

NOV™ Driller's Workstation

RISE™ technology for CYBERBASE™



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CYBERBASE™ v14: The flexible, upgradable and reliable drilling control system

CYBERBASE™ is the original integrated drilling control system built for seamless integration of machine control, process management and information sharing. True to the original design, the CYBERBASE system works with any machine and complimentary system while maintaining optimal process safety and cybersecurity. CYBERBASE v14 bridges the challenge of aging technology through applying purposeful innovation:

- Centralized datacenter environment hosts data, monitoring, analysis, support and report applications
- Virtualization technology allows expandable software and extendable hardware independently
- High availability, redundancy and disaster recovery of critical operations
- Data provider for efficient capture, storage and retrieval of information
- Software lifecycle management
- Extensive system monitoring and administration
- System hardening for emerging cybersecurity threats

Drilling system data center

The first in the industry data center solution to fully decouple software from hardware creating a truly future oriented system. A data center is inherently fault-tolerant by dynamic load sharing and allowing hot-swapping of hardware without interfering with the drilling operations. As a bi-product, the data center allows more computing and data storage capacity hence giving the end user faster response time, better information and cheaper upgrades. Solutions such as the drilling data, analysis and report functions, system health monitoring, eHawk™ remote support, digital CCTV solutions, Webdriller, NOV Alarm Statistics, Sdi.Connect etc. are co-hosted in data center as virtual machines.

The CYBERBASE front-end stations use high reliability fanless smart clients. Networks are upgraded to improve capacity, reliability, scalability and maintainability.

Capturing, storing and providing data

The CYBERBASE system has many stakeholders consuming information such as drilling and machine data, manuals, configuration files and software management history.

CYBERBASE solves the challenges associated with explosive growth in data and increasingly complex storage environments.

Cybersecurity hardening

Cybersecurity is important and remains a high-focus for CYBERBASE by implementing defense-in-depth strategy.

- Strict remote-access control through a DMZ and antivirus software protection
- Managed USB ports, segregated network and firewalls help maintaining the air-gap
- Application whitelisting prevents unintended applications from running
- Extended system surveillance including deep packet inspection and network intrusion detection



CYBERBASE GUI



Software lifecycle management



RISE™: elevating the industry standard

NOV introduces RISE, the only driller's workstation designed from the ground up to address ergonomic concerns, minimize fatigue, and keep your crew in top form with its industry-leading customizable operating positions. The development of RISE grew from years of ergonomic research and theory to offer your cabin crews the opportunity to work with better posture, less stress, and more focus on the job at hand. Our RISE workstation brings unprecedented chair adjustment options to custom-fit the operator's body and provide optimal comfort.

An operator's physical well-being during drilling operations significantly impacts rig crew performance.

Hazards of sitting for extended periods of time include increased discomfort and increased risk of back injuries. In order to improve the driller's well-being during operation, RISE provides a posture change ranging from any position between sitting and standing.

The RISE workstation is the premium platform for CYBERBASE systems.



Key Features:

- Sitting and standing operation
- Unprecedented adjustments for optimal ergonomics
- User storable multi-angle configurable positions
- New 2-button joystick with operator feedback

RISE armrest design includes new screens, configurable buttons, encoder wheels, and an improved joystick that all together optimize the human-machine interaction during the different drilling processes. Additionally, the armrests include retractable cup holders.

Our new joystick design includes tactile feedback to enhance the operator's situational awareness and ultimately improve efficiency and safety.

Our RISE workstation supports storing and restoring users' ergonomic profiles, allowing the workstation to self-adjust to specific operator's body measurements.

RISE supports the following operator adjustments to maximize operator's comfort:

- Backrest incline/recline
- Lumbar support
- Knee support
- Grip length
- Elbow support
- Armrest pillow slide
- HMI slide & tilt
- Swivel

