

# Tutorial: Creating New Datums

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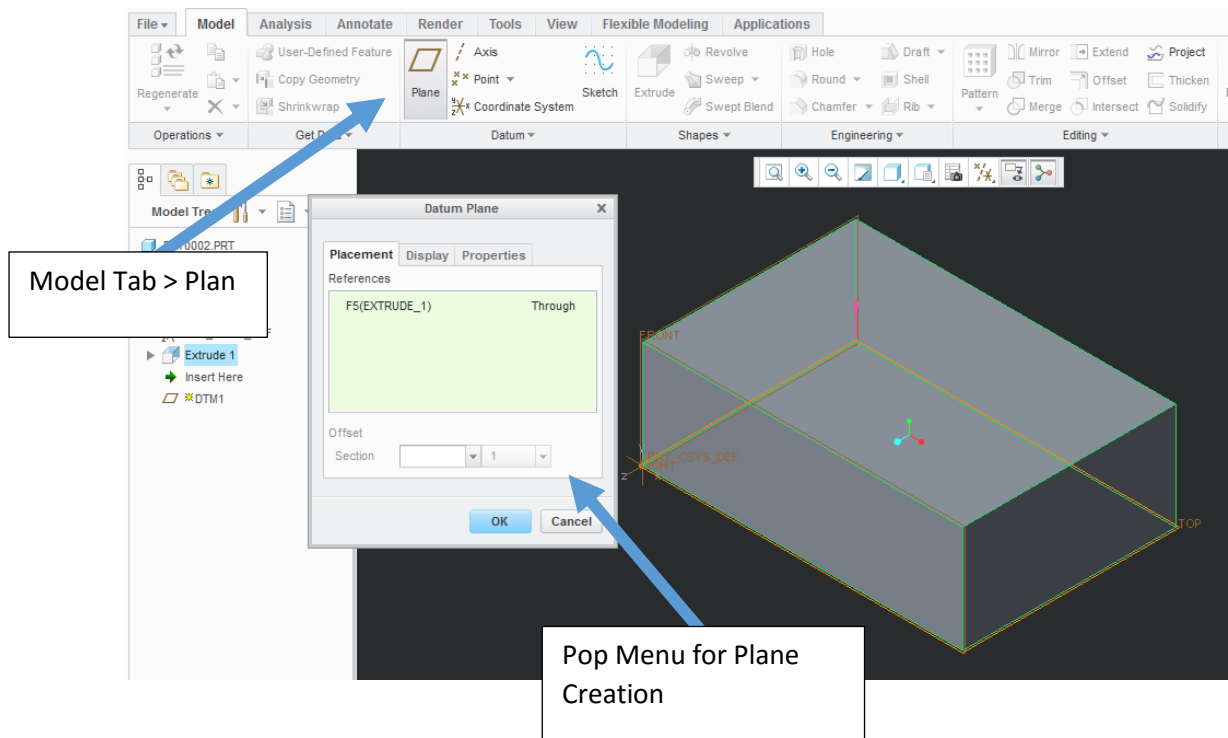
Goal: Creating new datum based on existing geometry. New Datum allow the user to create geometry on or off the part without having to draw a on existing surface or datum.

Datum can be created a number of ways

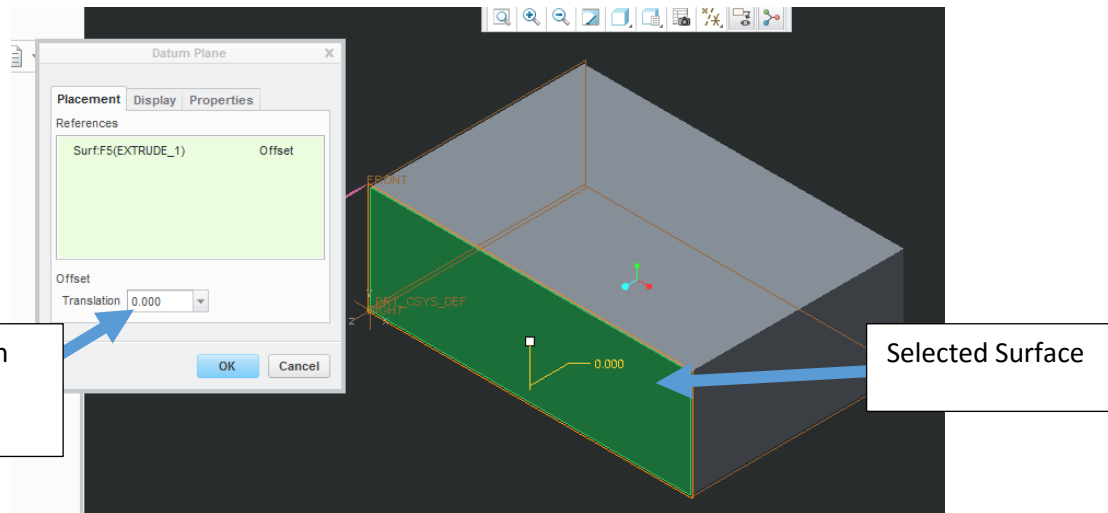
1. Offset Linear Distance Based on Selected Surface or Datum
2. Creating Datum Off Axis lines Parallel or Perpendicular to Reference Geometry
3. Angle Datum Off an Edge or Axis Line

## A. Offset Datum

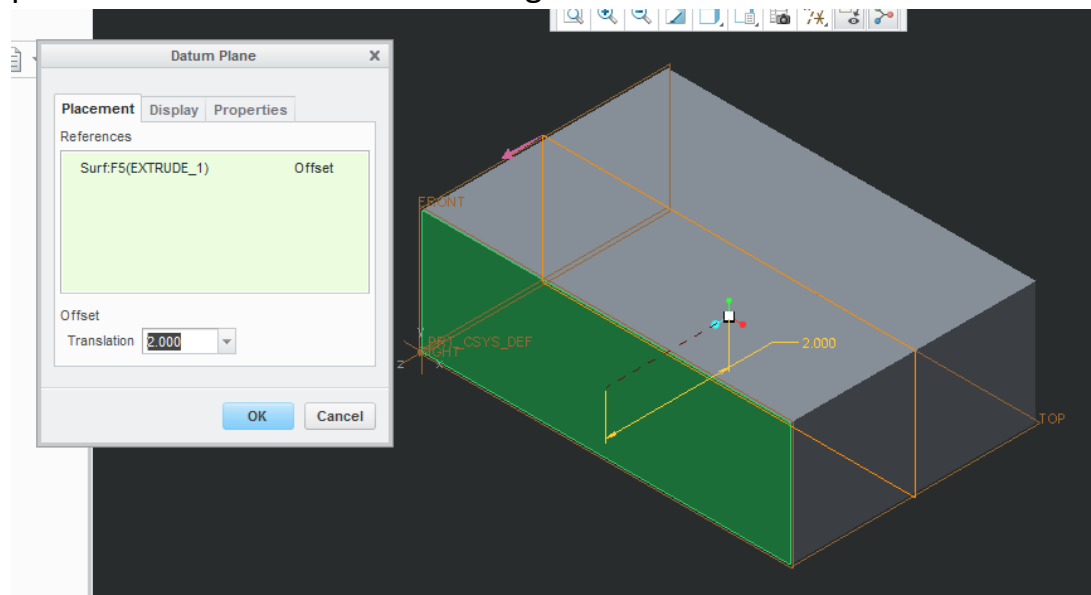
1. Model Tab > Plane > Select Plane or Edge to Offset from



## 2. Select the Surface or Datum to offset from

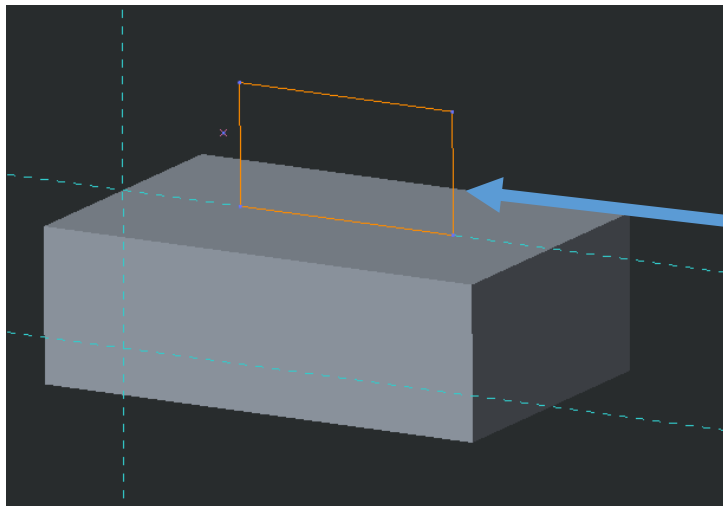


3. Enter Translation Distance. NOTE if plane does not move in desired direction type in the number as a negative number to get the correct direction. By doing this the software will reverse the direction for positive and negative. (I.E Tutorial typed in -2 for its distance (Up and to the right) this direction now becomes the positive direction and the original positive direction becomes the negative direction)



4. Rename Datum as desired by clicking on properties > Adjust the name NOTE: Default name is DTM1, DTM2, DTM.
5. Click OK.

6. Datum is placed on the part. User can now use this to draw on. See below for example

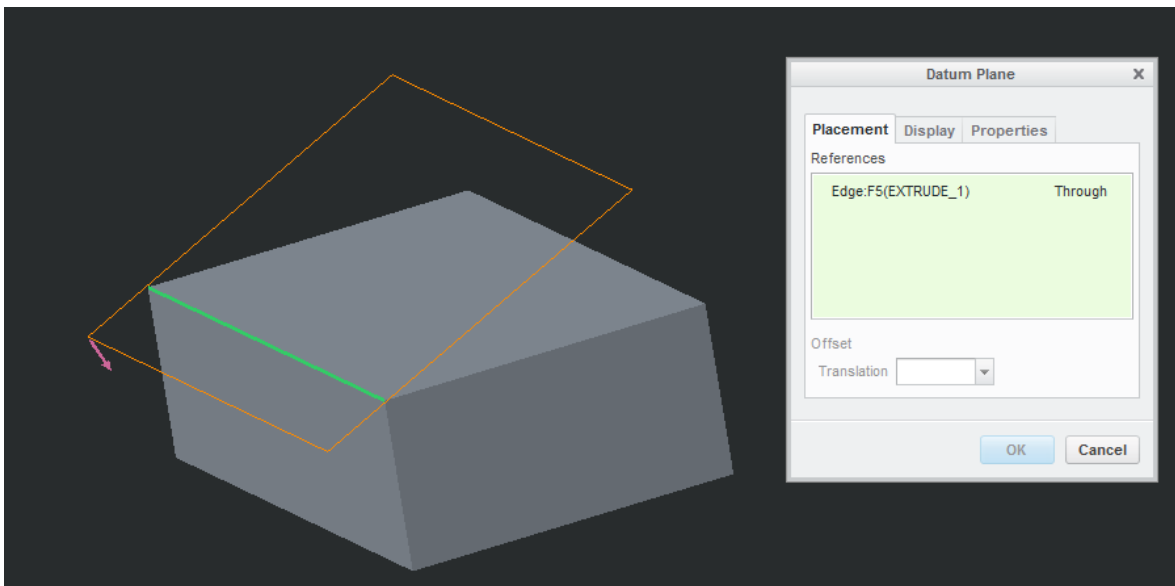


Profile now on set in off the parallel face

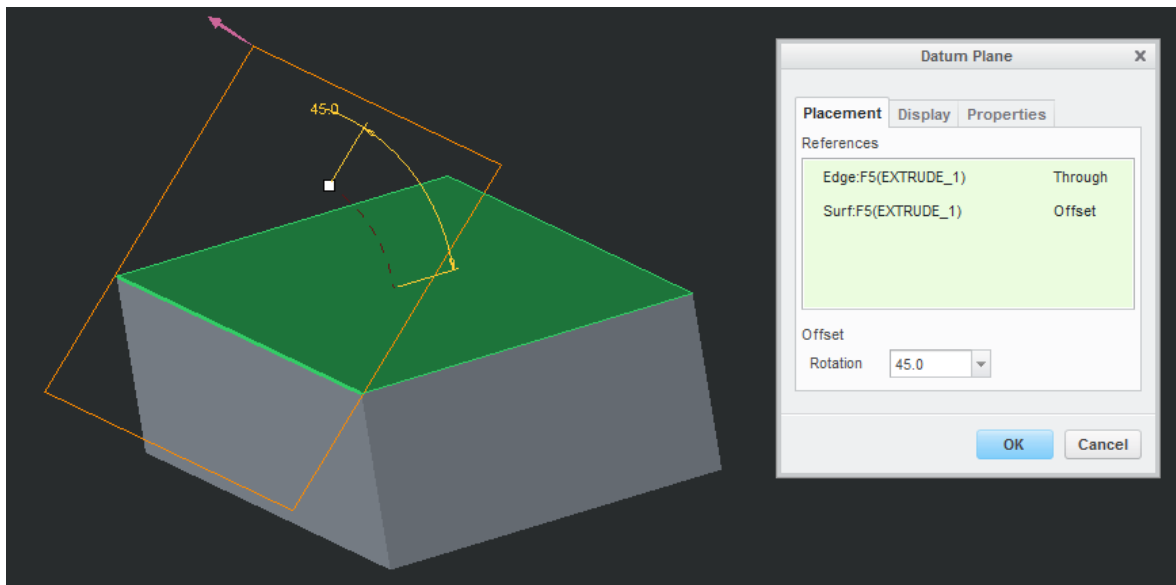
### Creating Angle, Parallel, Normal Datum to Selection

To create an angle datum the user will need an edge to pivot off of and a datum to represent the other leg of the vertex angle.

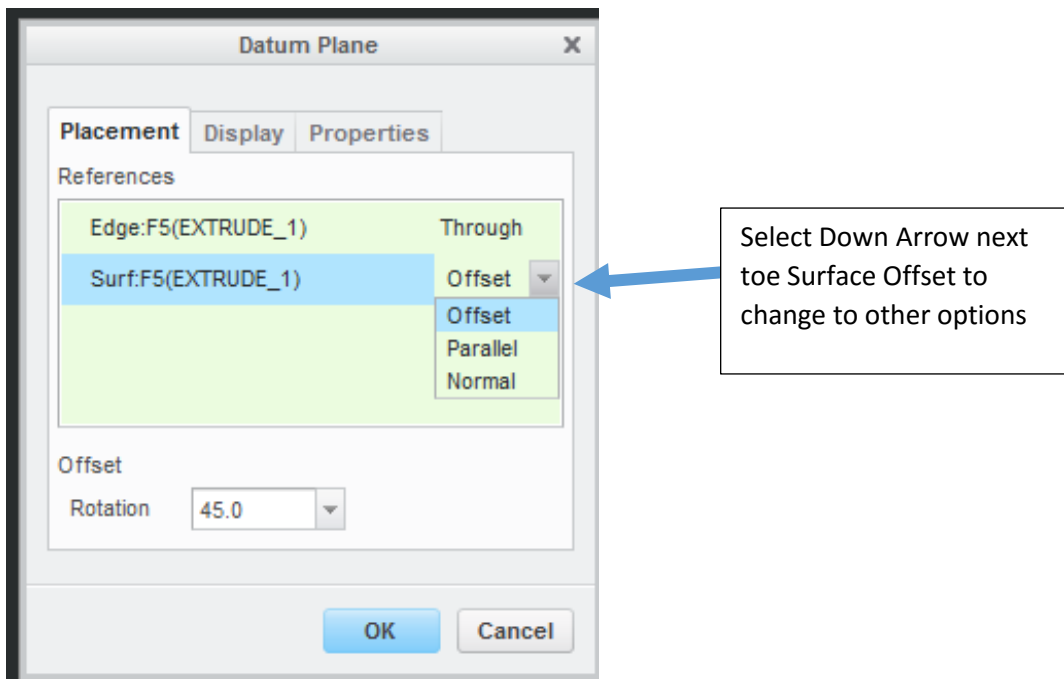
1. Select one of the following Edge or Axis Line



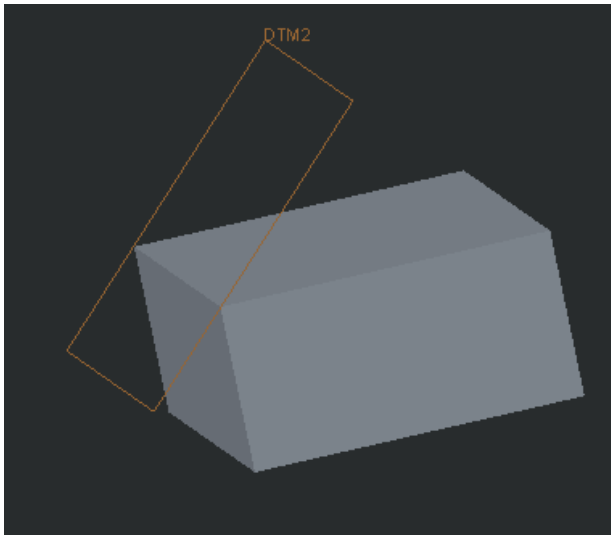
2. Hold Control (CTRL) > Select surface to set angle off of



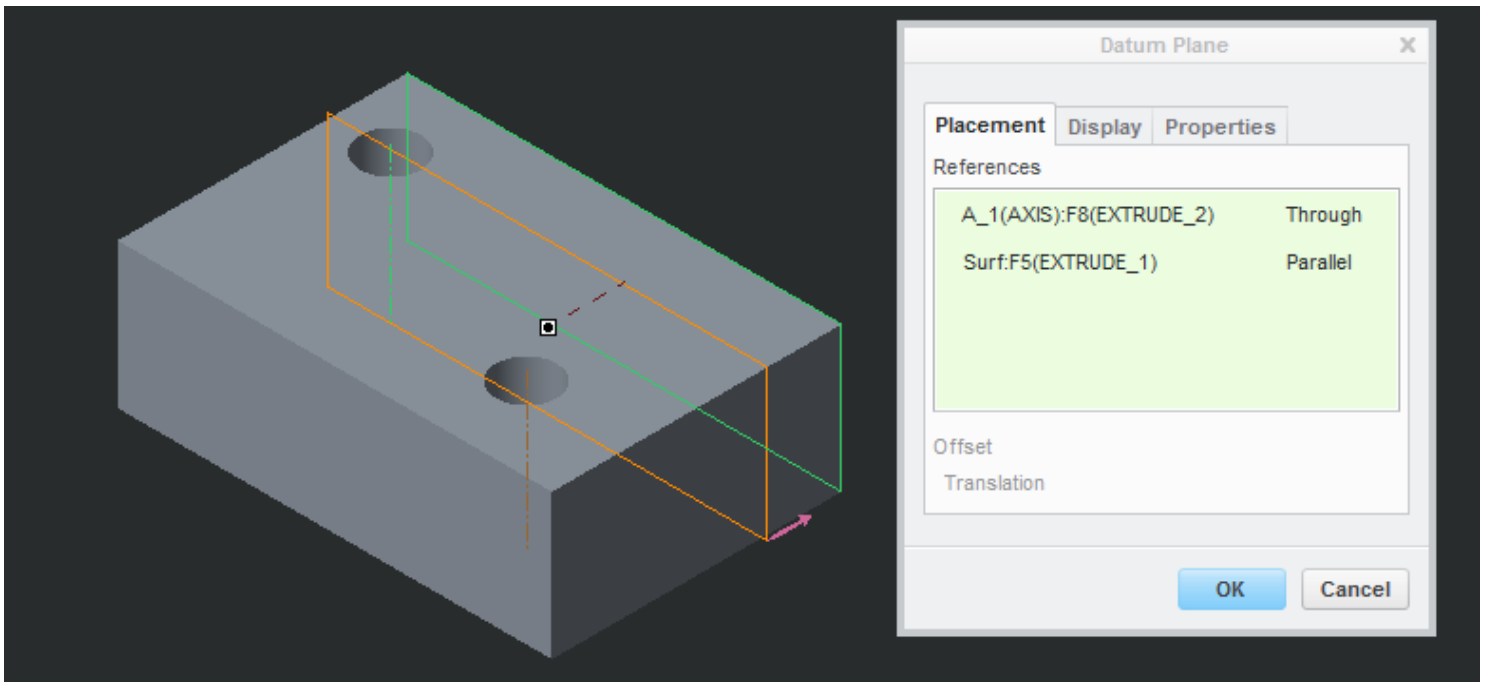
- 3. Three Options for setting Plane
  - a. Offset: Set Angle Measure
  - b. Parallel to Surface
  - c. Normal (Perpendicular) to Surface



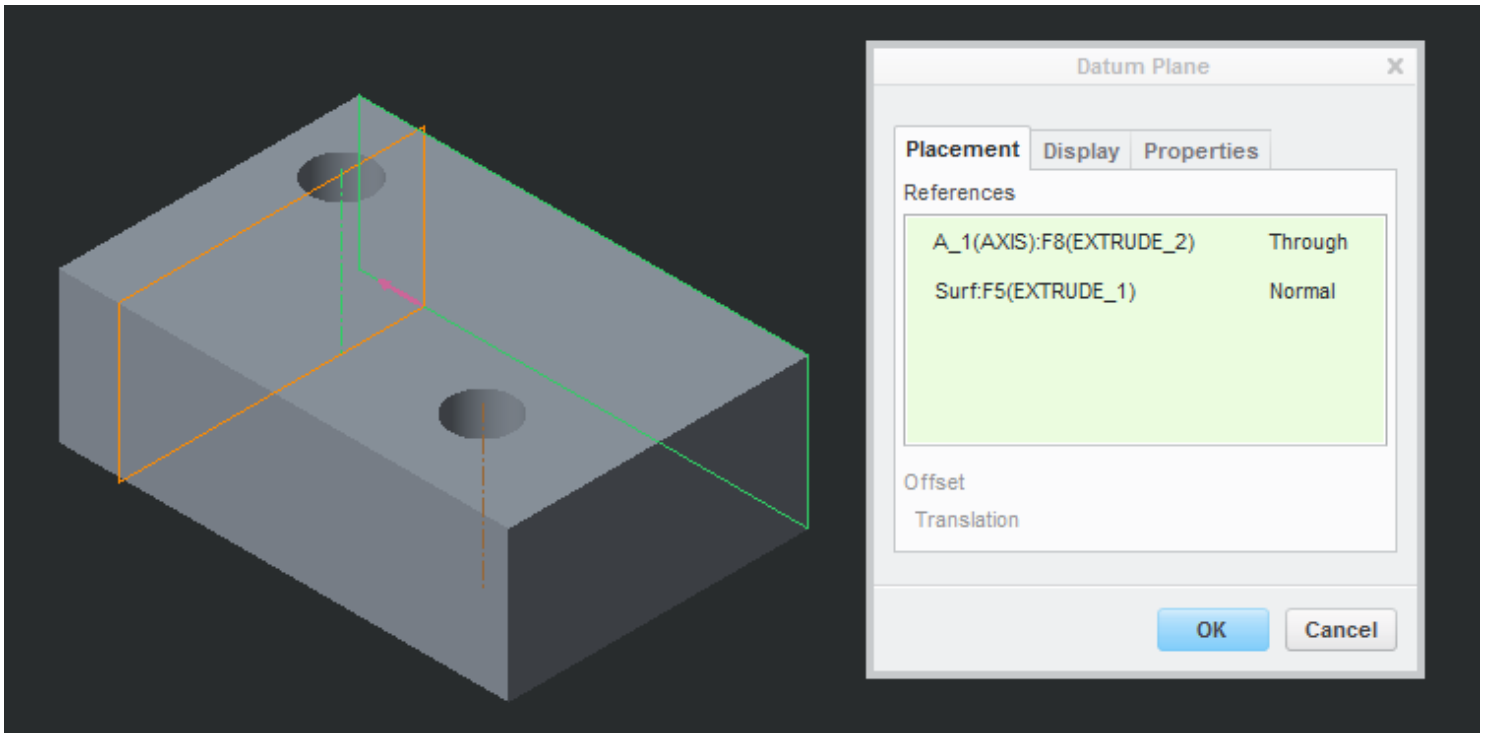
4. Set Type and/or Angle > Click Ok



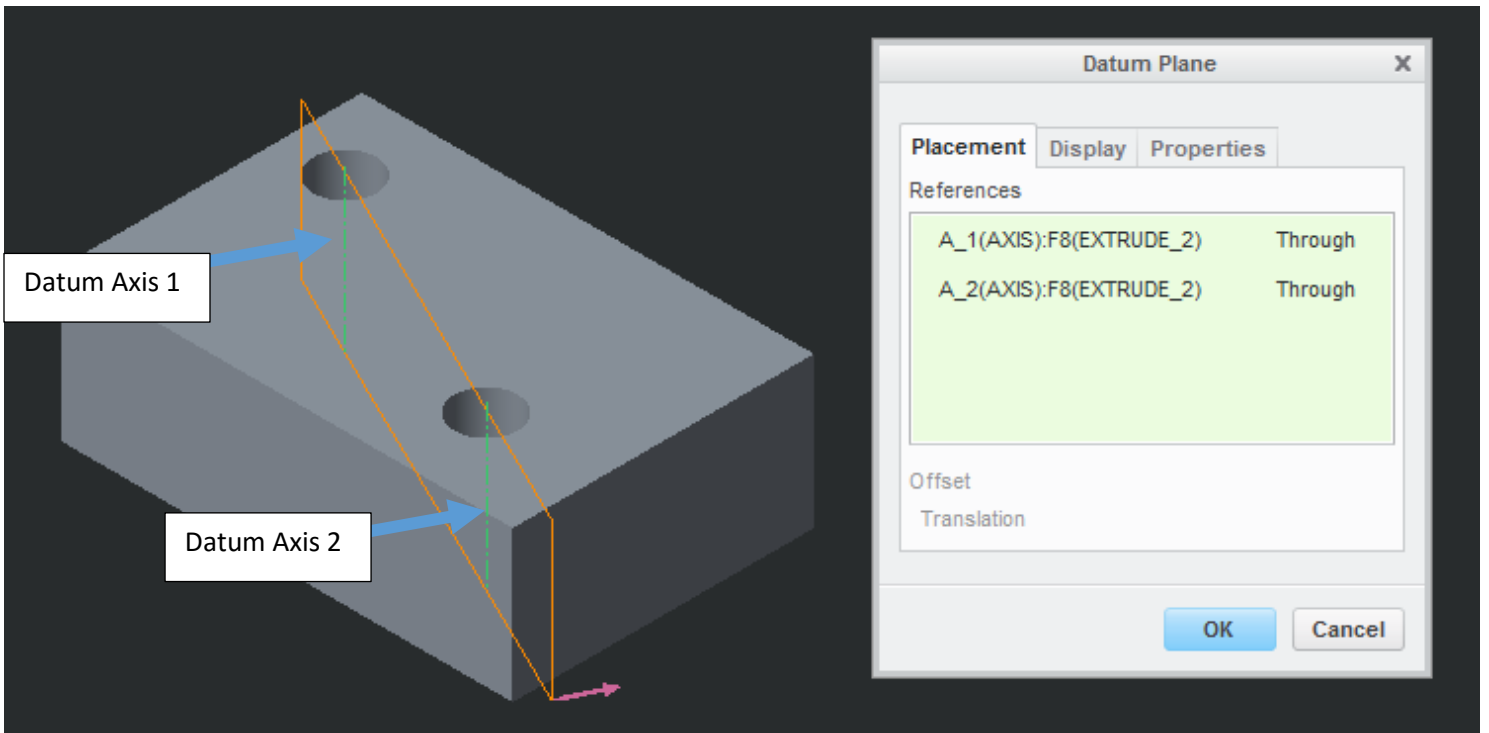
Angle Datum



Select Datum Axis + CTRL Surface >  
Change Type to Parallel



Select Datum Axis + CTRL Surface >  
Change Type to Normal



Select 1<sup>st</sup> Datum Axis  
+  
CTRL Select 2<sup>nd</sup> Datum Axis