



Paraburdoo Sustaining Works

PROJECT LOCATION

Paraburdoo, Pilbara, Western Australia

PROJECT CLIENT

Rio Tinto Expansion Projects

PROJECT SUMMARY

The work at Paraburdoo involved a full rewrite of the control system, integrated with throughput optimisation strategies to deliver a significant plant improvement.

The control system was configured as a constraint based system which continually optimises the tonnage rate to the current constraint within the plant.

BUSINESS IMPROVEMENTS

Proven: First phase 28% throughput increase (~5 Mtpa) achieved within 8 months via new system architecture and reconfiguration

Expected: Second phase will extend benefits to out loading operation within 4 months

Additional Benefits: Production improvement team to sustain improvements and generate more

PROJECT SCOPE OF WORK

- Replacement of legacy PLC system and full re write of PLC & Citect systems
- Full live plant simulation of constraints and delays to enable effective implementation
- Implementation of new control philosophy for base level and optimisation strategies
- End of life model reviews and replacement and upgrades of instrumentation
- Implementation of real-time delay accounting system with production metrics
- Implementation of live constraint model on Citect
- Site commissioning and ongoing support
- Significant competency based training preparation and delivery

SYSTEMS

Equipment / Processes

Crushers
Processing plant
Stackers
Reclaimers
Train Loading

Technologies Used

Modicon Quantum
IEC Compliant Function Block Code
1GB Hirshmann Ethernet Network
Wireless Licensed Frequency Network
Profibus Network
Citect Ampla
Citect v6 Compliance

For further information contact Calibre Controls on +61 8 9488 7320 or info@calibrecontrols.com.au

CALIBRE CONTROLS PTY LTD

ABN 73 109 369 155

www.calibrecontrols.com.au

Perth +61 8 9488 7320

Adelaide +61 8 8354 3153

Brisbane +61 7 3001 6000

Head Office

Level 11, 140 St Georges Terrace
Perth, Western Australia, 6000
Australia