

Scan-to-BIM 통합을 통한 철도 유지관리 효율 향상: 기하학적 결함을 중심으로

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초 록 Efficient railway maintenance is essential for safe operations. Traditional methods rely on manual inspection and fragmented reporting systems, leading to interoperability issues. To address these challenges, this paper presents a robust Scan-to-BIM framework. Focused on geometric defects, this method systematically extracts parameters from scans to create an optimized BIM representation. Advanced scanning captures defects and enables precise alignment analysis, streamlining defect identification and maintenance planning. The resulting BIM model bridges the gap between inspection and management teams, revolutionizing railway maintenance.

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