



SendTo Macros for As-Built for AutoCAD (2)

Concepts and Procedures

Macro: ROTREC

Concept: allows user to draw a rectangle at any angle parallel to the current UCS plane

Procedure

- Verify the XY plane of current UCS is coplanar with your intended rectangle
- To modify UCS use UCS3P macro to change; Select 3 points for new UCS (origin, x-axis, y-axis) in the As-Built Modeler scan view
- Select ROT RECT macro
 - Click to select first corner of rectangle
 - Click a point along the intended edge to define the angle of rotation
 - Click 3rd point to define the opposite corner from the first point which determines the length and width of the rectangle

Macro: EXT L

Concept: begins the EXTRUDE command in AutoCAD on the last object created

Procedure

- Select EXT L macro
- In a scan view select a point for extrusion height

Macro Combination

- Select UCS3P macro and create new UCS (or use WCS if applicable)
- Select ROT RECT macro to draw rectangular face of object
- Select EXT L macro to extrude rectangle
- Select a point for the extrusion height in the As-Built Modeler scan view

Macro: Z O L

Concept: zooms to the last object created in the drawing

Procedure

- Select Z O L macro button

Macro Combination to find location in AutoCAD

- Select 3D Polyline macro
- Select two points in the As-Built Modeler scan view
- Select Z O L macro to zoom to polyline

Macro: CDS / LCDS

Concept: used to create 3D cylindrical, symmetrical objects (vessels, cones, etc.)

Procedure

- Click CDS macro button
- Create a 3 point circle: in the As-Built Modeler scan view click 3 points on a circle (this step creates a UCS for alignment so be careful with selection)
 - Setting the UCS before this command and putting the 3pt circle command into 2D mode usually produces a better result
- Starting from one end of the object, click points along its length, especially at any changes in diameter (this steps creates lofting cross-sections parallel to original)
- Once the other end is reached, click to select the LCDS macro button to loft all of the circles into one solid
- Complete the loft options in the AutoCAD command prompt to finalize the shape

Use following settings: Send Mode: SendToAutoCAD/BricsCAD Wait: 50-10-100-200.

Macro: CURV

Concept: Curves the last line added to the drawing

Procedure

- Draw a polyline
- Click the CURV macro button to smoothen the polyline

Macro: EDGE

Concept: Creates a line by projecting a point from the face of an object to a chosen elevation (good for curbs and areas where a floor or ceiling line may have an obstruction)

Procedure

The example below is for finding the bottom of a curb. Set UCS to be on street level

- In the scan view, select your first point on the face of the curb then select a second point on street level to project the first point to that elevation.
- Continue picking points down the length of the curb picking a point on the face, then an elevation until you have completed the entire length
- Select more points if the curb makes a curve

Macro: SET SIZE/TRANSFORM

Concept: Combination used to create tubing, hydraulic lines, hoses, conduit, etc.

Procedure

- Click the SET SIZE macro button
 - In the scan view click 3 points along the visible seam of the hose
- Click the 3D Polyline macro button
 - Starting at the seam in last step, click points on the hose, in the center of the hose until you reach the other end
- Click the CURV macro button to curve that polyline
- Click the TRANSFORM macro button to extrude the circle along the path of the polyline
- Change your Visual Style in CAD so that you can see the solid and compare to the cloud