



Lump Stacker PLC Upgrade

WEST ANGELAS, WESTERN AUSTRALIA

Project Name

Lump Stacker PLC Upgrade

Location

West Angelas

Client

Rio Tinto

Contract Type

Fixed

Period

**2 Month Design, 77 Shutdown
Hours**

Summary

The project demonstrates the ability for X2 Engineering to work with complex control systems and convert legacy software to industry standards.

X2 Engineering staff were awarded the contract to upgrade the West Angelas Lump Stacker from Proworx NXT (Ladder Logic) to Unity 7.0 (Function Block). All code design was simulated and Factory Acceptance Tested pre-site works to ensure a smooth transition during commissioning.

Shutdown works took place over a tight 77 hour window, with engineers on day and night shift to re-commission the machine including all core functions, onboard Anti-Collision System and Stockpile Management System. The machine was available for feed on with no delays caused by the project.

The new system in Unity 7.0 provides the following benefits over the existing system:

- Reduced downtime as a result of rapid fault finding due to refined, commented and well structured code.
- Industry standard platform for further software improvements and device addition.
- Code meeting RTIO standards
- Vastly improved software platform for future optimisation works.