

Integrated Automation Assessment

Service Note

Achieve and Sustain Peak Operational Performance and Reliability with your Honeywell Control System

Integrated Automation Assessments (IAA) are a value-added method of assessing the state of your automation assets, confirming adherence with Honeywell best practices for your Experion PKS & TPS Systems, determining areas for improved performance, and highlighting potential risks to process uptime.

IAA is a regular automated 'health check' as opposed to manual and labor intensive spot checks. This innovative service does a complete system scan and identifies issues before they become a problem. It delivers a review based on expert assessments highlights the system strengths and any potential issues, provides recommended actions and is integral to maintaining continued system availability.

IAA provides the insights and information to sustain peak operational performance based on Honeywell expert reviews and recommendations. These insights support proactive system maintenance and improves operator effectiveness.

Proactive Maintenance

By benchmarking the system and identifying bottlenecks, malfunctions, and suboptimal solutions proactively, IAA provides an efficient and comprehensive way to improve and sustain peak performance and reliability of the automation systems at your plant.



As the system complexity increases so does the need to ensure that these systems and network infrastructure constantly perform as intended.

"The idea is not to wait for a failure in our DCS. We can move from a corrective action mindset to a preventive and proactive mindset, through performance-centric audits once a year, monitoring our DCS and checking our performance indicators"
- P. Villar, Advanced Control Engineer, Compañía Española de Petróleos

FEATURES & BENEFITS

Ensure Compliance to Honeywell Best Practices

- Identifies issues and recommend corrective actions for all critical systems and components
- Address latent and hidden issues to reduce risks

Measure System Performance

- Automated & non-invasive data collection
- Identify performance risks on PCs, Controllers, Network
- Take pro-active actions

Identify Obsolescence & Support Issues

- Vies level of support for system components
- Support better planning of upgrades and migrations to minimize exposure of obsolescence issues

Improve Operational Performance

- Measure alarm system performance against EEMUA 191 & ISA 18.2 guidelines to reduce risk of operator overload
- Measure control loop performance and recommendations to maintain control performance

Improve Decisions Support

- Intuitive executive summary
- Easy to follow recommendations
- Organize all relevant system health information in a single report

Operator Effectiveness

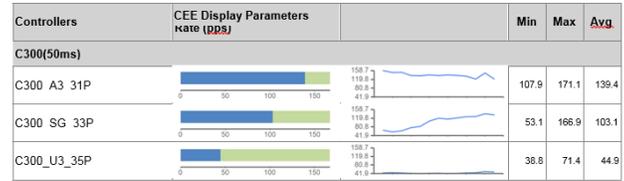
Efficiencies in process operation are achieved through re-tuning base control loops, reducing alarm initiations to which the operator is exposed, and optimizing performance of the operator displays. These aspects are inherently linked together: stability in the process reduces the alarm activation, and display optimization improves the Operator Interface, significantly reducing the operator load. IAA analyses performance and recommends next steps clearly.

Integrated Automation Assessment Options

Based on the frequency and need the following IAA variants are available:

Assessment Content	Performance Baseline	Standard	Enhanced
Executive Summary	Y	Y	Y
Configuration Summary		Y	Y
Performance Summary	Y	Y	Y
Security Summary	Y	Y	Y
Obsolescence Summary		Y	Y
System Topology		Y	Y
Performance Reports	Y	Y	Y
Experion (PCs, Controllers, Networks)	Y	Y	Y
TPS (LCN & UCN)	Y	Y	Y
UCN Migration Analysis	Y	Y	Y
Configuration Checklists		Y	Y
1. Network Config.		Y	Y
2. Client Server Config.		Y	Y
3. HMI Display Config.		Y	Y
4. User & O/S Config.		Y	Y
5. Experion Controller Config.		Y	Y
6. TPS Integration Config.		Y	Y
7. Backup & Restore Config.		Y	Y
Obsolescence Report		Y	Y
Security Reports	Y	Y	Y
MS Security Updates		Y	Y
McAfee AntiVirus Info	Y	Y	Y
Security Checklist		Y	Y
PC Login Alerts		Y	Y
System Device Report	Y	Y	Y
Software (Revs & Patches)		Y	Y
Control Performance Audit			Y
Alarm Assessment			Y

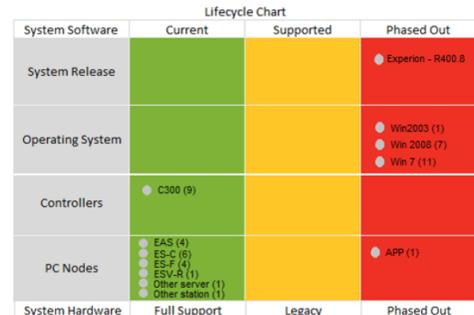
Performance Baseline measures and documents how the control system is being used and provides an analysis on the utilization and throughput of the control system with recommendations for improvements. This knowledge helps manage system loading and is a basis for planning system upgrades and enhancements.



Key Observations: All devices were healthy and operating within the recommended ranges during this reporting period.
 Recommendations: There are no recommendations based on the above observations.

Example Performance Summary Section

Standard Assessment adds a deep dive into the configuration of the automation system. It utilizes Honeywell best practices and an extensive list of health checks developed by our Global Technical Assistance Center through years of supporting and troubleshooting system configuration problems. The report also identifies what level of support each element of the system and recommendations for planning purposes.



Honeywell Growth Path Recommendations:

Device Group	Quantity	Opportunity/Recommendation
R400.8	1	Current Experion release listed as "Phased Out" under Honeywell support policy. It is recommended to upgrade this system to the latest supported release - R51x.x. to take advantage of all Experion enhancements. This will enable to ADNOC LNG to take advantage of the full support, latest fixes and product improvements.

Enhanced Assessment measures alarm system performance against industry benchmarks to assess operator loading. In addition, a control loop performance assessment identifies poorly performing control loops. This information can be used to improve operator and control system effectiveness.

IAA Availability

Customers can optionally incorporate an Integrated Automation Assessment as an entitlement to their SESP contract and an annual IAA assessment is included with Assurance 360 programs. At any time, an Integrated Automation Assessment can also be requested as a stand-alone activity exclusive of a contract. These assessments are typically requested as a basis for a proactive maintenance plan, operator effectiveness improvements, before or after a significant change or expansion or as a basis for a long-term automation plan.

Getting Started

A four-step methodology drives the IAA service, including:

Initial Consultation to review the control system configuration, IAA process, and collect manually required data and information

Data Collection an automated and non-invasive data collection tool is installed to collect the required configuration data and measure the system performance.

Analysis and Report Generation – The site data collected is analyzed and is used to generate the IAA report which includes a PowerPoint executive summary and a detailed report document.

Presentation of Findings – a review of the results and recommendations from Honeywell subject matter experts will be scheduled and presented.

Benefits & Value

By benchmarking the system and the processes associated with maintaining and improving Experion PKS and TPS systems, customers have seen the following benefits as a direct result of their IAA audits:

- System reliability improvements:
 - 50% Failure Rate Reduction
 - Decrease of 5% in corrective maintenance costs
- Improved process performance:
 - Control system —10% increase in responsiveness
 - Operational stability —3% increase in throughput and yields
- Lifecycle planning
 - Decrease of 10% lifecycle costs

For More Information

Learn more about how Honeywell's Integrated Automation Assessments can improve your system performance, visit honeywellprocess.com or contact your Honeywell Account Manager.

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