

3D Building Data

Adding dimension to your world

Making 3D Easy

Information about the third dimension is often something desired by many land and property professionals as a means to better understand and interact with the real world. However, 3D adds another level of complexity when modelling as the multitude of forms it comes in compounds issues such as data handling and display.

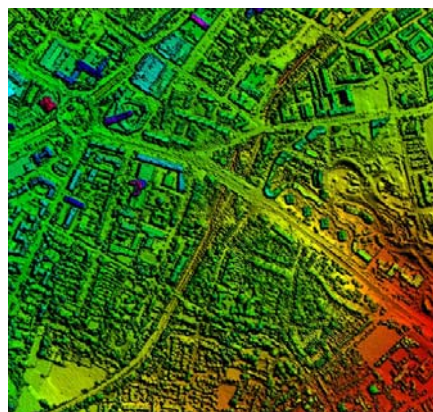
Over the past 10 years, Cities Revealed® has successfully deployed a wide range of 3D solutions to architects, planners, security specialists, developers and government departments. It has created a clear, unambiguous, robust and useable 3D offering covering the many needs of professionals who require information on the third dimension.

3D Product Range

To simplify the delivery and ordering of 3D we have categorised the various types of 3D data into three classes, namely **Surface Models**, **Building Blocks** and **Detailed Models**.

Surface Models

3D surfaces, that are digital surface and terrain models (DSM and DTM respectively) are created from highly accurate lasers mounted onboard aircraft (termed LiDAR).



Surface model of Birmingham

The output from these sensors is a very fine and detailed 3D layer of points identifying the 3D value of every feature on the ground's surface. These type of data are ideally suited to ground work applications or those involving vegetation or telecommunication line-of-sight applications.

Data is supplied in DXF, DWG and other point / raster data formats such as .IMG and ASCII.

Advanced processing of these 3D points and in combination with building footprints enable the creation of the next level of 3D product; 3D building blocks.

Building Blocks

Using the exterior boundary of a building, from such sources as Ordnance Survey®, UKMap® or specific ground surveys, we are able to combine this information with the LiDAR point data to create 3D building blocks.

These are often referred to as massing models and provide a very good starting point for any budding or even experienced 3D modeller.



Building Blocks around West Ham stadium

One extra advantage in London is that the use of UKMap for 3D building blocks gives added roof detail as each building has significantly more divisions and hence looks more detailed when viewed in 3D.

Supplied in common CAD and rendering formats, DWG, SKP and 3DS these models are ready to be put to work and deliver immediate results.

Detailed Models

Some users may want a more advanced model - one that shows roofs, dormers and buildings in greater detail beyond that provided by the building blocks.

Detailed lines are drawn in 3D and connected to give a very accurate and detailed 3D model.

These models can be generated for single buildings, neighbourhoods and even whole cities.

Supplied in common CAD and rendering formats, DWG, SKP and 3DS these models are ready for use and deliver instant results.



Detailed model of Lincoln city

Due to the complexity of these models users should ensure they have suitable software and hardware to run these models. For example Lincoln city, some three sq km resulted in a 90mb model.

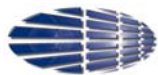
The next step

To find out which of the 3D options fits with your project's requirements, please refer to the 3D Options chart, call us on 01223 880077 or email info@citiesrevealed.com.

Applications

3D Building Blocks can be utilised in many applications, a few of which are listed below.

- Urban regeneration
- Architectural visualisation
- Land and property development
- Road network development
- Town Planning
- Telecommunications planning



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