

Corridor Modeler

Design Manual Chapter 21 Automation Tools Originally Issued: 09-16-09 Revised: 04-11-19

This section provides guidance for using the new Corridor Modeler tool. It is a highly interactive 3D modeling tool used to design/generate a 3D model for a proposed roadway. The following instructional videos will assist in configuring the corridor modeler tool, building a roadway template, and building a roadway model.

Tool Configuration

The following figure shows the initial dialog box that will appear after starting the tool:

🕅 Corridor Modeli	ng		
<u>File</u>			
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DTM Geometry Plan Graphics	Freferences Station Lock: Slope Readout: Horizontal Chard Height: Vertical Chard Height:	Increment V 50% V 0.100000 0.050000	
	Template Library:	C:/Program Files/BentleyXM/Geopak/V8.9/bin/default	a Q

Part 1: Setting up Corridor Modeler preferences.

Play video: <u>cm_Preferences</u>

Part 2: Convert Tin to DTM.

Play video: <u>cm_dtm_conversion</u>

Part 3: Define Geometry. This video explains how to convert GPK information for use in Corridor Modeler.

Play video: <u>cm_GeometryRDP</u>

Part 4: Plan View Graphics. This video explains how to capture and store plan view graphical elements for use in Corridor Modeler.

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Play video: <u>cm_PlanGraphics</u>

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Build the Roadway Template

Define a point by vector and offset.

Play video: <u>cm_VectorOffset</u>

End Conditions

End conditions are the left and right outer end portions of the template that "seek" the ground.

End condition basics.

Play video: Ustn_CM_EndConditionBasics

End condition with ditches.

Play video: <u>Ustn_CM_EndConditionDitch</u>

End condition Barn-roofed Backslope.

Play video: Ustn_CM_Barnroof_Backslope_Benching

Point Controls

Point Controls are used to assign horizontal or vertical controls to template points, using alignments, features, and styles to override normal template point constraints.

Point control basics

Play video: Ustn CM Point Controls

Parametric Constraints

Parametric Constraints are used to override default constraints in the templates similar to point controls. Keyed in station ranges and values are used for the overrides.

Parametric Constraint basics.

Play video: Ustn_CM_ParametricConstraints

Managing a Template Features

Adding ramp tapers to your model.

Play video: <u>cm_AddTaper</u>

Create 3D Surface (DTM) and 3D Elements

This video describes the process for creating the 3D surface (DTM) file with Corridor Modeler. The elements generated with this process are the elements that can be used to create 3D surfaces for rendering and 3D review.

Play video: Ustn_CM_CreateSurface

Chronology of Changes to Design Manual Section: 021B-200 Corridor Modeler

6/11/2019	Revised
	Fixed hyperlinks for videos. Updated the header logo and text.
4/15/2010	Revised

Addind additional movies for point contraoins and updating existing movies