



**HONEYWELL
FORGE**

HONEYWELL FORGE CONTROL PERFORMANCE ANALYTICS

PRODUCT INFORMATION NOTE

Honeywell Forge Control Performance Analytics (CPA) is a solution that identifies Advanced Process Control (APC) performance degradation and provides expert guidance to address it. Control Performance Analytics fosters collaboration between operations, process engineering, advanced process control (APC) teams and management to maximize profits for your facility.

WHAT IS ENTERPRISE PERFORMANCE MANAGEMENT?

EPM is a set of tools that collect, unify, and take action on operational data to optimize performance, sustainability, and safety at the enterprise level.

CHALLENGES

- Quantifying APC benefit erosion due to process disturbances or equipment issues
- Understanding how well APC is performing across assets and across operating shifts
- Identifying how to improve unit performance to increase profitability
- Understand the lost opportunity cost, asset performance and key constraints on a real-time basis

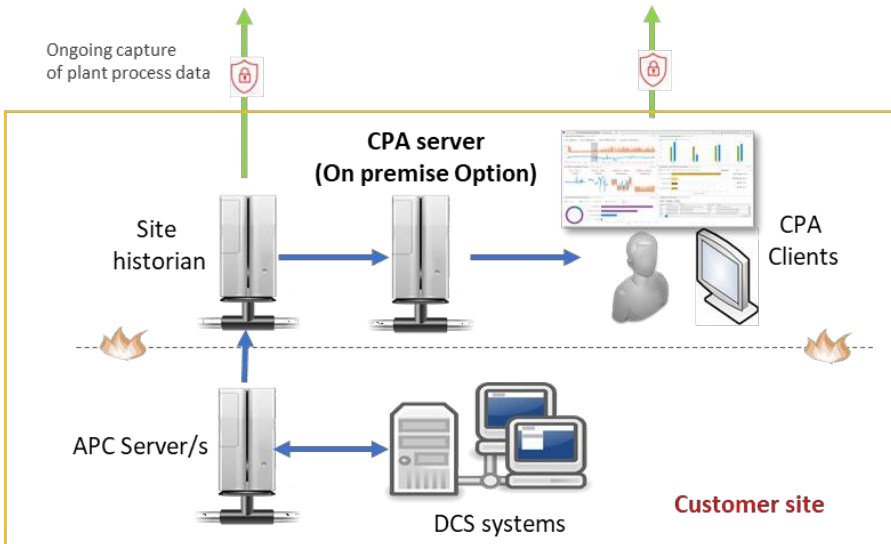
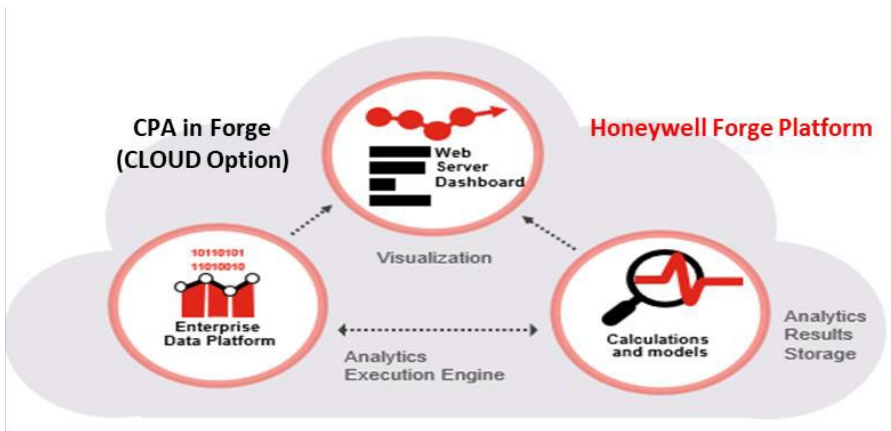
SOLUTION

Control Performance Analytics prioritizes issues by financial impact, identifies and tracks constraint violations for main CVs, provides root causes of benefits degradation, and then offers recommendations for addressing the issues.

Key Capabilities

- Estimates the economic cost of clamped MVs, CV limits, dropped MVs related to short-term operations, as well as equipment, instrument issues
- Highlights performance differences between operating shifts in terms of constraint management & economic impact
- Provides clear guidance on how APC benefits may be restored
- Vendor agnostic and can monitor any major APC solution

The diagram that follows show the implementation of the Honeywell Forge Control Performance Analytics. CPA may be deployed in Forge (Cloud option) or on a customer's premises. Typically, the solution is implemented on the L4, or Plant Information Network (PIN) level, operating on APC controller data parameters that have been surfaced to the PIN Historian from the Plant Control Network (PCN) level. In this on-premise deployment, visualization is achieved through a web-browser session at the PIN level.



Benefits

Control Performance Analytics improves collaboration between operations, the extended APC team and management to increase profitability by:

- Creating visibility into the cost of lost opportunity in plant process performance
- Measuring lost opportunity from key process variable changes and categorized causes
- Identifies top process variable sources of economic impact
- Identifying and comparing operations shift performance
- Offering expert guidance through actionable instructions to adjust restrictions that impact profitability
- Ensuring sustainable benefits over varying operating conditions, visualizing real time unit profitability
- Creating opportunities for continuous process improvement, visibility into the benefits of operational changes and their impact on profitability

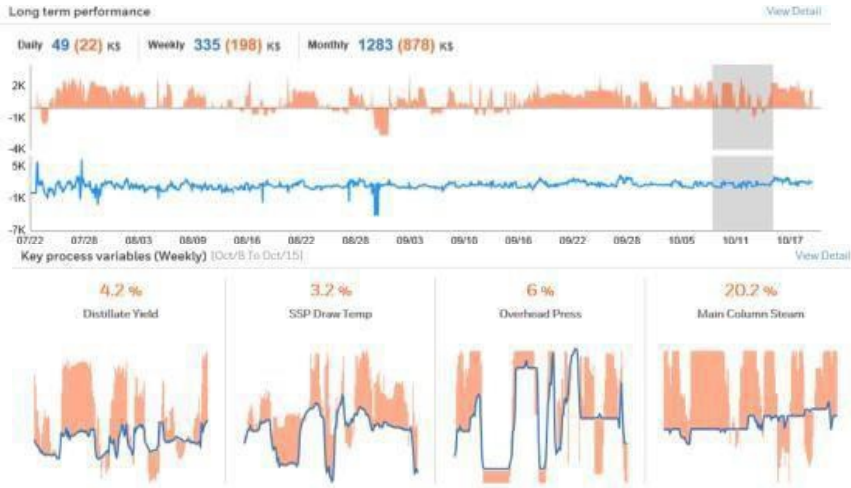
When Implemented in the Honeywell Forge Cloud, advantages include:

- Reduced IT footprint at site and ease of scalability
- Honeywell performs software updates and no onsite migrations (on process) are necessary
- Enables to benefit from Expert guidance through a Honeywell managed service
- Allows both on site and off site stakeholders to view the same data

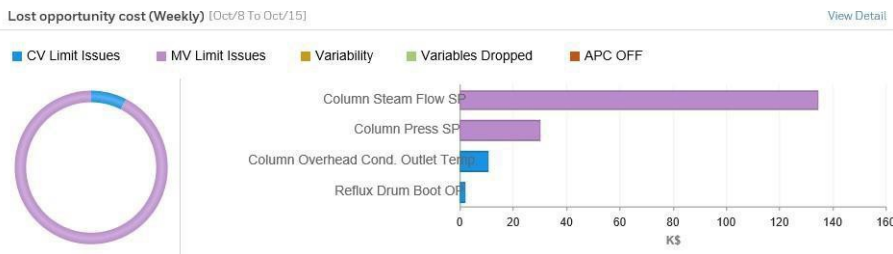
Dashboard

Long Term Performance - Provides information on overall incremental value of APC delivered for the unit and overall cost of lost opportunity (actual versus best case) over a daily, weekly and monthly period.

Key Process Variables - Provides information on incremental value and lost opportunity (actual versus best case) with respect to key process variables over a daily, weekly and monthly period.



Lost Opportunity Cost - Provides prioritized causes by financial impact which are categorized by CV/MV limit issues, high process variance, variables dropped by operators, and APC off. Ring plot totals all lost opportunities grouped by category.



Expert Guidance - Identifies restrictions that are reducing profitability with actions to take to improve performance of the unit. Capturing user entered comments or status updates of every action item.

Current Action Items

Open InProgress Shelve

- Relaxing upper/lower bound on SIDE DRAW FLOW (MV2) can save \$7K per week. Expand operating limits
- REBOILER STEAM FLOW (MV3) runs In manual too much. This costs \$1.162K per week. Place back in service
- Relaxing upper/lower bound on REBOILER STEAM FLOW_Limit (MV3) can save \$0.343K per week. Expand operating limits
- Relaxing upper/lower bound on TOP TEMPERATURE (MV1) can save \$0.275K per week. Expand operating limits

1 - 4 of 4 Items

Action Items [View Detail](#)

1 Follow up with CDU shift team leader on reasons for tube skin temperature limit change.

For More Information

Learn more about how Honeywell Forge Control Performance Analytics can fit your operations, visit [Advanced Process Control](#) or contact your Honeywell Account Manager.

Honeywell Connected Enterprise

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