Honeywell

Experion HS and MatrikonOPC
Improved Performance and Connectivity
In Today's Open Environment

Honeywell Process Solutions delivers unsurpassed automation expertise to the process industries. As pioneers of advanced control for industrial operations worldwide, we have continued to develop groundbreaking technology shaping today's manufacturing processes.

Take Honeywell's Experion HS system: this powerful software platform offers innovative functionality for human machine interface (HMI) and supervisory control and data acquisition (SCADA) applications. Built upon the proven technologies of the Experion platform, Experion HS is an integrated and affordable solution used in industries such as oil & gas; mining, metals & minerals; chemicals; life sciences; power; cement & glass; and food & beverage.

Experion HS improves operator efficiency by providing:

- Pre-built standard displays
- Intuitive and flexible HMI
- User-configurable pull-down menus and toolbars
- Enhanced data trending
- On-board historian
- Open, standards-based architecture
- Integrated configuration environment
- Integrated server redundancy

The hallmark of an effective SCADA application is connectivity, and you expect nothing but the best from Honeywell. With Experion HS, you are also free to choose the controller that best suits your application—ensuring greater versatility and potentially reducing costs.

Unlock the Potential of Your Data Resources

MatrikonOPC solutions help Honeywell customers unlock the potential of their operation's data resources and achieve seamless interoperability through open, yet secure, industry standards. Paired with Experion HS, MatrikonOPC Universal PLC Server is a single OPC Server that provides connectivity to multiple devices, protocols and APIs. It offers a wide range of

plug-ins to support the most popular programmable logic controller (PLC) protocols, delivering a new, cutting edge horizon of connectivity between vendors. Supported PLCs include:

- Allen-Bradley
- GE Fanuc
- Mitsubishi
- OMRON
- Siemens S5
- Siemens S7
- Siemens SIMATIC TI505
- Others

Meet Your Difficult Connectivity Challenges

Data integration between Experion HS and the world of controllers and related devices is important. But, as any seasoned system integrator knows, data integration is just the start. Once the data connection is made, a host of other challenges can emerge.

That's why MatrikonOPC provides much more than just data integration. Best-in-class MatrikonOPC applications help Honeywell customers meet their most difficult connectivity challenges:

Eliminate DCOM configuration headaches

Don't put up with DCOM time-out values you cannot dictate. Instead, take control and define your own values. OPC Tunneller from MatrikonOPC provides a simple, reliable and secure way to communicate between networked computers. Now available with encryption and data compression, it eliminates the headaches typically associated with DCOM configuration. Different protocols, security settings or locations are no longer a factor when sharing data between computers. This is achieved by installing OPC Tunneller on the OPC client and OPC server nodes, and then telling the Tunneller client where the Tunneller server exists.

Implement driver-level redundancy

The OPC Redundancy Broker (ORB) enables easy implementation of redundancy in systems taking advantage of OPC technology. ORB is designed for OPC applications that must use redundant hardware and/or software to achieve the highest degree of communication reliability. It can even be retrofitted to current systems, since ORB functions with any OPC server, regardless of the vendor.

Transfer data between OPC servers

OPC-enabled systems share data by implementing one application as an OPC client and another as an OPC server. Sometimes, however, neither application is an OPC client; instead, both are servers, and thus are unable to exchange data.

Thanks to the OPC Data Manager (ODM) software application, users can transfer data from one OPC server to another. ODM provides a simple way to share, map, and bridge OPC data between two or more control systems (e.g. PLC and a DCS). Best of all, this connectivity can be accomplished with standard, off-the-shelf software. The interface is intuitive—making the mapping process quick and easy.

Secure real-time OPC architectures

Industrial operations gain greater peace of mind with MatrikonOPC Security Gateway, which is designed to secure all real-time OPC architectures. Unlike OPC solutions that rely only on DCOM security, Security Gateway controls who can browse, add, read and/or write to a tag on a per-user-per-tag basis on any OPC DA server. As a result, any real-time OPC architecture can be transformed from a security liability to an effective component of a successful defense strategy.

Implement SCADA over wide area networks

Frequently, Experion HS is utilized in SCADA applications where communication is performed over a wide area network (WAN) via satellite. This is now possible, despite the usual headaches attributed to DCOM, thanks to the OPC Tunneller solution. OPC Tunneller operates under poor initial network setup, widespread networks, and unreliable network infrastructures. It even allows for user configurable time-outs, thus giving you complete control.

Deploy historization on redundant nodes

Experion HS is often deployed in a redundant fashion for highly reliable supervisory functions such as data logging and historization. Using the Experion HS OPC History Data Access Server capability, both members of the redundant pair are able to report critical history values. By loading the MatrikonOPC OPC Redundancy Broker (ORB) software on each of the Experion HS nodes, any OPC client application will always receive the Experion HS history data without regard to the status of the members of the redundant pair. This capability also applies to data access and alarm & event data.

Protect communications between different enterprises

Open technology components used for communication between different enterprises typically have issues related to security. Experion HS, paired with the MatrikonOPC Security Gateway, provides a solution answering this concern. Users get the functionality of certificate-based OPC security, as well as per-item level access and OPC security to the underlying OPC server. Plus, the gateway has built-in support for OPC Tunneller connections, which adds an additional layer of security and encryption.

Exchange data between multiple systems

Many industrial plants implementing Experion HS software need to exchange data with a legacy DCS from another vendor. This data exchange must be bi-directional and easy to modify as the user's data exchange needs grow.

The MatrikonOPC ODM application seamlessly transfers data from one OPC server to another, acting as a "double-headed" or "thin" OPC client to both servers. The software requests data from one server and immediately sends it to the other server. In addition, the ODM solution enables users to establish application-level redundancy. The secondary ODM monitors the primary. When the secondary no longer detects activity on the primary, it automatically and seamlessly takes over all communication. This failover can occur in as little as a tenth-of-a-second and ensures that only one OPC data manager transfers data at a time.

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More Information

For more information, visit
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