

Drawing Points From CRD Files and Working With Points

The following instructions will guide you through manually entering points. Carlson modules are displayed as {**Survey**}, main menus are displayed as [**Points**], and submenus and menu commands are displayed as <**Edit Points**>.

- 1) Open Carlson Software, create and setup a new drawing. Save Drawing.
- 2) Set a coordinate file as current that was downloaded or from another job:
{any Carlson Module} → [Points] → <Set CooRDinate File>
- 3) In the existing Tab, locate the desired CRD file (note: you can pull down the Recent Folders list and select the landowner folder)
- 4) Double click on the desired CRD file
- 5) Perform a rough scale check: **[Points] → <List Points>**
 - a. In the dialogue box, click the “**All**” button
 - b. Check the “**Report Coordinate Range**” box
- 6) Click “**OK**”
- 7) Scroll to the bottom of the points list to find the min and max ranges for the X and Y coordinates. Take the difference between the maximum and minimum for both the X and Y coordinates. Divide those numbers by inches of usable paper for the drawing size to find the rough scale to use. Round up to the next standard scale (i.e. 28.5:1 → 30:1)
 - a. ANSI A – 7.5” x 9.25”
 - b. ANSI B – 15” x 10”
 - c. ARCH C – 21” x 16”
 - d. ANSI D – 30” x 20”
 - e. ARCH D – 32” x 22”
- 8) Change the drawing symbol plot size and text plot size: **{any Carlson Module} → [Settings] → <Drawing Setup>**
- 9) Enter the scale calculated above into the “**Horizontal Scale**” in the Drawing Setup window. Do not change the Symbol Plot Size and Text Plot Size from 0.125! The Drawing Units should have changed.
- 10) Click “**OK**” when done
- 11) Inspect Point Defaults: **[Points] → <Point Defaults>**
 - a. Check the following settings:
 - i. **SPT10** is the symbol name
 - ii. Layer for Points: **PNT – Pnts**
 - iii. Separate Layers: **None**
 - b. Click **<OK>** to exit point defaults

- 12) Draw the points: **[Points] → <Draw – Locate Points>**
 - a. Set the number of decimal places: **0.00**
 - b. Click **“Draw All”** to draw all the points or **“Draw Range”** to enter a range of points to draw
- 13) The points should now be drawn. Note that the points are inserted into the drawing as blocks and the block is on the *“PNT – Pnts”* layer, which can be frozen. Also the elevation, description, and number are on a separate layer which can be frozen to unclutter the drawing.

Rotating Views and Points

- 14) Zoom/pan so that all of the points are in view
- 15) Use one of the **“Twist Screen”** functions to rotate the points on the screen
 - a. **Standard** – rotates points using known angle in decimal degree rotate or screen pick
 - b. **Line, Polyline, or Text** – aligns object to principal axis
 - c. **Surveyor** – rotates points using known angle in degrees, minutes, seconds (ddd.mmss)
- 16) Use the twist screen command:
 - a. **{any Carlson Module} → [View] → <Twist Screen> → <Standard>**
 - i. Enter the angle or screen pick
 - b. **{any Carlson Module} → [View] → <Twist Screen> → <Line, Polyline, or Text>**
 - i. Select the object to align to
 - c. **{any Carlson Module} → [View] → <Twist Screen> → <Surveyor>**
 - i. Enter the angle
- 17) The points should be rotated on the screen as well as the coordinate system.
- 18) Rotate the point attributes: **[Points] → <Twist Point Attributes>**
 - a. Press **“Enter”** for Twist Screen
 - b. Press **“Enter”** for 0.0 degrees relative to the current screen twist
 - c. Type **“All”** for objects and press **“Enter”**
- 19) The points should now be aligned to the current twist screen.
- 20) Rotate text that is already drawn: **[Edit] → <Text> → <Rotate Text>**
 - a. Press **“Enter”** for Twist Screen
 - b. Press **“Enter”** for 0.0 degrees relative to the current screen twist
 - c. Type **“S”** for Screen
 - d. Select the text to rotate and press **“Enter”**

- 21) To draw new objects rotated to one of the principal sides of the paper, use the **Ortho (F8)** drawing aid.
- 22) To flip text that is upside down from the twist screen: **[Edit] → <Text> → <Flip Text>**
 - a. Select the text to flip and press “**Enter**”
- 23) It may be necessary to twist the individual viewports to match the twist screen. If your viewport is not displaying the objects at the correct rotation, it needs to be twisted.
 - a. Go into paperspace and double click in the viewport that is not showing the objects as rotated. The viewport should turn to a heavy line.
 - b. Twist the viewport using the same function used above: **[View] → <Twist Screen> → <function>**
 - c. Double click outside of the viewport or press the “**MODEL**” button below the command line.
- 24) If a new viewport is rotated and you want to undo the rotation, do the following:
 - a. Go into paperspace and double click in the viewport that needs the rotation removed. The viewport should turn to a heavy line.
 - b. Twist the viewport using the same function used above: **[View] → <Twist Screen> → <Restore Due North>**
 - c. Double click outside of the viewport or press the “**MODEL**” button below the command line.
 - d. This can also be done in model space to remove the rotation from the drawing