



Drilling Control & Data Acquisition system

Safe, efficient and user friendly system

The Hitec Drilling Control & Data Acquisition system (DCDA) is a safe, efficient and user friendly drilling control system with considerable design focus on the operator and his working environment.

The modular system is designed for stand alone, integrated, distributed and remote operations. It typically covers all aspects of drilling operations including Drilling, Tripping, Circulations, Pipe handling and can be modified to integrate any other 3rd party equipment.

Key Features

- Manufactured in compliance with all IEC standards of reference and in compliance with: API RP 551; API RP 554; EN 94/9/EC; 98/37/EEC; 93/68/EEC; DNV 2.7-3; Norsok M-501.
- SCADA based operator monitors (Siemens).
- Mud flow sensors (Vega).
- Drilling Manifold Pressure Transmitter (E&H).
- Motor Control Center (MCC).
- Local Equipment Room (LER) complete with DCDA server and PLC controllers (Siemens), CCTV System Processing (Hernis) and network switches. Panel and office part internally separated.
- Fully customizable control system to match each drilling equipment package. Capability can be extended to include ancillary drilling systems.
- Many associated systems included such as tank gauging, integrated CCTV system & monitors (Hernis) and manifold monitoring sensors.
- Manufactured in stainless steel, complete with a window wiper & washer system.
- Ergonomic control chair (Siemens).



Benefits

- Fully Flexible Integration Package.
- Fully Modular Unit.
- Space for additional systems such as Choke Console & BOP Control Panel.
- Bespoke to client requirements whilst delivering reduced costs.
- Drilling data displayed in an intuitive manner and screens modified to display any integrated equipment in accordance with client layout.
- Short lead time delivery available.
- Simple Interface.



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Structure

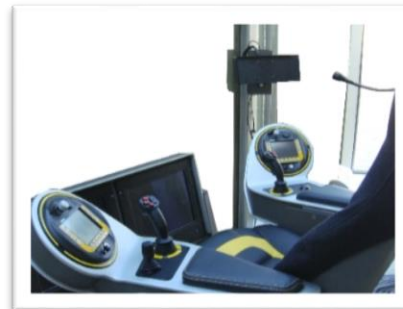
The Drillers cabin is of stainless-steel construction and is designed for lifting by crane with adequate fittings for mounting onto structural members. The cabin is secured with vibration absorbent fittings on all structural elements.

Work station

Operator Station is designed and ergonomically optimized for drilling control and monitoring operations ensuring the design is:

- Robust.
- Comfortable.
- Optimized for 24/7 drilling operations from inside the driller's cabin.

The design enables full operator control of the working environment with all controls and monitoring functions within easy reach. 'Line-of-sight' requirements to the drilling areas on the rig floor is also considered.



Machine Monitoring Visualization System

Human Machine Interface (HMI) monitoring is a visualization system which enhances the operator's ability to take the correct actions to optimize drilling performance.

Advantages of this system include:

- Information is displayed in an easy and intuitive manner, integrated with primary drilling information.
- Data is stored for historical use in an open database that can be easily shared with other applications such as excel or another company reporting and maintenance tool.

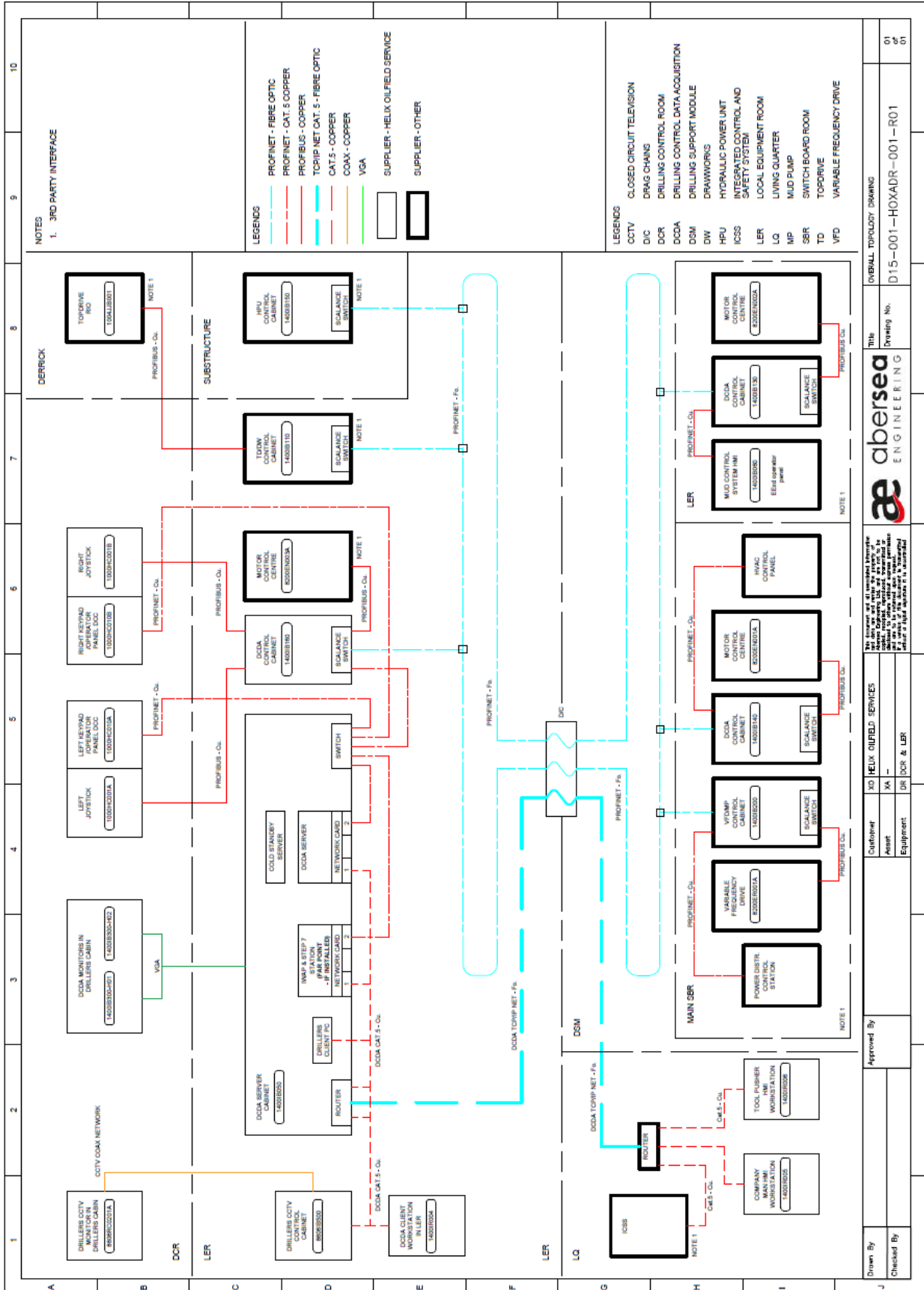
The DCDA server collects data from the relevant PLCs and presents live screens to the DCDA clients (Driller, Toolpusher, Company man and Mud-client).





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NOTES
1. 3RD PARTY INTERFACE

- LEGENDS**
- PROFIBET - FIBRE OPTIC
 - PROFIBET - CAT 5 COPPER
 - PROFIBET - COPPER
 - TCP/IP NET CAT 5 - FIBRE OPTIC
 - CAT 5 - COPPER
 - COAX - COPPER
 - VGA
 - SUPPLIER - HELIX OILFIELD SERVICE
 - SUPPLIER - OTHER

- LEGENDS**
- CCTV CLOSED CIRCUIT TELEVISION
 - D/C DRAG CHAINS
 - DOR DRILLING CONTROL ROOM
 - DDCA DRILLING CONTROL DATA ACQUISITION
 - DSM DRILLING SUPPORT MODULE
 - DW DRAWWORKS
 - HPU HYDRAULIC POWER UNIT
 - ICSS INTEGRATED CONTROL AND SAFETY SYSTEM
 - LER LOCAL EQUIPMENT ROOM
 - LQ LIVING QUARTER
 - MP MUD PUMP
 - SBR SWITCH BOARD ROOM
 - TD TOPDRIVE
 - VFD VARIABLE FREQUENCY DRIVE

Customer	NO HELIX OILFIELD SERVICES	Customer	NO HELIX OILFIELD SERVICES
Approved By		Equipment	FOR DCR & LER
Checked By			
Title		Drawing No.	
OVERALL TOPOLOGY DRAWING		D15-001-HOXADR-001-R01	
D15-001-HOXADR-001-R01		01 of 01	



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