

Overview: Use the NRCS Points to Profile tool to create a profile and profile view from surveyed points without the need to create a surface. The Points to Profile tool creates an alignment and a profile between selected points. The created profile is static. The user can create a profile view for displaying the profile.

Software: AutoCAD Civil 3D 2016, Civil 3D Workspace, NRCS C3D 2016 template


Notation: <input type="button" value="Button to Press"/> <i>Displayed Text</i> Icon <u>Action</u> {Text to Enter} <u>Menu Item</u> ...
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Prerequisite

Follow the instructions for *Importing Survey Coordinate Point Files*.

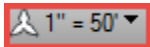

[If you want to prevent a surface from being created, checkmark *Add Points to Point Group* and select the *EX – Not For Surface* point group when importing points.]

Create Alignment and Profile

1. Click *NRCS... NRCS C3D... Points to Profile* 
 2. Leave Unchecked *Create 3D Polyline only*
 3. Click *Select Multiple Points*
 4. Click the button.
 5. Select points in CAD. Press Enter when done with the CAD selection.
- The order that the points appear in the list will be how the alignment is created. Clicking on a column heading will re-sort them. This works well if the points were field surveyed in a sequential order along the alignment
6. Input an *Alignment name*. E.g {Pipeline Main 1}
 7. Input the *Alignment layer* as {1.C3D.Alin.Pipeline}
 8. Input the *Start Station* value for beginning the alignment stationing E.g. {1000}
 9. Checkmark *Create Profile*
 10. Click . Click

Note: Editing the alignment vertices will NOT update the profile.

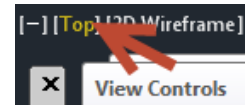
Create Profile Views

- 1) Decide on the horizontal scale that you want for the Profile Views and set the drawing annotation Scale. 
Based on the horizontal scale, here is the reach length that fits into a viewport.
700' (1"=50'), 1400' (1"=100'), 2800' (1"=200')
- 2) Click *Home... Profile & Section Views... Create Multiple Profile Views...* 
(or use *Create Profile View* if you need only one profile view.)
- 3) Set *Select alignment* correctly E.g. (*Pipeline Main 1*)
- 4) Set the Profile View style to the Horizontal/Vertical scaling desired. E.g. (*A50Hx5V*)
Click
- 5) Select *Automatic* and input the length of each view. E.g (*700*) for a 1"=50' scale.
- 6) Click
- 7) Select *Automatic*. Click
- 8) Set the *Style* column to (*Original Ground*).

- 9) Set the Labels column for the planned waterway to *Finished*. This places elevations every 100' and grades on each segment along the profile.
- 10) Click Create Profile Views
- 11) Click a location in the drawing for the profiles to appear.
- 12) To edit the Profile labels click a label and click *Labels... Modify... Edit Label Group*. *Increments* can be changed for the *Major Stations*. *Weeding* can be changed for the *Lines – Grade (%)*. Click OK.
- 13) Individual profile labels can be removed by using Ctrl+Click to select one profile label in the Profile Grid view. Then press Delete.

Create a named view in order to find the Profile View easily later

- 14) Zoom to a full view of the profile view that you just created.
- 15) Click the *View Controls... View Manager... New...*
- 16) Input a View Name. E.g {*Pipeline Main 1- Profile*}
- 17) On the View Properties tab Uncheckmark *Save layer snapshot with view*.
- 18) Click OK.



Refer to the document **Profiles & Sections** for labeling and modifying profile views.
Refer to the document **Profiles Creation & Editing** for creating planned profiles.