

SmartROS™

DESCRIPTION

A rig operating system enabling machine control, process automation, integrated drilling services, and remote operability

RIG REQUIREMENTS

Can be installed on all AC or SCR rigs.
SCR rigs will require an AC top drive for partial process automation, and an AC top drive and AC drawworks for full process automation.

INSTALL TIME

Process Automation
3-5 days for field deployment, can be partially completed during a rig move.
Machine Control
To be determined after a rig survey, but usually 10-30 days for field deployment depending on the application.

Machine Control

→ Controls critical rig equipment and is modular to easily accommodate multiple makes/models of equipment

Critical rig equipment controlled via HMI and chair controls	Automated slips & elevator	Integrated pipe handling
Zone management	Tubular management	Alarming & historian
Automated engine management to reduce carbon footprint		

Process Automation

→ Comprehensive suite of process automation to optimize every step of the drilling process

Slips to slips rotary automaton	Transitions between rotary and slide drilling	Integrated downlinking
Stick-slip mitigation	Automated slide execution	Back-ream
ROP optimization	Automated depth & activity-based recipe manager	

Drilling Services

→ Only rig operating system built to fully integrate services

Integrated casing running	Digital rig activity planning & execution	Integrated managed pressure drilling
Remote directional drilling	Emissions management	Alerts for call-out services/equipment

Remote Operations

→ 24/7 Remote operations center for execution, monitoring, and troubleshooting

Remote access for troubleshooting and support	Remote execution and QA/QC of automated drilling processes (directional drilling, TRS, MPD, etc.)	Digital workflows accessible from anywhere
Equipment and controls troubleshooting, remote resolution, and technician dispatch	Equipment condition-based monitoring with intelligent alarms	Remote training
Real-time recipe optimization and automation utilization monitoring		