

Script for 3D Digital Map (Kowloon East)

The 3D digital map, which is a major dataset supporting the Common Spatial Data Infrastructure (CSDI), is to facilitate opening up and sharing of Government geospatial data.

Kowloon East, as the first project area of 3D digital map, undertakes a vital role in experimental research and pilot demonstrations.

Compared with traditional maps, the 3D digital map can provide more accurate and abundantly better spatial data.

The project area of Kowloon East covers about 27 km², including about 24 km² of land area.

About 6,500 buildings and about 420 infrastructures including flyovers, footbridges and subways.

Among them, 10 landmark buildings in Kowloon East were created with more detailed and photo-realistic models.

The project deployed advanced technology, including the oblique aerial camera system (helicopter), the vehicle-based mobile mapping system and the portable mobile mapping system, to acquire sufficient and accurate data for generating the 3D digital map.

The data acquisition consists of site reconnaissance, the oblique aerial camera system survey, the vehicle-based mobile mapping system survey, the portable mobile mapping system survey, and the survey of control points and check points.

The data surveyed by the oblique aerial camera system, the vehicle-based mobile mapping system and the portable mobile mapping system will be post-processed and integrated for the generation of the 3D digital map.

3D Visualisation Map (Individualised models)

Covering about 6,500 Buildings, Road, Infrastructure, Vegetation, Waterbody, Terrain, and Generic (Others)

The formats of the models are in 3ds Max, FBX, glTF, DAE and KML

3D Visualisation Map (Tile-based models)

The formats of the models are in OSGB, OBJ and Cesium 3D Tiles

The 3D digital map provides information about the geometrical shape, appearance and geo-referenced position of ground objects including building, infrastructure and terrain. When combined with other spatial data, the 3D digital map supports operations such as urban planning, land management, project development, environmental studies, traffic studies, landscape design, other technical assessments, as well as facilitating the development of various applications.

The datasets are now available for free download at CSDI portal. The URL is as follows:
<https://portal.csd.gov.hk>