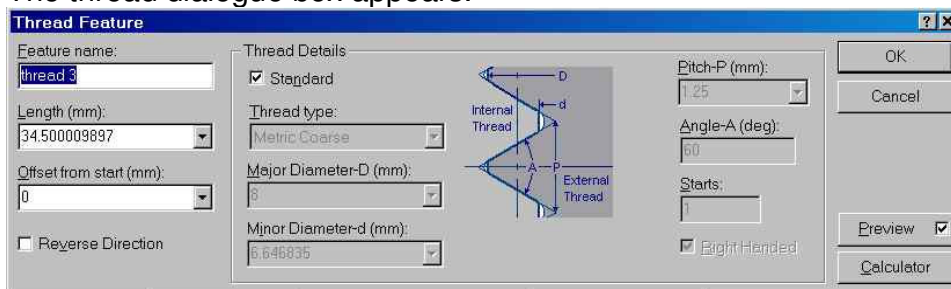


## Applying external threads in ProDesktop V8.

External threads are applied as a cosmetic feature. They are not shown in the solid model, but in a drawing (dra) file the lines are drawn to represent the thread. After inserting the diameter or radius dimension for the cylinder the “insert thread detail” command is available to describe the thread form.

The external thread can be applied only to a solid cylindrical feature. Select the cylindrical surface and apply feature, cosmetic, thread. The thread dialogue box appears.



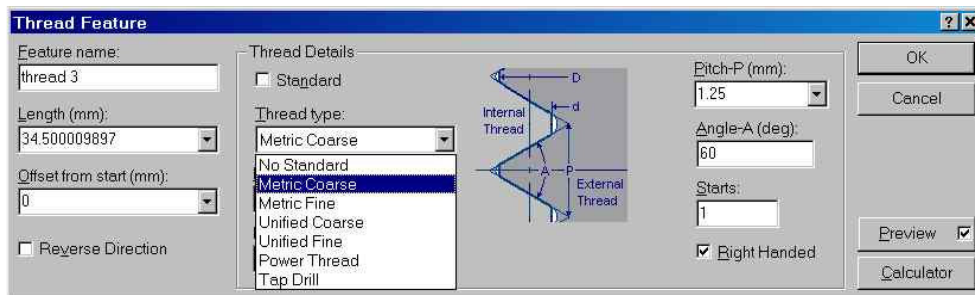
The length of the thread is automatically picked up from the length of the cylindrical surface here, but it can be set shorter and “reverse direction” will begin the thread from the other end of the cylindrical surface, or offset the start from one end or the other.

Note that the dialog is about to apply a metric coarse thread to the diameter of the cylinder automatically. To apply a different thread with the same outside diameter uncheck the “standard” box and select the thread form from the list.

### Note

**Attempting to apply threads with different outside diameters to the created cylinder are liable to fail, or be incorrectly displayed in drawings.**

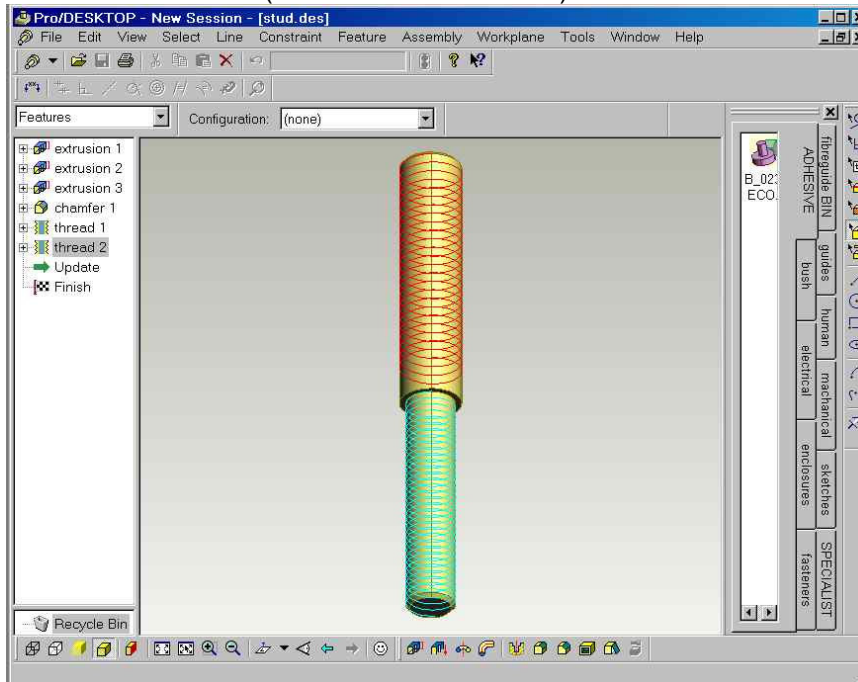
Selecting metric fine in this case will automatically set the pitch appropriately, but while standard is unchecked it is possible to create a different thread form or pitch by editing the other dialogs. You can also create left hand threads by unchecking the “right hand” box.



The above assumes you are working in metric units.

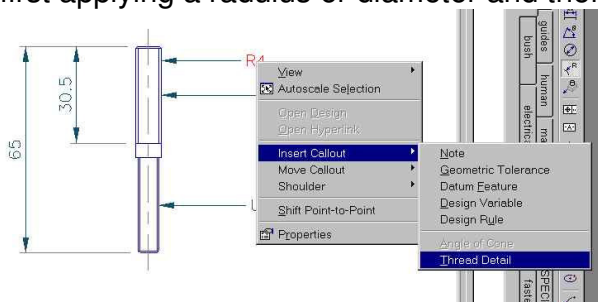
You can mix metric and imperial threads in the same part. To do this you must change the units temporarily e.g. from mm to inches. Then edit the diameter of

the cylindrical surface to be appropriate for the thread (e.g 0.25 inches). Then apply the thread. After applying the thread the units can be changed back, but the text applied with the “insert thread callout” dimension feature in a drawing is fixed into the alternate units at the time the thread is applied. Changing the units at the wrong time, can result in an imperial thread defined in metric units – eg UNC 6.35 x 1.016 (the inch dims in mm!).



If you select the thread features you can see the thread form stored with the model, but you cannot make it display realistically in the solid model or in the album view.

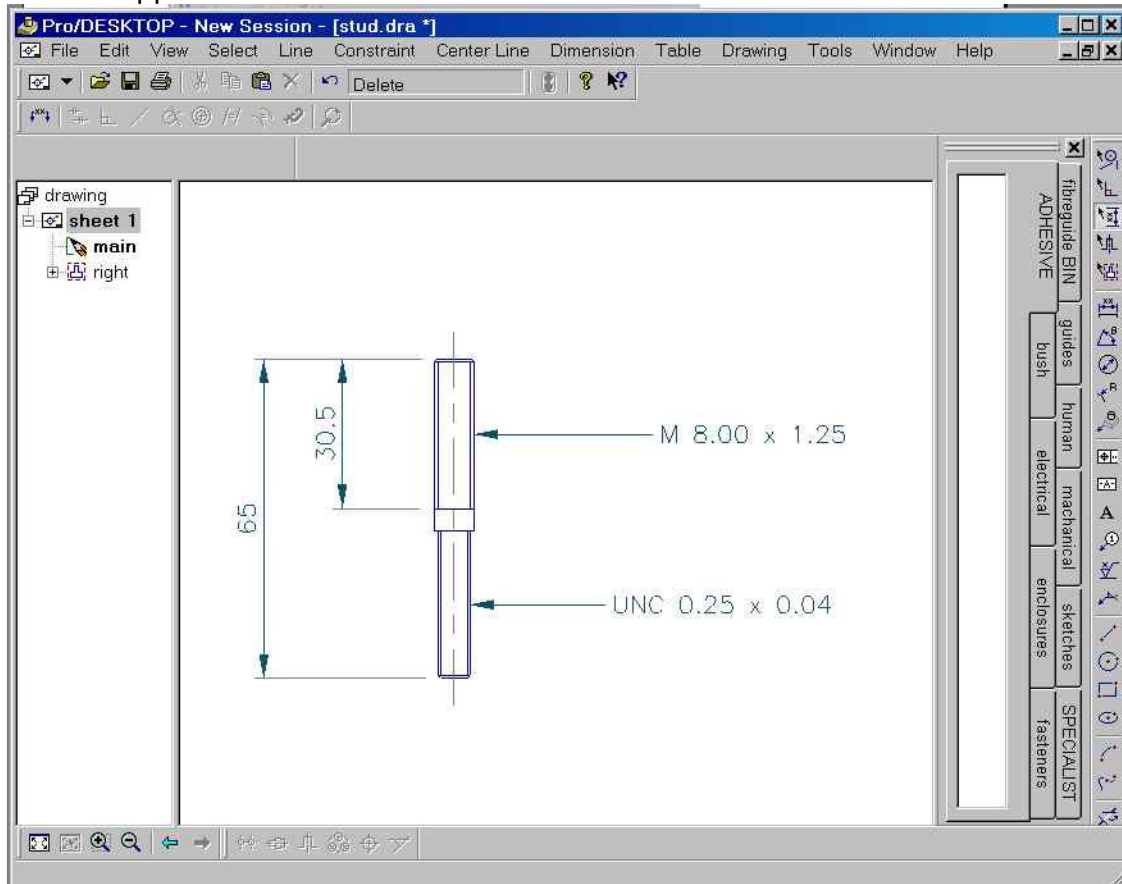
In the drawing of this part you can display the thread details in a dim callout by first applying a radius or diameter and then inserting the thread detail callout:



You can mix metric and imperial threads in the same part. To do this you must change the units temporarily e.g. from mm to inches. Then edit the diameter of the cylindrical surface to be appropriate for the thread (e.g 0.25 inches). Then apply the thread. After applying the thread the units can be changed back, but the text applied with the “insert thread callout” dimension feature in a drawing is fixed into the alternate units at the time the thread is applied. Changing the units

at the wrong time can result in an imperial thread defined in metric units – eg UNC 6.35 x 1.016 (the unch dims in mm!).

The example files stud.des and stud.dra show a mix of metric and imperial threads applied.



Example files:

<Stud.des> <stud.dra>

## Appendix

In prod v7 it was possible to create alternative CSV files for other thread forms in PTC\ProDESKTOP Express 2001\Program\Standard Holes

The alternative threads were then available for the internal holes. In V8 this is still possible but **only works for the insert holes command**.

If you delete iso.csv, unf.csv or unc.csv they are recreated by prod which starts the windows installer to do it. The definitions for the external threads available are defined somewhere else and are not editable and can't be added to.