

Basic Data Survey and Investigation of Urban Renewal and Reconstruction Based on Multi-Technology Integration

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SUMMARY

In the context of rapid urban development and land shortage, urban renewal and reconstruction has become an important way for the sustainable development of China's big cities, especially coastal cities. Accurately measuring and investigating the attributes and scale of land and real estate has become a prerequisite for scientific reconstruction planning or demolition plans. This paper adopts mobile phone programming and script development to realize real estate information collection and area automatic calculation, utilizes unmanned aerial vehicle (UAV) and 3D laser scanning technology to establish a real 3D model of the reconstructed area and building, and uses FME to achieve quality inspection and database construction. A village spatial information mapping and modeling production system with integrated technology has been built, which can quickly and accurately obtain geospatial data. Through several actual project test and the verification by independent third-party testing agency, it shows that the measurement results of this method meet the requirements of the relevant specifications of the real estate and urban renewal survey, improve efficiency and diversity of results, and can provide important data support for design renewal planning, cultural relic protection and illegal land use monitoring.

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