

Experion HS Specifications

EP03-050-400 February 2011



Introduction

Experion[®] HS is a powerful software platform that incorporates innovative applications for Human Machine Interface applications (HMI) and supervisory control and data acquisition (SCADA). It is comprised of a subset of Experion PKS components specifically packaged to provide a targeted and robust system for small to medium automation projects.

Architecture Overview

The Experion HS system comprises several different integrated hardware and software solutions that support a wide range of application needs. The pictured architecture represents a subset of the possible nodes and controllers.

Solution Overview

The Experion HS server functions as a historian and database. The Experion HS server also supports communication to SCADA point sources and holds the system event journal, system configuration files, custom applications and server scripts. The server is the source for data, alarms, events, etc. for the Experion HS Flex Station(s).

The Experion HS Flex Station is the human machine interface (HMI) that can be utilized for different functions around a plant or mill including operations, monitoring, maintenance and engineering.

Redundancy

Experion HS supports redundant and non-redundant server topologies.

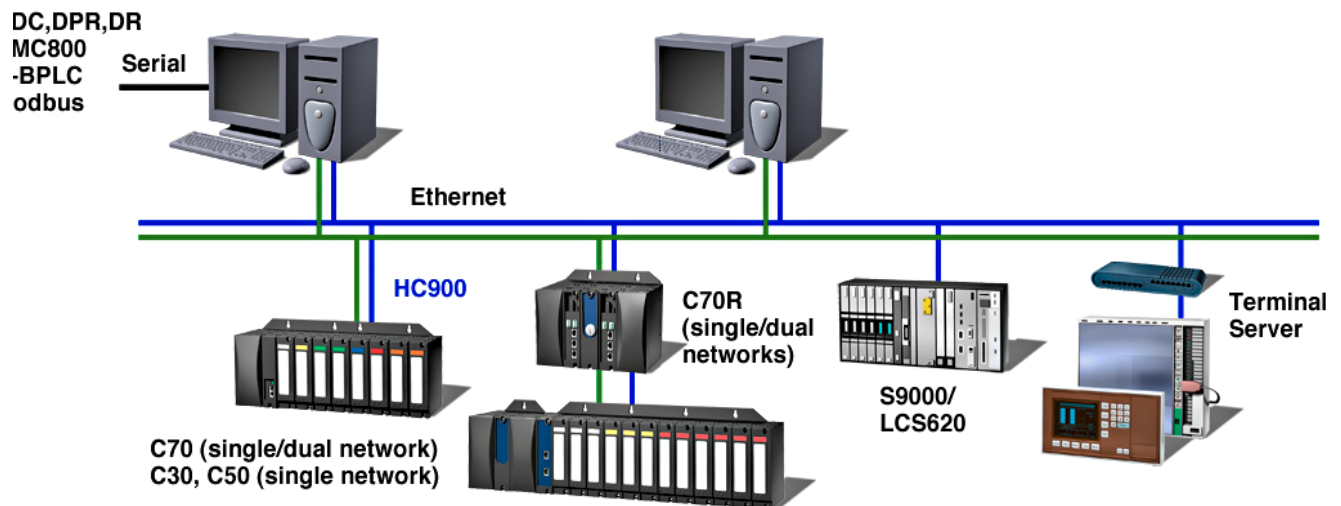


Figure 1. Architecture diagram example

Experion HS Specifications

Database and Station Sizing

Items	Specifications	Comments
Maximum number of composite SCADA points ¹	8,050	The database starts at a minimum of 50 points with increments of 100 points up to 8,050 points.
Maximum number of Stations	10	Stations can be configured with a static or rotary connection. The static connection provides a permanent, dedicated link. The rotary connection provides an "as required" connection, enabling numerous casual users to access the Experion HS system as needed. For example when 5 Station connections are configured, 5 connections can be established at one time but the software could be installed and be available for use by many more than 5 individuals.
<p>Note 1 - Points have a composite data structure that can represent several field values. For example, you only need one analog point for a control loop that maintains the temperature of a furnace or reactor because the point's data structure can include the process variable (PV), output variable (OP), setpoint (SP) and mode (MD).</p>		

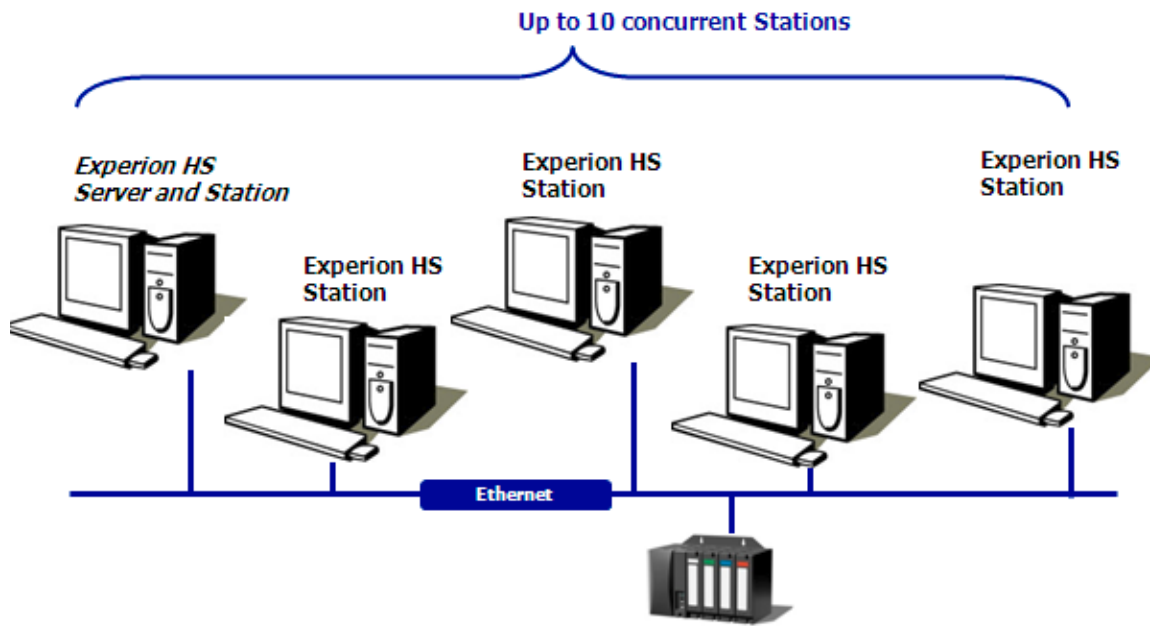


Figure 3. Station sizing example 1

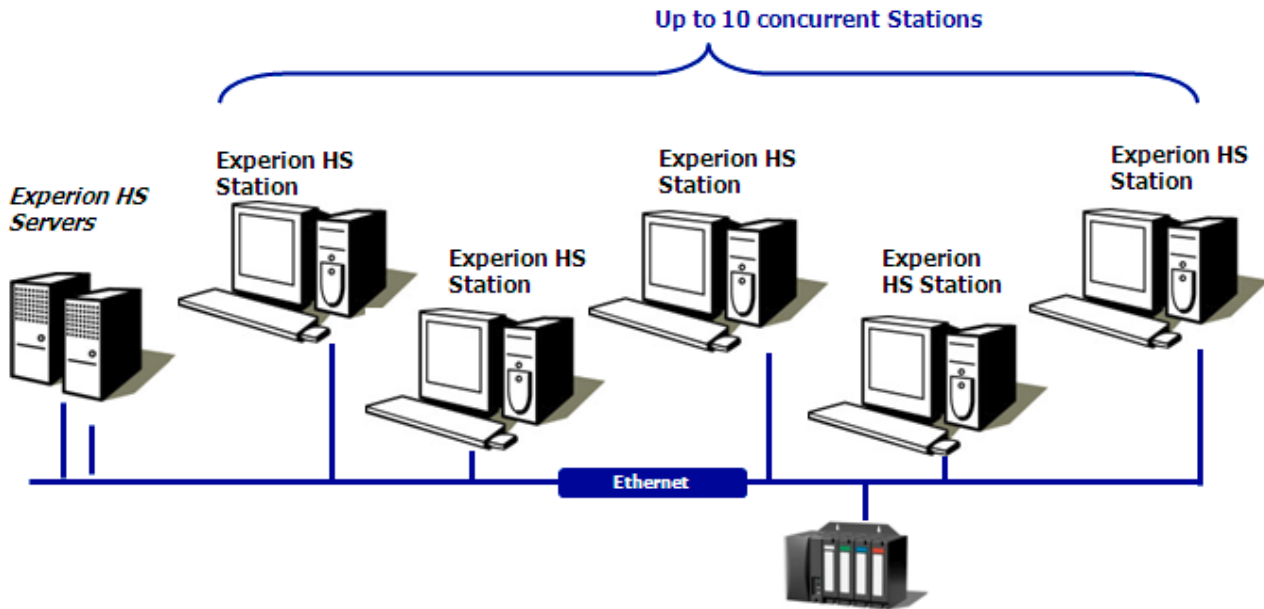


Figure 4. Station sizing example 2

Trends and groups

Items	Specifications	Comments
Trend pens per set	32	Trends can be preconfigured or configured online as necessary by browsing the database and selecting the desired point and parameter
Trend periods	1, 5, 20 minutes 1, 2, 4, 8, 12 hours 1, 2, 5 days, 1, 2, 4 weeks 3, 6 months, 1 year	Any of the standard history collection intervals may be used as the basis for the real-time and historical trends.
Points per operating group	8	Each group has three standard views available including faceplate, group trend (with control parameters accessible) and numeric trend.

Alarms, Events and Messages

Items	Specifications	Comments
Maximum number of active alarms	2,000	Number of alarms that appear in the Alarm summary. Every alarm and event that occurs is saved in the online event database for a configurable period.
Maximum number of active messages	1,000	Number of messages that appear in the Message summary. Messages can be generated to provide additional information to an operator; for example, when a point goes into alarm, a message can provide an explanatory note or a procedure.
Maximum number of events (burst condition)	1,000	<ul style="list-style-type: none"> All alarms, login actions, operator actions, and configuration changes are logged. Up to two events are generated for every alarm, including one event for entering the alarm condition and one for return to normal.
Maximum number of sustained alarms/second	20/sec	
Maximum number of events in online events database	1.2 million	Event archiving can be used to access older events. Approximately 60 MB of hard disk space is required for every 100,000 events archived.

History Sizing

Collection Rates

The table below details the various collection rates for different history types. Fast and Standard history support's a maximum of 8 collection rates. Of these for fast history there are 5 default collection rates while 3 are user configurable. If necessary, 5 seconds default collection rate can be changed to 1 second and 1 minute can be changed to 30 seconds. However changing the collection rates puts an additional load on the process control network. For other history configuration and collections rates possible refer to the table below.

History Type	Max Collection Rates	Default Collection Rates	Number of User configurable collection rates
Fast	8	5**, 10, 15, 20, 30 seconds	3
Standard	8	1**, 2, 5, 10, 30 minutes	3
Averages (based on Standard history rates)	4	6, 60, 480, 1440 minutes	N/A
Extended	3	1, 8, 24 hours	N/A
Exception	16	5, 10, 15, 30, 60 seconds 5, 10, 15, 30, 60 minutes 2, 4, 6, 8, 12, 24 hours	N/A

NA – Not Applicable; A – Applicable

**The 5 second default collection rate for Fast History can be changed to 1 second, and the 1 minute collection for Standard History can be changed to 30 seconds if necessary. Note, however, that changing the collection rates in this way can place an additional load on the process control network.

Default History Files Sizes

Items		Specifications		Comments
		Time	Samples	
Standard History	1 - minute snapshot	24 hours	1,442	The averages are calculated using the 1-minute base interval. That is, 6-minute averages are calculated on six 1-minute values.
	6 – minute average	7 days	1,682	
	1-hour average	7 days	170	The averages are calculated using the 1-minute base interval.
	8-hour average 24-hour average	3 months 1 year	280 368	The averages are calculated using the 1-minute base interval. The averages are calculated using the 1-minute base interval.
Fast History	1 to 30-second snapshot	2 hours – 72 hours	8,652	
Extended History	1-hour snapshot	3 months	746	
	8-hour snapshot	1 year	281	
	24-hour snapshot	3 years	368	

The number of samples in each history file can theoretically be increased to a larger number of samples. If the size of the history file is increased beyond the default qualified size, care should be taken not to exceed the maximum history file size constraints. History archiving is available to store the history files for later retrieval. Experion history data is seamlessly available for use across every Station for trend displays, reports and custom displays.

Maximum Parameters Assigned to History

Items	Specifications	Comments						
Standard history	2,000	This is the default limit that Experion is shipped with. It can be changed by a database initialization up to a maximum of 50,000.						
Fast history	1,000	This is the default limit that Experion is shipped with. It can be changed by a database initialization up to the following maximums. <table border="0"> <tr> <td><u>Fast History Collection Rate</u></td> <td><u>Maximum Parameters</u></td> </tr> <tr> <td>1 to 4 seconds</td> <td>2000</td> </tr> <tr> <td>5 to 30 seconds</td> <td>5000</td> </tr> </table>	<u>Fast History Collection Rate</u>	<u>Maximum Parameters</u>	1 to 4 seconds	2000	5 to 30 seconds	5000
<u>Fast History Collection Rate</u>	<u>Maximum Parameters</u>							
1 to 4 seconds	2000							
5 to 30 seconds	5000							
Extended history	2,000	This is the default limit that Experion is shipped with. It can be changed by a database initialization up to a maximum of 10,000.						

The ability to collect history at the configured rate depends upon throughput of the underlying process control network. Parameters will be limited by the maximum point count of 2,050.

Calculating History Space Requirements

Items	Specifications	Comments
Maximum history file size	500 MB	<ul style="list-style-type: none"> Each type of history sample is stored in a separate history file. For example, there are five history files for standard history, one each for: 1-minute snapshot, 6- minute average, and so on. An individual history file should not exceed this size.
History file size formula	History file size in bytes = $2 * N * ((P*3) + 8)$ Where: N = number of samples P = number of parameters	Example: Number of parameters P assigned to standard history is 50,000. Number of samples N for standard 24 hours one minute snapshot is 1,442. History file size = $2 * 1,442 * ((50,000*3) + 8) = 432,623,072$ bytes/1,048,576 bytes/megabyte = 413 MB.

Supervisory Control and Data Acquisition (SCADA)

Real Time Database SCADA Point Structures

Point Structure ¹	Standard Parameter		
Analog ²	Control Deadband Process Variable Setpoint	Scan Status OP High Limit Scan Period	SP Low Limit 0% & 100% Range Operator Control Level
	Normal Mode	Scan Address	OP Low Limit
	Output	Control Timeout	PV Clamp Flag
	Mode	Alarm Permit Flag	Engineering Units
	SP High Limit	Alarm Status	Drift Deadband
	Up to 4 user definable inputs Point Name	Up to 8 Alarm types ³ Alarm Status	Alarm Deadband Associated Display
	Point Description	PV Last Processed Time ⁴	
Status ⁵	Output Width Process Variable Control Timeout Mode	Output Scan Status Normal Mode Scan Period	Output Pulse Width Re-Alarm Status Associated Display Alarm Permit Flag
	PV Last Processed Time ³	Scan Address	Input Width
	Point Name Point Description	Alarm Priority Operator Control Level	Control Failure Alarm Priority
Accumulator ⁶	Output Width Process Variable	Scan Status Normal Mode	Output Pulse Width Re-Alarm Status
	Control Timeout	Scan Period	Associated Display
	Output Operator Control Level	Scan Address Mode	Input Width Alarm Priority
	Control Deadband	Alarm Permit Flag	PV Last Processed Time ²
	Process Variable Setpoint Normal Mode	Control Failure Alarm Priority Scan Status OP High Limit	SP Low Limit 0% & 100% Range Operator Control Level

Note 1 – For each of the point types it is possible to add user-defined parameters to the existing pre-built parameters. This enables tags to be extended to contain free format values, constant values, or values used by applications and scripts to store calculated or derived plant information. User-defined parameters can be assigned to history collection. Experion supports additional data processing through the use of standard algorithms that may be attached to an analog, status or accumulator point. Functions provided by these algorithms include:

- Arithmetic calculations
- Boolean calculation
- Maximum/minimum value
- Integration
- Run hours totalization
- Group alarm inhibit
- Report request
- Application program request

Note 2 – Used for continuous values.

Note 3 – Supported alarms include: PV Hi, PV Lo, PV HiHi, PV LoLo, Deviation Hi, Deviation Lo, Transmitter Hi, Transmitter Lo, Rate of Change, Control Fail, and Control Timeout. Each of the configured alarms can be assigned a priority ranging from Journal, Low, High to Urgent. An alarm sub-priority (0 to 15) can also be assigned to further differentiate alarms.

Note 4 – Each time the PV is polled from the RTU, Experion will track and maintain the time/date of when the value last changed, or more specifically, was last processed. If the analog point in Experion has a drift deadband of 1%, then the last processed time is not updated until the PV moves by >1%. Similarly, if the drift deadband is 0%, then the last processed time is not updated until the PV moves slightly.

Note 5 – Used for digital values. The PV of a status point can range from a single bit to a 3-bit digital input, allowing up to eight possible states.

Note 6 – Used for totalizer values. Data associated with pulsed inputs are stored in the system in an accumulator point type that will provide automatic tracking of instrument rollover, dependent on controller type.

Standard Interfaces

Interface Software	Connection Type
Allen-Bradley Integration (Serial Interface and RSLinx) ¹ Modbus (RTU & TCP) Interface DNP3 Protocol Interface Honeywell MasterLogic-200 ²	Serial, Ethernet and Control Net Serial (RTU) and Ethernet (TCP) Open Standard Serial and Ethernet (TCP/IP & UDP/IP) Ethernet
Honeywell FSC and Safety Manager	Ethernet (Safety Manager, FSC) and Serial (FSC)
Honeywell S9000	Ethernet
Honeywell 620 LCS Serial and Ethernet Interface	Serial and Ethernet
Honeywell DPR Recorders (DPR 100) ³	Serial
Honeywell Universal Modbus Interface (HC900, UMC800, DPR180/250, UDC2300/3300, DR4300/4500, X-Series)	Serial and Ethernet (when supported by controller)
<p>Note 1 – Includes the Allen-Bradley Serial Interface, the Allen-Bradley RSLinx interface and Allen-Bradley Integration. When the RSLinx interface is used, RSLinx is required (RSLinx to be supplied by user).</p> <p>Note 2 – Includes support for ML200 and ML200R.</p> <p>Note 3 – Contact Honeywell Field Solutions Marketing for availability.</p>	

Terminal Servers

Items	Certified Devices
Terminal Servers	Supported Systech Models NDS-5016RM NDS-6204 NDS-6102 NDS-6202 NDS-6104 NDS-6008 NDS-6008RM NDS-5008 NDS-5008RM NDS-5016
<p>The SCADA controller connection to the server depends on several factors, including the plant's layout, the type of interface used and the controller's communication port(s). For a small system, controllers can be directly connected to the server's serial ports. More serial ports can be added to the server with a serial adapter. Controllers can also be connected to the network through a terminal server.</p>	

OPC Integration
OPC Client Interface

Items	Specifications	Comments
Description		
The OPC Client Interface provides an open method for connecting a wide range of devices for supervisory monitoring, alarming and control. These devices include subsystems such as Programmable Logic Controllers (PLCs) and Remote Terminal Units (RTUs).		
General OPC Client Interface Specifications		
Maximum number of third-party OPC DA servers supported	5	
OPC DA versions supported Time-stamping	1.0a and 2.05 Within the Experion Server	Time-stamping of the data occurs within the Experion server once the data has been successfully read into the SCADA database.
Alarming	Yes	Alarms are generated based on limits defined within the Experionserver.
Scannable parameters per point	8 – Analog 3 – Digital 1 – Accumulator	<ul style="list-style-type: none"> A scannable parameter is a parameter that is able to source data from an OPC Item versus an internal register. These are the standard quantities of scannable parameters found on all SCADA analog, digital and accumulator points.

OPC Display Data Client

Items	Specifications	Comments
Description		
Primarily targeted as a convenient method of getting OPC data into HMIWeb displays. Designed for situations where you need to bring data into the Experion displays via OPC and no additional processing needs to be done on the server, for example when there is no need for alarming, historization, point detail, group, etc. The Experion OPC Display Data Client is bundled with the Experion base software.		
General OPC Display Data Client Specifications		
Maximum number of third-party OPC servers supported OPC versions supported Alarming	5 2.05 No	

OPC Data Access Server

Items	Specifications	Comments
Description		
The Experion OPC Data Access Server provides OPC Data Access Clients with the capability to view Experion point data for the purposes of control and plant-wide historization.		
General OPC Data Access Server Specifications		
Maximum number of OPC Data Access Client Application Instances (CAIs)	3	Each OPC Client Application running on a physical node connecting to the server consumes one Client Application Instance (CAI) for each application. The applications can open multiple physical connections and this still only counts as one CAI for each application. If the same application is running on multiple nodes, one CAI is consumed for each node.
OPC DA versions supported	1.0 and 2.05	

Microsoft Excel Data Exchange

Item	Specification
Description	
Enables capture of real-time point parameter and history information, and displays the data in a Microsoft Excel spreadsheet, using cell formulas or the Microsoft Excel Data Exchange Wizard.	
Details	
Access to real-time point.parameter values	Read/write access
Access to historical point.parameter values	Read only
Access to database files (user tables)	Read/write access

ODBC Driver

Item	Specification
Description Primarily intended for reporting, the ODBC driver enables an ODBC-compliant application to access data in the Experion database, such as history, event, and point parameter values. With the ODBC driver, the Experion HS server acts as a server application. The ODBC driver allows the server database to be queried using SQL commands from ODBC client applications. Additionally, custom applications written in Visual Basic or C++ can also access the server database via the ODBC driver.	
Details	
Access to real-time point.parameter values	Read only
Access to historical point.parameter values	Read only
Access to events	Read only
Configuration	Optimized for Microsoft Access and other ODBC ad hoc query / report applications.

Distributed Systems Architecture (DSA)

Item	Specification
Description Distributed System Architecture (DSA) enables Experion HS data to be published to Experion eServer or Experion PKS Servers without the need for duplicate configuration on any server. Experion PKS servers can be configured to control Experion HS points.	
DSA Data Publish	
Maximum number of remote servers that can be published to	20
DSA Data Subscription	
Maximum number of remote servers that this server can subscribe to	DSA Data Subscription is not available for Experion HS

Recipe Management

Items	Specifications	Comments
Description Recipe Management provides facilities to create recipes and download them to nominated process units. Each recipe may have up to 30 items and recipes can be chained together to form larger recipes, if required. Recipe items may be used to set ingredient targets, set alarm limits, set timers and place equipment into correct operating state. Items may be individually enabled for scaling.		
Details		
Maximum number of recipes	500	This is the default limit.

Batch Reporting

Items	Specifications	Comments
Description		
Batch reporting enables integrated reporting of batches or lots of a production process run, to be compiled and archived automatically by the Experion server.		
Details		
Maximum number of history samples per batch report	65,000	A batch report can collect one type of history sample (such as 5-second samples or 1-hour averages) for up to 50 points.

Server Scripting

Items	Specifications	Comments
Description		
Server Scripting extends the behavior of the server-resident subsystems and its runtime objects. Examples of server objects are points and parameters, reports, assets and tasks (application programs). Scripts can be run by the server either periodically or when a specified event occurs. Standard displays support the monitoring of the status of running scripts.		
General Specifications		
Maximum script size	Short scripts only (typically less than 50 lines)	<ul style="list-style-type: none"> Server scripting has been optimized for relatively short scripts. Where possible, existing server functionality should be used in preference to writing server scripts. Standard server functionality optimizes the task implementation.

Station Display Performance

Station Display Performance Specifications	Specification
Number of dynamic parameters per display	350 or fewer
Typical non-complex display call up time with 100 or less parameters ¹	< 1 seconds
Typical complex display call up time with 200 or less parameters ^{1, 2}	< 2 seconds
Maximum number of Station instances per computer ³	2
<p>Note 1 – Call up time depends on display complexity: specification is based on a non-complex custom display using standard HMIWeb Display Builder objects with limited use of scripts. This excludes the first initial call up and is based on a client node running a single instance of Station.</p> <p>Note 2 – Complex displays are defined by the number of data bound objects identified, large amount of total objects on the display, and some amount of scripting.</p> <p>Note 3 – This is the default limit. The number can be increased to a maximum of 4 instances; however the recommended limit is 2 Station instances per computer. Only 1 Station license is required per computer, regardless of how many instances of Station are running on that computer.</p>	

Experion HS Options

Alarm Pager

Items	Specifications	Comments
Protocols	<ul style="list-style-type: none"> Paging Entry Terminal (PET) Telocator Alphanumeric Protocol (TAP) UCP protocols UCP 01 UCP 30 UCP 51 	Service providers in North America generally use the PET or TAP protocols where as the UCP protocols are mainly used in Europe. The 2-digit suffixes refer to the EMI command numbers used by the provider.
Sizing		
Number of pagers	50	Each pager and email address can be configured with an individual schedule of operation so that users are only paged when they are on call.
Number of email addresses	50	
Delays		
Configurable Notification delays	0 to 60 minutes	

Point Control Scheduler

Item	Specification
Description	
The Scheduler option allows point supervisory control to be automatically scheduled to occur at a specified time. This may occur on a “one-shot” basis, daily, workday, weekend, holiday, or a day of the week.	
Details	
Maximum number of point control schedules	100

OPC History Data Access Server

Items	Specifications	Comments
Description		
The OPC History Data Access Server presents Experion history data in an open manner to client applications. Whether archived or online, the Experion OPC history data is able to retrieve and publish data timely and efficiently. A range of aggregate functions are provided to reduce the processing load on the client.		
General OPC Historical Data Access Server Specifications		
Maximum number of History Data Access Client Application Instances	3	Each OPC Client Application running on a physical node connecting into the server consumes one Client Application Instance (CAI) for each application. The applications can open multiple physical connections and this still only counts as one CAI for each application. If the same application is running on multiple nodes, one CAI is consumed for each node.
OPC HDA version supported	1.2	
Supported aggregates	Interpolated, average, minimum and maximum	

Server Redundancy

Items	Specifications	Comments
<p>Description Server redundancy provides a high availability platform by enabling a pair of similarly configured servers to support each other in a primary/backup fashion.</p> <p>Details</p>		
Redundancy fail-over conditions	Should the primary server fail, a fully functioning backup assumes the primary role.	Primary refers to the specific server that is actively acquiring data from the controllers/RTUs and serving data to the clients. The primary server propagates all database transactions to the backup to enable both databases to remain synchronized.

DNP3 History backfill functionality

Items	Specifications	Comments
<p>Description DNP3 History Backfill makes use of the time stamped values reported by the RTU after recovery from a communications failure to backfill data into Experion history. This functionality depends on the ability of the DNP3 controller to report time stamped values. Experion DNP3 History backfill functionality has been qualified for the following devices:</p> <ul style="list-style-type: none"> • Honeywell RC500 RTU (pending release) • Foxboro SCADA RTU50 • Kingfisher CP21 		
<p>Details This option is only qualified for the following devices</p>	<ul style="list-style-type: none"> • Honeywell RC500 RTU • Foxboro SCADA RTU50 • Kingfisher CP21 	

Hardware and Software Requirements

Honeywell recommends following computer specifications. These specifications are intended to provide a baseline; actual requirements will depend on the system configuration. Computers platforms should meet or exceed these specifications. For non redundant configurations, the Experion HS Server and Station components may be installed on the same computer.

System Configuration	Specification
Processor	Intel(R) Core(TM) 2 Duo (2.33GHz, E6550) , or equivalent
System Memory (RAM) ¹	2 GB or more; ECC
Networking ²	100 / 1000 Mbps Ethernet
Video resolution	1280 x 1024 (standard) or 1600 x 1200, 65K colors
Video memory per channel	256 MB VRAM
Operating system ³	Microsoft Windows 7 32 Bit Professional Edition; English Version
Browser type	Microsoft Internet Explorer 7
Load device	DVD-drive
Software protection device port requirements	Requires free USB port on the computer hosting the Server components
Hard drive	160 GB. SATA, 3 Gb/s
Example hardware	Dell T3500 (server, station), Dell Inspiron 530 (station), HP xw4600 (server, station), Dell Optiplex 380(station) or equivalent

Note 1 – 2 GB RAM is the minimal required, more RAM can be used for higher performance.

Note 2 – A dual Ethernet Network connection between the Server and the controller is supported by some controllers. A dual Ethernet configuration requires two network interface cards per computer. Note that Experion HS supports Dual Network communications but not Fault Tolerant Ethernet (FTE).

Note 3 – Experion HS Knowledge Builder is supported on Windows Vista SP2

Model Numbers

Database Software

Model Number	Description
EP-HMBASE ¹	Experion HS Base Software
EP-HME400	Experion HS media kit – new non-redundant Experion HS systems
EP-HMR400	Experion HS media kit – new redundant Experion HS systems
EP-HMM400	Experion HS media kit – migrations from previous releases and demo systems

Note 1 – Includes 50 SCADA points, 1 Flex Station license, 1 Display Builder license, 1 Quick Builder license, Allen-Bradley integration, Modbus interface, Honeywell MasterLogic interface, Honeywell S9000 interface, Honeywell 620 LCS interface, Honeywell DPR Recorders interface and Honeywell Universal Modbus interface for HC900, UMC800, DPR180/250, UDC2300/3300, UDC2500/3200/35002, DR4300/4500 and X-Series, DNP3 interface, Honeywell FSC and Safety Manager interface, recipe management, batch report, OPC Client Interface, OPC Display Data Client, 3 Excel data Exchange Users, ODBC driver and 3 OPC Data Access Client Access Instances (CAI). Includes a security key (dongle) for computer USB port. Requires 1 media kit.

Database Size expansions

Model Number ¹	Description
EP-HME100	Experion HS 100 Points Adder
EP-HME01K	Experion HS 1,000 Points Adder
EP-HME02K	Experion HS 2,000 Points Adder
EP-HME05K EP-HME08K	Experion HS 5,000 Points Adder Experion HS 8,000 Points Adder
Note 1 – Up to 8,000 additional Points can be ordered for a maximum of 8,050 Points per Server.	

Server redundancy

Model Number ¹	Description
EP-HMRBAS	Experion HS Redundancy Base Software
EP-HMR100	Experion HS 100 Points Redundancy Adder
EP-HMR01K	Experion HS 1,000 Points Redundancy Adder
EP-HMR02K	Experion HS 2,000 Points Redundancy Adder
EP-HMR05K	Experion HS 5,000 Points Redundancy Adder
EP-HMR08K	Experion HS 8,000 Points Redundancy Adder
Note 1 – Redundancy software follows the same methodology as selecting the database size from the previous step. Start by selecting the redundancy base software, EP-HMRBAS. This option includes server redundancy for 50 SCADA points. This option does not include an additional Experion Station connection license. Next, choose the equivalent point adders for redundancy that were chosen for the database. The point count has to exactly match that of the database point count.	

Station expansions

Model Numbers	Description
EP-HSTA01	Experion HS Station
Note 1 – Up to 9 additional Stations can be ordered for a maximum of 10 Stations per Server. Includes Multiple Static Station support: multiple instances of Station can be installed on one computer, consuming 1 Station license per computer.	

Quick Builder and Display Builder

Model Number ¹	Description
EP-HSQBLD	Experion HS Quick Builder
EP-HSDSBD ²	Experion HS Display Builder
Note 1 – One of each of Quick Builder and Display Builder are included with the Base Server Software. Additional licenses can be ordered when a base software license is present. These tools can be used off-line.	
Note 2 – Includes HMIWeb Display Builder and Display Builder.	

Options

Model Numbers	Model Description
EP-HAPAGE	Experion HS Alarm Pager
EP-HASHED	Experion HS Point Control Scheduler
EP-HMOHDA ¹	Experion HS History Data Access
EP-HSIG01 ²	Experion HS Electronic signature option
EP-HDNPHB	DNP3 History backfill functionality
<p>Note 1 – Includes 3 History Data Access Client Application Instances.</p> <p>Note 2 – Provides Electronic Signatures on SCADA points, Electronic Signatures on Point Scheduler and the ability to securely enable and disable Electronic Signatures by asset.</p>	

Development license

Model Number	Model Description
EP-HMDEV1 ¹	Experion HS 4050 Pt Off-Process Development License
<p>Note 1 – Supporting one or more run-time licenses.</p>	

Run-time only licenses

Model Number	Model Description
EP-HRB350	Experion HS 350 Pt Runtime only software
EP-HRB650	Experion HS 650 Pt Runtime only software
EP-HRB01K	Experion HS 1050 Pt Runtime only software
EP-HRB02K	Experion HS 2050 Pt Runtime only software
EP-HRB04K	Experion HS 4050 Pt Runtime only software
EP-HRBEX2	Experion HS 350 Pt to 650 Pt Runtime expansion
EP-HRBEX3	Experion HS 650 Pt to 1050 Pt Runtime expansion
EP-HRBEX4	Experion HS 1050 Pt to 2050 Pt Runtime expansion
EP-HRBEX5	Experion HS 2050 Pt to 4050 Pt Runtime expansion

Supported Migration Paths

- Experion Vista R301 to HS R400 upgrade (Off process)
- Experion HS R301 to HS R400 upgrade (Off process)
- Experion HS R310 to HS R400 upgrade (Off process)
- Experion HS R311 to HS R400 upgrade (Off process)

Virtualization

Virtualization is the creation of a virtual version of something, such as an operating system, a server, a storage device or network resource. There are many different types of virtualization. With Experion HS and LS, Honeywell uses a type called platform virtualization. Platform virtualization refers to the abstraction or separation of computer hardware resources from one or more operating systems.

To read more about our use of virtualization technology, refer to this document:

EP03-700-100

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Glossary

Term or Acronym	Description
CAI	Client Application Instance
Experion HS Server	The node at the heart of Experion HS. The servers encompasses a wide range of subsystems including history collection, SCADA interfaces, alarm/event, etc.
FSC	Fail Safe Controller
HC900	Honeywell hybrid controller
HMI	Human machine interface
HMIWeb	Human machine interface based on Web technology
HPS	Honeywell Process Solutions
HTML	Hypertext markup language
I/O	Input / Output
LAN	Local area network based on Ethernet technology
MD	Mode
ODBC	Open DataBase Connectivity
OP	Output variable
OPC	OLE for Process Control. Series of standard specification for open connectivity in industrial automation, originally based on Microsoft's OLE COM and DCOM technologies.
PPS	Parameters per second
PV	Process Variable
SCADA	Supervisory control and data acquisition
SM	Honeywell Safety Manager
SP	Setpoint
SQL	Structured Query Language
UTC	Universal Coordinated Time
USB	Universal Serial Bus

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Learn more about how Honeywell's Experion HS are specifically packaged to provide a targeted and robust system for small to medium automation projects, visit our website www.honeywell.com/ps/hfs or contact your Honeywell account manager.

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