

Development of the BIM Data Repository of Lands Department

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Key words: Geoinformation/GI; GSDI; Implementation of plans; Standards; Building Information Modelling; BIM; standardised BIM data; standardising BIM data; integration of BIM Data with GIS data; harmonising BIM data; BIM Data Repository; BIM DR; sharing of BIM models; Open BIM

SUMMARY

The Development Bureau of the Hong Kong SAR Government has been promoting the use of Building Information Modelling (BIM) in the construction industry in Hong Kong since 2017. With the concerted effort of the stakeholders in the industry, there are increasing amount of quality BIM data being generated by government and private development projects in Hong Kong. However, those data are difficult to be exploited in a broader context for a variety of reasons. The fragmentation in sharing of BIM data; lack of standardised BIM data; and the absence of a platform for identifying and accessing the data are some of the problems that hindered the sharing of BIM data across government departments as well as integration of BIM Data with GIS data.

There are different initiatives taken by the stakeholders and the Construction Industry Council in Hong Kong in standardising and harmonising BIM data in different projects following prevailing international standards. In 2018, in order to assist the sustainable development of 3D digital map and facilitate spatial data sharing, Lands Department (LandsD) has implemented a prototype of BIM Data Repository (BIM DR) for the uploading, converting and sharing of BIM models in a common 3D GIS environment. BIM data uploaded to the prototype BIM DR has been simplified, making it easy to be shared in open formats, facilitating land and infrastructure developments. The prototype is still up and running with more than 40 projects submitted from participated works departments. The successful implementation of a full scale BIM DR to support Open BIM and Open GIS is one of the cornerstones in the sustainable development of Digital Hong Kong. It will help the construction and geospatial industries to leverage the rich spatial data content of the BIM data for a variety of applications. The data collected in the BIM DR will also be an invaluable source of data for future development of 3D digital map in LandsD. This paper presents the story behind the development of the prototype BIM DR as well as the road map, preparation work, and the challenges in developing a full scale BIM Data Repository in

LandsD.

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