Exaquantum delivers Production Excellence
Yokogawa’s Exaquantum Solutions enable continuous improvements in production environments to provide agility and flexibility, asset optimization, quality improvements, whilst ensuring safe and secure operations.

### Production Excellence

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Production Management

Movements Monitoring (ExaTrend)
- Industry: Oil & Gas Production, Oil & Gas Midstream, Refining, Petrochemicals, Chemicals
- Functionality: Live tracking of material movements. Stock and inventory accounting for accurate bookkeeping and profitability planning.
- Benefits: Effective management of inventory balances, reduced waste, and improved material flow.

Production Accounting (Exaquantum/PDF)
- Industry: Oil & Gas Production, Oil & Gas Midstream, Refining, Petrochemicals, Chemicals
- Functionality: Key productivity indicators for understanding profitability and planning. A platform for accurate production reporting and inventory management.
- Benefits: Optimized stock management, early detection of missed production targets, and better management of production accounts.

Data Integration

Operator Effectiveness

Report Manager (Exaquantum/RR)
- Industry: Oil & Gas Production, Oil & Gas Midstream, Refining, Petrochemicals, Chemicals, Pharmaceutical, Power Generation
- Functionality: Reports can be generated and automatically distributed via email, fax, or print.
- Benefits: Reduced workload and time for manual report creation.

AutoTrend (Exaquantum/RSH)
- Industry: Oil & Gas Production, Oil & Gas Midstream, Refining, Petrochemicals, Chemicals, Pharmaceutical, Power Generation
- Functionality: Real-time trending for up to 30 days, on-demand reporting for specific time periods.
- Benefits: Reduced response time for runtime trending and enhanced visibility for plant performance.

Electronic Log Book (ExaQuantum/ELB)
- Industry: Oil & Gas Production, Oil & Gas Midstream, Refining, Petrochemicals, Chemicals, Power Generation
- Functionality: Enhanced computer-based replacement for traditional paper-based formats, enabling the capturing of handwritten and non-automated data.
- Benefits: Reduced error in inputting data and automated capture of handwritten notes.

Graphical Framework (Exaquantum/GF)
- Industry: Oil & Gas Production, Oil & Gas Midstream, Refining, Petrochemicals, Chemicals, Pharmaceutical, Power Generation
- Functionality: Enhanced framework for the ExaQuantum/Explorer Graphical User Interface providing graphic navigation control, history, and display of data.
- Benefits: Improved data visualization and user access to production data.

Operational Trending Module (Exaquantum/OTM)
- Industry: Oil & Gas Production, Oil & Gas Midstream, Refining, Petrochemicals, Chemicals, Power Generation
- Functionality: Integration with the HPs Distributed Control System (DAS/ESPS). THE HPs OTM provides operators with advanced trending features and improved data access.
- Benefits: Enhanced plant performance and safety by providing operators with an extended view of the operation of the plant.

Graphical User Interface (Exaquantum/GUI)
- Industry: Oil & Gas Production, Oil & Gas Midstream, Refining, Petrochemicals, Chemicals, Power Generation
- Functionality: Trending interface providing advanced trending features.
- Benefits: Improved data access and enhanced trending capabilities.

Operator Trending Module (Exaquantum/ORM)
- Industry: Oil & Gas Production, Oil & Gas Midstream, Refining, Petrochemicals, Chemicals, Power Generation
- Functionality: Provides a framework for quick access to relevant information, with configurable trend groups and links to frequently used functions.
- Benefits: Enhanced trend management and increased data access.

Power Performance Calculations (Exaquantum/PFC)
- Industry: Oil & Gas Production, Oil & Gas Midstream, Refining, Petrochemicals, Chemicals, Power Generation
- Functionality: Utilizes the power performance calculation capabilities of ExaQuantum/AutoTrend.
- Benefits: Better understanding of plant performance and optimized operation.

Managing Energy Costs (Exaquantum/MDX)
- Industry: Oil & Gas Production, Oil & Gas Midstream, Refining, Petrochemicals, Chemicals, Power Generation
- Functionality: Integrates with the HPs Distributed Control System (DAS/ESPS) to provide a user-friendly interface for energy management.
- Benefits: Enhanced energy management and reduced costs.

Remote Data Synchronization (Exaquantum/RDS)
- Industry: Oil & Gas Production, Oil & Gas Midstream, Refining, Petrochemicals, Chemicals, Power Generation
- Functionality: Synchronous data transfer between ExaQuantum and other systems.
- Benefits: Real-time data synchronization and improved productivity.

Data Download and Analysis (Exaquantum/DNA)
- Industry: Oil & Gas Production, Oil & Gas Midstream, Refining, Petrochemicals, Chemicals, Power Generation
- Functionality: Provides a facility for downloading data from ExaQuantum to USB drives.
- Benefits: Reduced need for paper-based documentation and improved data management.

Synchronous OPC Data Manager (Exaquantum/SOM)
- Industry: Oil & Gas Production, Oil & Gas Midstream, Refining, Petrochemicals, Chemicals, Power Generation
- Functionality: Provides a facility for downloading data from ExaQuantum to USB drives.
- Benefits: Enhanced data management and increased productivity.

Synchronous Control System (Exaquantum/SCS)
- Industry: Oil & Gas Production, Oil & Gas Midstream, Refining, Petrochemicals, Chemicals, Power Generation
- Functionality: Provides a facility for downloading data from ExaQuantum to USB drives.
- Benefits: Enhanced data management and increased productivity.
Synaptic Business Automation underlies a process of co-innovation and collaboration with customers that leverages Yokogawa’s domain knowledge and digital automation technologies to create sustainable value.