

Comparative Effectiveness Analysis



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 and profitable production. Therefore, it is important to do benchmarking. Yokogawa Comparative Effectiveness Analysis service lends customers a tool that gathers IA data for automatic calculation of KPIs, which is then used by Yokogawa to create periodical benchmarking reports that are based on its 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 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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The clear path to operational excellence

SEE
CLEARLY

KNOW
IN ADVANCE

ACT
WITH AGILITY

VigilantPlant is Yokogawa's automation concept for safe, reliable, and profitable plant operations. VigilantPlant aims to enable an ongoing state of Operational Excellence where plant personnel are watchful and attentive, well-informed, and ready to take actions that optimize plant and business performance.

YOKOGAWA ELECTRIC CORPORATION

World Headquarters
9-32, Nakacho 2-chome, Musashino-shi, Tokyo 180-8750, Japan
<http://www.yokogawa.com/>

YOKOGAWA CORPORATION OF AMERICA

2 Dart Road, Newnan, Georgia 30265, USA
<http://www.yokogawa.com/us/>

YOKOGAWA EUROPE B.V.

Euroweg 2, 3825 HD Amersfoort, The Netherlands
<http://www.yokogawa.com/eu/>

YOKOGAWA ENGINEERING ASIA PTE. LTD.

5 Bedok South Road, Singapore 469270, Singapore
<http://www.yokogawa.com/sg/>

YOKOGAWA CHINA CO., LTD.

3F Tower D Cartelo Crocodile Building
No. 568 West Tianshan Road, Shanghai 200335, China
<http://www.yokogawa.com/cn/>

YOKOGAWA MIDDLE EAST B.S.C.(c)

P.O. Box 10070, Manama
Building 577, Road 2516, Busaiteen 225, Muharraq, Bahrain
<http://www.yokogawa.com/bh/>

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