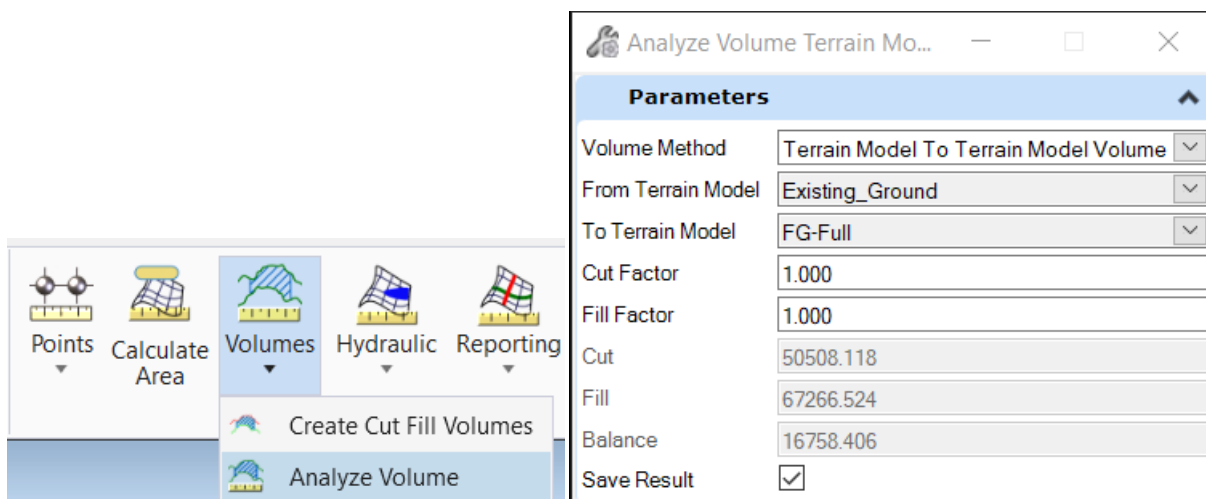


Determining Cut/Fill Volumes within a 2D boundary

This method is helpful for determining cut/fill volumes within a defined 2D area (construction pay areas, floodplains, etc.)

1. Create 2D file from seed
2. Reference in DGN files for OG terrain, FG terrain, and floodplain boundary (set nesting depth deep enough to expose the published terrain models)
3. Set the OG terrain as Active to create the Default-3D model
4. From the Terrain tab, select Terrain > Volumes > Analyze Volume



From the prompts, select:

- Volume Method – Terrain Model to Terrain Model
- From Terrain Model – select the **OG surface**¹
- To Terrain Model – select the FG surface
- Apply cut/fill factors as desired
- At the prompt “Boundary Reset For None”, select the floodplain boundary shape
- If “Save Result” was toggled off originally in the dialog box, click Yes when prompted
- For “Datapoint to Place Results”, click in the drawing where to place the output text

Notes:

- 1) ***Selecting the OG surface as the “To” terrain model instead of the “From” terrain model will result in the cut/fill volumes being reversed in the output!***
- 2) ***Double-clicking on the text node placed will open up the text editor and allow for copying/pasting the results into another file.***

- 3) **The units for the results are based on the Design File Settings. The default setting of Feet results in an output of cubic feet. To change to the results to cubic yards, set the Master Units from Feet to Yards prior to executing the command.**

The image shows a 'Design File Settings' dialog box with a sidebar on the left and a main content area on the right. The sidebar contains a list of categories: Category, Active Angle, Active Scale, Angle Readout, Axis, Civil Formatting, Color, Fence, Grid, Isometric, Locks, Snaps, Stream, Views, and Working Units. 'Working Units' is selected and highlighted in blue. The main content area is divided into three sections: 'Linear Units', 'Advanced Settings', and 'Focus Item Description'. The 'Linear Units' section has four dropdown menus: 'Format' (set to MU), 'Master Unit' (set to Yards), 'Sub Unit' (set to Inches), and 'Accuracy' (set to 0.123). To the right of these are two text input fields for 'Label', with 'yd' in the first and '"' in the second. A 'Custom' button is located below these fields. The 'Advanced Settings' section contains four lines of text: 'Resolution: 10000 per Distance Foot', 'Working Area: 1.70591E+08 Miles', 'Solids Area: 10 Miles', and 'Solids Accuracy: 5.28E-07 Feet'. An 'Edit' button is positioned below this section. The 'Focus Item Description' section contains a text box with the text: 'Specifies the largest measuring unit, for example, Meters or Feet used in the design.' At the bottom right of the dialog are 'OK' and 'Cancel' buttons.

Design File Settings

Category

Active Angle

Active Scale

Angle Readout

Axis

Civil Formatting

Color

Fence

Grid

Isometric

Locks

Snaps

Stream

Views

Working Units

Linear Units

Format: MU

Master Unit: Yards Label: yd

Sub Unit: Inches Label: "

Accuracy: 0.123

Custom

Advanced Settings

Resolution: 10000 per Distance Foot

Working Area: 1.70591E+08 Miles

Solids Area: 10 Miles

Solids Accuracy: 5.28E-07 Feet

Edit

Focus Item Description

Specifies the largest measuring unit, for example, Meters or Feet used in the design.

OK Cancel