Thoughts and Practices on Data Quality Inspection for 3D Real Scene Construction

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SUMMARY

3D Real Scene, which provides a true, three-dimensional, and temporally sequential reflection of human production, living, and ecological spaces, serves as a significant new type national infrastructure. It achieves real-time correlation and interconnection between digital space and the physical world through "human-machine compatibility, IoT sensing, and ubiquitous services." As a unified spatiotemporal positioning framework and analytical foundation for Digital China, it represents a crucial strategic data resource and production factor for digital government and the digital economy. This paper first introduces the current situation and challenges in data quality inspection for 3D Real Scene construction. Secondly, it explores key technologies for quality inspection, focusing on standard systems, inspection workflows, and technical methods. Thirdly, through typical case studies, it analyses the effectiveness of quality inspection practices. Finally, it outlines future development trends in data quality inspection for 3D Real Scene construction, providing insights and references for related work.

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