# AutoCAD Map 3D – Convert SDF to SHP

If you need to view your spatial data layers in an alternate GIS, for example ArcGIS, MapInfo or QGIS, then Map 3D allows you to export your SDF layers into other GIS data formats e.g. Shapefiles and MapInfo Tab files.

The ability to convert your SDF layer will depend on how it has been opened into Map 3D. For instance, if you open your SDF layer by connecting to it as a data source, then the objects and attributes, while visible in Map 3D, will not be available for export. In the example below, I have connected to an SDF of tree locations using the **Connect to Data** option:
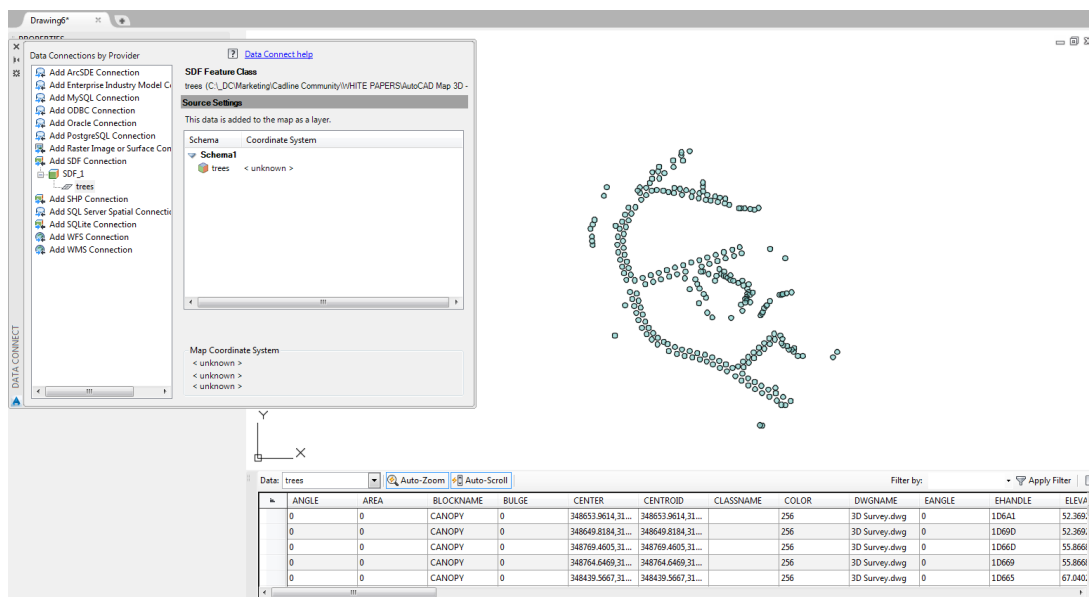

Using the MapExport option should allow you to export your SDF layer as a Shapefile (or MapInfo Tab, GML etc…), however once you have chosen to select the point objects in your SDF layer and attempt to export them, the following message will appear – No Entity to Export.

NB. Using the Bulk Copy command you can export from your connected SDF layer to a connected Shapefile, however we will explore an alternate method in this white paper.
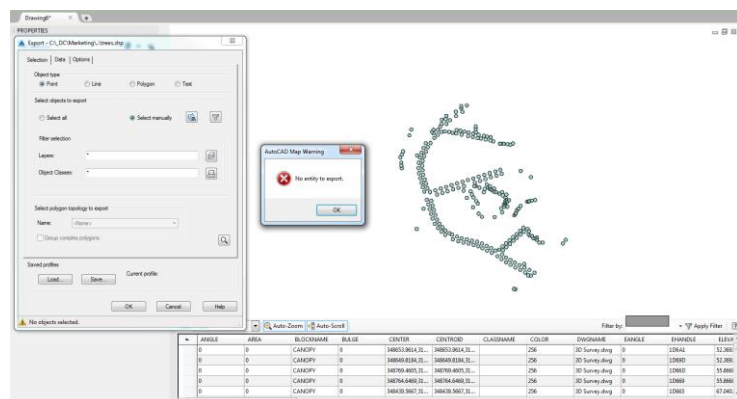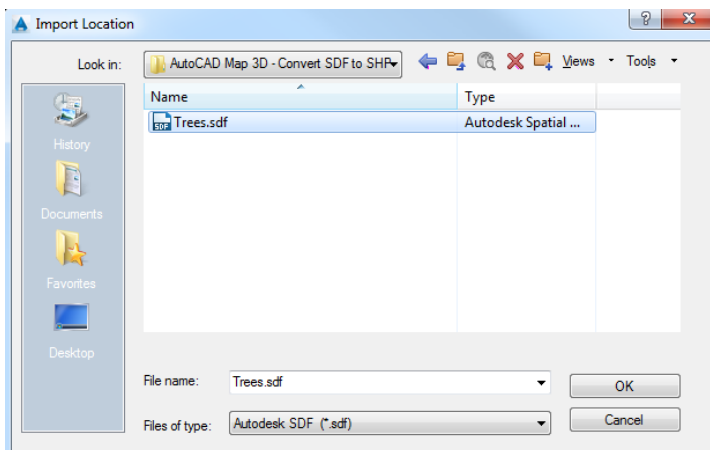
Instead of opening your SDF layer, using the Connect to Data option, we will use the **Map Import** tool to import the SDF as objects into the current DWG.
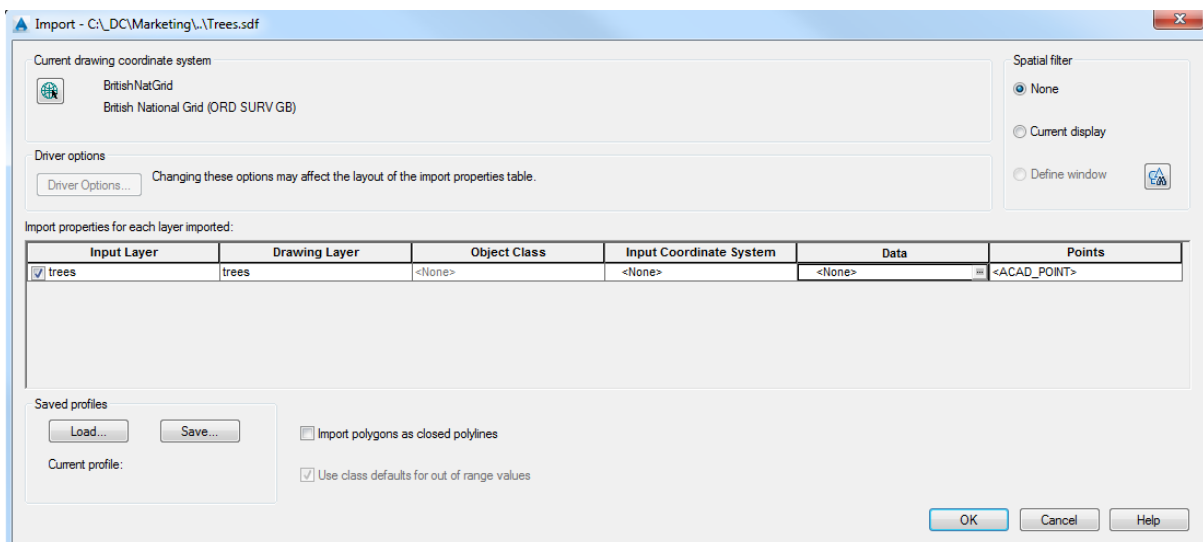
On the Insert menu ribbon, choose the Map Import button.
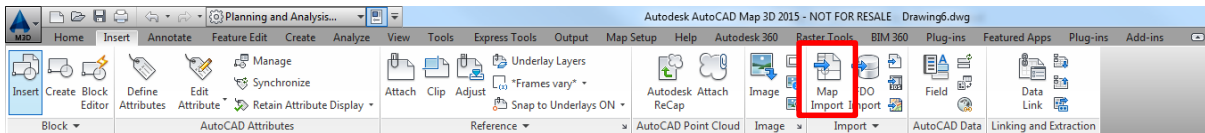
Navigate to the location where your SDF layer is, and from the files of type option ensure that you specify Autodesk SDF, then choose to import your SDF.


Once you click ok, the Import dialogue options box will appear.

If the SDF layer doesn't have a co-ordinate system specified, then there are options for selecting a co-ordinate system. In this example I have chosen to project my data to British National Grid.
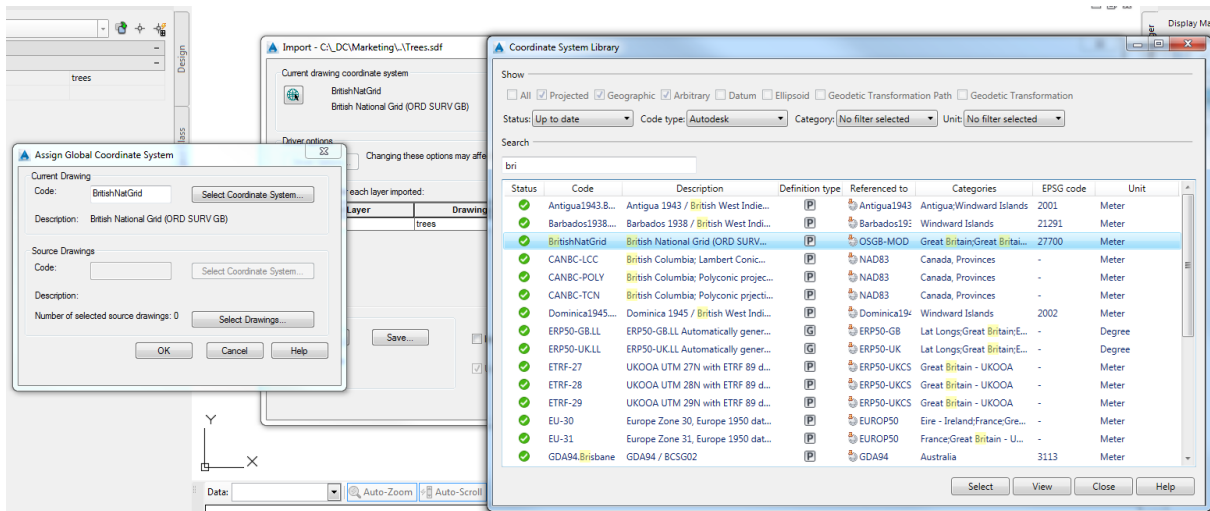

Importantly, if your SDF layer has attributes fields then ensure that you choose the **Data** option from the Import menu .
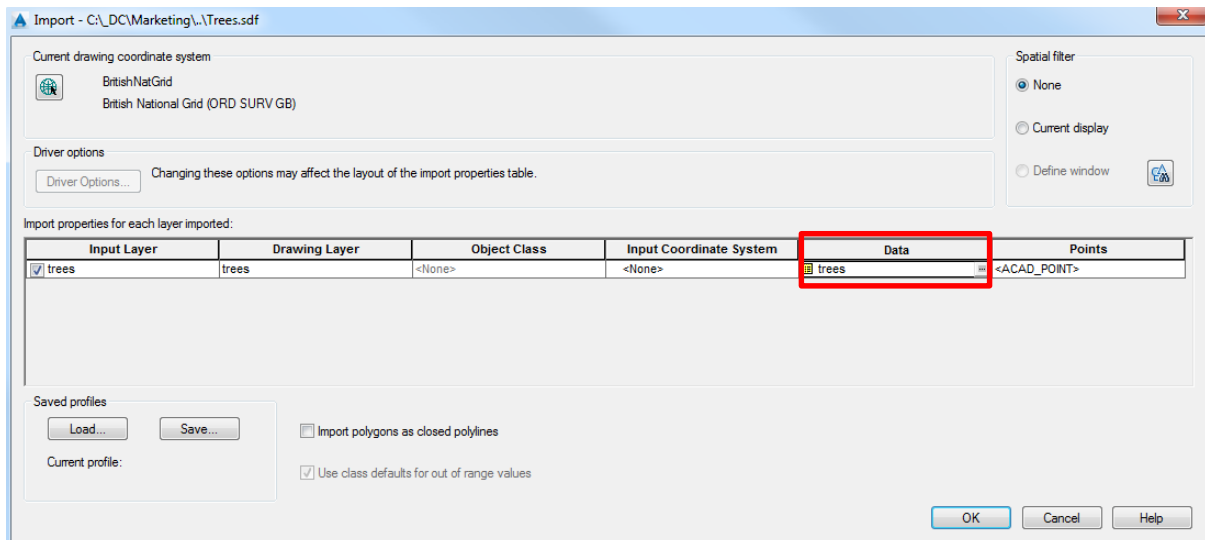
Here you can select the individual fields that you wish to import. Click the **Data** field, choose to **Create object data**, choose **Select fields** and then select the fields that you wish to import, unticking any that you don't need.
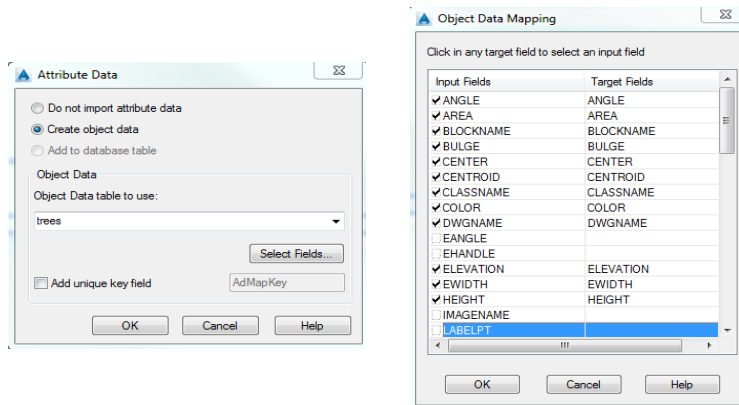

Once you have completed the attribute selection, and chosen to import your SDF layer, it will be imported into your current DWG and added as a layer of drawing objects.
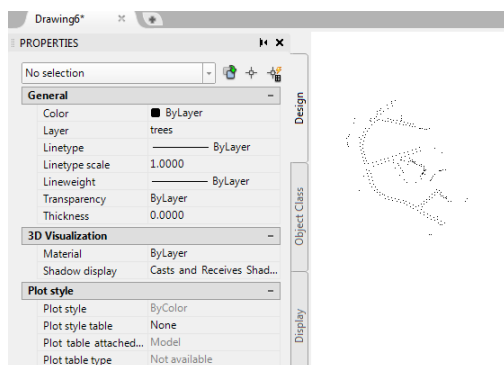
NB: Choose to Zoom Extents if you can't see your imported objects.

Now that the SDF layer has successfully been imported as objects into your DWG, we can now export these to a GIS file type of your choice. Type **MapExport** to open up the MapExport command. Navigate to the required output folder, type a name for the output file and choose the type of file to save as e.g. ESRI Shapefile.
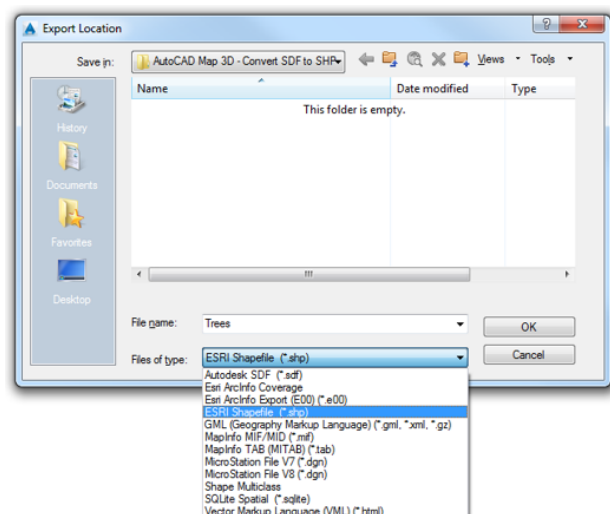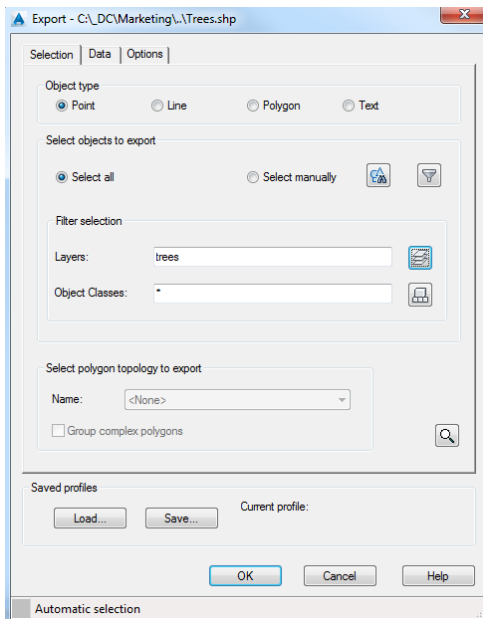
From the **Selection tab** you can choose to select all the drawing objects, perform a quick select or select from the map window.

Choose the layers in the DWG that contain the data you wish to export, in this example I have chosen the Trees layer.

From the **Data tab** you can choose the attributes to include in the export. By default no attributes will be exported.

Choose the **Select Attributes** option and from the Object Data, tick each of the fields that you wish to include in the export.
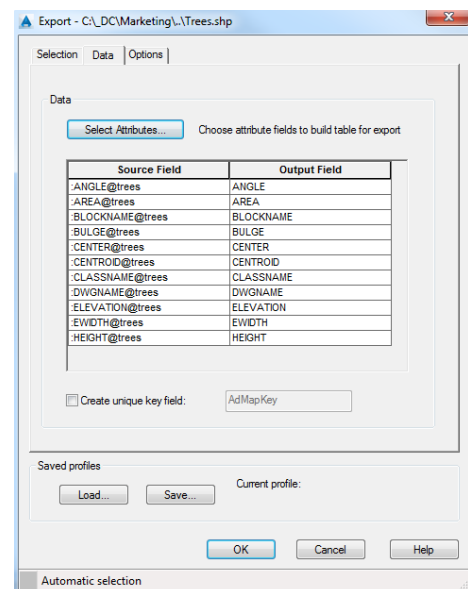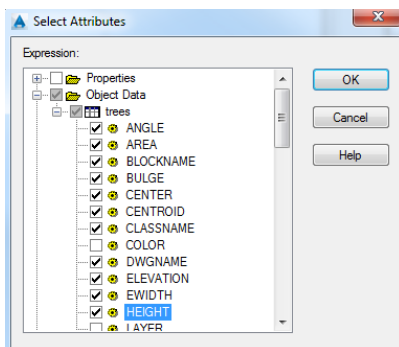
NB. The **Options tab** allows you to perform a co-ordinate conversion in case you wish to reproject your data to an alternate co-ordinate system.

Press Ok and the SDF layer will now be exported to a Shapefile.

Using an alternate GIS (for example QGIS) test that the export has worked and that you can successfully view both the objects and attributes for your new Shapefile.