

PharmaSuite®



INSTALLATION - EXPRESS EDITION

RELEASE 8.4 TECHNICAL MANUAL

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Rockwell Automation

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 ${\bf \hat{e}}$ Rockwell Software PharmaSuite ${\bf \hat{e}}$ - Technical Manual Installation - Express Edition

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Introduction

This manual describes the installation of a PharmaSuite system.

It covers the default scenario of a PharmaSuite Express Edition installation (page 3).

Intended Audience

The manual is intended for administrators of a PharmaSuite system and anyone planning to use the Express Edition Installer to install PharmaSuite.

Typographical Conventions

This documentation uses typographical conventions to enhance the readability of the information it presents. The following kinds of formatting indicate specific information:

Bold typeface	Designates user interface texts, such as	
	window and dialog titles	
	menu functions	
	panel, tab, and button names	
	box labels	
	• object properties and their values (e.g. status).	
Italic typeface	Designates technical background information, such as	
	path, folder, and file names	
	methods	
	classes.	
CAPITALS	Designate keyboard-related information, such as	
	key names	
	keyboard shortcuts.	
Monospaced typeface	Designates code examples.	

TIP

Instructions in this manual are based on Windows Server 2012. Select the appropriate commands if you are using a different operating system.

Installing PharmaSuite Express Edition

This manual provides you with an easy step-by-step description for installing PharmaSuite.

In the following you will find a description of all system requirements that have to be met, all information you will need to collect, and the tasks that have to be performed prior to installing PharmaSuite.

Software and Hardware Prerequisites

Before you can install PharmaSuite make sure that the software and hardware prerequisites are met. For details regarding the required server and client hardware, the operating system, and the database server, please refer to the "PharmaSuite Supported Platforms Guide" [A1] (page 23) and the "FactoryTalk ProductionCentre Release 10.4 Supported Platforms Guide" [A2] (page 23).

Please use the prerequisites (page 4) and information checklists (page 5) to verify that all preparatory steps have been completed and you have all information available you will need during the installation process.

Installation Prerequisites and Information

The following two checklists cover all preparatory steps and information required for installing PharmaSuite.

Prerequisites Checklist

Before you start the installation, check the prerequisites:

	Prerequisite	Your Notes	Done?
1	Adequate hardware as defined in "PharmaSuite Supported Platforms Guide" [A1] (page 23) and "FactoryTalk ProductionCentre Release 10.4 Supported Platforms Guide" [A2] (page 23).		
2	Operating system software installed. See "PharmaSuite Supported Platforms Guide" [A1] (page 23).		
3	Database server software installed. See "PharmaSuite Supported Platforms Guide" [A1] (page 23) and "FactoryTalk ProductionCentre Release 10.4 Database Installation Guide" [A3] (page 23).		
4	MS SQL Server database and database user created. See "Configuring MS SQL Server Databases and Installing FactoryTalk ProductionCentre" (page 5).		
5	FactoryTalk ProductionCentre installer (sw-ProductionCentre-Plant Operations Server- <version>-JBossSA.exe) downloaded from the Rockwell Automation Download Site (page 23) and saved locally or in a network directory.</version>		
6	FactoryTalk ProductionCentre including JBoss successfully installed. See "Configuring MS SQL Server Databases and Installing FactoryTalk ProductionCentre" (page 5).		
7	Make sure there is neither another version of FactoryTalk ProductionCentre nor another version of PharmaSuite installed on the machine on which you are going to run the installer.		
8	Express Edition Installer (PharmaSuite_Express_ <version>.<build>.exe) downloaded from the Rockwell Automation Download Site and saved locally or in a network directory. <build> is the final build number of the Express Edition Installer.</build></build></version>		
9	Make sure you have sufficient access privileges to run the Express Edition Installer as administrator.		

Information Checklist

Please prepare the information you will need during the installation process:

	Information	Your Notes	Done?
1	SQL Server database: Server name		
2	SQL Server database: Database name		
3	SQL Server database: Login ID (user name) with administrator rights		
4	SQL Server database: Password		
5	TCP port for communicating with the SQL Server database (default: 1433)		
6	System configuration considers the following settings: ActiveMQ and the PharmaSuite upgrade engine run with the 64-bit version of Java 1.8.0_144. Each PharmaSuite client (including Shop Operations Server) is only supported for the 32-bit version of Java 1.8.0_144. Make sure that the specified programs use a JAVA_HOME environment variable pointing to the correct Java version.		

TIP

Please do not put your password in writing, only include a hint to it in your notes.

Installing FactoryTalk ProductionCentre and Configuring MS SQL Server Databases

The PharmaSuite Express Edition Installer requires an MS SQL Server database and an appropriate user. Both must have been created before you can start the installation of FactoryTalk ProductionCentre. For details, please refer to the "FactoryTalk ProductionCentre Release 10.4 Database Installation Guide" [A3] (page 23).

Proceed with installing PharmaSuite (page 6).

Performing the Installation

The following sections describe the procedure of installing PharmaSuite on top of a FactoryTalk ProductionCentre 10.4 stand-alone installation.

The Express Edition Installer installs all components necessary to run a complete PharmaSuite system based on the JBoss Application Server (provided by the FactoryTalk ProductionCentre installation) and a pre-installed Microsoft SQL Server database system.

Executing the Express Edition Installer

To execute the PharmaSuite Express Edition Installer, proceed as follows:

1. Use the **Run as Administrator** option to run the *PharmaSuite_Express_*<*version*>.<*build*>.*exe* file from the directory where you have saved it before.

TIP

Please note that the PharmaSuite version/build number displayed by your Express Edition Installer may be higher than the one shown on the screen captures in this manual.

For the exact build number valid for the PharmaSuite release you are about to install, refer to section "Released Product Information" of the "Quality Certificate" [A6] (page 23) of this release.

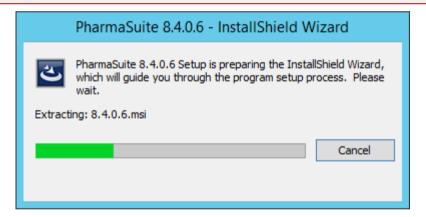


Figure 1: Preparing InstallShield Wizard

2. Wait until the PharmaSuite InstallShield Wizard welcome dialog opens. The Express Edition Installer checks whether the appropriate FactoryTalk ProductionCentre version is installed and displays its settings. The Express Edition Installer checks whether the required FactoryTalk ProductionCentre version is installed. Click the Next button to continue.

TIP

If you omitted to install FactoryTalk ProductionCentre or the installed FactoryTalk ProductionCentre version is not suitable, the Express Edition Installer displays N/A for the settings of FactoryTalk ProductionCentre and does not proceed with the installation.

If FactoryTalk ProductionCentre was not installed yet, install the required version.

If the installed version of FactoryTalk ProductionCentre is not suitable, uninstall it, install the required version, and restart the Express Edition Installer.

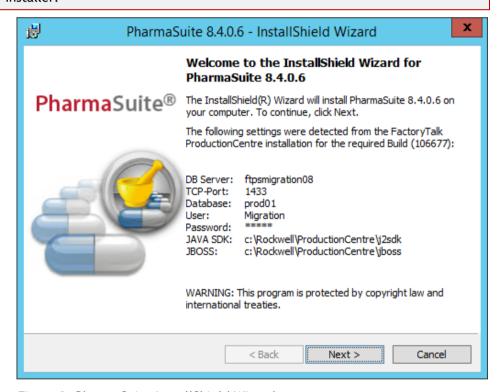


Figure 2: PharmaSuite InstallShield Wizard

3. In the **PharmaSuite Installation** dialog, set the destination folder for the system. Make sure to use a path without blanks. We recommend to use the default path: *C:\Rockwell\PharmaSuite*. Click the **Next** button to continue.

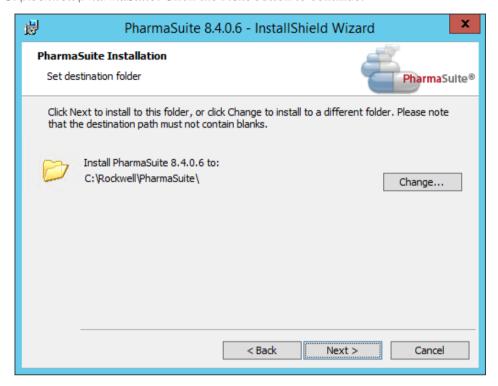


Figure 3: Set destination folder for PharmaSuite

4. In the **Ready to Install the Program** dialog, click the **Install** button to begin the PharmaSuite installation.

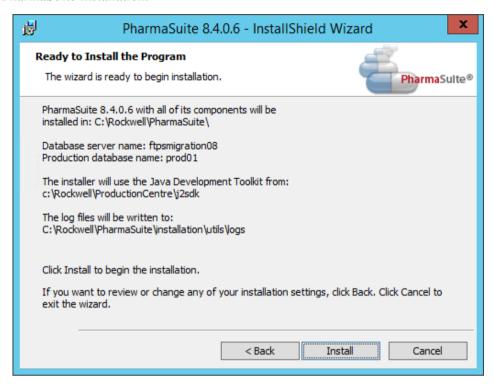


Figure 4: Ready to install the program

5. Wait while the software is being installed. It may take some time, depending on your system's overall performance. Especially the creation of PharmaSuite-specific data can be very time-consuming and takes place at the end of the installation process with the progress bar already showing completed.

TIP The following file of the standard installation of FactoryTalk ProductionCentre is modified during the installation of PharmaSuite to adapt or add configuration switches: FactoryTalk ProductionCentre installation directory>\jboss\standalone\configuration\standalone-full.xml For this file, the system creates a backup file (*.bak) whose file name is extended by a timestamp (e.g. standalone-full-2016-07-17-15-19-57.61.bak). This would allow you to restore the file to its initial form if the installation fails, leaving the file corrupted.

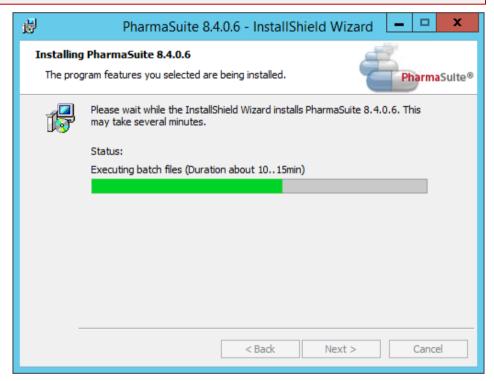


Figure 5: Installing PharmaSuite

6. Once the PharmaSuite installation process has been completed successfully the system displays a corresponding message.

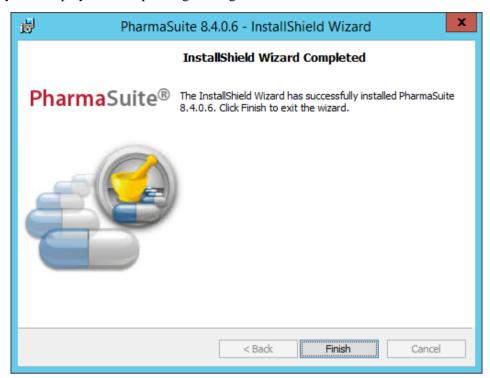


Figure 6: PharmaSuite installation completed

7. Click the **Finish** button to close the **InstallShield Wizard** dialog.

Installation Summary

After the installation has completed successfully, the following software components have been installed:

	Software Component	Windows Service Name	Default Location
1	FactoryTalk ProductionCentre 10.4.106677		C:\Rockwell\PO10.4.106677
2	JBoss Enterprise Application Platform 7.0.6	JBossServer	c:\Rockwell\PO10.4.106677\jboss
3	JAVA SDK 1.8.0 64-bit version used for JBoss, ActiveMQ, and Tomcat for FTPC Administrator		c:\Rockwell\PO10.4.106677\j2sdk
4	JAVA SDK 1.8.0 32-bit version used for Shop Operations Server		$c:\label{lem:c:Rockwell\PharmaSuite\installation\utils \tools\jdk1.8.0_144}$
5	PharmaSuite 8.4 For the exact build number, refer to section "Released Product Information" of the "Quality Certificate" [A6] (page 23) of this release.		c:\Rockwell\PharmaSuite
6	Electronic Batch Recording server	PharmaSuite EBR server	c:\Rockwell\PharmaSuite\installation\serv ices\PharmaSuite_EBR_Server
7	Triggered Operation Management server	PharmaSuite TOM server	c:\Rockwell\PharmaSuite\installation\serv ices\PharmaSuite_TOM_Server
8	Operation Execution server	PharmaSuite OE server	c:\Rockwell\PharmaSuite\installation\serv ices\PharmaSuite_OE_Server
9	Automation Integration server	PharmaSuite Al server	c:\Rockwell\PharmaSuite\installation\serv ices\PharmaSuite_AI_Server
10	Transition server	PharmaSuite Transition server	c:\Rockwell\PharmaSuite\installation\serv ices\PharmaSuite_Transition_Server
11	Active MQ server	PharmaSuite ActiveMQ Broker	c:\Rockwell\PharmaSuite\installation\serv ices\PharmaSuite_ActiveMQ_Brokerr

Along with the software, the Express Edition Installer installs the following data objects, which are available in Data Manager

	Object Type	Identifier	Details
1	Equipment class	Container_RS_1	Default class for containers.
2	Equipment class	Room_RS_1	Default class for rooms.
3	Equipment class	Scale_RS_1	Default class for scales.
4	Equipment graph	ContainerCleaning_RS_1	Default graph for container cleaning, included with import of the Container_RS_1 class.
5	Equipment graph	RoomCleaning_RS_1	Default graph for room cleaning, included with import of the Room_RS_1 class.
6	Equipment graph	ScaleCalibration_RS_1	Default graph for scale calibration, included with import of the Scale_RS_1 class.
7	Equipment graph	ScaleTest_RS_1	Default graph for scale test, included with import of the Scale_RS_1 class.
8	Property type	Container Clean Shelflife (RS)	Specification property type of the Duration data type, included with import of the Container_RS_1 class or the ContainerCleaning_RS_1 graph, respectively.
9	Property type	Container Sublot (RS)	Runtime property type of the String data type and the Current Sublot (RS) purpose, included with import of the Container_RS_1 class or the ContainerCleaning_RS_1 graph, respectively.
10	Property type	Container Tare (RS)	Runtime property type of the MeasuredValue data type and the Current Tare (RS) purpose, included with import of the Container_RS_1 class.
11	Property type	Container Type (RS)	Specification property type of the Container (RS) equipment type, included with import of the Container_RS_1 class.

	Object Type	Identifier	Details
12	Property type	General Clean Shelflife (RS)	Specification property type of the Duration data type, included with import of the Room_RS_1 class or the RoomCleaning_RS_1 graph, respectively.
13	Property type	Room Cleaning Rules (RS)	Specification property type of the RoomCleaningRules data type, included with import of the Room_RS_1 class.
14	Property type	Room Type (RS)	Specification property type of the Room (RS) equipment type, included with import of the Room_RS_1 class.
15	Property type	Scale Calibration Shelflife (RS)	Specification property type of the Duration data type, included with import of the Scale_RS_1 class or the ScaleCalibration_RS_1 graph, respectively.
16	Property type	Scale Configuration (RS)	Specification property type of the ScaleConfiguration data type, included with import of the Scale_RS_1 class.
17	Property type	Scale Load (RS)	Runtime property type of the String data type and the Current load (RS) purpose, included with import of the Scale_RS_1 class.
18	Property type	Scale Ranges (RS)	Specification property type of the Ranges data type and the ScaleRanges (RS) purpose, included with import of the Scale_RS_1 class.
19	Property type	Scale Test and Calibration (RS)	Specification property type of the ScaleTestAndCalibration data type, included with import of the Scale_RS_1 class.
20	Property type	Scale Test Shelflife (RS)	Specification property type of the Duration data type, included with import of the Scale_RS_1 class or the ScaleTest_RS_1 graph, respectively.

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	Object Type	ldentifier	Details
21	Property type	Scale Type (RS)	Specification property type of the Scale (RS) equipment type included with import of the Scale_RS_1 class.
22	Property type	Work Center Assignment (RS)	Specification property type of the WorkCenterAssignment data type, included with import of the Scale_RS_1 class or Room_RS_1 class, respectively.

Post-installation Steps

After you have successfully installed PharmaSuite with the JBoss Application Server on your system, you need to verify the installation and set up a workspace in FTPC Administrator. For further information, please refer to the "FactoryTalk ProductionCentre Administrator Release 10.4 User's Guide" [A7] (page 23).

The workspace will allow you to change the security setup of the PharmaSuite system.

Verifying the Installation

To verify the installation, proceed as follows:

1. Run PharmaSuite from the **Apps** view of the **Start** screen.

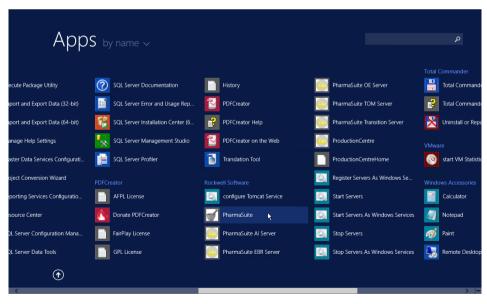


Figure 7: Starting PharmaSuite in MS Windows

Alternatively, you can open the start page (http://<MES-PS-HOST>:8080/PharmaSuite/) in a web browser (e.g. Internet

Explorer), and click the **PHARMASUITE** link in the browser window. <*MES-PS-HOST>* is the name of your PharmaSuite server.



Figure 8: Starting PharmaSuite in browser

Now you can log in either as PMC administrator or as PEC administrator. A PEC administrator also has the necessary rights to the Exception Dashboard in the Production Responses application.

For the PMC administrator role, use the **pmcadmin** login and **pmcadmin** password. For the PEC administrator role, use the **pecadmin** login and **pecadmin** password.

Accessing PharmaSuite Servers

The default user that gets assigned during installation is the **shopopsserver** user. For the password, please contact the Rockwell Automation Support.

Users accessing the EBR, AI, Transition, TOM, and OE servers must be a member of the **MinimalAccess** and **PlantOpsOperator** user groups.

For further information on user rights for FactoryTalk Live Data, which is used in automation integration, please refer to "Setting up the Live Data Infrastructure for PharmaSuite" in "Technical Manual Installation - Enterprise Edition" [A8] (page 23).

Further Configuration Options

Further configuration options such as password complexity, object revisioning, the transfer and purge functionality, and the configuration of the Operational Data Store (ODS) are provided by FTPC Administrator. For more information, please refer to "FactoryTalk ProductionCentre Plant Operations Release 10.4 Server Installation Guide - JBoss Advanced" [A4] (page 23) and "FactoryTalk ProductionCentre Administrator Release 10.4 User's Guide" [A7] (page 23).

Troubleshooting Installation Issues

If issues occur during the installation process that prevent the Express Edition Installer to complete successfully, you will be notified by the system. In most cases the system message will tell you what you need to do to resolve the issue and complete the installation. In addition to this, you can also access the log files (page 19) that are written during the installation process to identify the reason why an issue has occurred.

Causes and Actions

The following issues may occur during the installation:

Cause: Insufficient hardware

- Example: Your system does not have sufficient memory (RAM) to run PharmaSuite. For hardware requirements, please refer to the PharmaSuite-Supported Platforms Guide.
- **Action**: Adjust your hardware to meet the requirements. See "PharmaSuite Supported Platforms Guide" [A1] (page 23).

Cause: Wrong software

- Example: Your system does not have a suitable operating system installed to run PharmaSuite. For software requirements, please refer to the PharmaSuite Supported Platforms Guide.
- **Example**: Your system does not have a suitable database client installation to run PharmaSuite. For software requirements, please refer to the PharmaSuite Supported Platforms Guide.
- Example: There is an incompatible build (<build number>) of FactoryTalk ProductionCentre installed on your system.

 PharmaSuite requires FactoryTalk ProductionCentre build <build number>.

 Please uninstall the incompatible build of FactoryTalk ProductionCentre before you run the PharmaSuite installation.
- **Action**: Adjust your software to meet the requirements. See "PharmaSuite Supported Platforms Guide" [A1] (page 23).

Cause: Wrong data detected in user input

- **Example**: The destination folder must not contain blanks.
- **Action**: Read the system message dialog box, repeat the step, and type the correct data.

Cause: Wrong data detected during installation time

- Example: The wizard was interrupted before PharmaSuite could be completely installed.
 Refer to the log files.
- **Example**: The database could not be accessed due to insufficient database connection information. Thus, the database was not initialized.
- Action: Refer to the log files (page 19) to identify and resolve the issue. If the database has not been initialized, uninstall PharmaSuite (page 21), run the FTPC Administrator, initialize the database, and execute the Express Edition Installer (page 6) again.
 - For further information, please refer to the "FactoryTalk ProductionCentre Administrator Release 10.4 User's Guide" [A7] (page 23).

Figure 9: Installation error message: read log files for reason

Log Files

If the installation fails, check the log files to identify the issue. The log files are located in the following directory:

<installDirectory>\PharmaSuite\installation\utils\logs

where *<installDirectory>* is the directory in which you have installed the system.

In the default installation shown in "Executing the Express Edition Installer" (page 6), the log files are stored under

 $c: \label{logs.prop} Rockwell \label{logs.prop} PharmaSuite \label{logs.prop} \label{logs.prop} in the logical parameter \label{logs.prop} The logical parameter \label{logical} \label{logical} The logical parameter \label{logical} Construction \label{logical} \label{l$

To identify what caused the issue, proceed as follows:

- 1. Open the *InstallationProgress.log* file and find the step that caused the installer to abort.
- 2. Then open the log file of that step and read the reason why the installation failed.

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Uninstalling PharmaSuite

To remove the PharmaSuite application from your system, proceed as follows:

- 1. In the **Control Panel** of your operating system, open the **Programs and Features** item.
- 2. Select PharmaSuite and click the **Uninstall** button to uninstall the PharmaSuite application from the system.

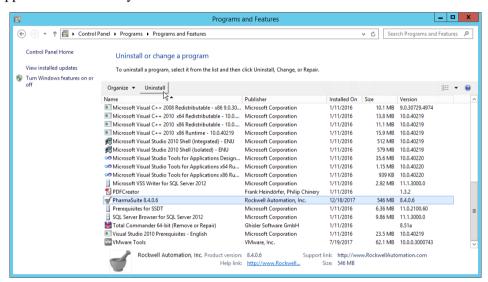


Figure 10: Remove PharmaSuite from the system

- 3. Uninstall the FactoryTalk ProductionCentre application. For more information, please refer to "FactoryTalk ProductionCentre Plant Operations Release 10.4 Server Installation Guide JBoss Stand-Alone" [A5] (page 23).
- 4. Delete the directory where you have installed PharmaSuite and FactoryTalk ProductionCentre before. The default setting is *C:\Rockwell*.

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Reference Documents

The following documents are available from the Rockwell Automation Download Site.

No.	Document Title	Part Number
A1	PharmaSuite Supported Platforms Guide	PSPG-RM084A-EN-E
A2	FactoryTalk ProductionCentre 10.4 Supported Platforms Guide	PRDCTR-RM104A-EN-E
A3	FactoryTalk ProductionCentre Release 10.4 Database Installation Guide	PRDCTR IN104A EN E
A4	FactoryTalk ProductionCentre Plant Operations Release 10.4 Server Installation Guide - JBoss Advanced	PCJBAD IN104A EN E
A5	FactoryTalk ProductionCentre Plant Operations Release 10.4 Server Installation Guide - JBoss Stand-Alone	PCJBSA IN104A EN E
A6	PharmaSuite Quality Certificate	10003305481/PUB
A7	FactoryTalk ProductionCentre Administrator Release 10.4 User's Guide	PCADM-IN104A-EN-E
A8	PharmaSuite Technical Manual Installation - Enterprise Edition	PSEN-IN008E-EN-E

TIP

To access the Rockwell Automation Download Site, you need to acquire a user account from Rockwell Automation Sales or Support.

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Revision History

The following table describes the history of this document.

Changes related to the document:

Object	Description	Document
Screen captures and PharmaSuite release	Captures updated to reflect new PharmaSuite release.	1.0

Changes related to "Introduction" (page 1):

Object	Description	Document

Changes related to "Installing PharmaSuite Express Edition" (page 3):

Object	Description	Document
Software and Hardware Prerequisites (page 3)	FactoryTalk ProductionCentre release updated.	1.0
Prerequisites Checklist (page 4)	Steps 1 and 3: FactoryTalk ProductionCentre release updated. Step 9 added: Installer must be run with administrator privileges.	1.0
Information Checklist (page 5)	Step 6: Java version updated to 1.8.0_144. ActiveMQ and the PharmaSuite upgrade engine run with the 64-bit version of Java.	1.0
Installing FactoryTalk ProductionCentre and Configuring MS SQL Server Databases (page 5)	FactoryTalk ProductionCentre release updated.	1.0
Performing the Installation (page 6)	FactoryTalk ProductionCentre release updated. Step 1: Installer must be run with administrator privileges.	1.0

Object	Description	Document
Installation Summary (page 12)	FactoryTalk ProductionCentre release, build, and default location updated. Default location of JBoss Application Server updated. Default locations of JAVA SDK updated. 64-bit version of JAVA SDK used by ActiveMQ and Tomcat. PharmaSuite release updated. JBoss version updated to 7.0.6.	1.0
Post-installation Steps (page 15)	FactoryTalk ProductionCentre release updated.	1.0
Further Configuration Options (page 16)	FactoryTalk ProductionCentre release updated.	1.0

Changes related to "Troubleshooting Installation Issues" (page 17):

Object	Description	Document
Causes and Actions (page 17)	FactoryTalk ProductionCentre release updated.	1.0

Changes related to "Uninstalling PharmaSuite" (page 21):

Object	Description	Document
Uninstalling PharmaSuite (page 21)	FactoryTalk ProductionCentre release updated.	1.0

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