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Eagle Point Solution to a Frequently Asked Question

How to Create a Profile

Summary:

This document explains the process of creating a profile, placing a grid on the profile, and plotting the profile in paperspace.

Product: Eagle Point Software™ 2002

Release: 2002 Q4 or 2.4.0 and greater

Platform: All

Related documents:

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As always, should you have any questions regarding any phase of installation, contact Eagle Point Technical Assistance at (800) 477-0909.

Notation Method

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

Creating the Reference Location for a Profile in the Drawing

1. From AutoCAD, click NRCS/EP... Profiles/Sections... Setup Profile Coordinate System...
2. Click the **New Profile Coordinate System** icon.
3. Input a Profile name. E.g. {Centerline Dam}.
4. Click into the X box. Click the **Pick In CAD** button.
5. Select a location in the drawing that will not overlap a profile with the plan view part of the drawing.
6. Click into the Station box. Input a Stationing that you want to correspond to this reference location in the drawing. E.g. {0}. Press Tab.
7. Input an elevation that you want to correspond to this reference location in the drawing. E.g. {1100}. Press Tab.
8. Click OK.
9. Click Close.

Creating the Profile in the Drawing

1. Decide the horizontal and vertical scales that you want.
2. From AutoCAD, click NRCS/EP... Plot Scale...
3. Input the horizontal and vertical scales. E.g. Horz = {40}, Vert = {10}.
10. Click OK.
4. Determine the Reference station of the left end of the Centerline alignment line. E.g. {-275}.
5. From AutoCAD, click View... Named Views... New...
6. Input a view name. E.g. {Dam}. Click OK.
7. From AutoCAD, click NRCS/EP... Profiles/Sections... Profile from Surface Model...
8. Highlight the Surface Models that you want profiles of. *Ognd, Embk*.
9. Click OK.

10. Select the Centerline alignment line.
11. Select the same line.
12. Click near the left end of the line.
13. Input the beginning stationing of the line. E.g. {-270}. Click **OK**.
14. Locate the Profile view within the drawing and window in around it.
15. From AutoCAD, click *View... Named Views... New....*
16. Input a view name. E.g. {CL dam profile}. Click **OK**.
17. Select the Profile lines and change their layer property to the type of profile that it represents. E.g. *C.Prof.Ognd* would be used for Original Ground profiles.

Placing a Grid on the Profiles

1. From AutoCAD, click *NRCS/EP... Profiles/Sections...Grid....*
2. Check Paper Units and input the grid dimensions for the paper. E.g. For Grids that fill the full title block:
For 11x17: Length={14}, Height={10}, Area Height ={.25}, Elev Width ={.5}.
For 22x34: Length={28}, Height={20}, Area Height ={0.5}, Elev Width={1}.
3. If used for 11x17: click the **CAD settings icon** and change the Datum Elev and Stations Text size to {0.12} and click **Apply** for each one.
For 22x34: Datum Elev={.24}, Stations={.24}.
4. Click **OK**.
5. Input desired Station Interval labeling. E.g. {40} and input desired Elevation Interval labeling. E.g. {10}.
6. Click **OK**.
7. Click to place the outline of the Grid to enclose the Profile lines.
8. If Grid is not the right size, select it and press Delete.

Plotting the Profiles in Paperspace

1. In AutoCAD, right click on a **Layout tab** and click *New Layout....*
2. Click on any used layout tab **Layout tab**
3. If this Layout has not been set up yet the Page Setup will appear. Otherwise right click the **Layout1 Tab** and click **Page Setup**.
4. Click **Plot Device** and select the printer/plotter that you will use. E.g. {HP 5000}.
5. Pull down Plot style table to either *Monochrome.ctb* for B&W plotting or to *NRCS IA BWgray.ctb* for gray plotting of gray lines.
6. Click **Layout Settings** and select the paper size. E.g. {11 x 17}. Plot Scale is typically left at 1:1. (Use 1:2 when plotting a 22x34 drawing to an 11x17 printer).
7. Click **OK**.
8. Check the AutoCAD status bar to make sure that *PAPER* is displayed. If *MODEL* appears click once to make *PAPER* appear.
9. Set the current layer to 0.
10. From AutoCAD, click *Insert... Block...Browse...*
11. Browse to the desired title block. E.g. {C:\My Projects\Border and Title Blocks\std17base.dwg}. Highlight the filename. Click **Open**.
12. With none of the items checked click **OK**.
13. Right click the **Layout1 Tab** and click **Page Setup**.
14. Click Plot area *Extents* and checkmark. Plot offset *Center the plot*.
15. Click **OK**.
16. Select the viewport border. Click *Modify... Properties....*
17. Pull down the layer name to become 2.Vprt.
18. Click a grip of the viewport to resize the viewport within the area of the paper & title block.
19. Double click inside of the viewport. *PAPER* will switch to *MODEL*.
20. Click AutoCAD *View... Named Views....*

21. Highlight the profile named view that you want to appear in this viewport.
E.g. *CL dam profile*. Click **Set Current**.
22. Click **OK**.
23. Double click outside of the viewport. *MODEL* status will switch to *PAPER*.
24. Select the viewport border. Click *Modify... Properties...*
25. Input the Horizontal Scale of the profile into the custom scale box as a {1/xxx} Enter. E.g. Input 40 scale as {1/40} Enter.
26. Double click inside of the viewport. *PAPER* status will switch to *MODEL*.
27. Without zooming in or out, press the mouse wheel down to pan the profile until it fits correctly in the title block.
28. Double click outside of the viewport. *MODEL* status will switch to *PAPER*
29. Select the viewport border. Click *Modify... Properties...*
30. Verify that the scale is still correct.
31. Pull down the display locked to Yes. With Display Locked you cannot change the scale of the viewport or pan the viewport. You can still resize the Viewport.
32. Right click the **Layout1 Tab** and click **Plot...**.
33. Click **Full Preview** to review the planned plot.
34. Press Enter to return to the Plot screen.
35. Click **OK** to Plot.

Adding an Extra Viewport to a Layout

1. Click on the **Layout Tab** where you want to add a viewport.
2. Check the AutoCAD status bar to make sure that *PAPER* is displayed. If *MODEL* appears click once to make *PAPER* appear.
3. From AutoCAD, click *View... Viewports... 1 Viewport...*
4. Click in the layout to specify the lower left corner of the new viewport.
5. Click in the layout to specify the upper right corner of the new viewport.
6. Select the viewport border. Click *Modify... Properties...*
7. Pull down the layer name to become *2.Vprt*.

Setting Fine Gridlines to Grayscale

1. In AutoCAD 2000i, click on the **Layer Manager Icon**.
2. Click **Restore State...**
3. Highlight *Gridlines Grayscale*
4. Click **Restore**
5. Click **OK** close out of Layer Manager.

Note: Using the NRCS IA BWgray.ctb Plot style table to have gray lines plotted as gray.

OR

1. In AutoCAD 2000 with Express Tools, switch to the **Model Tab**.
2. Click *Express... Layers... Layer Manager...*
3. Highlight *Gridlines Grayscale*
4. Click **Restore**.
5. Click **Close**.

Note: Use the NRCS IA BWgray.ctb Plot style table to have gray lines plotted as gray.

Submitted by Norman Friedrich.