

21B-200

Corridor Modeler

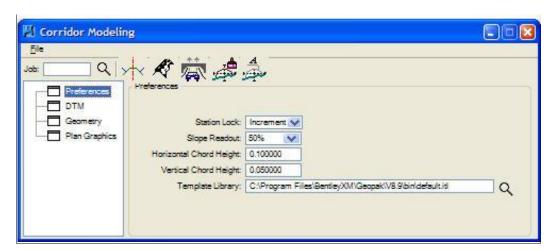
Design Manual Chapter 21 Automation Tools

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:



Part 1: Setting up Corridor Modeler preferences.

Play video: cm_Preferences

Part 2: Convert Tin to DTM.

Play video: cm dtm conversion

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

Play video: cm_GeometryRDP

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

Play video: cm_PlanGraphics

Build the Roadway Template

Define a point by vector and offset.

Play video: cm_VectorOffset

End Conditions

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

End condition basics.

Play video: <u>Ustn_CM_EndConditionBasics</u>

End condition with ditches.

Play video: Ustn_CM_EndConditionDitch

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: cm_AddTaper

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:

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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