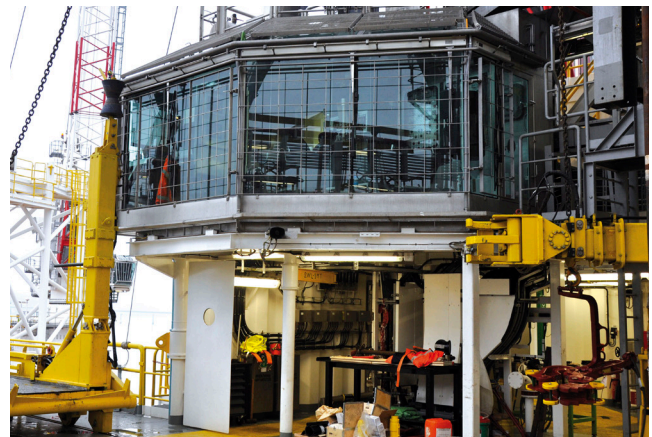


Control and Advisory Systems

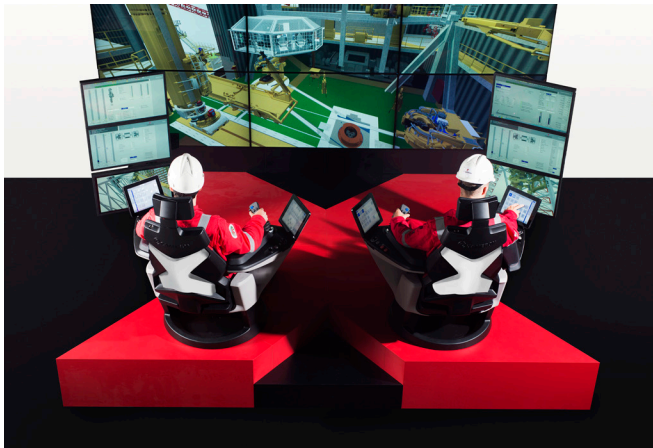
Cameron delivers a complete range of drilling control rooms, advanced X-COM™ operator chairs, drilling instrumentation systems, and monitoring systems for multiple types of offshore drilling applications. All software, inclusive of our HMI, machine controls, and integration functions for the zone management and tubular interlock systems are tested in a 3D simulation environment before installation on the rig. Our systems feature high-quality software and easy-to-use screen graphics, and our secure and efficient network is capable of interfacing with equipment from third-party vendors.



Drilling Control Room

Cameron delivers a range of drilling control rooms (DCRs) to the drilling industry. Our product offerings range from compact one-seater cabins to large well-construction centers, able to house essential drilling control and monitoring equipment, as well as several operators and any additional auxiliary equipment and personnel.

- Self-supporting carbon steel unit (optional stainless steel)
- Integrated X-COM designed for 1 to 5 X-COM chairs
- Large windows with fully-automatic window-cleaning system programmed for different weather conditions
- Removable, easy-to-clean, non-slip floor tiles
- Recessed ceiling with noise dampening
- Two safety/emergency exits
- Sun-filtered safety windows with protection bars and grids to protect the top windows from falling objects and the front windows and DCR from moving objects
- Tailored to drillfloor layout
- Ergonomically designed to meet the highest standards
- Wall space for BOP/auxiliary panels
- HVAC systems
- Range of additional options to meet customer specifications



X-COM Operator Chair

- Simple and intuitive user interface
- Sunlight readable and dimming in all conditions
- Designed in accordance with NORSOK and international standards
- Outstanding ergonomic adjustments for maximized comfort and efficiency

- Slim and robust industrial design
- Safe technical components and internal redundancy
- Rapid placement of pluggable components allows for stress-free service and maintenance
- Includes 3 HMI front screens for closed circuit television (CCTV) and HMI
- Integrated CCTV and talkback system interface
- Excellent line of sight due to the chair's slim design

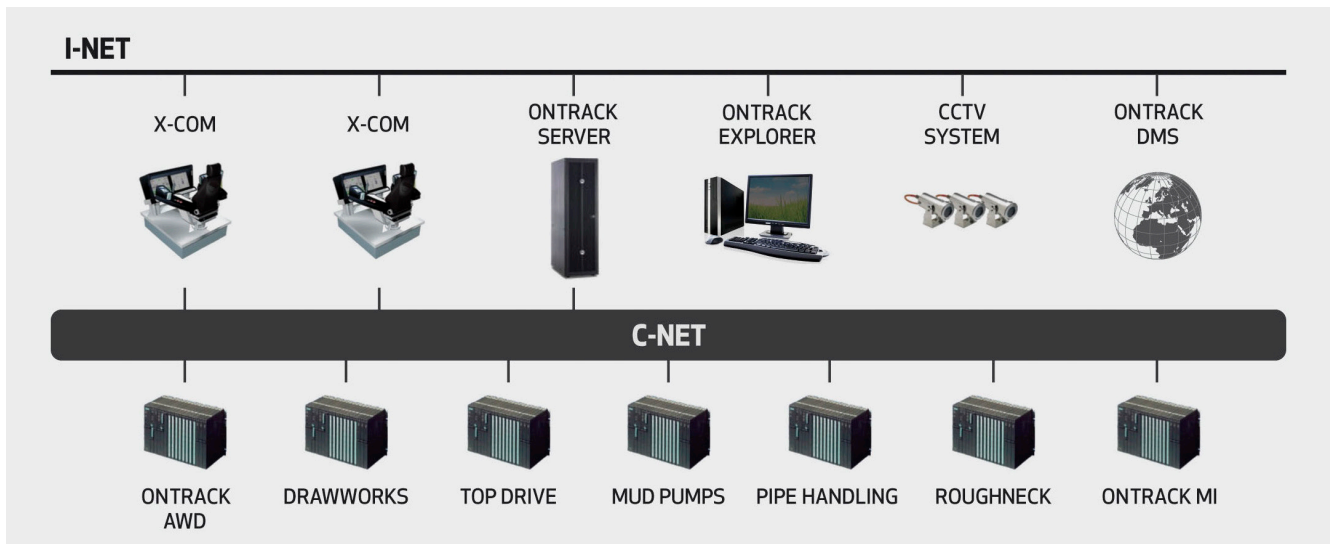


Local Equipment Room/ Local Instrument Room

- Self-supporting steel structure, with insulation and entrance door
- Rated for installation in Hazardous area Zone II (safe by ventilation)
- Removable antistatic floor tiles
- Complete delivery (including control system components, power distribution and lighting)
- HVAC system with heating/cooling units for temperature control
- Air handling unit with fire dampers and overpressure control
- Prepared interface for external systems (fire and gas system, HVAC, and rig control system)

OnTrack System

With Cameron's OnTrack™ System, various types of drilling equipment and processes can be integrated into one system. This provides the driller and assistant driller with optimal monitoring and controls, along with key decision-making information.



OnTrack System Integration

Cameron's OnTrack Integration ensures that all control systems from other suppliers fit together correctly and are integrated properly.

- Open interfaces which allow real-time parameter settings from drilling optimization/reservoir models
- Capable of being interfaced with virtually any third-party system on the market
- Executes and documents signal tests before installation
- Plug-and-play connection and start up of the drilling control system at the yard

OnTrack C-Net and I-Net

Cameron's C-Net and I-Net consist of high-speed communications networks exchanging data points at high rates. The network is segregated into two segments in order to ensure that control signals are given priority.

OnTrack Machinery Interface (MI)

Cameron's OnTrack Machinery Interface (MI) ensures interfaceability with virtually any third-party system on the market.

OnTrack Explorer

Cameron's OnTrack Explorer™ consists of an analysis application that is used to access real-time and historical data from the OnTrack Server.

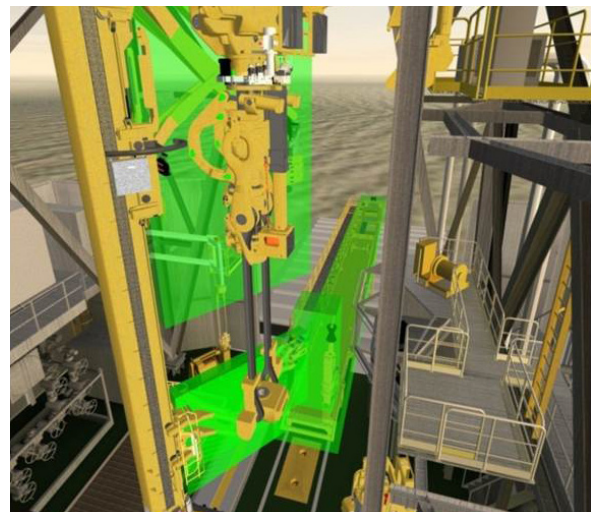
OnTrack Tubular Interlock System

Cameron's OnTrack Tubular Interlock system evaluates the status of interacting equipment, generates a tubular interlock situation, and executes the following interlock actions: inhibits control function in control logic, inhibits notification to HMI system, and provides interlock message notification to the HMI system.

- Increases personnel safety and uptime
- Prevents unintentional drop of tubular

OnTrack Zone Management System (ZMS)

Cameron's OnTrack Zone Management System (ZMS) enables communication with other systems to help detect and avoid collisions between drillfloor equipment.





OnTrack DrillPilot

Cameron's OnTrack DrillPilot enables multiple drilling machines to be controlled by a single operator. With DrillPilot, the entire drilling operation acts as a complete system, rather than several individual machines. This simplifies operation and preparation for the operator compared with other conventional control systems.

- Reduces complexity for the operator
- All machines controlled by a single joystick
- Increases operational efficiency by reducing pipe handshake-time and providing more consistent tripping speeds
- Activates next step in operational sequences automatically, at the correct time
- Integrated setup wizards feature allows for faster setup and line-up of equipment for each type of operation (i.e., tripping or standbuilding)

Drilling Parameter Sensors

Cameron's Drilling Parameter Sensors allow for any type of sensor to be supplied as part of our package.

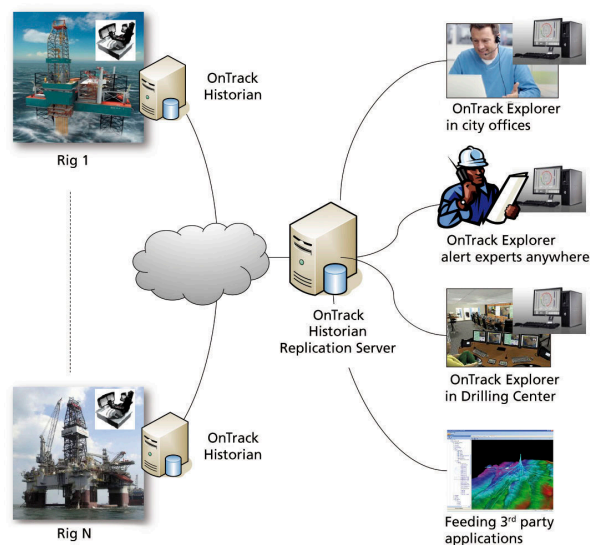
OnTrack SoftTorque

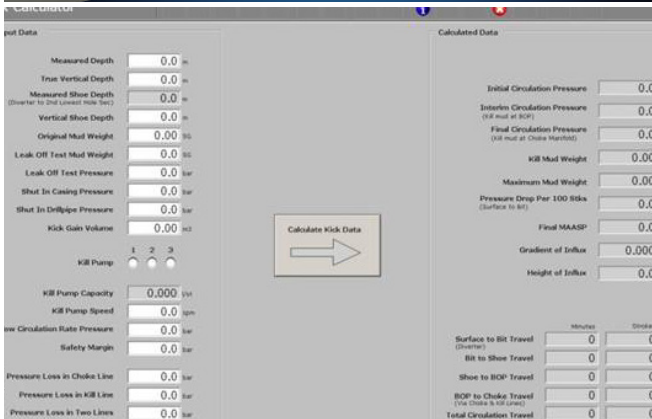
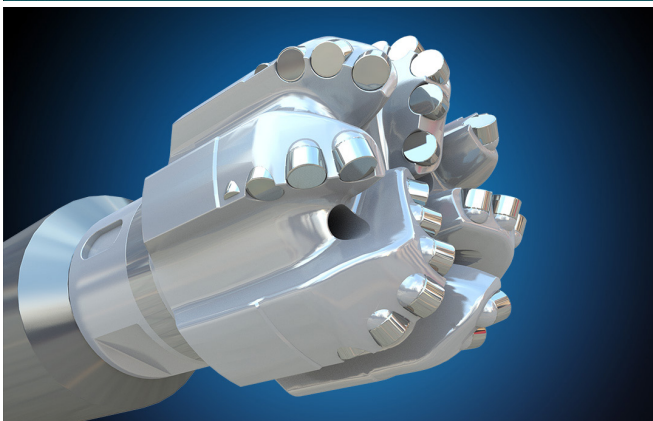
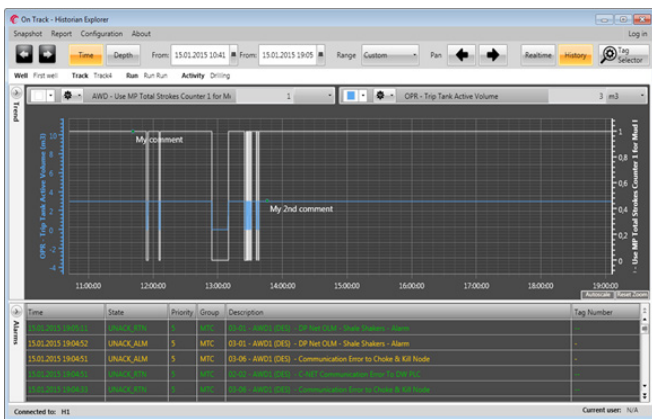
Cameron's OnTrack SoftTorque consists of anti-stick-slip software for the top drive.

- Eliminates stick-slip
- Improves well bore
- Reduces torque vibrations
- Reduces wear and tear on downhole tools
- Improves steerable system performance
- Reduced bit damage, longer bit runs

OnTrack Drilling Management System (DMS)

- Makes drilling data generated on the rig available anywhere
- Offers secure replication to onshore server
- Can be used with any internet location
- Can be fully interfaced on multiple rigs
- Incorporates OnTrack Explorer for operation and maintenance support
- Enables drilling data to be fed into other applications (i.e., maintenance system, reservoir model, etc.)
- Ultimately allows for «drill from the beach» capability





OnTrack Historian

Cameron's OnTrack Historian records all drilling activity, equipment, alarms, and events data generated on the rig in real-time to a time and depth series database. Historian components are integrated into the HMI for simple accessibility.

- Innovative method for storing all drilling data generated on the rig
- Records data based on the depth of the drilled hole
- Includes redundant data collectors on two physical servers to prevent loss of data in case of component failures
- Enables drilling data to be fed into other applications (i.e., maintenance system, performance logging, etc.)
- Allows user comments to be added to relevant alarm(s) and/or event(s)
- Allows for data retrieval from virtually anywhere via open protocols
- Optional secure replication of data to onshore server

OnTrack Analysis While Drilling (AWD)

Cameron's OnTrack Analysis While Drilling (AWD) consists of several real-time algorithms used to assist and guide the driller during drilling operations.

- Advanced drilling software that calculates numerous parameters such as:
 - Auto driller functions (i.e., weight on bit (WOB) and ROP)
 - Stands in hole
 - Bit runtime and depth
 - Hole depth
 - Drill string configuration
 - Mud tank volumes, mud flow and mud displacement
 - Kick calculator, kill sheet, annular mud velocity, etc.
- Integrated mud process control system and HMI
 - Provides mud control of tanks, pits, pumps, etc.
- Facilitates data transmission of AWD information to other consumers via standard protocols