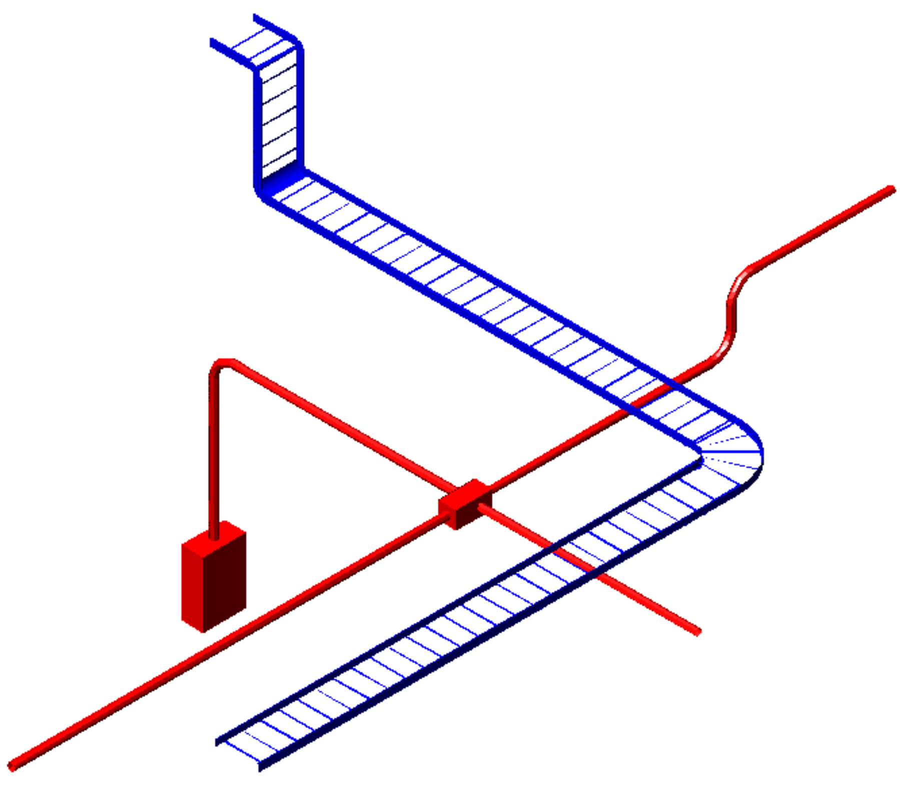
Welcome To CADPIPE 3D Electrical



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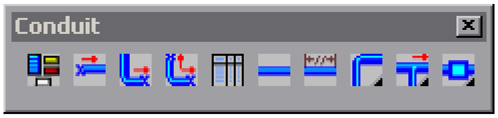
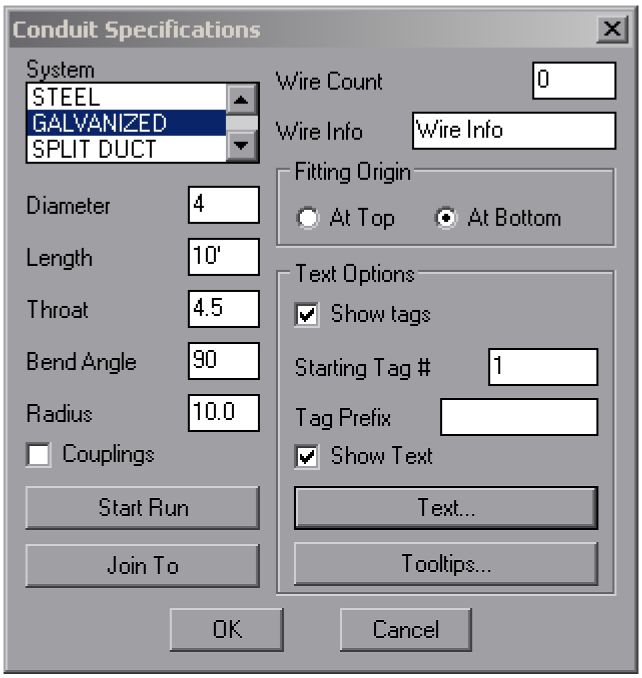
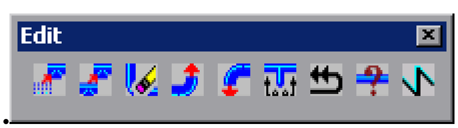
Chapter 1: Conduit



1. Starting from the left the toolbars are Configure, Start Run, Join To, Auto Route, Reports, Straight, Straight Cut-To-Length, Bends, Tees and Junction Box.
2. Getting started, select the Configure toolbar.



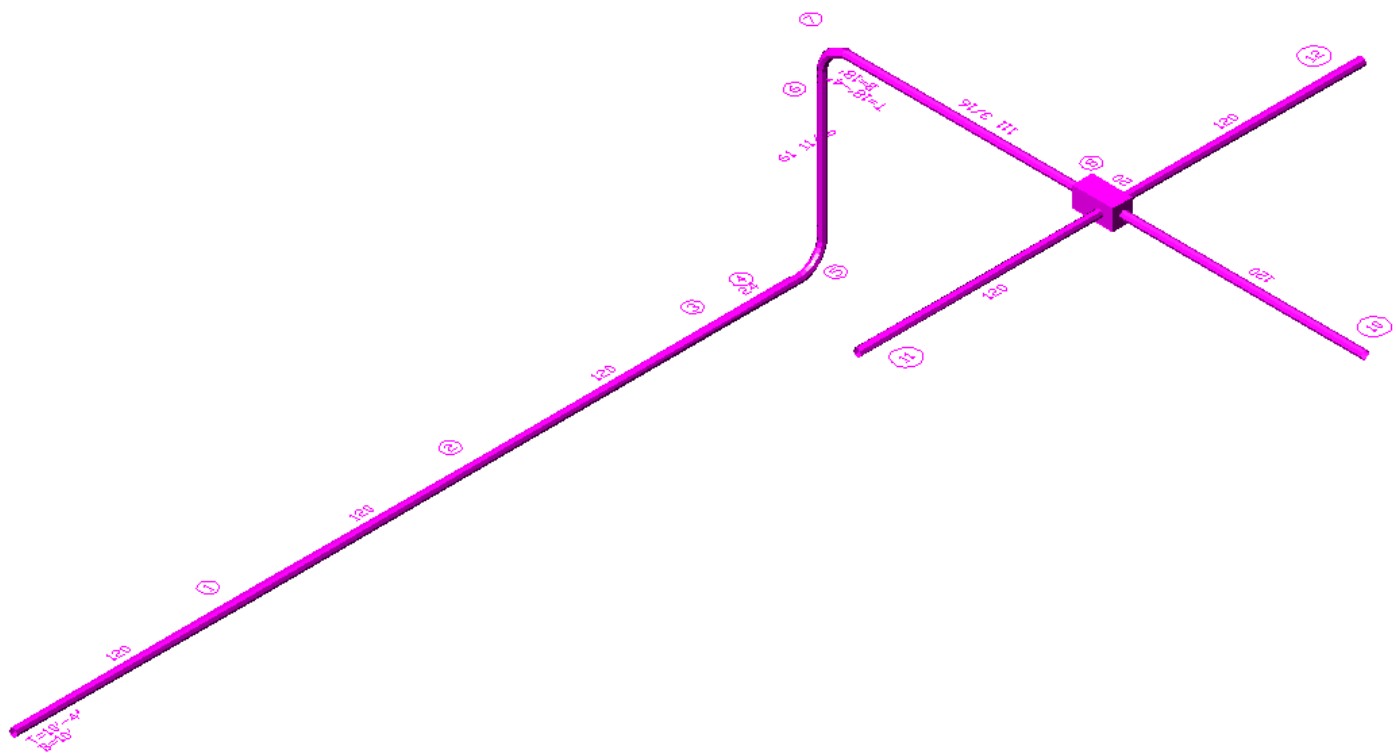
3. Select the system, set the diameter, length, fitting origin and the text size for model space, select OK.
4. Select Start Run from the toolbar, on the Command Line <10’> enter your Z elevation and hit enter.
   From Point, type in your X and Y coordinates or pick a point.
   Angle, type in an angle or move your cursor in the direction that you want your conduit to go.
5. Select Straight from the toolbar and hit OK, a length of conduit is placed. You can place one at a time or select Straight Cut-to-Length from the toolbar and pull your cursor to where you want to go or type in a length (example: 22’) and hit enter, the conduit will stop at 22’.



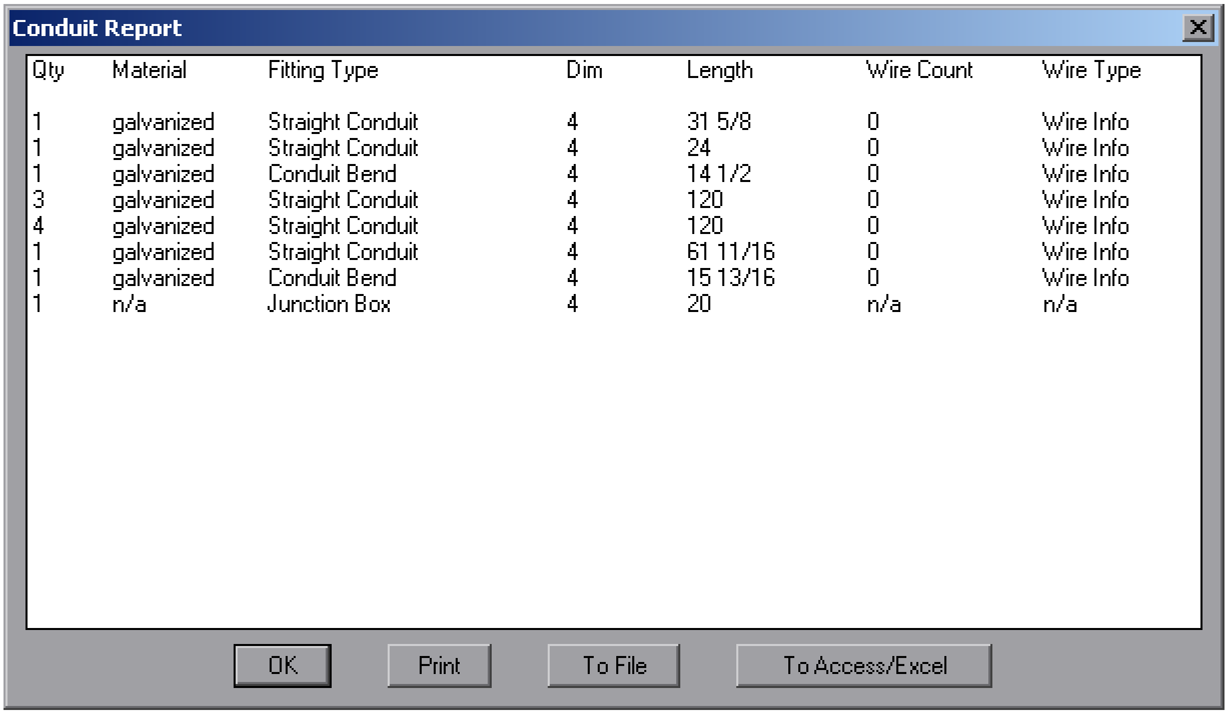
6. From the Edit Toolbar select Turn Up.
   From the Conduit Toolbar select Bend and hit OK, the riser mode dialog box comes up, you can

roll to the right or left but just select 90 degrees and an elbow is placed in the verticle.

7. From the Conduit Toolbar select Auto-Route, make sure rubberband is selected and hit OK, on the Command Line: Final Elevation, type in the elevation that you want the conduit to go up to, pick the angle you want the conduit to go.
8. From the Conduit Toolbar select Junction Box, you can change the sizes and hit OK, after the junction box is placed you can select the Join To command from the Conduit Toolbar and join to either one of the three remaining sides of the junction box and place conduit.



9. From the Conduit Toolbar select Reports, select All Conduit and hit OK, your report is processed and you can either print it or send it to Excel.

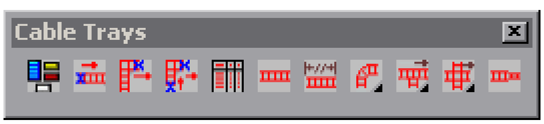


Conduit Report

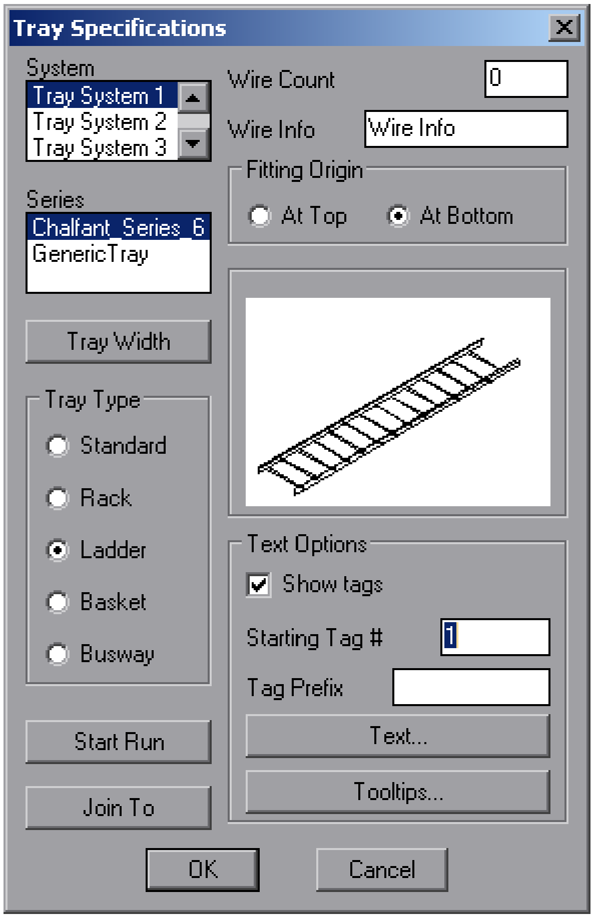
Qty	Material	Fitting Type	Dim	Length	Wire Count	Wire Type
1	galvanized	Straight Conduit	4	31 5/8	0	Wire Info
1	galvanized	Straight Conduit	4	24	0	Wire Info
1	galvanized	Conduit Bend	4	14 1/2	0	Wire Info
3	galvanized	Straight Conduit	4	120	0	Wire Info
4	galvanized	Straight Conduit	4	120	0	Wire Info
1	galvanized	Straight Conduit	4	61 11/16	0	Wire Info
1	galvanized	Conduit Bend	4	15 13/16	0	Wire Info
1	n/a	Junction Box	4	20	n/a	n/a

OK Print To File To Access/Excel

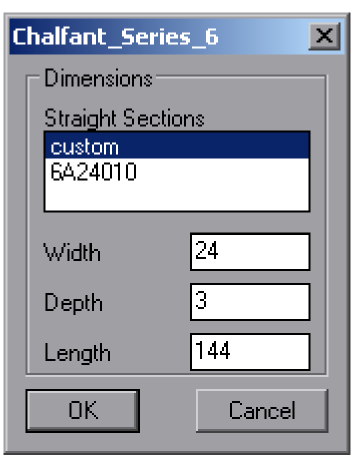
Chapter 2: Cable Trays



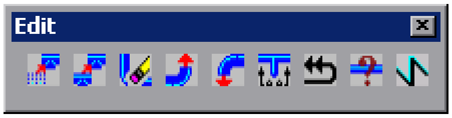
1. **Starting from the left the toolbars are Configure, Start Run, Join To, Auto Route, Reports, Straight, Straight Cut-To-Length, Elbows, Tees, Crosses and Transition.**
2. **Getting started, select the Configure toolbar.**



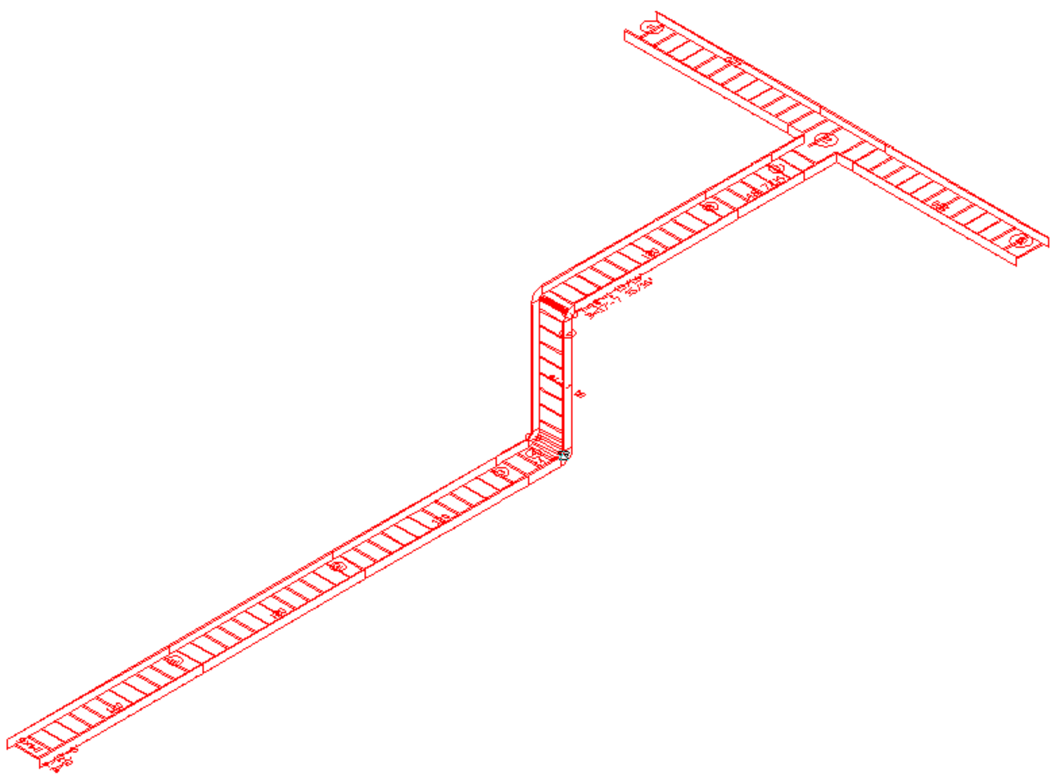
3. Select the system, series, tray width, tray type, fitting origin and the text size for model space, select OK.
4. Select Start Run from the toolbar, on the Command Line <10’> enter your Z elevation and hit enter.
   From Point, type in your X and Y coordinates or pick a point.
   Angle, type in an angle or move your cursor in the direction that you want your cable tray to go.
5. Select Straight from the Cable Tray Toolbar and select a straight section, if there are no dimensions add them and hit OK, a length of cable tray is placed.



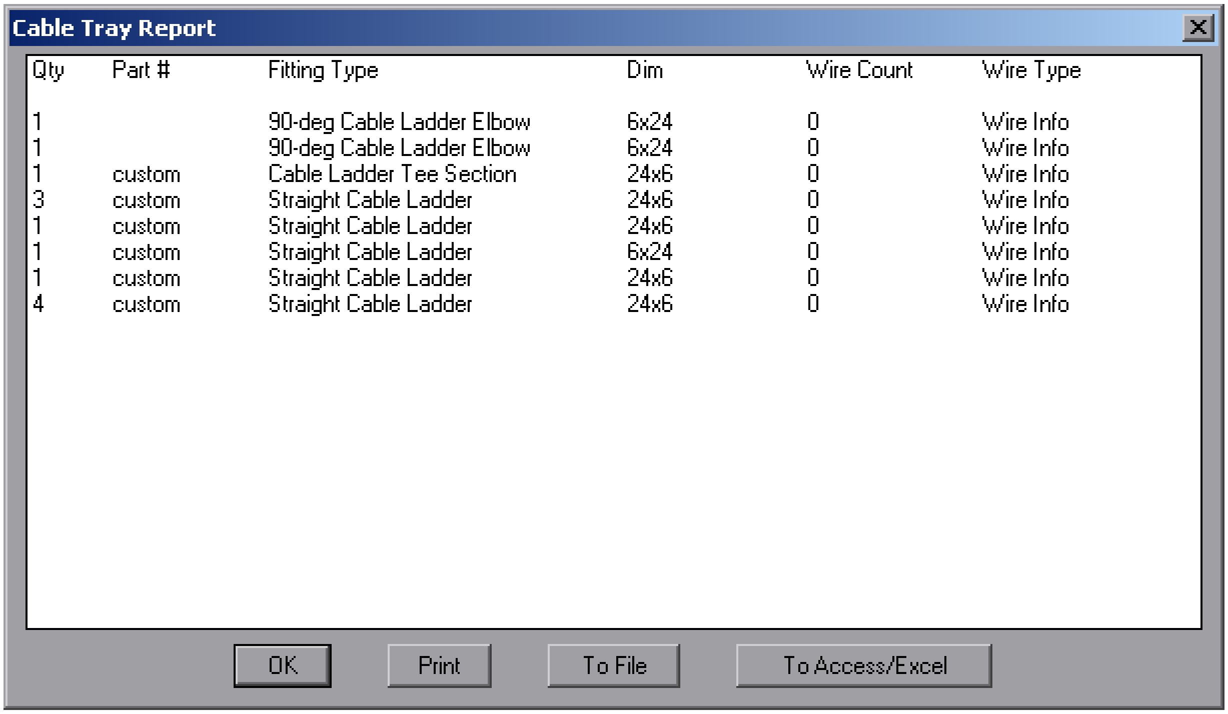
You can place one at a time or select Straight Cut-to-Length from the Cable Tray Toolbar and pull your cursor to where you want it to go or type in a length (example: 22') and hit enter, the cable tray will stop at 22'.



6. **From the Edit Toolbar select Turn Up.**
   From the Cable Tray Toolbar select Elbow and hit OK.
7. **From the Cable Tray Toolbar select Auto-Route, make sure rubberband is selected and hit OK, on the Command Line: Final Elevation, type in the elevation that you want the cable tray to go up to.**
8. **From the Cable Tray Toolbar select Tee, add 48 to dimension A and B, select how you want the tee placed either standard or bullhead and hit OK.**
9. **Select Join To from the Cable Tray Toolbar and join to the branches of the tee and place straight cable tray.**



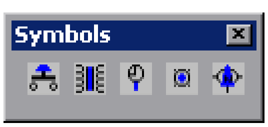
10. **From the Cable Tray Toolbar select Reports, select all and hit OK, your report is processed and you can either print it or send it to Excel.**



Qty	Part #	Fitting Type	Dim	Wire Count	Wire Type
1		90-deg Cable Ladder Elbow	6x24	0	Wire Info
1		90-deg Cable Ladder Elbow	6x24	0	Wire Info
1	custom	Cable Ladder Tee Section	24x6	0	Wire Info
3	custom	Straight Cable Ladder	24x6	0	Wire Info
1	custom	Straight Cable Ladder	24x6	0	Wire Info
1	custom	Straight Cable Ladder	6x24	0	Wire Info
1	custom	Straight Cable Ladder	24x6	0	Wire Info
4	custom	Straight Cable Ladder	24x6	0	Wire Info

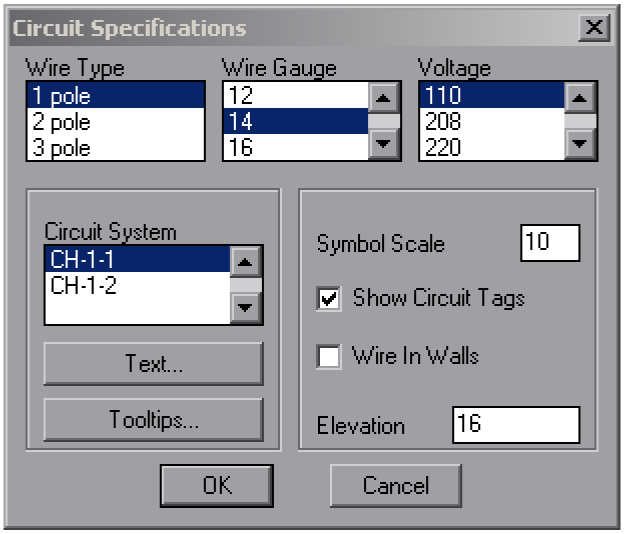
Chapter 3: Circuitry

1. **Starting from the left the toolbars are Configure, Reports, Edit Symbol Info, Wire, Wire Count Marks, Control Dwgs, Insert Circuit and Trim Wire.**
2. **Right click on the Circuitry Toolbar and turn on the Symbols Toolbar.**

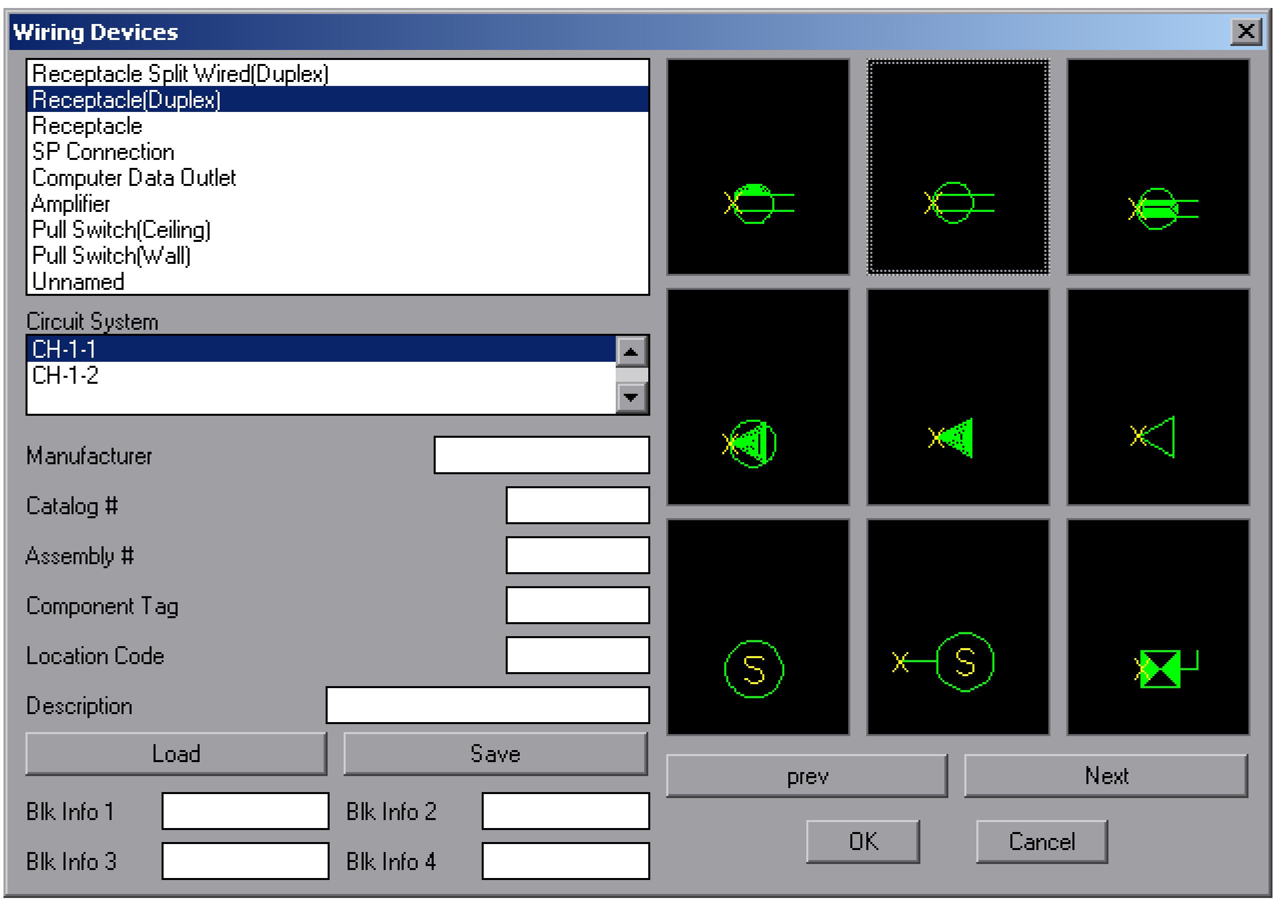


From the left the toolbars are Control Dwgs, S/L Diagrams, Wiring Device, Layout Dwgs and General Symbols.

3. **Getting started, select Configure from the Circuitry Toolbar.**



4. Select a Wire Type, Wire Gauge, Voltage, Circuit System, check Show Circuit Tags and set the Symbol Scale to 10 and the Elevation to 16.
5. Select Wiring Device from the Symbols Toolbar and

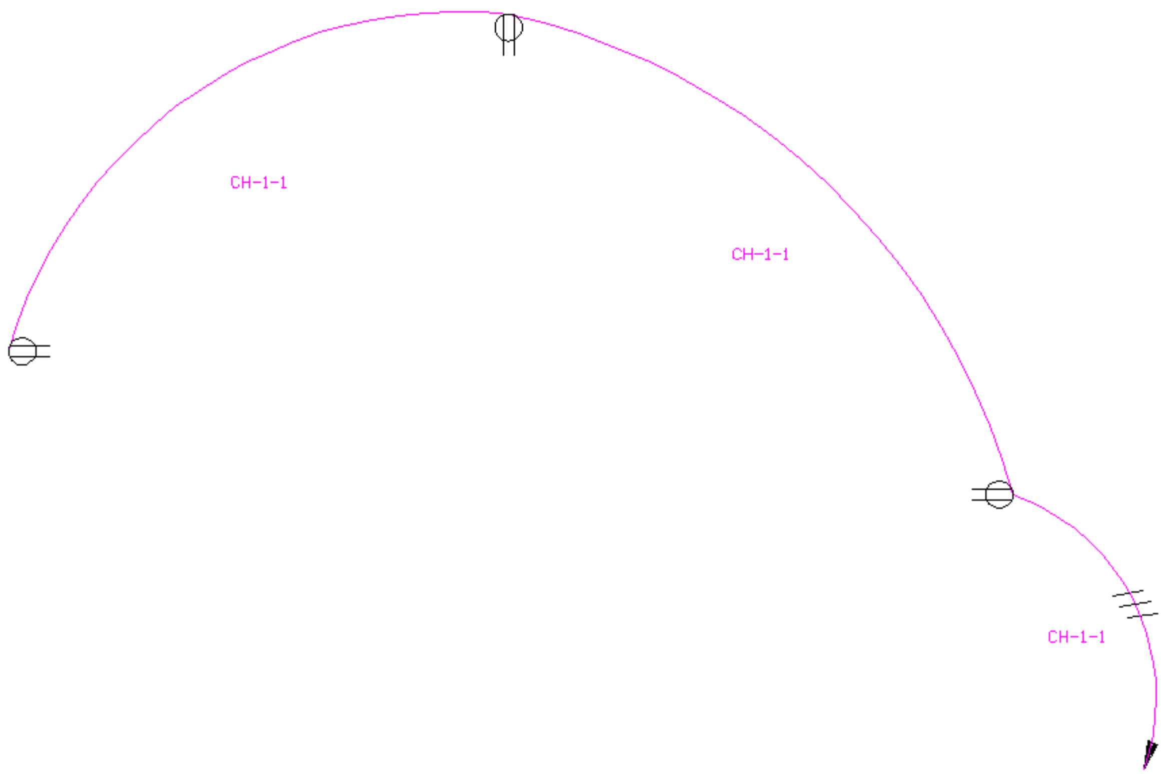


hit next until you get to Receptacle (Duplex) and place 3 or 4 like they were in a room.

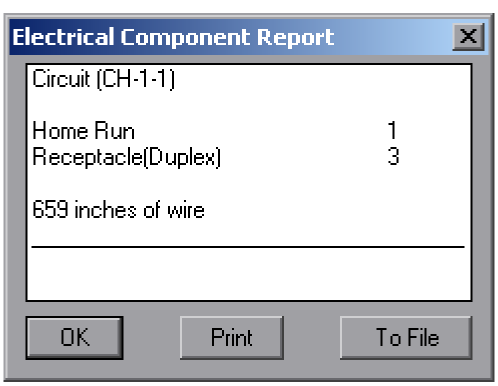
6. From the Circuitry Toolbar select Wire and hit OK, pick common points on the receptacles that

you placed and at the last one extend the wire from the receptacle and left click on you mouse.

7. From the Symbols Toolbar select Layout Drawings and select Home Run and place it at the end of the wire.
   From the Circuitry Toolbar select Wire Count Marks, on the Command Line: How many wires in Circuit ?, type in 3 and add the symbol to the circuit wire.

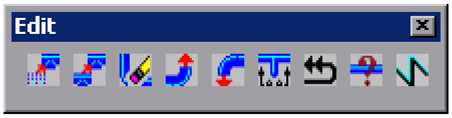


8. From the Circuitry Toolbar select Reports, select Sort by Circuit–Component and Wire and hit OK.

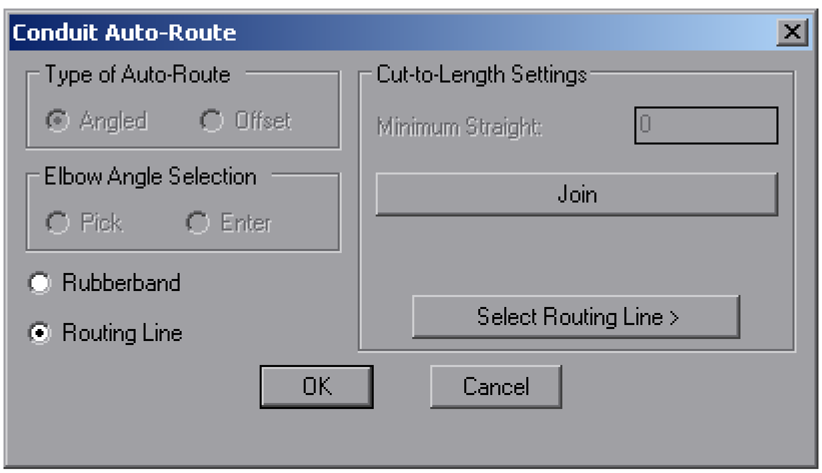


Chapter 4: Routing Line and Query

1.The Routing Line is on the Edit Toolbar all the way to the right.



2. **The routing line can be placed from one part of the building to another and change elevations during the process. After a routing line is placed you can place conduit or cable tray on it and if for some reason you need to change the size of the conduit or cable tray you can just erase the conduit or cable tray off the routing line, change the size and replace it.**
3. **Select routing Line from the Edit Toolbar.**
   On the Command Line, Pedit/Join/Elevation/Slope/Reference/<First Point>:
   Pick a point in the world and pull your cursor to the right, type in 16’ and hit enter.
   Pull your cursor down the screen and type in 20’.
   On the Command Line, Elevation/ Roll/Offset-45/Slope/Undo/<To Point>:
   Type in E and enter twice.
   On the Command Line, Enter new elevation:<10’>, enter a new elevation and hit enter.
   Pull your cursor to the right and type in 20’.
   Select Auto Route from the Conduit or Cable Tray Toolbar



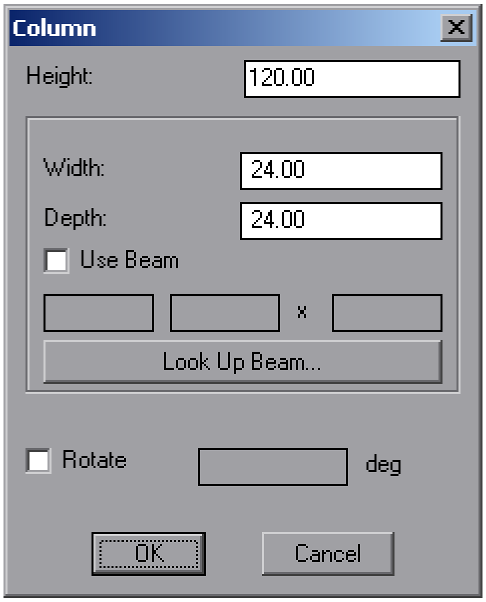
Check Routing Line and then Select Routing Line
On the Command Line, Digitize routing line <Exit>: Select the routing line
On the Command Line, Digitize first point of Auto Route on Routing Line:
Select the first line segment and then the last line segment.

Chapter 5: Architectural Items

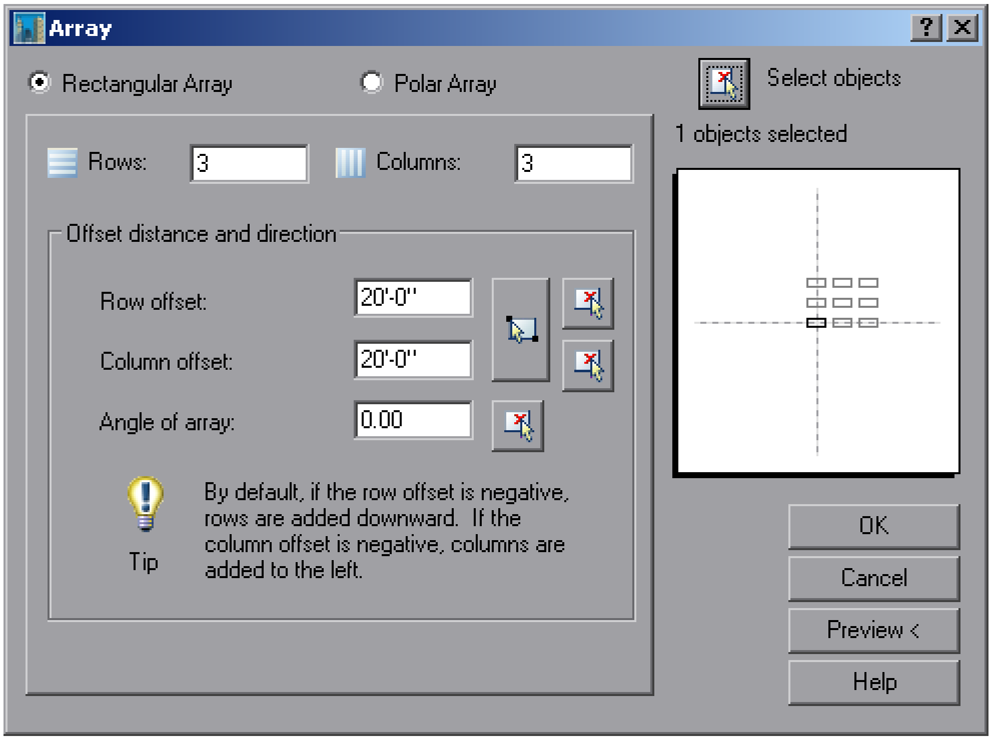
1.Architectural items are only used for collision checking, Cadpipe also collision checks with Autocad

3D solids and any items that are extruded. Architectural items do not report.

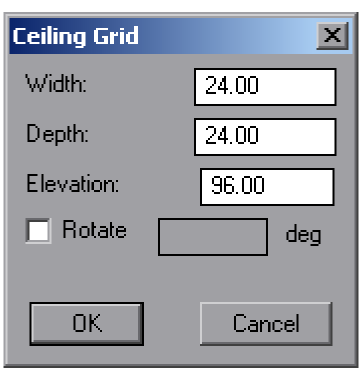
2. Go to the Architectural Pulldown Menu and select Columns.
On the Command Line, Point for Column, type in the X and Y coordinates or pick a point in the world.
On the Command Line, Base Elevation of Column <0.00>:, Enter and then OK.



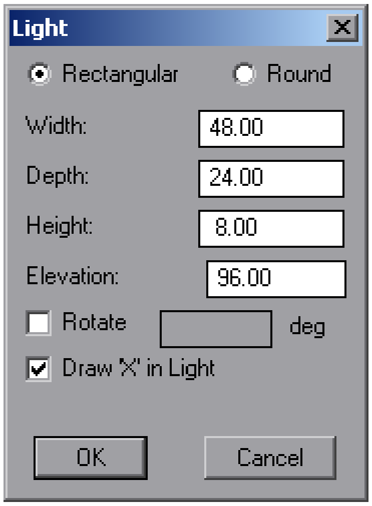
Select Autocad Array and set the information in this dialog box, don't forget to Select Objects (Column).



3. **Go to the Architectural Pulldown Menu and select Grid.**
   On the Command Line, Select first Point:, select the outside corner of the column of the bottom Left in plan view.
   On the Command Line, Close/Undo/<Next Point>:, work your way around the columns until you get to the next to last column and then type in C for close.
   On the Command Line, Center/<Point to Start Grid From>:, select the center of the center column and hit OK.

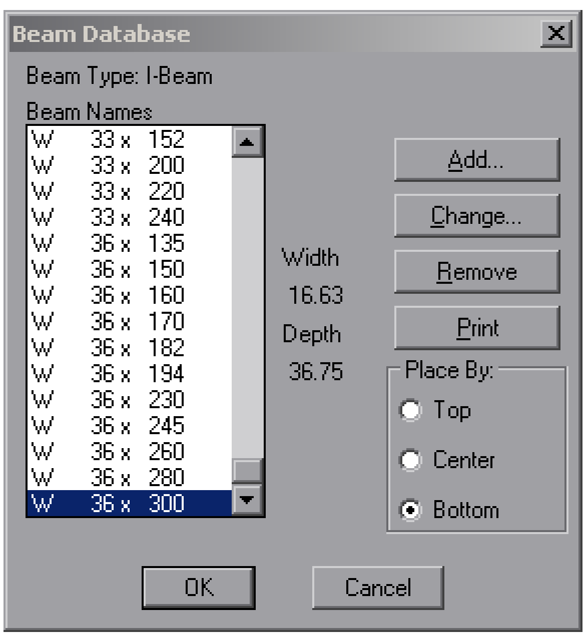


4. **Go to the Architectural Pulldown Menu and select Lights and hit OK.**



Place some lights at the Osnap intersections of the ceiling grid.

5. Go to the Architectural Pulldown Menu and select Beams, then select I-Beam.
   On the Command Line, Column/First Point for Beam:, type in C for column and hit enter.
   On the Command Line, Pick a Column to Place Beam on:, pick the lower left hand column in plan view.
   On the Command Line, Column/Second Point for Beam:, pick the upper left hand column in plan view.
   On the Command Line, Beam Number or Size/<Enter for Database>:, hit enter.



Select an I-Beam, Place by:, check Bottom and hit OK.