

Digital Engineering

Through advanced digital engineering, DT Infrastructure (DTI) helps clients unlock the full potential of technologies like Building Information Modelling (BIM) and Geographic Information Systems (GIS). These tools enhance project visualisation, collaboration and efficiency, supporting successful project outcomes.

DTI's Digital Engineering team provides specialist expertise in the design, review and assurance of design and construction elements across multiple industries. Our proven methodology integrates all systems and civil components holistically, helping clients achieve value-for-money throughout project delivery.

Digital engineering

We offer the following digital engineering services:

- BIM
- GIS
- System Information Modelling (SIM)
- 3D design modelling
- 3D construction modelling
- 3D coordination and review
- 4D simulation and activity tracking for site management
- Quantity take-off
- Gamification and signal sighting
- Stakeholder engagement
- Augmented Reality (AR) and Virtual Reality (VR)
- Machine control and machine avoidance
- Asset management
- Digital quality records.

Civil component integration

We offer the following civil component integration services:

- Level crossing design and checking
- Combined services route design and checking
- Cable route construction advisory
- Clash review and detection
- Advisory on civil disciplines – overhead wiring, signal gantries, signal mast, foundations, culverts and retaining walls
- Advisory on drainage, design and construction
- Civil correlation from reference design to tender submission to project delivery.



Digitisation of infrastructure creates comprehensive ways to envision design solutions and improve whole-of-life asset performance. Our digital engineering capabilities have optimised rail systems civil components such as combined services routes, level crossing design and verification, culverts and drainages, cable route construction advisory and civil correlation works — from reference design, to tender, through to final handover of assets.

