

CASE STUDY

RS3 to DeltaV DCS Upgrade

OUR CLIENT:	Swift Energy, Waihapa Production Station
INDUSTRY:	Oil & Gas
VALUE:	NZ\$150K
OVERVIEW:	The Waihapa Production Station (WPS) was built in 1984 and relied on an antiquated RS3 DCS as the backbone of its control system. The upgrade to DeltaV was completed largely online with minimal planned shutdowns to maximise production uptime and minimise downtime.
ENGINEERING:	<p>The project entailed updating approximately 350 real IO and 1500 comms IO (PLC5) with a largely online cutover. This entailed running the new & old systems in parallel over a period of months whilst loops control and monitoring functions were progressively transferred via comms between new and old systems, then finally IO swung over as process conditions permitted. A final cutover of critical ESD signals was scheduled to coincide with a planned shutdown.</p> <p>Close co-ordination with the onsite ops & maintenance teams, automated code generation and rigorous pretesting were the keys to the success of this project.</p>

- No unplanned shutdowns during this complex cutover.
- Robust dual DCS screen functionality (old & new) active during extended cutover, close working with ops to ensure control of plant maintained at all times.
- Increased functionality of new system to the capabilities of DeltaV rather than 'black box' copy with system limitations of old RS3.

