

PHD and Experion History Integration



Making Integration Reliable, Consistent and Easy

Reliable, accurate process history is critical to enable regulatory compliance, process excellence and accurate business decisions. Inconsistent or missing data can result in significant financial or legal penalties. These critical data needs must be met in the lowest cost manner possible to ensure ongoing financial success.

PHD provides advanced history for Experion with years of online history storage across multiple Experion clusters. PHD also contributes many advanced history features valued by engineering and business users, such as flexible data aggregation, on-demand calculations and centrally

located Experion and other DCS data. This history is available on the plant network, ensuring that potentially large numbers of users can utilize this data without impacting plant operations. The challenge is to ensure this potentially large volume of data can be provided to the business without generating extra data management work.

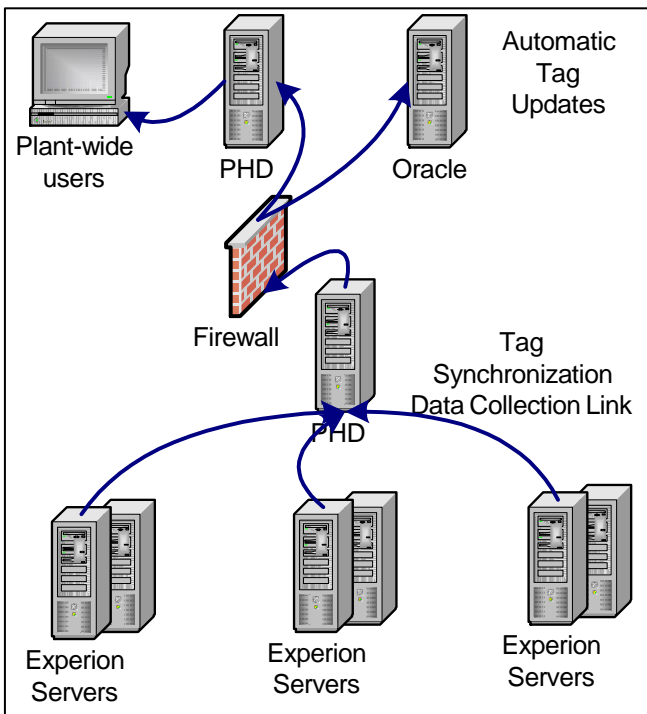
PHD/Experion integration meets these needs in a low-cost manner by:

- Automating maintenance and configuration tasks
- Ensuring efficient, accurate data collection
- Providing the operator visibility to plant-wide data

Benefits of Automated Tag Maintenance

Traditional historian maintenance is performed through periodic or on-demand management of change processes. Such processes require significant manual intervention, and it can often be days before valuable process history data is available to engineers and managers. Additionally, such processes often involve error-prone manual steps that may result in incorrect data collection. PHD answers this challenge by automating the management of tag configuration changes between the control system and the plant-wide PHD historian.

When integrated with Experion, PHD provides automated tag maintenance without the need for a Management of Change process. When an Experion point is added to local history or undergoes a configuration change, those changes are automatically sent to PHD, with no manual intervention required.



- **Synchronization lowers system management cost**

Ongoing tag maintenance is automated, freeing up key resources to perform other tasks.

- **Tag synchronization makes PHD start-up easy**

PHD may be layered on Experion using default settings, and the entire PHD tag database will be created automatically.

- **Tag synchronization rules ensure consistent data**

Automation eliminates the risk of manually generated errors, while application of tag synchronization rules ensures that all tags consistently comply with customer specifications.

These features ensure that PHD data is accurately configured on a timely basis, without the requirement of ongoing manual intervention.

This tag synchronization uses rule-based processing. The PHD system comes with a default set of tag synchronization rules, so new PHD systems may be started up quickly, and more advanced options can be tuned later, as the site's use of PHD becomes more sophisticated. And, a start-up tag load is very quick – an entire PHD tag database can be built, and data collection can start, often in less than 15 minutes.

PHD's automated tag maintenance provides a highly reliable solution. If PHD is not running when an Experion point change occurs, the tag synchronization function automatically receives and applies pending tag changes as soon as the connection between Experion and PHD is re-established.

Tag maintenance occurs when there has been a change to the Experion database. This ensures that tag maintenance incurs very little load on the Experion server. Other historian solutions provide tag synchronization by periodically examining the entire Experion point database whether there has been a change or not. Searching the properties of thousands of points for changes can be resource-intensive, and may cause Experion display response times to be impacted.

Consistent, Efficient Data Collection

Plant historians provide value by providing a long-term store of potentially very large amounts of data. This data must be consistently collected and stored without incurring undue load on the control system. When used with Experion, PHD provides a high-performance plant historian, with minimal impact to the Experion control system.

This integrated data collection provides:

- **Minimal Experion System Loading**

PHD places negligible load on the Experion control system by heavily leveraging the data already available in Experion history and Experion's data cache. Less integrated historians may generate two times the number of data requests against the Experion control system.

- **Consistent Operator and Engineering Data**

PHD's data link ensures that operators using the Experion DCS and PHD users such as managers and operators are all working from consistent historical data. This enables decisions to be made consistently throughout the operation.

- **A Highly Reliable Solution**

In the event of a planned or unplanned PHD outage, history data will be recovered from the data available in the Experion history database.

Robust fail-over to a secondary Experion server may be achieved using Redirection Manager, ensuring a loss of connectivity to the primary server will not impact PHD data availability.

Empowering the Operator

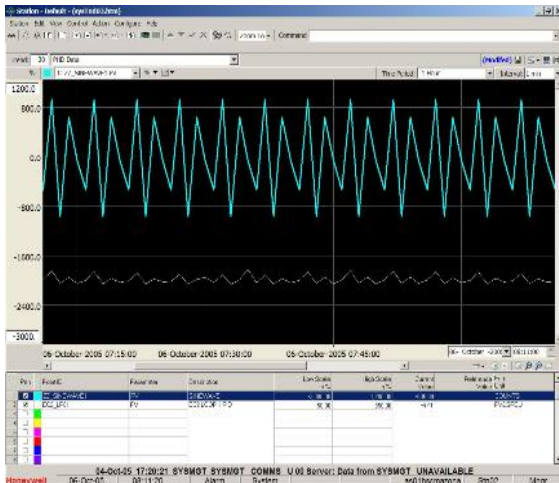
Operators not only need to be able to monitor and optimize their own unit, they also need to have a high level of visibility into data that may not be available locally such as laboratory data, planning data or data from external control systems. This data is typically all available on the PHD plant-wide historian.

PHD/Experion integration introduces the PHD Point Browser. This new component may be installed on the Experion server and allows the operator to trend PHD values on the same trend as local Experion DCS data. The operator is given full visibility into all plant data, without the need for special training or tools.

Technical Requirements

To obtain the full benefits of PHD/Experion integration, the following software components are required:

Component	Version
Experion Server	Release 300 or later
Redirection Manager – for redundant Experion servers	Release 300 or later
PHD Server	Release 210 or later



Visualization of Experion and PHD data

For More Information

To learn more about how Honeywell's PHD and Experion integration can automate system administration, visit www.honeywell.com/ps or contact your Honeywell account manager.

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