UKMap 3D Data Bundle help file

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Changing Units Settings

The UKMap 3D Data Bundle is supplied at a scale of 1:1 with the drawing units set to metres.

The insertion units are set as unitless.

If it is necessary to alter these settings, select the Drawing Utilities – Drawing Settings options from the main AutoCAD menu.
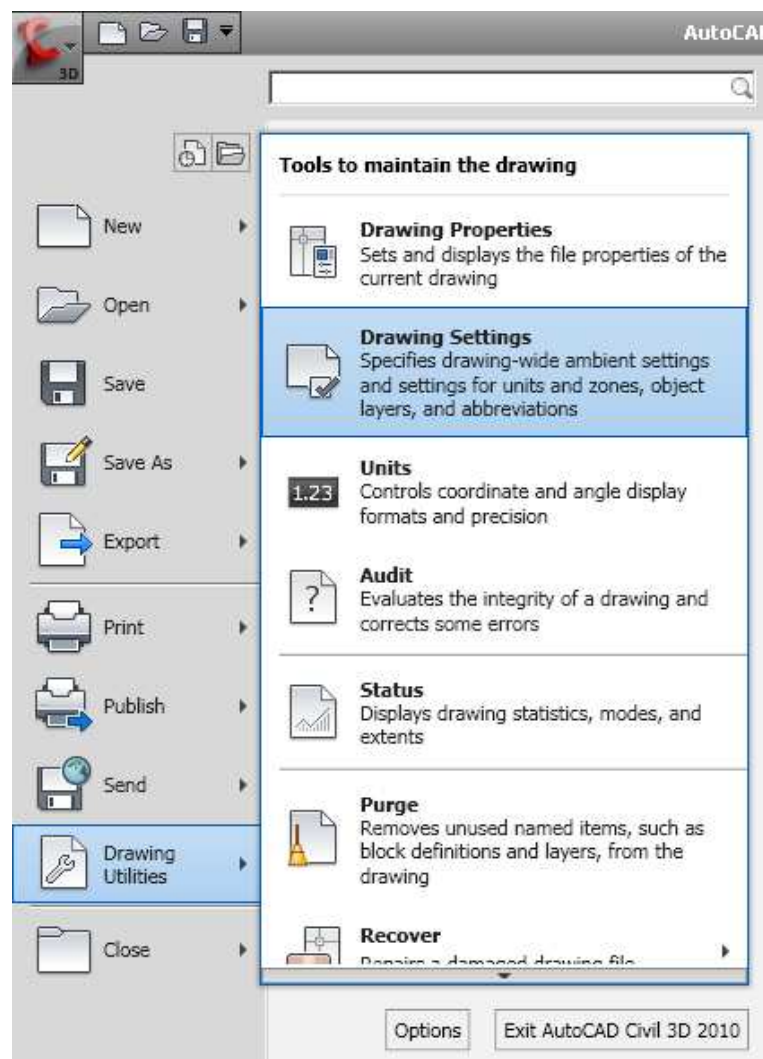

Fig 1 – Drawing Utilities menu

Changing Views

When opening the UKMap 3D Data Bundle in AutoCAD the default appearance is of a 'birds eye' view looking down on the model from a South - South Westerly direction.

The UKMap 3D Data Bundle can be viewed from different angles and orientations to best suit the user's requirements.

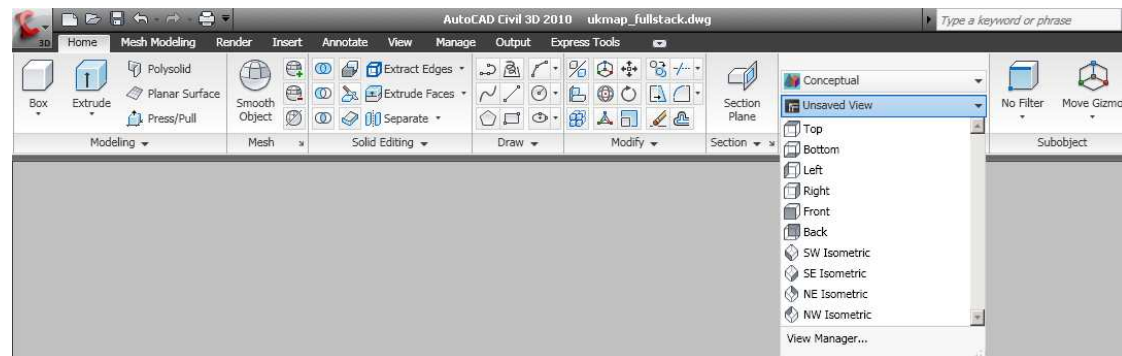A number of default views are available from the View Panel in the Home tab.

Fig 2 – View Panel drop down menu for Named Views.

Alternatively the View Manager can be accessed via the View Panel in the View tab (or type View in the command line).
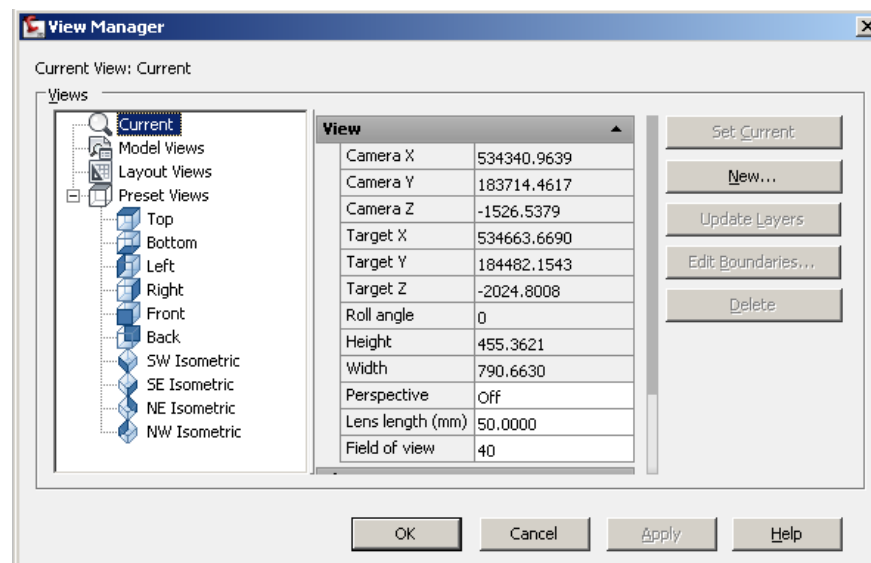

Fig 3 – View Manager

Select from one of the preset views (or create a custom view), and then hit the Set Current button before selecting OK to apply the view and exit the View Manager.

3D Orbit

When viewing the model in 3D use the Orbit controls to rotate the view in 3D space. Select the appropriate option from the Navigate Panel in the View Tab.
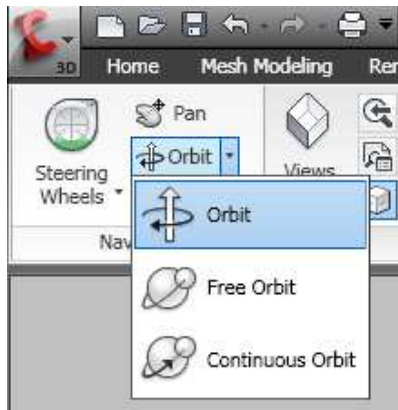

Fig 4 – Navigate Panel drop down menu for Orbit options.

Alternatively the 3D Constrained Orbit can be accessed by typing Orbit in the command line.

UKMap Layer Filters

Information in the UKMap 3D Data Bundle is presented in 77 individual layers derived from the classification codes in the source data.

A number of pre-set filters are applied to the layers in the UKMap 3D Data Bundle to sort them into more manageable groupings containing similar features.
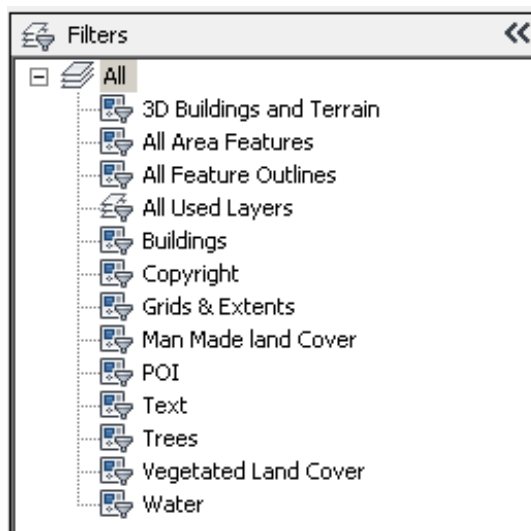
The following filters are applied:

Fig 5 – UKMap 3D Data Bundle Layer Filters

Filters can be turned on/off, frozen/thawed, locked/unlocked, isolated and made visible/invisible as required by the user.

Users can alter the content of the pre-set filters as well as adding their own.

Changing Visual Styles

The default Visual Style of the UKMap 3D Data Bundle is set as Conceptual.

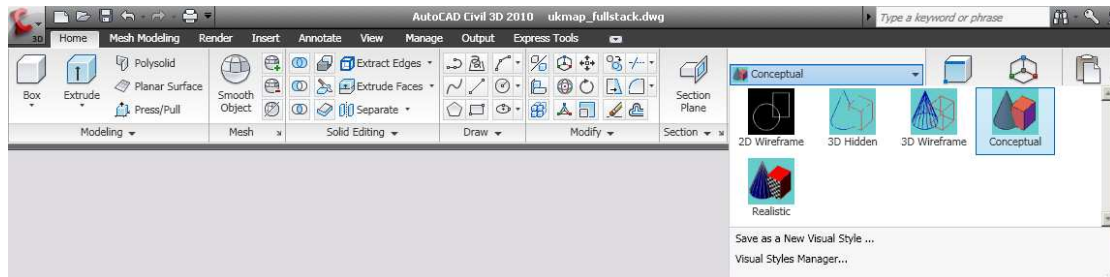The appearance of the model can be altered via the View Panel in the Home tab.

Fig 6 – View Panel drop down menu for Visual Styles

Alternatively the Visual Styles Manager can be accessed via the Visual Styles Panel in the View tab (or type Visualstyles in the command line).
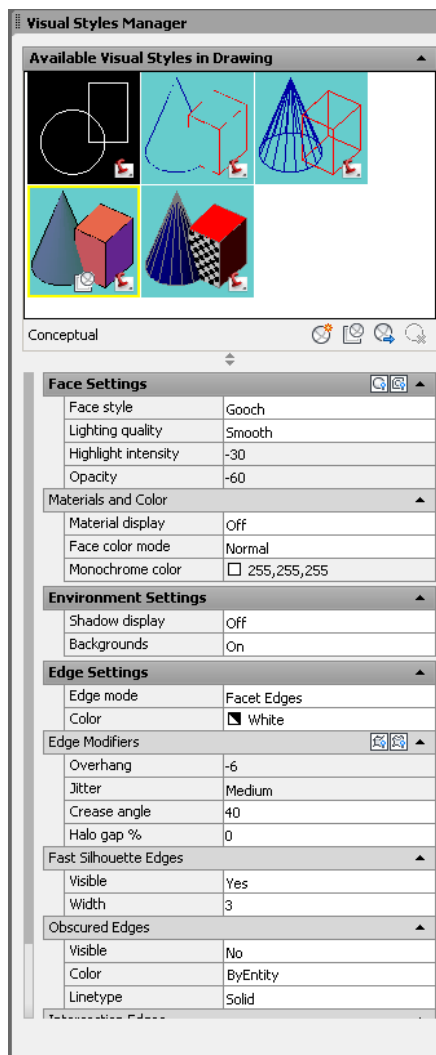

Fig 7 – Visual Styles Manager

Double click on the desired view icon to change the view in the current drawing.

Viewing 3D Buildings and Terrain

The buildings are not created as actual solid objects, but are constructed as 3D Polyface Meshes. Setting the Visual Style to Conceptual ensures that these 3D building models take a solid appearance, making them look more realistic.

Changing the Visual Style to 2D Wireframe turns off the surface rendering of the buildings, instead displaying the construction lines used to create them.

This results in a very messy appearance and for viewing the 3D buildings and terrain it is recommended that the Visual Style is set to Conceptual.

Viewing 2D UKMap Layers

When viewing the 2D UKMap layers it is recommended that the 3D Buildings and Terrain layers are turned off and the Visual Style is set to 2D Wireframe.

When viewing the 2D UKMap layers it is also recommended that the View is set to Top i.e. directly overhead
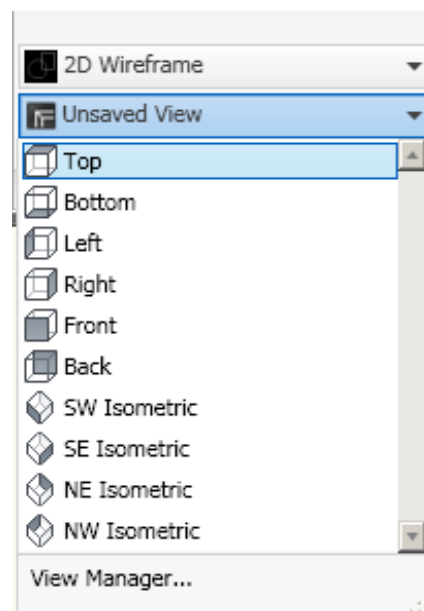

Fig 8 – Setting Top View

Inserting and Attaching Raster Images

Raster images can be brought into the UKMap 3D Data Bundle in a number of ways.

AutoCAD Map 3D

Users of AutoCAD Map 3D can open Raster images with their accompanying world files and AutoCAD will automatically geo-locate the images.

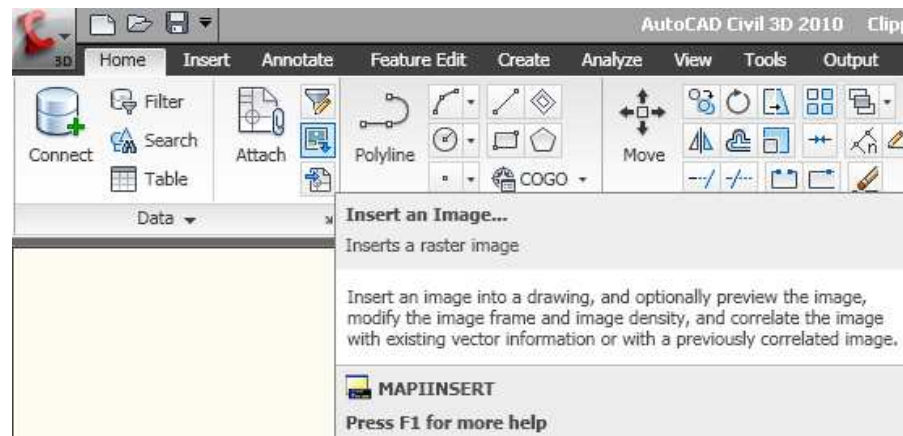In the Data Panel of the Home Tab, select the Insert Image icon.

Fig 9 – Insert an Image in Map 3D

Select the source image and the world file will be picked up automatically. Alternatively, the image can be manually geo-referenced using the Insertion Tab.

Images will be inserted into the drawing in the Current Layer.

AutoCAD

Standard versions of AutoCAD do not recognise the world files used to geo-locate raster images. However it is still possible to attach Raster images using the Aerial Extent layer as the reference frame for the image.

It is important to ensure that the image being attached corresponds to the same extents as the current UKMap 3D Data Bundle.

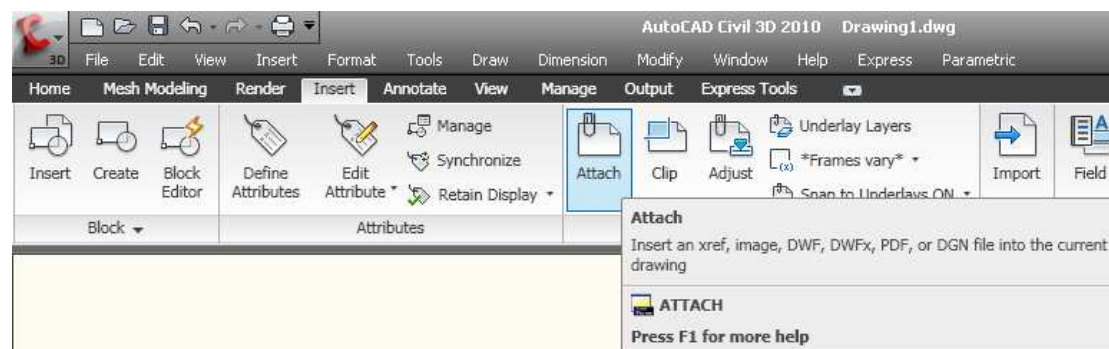From the Reference Panel of the Insert Tab, select the Attach Image icon.

Fig 10 – Attaching an Image in AutoCAD

From the dialogue box, select the image that you wish to attach. Select Open and the Attach Image dialogue box appears:
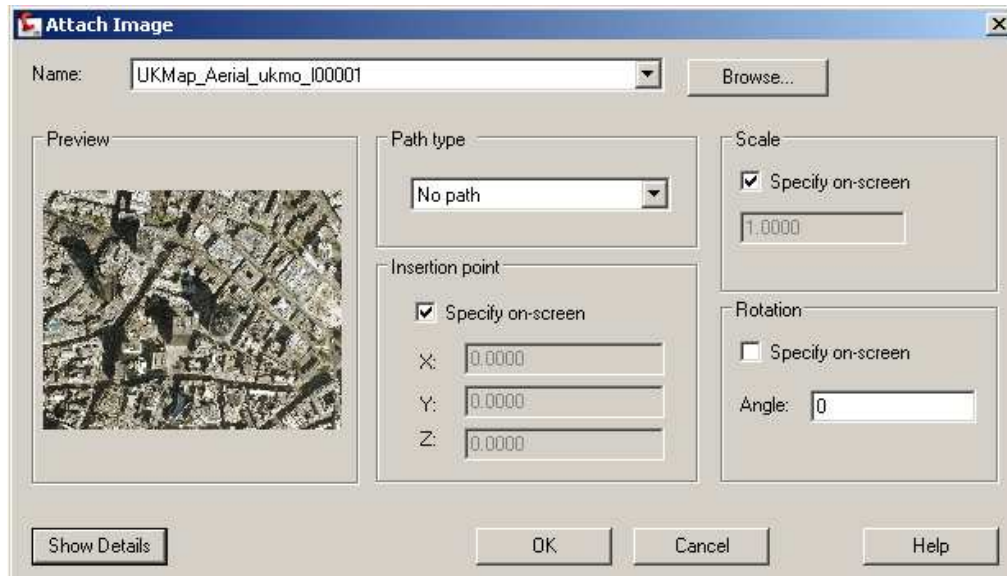
Fig 11 – Attach Image Dialogue Box

Ensure that the Insertion Point and Scale boxes are ticked. This enables the user to specify on-screen where the image should be located.

Select OK and select the Insertion Point for the image. This will be the bottom left corner of the Aerial Extent object:
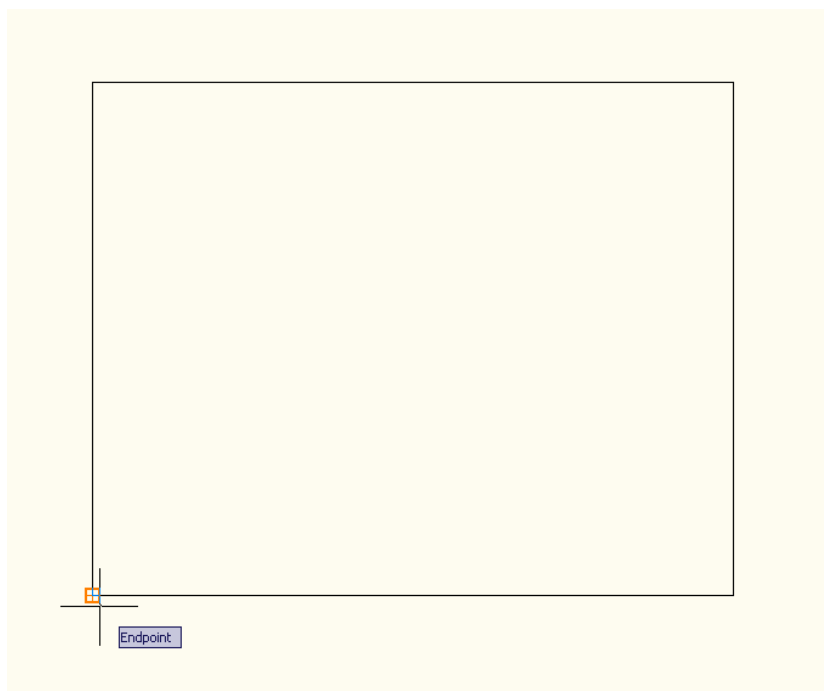

Fig 12 – Specify Insertion Point for Attaching an Image

Click to insert the image and a new set of crosshairs appears to indicate the upper right corner of the image being inserted.

Drag the crosshairs so that the image aligns with the top right corner of the Aerial Extent and click to place the image.

If necessary use the Object Grips to re-size the image and snap the top right corner of the image exactly to the corner of the Aerial Extent.

The image should now be attached to the drawing in the correct location.

Fig 13 – Image after Insertion

An alternative method of attaching the image is to use the External References palette. From the Insert Tab, select the small arrow at the bottom right of the Reference Panel.
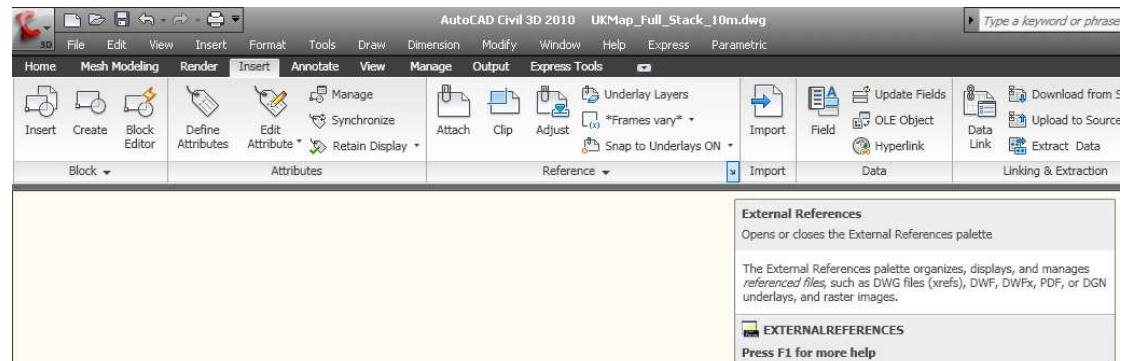

Fig 14 – Opening the External Reference Palette

Alternatively, type XREF in the command line.

In the External Reference palette select the icon in the top left and select Attach Image to bring up the Attach Image dialogue box.

Continue to attach the image in the manner described above.