

DIGITAL TERRAIN MODEL

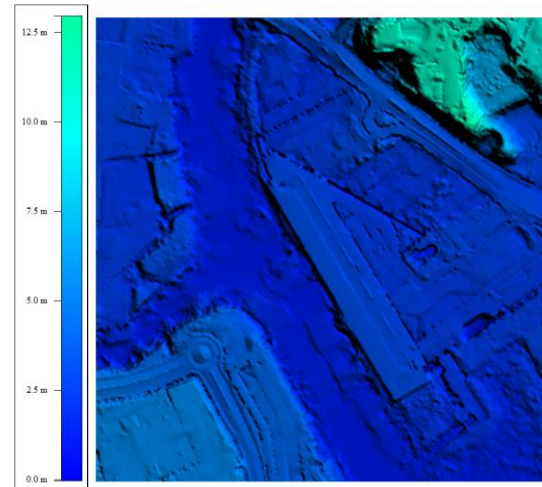
The **DTM** is a mathematical representation (model) of bare earth surface, most often in the form of regular grid, in which a unique elevation value is assigned to each pixel or cell. High resolution elevation model derived from high density LiDAR points are useful for generating accurate terrain model. Even in a dense forest cover, the laser pulses can penetrate high vegetation and reach to the ground surface. The model has been used in various application such as extracting hydrological features, drainage modelling, and flood assessment.

DIGITAL SURFACE MODEL

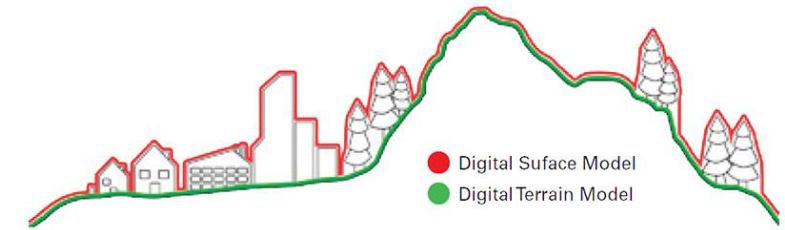
Meanwhile, the **DSM** contains natural and built features on the earth's surface. The model has extruding objects like buildings, towers, bridges, vegetation and powerline. Surface model is useful in 3D modelling for city planning, utilities and forest and individual tree assessment. High resolution imagery is often layered on top of DSM to create a realistic 3D dimensional visualization.

57	82	84	83	81	88
55	54	53	82	87	83
59	57	55	56	89	84
35	59	58	52	57	63
33	35	30	34	64	64
87	89	34	65	66	68

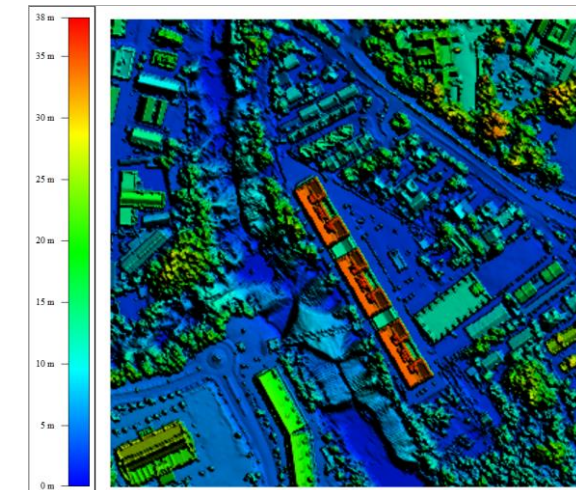
Most of the elevation models are represented in regular grids with assigned elevation value in each pixel.



A diagram showing the distinctive features included in DTM and DSM.



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