

Comparative Effectiveness Analysis

Maintenance capabilities backed by extensive experience gained from working closely with our customers allow Yokogawa to optimize operations over the entire plant lifecycle.



Why is Comparative Effectiveness Analysis Important?

Benchmarking is a very effective method for identifying improvement opportunities by comparing your plant performance with similar plants in the industry. The Yokogawa Comparative Effectiveness Analysis service calculates your performance against production-related key performance indicators (KPIs) and provides a report which can compare your performance against:

- Similar operating plants within your corporate group of companies (if applicable)
- Similar operating plants across the industry (competitors)

This form of benchmarking enables clear identification and prioritization of improvement opportunities based on normalized performance criteria within your industry. Continuous periodical benchmarking is recommended to ensure that companies remain watchful of their competitors' positioning and maintain a culture of continuous improvement.



What Are the Advantages?

Industrial automation (IA) infrastructure can be regarded as the baseline for safe, reliable, and profitable operation of the plant. Therefore, it is important to do benchmarking.

Yokogawa's Comparative Effectiveness Analysis service helps end users to be aware of the effectiveness of their current automation through periodical benchmarking reports. These are generated based on end users' automation data collected automatically and Yokogawa's longstanding experience as an IA supplier. This approach has the following advantages:

- Eliminates tedious and time consuming information acquisition/calculation
- Compares performance against a rich industry database
- Enables problem solving with Yokogawa Solution Implementation Services
- Utilizes DCS internal parameters (e.g. DCS bus load, number of called panels)

Yokogawa intends to update KPIs regularly to meet customers' changing needs.



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KPI Index

KPI Category	Purpose	Possible Improvements
Control	<ul style="list-style-type: none"> Assess the controllability of process controllers (e.g. PID and APC) 	<ul style="list-style-type: none"> Regulatory control stabilization Advanced Process Control / MVC
Alarm	<ul style="list-style-type: none"> Assess installed alarm system configuration in terms of the operability, usability, recognizability, readability, intelligibility, etc. 	<ul style="list-style-type: none"> Fundamental nuisance alarm reduction ISA 18.2 and EEMUA #191-based alarm system design Operational state-based alarm management
Operation	<ul style="list-style-type: none"> Assess the operation of the target system in terms of the operability, usability, recognizability, stability, etc. 	<ul style="list-style-type: none"> Re-engineering of operation panel (e.g. DCS graphic panel) Best practice pilot Regulatory control stabilization Alarm rationalization
RASIS	<ul style="list-style-type: none"> Assess reliability, availability, serviceability, integrity, and security (RASIS) and maintainability of systems Assess availability of instruments 	<ul style="list-style-type: none"> Condition-based maintenance Proactive maintenance Field digital baseline tuning



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