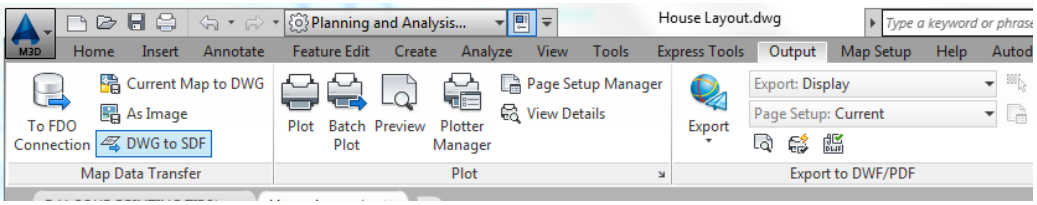
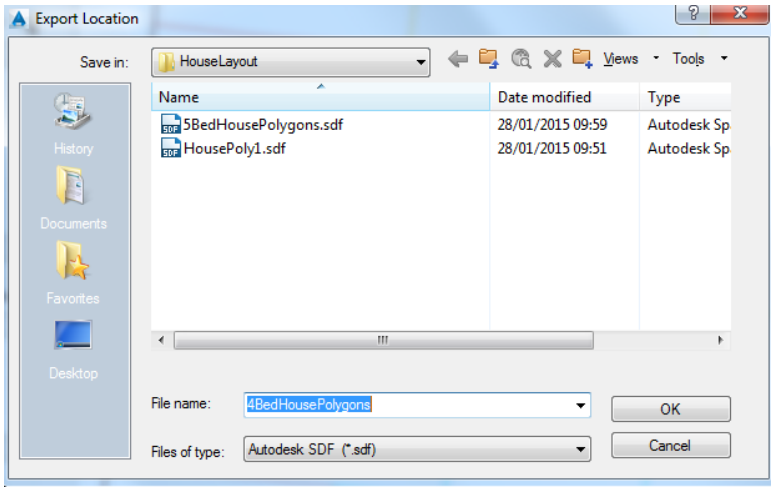
AutoCAD Map 3D – Convert DWG to SDF

If you would like to spatially analyse your objects in AutoCAD Map 3D it is recommended to draw them as features within a SDF layer. For example, if you are drawing land parcels then by digitising these as polygons features in a SDF layer you can then perform spatial queries such as; which land parcels have edges that are touching or those that are within a distance of a specific location. If however, you have lots of polyline features created already as drawing objects then instead of re-creating these, here are the simple steps to convert them to objects in a SDF layer.

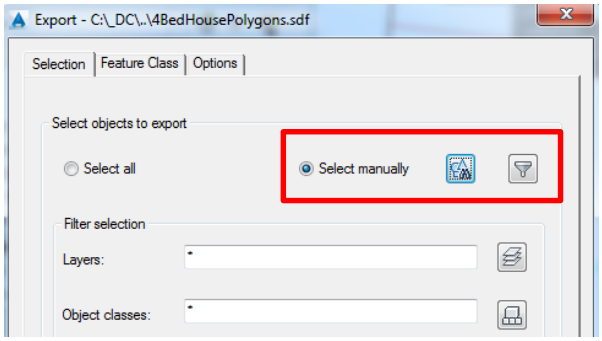
To convert your drawing objects into polygons within a SDF layer, you can use the **DWG to SDF** option. This can be found on the **Output** menu > **Map Data Transfer** ribbon:



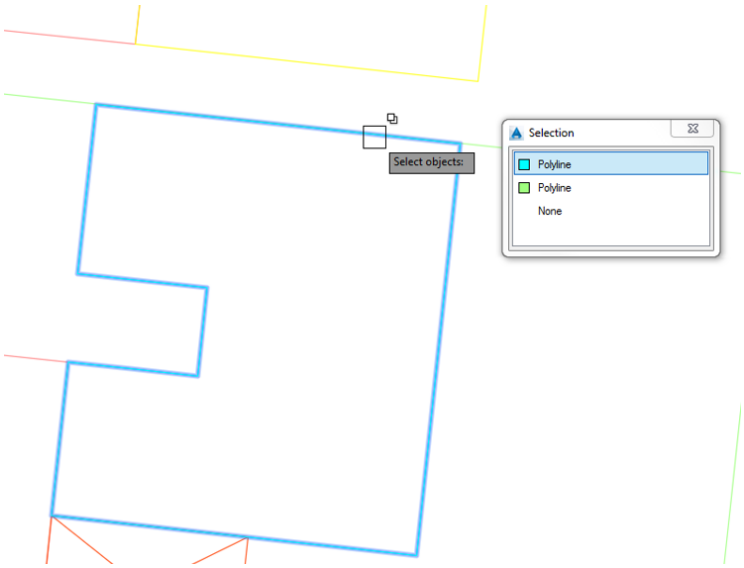
Choose **DWG to SDF** and define a name and location for the output SDF layer. In this example we are looking at 4 bedroom house building plots so we will name the output file accordingly.



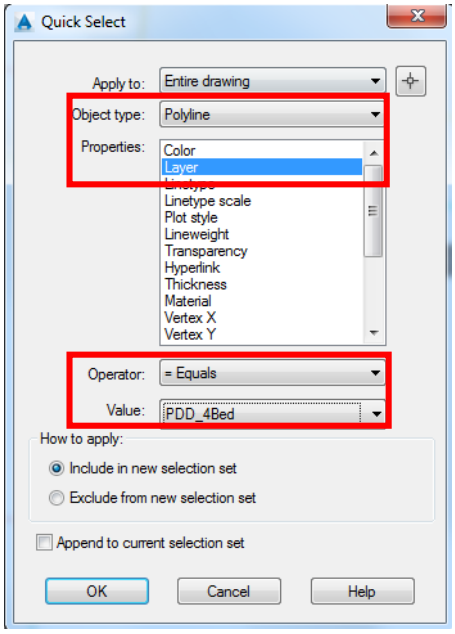
Under the **Selection** tab there are options to either select all the features in your drawing layer or to manually select features from the map:



Using the **Select manually** option you can use your cursor in the map window to manually select only the features that you wish to export.

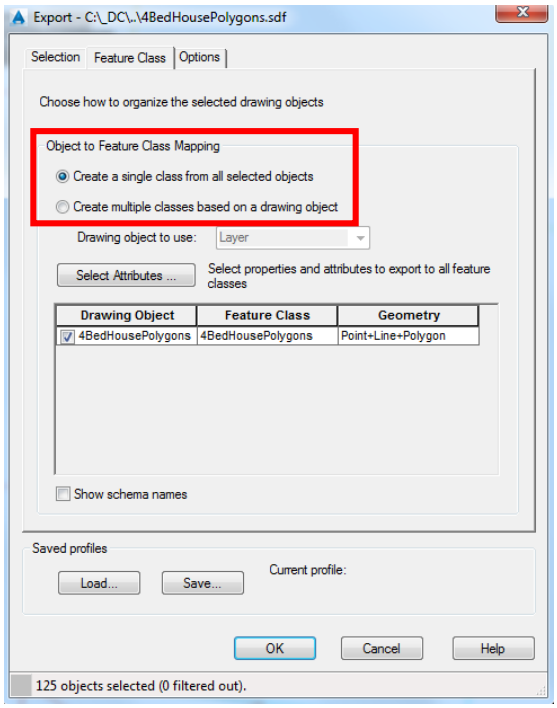


Or, instead you could choose to **Select all** and define a filter, where you can select the required object type e.g. polylines, where the layer property = <your value> e.g. 4bedpolyline layer.

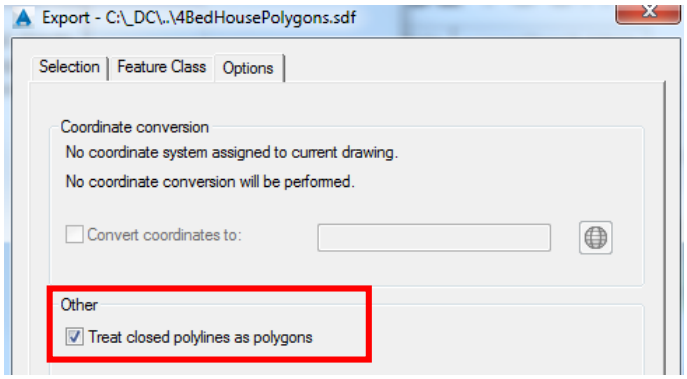


Note – you can add this selection to a current selection or create a new selection.

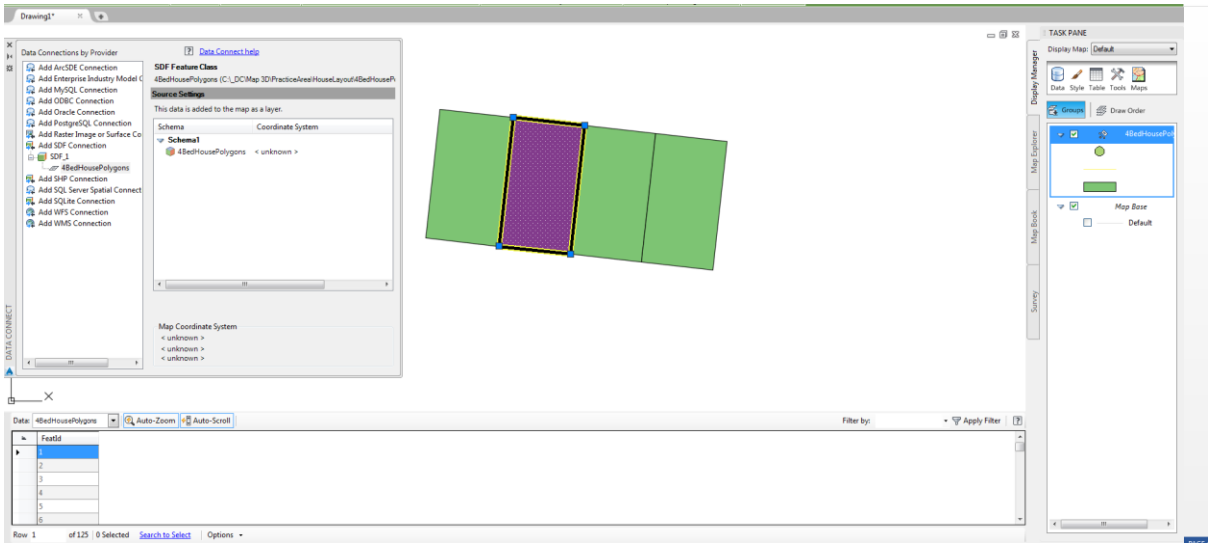
From the **Feature Class** tab, you can choose to create a single feature class for all objects or individual feature classes for all the object types in your drawing. In my example I am only selecting the polylines that make up the 4 bedroom house layer so I am choosing a single output.



Finally, on the **Options** tab, you can ensure that the output uses the same CRS (Co-ordinate Reference System) as your drawing objects (note there is no CRS defined in my example) and ensure that **you tick to create polygons from your closed polylines** – this is the key for creating your resulting polygons.



The SDF layer will now be created, so you will need to add that to your project.



Each selected closed polyline object has now been converted to a polygon feature in a SDF layer, with a record associated with it in the Data Table. You can now edit the schema to create new fields to attach attributes, and style and query your SDF layer accordingly.