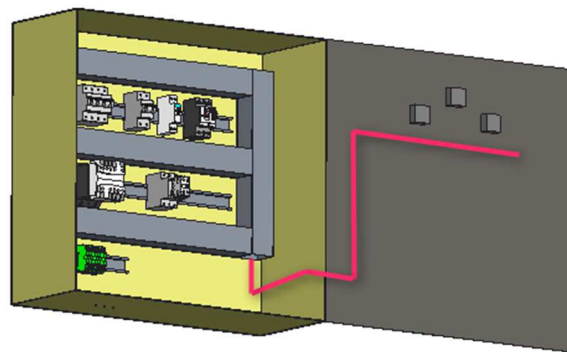


elecworks™ Tips & Tricks

Defining a Wire/Cable Routing Path Within PTC Creo

The following explains how to create a wire or cable routing path by using PTC Creo Sketch commands. elecworks™ will automatically route the wires and cables down the sketch paths making it very easy for cabinets, machines or indeed any equipment to be wired or cabled up. Sketch lines (routing paths) do not need to be connected as long as path axis and/or component connection points are within the distances defined within the wire routing options.

In this example, we are going to create an elecworks routing path as shown:

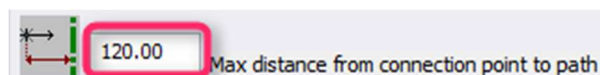


As wires are effectively drawn as polylines and have natural curvature. We are going to define the routes offset from the backplate and door so that the wires/cables do not appear to protrude through the metalwork.



From the *elecworks* ribbon tab > select

The maximum distance our route path should be from components connections is defined:



This value can be increased if you wish. Select

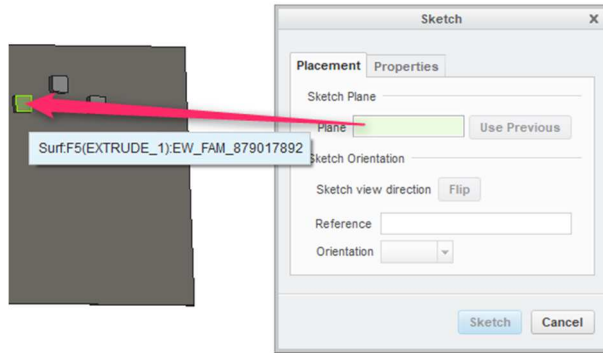
Cancel

For door mounted components, the easiest way of defining the plane for the routing path is to define the rear of the components.



Select *Model* ribbon tab > select

Select the rear of one of the door mount components as the plane

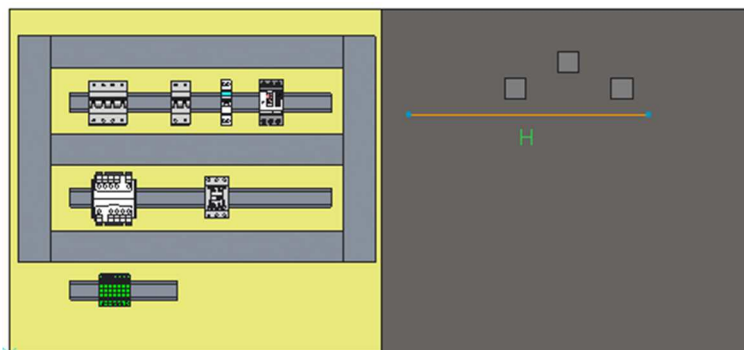


Select **Sketch**

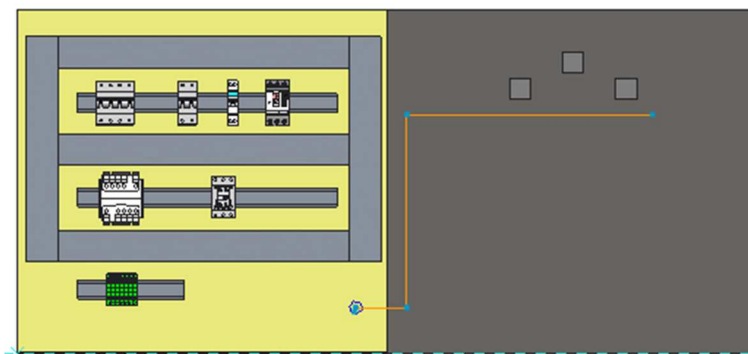


Select **Line Chain**


Draw a sketch line within 120mm from the components as shown



And continue the line chain until



OK

Select  to complete the line chain

In the *Model tree*, the sketch can be renamed

Right click over the sketch and select  Rename

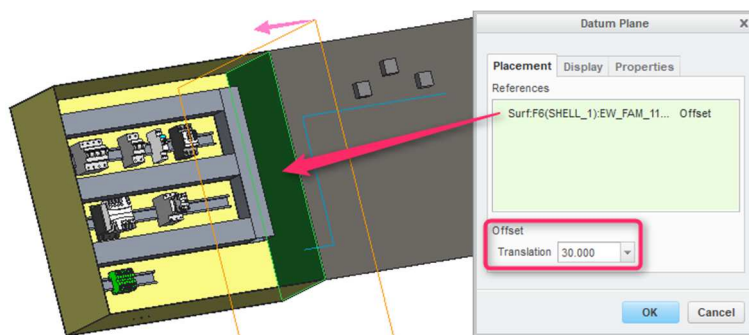
The sketch path MUST be called "EW_PATH#" where the # is a consecutive numerical value. You can have as many paths as you want but it must have a numerical indexed suffix.

Change the name to "EW_PATH1"



Select *Model* ribbon tab > select 

Select the face as shown but define an offset value. In this instance 30mm with the direction as shown



Select 



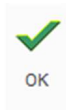
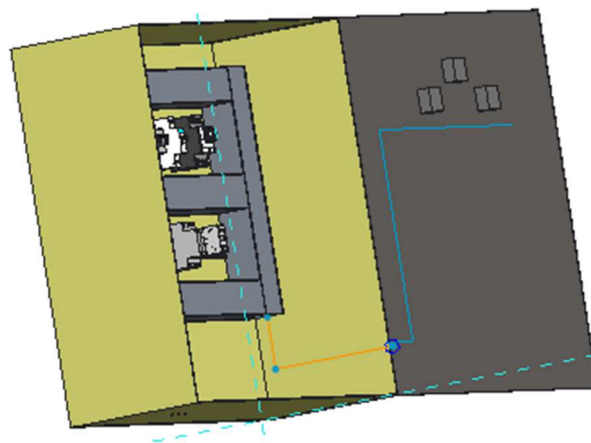


Select *Model* ribbon tab > select



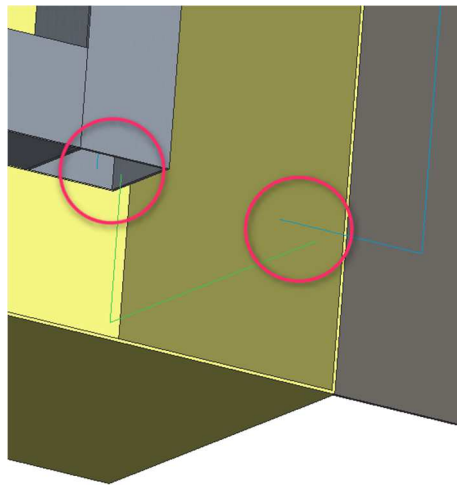
Select

elecworks™ trunking/ducting automatically carries an elecworks™ routing path (sketch EW_PATH) so we just need to draw the sketch paths that are external to the trunking or without trunking. Sketch the line chain as shown:




Select to complete the line chain

It doesn't matter if the sketch lines do not join up as long as they are within the distance defined in the routing settings (in this example 120mm)



In the *Model tree*,  **Rename** the sketch to “EW_PATH2”

At any point in time, you can edit the existing sketch path.

Right click over the sketch in the *Model tree* and select  *Edit the definition of the selected object*