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ПРОГРАММЫ

Технические характеристики на Experion Collaboration Station



1. Introduction

1.1. Collaboration Station

Collaboration Station is a control room solution for shift supervisors, senior operators, engineers, maintenance and other operational support personnel, to improve production and efficiently manage site wide issues, by providing real-time access to Experion control system displays and business applications on a single large, intuitive multi-touch monitor.

- Faster, better decisions for optimizing operations.
- More effective troubleshooting, planning and ad-hoc meetings, where all participants can collaborate include remote personnel.
- Troubleshoot process upsets without disrupting the operators.
- Efficiently manage maintenance activities.
- · Coordinate start-ups and commissioning.

1.2. Deployment Locations

Collaboration Station supports use on both the Process Control Network and the Business Network.

1.2.1. Use on the Business Network (L4)

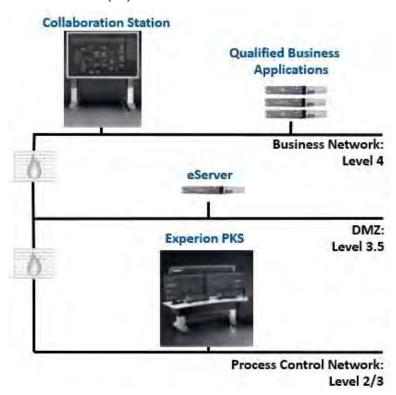


Figure 1: Business Network Topology

When deployed on the business network Collaboration Station can be configured to access business applications, communication applications, internet sites and internet sites along with Experion control system displays. In this topology an Experion eServer is required on the DMZ (L3.5) network.

1.2.2. Process Control Network (PCN)

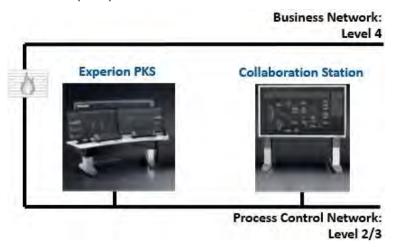


Figure 2: Process Control Network Topology

On the Process Control Network (PCN) Collaboration Station connects directly to an Experion Server. This minimizes and simplifies required engineering and has the following functional benefits:

- Higher performance and capacity (see Configuration Limits)
- Experion server redundancy
- Experion display file replication

Integration of applications requiring business network access is restricted when Collaboration Station is deployed on the PCN.

2. Collaboration Station Specifications

2.1. Configuration Limits

Description	Connected to eServer	Connected to Experion server
Max number of Collaboration Stations ¹	4	7
Maximum number of radial menus per workspace. Each of which may have an aggregated alarm icon.	50	100
Maximum number of parameters per workspace	400	700 (max 350 on Flex Server)
Number of parameters per second (pps) per Collaboration Station ²	700	1,000/sec
Number of dynamic parameters per Collaboration Station	2000	3000
Maximum number of items per Radial Menu Petal	10	10
Maximum number of alarm icons per workspace ³	50	Only limited by Max number of parameters per workspace
Maximum number of zoom regions per workspace	50	100
Maximum number of open schematics per Collaboration Station	40	40
Maximum number of live updated schematics per Collaboration Station	10	10
Maximum number of open applications per Collaboration Station ⁴	20	20

- Note 1: Collaboration Station requires a server (Experion server or eServer) node that is of the same release version. For Experion server the maximum number of Collaboration Stations is dependent on the Experion Server Platform. For Standard Server hardware the max limit is 30, for Performance Server Hardware the max limit is up to 40. However the number of nodes that can be supported is limited by the Experion Server data access performance (parameter per second that can be supplied by the server).
- Note 2: When more than 1,000 dynamic parameters are configured, the update rate must be greater than 1 sec. to not violate max pps

 Ability to deliver published data rate depends upon throughput of underlying process control network. For example for a heavily
 loaded EST system there may not be sufficient LCN bandwidth to deliver 3000 parameters. Refer to the documentation
 associated with the process control network for more information
- Note 3: This includes alarm icons that appear as part of radial menus
- Note 4: Examples of applications are Word or Excel. Experion schematics have separate limits as shown

2.2. Qualified applications

The following applications are qualified for use in Experion Collaboration Station.

Items	Qualification	Comments
Experion HMIWeb Displays	Supported	Read only access to Experion HMIWeb displays is supported.
Microsoft Excel, Word, PowerPoint	Supported	
Adobe PDF documents	Supported	
Web pages and Web applications	Supported / L4 Support	Collaboration Station's inbuilt web browser or any other browser such as Chrome, Internet Explorer and Firefox may be used. Web sites and applications requiring business network or internet access require Collaboration Station to be deployed on the business network.
Applications on remote computers accessed via integrated Microsoft RemoteApp or Remote Desktop	Supported	
Skype and other communication applications	L4 Support	Skype and other communication application integration requires Collaboration Station to be deployed on the business (L4) network.

Honeywell cannot take responsibility for issues resulting from the installation or use of any software that has not been tested for Experion compatibility by Honeywell. Ensure sufficient system resources such as memory, CPU performance, disk space, display space, and so on are available on the Collaboration Station Workstation.

2.3. Experion Compatibility Considerations

2.3.1. Experion Release Compatibility

Collaboration Station can only connect to Experion servers of the same release, i.e. R520 Collaboration Station requires an R520 Experion server if deployed on the process control network or an R520 Experion eServer if deployed on the business (L4) network.

As per standard distributed system architecture (DSA) interoperability guidelines, the Experion server/eServer and associated Collaboration Station can obtain data from Experion Servers of the following releases:

Supported DSA connected Experion Server Releases
R52x
R51x
R50x
R43x

2.3.2. DSA Consideration

The standard requirements for configuring DSA between the Experion Server (or eServer), that Collaboration Station is connected to, and other Process Servers must be considered. These include:

- Network connectivity
 - Collaboration Station on the PCN: Experion Collaboration Station shall reside on the PCN Level 2/3 and directly connect to a corresponding Experion Server. The Experion Server must have a DSA connection to all other desired Experion Servers on the PCN.
 - Collaboration Station on the Business Network: When Experion Collaboration Station resides on the
 Business Network (Level 4) it must be connected to an Experion eServer located on the DMZ (Level 3.5).
 The Experion eServer must be able to directly connect with all desired Experion Servers at Level 2 and 3.
- Point item name uniqueness For points that are not assets, full item names must be unique across all servers.
- Display names must be unique across all servers.
 See the "Requirements for implementing a DSA system" section of the "Server and Client Configuration Guide" for a full list of considerations.

2.3.3. Experion Content

Items	Specification Connected to eServer	Specification Connected to Experion server
Alarms and Event information	Supported	Supported
Experion Trends	Supported ^{1,2}	Supported ¹
System displays including groups, detail displays and faceplates	Supported	Supported
Embedded CDA charts	Not supported	Not supported
Pan and Zoom displays	Supported	Supported
Integrated Digital Video Manager	Not supported	Supported ³
Honeywell Solution Pack Shapes	Supported ⁴	Supported ⁴
ActiveX Controls	Supported ⁴	Supported ⁴

- Note 1: Trends within HMIWeb displays and system displays is supported. Trends are not supported embedded within the Collaboration Station workspace.
- Note 2: Maximum of 100 Trend pens that Collaboration Station can view when connected to eServer.
- Note 3: DVM objects within HMIWeb displays and system displays is supported. DVM web client camera view is supported.
- Note 4: Supported within HMIWeb displays and system displays. Embedding within the Collaboration Station workspace is not supported.

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The following applications are qualified for use in Experion Collaboration Station.

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Applications on remote computers accessed via integrated Microsoft RemoteApp or Remote Desktop	Supported	
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Supported DSA connected Experion Server Releases
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R50x
R43x

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- Note 3: DVM objects within HMIWeb displays and system displays is supported. DVM web client camera view is supported.
- Note 4: Supported within HMIWeb displays and system displays. Embedding within the Collaboration Station workspace is not supported.

2.4. Business Network Deployment Considerations

Collaboration Station has the following requirements which should be considered with respect to site specific IT and security policies when deploying on the business network:

- Requires Internet Explorer 11 with the following browser internet options configured:
 - 1. Third-party browser extensions enabled. Specifically, HendrixBHO (Honeywell Hendrix Framework Browser Helper Object) addon enabled.
 - 2. Enhanced Protection Mode disabled.
 - 3. Active content to run in files on My Computer allowed.

3. Experion Collaboration Station Hardware and Sizing Requirements

3.1. Experion Collaboration Station Sizing

The computer used for Collaboration Station must be a performance workstation as used for other Experion stations.

These guidelines are intended to provide a minimum baseline. Honeywell computer platforms meet these specifications but may not necessarily be the example platforms listed below. Honeywell computers carry full support as a qualified offering.

3.2. Experion Collaboration Station Computer Hardware Requirements

Example specification:

System Configuration	Performance Platform
Processor	3.60GHz, 4-core processor
RAM	16 GB
Networking	100 Mbps Ethernet
Video resolution	3840x2160 (4K)
Example video card model number:	MZ-QUAD06 NVS510
Operating system	Microsoft Windows 10 IoT Enterprise LTSC 2019
Hard Drive	1 TB
Browser type	Microsoft Internet Explorer 11
Honeywell Computer Platforms examples ¹	MZ-PCWS93 (Dell T5820XL Performance Tower) MZ-PCWS84 (HP Z4 G4 Performance Tower) MZ-PCWS77 (Dell R7920XL Performance Rack 2U)
Note 1 – For further information on Honeywell computer platforms, see their respective specifications.	

3.3. Experion Collaboration Station Screen Requirements

The Collaboration Station screen is provided separately as a third party item. Customers can also use their own preferred touch screen as long as the following specifications are met. Collaboration Station has been tested with the screen specifications listed below.

System Configuration	Specification
Operating System support	Windows 10
Screen Definition	UHD (4K)
Multi Touch Support	2 point or greater with gesture control
Sound	Audio support
Size minimum	60"
Size maximum	92"

Qualified LG Screens (purchase from your local LG reseller):

86": LG 86TN3F-B75": LG 75TC3D65": LG 65TC3D

4. Model Number

Model Number	Description
EP-STACSN	Experion Collaboration Station (1 connection)

5. Glossary

Term or Acronym	Description
DSA	Distributed System Architecture
EMDB	Enterprise Model Database. The Experion Enterprise Model provides an intuitive way to manage the Experion system.
Experion Server	The node (optionally redundant) at the heart of Experion. The servers encompass a wide range of subsystems including history collection, SCADA interfaces, alarm/event, etc.

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