

3D Mesh large area demonstrator: quick start guide

What and why

What is this facility? This is a browser-based tool which enables you to (a) explore 3D mesh data covering the whole of the south west of England and (b) visualise 3D meshes generated from different capture specifications.

What is 3D mesh data? Generated from stereo aerial imagery, a 3D mesh is a photo-realistic three-dimensional surface which offers a powerful way to visualise and analyse places and landscapes.

Why are we doing this? Over recent months we have been experimenting with 3D mesh generation after it was used to support planning of the [G7 summit in Cornwall in 2021](#). We consulted with a range of customers who told us that 3D meshes offered a lot of potential value, but that they wanted to access the data without specialist hardware or software.

What data does it contain? The data comprises complete coverage of the whole of the English south-west peninsula from our standard imagery capture (15cm resolution). It also contains enhanced 10cm resolution data for Exeter, Redruth, Falmouth, Newquay and Torbay and high-resolution 5cm meshes, from both nadir and oblique imagery, for part of Exeter.

How

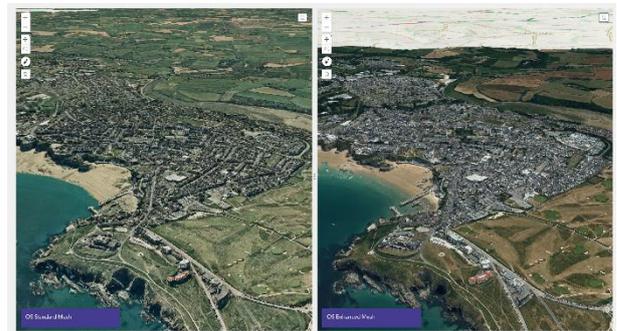
How do I navigate around? By default you're in 'pan' mode. Use the mouse scroll wheel to zoom in and out and drag the map to pan. You can rotate around the image by holding down the right mouse button. If you click  in the top left of the map pane you'll be in 'rotate' mode; use left button rotate, right to pan and zoom. If you zoom right out you'll be able to see the full extent of the 3D mesh data.



What are all the thumbnail images at the bottom of the screen? These are shortcuts to take you to some notable locations.

How do I see the higher-resolution meshes? Click 'Menu' in the top right of the screen and then 'Compare meshes'. In this screen the thumbnails will allow you to switch between resolutions for selected locations. Alternatively, the  button at the bottom left of the screen will allow you to switch mesh visibility on and off with greater control. Click ******* next to a mesh and 'Zoom to' to see it.

By clicking 'Side-by-side' in the menu, you'll be able compare the difference between the 'standard' (15cm resolution) versus 'enhanced' (10cm) meshes.



What else can I do? You'll find a toolbar in the lower right corner of the map window with daylight, sun shading tool and line-of-sight tools. The  button in the top right is a facility for making vertical, horizontal and oblique measurements. Additionally, if you hit  in the bottom left of the screen you can generate a surface profile line.

I thought your 3D mesh sample data included building and road features? It does! Please use [this link](#) to access the feature attribution demonstrator.

How do I improve performance? If you give the tool a minute or so to cache the 3D mesh data, it should be much more responsive.

We need your feedback! Please click the feedback pane on the right of the screen to tell us what you think about the 3D mesh data. This will help us shape a potential new product.

[ENTER DEMONSTRATOR](#)