

## Technical Information

### 3D Textured Model

#### 0.5m 3D Textured Model

<b>Method</b>	<p>Automatic stereo matching including auto-filtering of artefacts.</p> <p>Automatic DSM generation followed by manual editing and automatic improvement.</p> <p>After editing tasks, all remaining voids are interpolated.</p> <p>The generated 3D point cloud is finally textured from the source imagery at 0.5m resolution, using images from different azimuth angles in order to re-create a 360deg textured environment over the area.</p> <p>Overall radiometric optimization to enhance color rendering.</p> <p>Final visual quality check.</p>
<b>Manual Editing Level</b>	<ul style="list-style-type: none"><li>• Detection of water bodies (sea, lake, main river) and DEM flattening</li><li>• Removal of main artefacts (spike, hole)</li><li>• Manual editing (remarkable constructions, roads)</li></ul>
<b>Source Data</b>	Pléiades, 3 Tri-stereo pairs + 2 Mono, Pansharpened, Primary, JPEG 2000 Regular
<b>Grid Spacing</b>	0.5m
<b>Absolute XY</b>	<ul style="list-style-type: none"><li>• With GCPs: 1.5m CE90</li><li>• With internal references (if available) : 2m CE90</li><li>• With Ref3D GCPs: 3.5m to 10m CE90*</li><li>• Without GCPs: 8.5m to 10.5m CE90*</li></ul>
<b>Accuracy Absolute Z</b>	<ul style="list-style-type: none"><li>• With GCPs: 1.5m LE90</li><li>• With internal references (if available): 2m LE90</li><li>• With Ref3D GCPs: 6m to 10m LE90*</li><li>• Without GCPs: up to 10m LE90*</li></ul>
<b>Relative</b>	<ul style="list-style-type: none"><li>• XY: 1.5m CE90</li><li>• Z: 2m LE90*</li></ul>
<b>Format</b>	OSGB, 3D Tiles (B3DM) - on request: OBJ, DAE, FLT
<b>Projection</b>	UTM / WGS84 or WebMercator / WGS84 (custom projection on request)
<b>Vertical Unit</b>	Meters
<b>Vertical Reference</b>	Elevations above mean sea level (ref. = EGM08) or Ellipsoid heights

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<b>GCPs</b>	<ul style="list-style-type: none"><li>• Ground control points can help to attain optimal accuracy</li><li>• The customer can provide accurate GCPs (~25cm XYZ) that are visible in the stereo-pair</li></ul>
<b>AOI</b>	Off the shelf (if available) <ul style="list-style-type: none"><li>• Minimum area = 100km<sup>2</sup> / Maximum area = 400km<sup>2</sup></li></ul> On demand <ul style="list-style-type: none"><li>• Shape: square with a minimum width of 20km</li><li>• Minimum 400km<sup>2</sup></li><li>• Maximum 1,000km<sup>2</sup></li></ul>
<b>No Data Value</b>	There is no computed data where the elevation is not determined
<b>Metadata</b>	No additional metadata is provided with the model
<b>Tiling</b>	<ul style="list-style-type: none"><li>• Smallest computed tile size is 0.5km x 0.5km (~10-30Mb)</li><li>• Tiles are merged by default in a 3km x 3km package (custom package size on demand)</li></ul>
<b>B/H Ratio</b>	<ul style="list-style-type: none"><li>• The optimal B/H ratio is in the range of [0.1 – 0.4]</li><li>• A low ratio is suitable for dense urban areas with tall buildings</li></ul>
<b>Limitation</b>	Objects with a footprint smaller than 1.5m x 1.5m and an altitude lower than 3m may not appear in the final product. Information below overhung objects (e.g. buildings with overhanging roofs) may not be accurate.

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\* valid for slopes ≤20%