

Experion HS R500 and Experion Panel PC Software Configurator Reference Guide

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General Information

Experion HS R500 Overview

Experion HS is a Supervisory Control and Data Acquisition (SCADA) software package that provides an entry level solution for small to medium sized applications with up to 20 Station clients and up to 16050 SCADA points. Experion HS R500 runs on the Microsoft Windows 10 Enterprise 2016 LTSB (64 bit) operating system and Microsoft's SQL Server 2014 SP2.

We have withdrawn R301 from sale of new projects or expansion or previously installed systems.

R310/R311/R400/R410 has been withdrawn from sale for new projects but will remain orderable for expansion of previously installed systems. Experion HS R430 is still available for ordering. Experion HS R500 is be available for new projects.

Purpose

This document is designed to assist the user in selecting the proper Experion HS models to order for a particular automation project. It is designed to be used along with the Experion HS Configurator Tool when planning an Experion HS project.

This document also covers Experion Panel PC Software R500 options used with Experion PPC (Panel PC) hardware.

Experion HS Configurator

Honeywell provides an automated tool that helps the application engineer to select the most cost-effective set of model numbers to order to meet the requirements of the application. This tool also enforces certain system capacity and topology rules in order to assure that a valid and complete system topology is being ordered. This tool is called the Experion HS Configurator Tool and the latest R500 version is available on the Honeywell CHAMP at this URL:

Champ>Content>Search using "Experion HS Configurator Tool R500" keyword; Direct [link](#)

Note that changes are frequently made to the Experion HS Configurator. Prior to building a configuration, always check the Honeywell CHAMP to assure that you have the latest version.

Software Orders for New Systems

Orders to expand or upgrade an Experion HS system will be processed via the Process Measurement and control (PMC) supply chain. All Experion HS orders are to be entered using SAP Order Entry or Web Channel.

Experion HS orders require the licensing of software. Therefore it is imperative that the order contain the Customer ID number for the end-user customer as registered in the Honeywell Siebel database. This is required for a software license to be properly executed. Failure to provide the Customer ID number will result in your order being rejected.

Software Orders for Expansions/Upgrades of Existing Systems

Orders to expand or upgrade an Experion HS system will be processed via the Process Measurement and control (PMC) supply chain. All Experion HS orders are to be entered using SAP Order Entry or Web Channel.

Experion HS orders require the licensing of software. Therefore it is imperative that the SAP/Web Channel order contain the MSID (Master System Identification Number) for the existing system. This MSID number is printed on the original license certificate. This is required for a software license to be properly executed. Failure to provide the MSID number will result in your order being rejected.

Model Numbers and Specifications

Throughout this document, model numbers and limited specification type information are provided in order to clarify selections that are being made. For a full listing of model numbers and specifications, please refer to the Experion HS Specifications document.

Configuring a Standard Experion HS System

Base System

Every new Experion HS system will ship with the Experion HS Base Software License Key, a Media Kit. The hardware security key(s) are not part of Experion media anymore and is required only for listed countries mentioned in channel partner bulletin# 2016-044 titled '*Dongle Process Change for Experion Software v1*'. Starting Experion HS R500 and onwards, there is only one media kit model number that is applicable for all use cases.

These listed countries must order the security key(s) using following additional models. EP-DONUSB (Hardware Security key) and EP-DONENB (Software Protection Enabler). For the non-redundant server the order should have 1x EP-DONENB + 1x EP-DONUSB and for a redundant server ships it should be 1x EP-DONENB + 2x EP-DONUSB. The software license key is embedded in the hardware security key(s). Care must be taken not to lose the software license key and the hardware security key(s) as these items are required for you to have a running Experion HS system.

Model Number	Model Description
EP-HMBASE	Experion HS Base Software
EP-HME500	Experion HS Media Kit – Standard

The Experion HS Base Software comes with a large set of standard features including:

Quantity	Component Description
50	Experion SCADA Point
1	Flex Station
1	Multiple Static Flex Station option
1	Quick Builder
1	Display Builder
1	Display Versioning Control
1	Experion HS Server
1	DSA enabling License
1	Recipe Management
1	ODBC Driver
1	Network Server
1	User Scan task
1	Batch Report
1	Honeywell ControlEdge PLC Integration
1	Honeywell Safety Manager and FSC interface
1	DNP3 interface
1	Allen Bradley Serial Interface
1	Allen Bradley RSLinx Interface
1	Allen Bradley Integration
1	GE Fanuc Series 90 PLC via Ethernet (requires EP-IGEAPI)
1	Honeywell Series 9000 Integration
1	Modbus (RTU, Plus, ASCII & TCP) Interface
1	Honeywell LCS 620 Interface
1	Honeywell DPR Recorders (DPR100,180, 3000)
1	Honeywell RM7800 Flame Safeguard
1	Interface to various EFM controllers/ protocols (Enron Modbus Interface, ABB Totalflow, Fisher ROC, Omni, FlowX, and Bristol Babcock OpenBSI)
1	OPC Client Interface
3	OPC Data Access Server CAI
3	Microsoft Excel Data Exchange users

Number of SCADA Points

While your Experion HS Base Software comes with 50 SCADA points, up to 16000 additional points may be added to your system. Points are available in the following increments:

Model Number	Model Description
EP-HME100	Experion HS 100 Points Adder
EP-HME01K	Experion HS 1000 Points Adder
EP-HME02K	Experion HS 2000 Points Adder
EP-HME05K	Experion HS 5000 Points Adder
EP-HME08K	Experion HS 8000 Points Adder
EP-HME16K	Experion HS 16000 Points Adder

Number of Stations

Your Experion HS Base Software comes with one Station license included. Up to 19 additional Stations may be licensed for a total Station count of 20. This station license can also be used with Experion PPC (Panel PC) connecting to Experion HS server as a remote station. Any mix of Desktop and Panel PC Stations can be used within this limit of 20 stations per Experion HS server.

Note that a user may install 2 instances of Experion Station on one computer while only consuming one Station license using Multiple Static Flex Station option which is included with every Experion HS station. Multiple Static Flex Station option is not available when you run station on Panel PC.

Station software can be run on the same computer as the Experion HS Server. Or, it can be run on its own computer. When redundant servers are used, one Station license can be run on Server A and another Station license can be run on Server B.

Model Number	Model Description
EP-HSTA01	Experion HS Station

Microsoft Windows 10 Operating System

Model Number	Model Description
MS-OSLW10 ^{1,2}	Windows 10 Enterprise 2016 LTSB
Note 1 – Experion HS R500 uses Long Term Service Branch (LTSB) based Windows 10 operating system. Note 2 – This is an optional model in case a Honeywell supplied Win10 OS is required. Note 3 – If this option is selected then the number of COAs should be equal to base+ redundancy+ number of stations. Orders will be rejected if the COA quantity doesn't match with above calculation.	

SQL Client Access Licenses

Experion HS R500 uses the Microsoft SQL Server 2014 SP2 technology as a part of the system infrastructure. Microsoft's licensing policy requires us to provide SQL Client Access Licenses (CALs) to all users of this embedded technology. The Experion HS Configurator Tool will suggest the number of CALs to be ordered. The Experion HS Configurator Tool will always assume that you will be running your Station licenses on the same computer hence you must purchase CAL licenses depending on how many stations will be used for your operations. The final BOM in the pricing and configuration tool can always be modified to add CAL licenses based on your topology.

A simple rule applies: You need one CAL license for each computer in your topology. A few examples might help. If you run your Experion HS Station on a separate computer from the Experion HS Server you will need 2 CALs. However, if you run the Experion HS Station on the same computer as the Experion HS Server, then you only need 1 CAL.

Consider redundant servers. If you have 2 Stations and a redundant server pair and you run all of these licenses on separate computers, then you need 4 CALs. If you run both Stations on the redundant server computers, you need just 2 CALs.

See the section titled "Modifying the Final Bill-of-material" to learn how to remove CALs from your configuration.

Model Number	Model Description
MZ-SQLCL4	Microsoft SQL Server 2014 SP2 CAL

Redundant Servers

Many of the Experion HS systems deployed around the world make use of redundant servers. When configuring an Experion HS system with redundancy, you need an additional redundancy base software license. This option includes server redundancy for 50 SCADA points. (This option does not include an additional Experion Station license.)

Model Number	Model Description
EP-HMRBAS	Experion HS Redundancy Base Software

You also need to purchase a quantity of redundant points that exactly equal the quantity of Experion HS SCADA points that are in your system. Redundancy adders are packaged as follows:

Model Number	Model Description
EP-HMR100	Experion HS 100 Points Redundancy Adder
EP-HMR01K	Experion HS 1000 Points Redundancy Adder
EP-HMR02K	Experion HS 2000 Points Redundancy Adder
EP-HMR05K	Experion HS 5000 Points Redundancy Adder
EP-HMR08K	Experion HS 8000 Points Redundancy Adder
EP-HMR16K	Experion HS 16000 Points Redundancy Adder

Engineering Tools

The Base Experion HS software includes all engineering tools required to build your application including Display Builder and Quick Builder. You may want additional copies of these tools because they can be used off-line if you have more than one engineer collaborating on a project. If you require additional copies of the engineering tools, order these model numbers:

Model Number	Model Description
EP-HSQBLD	Experion HS Quick Builder
EP-HSDSBD	Experion HS Display Builder

Software Options

A few optional software features may be added to your Experion HS system if desired, these features are not included in the base software. Optional features are as follows:

The OPC History Data Access Server is designed to expose Experion history values in an open manner to OPC clients. Model EP-HMOHDA supports 3 client application instances (CAI). Each OPC client application running on a physical node connecting into the OPC History Data Access Server consumes one CAI for each application. The applications can open multiple physical connections and this still only counts as one CAI for each application.

Model Number	Model Description
EP-HMOHDA	OPC History Data Access Server

Other Experion HS Options

Model Number	Model Description
HS-XRESR1 ¹	DSA Remote Server Enabler
EP-HDNPHB ²	DNP3 History backfill functionality
HS-I60870	IEC 60870 Protocol SCADA Interface
HS-I61850	IEC 61850 Protocol SCADA Interface
EP-HSUMOD	Honeywell Universal Modbus Interface
EP-HSMLSR	Honeywell Master Logic Integration
HS-IADDVM	DVM Integration (Via Point Server)
EP-HHWUMH	HC900 Universal Modbus History Backfill
HS-IADDVM	DVM Integration (Via Point Server)
EP-HBBREF	Bristol Babcock Open BSI, EFM Export Option ⁵
EP-HEMBOE	Enron Modbus Interface, EFM Export Option ⁵
EP-HFLXEF	Flow-X Flow Computer, EFM Export Option ⁵
EP-HOMNEF	HS Omni SCADA, EFM Export Option ⁵

Model Number	Model Description
EP-HROCEF	HS Fisher ROC SCADA, EFM Export Option ⁵
EP-HTFLEF	ABB Totalflow SCADA, EFM Export Option ⁵
EP-HMOHDA	Experion HS OPC History Data Access CAI ³
HS-OPCINT	Experion HS OPC Integrator SAI ⁴
HS-OPCSAE	Experion HS OPC Alarm and Event Server CAI ³
EP-HODBCD	Experion HS ODBC Data Exchange
EP-HASHED	Experion HS Point Control Scheduler
EP-HMESAO	Honeywell Application Communication
EP-HSIG01 ^{6,7}	Experion HS Electronic signature option
HS-DEQ100	100 Equipment Point Adders to Database Size
EP-AGBP25 ⁸	GAS OPS CORE, 25 PIPE SEGMENTS ¹⁰
EP-APLP25 ⁹	GAS OPS LEAK DETECT, 25 PIPE SEGMENTS ¹⁰
EP-HAPAGE	Experion HS Alarm Pager
HS-DASENB	Dynamic Alarm Suppression
HS-ALMTND	Alarm Tracker
EP-HSVALG	Alarm Shelving
EP-HPZE00	Station Pan and Zoom, Per Server
EP-HADSP1	Advanced HMIWeb Solution Pack
<p>Note 1 – Each Experion HS Server is enabled to publish data in a DSA design. HS-XRESR1 is required once for a server or redundant server pair that needs to subscribe to data. One DSA remote server license is required to subscribe to up to the maximum number of 5 servers.</p> <p>Note 2 – DNP3 interface is included in the HS database license</p> <p>Note 3 – CAI stands for Client Application Instance</p> <p>Note 4 – SAI stands for server Application Instance</p> <p>Note 5 – EFM protocol interface is included in the HS base software. This license is needed for EFM export feature</p> <p>Note 6 – Provides Electronic Signatures on SCADA points, Electronic Signatures on Point Scheduler and the ability to securely enable and disable Electronic Signatures by asset.</p> <p>Note 7 – Provides the necessary functions, such as Electronic Signature support, for regulated industries. The Experion Server provides enhanced capabilities to support the Pharmaceutical industry and other FDA regulated industries and their unique requirements related to regulations such as 21 CFR Part 11. These features may be employed in any industry but are specifically designed to meet the guidelines of 21 CFR Part 11.</p> <p>Note 8 – Requires equipment Points</p> <p>Note 9 – Can only be ordered in combination with an equivalent number of EP-AGBP25</p> <p>Note 10 – Definitions Pipe Segment: The smallest building block of a pipeline. A length of pipeline with the same physical characteristics. E.g., diameter, material, coating. A segment is bound by two pipeline nodes. Node: The beginning or end of a segment. A node is a unique point on the pipeline where something of interest is located. For example, Meter Station, Tee/Lateral, Compressor Station, Valve Stations, Reducer, etc. A node will have instrumentation connected to the SCADA system that affect SCADA application calculations.</p>	

Configuring a Run-time Only System

Experion HS offers a run-time only system. A run-time only system does not contain any engineering tools. It presumes that someone (perhaps an OEM) engineered your Experion HS configuration on a standard system. Then the configuration files were installed on the run-time only system. No configuration changes can be made using the run-time only system. Runtime systems **cannot be upgraded** to a Base system but can only be expanded with max 16050 points and redundancy.

Base System and Number of Points

The Experion HS run-time only system ships with the EP-HME500 Media Kit and one of the following:

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-HRB08K	Experion HS 8050 Pt Runtime Only Software
EP-HRB16K	Experion HS 16050 Pt Runtime Only Software

Other Considerations

Your Experion HS Run-time only software comes with one Station license included. Up to 19 additional Stations may be licensed for a total Station count of 20. Other Experion software options can be added. SQL Client Access Licenses (CAL) is required. The number of CALs is calculated in the same manner as a standard Experion HS system.

Server redundancy is offered with run-time only licenses. Existing run-time customers with non-redundant systems moving to redundant systems need to purchase redundant adders. Redundancy adders are packaged as follows

Model Number	Model Description
EP-HMRBAS	Experion HS redundancy adder to base software
EP-HRR350	Experion HS 350 Pt Runtime Redundancy Adder
EP-HRR650	Experion HS 650 Pt Runtime Redundancy Adder
EP-HRR01K	Experion HS 1050 Pt Runtime Redundancy Adder
EP-HRR02K	Experion HS 2050 Pt Runtime Redundancy Adder
EP-HRR04K	Experion HS 4050 Pt Runtime Redundancy Adder
EP-HRR08K	Experion HS 8050 Pt Runtime Redundancy Adder
EP-HRR16K	Experion HS 16050 Pt Runtime Redundancy Adder

Configuring a Development/Demonstration System

A special packaging of Experion HS is provided which is intended to be used as an off-process system for configuration development of system demonstration. It has the convenience of not requiring a hardware security key. It does include a five hour timeout after which a simple manual restart action must be taken.

Note that the Experion HS Development/Demonstration System **cannot be expanded** in any way. **Nor can it be upgraded** from one release to the next. With each new release of Experion HS, a new Demonstration/Development license must be purchased. The dongle is not applicable for a development system.

The model numbers that must be orders are as follows:

Model Number	Model Description
EP-HMDEV1	Experion HS 16050 point Off-process development system
EP-HME500	Experion HS Media Kit – demo and migrations
MZ-SQLCL4	Microsoft SQL Server 2014 SP2 CAL

The following options are enabled as a part of this special packaging:

- 5 Flex Station license
- 16050 Scada Points
- 100 Equipment Point
- 25 Gas Compressor capacity
- IEC 60870 Interface
- Experion Virtualization CAL
- 1 HS Server
- 1 Display Builder license
- 1 Quick Builder license
- Display Versioning Control
- Modbus interface
- Honeywell ControlEdge PLC Integration
- Allen Bradley Serial Interface
- Allen Bradley RSLinx Interface
- Allen Bradley Integration
- Honeywell S9000 integration
- Honeywell 620 LCS interface
- Honeywell DPR Recorders interface
- Universal Modbus interface for HC900, DPR180/250, UDC2500/3200/3500, DR4300/4500 and X-Series
- DNP3 interface
- Honeywell Safety Manager and FSC interface
- Recipe management option
- Batch report option
- OPC client interface
- OPC display data client
- 3 Excel Data Exchange user licenses
- ODBC driver
- 3 OPC Data Access Client Access Instances (CAI).
- User Scan task
- GE Fanuc Series 90 PLC via Ethernet (requires EP-IGEAPl)
- Honeywell RM7800 Flame Safeguard
- Interface to various EFM controllers/ protocols
- (Enron Modbus Interface, ABB Totalflow, Fisher ROC, Omni, FlowX, and Bristol Babcock OpenBSI)

Upgrading or Expanding a Standard System

Existing System Information

When upgrading or expanding an existing system, it is important to provide information about your existing system. Information concerning your existing system can be found on your original license document. Mandatory information is as follows:

- MSID – Master System Identifier
- Existing software release (Combo Box)
- Number of Points – Enter the points exactly the way it appears on your license certificate
- Number of Stations – Enter the stations exactly the way it appears on your license certificate
- Redundancy – Does your current system have redundant servers?

Additional Points, Stations, Tools and Options

When upgrading or expanding an existing system, additional points, Stations and engineering tool licenses may be added. Support for redundant servers may be added. Any of the Experion HS software options may be added.

It is important to note that the upgrade and expansion (if required simultaneously) requests need to be configured and processed separately. In such case step 1 would be to upgrade your current system to HS R500 followed by step 2 where you expand the HS R500 system to add more points, stations, redundancy or any other HS options.

If you are upgrading from a prior release to R500, you must purchase all new CALs. CALs purchased on previous version Experion HS releases will not provide access to the new SQL Server 2014 SP2 that is a part of Experion HS R500.

Use Case Scenarios

1. If a customer is on Plantscape R400/R500 and wants to upgrade and add 3000 SCADA points (together)

Customer would have to fill the Configurator tool to upgrade to HS R500 and add 3000 points using different forms. Fill 2 Configurator forms as mentioned below, save and submit.

- a. Upgrade/Expansion - Fill the first form with current release (ex. Plantscape R400/R500 etc.). Enter the existing information (MSID, points, station etc.). Create the BOM.
- b. Adding Points - Fill the second form with current release as Experion HS R500. Enter the total number of points you would have after Expansion (ex. 3000). Create the BOM.

2. When performing “Upgrade” and “Adding Redundancy” (together) please perform a two-step process for Upgrade/Expansion and Adding Redundancy.

Fill 2 Configurator forms as mentioned below, save and submit.

- a. Upgrade/Expansion - Fill the first form with current release (ex. Plantscape Vista or HS R301 etc.). Enter the existing information (MSID, points, station etc.) and add the number of expansion points or stations. Create the BOM.

- b. Adding Redundancy - Fill the second form with current release as Experion HS R500. Choose "Yes" under the section "Add Server redundancy?" Create the BOM.

In all such cases, provide both the BOM's to OM team so that order can be processed.

Upgrading from a prior release to R500 will require you to purchase all new CALs. Apply caution to ensure that PC meets minimum specifications for HS R500. Also select Win10 OS Honeywell supply option as needed.

Please note: We would be able to best support you when you are on the latest HS R500 release.

Upgrade Units

Starting Experion HS R500, there is a change in the upgrade strategy where Honeywell will charge a fee based on number of upgrade units. Please read the below details carefully. The HS R500 configurator tool has been updated as per below details.

When upgrading from prior versions of Honeywell software products, the upgrade pricing is calculated based upon a computed number of "upgrade units." The Experion HS configuration tool will make this calculation for you. But we provide the algorithm here so that you can see how your upgrade units are calculated.

Calculation basis for number of Upgrade Units

The number of **Upgrade Units for an Experion HS upgrades = A + B + C**, where:

A	Base System S/W - each System has base system software, and this forms the minimum number of units needed for an upgrade order.	= 65 units
B	Factor to represent number of SCADA Points in System. For Experion HS systems, subtract the free 50 points that are provided with the Experion HS base software from the total license count shown in the license certificate. For PlantScape systems 50 points should be deducted from the total number of licensed points prior to migration. If the system is redundant, multiply this result by 2.	= (Number of SCADA points) * 6 / 100. If redundant, multiply by 2.
C	Factor to represent number of Stations - this excludes the free Station that is bundled with the Experion HS base software.	= number of stations * 15

Please ensure to enter the points and station count exactly the way it appears on your license certificate. Also note upgrade units are calculated and charged based only on the system configuration being upgraded. The upgrade units are not applicable or charged on the new options (more points, stations, redundancy option etc.) required due to expansion.

Choosing the right Upgrade Unit Model Number

Once the number of upgrade units are calculated based on above, the HS configuration Tool will select the upgrade unit model number depending on your current HS or Vista release in the quantities calculated above. Note the required media kit(s), SQL licenses and Win10 OS (if selected) for the upgrade will be automatically calculated in the HS configurator tool.

Model Number	Used for Release	Description
EP-HMUPR1	Experion HS R430	Experion HS Upgrade Unit - Release minus 1
EP-HMUPR2	Experion HS R410	Experion Upgrade Unit - Release minus 2

EP-HMUPR3	Experion HS R400	Experion Upgrade Unit - Release minus 3
EP-HMUPR4	Experion HS R31x or older releases ¹	Experion Upgrade Unit - Release minus X
Note 1 – Included HS R31x, R30x, Experion Vista R301, PlantScape Vista- R400 IM&C, 400/500, PlantScape SCADA R500/R400/R330/R320/R310/R300 or older		

Expanding a Run-time Only System

Existing System Information

Run-time Only Systems cannot be upgraded but only expanded.

When expanding an existing Run-time only system, it is important to provide information about your existing system. Information concerning your existing system can be found on your original license document. Mandatory information is as follows:

- MSID – Master System Identifier
- Existing software release (Combo Box)
- Number of Points – Do not include the 50 free points that ships with the base system.
- Number of Stations – Do not include the 1 free Station that ships with the base system.

Additional Points, Stations, Tools and Options

When expanding an existing system, additional points, Stations and engineering tool licenses may be added. Any of the Experion HS software options may be added. It is not possible to upgrade an existing Run-time-Only system to a standard Experion HS system.

Annual Support

Purchase of an annual support contract is recommended for all Experion HS systems. This contract provides access to a Honeywell engineer within our Technical Assistance Center. The annual support fee will be calculated automatically by the Experion HS Configurator and if user does not use the tool to calculate annual support fee then your orders will be rejected.

This price is a variable and cannot be assumed or entered manually in web channel without being calculated by the tool.

Model Number	Model Description
EP-ASF1	Annual Support Fee

Modifying the Final Bill-of-Material

The Experion HS/LS Configurator Tool always tries to assemble a bill-of-material which provides the project engineer with an exact list to be ordered. However, there may be times when modifications to this final bill-of-material are desired.

For instance, as explained in the section titled, “SQL Client Access Licenses”, you may want to reduce the number of CALs in the final bill-of-material. To modify the final bill-of-material, access the tab marked “Parts List”. Change the value in the “Quantity” column. Press the “Create BOM” button. A new “Summary” tab will be added to reflect the changes.

Configuring a Experion Panel PC Software System

Every new Experion Panel PC software is a variant of Experion HS and is designed to be used with Experion Panel PC or equivalent hardware for touch based local Panel operations.

Experion HS R500 Station model number (EP-HSTA01) covered in HS R500 section above is used with Panel PC Software when you run Experion Panel PC as remote station to Experion HS system.

Below details and licenses are ONLY applicable when you use Experion Panel PC software as Server with Station. In this operation mode, Experion Panel PC can operate independently and doesn't need Experion HS R500 system. Please refer Panel PC Spec (EP03-150-500) for further details.

Base System

Experion Panel PC system will ship with the Experion Panel Base Software License Key and a Media Kit. The hardware security key(s) is not required for Experion Panel PC software across all countries. Note the Panel Base Software license comes bundled with 550 SCADA points.

Model Number	Model Description
EP-PNBASE	Experion Panel HMI Database Base Software
EP-HME500 ¹	Experion HS Media Kit – Standard
Note 1- The media kit for HS R500 and Panel PC software is common.	

The Experion Panel PC base license includes-

Quantity	Component Description
550	Experion SCADA Point
1	Flex Station
1	Multiple Static Flex Station option
1	Quick Builder
1	Display Builder
1	Display Versioning Control
1	Experion HS Server
1	Recipe Management
1	ODBC Driver
1	Network Server
1	User Scan task
1	Batch Report
1	Honeywell ControlEdge PLC Integration
1	Honeywell Safety Manager and FSC interface
1	DNP3 interface
1	Allen Bradley Serial Interface

Quantity	Component Description
1	Allen Bradley RSLinx Interface
1	Allen Bradley Integration
1	GE Fanuc Series 90 PLC via Ethernet (requires EP-IGEAPI)
1	Honeywell Series 9000 Integration
1	Modbus (RTU, Plus, ASCII & TCP) Interface
1	Honeywell LCS 620 Interface
1	Honeywell DPR Recorders (DPR100,180, 3000)
1	Honeywell RM7800 Flame Safeguard
1	Interface to various EFM controllers/ protocols (Enron Modbus Interface, ABB Totalflow, Fisher ROC, Omni, FlowX, and Bristol Babcock OpenBSI)
1	OPC Client Interface
3	OPC Data Access Server CAI
3	Microsoft Excel Data Exchange users

Number of SCADA Points

While your Experion Panel PC Base Software comes with 550 SCADA points, up to 16000 additional points may be added to your system. Points are available in the following increments:

Model Number	Model Description
EP-PME01K	Experion Panel HMI 1000 Points Adder
EP-PME04K	Experion Panel HMI 4000 Points Adder
EP-PME08K	Experion Panel HMI 8000 Points Adder
EP-PME16K	Experion Panel HMI 16000 Points Adder

Configuring a Run-time Only System

Experion Panel PC software offers a run-time only system. A run-time only system does not contain any engineering tools. It presumes that someone (perhaps an OEM) engineered your Experion Panel PC configuration on a standard system. Then the configuration files were installed on the run-time only system. No configuration changes can be made using the run-time only system. Runtime systems **cannot be upgraded** to a Base system but can only be expanded with max 16050 points and redundancy.

Base System and Number of Points

The Experion HS run-time only system ships with the EP-HME500 Media Kit and one of the following:

Model Number	Model Description
EP-PRB550	Experion Panel HMI Runtime Only -550 points
EP-PRB01K	Experion Panel HMI Runtime Only -1050 points
EP-PRB04K	Experion Panel HMI Runtime only -4050 points
EP-PRB08K	Experion Panel HMI Runtime Only -8050 points
EP-PRB16K	Experion Panel HMI Runtime Only -up to 16K points

Below options applies for both regular and runtime only Experion Panel PC system

Distributed System Architecture (DSA) Data Publish

Unlike Experion HS Server, the Experion Panel PC base software doesn't include the optional feature of publish data in a DSA design. EP-PDSAP1 is required once for a Panel PC server system that needs to publish data to other Experion systems. This includes Experion PKS, Experion LX and PlantCruise by Experion Server systems. Refer DSA compatibility for more details.

Model Number	Model Description
EP-PDSAP1	Experion Panel PC Data Publish over DSA

Feature Restrictions

This being a Panel PC, the following features are not supported

3. Software Redundancy
4. Having more than 1 station
5. Subscribe data from any other Experion system over DSA. Experion Panel PC software can only publish data.

Microsoft Windows 10 Operating System

Experion Panel PC comes pre-installed with Windows 10 Enterprise LTSC OS.

SQL Client Access Licenses

Similar to Experion HS R500, the Experion Panel PC software uses the Microsoft SQL Server 2014 SP2 technology as a part of the system infrastructure. Microsoft's licensing policy requires us to provide SQL Client Access Licenses (CALs) to all users of this embedded technology. The Experion HS Configurator Tool will populate 1x SQL license per Panel PC software.

Model Number	Model Description
MZ-SQLCL4	Microsoft SQL Server 2014 SP2 CAL

Software Options

Below optional software features may be added to your Experion Panel PC Software. Please note these are Experion HS R500 based model numbers/ features that are fully supported for use with Experion panel PC software.

The OPC History Data Access Server is designed to expose Experion history values in an open manner to OPC clients. Model EP-HMOHDA supports 3 client application instances (CAI). Each OPC client application running on a physical node connecting into the OPC History Data Access Server consumes one CAI for each application. The applications can open multiple physical connections and this still only counts as one CAI for each application.

Model Number	Model Description
EP-HMOHDA	OPC History Data Access Server

Other Experion HS Options

Model Number	Model Description
EP-HDNPHB ²	DNP3 History backfill functionality
HS-I60870	IEC 60870 Protocol SCADA Interface
HS-I61850	IEC 61850 Protocol SCADA Interface
EP-HSUMOD	Honeywell Universal Modbus Interface
EP-HSMLSR	Honeywell Master Logic Integration
HS-IADDVM	DVM Integration (Via Point Server)
EP-HHWUMH	HC900 Universal Modbus History Backfill
HS-IADDVM	DVM Integration (Via Point Server)
EP-HBBREF	Bristol Babcock Open BSI, EFM Export Option ⁵
EP-HEMBOE	Enron Modbus Interface, EFM Export Option ⁵
EP-HFLXEF	Flow-X Flow Computer, EFM Export Option ⁵
EP-HOMNEF	HS Omni SCADA, EFM Export Option ⁵
EP-HROCEF	HS Fisher ROC SCADA, EFM Export Option ⁵
EP-HTFLEF	ABB Totalflow SCADA, EFM Export Option ⁵
EP-HMOHDA	Experion HS OPC History Data Access CAI ³
HS-OPCINT	Experion HS OPC Integrator SAI ⁴
HS-OPCSAE	Experion HS OPC Alarm and Event Server CAI ³

Model Number	Model Description
EP-HODBCD	Experion HS ODBC Data Exchange
EP-HASHED	Experion HS Point Control Scheduler
EP-HMESAO	Honeywell Application Communication
EP-HSIG01 ^{6,7}	Experion HS Electronic signature option
HS-DEQ100	100 Equipment Point Adders to Database Size
EP-AGBP25 ⁸	GAS OPS CORE, 25 PIPE SEGMENTS ¹⁰
EP-APLP25 ⁹	GAS OPS LEAK DETECT, 25 PIPE SEGMENTS ¹⁰
EP-HAPAGE	Experion HS Alarm Pager
HS-DASENB	Dynamic Alarm Suppression
HS-ALMTND	Alarm Tracker
EP-HSVALG	Alarm Shelving
EP-HPZE00	Station Pan and Zoom, Per Server
EP-HADSP1	Advanced HMIWeb Solution Pack
<p>Note 2 – DNP3 interface is included in the HS database license</p> <p>Note 3 – CAI stands for Client Application Instance</p> <p>Note 4 – SAI stands for server Application Instance</p> <p>Note 5 – EFM protocol interface is included in the HS base software. This license is needed for EFM export feature</p> <p>Note 6 – Provides Electronic Signatures on SCADA points, Electronic Signatures on Point Scheduler and the ability to securely enable and disable Electronic Signatures by asset.</p> <p>Note 7 – Provides the necessary functions, such as Electronic Signature support, for regulated industries. The Experion Server provides enhanced capabilities to support the Pharmaceutical industry and other FDA regulated industries and their unique requirements related to regulations such as 21 CFR Part 11. These features may be employed in any industry but are specifically designed to meet the guidelines of 21 CFR Part 11.</p> <p>Note 8 – Requires equipment Points</p> <p>Note 9 – Can only be ordered in combination with an equivalent number of EP-AGBP25</p> <p>Note 10 – Definitions:</p> <p>Pipe Segment: The smallest building block of a pipeline. A length of pipeline with the same physical characteristics. E.g., diameter, material, coating. A segment is bound by two pipeline nodes.</p> <p>Node: The beginning or end of a segment. A node is a unique point on the pipeline where something of interest is located. For example, Meter Station, Tee/Lateral, Compressor Station, Valve Stations, Reducer, etc. A node will have instrumentation connected to the SCADA system that affect SCADA application calculations.</p>	

Configuring a Development/Demonstration System

A special packaging of Experion Panel PC software is provided which is intended to be used as an off-process system for configuration development of system demonstration. It has the convenience of not requiring a hardware security key. It does include a five hour timeout after which a simple manual restart action must be taken.

Note that the Experion Panel PC Development/Demonstration System **cannot be expanded** in any way. **Nor can it be upgraded** from one release to the next. With each new release of Experion HS, a new Demonstration/Development license must be purchased.

The model numbers that must be orders are as follows:

Model Number	Model Description
EP-PMDEV1	Experion HS 16050 point Off-process development system
EP-HME500	Experion HS Media Kit – Standard
MZ-SQLCL4	Microsoft SQL Server 2014 SP2 CAL

The following options are enabled as a part of this special packaging:

- 1 Flex Station license
- 1 HS Server
- 1 DSA Enabling license
- 1 Display Builder license
- 1 Quick Builder license
- Display Versioning Control
- Modbus interface
- Honeywell ControlEdge PLC Integration
- Allen Bradley Serial Interface
- Allen Bradley RSLinx Interface
- Allen Bradley Integration
- Honeywell S9000 integration
- Honeywell 620 LCS interface
- Honeywell DPR Recorders interface
- Universal Modbus interface for HC900, DPR180/250, UDC2500/3200/3500, DR4300/4500 and X-Series
- DNP3 interface
- Honeywell Safety Manager and FSC interface
- Recipe management option
- Batch report option
- OPC client interface
- OPC display data client
- 3 Excel Data Exchange user licenses
- ODBC driver
- 3 OPC Data Access Client Access Instances (CAI).
- User Scan task
- GE Fanuc Series 90 PLC via Ethernet (requires EP-IGEAPI)
- Honeywell RM7800 Flame Safeguard
- Interface to various EFM controllers/ protocols
- (Enron Modbus Interface, ABB Totalflow, Fisher ROC, Omni, FlowX, and Bristol Babcock OpenBSI)

Expanding a Experion Panel PC Standard System

Existing System Information

When upgrading or expanding an existing system, it is important to provide information about your existing system. Information concerning your existing system can be found on your original license document. Mandatory information is as follows:

- MSID – Master System Identifier
- Existing software release (Combo Box)
- Number of Points – Enter the points exactly the way it appears on your license certificate
- Number of Stations – Enter the stations exactly the way it appears on your license certificate
- Redundancy – Does your current system have redundant servers?

Additional Points and Options

When expanding an existing system, additional points, and software options may be added.

Expanding Experion Panel PC Run-time Only System

Existing System Information

Run-time Only Systems cannot be upgraded but only expanded.

When expanding an existing Run-time only system, it is important to provide information about your existing system. Information concerning your existing system can be found on your original license document. Mandatory information is as follows:

- MSID – Master System Identifier
- Existing software release (Combo Box)
- Number of Points – Do not include the 50 free points that ships with the base system.
- Number of Stations – Do not include the 1 free Station that ships with the base system.

Additional Points and Options

When expanding an existing Panel PC software system, additional points, and software options may be added.

It is not possible to upgrade an existing Run-time-Only system to a standard Experion HS system.

Modifying the Final Bill-of-Material

The Experion HS/LS Configurator Tool always tries to assemble a bill-of-material which provides the project engineer with an exact list to be ordered. However, there may be times when modifications to this final bill-of-material are desired.

For instance, as explained in the section titled, “SQL Client Access Licenses”, you may want to reduce the number of CALs in the final bill-of-material. To modify the final bill-of-material, access the tab marked “Parts List”. Change the value in the “Quantity” column. Press the “Create BOM” button. A new “Summary” tab will be added to reflect the changes.