Reality Modeling:
Ground Extraction from Mesh or Point Cloud

November 2017

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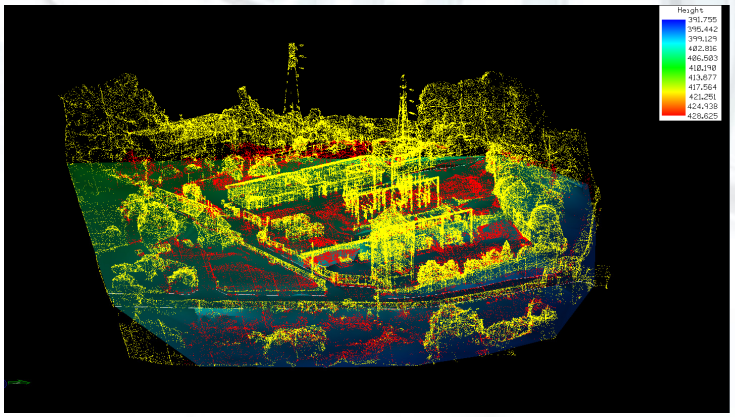
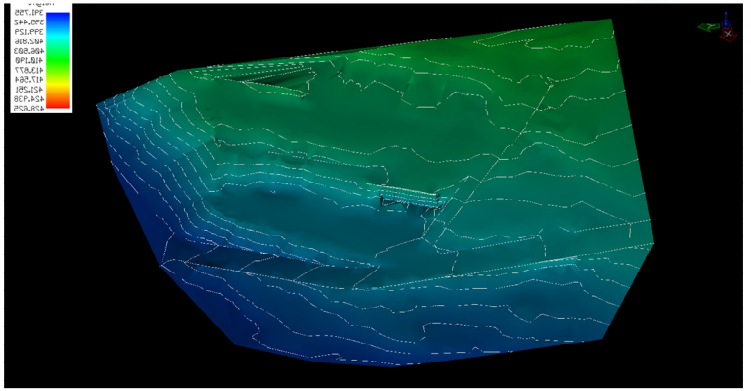
Rapidly extract ground from a Reality Model

The advantages of using reality modeling to deliver 3D engineering ready reality meshes

- How to extract ground from a mesh or point cloud automatically
- How to create scalable terrain models, cut cross sections, and add break lines





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Two workflows

- **Quick Ground Extraction**
  - Extracts terrain in a Scalable mesh (3SM) from a user defined area.
- **Ground Extraction**
  - Extracts terrain and automatically classifies ground points in reality models (reality meshes and point clouds).

Quick Ground Extraction

Extracts terrain in a Scalable mesh (3SM) from a user defined area.

- The Quick Ground Extraction tool extracts ground in a user defined area.
- The user can draw a Block, a Shape or select a closed element
- The tool extracts the ground in a new 3SM attachment
- Then both 3SM attachments are clipped for seamless display
  - Original 3SM is clipped using a Clip Mask
  - New 3SM is clipped using a Clip boundary.

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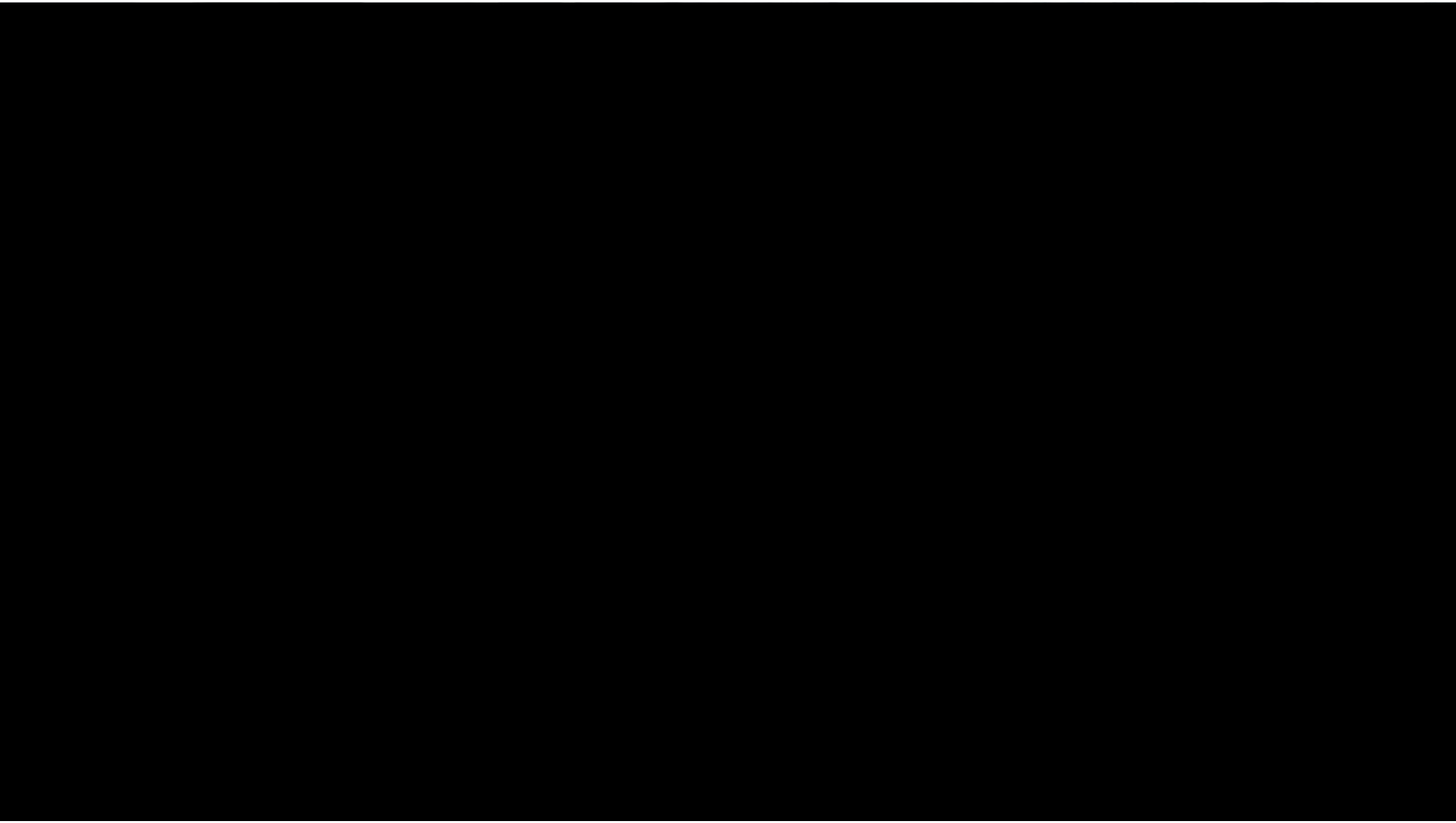

Ground Extraction

Extracts terrain and automatically classifies ground points in reality models (reality meshes and point clouds).

- Create Ground Points Automatically
- Create Classified Point Cloud
- Create Scalable Terrain Model (STM)
- Create Scalable Mesh (3SM)

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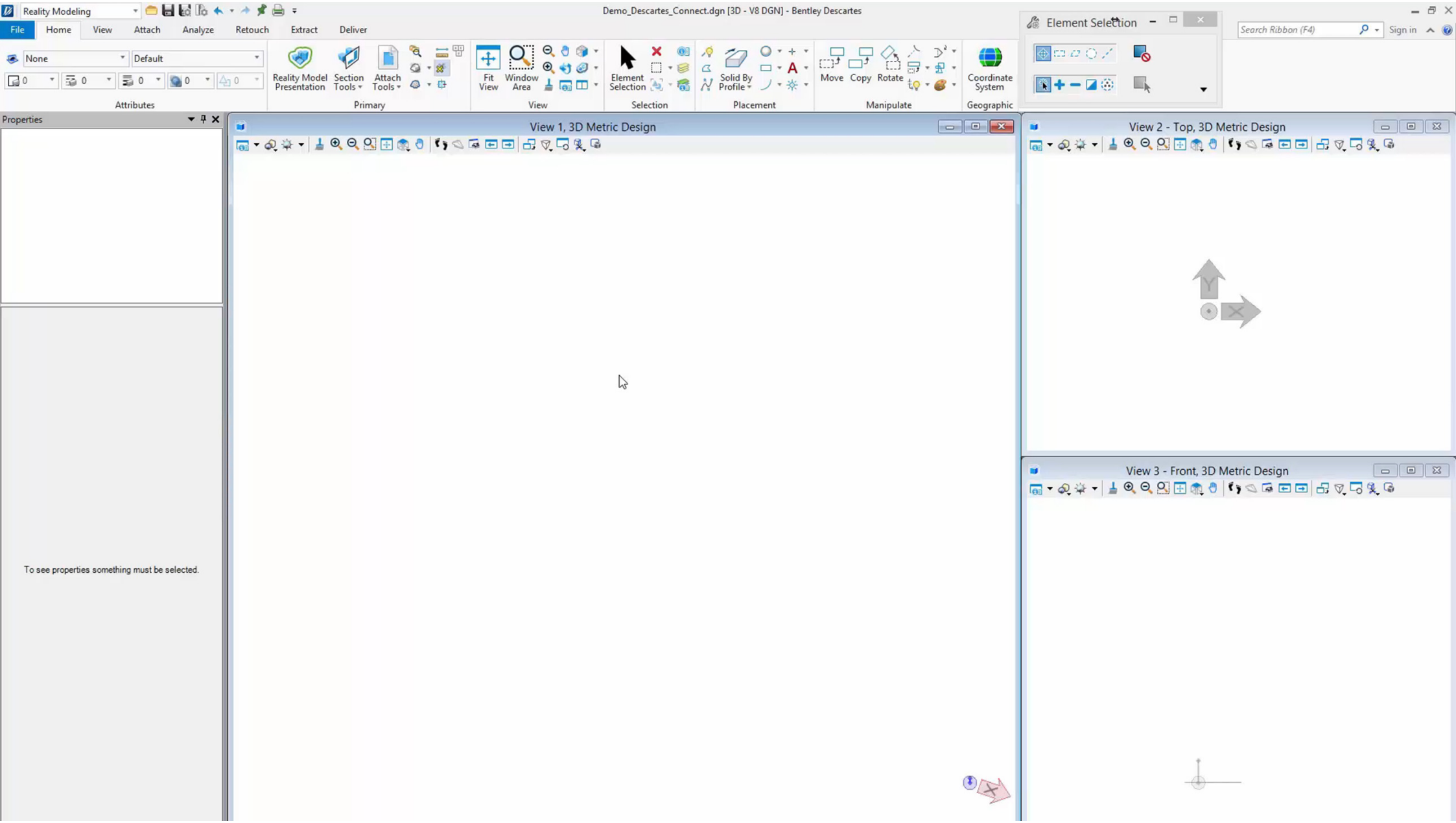
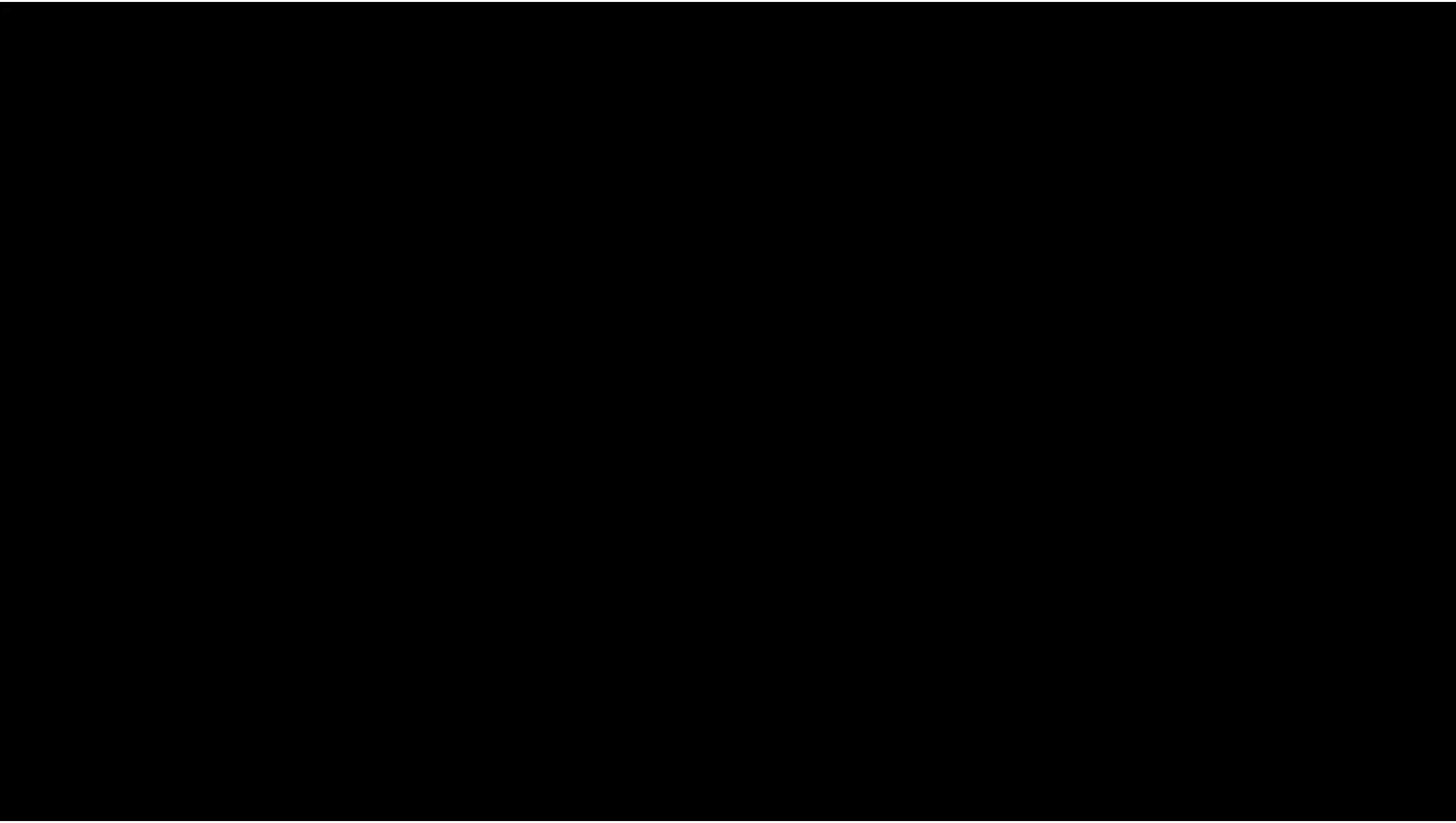

Reality Modeling
Demo_Descartes_Connect.dgn [3D - V8 DGN] - Bentley Descartes
File
Home
View
Attach
Analyze
Retouch
Extract
Deliver
Element Selection
Search Ribbon (F4)
Sign in
None
Default
Reality Model Presentation
Section Tools
Attach Tools
Fit View
Window Area
Element Selection
Solid By Profile
Move
Copy
Rotate
Coordinate System
Attributes
Primary
View
Selection
Placement
Manipulate
Geographic
Properties
To see properties something must be selected.
View 1, 3D Metric Design
View 2 - Top, 3D Metric Design
View 3 - Front, 3D Metric Design



Questions?

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