



ALASTAIR SHARPE

SENIOR CIVIL ENGINEER

QUALIFICATIONS

Bachelor of Engineering with Honours (Civil) University of Queensland

Graduate Certificate in Advanced Engineering Civil and Structural

KEY SKILLS & EXPERIENCE

Railway simulation modelling using OpenTrack

Computational programming of engineering problems

“Big Data” set analysis

OTHER TRAINING

Revit (CAD) Essentials, TAFE, 2016

AutoCAD Fundamentals, TAFE, 2016


OpenTrack Railway Network Simulation Software Training, Plateway, 2017

Viriato Timetabling Tool Training, SMA and partners Zurich, 2018

White card

RISI Card

CONTACT DETAILS

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PROFESSIONAL EXPERIENCE

Plateway Pty Ltd, Sydney (2017—Present)

Alastair holds a Bachelor of Engineering with Honours in Civil Engineer from the University of Queensland. Responsible for Plateway's OpenTrack support, licencing and training in the Australasia region. In addition to organising Plateway's OpenTrack user group and involvement in delivering Plateway's OpenTrack training, marketing for various clients in Austrasia. Alastair also leads the development of Plateway's inhouse CLIP software (An add in for OpenTrack) as well as presenting the software to possible clients. Alastair has extensive experience using OpenTrack, C#, Python, VBA macros, databases including Access and Microsoft Office (Word, Excel, Project). He is also experienced with CAD packages including AutoCAD which he further developed though undertaking courses at TAFE.

PROJECT EXPERIENCE

Ermelo Yard – TransNet South Africa

Alastair's role involved the development of the OpenTrack model and simulation of Ermelo Yard operation. Involving the detailed simulation of both inner and intra yard movements based on the developed timetable. Simulation analysis of the proposed yard asset configuration.

Queensland Rail OpenTrack model expansion

Alastair's role involved the coordination of the Plateway's project team to deliver the extension of the existing Queensland's Rail Master Network model on the North Coast line and Mt Isa line for a total of over 1000km of route km. Involving the delivery of the OpenTrack model and source CLIP and liaison with Queensland Rail. Leading to successful model adoption by Queensland Rail.

Mayne Yard – Queensland Rail

Alastair's role involved the simulation study and review of the proposed impact of a major Government Project Mayne Yard. Undertaking a simulation analysis of possible Mayne Yard reconfigurations and wider network impacts. Prepared concept layouts for discussion.

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OpenTrack Implementation Alstom Australia

Alastair's role involved updating the OpenTrack Training presentations and assisting as tutor during the OpenTrack Training delivered as part of Alstom's licence acquisition for the purpose of validating the impact of ETCS Level 1 implementation From Caboolture to Nambour.

OpenTrack Simulation of Freight Train Idling Positions for Transport for NSW (TfNSW)

Alastair's role included rebuilding and validating 150 route km of network. Simulation of three potential stopping positions for long freight trains which minimized the idling noise generated by the operation and testing the impact of each stopping position on the timetable as operated. The model was calibrated against actual data logger values.

OpenTrack Simulation and Data Set Management for Indian Railways Pilot Study for Use of Big Data in Freight Train Performance Analytics.

Alastair's role included sourcing data not provided by Indian Railways from web sources. Compiling the OpenTrack model for two segments (approximately total length just under 500 route km) using CLIP and validating the model against actual train performance.

OpenTrack Simulation of QR ETCS Level 2 Implementation Siemens Australia

Alastair's role involved assisting Siemens to run variance cases in OpenTrack on their ETCS Level 2 proposal.

OpenTrack Simulation of Freight Train Performance to Quantify Fuel Savings Due to Wagon Maintenance Regime for TfNSW.

Alastair's role involved analysis of locomotive data loggers for journeys from Melbourne to Brisbane (around 2000 km) to calculate the as delivered rolling resistance and curve resistance of each run. This was then simulated and compared with actual fuel usage. The aim of the project is to track improvements in wagon performance as wagons are upgraded.

Casino Rail Freight Terminal Project

Updating intersection design, preparing briefs for hydrological and geotechnical design. Updated cost estimate.

PAST EXPERIENCE

Madsen Giersing Pty Ltd, Brisbane, Australia

Undergraduate Engineer

2014 – 2015

- Analysis of dynamic pile tests using CAPWAP and PDA and report generation on time and to relevant standards including setting up template for reports
- Developed a better design for a client's proposed temporary support frames, structural analysis, documentation and draft letter back to the client.
- Produced bills of quantities for wharf options and support frames.
- Self-learnt Zenriser software and modelled a floating pipeline.
- Attended and reported progress at weekly progress meetings.