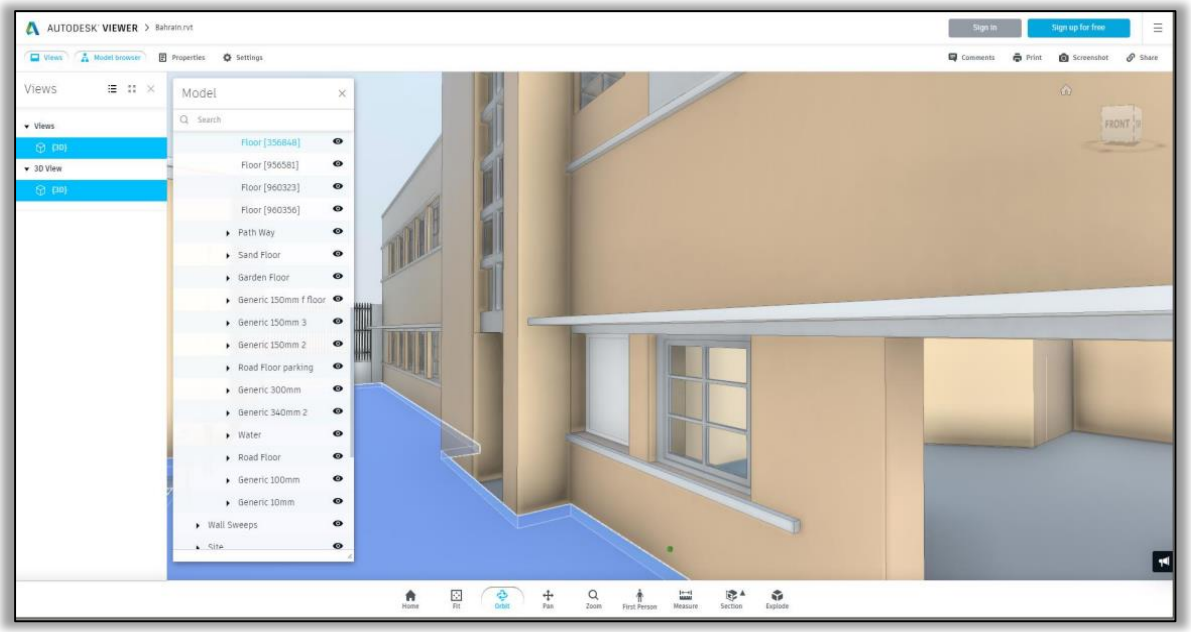
ArcGIS GeoBIM (POC) starts from 3D LiDAR Survey, BIM 360(document management) system and Georeference the models in ArcGIS Pro, Convert BIM models to GIS and created the ArcGIS GeoBIM project.

Process flow diagram (POC)





ArcGIS Scene layers & Revit Model



3D Revit Model (360-degree panoramic model view)

Technology:

FARO 3D Survey, Autodesk BIM 360 Collaborate, Autodesk Revit2022, Esri ArcGIS Pro 2.9, ArcGIS Online, ArcGIS GeoBIM.

GeoBIM (Key benefits)

- Improve efficiency for teams by connecting projects and data with location
- BIM & GIS helps in construction and management of smart cities
- Save time and cost by minimizing data conversions
- Communicate up-to-date project information easily and securely
- For better decision-making and data management during the AEC lifecycle