

**Experion PKS  
Field Device Manager Specifications**



**EP03-480-300  
Release 300  
V1.0, August 2006**

## Table of Contents

Introduction.....	1
Product Description and Features.....	2
HART Communication Foundation and Device Vendor Support.....	7
Specifications and Sizing .....	9
Model Numbers.....	13

## Revision History

Revision	Date	Description
1.0	20 August 2004	Update based on FDM R200 update
1.1	7 August 2006	Update

Legend for Change column:

A -- Added

D -- Deleted

M -- Modified

## Introduction

### Experion Process Knowledge System

The Experion® Process Knowledge System (PKS) is a next-generation process automation system that unifies people with process, business and asset management to help process manufacturers increase profitability and productivity. It is the only process automation system to focus on people – making the most of the knowledge they hold. Experion improves business performance and peace of mind by collecting and integrating process and business data across the entire facility, making information and knowledge available where and when needed, thereby enabling people to make the right decisions. At the heart of Experion PKS is the Experion platform, which provides a foundation for integrating all process control and safety management (including non-Honeywell systems) into a single, unified architecture. The Experion platform embeds advanced applications to improve process performance, asset and people effectiveness and business agility.

### HART Protocol Overview

The Highway Addressable Remote Transducer, commonly known as HART®, protocol has existed for over ten years and provides a method to access information resident in the memory of smart field devices, such as transmitters, analyzers, and valve positioners. HART is an open protocol owned by over 100 member companies and administered and maintained by the HART

Communication Foundation (HCF). There are over 500 registered HART devices existing that provide a comprehensive set of field device functions, with an installed base of over 20 million devices worldwide. A complete list of member companies and registered devices can be obtained from the HCF web site at <http://www.hartcomm.org/>.

HART is a hybrid protocol and uses a combination of analog and digital signals to represent information to the control system. With HART, the traditional 4-20 mA (analog) signal is used to represent the process variable or control output signal. The secondary variables, device status, and device configuration data is then transmitted on top of this 4-20 mA signal using the HART digital protocol.

As Figure 1 shows, the digital portion of HART protocol is based on the Bell 202 telephone communication standard and operates using the Frequency Shift Keying (FSK) principle. The digital signal is made up of two frequencies—1,200 Hz and 2,200 Hz representing bits 1 and 0, respectively. Sine waves of these two frequencies are superimposed on the direct current (0-100% analog) signal to provide simultaneous analog and digital communications. Because the average value of the FSK signal is always zero, the analog 4-20 mA signal is not affected.

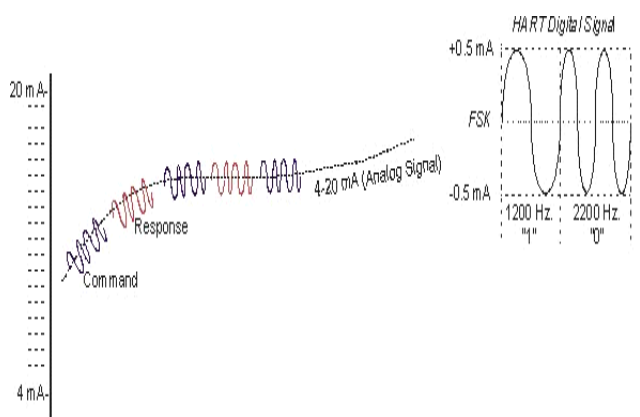


Figure 1 HART Analog and Digital Signals

HART is a half duplex, command response protocol. The host sends a command to the HART device and within a given time window the HART device must respond. The command can read or write data, or instruct the device to perform some action or task.

### HART Device Description Files

A device description (DD) file is a binary file that contains an electronic description of all of a device's parameters and functions needed by a host application to communicate with the device. The DD files are developed by the device vendor and are developed using a device description language (DDL), a C-like programming language.

A host, which is capable of interpreting DD files, can fully utilize all the features of a HART device, irrespective of the vendor the device is from, the device version, the release timeframe, the application and the features supported. The support of DD files brings to the host the capabilities of



supporting device specific commands, device specific configuration, diagnostics and status information.

The DD files also describe the “methods” supported by that device. Methods provide the user with step-by-step instructions to perform a particular task with the device.

The most common uses of methods are:

- Loop test
- Set a password to write protect a device
- Re-range the device
- Initiate a calibration sequence

The use of DD files enable systems to make use of the HART protocol to provide asset management functions like device diagnostics, that save help reduce fault isolation effort and enable higher plant uptime.

## Product Description and Features

### Honeywell Field Device Manager

Field Device Manager (FDM) is a software system for management of HART devices. FDM allows the user to manage configuration for a large number of HART devices. Users can access and change all HART device configuration settings. FDM also allows the user to access and run HART device methods. HART device methods are short step-by-step programs that issue commands in a sequence that result in the completion of some device related task. Methods are developed by the HART device vendor and are supplied as part of the device DD (Device Descriptor) file. Some examples include:

- Calibration of sensors and actuators
- Sensor range setting
- Valve stroke testing and diagnosis

### Vendor DD Support

FDM uses unmodified vendor DD files for performing all the device configuration, management and diagnostics tasks. All functionality and features specified in the DD file are supported. The end user has full access to all device functions and features described in the DD.

All device command types (universal, common practice, and device-specific) are supported as the device vendor intended. Unlike other packages, FDM does not require additional files or programming to add support for new devices or to access device specific features.

## Protocol Support

FDM supports HART protocol version 5.0.

## Key FDM Functions and Features

FDM features:

- Instrument Configuration and Diagnostics: Fully configure, calibrate and diagnose any HART device from any vendor. FDM uses unmodified vendor created DD files for performing all its functions with the device.
- Instrument Database: Centralized instrument database that is capable of storing the current and historical configurations and details of up to 64,000 HART devices.
- HART device communications: Communicate with HART devices connected to Experion HART enabled IO as well as HART devices connected to hardware multiplexers, remote IO systems and hart modems.
- Audit Trail: Maintains an audit log of all actions performed on the device describing for each event the action made, the user and the timestamp. The FDM audit log conforms to 21 CFR Part 11 regulations.
- Multiplexer Monitoring: The multiplexer monitoring feature allows automatic collection and display of alarms and events from HART devices connected via Hardware multiplexers/remote IO systems. The alarms are available in Experion alarm and event summary and in turn in Asset Manager.
- Offline Configuration: FDM provides the ability to configure devices offline and store the configuration into a database or file. The configuration can then be downloaded to a device once the device is online.
- Export Import: Export the live and historical device data, the list of devices etc into a common file format.
- Display Filters: Ability to configure custom views of plant network and view a subset of devices associated with a user friendly name like “unit 1” or “all HON STT25H” etc.
- Enhanced History functions: Save history records against a user friendly name, ability to better manage history records, such as delete a specific history record or a set of history records etc.
- Device documentation support: Add device documentation (user manuals, P&ID diagrams etc) to

the FDM database and invoke the documentation from the device HMI in FDM.

- Experion Redundancy support: Seamless switch over in the event of an Experion redundant server switchover. This ensures no loss of view for maintenance users.
- Backup and Restore capability: Backup and restore the complete FDM database. The ability to “merge” two databases is not available. However, the equivalent functionality can be achieved using import-export functionality.

## Detailed Functions in FDM

### Device Parameter History Database

The FDM database stores all parameters for each connected device. The parameter storage is automatic as changes are made to the device without requiring manual intervention. The historical device parameter data is accessible through the device tag and is available for comparison purposes. The comparisons can be made with historical data or current data.

### Audit Trail

Audit Trail is an optionally licensed feature of FDM. When the Audit Trail option is available, FDM records all actions performed by the user. Examples of the recorded actions include:

- Device parameter changes
- Device method executions and results
- Discovery of devices on the network
- Malfunctions reported by devices or the networks connected

Each audit log item is stored with the timestamp, user name and the action performed along with all applicable details (like device tag etc). It is possible to export the audit trail into a XML file and use for printing or reporting purposes. This feature helps plant operations and maintenance comply with standards for change management and automate documentation generation for audits. The audit trail functionality conforms to United States 21 CFR PART 11 regulations. It is also possible to manually add an event to the audit trail which is useful for

tracking inspections, tracking checks, marking the closing of a ticket etc.

### Multiplexer Monitoring

Multiplexer Monitoring, also called MUX Monitoring, is an optionally licensed feature and is normally used when hardware multiplexers/remote IO systems are used to connect HART devices. Hardware multiplexers are normally used with Honeywell Fail Safe Controller (FSC), Safety Manager, PMD Controller, TPS or third party PLCs and DCS systems that do not support HART enabled IO. Remote IO systems are used with when third party IO is integrated with Experion via open protocols like Profibus/Modbus.

With this feature, FDM continuously monitors the HART devices on the hardware multiplexer/remote IO network and raises alerts for all devices reporting problems. The alerts from these HART devices are available as normal alarms and events in Experion and as symptoms in Asset Manager.

Additional features include:

- The ability to have simultaneous configuration and monitoring of devices on the same multiplexer/remote IO network
- Supports all known HART hardware multiplexers
- Eliminates the need for a separate ACE license
- Provides tools that makes engineering of the solutions easier

The Multiplexer Monitoring functionality requires an Experion Server. With TPS systems, an LCN-connected Experion Server will provide the required support. TPS sites with many HART devices may consider this feature along with an HMI upgrade. With FSC or Safety Manager, this feature helps provide the uniform presentation of HART data in the system irrespective of the fact that FSC or Safety Manager does not support HART enabled IO.

The Multiplexer Monitoring functionality is available with MTL, P+F, Arcom, Elcon and Stahl multiplexer networks. One would count process IO point licenses for all the HART devices connected through hardware multiplexers/remote IO systems to use this feature. For all devices being monitored through multiplexers/remote IO

systems, it is necessary to purchase process IO point licenses as part of the Experion Server point license count.

### **Offline Configuration**

Offline Configuration is an optionally licensed feature and allows users to configure devices without the devices being physically present. Such configurations are stored against a user friendly name in the database or in a file and can be downloaded to the device when the device is physically connected. The configurations can be stored into the database from live devices or from device history or be created completely from scratch.

This feature greatly reduces the configuration effort during plant startup. Maintenance will use this function during production to easily replace a faulty device with a new device by simply taking the historical configuration of the faulty device and downloading it to the new device.

### **Device Documentation Support**

This feature is available as part of the base FDM license and allows users to attach documentation with devices stored in the FDM database to be accessible to users whenever the device is being viewed in the FDM display. The documentation can be of any format (word, excel, PDF, etc). The documentation can be added at various levels:

- **Plant Level:** Documents added at this level are available from the context menus of all devices opened in FDM. The documents ideal for this level include plant standard procedures, safety manuals, etc.
- **Device Type Level:** Documents added at this level are associated with a device type (such as a STT2H or DVC 5000) and are available from the context menus of all devices of this type opened in FDM. The documents ideal for this level include device manuals.
- **Device Level:** Documents added at this level are associated with an individual device type and are available from the context menus of only this device. The documents ideal for this level include instrument maintenance records, special instructions etc.

### **Export/Import Capability**

FDM provides the ability to export the following information into a HTML, XML, or Excel file:

- Current device configuration with parameter values
- Device history with parameter values
- Device parameter and methods audit trail info
- System Audit Trail info

## FDM Components

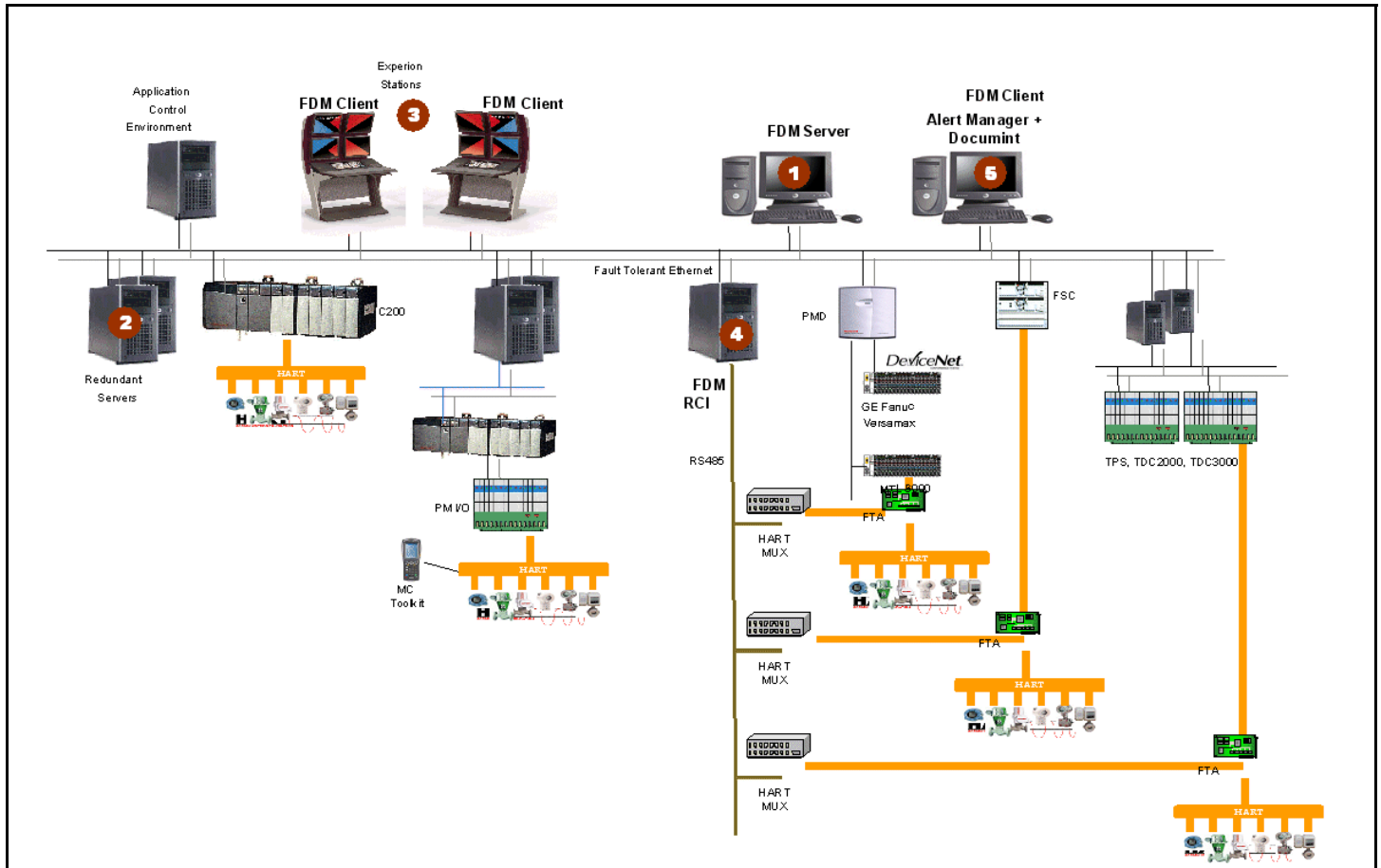
The figure below depicts a typical and complete FDC system.

There are three major components of FDM. They are:

- **FDM Server:** The FDM Server is an essential component and provides the configuration and management functionality. Server maintains the

database for all connected HART devices. The server is shown in the illustration below.

- **FDM Client:** FDM Client provides the user interface and allows for remote connection to the FDM Server. FDM Clients can be distributed throughout the plant providing access to HART data from remote PCs. Users at these remote PCs can access all functionality provided by the FDM Server. The FDM Client is shown in the illustration below.



- FDM RCI: FDM RCI (Remote Communication Interface) provides an interface to HART devices through hardware multiplexers or remote IO systems or HART modems. RCI is intended to help with the maximum cable length limits imposed by the RS-485 communication network used with all hardware multiplexers or with remote IO systems.

FDM RCI can be placed in remote relay rooms where the RS-485 cables terminate. Connection between the FDM RCI to the FDM Server is accomplished with an Ethernet connection. FDM RCI will also allow for a connection to a HART modem or a Honeywell Smart HART DE modem through an RS-232 port for local benchtop configuration. The RCI is shown in 4 above.

The FDM Server communicates with HART devices connected to Experion IO through an Ethernet connection with the Experion Server. In the above figure, the FDM Server is connected to Experion IO and the HART devices through the Experion Server - 2.

The FDM Server also connects to popular hardware multiplexers, remote IO systems and to RS232 HART modems either directly or through the FDM RCI. In the above figure, the FDM Server is connected to HART devices through FSC, TDC and PMD through a hardware multiplexer network connected to an FDM RCI - 4.

FDM integrates with other Asset Manager applications like Alert Manager.

## Supported HART Networks

FDM allows the user to connect to and communicate with HART field devices through four different networks. The user can monitor or change device configuration through the following architectures or HART networks.

### Experion HART Enabled IO

FDM interfaces with Experion Server over an Ethernet network and provides access to the HART devices connected to the HART enabled I/O. This solution routes both the HART analog and digital data directly through HART enabled I/O modules. HART I/O modules exist in both the Experion Chassis I/O Module – Series A and the Honeywell PMIO form factors.

Experion R200 or above is required to support the Ethernet connection with Experion. FDM supports an RS-232 connection with Experion R100/R101.

### Hardware Multiplexers/Remote IO systems

This solution has been existed for many years and is implemented where HART enabled I/O is not available. Terminal panels are used to split the HART analog signal and the digital signal into two distinct pathways. The analog signal is routed directly to the control or logic system while the digital data is routed through a separate (RS-232/RS-485) communication link.

The hardware MUX solutions from P+F, MTL, Arcom, Elcon and R Stahl are supported by FDM. This interface can be used with Honeywell TPS, FSC, PMD, and non-Experion controllers and PLCs.

### HART Modem

The HART modem allows the user to configure HART devices in the maintenance shop and on the bench top. Connection is made using one of the PC serial COM ports. The PC COM port or USB port connects to a HART modem and the modem connects to the HART device. HART modems are available from multiple third party suppliers.

### Honeywell Smart (HART + DE) Modem

FDM also supports the connection to HART devices through the Honeywell HART DE Modem.

## HART Communication Foundation and Device Vendor Support

### Vendor Testing and Validation

The device vendor fully understands each function and feature provided by that device. As such, only the device vendor can verify that the device works correctly within the FDM environment.

The DD is the sole source of all device interactions for FDM and determines device configuration process flow and what configuration menu items will be presented to the end user. This allows the device vendor to maintain full control over how their device will appear in the FDM or any host (DD is open, host and platform independent).

Use of the raw DD also allows the device vendor (and FDM) to quickly respond to any required DD modifications or additions. The new DD is simply substituted for the older version. Other configuration tools on the market require additional programming, testing, and additional support files to provide the configuration templates for a device.

### HCF DD IDE

The HCF has developed the DD Integrated Development Environment (DD IDE) to streamline vendor DD creation. This development environment is available to all HART Foundation members as an open part of the protocol.

DD IDE provides all the tools necessary to create and test DDs in the most effective manner possible. It also promotes the creation of consistent and well-behaved DDs that fully comply with the HART protocol specification. Control system and asset management systems are very reliant on DD's to take advantage of all the functions and features in a given device. These DDs must be reliable, robust, and well behaved. DD IDE is an excellent way to ensure this consistency across all vendors and device types.

Every device vendor must adopt and support DD IDE as an essential step towards achieving an efficient and effective integration with any control or asset management environment.

It is also the only way available today to achieve an open and level playing field for HART device setup and configuration.

DD IDE and SDC-625 (described below) has the potential of making HART device configuration a normal part of the protocol. This can free up resources to the device vendors, which they can apply to improve device functionality and features.

### **HART Communication Foundation SDC-625**

The output of the DD IDE process is a DD that can be directly loaded into a new configuration tool called the SDC-625. SDC-625 is also sponsored by the HCF and is available for use by all HCF member companies as an open part of the protocol. SDC-625 provides a device configuration environment that is intended for use on commercial handheld devices (i.e. pocket PCs and PDAs). Device vendors can easily load their DD on the SDC-625 and quickly validate that it works correctly for all configuration permutations.

SDC-625 provides an open solution to satisfy the general requirement for a handheld configurator that can configure any HART device in the customer's plant. It also allows the device vendor to maintain full control over their development cycle, intellectual property, and to fully control how their device will appear and behave in the tool.

Unlike FDM, the SDC-625 is designed to handle one device at a time and is limited in its ability to manage large numbers of HART devices in a server/client database driven environment. It presents as a secondary master to HART devices and performs the usual handheld functions and tasks. SDC-625 was released as part of the HCF DD-IDE in 2004. HCF members manage SDC-625 and they ensure its normal continuation and enhancements.

### **Honeywell MC Toolkit**

The Honeywell MC Toolkit includes a version of SDC-625 that runs on a commercial Windows CE Pocket PC-based PDA. With this capability, the Honeywell MC Toolkit provides an open based tool that manages any HART device for which a DD is available and all Honeywell DE devices.

### **DD IDE and SDC-625**

The core of DD handling in FDM is directly based on the SDC-625. As such, the ongoing and future work to support DD IDE and the SDC-625 will be directly used by FDM.

FDM provides additional software, beyond SDC-625, to manage a large database of devices and provide a client/server infrastructure. When the user finally selects and displays the single device that they wish to monitor or modify they will be working in the same environment as that used with the SDC-625.

This consistency between platforms has enormous value to both the end user and the device vendor alike. For the customer, training for maintenance personnel is minimized, as the handheld and the host system tools are identical. For the device vendor, documenting the device setup and configuration procedures are minimized and directly associated with the DD.

## Specifications and Sizing

### FDM Server PC

The FDM server supports a similar PC hardware configuration as the Experion Station, except that it requires Windows 2000 Server or Windows 2003 operating system. A PC must meet the following specifications to be used as an FDM Server. Honeywell supplied platforms will meet these specifications but may not necessarily be the example platforms listed below.

System Configuration	Minimum	Typical	Performance
Processor	2.0 GHz Pentium IV or faster	3.4 GHz Xeon or faster	Dual 3.4 GHz Xeon or faster
Cache	512 K	512 K	512 K
RAM	512 MB	1 GB	1 GB
Video Memory (VRAM) per channel	32 MB	32 MB	32 MB
Video Resolution The maximum resolution supported is 1280 x 1024	1024 x 768 or 1152 x 864 65K colors	1024 x 768 or 1280 x 1024 65K colors	1024 x 768 or 1280 x 1024 65K colors
Hard Drive	20 GB	40 GB	80 GB
Operating Server	<ul style="list-style-type: none"> <li>➤ Windows 2000 Server</li> <li>➤ Windows 2003 (SP1) Server</li> </ul>	<ul style="list-style-type: none"> <li>➤ Windows 2000 Server</li> <li>➤ Windows 2003 (SP1) Server</li> </ul>	<ul style="list-style-type: none"> <li>➤ Windows 2000 Server</li> <li>➤ Windows 2003 (SP1) Server</li> </ul>
Example Hardware Please contact your Honeywell representative for Honeywell-supplied platform details.	Dell Precision WS470	Dell Precision WS470	Dell Precision WS470

## FDM Client and FDM RCI PC

The FDM Client/RCI supports a similar PC hardware configuration as the Experion Station. A PC must meet the following specifications to be used as an FDM Client/RCI. Honeywell supplied platforms will meet these specifications but may not necessarily be the example platforms listed below.

System Configuration	Minimum	Typical	Performance
Processor	2.0 GHz Pentium IV or faster	2.5 GHz Pentium IV or faster	3.0 GHz Pentium IV or faster
Cache	512 K	512 K	512 K
RAM	384 MB	512 MB	1 GB
Video Memory (VRAM) per channel	16 MB	32 MB	32 MB
Video Resolution The maximum resolution supported is 1280 x 1024	1024 x 768 or 1152 x 864 65K colors	1024 x 768 or 1280 x 1024 65K colors	1024 x 768 or 1280 x 1024 65K colors
Hard Drive	10 GB	20 GB	40 GB
Operating Server	<ul style="list-style-type: none"> <li>➤ Windows 2000 Professional</li> <li>➤ Windows XP SP2 Professional</li> </ul>	<ul style="list-style-type: none"> <li>➤ Windows 2000 Professional</li> <li>➤ Windows XP SP2 Professional</li> </ul>	<ul style="list-style-type: none"> <li>➤ Windows 2000 Professional</li> <li>➤ Windows XP SP2 Professional</li> </ul>
Example Hardware Please contact your Honeywell representative for Honeywell-supplied platform details.	Dell Optiplex GX240	Dell Precision workstation 340	Dell Precision workstation 360

## Configuration Guidelines

The following configuration rules apply when FDM is used:

- The FDM Server should not be the same PC as the Experion Server.
- When used with a redundant Experion Server configuration, under normal conditions the FDM should be configured to communicate with the backup server.
- The FDM Client and FDM RCI can be installed on the same PC as Experion Station software.
- One FDM Client can connect to one FDM Server only.
- One FDM RCI can connect to one FDM Server only.
- A hardware multiplexer license (HC-HM0000) is required when FDM is used with Experion R100/R101.
- Twenty five maximum HART networks are supported per server, in any combination of hardware MUX, HART modem, or Experion Server. For example, a system could include 15 hardware multiplexers, 6 Experion Servers, and 4 HART modems.

## Sizing and Capacity

Description	Value
Maximum number of HART networks supported In any combination of Hardware MUX, HART Modem, or Experion Server	25
Maximum number of concurrent FDM Clients connected to a FDM Server at one time	25
Maximum number of HART devices (Tags, assets) per FDM Server database	64000
Maximum number of users	50
Maximum number of FDM RCIs	25
Maximum number of communication interfaces (i.e. hardware multiplexer networks, remote IO systems, Experion, HART Modem)	25
Maximum number of communication interfaces per FDM RCI	6
Maximum number of active (loaded) HART devices	50

## Supported Experion Releases and Connectivity

Parameter	Specification
FDM Server connection with Experion R100/R101	Through Serial Link to Experion Server
FDM Server connection with Experion R200 and above	Ethernet

## Supported Networks

Connection Type	Supported Types
Modem	Honeywell IM&C HART DE Modem and any HART compliant RS232 or USB HART Modem
Experion HART Enabled IO	TC-HAI081, TK-HAI081 TC-HAO081, TK-HAO081 MC/MU- PHAI01 HLAI HART MC/MU- PHAO01 AO_16 HART Series C IO Modules
Hardware Multiplexers/Remote IO systems	Hardware Multiplexers/Remote IO systems

## Model Numbers

**Table 1 FDM Server Licenses**

Model Number	Description
<b>Base Server License</b>	
HC-SV0000	Base FDM Server license and configuration database. This includes all essential device configuration management functions and the interface to support local (benchtop) device configuration via HART Modem.
<b>Server HART Device Adder Blocks</b>	
HC-SV0016	Add a Block Of 16 Devices to Server
HC-SV0032	Add a Block Of 32 Devices to Server
HC-SV0064	Add a Block Of 64 Devices to Server
HC-SV0128	Add a Block Of 128 Devices to Server
HC-SV0256	Add a Block Of 256 Devices to Server
HC-SV0512	Add a Block Of 512 Devices to Server
HC-SV1024	Add a Block Of 1024 Devices to Server
HC-SV2048	Add a Block Of 2048 Devices to Server
HC-SV4096	Add a Block Of 4096 Devices to Server
HC-SV8192	Add a Block Of 8192 Devices to Server
HC-SV8192	Add a Block Of 16000 Devices to Server
HC-SV032K	Add a Block Of 32000 Devices to Server
<b>Audit Trail Adder Blocks</b>	
HC-AT0016	Add a Block Of 16 Devices to Server Audit Trail
HC-AT0032	Add a Block Of 32 Devices to Server Audit Trail
HC-AT0064	Add a Block Of 64 Devices to Server Audit Trail
HC-AT0128	Add a Block Of 128 Devices to Server Audit Trail
HC-AT0256	Add a Block Of 256 Devices to Server Audit Trail
HC-AT0512	Add a Block Of 512 Devices to Server Audit Trail
HC-AT1024	Add a Block Of 1024 Devices to Server Audit Trail
HC-AT2048	Add a Block Of 2048 Devices to Server Audit Trail
HC-AT4096	Add a Block Of 4096 Devices to Server Audit Trail
HC-AT8192	Add a Block Of 8192 Devices to Server Audit Trail
HC-AT016K	Add a Block Of 16000 Devices to Server Audit Trail
HC-AT016K	Add a Block Of 32000 Devices to Server Audit Trail
<b>Server Hardware MUX Interface License</b>	
HC-HM0000	One interface license is required for each Hardware MUX network connected to the FDM Server. One interface license is also required for every Hardware MUX

Model Number	Description
	network connected to any FDM RCI. A Hardware MUX Network usually consumes one RS-232 com port connection and is implemented on one RS-485 network.
<b>Multiplexer Monitoring</b>	
HC-MM0000	One license is required for each Hardware MUX network connected to the FDM Server to be enabled for monitoring. The Hardware MUX license is NOT included in this license and must be purchased separately. If connecting via an RCI, the license must be purchased separately.
<b>Offline Configuration</b>	
HC-OC0000	One license is required for each FDM Server.
<b>Server Experion Interface License</b>	
HC-SM0000	Base to add one Experion interface. This includes a connection to one Experion Server (via Ethernet connection).

**Table 2 FDM Remote Communication Interface Licenses**

Model Number	Description
HC-RI0000	Base license fee to add one FDM RCI. An RCI license allows the use to load FDM RCI software on one remote PC. An interface fee is required for each Hardware MUX network connection. A Hardware MUX Network usually consumes one RS-232 com port connection and is implemented on one RS-485 network. These interface licenses are added as part of the Server pricing. See Table-1 (Server Hardware MUX interface license) HC-HM0000. Support for local (bench top) device configuration via HART Modem is included in the base RCI license fee.

**Table 3 FDM Client Licenses**

Model Number	Description
HC-CLNT00	Base license to add one FDM Client. This provides the HMI for the FDM-Server and user access to all functions and features. Clients can be loaded on the FDM Server PC or on remote PCs. Base license to add one FDM Client. This provides the HMI for the FDM-Server and user access to all functions and features. Clients can be loaded on the FDM Server PC or on remote PCs.

**Table 3 FDM Client Licenses**

Model Number	Description
HC-SESP00	Model number for SESP customers to receive upgrades/updates of FDM.

Experion, PlantScape, TotalPlant are U.S. registered trademarks of Honeywell International Inc. All other products and brand names shown are trademarks of their respective owners. Copyright 2006 Honeywell International Inc.

While this information is presented in good faith and believed to be accurate, Honeywell disclaims the implied warranties of merchantability and fitness for a particular purpose and makes no express warranties except as may be stated in its written agreement with and for its customer. In no event is Honeywell liable to anyone for any indirect, special or consequential damages. The information and specifications in this document are subject to change without notice

### **For More Information**

Learn more about Honeywell's Field Device Manager, visit our website [www.honeywell.com/ps](http://www.honeywell.com/ps) or contact your Honeywell account manager.

### **Automation & Control Solutions**

Process Solutions

Honeywell

2500 W. Union Hills Dr.

Phoenix, AZ 85027

Tel: 877.466.3993 or 602.313.6665

[www.honeywell.com/ps](http://www.honeywell.com/ps)

EP03-480-300  
August 2006  
© 2006 Honeywell International Inc.

The Honeywell logo is displayed in a bold, red, sans-serif font.