

Importing Survey Coordinate Point Files

Overview: Import survey point coordinates from a text file into CAD. Linework is not automatically created. The display of the points is controlled by point group sort order. (Refer to the separate instructions for LiDAR point files.)
Exporting point coordinates is also covered.

Software: AutoCAD Civil 3D 2018, NRCS C3D 2018 template V1.0 (6/18/2018)



Notation: Button to Press *Displayed Text* **Icon** Action {Text to Enter} Menu Item...

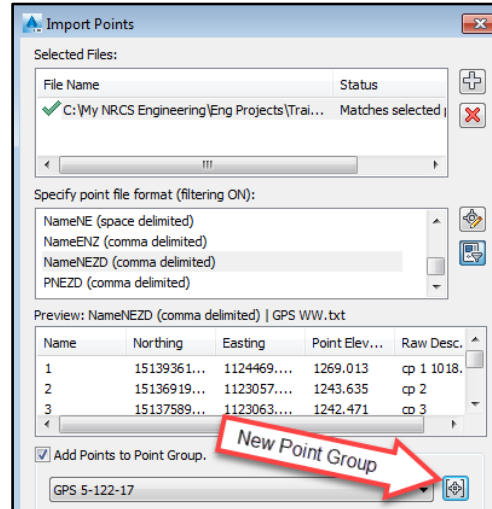
Importing a Survey from a File

1. From Civil3D *Insert... Import...* Click  *Points from File...* to bring up the Import Points screen

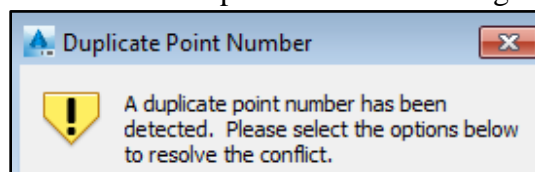
What Format is my file?	
Filename	Format
.csv (From Trimble Access)	NameNEZD (Comma Delimited) [Pt Name, North, East, Elev, Description]
.txt (From other sources)	Check with the source to determine the format.

Note: Pt "Name" can be Alpha/Numeric. Pt "Number" can be only Numeric

2. Find the data file by Clicking the **File Selector** , set *Files of Type = All Files (*.*)*, then browse to the survey file. E.g. {P:\Eng Projects\Common\2019\Survey\BC26.csv} Click Open.
3. Select the Format to *NameNEZD(Comma Delimited)*
4. Leave the Advance Options boxes unchecked.
5. Recommended steps if multiple surveys might be imported into the drawing:
 - a. Checkmark Add Points to Point Group.
 - b. Click  to allow a new Point Group to be created.
 - c. Input a descriptive name that might be helpful for managing the points if another survey is imported. (e.g. GPS 5-22-17). Click OK.
6. Click OK at the Import Points box.

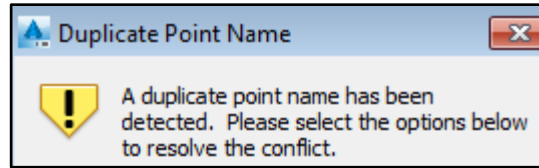


7. If existing points have identical Point Numbers to those being imported then a warning box will appear. If these new points are not true duplicates of the existing points then use the following:
 - a. Resolution = *Use Next Point Number*
 - b. Apply to all = Checked
 - c. Click OK



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8. If existing points have identical Point Names to those being imported then a warning box will appear. If these new points are not true duplicates of the existing points then use the following:
 - a. Resolution = *Counter*
 - b. Apply to all = Checkmarked
 - c. Click
9. The survey points are then imported into the drawing.
10. Make sure all Point Groups are updated. In Toolspace> Prospector... Right-click *Point Groups*.. Click *Update*
11. Zoom to the survey points. In Toolspace> Prospector... Right-click *Points*... Click *Zoom to*



Reviewing Points

12. In Toolspace> Prospector... Right-click *Points*... Click *Edit Points*... to bring up the Point Editor Panorama with the entire list of points in the project.
13. The sort order of the list is changed by clicking on the column header names. Sort by Point Elevation and verify that elevations are within the expected range.
14. Click dismiss to close the Point Editor Panorama.

Editing Points in a Group

15. In Toolspace> Prospector... *Point Groups*... Right-click *EX- Misc*... Click *Edit Points*... to open the Point Editor Panorama with only the Miscellaneous points.
16. Individual raw descriptions can be change by double-clicking into the cell and inputting the correct description. Press Enter to accept the change.
17. Descriptions for Multiple points can be changed all at once.
 - a. In the point editor use Ctrl+ Click to select the points to be edited.
 - b. Right-click on the *Raw Description* column header and click *Edit*.
 - c. The first selected point will have its Description cell ready for input. Inter the new description and press Enter.
18. Click dismiss to close the Point Editor Panorama.
19. After editing any description make sure all Point Groups are updated. In Toolspace> Prospector... Right-click *Point Groups*.. Click *Update*

Editing the “Comment1” (User Defined Property –Optional)

The “Comment1” user defined property is a place to hold information for display in a Point Table. A typical use would be a benchmark description.

20. Select a Survey Point in the CAD drawing.
21. Right-click *Properties*
22. Scroll down to the *Comment1* cell and inter the information. Press .

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Locking Points

Lock all points so that their location, elevation, and description cannot be changed

23. In Toolspace> Prospector... Right-click *Points...* Click *Lock...*

Controlling Display of Points using Point Group Sort Order

24. In Toolspace> Prospector... Right-click *Point Groups..* Click *Properties*

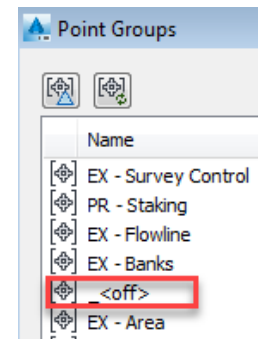
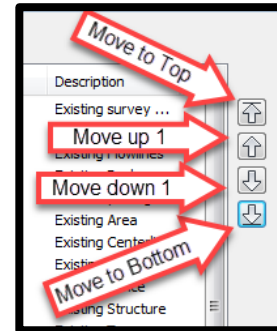
25. If a new Point Group was created for the imported survey it will appear at the top of the Point Groups sort order list. Select it (e.g. *GPS 5-22-17*) and click the *Move to bottom* button.

26. Note: Display of points is controlled by the first group on the list that a point is in. All points are in the *_<off>* point group which has its display set to be turned off. If the *_<off>* group is highest on the list no points will be displayed.

27. Move the *_<off>* group up or down the list to control which points are display.

Based on the location of the *_<off>* point group in the example shown, only Survey Control Points, Staking Points, Flowlines, and Bank shots would be displayed.

28. Click **OK** to make the sort order to take effect.



Changing the Displayed Labels of Point Groups (Optional)

29. In Toolspace> Prospector... *Point Groups...* Right-click *EX-Survey Control...* Click *Properties...*



30. Click *Information...* Pulldown the *Point label style* to *North East Name Elev Desc*

31. Click **OK**

Placing a Points Table into CAD- (Optional)

32. Click *Annotate...Labels & Tables...Add Tables...Add Point Table...*

33. Pulldown the Table Style to: *NameNEZD* or *NameNEZD with Comments*. “*Masked Background*” is an option.

34. Select the points using either the Point Group selection tool  or the Point selection tool .

Point Table					
Pt. Name	Northing	Easting	Elevation	Description	Comments
2	15136919.93	1123057.22	1243.64	cp 2	2x2 hub
3	15137589.36	1123063.21	1242.47	cp 3	

35. Click **OK** and click the location in CAD to place the table.

36. To change the Table Style, select the table, then click *Table... Modify... Table Properties...* and select a different Table style from the list.

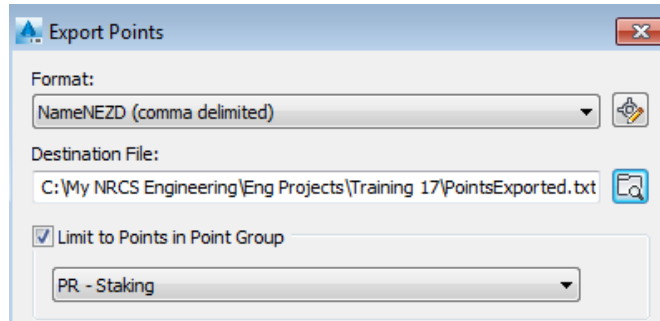
37. Click **OK**. Press **ESC** when done.

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Exporting Survey Points to file- (Optional)

Without headings:

38. In Toolspace> Prospector... *Point Groups...* Right-click *PR – Staking ...* Click *Export Points*.
39. Set *Format* to *NameNEZD*.
40. Checkmark *Limit to Point in Pt Group*. Set *Point Group* to *PR-Staking*.
41. Browse to a location for saving the output file and enter a filename. Click Open.
42. Click OK



```

1,20.0000,0.0000,1092.3820,IP 1
2,53.8756,17.9646,1095.9600,BM 1
18,-99.9870,0.0000,1086.9720,PIN *1
19,-199.9172,0.1279,1083.6730,PIN *2
113,53.9021,17.9786,1095.9290,BM 1
182,-721.2202,-47.1929,1084.4060,IP 2
183,-725.6905,-120.2933,1083.1470,TP 2
228,-725.6777,-120.0832,1083.1480,TP 2
    
```

With Headings:

43. In Toolspace> Toolbox... *Reports Manager.. Points...* Right Click *Points_in_CSV...* Click *Execute*
44. Checkmark the Point Groups to be exported. E.g. {*PR – Staking*}
45. Click OK
46. Microsoft Excel will open up the file.
47. Prepare, print, and save the file.

	A	B	C	D	E
1	Point Name	Northing (ft)	Easting (ft)	Elevation (ft)	Description
2					
3	1	20	0	1092.382	IP 1
4					
5	2	53.876	17.965	1095.96	BM 1
6					