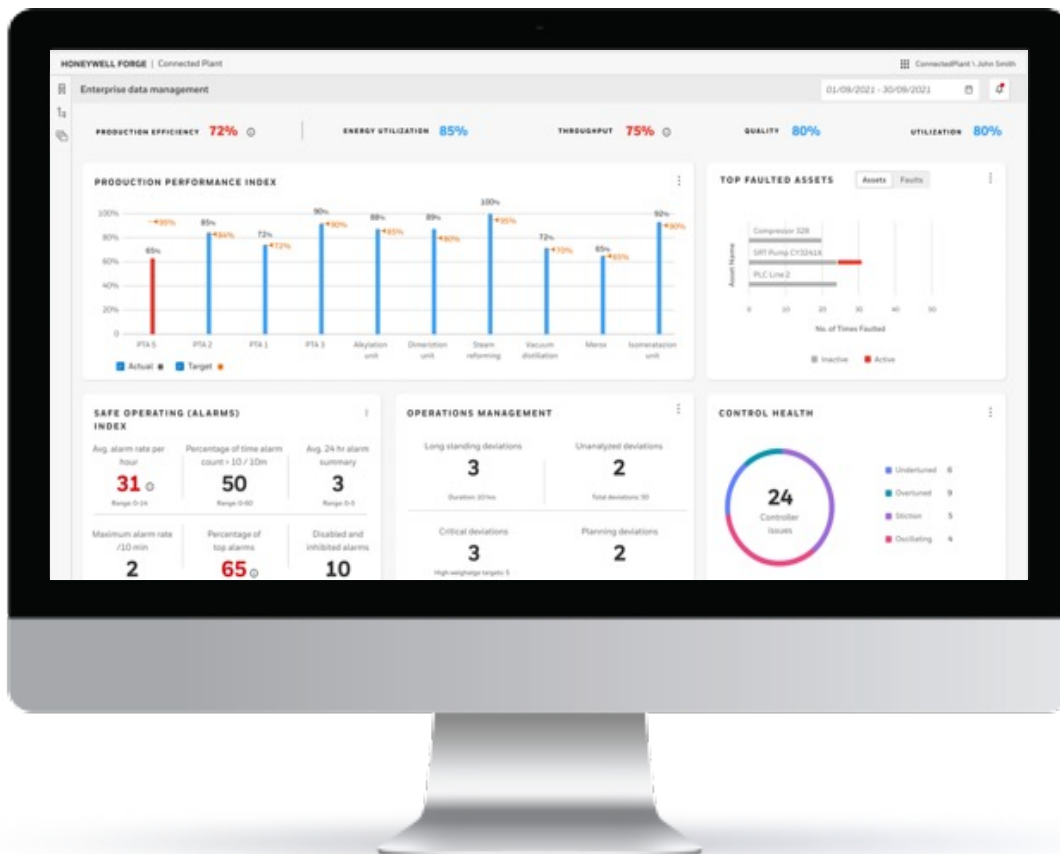


HONEYWELL FORGE PERFORMANCE⁺ FOR INDUSTRIALS | PRODUCTION INTELLIGENCE

A real-time operational monitoring application that unifies OT and IT data to deliver actionable insights from the enterprise level down to the individual process unit. Through outcome-based insights and persona-driven dashboards, industrial users can spend less time sorting through operational data and more time optimizing performance.



CHALLENGES

In the Industrial space, customers must navigate complex and often siloed application data.

Everyday business goals are plagued by cumbersome, time-consuming barriers due to multidimensional data, poor integration, and elusive data relationships.

Other barriers to execution often occur on account of:

- Poor Integration in a complex data landscape
- Over 60% of OT/IT data is left stranded
- Process engineers spend up to 80% of their time wrangling data
- Upstream and downstream data relationships remain elusive
- Rapid changes in the workforce

SOLUTIONS

Honeywell Forge Production Intelligence is a cloud-based offering that will collect cross-functional, multidimensional data from process, control, assets, alarms, and operations limits.

By unifying this siloed and complex data, customers can quickly gain the needed insight to help maximize and improve operational performance.

ACTIVATE TIMELY INSIGHTS, GUIDED DIAGNOSIS & ACTIONABLE RECOMMENDATIONS

Honeywell Forge Performance⁺ for Industrials | Production Intelligence provides solutions that enhance production performance and reduce the cost of operations associated with unplanned downtimes and inefficient energy use. Customers can leverage their investments through multiple personas across their enterprise, from engineers up to C-level executives.

SOLUTION WORKFLOW

Production Intelligence provides a unified system of record for the industrial enterprise; integrating siloed OT data and applications to streamline operations and extract additional business value for your organization through data collection, contextualization, relationship synthesizing & OT Analytics.

1. Collect & Prepare Data: Extract Base Relationships

This solution extracts base plant data items and relationships from DCS & historians to help users understand data context for faster decision-making. The templated, contextual user experience organizes data to facilitate analytics development.

2. Contextualize: Overlay Application Knowledge

The platform overlays relationships & knowledge from siloed applications to create the Enterprise Knowledge Graph, which enables cross-functional collaboration. This includes integrated perspectives from multiple personas through a single, 360-degree view. It also provides multi-faceted intelligent search for exploratory analytics and enhanced troubleshooting. Lastly, it will link disparate data sets to simplify cross-cutting and data lineage tracing.

3. Production Intelligence: Synthesize Relationships

Root causes of plant issues are automatically identified through events, cross-correlated data and metrics based on logical clusters identified in Knowledge Graph. Root cause monitoring, symptom/fault models and AI applications enable an intuitive user experience via prioritized results & suggestions.

4. Future Recommendations: OT Analytics

The solution provides customers with actionable insights and analytics-driven recommendations to help maximize production operations and achieve meaningful KPIs.

ACTIVATE TIMELY INSIGHTS, GUIDED DIAGNOSIS & ACTIONABLE RECOMMENDATIONS

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THE SOLUTION

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1

COLLECT AND PREPARE DATA: EXTRACT BASE RELATIONSHIPS

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2

CONTEXTUALIZE: OVERLAY APPLICATION KNOWLEDGE

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3

PRODUCTION INTELLIGENCE: SYNTHESIZE RELATIONSHIPS

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FEATURES & CAPABILITIES



Data Management

Catalog of standard connectors and edge management.



Visualization

Includes OOTB Persona based dashboards; calculation engine (templated calculation / KPIS); and process analysis (time series visualization)



Search

Multiple search options provided including text search, semantic search, and intelligent search.



Workflows

Alerts and notifications, OOTB AI/ML models, action management, data management, data lineage exploration.



Analytics

Analysis capabilities include root cause analysis and insights, RCS with recommendations, customizable AI/ML models, and predictive knowledge edge graphs.

BENEFITS INCREASED PRODUCTION EFFICIENCY

INCREASED PRODUCTION EFFICIENCY

- End-to-end coherent view of operations
- Actionable recommendations
- Guided orientation to problem areas

REDUCED OPERATIONAL RISK

REDUCED OPERATIONAL RISK

- Reduce impact on unit & equipment integrity
- Dynamically adapt operations to limits
- Prediction deviations in operations

IMPROVED UTILIZATION

IMPROVED UTILIZATION

- Early anomaly detection
- Increased utilization & availability
- Analytics-driven abnormal situation prediction

USE CASES

- Operating Envelope Optimization
- Abnormal Situation Prediction
- Product Quality Deviation Prediction
- Sensor Deviation Prediction
- Automated System Build & Maintenance

INTRODUCING THE MODULES

Honeywell Forge Performance[®] for Industrials | Production Intelligence delivers curated, unified data and actionable insights for a coherent view into production maximization. It features a modular approach that allows organizations to gradually scale their application according to their needs through a variation of 3 versions.



CORE

Analytical data that answers the fundamental question:
WHAT HAPPENED?

The **Core** module provides users with real-time operational monitoring capabilities through an extensive catalog of standardized connectors, built-in persona-driven dashboards, and operational insights.



DIAGNOSE

Process tools that allow users to discover:
WHEN DID IT HAPPEN?

The **Diagnose** module builds on the capabilities of Core to provide users with robust process visualization and industry-driven analytics to understand likely causes and deviation resolution.



PREDICT

AI/ML analysis to uncover the elusive question of:
WHAT'S LIKELY TO HAPPEN?

The **Predict** module expands on the capabilities of the previous modules by providing users with enhanced predictive capabilities to better identify, address and prevent future production issues.

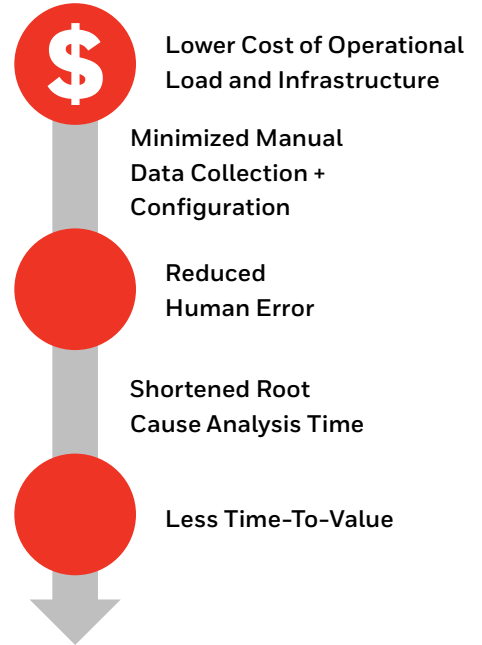
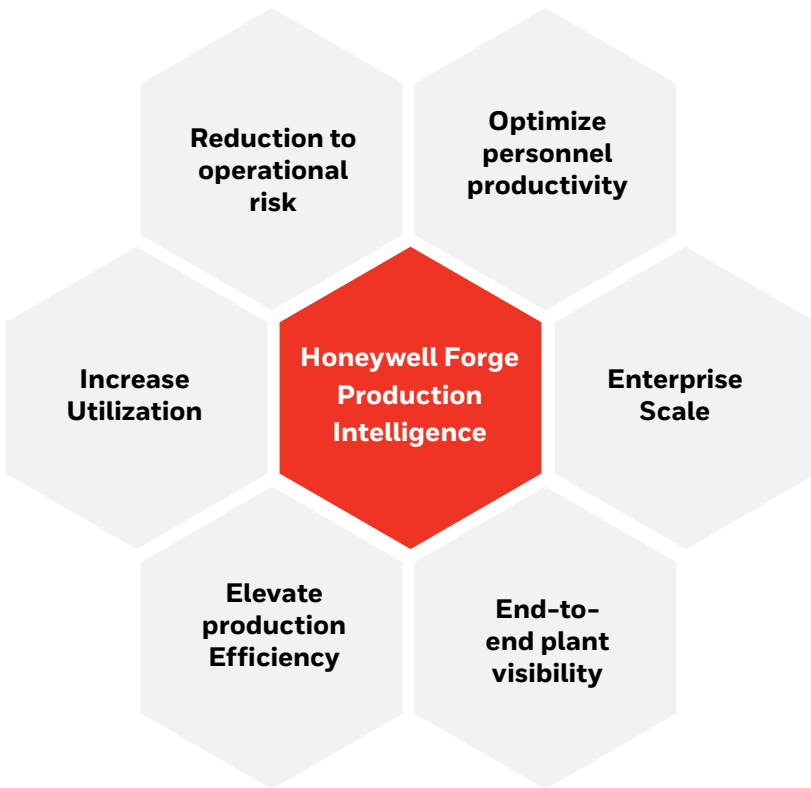
OUT-OF-THE-BOX CAPABILITIES

- | | | |
|---|---|---|
| <ul style="list-style-type: none"> • Catalog of standard connectors • Persona dashboards • Customizable KPIs plus widget library • Data contextualization • Alerts and notifications | <ul style="list-style-type: none"> • Automated resolution tools • Bi-process blend analysis • Multiple levels of smart search • Data lineage exploration • Collaboration | <ul style="list-style-type: none"> • Root cause analysis and insights • RCA with recommendations • Customizable AI/ML models • Predictive knowledge graph |
|---|---|---|

WHY HONEYWELL

Honeywell Forge Performance⁺ for Industrials | Production Intelligence provides actionable insights by leveraging Honeywell domain knowledge through extensive process analytics. Executives, site managers and production engineers can view the health of their operations through a lens of true end-to-end visibility.

With improved user productivity, increased sustainability, reduced operational costs, and enhanced safety, this software delivered as SaaS subscription enables faster value realization through digital transformation.



For more information

To learn more about Honeywell Forge Production Insights or contact your Honeywell account manager.

Honeywell Connected Enterprise

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**THE
FUTURE
IS
WHAT
WE
MAKE IT**

Honeywell