

Product Information Note

EHPM Integration with Experion[®] Process Knowledge System (PKS) Control Infrastructure



Protect Intellectual Property While Extending Asset Life

Honeywell's Enhanced High Performance Process Manager (EHPM) controller modernizes TDC/TPS Systems to improve control efficiency and extend support of automation investments.

Process control performance can have a significant impact on a plant's ability to produce a better quality product faster and to deliver positively to the bottom line. Today's modern control technology can leverage functionality that increases operational effectiveness while lowering costs and improving regulatory compliance. Honeywell's EHPM solution extends the life of the TDC/TPS systems while providing a seamless path to Honeywell's Experion Process Knowledge System.

A Commitment to Continuous Evolution

For nearly four decades, Honeywell has stood behind our customers to help them reduce the total cost of ownership of automation investments. This commitment to continuous technology evolution enables plants and mills to modernize legacy systems incrementally, with less disruption while enabling the preservation of valuable intellectual property (IP).

Honeywell's modernization roadmap incorporates full flexibility in lifecycle planning, including long-term support of existing equipment for life expectancy extensions and upgrades for plant performance improvements.

Innovation Focused on Long Term IP and ROI

The EHPM solution allows Honeywell's TDC/TotalPlant[™] Solution (TPS) controllers to integrate within the Experion[®] Process Knowledge System (PKS) control infrastructure.

This solution includes modernization of the Universal Control Network (UCN) to Ethernet technology by introducing Honeywell's Fault Tolerant Ethernet (FTE)-based Enhanced Universal Control Network (EUCN). This allows for connection with Ethernet-based control devices.

The Honeywell control system can now have a common Human-Machine Interface (HMI) and unified Ethernet control environment for effective controller to controller data exchange. EHPM is specifically designed to enable dual citizenship on Experion PKS and legacy TotalPlant[™] Solution systems.

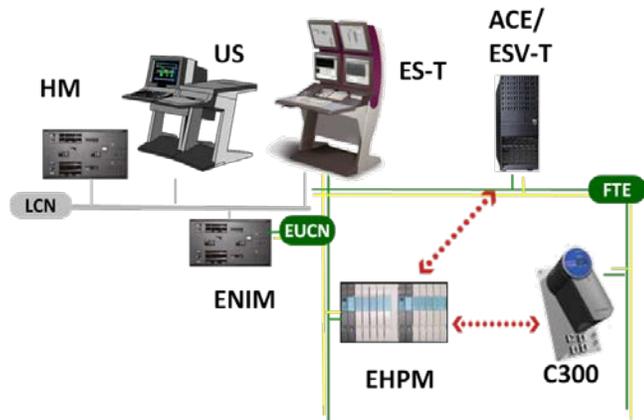
The EHPM supports all classical process control functions for continuous, discrete and batch operations, provided by the HPM controllers. HPM to EHPM upgrade does not require any changes in controller configuration, application software or process displays.

When properly planned, the HPM to EHPM upgrade time can be reduced to less than 2 hours. During the upgrade existing field wiring, input/output processors and field termination assemblies remain unchanged.

Evolution of Plant Controls with Experion PKS R430

The integrated TDC/ Experion PKS control systems using Experion Software Release R430 enables:

- Direct Peer to Peer control between C300 /Application Control Environment (ACE) and EHPM controllers. This function can significantly decrease complex loop response times when the physical I/O of the control loop resides in C300 and EHPM controller.
- Standard History collection from EHPM controllers to Experion Server. Changeover of History collection to an Experion Server instead of a History Module can reduce the traffic on the Local Control Network (LCN) and improve display response time.



The presence of C300 and EHPM controllers on one physical Ethernet control network with direct Peer to Peer control provides flexibility for controls system expansions with EHPM and/or C300 controller. The reuse of existing control strategies and controller hardware for plant expansions can significantly reduce engineering effort, lead time and validation/start-up effort.

Seamless Path to Future Control Environment Evolution

This EHPM migration step is part of a complete, multi-phase, control level unification roadmap. Future developments include:

- Modernization path for all devices residing on the classic coax based UCN to the Ethernet EUCN.
- LCN load reduction by expanding direct data access to EUCN devices.
- Possibility for flexible planning of incremental upgrades of the UCN devices to Ethernet EUCN.

This unified control environment provides a logical path for migration of coax based control devices to Experion PKS at minimal investment cost, process disruption and changes to intellectual property.

For More Information

Learn more about how Honeywell's EHPM solution can help you migrate to the latest control technology, visit www.honeywellprocess.com or contact your Honeywell account manager.

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Extending the Benefits

By implementing EHPM, customers can:

- Reduce engineering effort by up to 50% for expansions using same controller families (C300 or EHPM) and re-applying field proved control applications.
- Extend support for existing process control applications and major capital investments by an additional decade or more.
- Reduce maintenance cost by utilizing common knowledge and advanced diagnostic features of the Ethernet technology.
- Reduce risk of unplanned shutdown or quality loss caused by poor system load performance.
- Improve the efficiency of control provided by direct peer-to-peer communication between the Ethernet based controllers.

Leverage Expert Global Support

Honeywell is committed to lifecycle support and helping customers meet their business needs for automation planning. Our high-value service and support capabilities have more global reach and presence than any other supplier.

With Honeywell's approach, linearity of capital investments, together with efficiency improvements is fully supportable using an incremental modernization and upgrade approach.

Honeywell local service technicians, training consultants and Global Technical Assistance Center (GTAC) experts use collective expertise to support customers in countries across the globe. Honeywell's teams are driven to the highest standards, using consistent processes, leveraging advanced technologies and more than 2,000 years of collective domain expertise to ensure customer support requirements are met.

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