# **Ditch and trenches Modeling**

Ernst van Baar : Application Engineer



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## **Ditches and trenches come in Many Shapes and Sizes**











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## Overview :

- Linear template
  - Create a channel that targets the active terrain model
  - Use the Apply Template tool to model the channel
- Single-Seek Cut Ditch
  - Create a single-seek cut ditch using a single seeking end condition
  - Use point controls to define special ditch sections
    - Horizontal Point Control
    - Vertical Point Control
- 2D and 3D Geometry
  - Create 3D by slope to target



## **Create a ditch**

- Ditch flowline is the template origin
- Template targets the active terrain model





## **Model Channel Using 3D Geometry**

- Use the Apply Linear Template command to model the channel.
- This allows insertion of a chosen template into the drawing relative to a linear element.







## **Model Channel Using 3D Geometry**

Configuration : User [examples]		
File		
Category	1	View/modify all configuration variables.
All (Alphabetical)		CIVIL_DEFAULT_BEST_FIT_UPPER Project
All (By Level)		CIVIL_DEFAULT_CURVE_STROKING Project
Cells		CIVIL_DEFAULT_LINEAR_STROKING Project Cancel
Clash Detection		CIVIL_DEFAULT_PROFILE_STROKING Project
Colors		CIVIL_DEFAULT_STATION_LOCK Project
Data Files		CIVIL_DEFAULTSETTINGS Appl
Database		
Design Applications		Edit Select Delete New
Design History		
Distributed DGN =		Expansion
DWG/DXF		10.0
		10.0
File Saving		
Levele		
Markup		
MDL Development		
OLE		
Operation		Description
Primary Search Paths		
Printing		
Protection		
Raster		
Reference		
Rendering/Images		
Security		
Seed Files 🔻		For more options, click on the category list at left.

 Using the Apply Linear Template command, the template is dropped at an interval defined by the following configuration variable:

### CIVIL\_DEFAULT\_LINEAR\_STROKING

- If this variable is undefined, the value defaults to 10.
- This variable is not used in Corridor Modeling.



# **Model Channel Using Corridor Modeling**



The **Create Corridor** tool allows for insertion of a chosen template into the drawing relative to a linear element.

- Template is dropped at a specified interval
- Allows for enhanced functionality

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## **Use a Closed Shape with Material Defined**

#### Add a closed shaped component to the channel template:

- Allows for enhanced visualization
- Allows for accurate quantity calculations









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## **Use a Point Control to Define a Special Ditch**

#### Workflow:

- Use the Plan By 3D Element tool to define 2D geometry which will become the special ditch profile
- Create "special ditch" profile
- Create corridor point control using linear geometry





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