KBC Acuity™ Industrial Cloud Suite
Powerful Tools, One Environment

KBC Acuity™ Industrial Cloud Suite (KBC Acuity™ ICS) integrates KBC's leading software and services to address energy transition, process optimization, value chain management, and asset optimization challenges. Offering secure access to real-time data and advanced analytics, it accelerates your digital transformation while minimizing IT infrastructure and associated costs.

In an era of digitalization, embracing advanced technology is essential. KBC Acuity ICS enhances collaboration, automates work processes, and offers unmatched scope for integration. Our solutions are simple, scalable, and designed to drive significant business impact.

Bringing
DECARBONIZATION
to Life

Introducing KBC Acuity Industrial Cloud Suite

KBC Acuity ICS, powered by the Yokogawa Cloud platform, offers numerous benefits to your oil and gas business operations. Experience enhanced scalability, seamless accessibility, robust security, and cost efficiency, all delivered through a flexible SaaS model. Our cloud-based technology enables businesses to tackle complex, integrated challenges. With KBC Acuity ICS, analytics results are accessible to a broader range of users and processes, driving smarter, faster decisions across your firm.
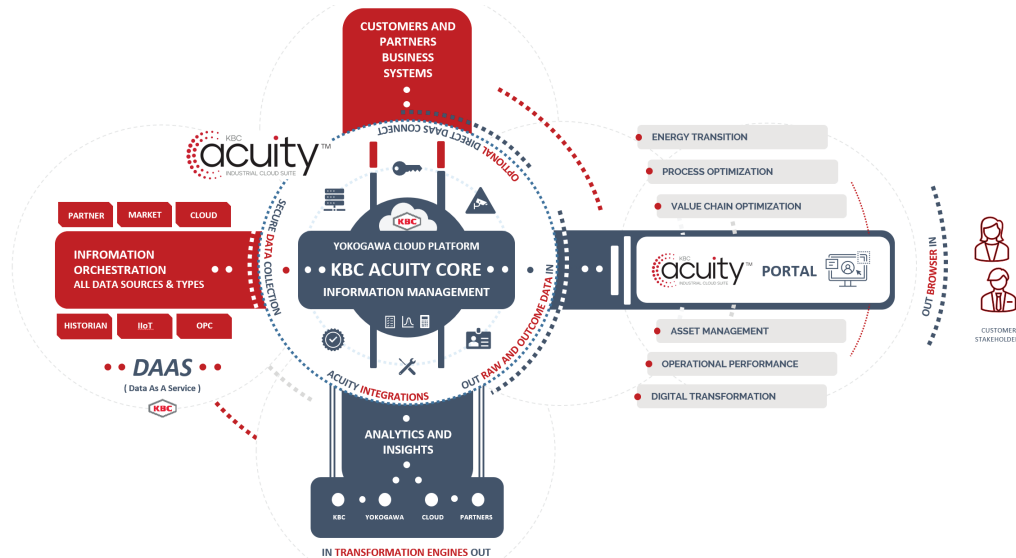
Value

The key features and benefits of KBC Acuity ICS are:

Data Management
Centralized platform shapes the large amount of data generated from production operations into valuable insights.

Single Pane of Glass
Visualizes the analyzed data and results on one screen to improve productivity, as searching and calculating data can occupy 70% of your time.

Alerts Management and Framework
Provides early warnings of production anomalies in near real-time.

Analytics Tooling
Processes data in real-time or near-real-time, then augments it with smart alerts, basic and advanced analytics, simulation tools, and AI/ML data science for informed decision making.

Native Integration of KBC Tools
Seamlessly integrates with KBC's comprehensive energy and process simulation software for scalability and simplifying complex solutions.

Collaboration

Data-driven companies need to easily collect, manage and share data from a wide range of sources. Then, the data may be consumed by internal stakeholders, analytics applications, and business partners to create value.

KBC Acuity ICS Solutions

Offers refiners an integrated decarbonization toolset that uses process simulation, real-time data analytics, carbon capture and storage, energy management, and regulatory compliance to design, monitor, and optimize decarbonization strategies. Deployed via the cloud as digital twins, the following tools leverage real-time data to track performance and enhance operational efficiency.

KBC Acuity™ Energy Emissions Twin

Take control of your energy use. This tool seamlessly integrates into a digital twin framework to continuously compare real-time energy data against optimal models. By identifying deviations, it allows operators to make timely corrections and enhance energy efficiency while reducing Scope 1, 2, and 3 emissions.

KBC Acuity™ Process Digital Twin

Digital twin technology forms the foundation, underpinned by a solid engineering framework combined with digital platforms, artificial intelligence, and machine learning. Now engineers can model, analyze, and optimize refinery operations with precision. By providing operational insights, it supports real-time scenario testing and predictive analysis to help refiners improve efficiency, decision-making, and profitability.

KBC Acuity™ Process Twin Pro

An advanced version of your digital twin with auto-tuning capability that adds value by keeping models up-to-date to meet production plans. This cloud-based, AI-powered application continuously monitors the health of your digital twins in real time to optimize efficiency, profitability, and sustainability.

KBC Acuity ICS Addresses Your Biggest Challenges

Ignite industrial efficiency and innovation with integrated solutions. By combining advanced technologies and services, we help refiners optimize energy production, elevate operational performance, and streamline your entire value chain.

Energy Transition

Designed to optimize your energy production, enhance efficiency, and integrate renewable energy sources.

Operations Performance

Assesses and enhances the efficiency, effectiveness, and reliability of industrial processes and systems.

Value Chain Optimization

Improves the entire value chain within industrial operations by leveraging advanced analytics, process simulation, and digital tools to enhance efficiency, reduce costs, and maximize value across production and distribution.

Asset Management

Improves the reliability and performance of energy assets through predictive maintenance and advanced monitoring solutions.

Process Optimization

Enhances the efficiency and performance of existing energy systems through advanced analytics and simulation technologies.

Digital Transformation

Implements digital tools and platforms that enable real-time monitoring, data analysis, and decision-making to support sustainable energy practices.

Cybersecurity Commitment

KBC and its parent company, Yokogawa, prioritize security and safety, adhering to the highest global security standards. Our multi-level, cloud-based cybersecurity network protects your infrastructure and operations against threats while ensuring compliance and governance regulations.

Use Case Examples

Data Visualization via Digital Twins Enhanced Refinery Production and Efficiency

- Collaborated with a renewable fuels producer to meet hydrogen demands despite operational challenges in running their Steam Methane Reformer (SMR) at full capacity.

- Implemented a process digital twin for remote monitoring, analytics, and real-time visualizations to detect abnormalities in the SMR unit.

- Enabled quick identification and resolution of discrepancies in methane measurements to optimize SMR performance.


Automated Analytics for Improved Maintenance and Capital Project Decision Making

- Deployed a solution that uses real-time data, equipment ratings, and operating limits to assess performance, visualize results, and generate notifications for overloads.

- Streamlined coordination among teams to enhance system reliability through proactive maintenance.
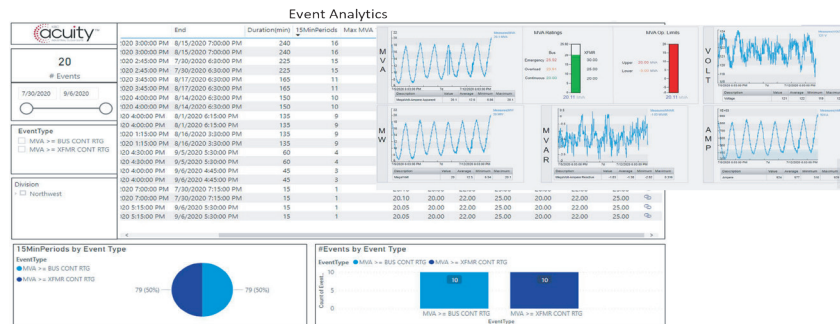
Remote Monitoring for Scalable Operations

- Assisted a start-up green hydrogen producer with limited on-site staff and decentralized operations in implementing a remote monitoring and equipment maintenance.

- Used a telemetry solution to send process data via mobile networks for analysis and visualization, allowing rapid deployment and customization.

- Facilitated real-time monitoring and timely maintenance through a dashboard that prioritized sub-optimal performance areas to prevent potential issues, like compressor malfunctions.
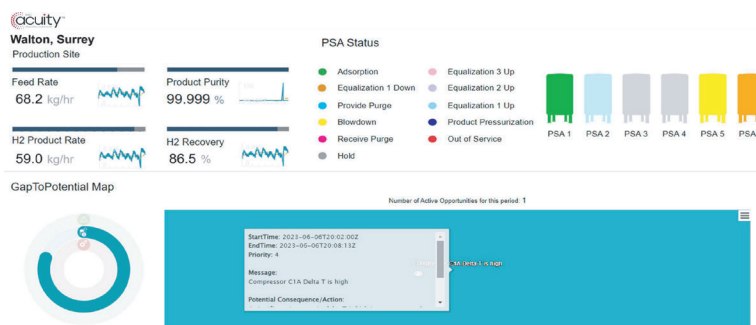
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