Drawing Points From CRD Files and Working With Points

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

1) Open SurvCADD, create and setup a new drawing. Save Drawing.
2) Set a coordinate file as current that was downloaded or from another job: **{any SurvCADD 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 SurvCADD Module} → [Inq - Set] → <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 SurvCADD Module} → [View] → <Twist Screen> → <Standard>**
        i. Enter the angle or screen pick
    b. **{any SurvCADD Module} → [View] → <Twist Screen> → <Line, Polyline, or Text>**
        i. Select the object to align to
    c. **{any SurvCADD 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. 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