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Production Management

FactoryTalk[®] ProductionCentre



RELEASE 10.4
SUPPORTED PLATFORMS GUIDE

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ALLEN-BRADLEY • ROCKWELL SOFTWARE

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Read Me First

This guide explains the relationships and dependencies among FactoryTalk® ProductionCentre (called FTPC hereafter) and other FactoryTalk and third-party products.

This document is intended for implementation professionals who plan to install the FTPC software. The tables in this guide describe the supported platform requirements for FTPC. This document is intended to be used with the appropriate installation guides, which can be obtained from the Rockwell Software Download site. Refer to Table 1 for information about other documents related to installation.

FactoryTalk Compatibility

FTPC 10.4 is compatible with the following FactoryTalk products:

- FactoryTalk Services Platform (FTSP), which includes FactoryTalk Security: CPR9 SR9
- FactoryTalk View (compatible with the Shop Operations HMI Client): 9.00

These applications are available at the Rockwell Software Download Site.

Integrate Web Services Compatibility

To use Integrate Web Services, which is installed with the FTPC installation, you must have an Integrate Web Services client proxy in order to communicate with the FTPC application server. You can use FTPC's pregenerated proxies for Java and support files to build your application, or you can build your own proxy, as described in the *Integrate Web Services Setup and Code Examples Guide*.

Integrate Web Services compatibility with FTPC extends to the build level. Integrate Web Services requires the hardware and software support described in

Chapter 1, “FTPC Supported Platforms”. See the *Integrate Web Services Setup and Code Examples Guide* for information about using the product.

For a web services client engine to work against FTPC Integrate Web Services, it should support the following three standards:

- SOAP 1.1
- WSDL 1.1
- WS-Security 1.0

Related Documents

Table 1 describes other documents related to the FTPC product installation.

Table 1 Related Documents

Title	Location	Topic
FTPC Server Installation Guide for the application server specific to your environment	Rockwell Software Download Site	Instructions for installing FTPC on the application server that is specific to your environment
Integrate Web Services Setup and Code Examples Guide	Rockwell Software Download Site	Information about using Integrate Web Services
FTPC Product Overview	Rockwell Software Download Site	Description of the FTPC product
FTPC online knowledge base (password required)	Search for: Install Performance	Articles about general installation performance
Third-party software documentation, such as installation guides for Microsoft SQL Server databases.	Microsoft web site or manual	Required third-party software installation and configuration

FTPC Supported Platforms

In this chapter

- ❑ **FTPC Hardware Requirements** 6
- ❑ **FTPC Database Server Software** 6
- ❑ **FTPC Application Server Software** 7
 - JBoss Enterprise Application Platform 7
 - WebSphere Application Server 9
- ❑ **FTPC Client Software** 11

The tables in this chapter describe the minimum hardware requirements and the supported versions of the software platforms for all FTPC products. This chapter is intended to be used with the *FactoryTalk ProductionCentre Server Installation Guide* specific to your application server type, which provides installation and configuration instructions.

The table organization follows the FTPC tier organization:

- ❑ FTPC Hardware
- ❑ FTPC Database Server Software
- ❑ FTPC Application Server Software
- ❑ FTPC Client Software

TIP: For detailed third-party application requirements specific to your environment, please see the documentation provided with the third-party application.

FTPC Hardware Requirements

Please contact Rockwell Automation Customer Support for hardware requirements. Because these requirements can vary from site to site, Customer Support will determine the appropriate configuration for each of your sites based upon the volume of transactions and use of the application.

FTPC Database Server Software

For each product installed, we recommend you install the latest component version described in the table. If your corporate standard differs from the versions in the table, contact Rockwell Automation Customer Support.

NOTE: For Microsoft SQL Server, all service packs are supported for the listed versions.

Table 1-1 Database Server Supported Software

Third-Party Application	Supported Version
Operating System	Any operating system that supports the RDBMS can house the database server.
Microsoft SQL Server	2008 (Enterprise Edition, 64-bit) ^a 2012 (Enterprise Edition, 64-bit) 2014 (Standard and Enterprise Editions, 64-bit) 2016 (Standard and Enterprise Editions, 64-bit)
Oracle 11g (Enterprise Edition, 64-bit)	11.2.0.4 RAC 11.2.0.4
Oracle 12c ^b (Enterprise Edition, 64-bit)	12.1.0.2.0 RAC 12.1.0.2.0
^a You must install .NET Framework 3.5 SP1 before installing SQL Server 2008. ^b Oracle Fail Safe is compatible with FTPC 10.4.	

FTPC Application Server Software

FTPC application server software is supported with JBoss Enterprise Application Platform and WebSphere Application Server. Refer to the appropriate section for related software requirements and support.

- ☐ “JBoss Enterprise Application Platform”
- ☐ “WebSphere Application Server”

For each product installed, we recommend you install the latest component version described in the table. If your corporate standard differs from the versions in the table, contact Rockwell Automation Customer Support.

JBoss Enterprise Application Platform

When installing JBoss for FTPC, please note the following:

- ☐ When extracting the installation files from a JBoss Advanced installer, the files should be extracted on an FTPC server machine running an operating system that is listed in [Table 1-2](#).

- ❑ **Table 1-2** lists the software that must be installed separately for the Advanced Installer for JBoss. The JBoss Stand-Alone installer installs JBoss, the JDBC drivers, and the J2SDK automatically. The JRE is not required for the JBoss Stand-Alone installation.

Table 1-2 Application Server Supported Software for JBoss

Third-Party Application	Supported Version
Operating System	
Microsoft Windows Server 2008 (Enterprise and Standard Editions, 64-bit)	R2 SP1
Microsoft Windows Server 2012 (Standard and Datacenter Editions)	R2
Microsoft Windows Server 2016 (Standard Edition, 64-bit)	
Red Hat Enterprise Linux (64-bit) ^a	6.9
	7.2
	7.4
JBoss Application Server (Enterprise Application Platform)	7.0.6 ^b
Oracle Java SE Development Kit (64-bit)	1.8 Update 144
MS SQL Server JDBC Driver	4.2
Oracle JDBC Driver ^c	ojdbc6.jar or ojdbc7.jar and ons.jar ^d
Eclipse Java Editor ^e	Eclipse IDE for Java Developers Eclipse IDE for Java EE Developers Eclipse Classic
JasperSoft ^f	JasperReports 6.2.0
VMware Virtual Machines	Virtual Hardware Version 12
Apache ActiveMQ	5.15.0
Apache Tomcat Application Server	8.5.20

Table 1-2 Application Server Supported Software for JBoss (continued)

Third-Party Application	Supported Version
Browsers	Microsoft Internet Explorer ^g 10 and 11 Google Chrome 54.0 Edge on Windows 10
<p>^aShop Operations Server is supported on Linux for both the application server and client machines.</p> <p>^bIf you are upgrading to JBoss 7.0.6 on a JBoss Advanced environment, then you must apply the Hot fix patch jbeap-11705.zip, which is provided by Rockwell Customer Support. For instructions on applying patches, please see the following official Red Hat reference: https://access.redhat.com/documentation/en-us/red_hat_jboss_enterprise_application_platform/7.0/html/patching_and_upgrading_guide/patching-jboss-eap#applying_a_patch</p> <p>^cPlease use the ojdbc6.jar and ons.jar driver files for Oracle 11g even if you are using Oracle 12c. The drivers downloaded with 12c have files of the same name, but they are not the same files.</p> <p>^dThe ons.jar driver file is only required if you are using Oracle RAC.</p> <p>^eSupport is not limited to a specific version.</p> <p>^fDownload the corresponding iReport version at the following location: http://sourceforge.net/projects/ireport/files/iReport/iReport-5.6.0/</p> <p>^gIn order to view the FTPC online help, perform the following steps depending on your browser version:</p> <ul style="list-style-type: none"> - IE11: add the FTPC website to your Compatibility View Setting located under the Tools menu. - IE10: press F12 to launch the Developers Tools and then go to Browser Mode: IE10 and select <i>Internet Explorer 10 Compatibility Mode</i>. 	

WebSphere Application Server

Table 1-3 lists the supported software that must be installed when using FTPC with WebSphere Application Server.

Table 1-3 Application Server Supported Software for WebSphere

Third-Party Application	Supported Version
Operating System	
Microsoft Windows Server 2008 (Enterprise and Standard Editions, 64-bit) ^a	R2 SP1
Microsoft Windows Server 2012 (Standard and Datacenter Editions)	R2
Microsoft Windows Server 2016 (Standard Edition, 64-bit)	
Red Hat Enterprise Linux (64-bit) ^{bc}	6.9
	7.2
	7.4
WebSphere Application Server (Base Version Only, 32- and 64-bit) ^c	8.5.5.11

Table 1-3 Application Server Supported Software for WebSphere (continued)

Third-Party Application	Supported Version
WebSphere Network Deployment (32- and 64-bit) ^d	8.5.5.11
IBM Java Development Kit (JDK)	1.8.0
IBM HTTP Server ^e	8.5.5.11
MS SQL Server JDBC Driver	4.2
Oracle JDBC Driver ^f	ojdbc6.jar or ojdbc7.jar and ons.jar ^g
Rational Application Developer for WebSphere Software	8.5.5.11
Eclipse Java Editor ^h	Eclipse IDE for Java Developers Eclipse IDE for Java EE Developers Eclipse Classic
JasperSoft ⁱ	JasperReports 6.2.0
VMWare Virtual Machines	Virtual Hardware Version 12
Apache ActiveMQ	5.15.0
Apache Tomcat Application Server	8.5.20
Browsers	Microsoft Internet Explorer ^j 10 and 11 Google Chrome 54.0 Edge on Windows 10
<p>^aWindows Server 2008 supports WebSphere 8.5.5.3 only. For more details, please see http://www-01.ibm.com/support/docview.wss?uid=swg27045339.</p> <p>^bWebSphere and Linux are not supported on I-series machines.</p> <p>^cShop Operations Server is supported on Linux for both the application server and client machines.</p> <p>^dWebSphere Network Deployment is only required for a cluster configuration.</p> <p>^eNot required if running a stand-alone installation on either Windows or Linux.</p> <p>^fPlease use the ojdbc6.jar and ons.jar driver files for Oracle 11g even if you are using Oracle 12c. The drivers downloaded with 12c have files of the same name, but they are not the same files.</p> <p>^gThe ons.jar driver file is only required if you are using Oracle RAC.</p> <p>^hSupport is not limited to a specific version.</p> <p>ⁱDownload the corresponding iReport version at the following location: http://sourceforge.net/projects/ireport/files/iReport/iReport-5.6.0/</p> <p>^jIn order to view the FTPC online help, perform the following steps depending on your browser version:</p> <ul style="list-style-type: none"> - IE11: add the FTPC website to your Compatibility View Setting located under the Tools menu. - IE10: press F12 to launch the Developers Tools and then go to Browser Mode: IE10 and select <i>Internet Explorer 10 Compatibility Mode</i>. 	

FTPC Client Software

When accessing the FTPC home page:

- ❑ If you have any JRE that supports Web Start on your client machine, then the JRE supported by Plant Operations will be downloaded onto your machine. You will not be prompted, and Administrative privileges are not required. If you have multiple versions of a JRE installed, the FTPC Java client will only use one for the deployment Web Start. After deployment, FTPC will download and use only the version that it supports.
- ❑ If you do not have a JRE version that supports Web Start or no JRE at all on your client machine, you will be prompted to install the JRE supported by Plant Operations. The logged-on user must have Administrative privileges to install the JRE.

The software requirements for the clients are as follows:

Table 1-4 Client Supported Software

Third-Party Application	Supported Version(s)
Operating System	
Microsoft Windows 7 (Professional Edition, 32- and 64-bit and Enterprise Edition, 64-bit)	SP1
Microsoft Windows 10 (Enterprise Edition, 64-bit)	No SP
Microsoft Windows Server 2008 (Enterprise and Standard Editions, 64-bit)	R2 SP1
Microsoft Windows Server 2012 (Standard Edition, 64-bit)	R2
Microsoft Windows Server 2016 (Standard Edition, 64-bit)	
Browsers	Microsoft Internet Explorer ^a 10 and 11 Google Chrome 54.0 Edge on Windows 10
Apache ActiveMQ	5.15.0
Apache Tomcat Application Server	8.5.20

Table 1-4 Client Supported Software

Third-Party Application	Supported Version(s)
Oracle Java SE Runtime Environment (32-bit)	1.8 Update 144
VMWare Virtual Machines	Virtual Hardware Version 12
^a In order to view the FTPC online help, perform the following steps depending on your browser version: - IE11: add the FTPC website to your Compatibility View Setting located under the Tools menu. - IE10: press F12 to launch the Developers Tools and then go to Browser Mode: IE10 and select <i>Internet Explorer 10 Compatibility Mode</i>	

Shop Operations Server

Shop Operations Server provides a runtime environment for event sheets, which in turn support the creation and management of event sources for executing script code. Shop Operations Server also contains an embedded servlet engine to process web services events and to host an administration console that is used for configuration and monitoring. Each build of FTSP includes the compatible version of Shop Operations Server.

NOTE: If you will be running FactoryTalk Live Data with Shop Operations Server, then you must have FactoryTalk Services Platform (FTSP) installed on the same machine as Shop Operations Server. For more information about FTSP, please see the accompanying documentation.

Table 2-1 Shop Operations Server Supported Software

Third-Party Application	Supported Version(s)
Operating System	
Microsoft Windows 7 (Professional Edition, 32- and 64-bit and Enterprise Edition, 64-bit)	SP1
Microsoft Windows Server 2008 (Enterprise and Standard Editions, 64-bit)	R2 SP1
Microsoft Windows Server 2012 (Standard Edition, 64-bit)	R2
Microsoft Windows Server 2016 (Standard Edition, 64-bit)	
Red Hat Enterprise Linux (64-bit)	6.9
	7.2
	7.4

Table 2-1 Shop Operations Server Supported Software

Third-Party Application	Supported Version(s)
Apache ActiveMQ	5.15.0
Apache Tomcat Application Server	8.5.20
Browsers	Microsoft Internet Explorer ^a 10 and 11 Google Chrome 54.0 Edge on Windows 10
Oracle Java SE Runtime Environment (32-bit)	1.8 Update 144
VMWare Virtual Machines	Virtual Hardware Version 12
^a In order to view the FTPC online help, perform the following steps depending on your browser version: - IE11: add the FTPC website to your Compatibility View Setting located under the Tools menu. - IE10: press F12 to launch the Developers Tools and then go to Browser Mode: IE10 and select <i>Internet Explorer 10 Compatibility Mode</i> .	

Data Management

FTPC provides the following features to manage data:

- **Live Transfer:** allows you to load data from multiple production or Operational Data Store (ODS) databases into a single target database (either an ODS or a reporting database).
- **Purge:** allows you to delete data from your databases using criteria such as retention periods, object type, and object status.

The following table lists the versions of Live Transfer and Purge that are supported on each released build of FTPC.

Table 3-1 Data Management Supported Versions

FTPC Build	Live Transfer Build	Purge Build
106677	4102325	103316

Modular Framework WebSDK

Modular Framework WebSDK provides a framework that allows you to create a web application using Eclipse that integrates with an FTPC 10.4/Vaadin 7 environment.

NOTE: For third-party and platform support specific to Modular Framework WebSDK, please see the Modular Framework WebSDK documentation.

The following table lists the versions of Modular Framework WebSDK that are supported on each released build of FTPC.

Table 4-1 Modular Framework WebSDK Supported Versions

FactoryTalk ProductionCentre Build	WebSDK Build
106677	3.2.102018 ^a
^a Not supported on Microsoft Windows Server 2016.	

Production Management

Production Management is a module used to create a discrete work-in-progress (WIP) application by configuring objects that have predefined functionality instead of through custom scripting.

Production Management is installed as a fit-for-purpose application into the FTPC Modular Framework WebSDK. The supported version of Modular Framework WebSDK is provided with Production Management.

The following table lists the versions of Production Management that are supported on each released build of FTPC.

Table 5-1 Production Management Supported Versions

FactoryTalk ProductionCentre Build	Production Management Build
106677	3.2.101334

Performance Management

The ProductionCentre Performance Management product (called PM hereafter) is a plant level application that monitors process and packaging line efficiency, captures downtime events, and provides an approach to comprehensive root cause analysis. PM enables users to set performance goals, such as yield, quality, schedule adherence and overall equipment effectiveness (OEE), and track progress in real time against those goals

NOTE: For third-party and platform support specific to Performance Management, please see the Performance Management documentation.

The following table lists the versions of PM that are supported on each released build of FTPC.

Table 6-1 PM Supported Versions

FTPC Build	PM Build
106677	3.3.102505 4.0.102491 4.0.102576 4.0.102596

Quality Management

Quality Management (QM) is an application that allows you to run quality policy checks for your factory. If your production must follow certain regulations, QM can be used to verify that the regulations are met.

NOTE: For third-party and platform support specific to Quality Management, please see the Quality Management documentation.

The following table lists the versions of QM that are supported on each released build of FTPC.

Table 7-1 QM Supported Versions

FactoryTalk ProductionCentre Build	QM Build
106677	4.0.101124

Warehouse Management

Warehouse Management is a module used to maintain stocks within a warehouse, from creating goods receipts out of purchase orders, and receiving the goods into the warehouse to querying for stock records.

Warehouse Management is installed as a Fit-For-Purpose application into Modular Framework WebSDK. The supported version of Modular Framework WebSDK is provided with Modular Framework WebSDK.

The following table lists the versions of Warehouse Management that are supported on each released version of FTPC 10.4.

Table 8-1 Production Management Supported Versions

FactoryTalk ProductionCentre Build	Warehouse Management Build
106677	3.0.100062

Enterprise Integration Hub

Enterprise Integration Hub (EIHub) provides a platform for your ERP or file system and FactoryTalk ProductionCentre to exchange manufacturing data.

The following table lists the versions of EIHub that are supported on each released version of FTPC.

Table 9-1 EIHub Supported Versions

FactoryTalk ProductionCentre Build	EIHub Build
106677	4.0.100423

FTPC 10.4 is backwards compatible with older versions of EIHub. For more information on compatibility and compatibility exceptions, please contact Rockwell Customer Support.

NOTE: In rare instances, coordinated releases of EIHub and FTPC are released, usually due to a fix that required changes to both products. In this case, make sure that EIHub is installed on its coordinated counterpart of FTPC. If you are unsure if your version of EIHub is part of a coordinated release and requires a specific build of FTPC, please contact Rockwell Customer Support.

FactoryTalk ProductionCentre supports the I/O Server product. I/O Server is a system by which Live Data and other I/O can be made available to an FTPC application that is in any network location where direct access to Live Data is not available. This connection is facilitated through an instance of Shop Operations Server (SOS).

The following table lists the versions of I/O Server that are supported on each released version of FTPC.

Table 10-1 I/O Server Supported Versions

FactoryTalk ProductionCentre Build	I/O Server Build
106677	1.1.100363

Rockwell Software CPGSuite

FTPC supports the Rockwell Software CPGSuite (called CPG hereafter). CPG is a set of applications built on top of FTPC that can be used to interface with the programmable logic controller (PLC) to accomplish its functions. A CPG application works with the PLC to process orders, thereby significantly automating the process and minimizing the need for user interaction. In addition, the information provided by the PLC is monitored and saved in the Production database, which allows you to track and trace an order.

The following table lists the versions of CPG that are supported on each released version of FTPC.

Table 11-1 CPG Supported Versions

FTPC Build	CPG Build
106677	2.3.3000919 2.3.3000971

FTPC 10.4 is backwards compatible with older versions of CPG. For more information on compatibility and compatibility exceptions, please contact Rockwell Customer Support.

NOTE: In rare instances, coordinated releases of CPG and FTPC are released, usually due to a fix that required changes to both products. In this case, make sure that CPG is installed on its coordinated counterpart of FTPC. If you are unsure if your version of CPG is part of a coordinated release and requires a specific build of FTPC, please contact Rockwell Customer Support.

AutoSuite is a platform for building applications for the automotive industry using a message-driven architecture. It coordinates orders between shops, including subassembly marriage. An order has one primary order item and can have multiple secondary (dependent) order items. The following order item types are supported:

- ❑ **Sales Order:** an order where the item is not directly manufactured (primary order item).
- ❑ **Shop Order:** an order where the order item is the main unit tracked through the shop.
- ❑ **Subassembly Order:** an order where the order item is for subassemblies built in parallel to the main unit in a shop.

The following table lists the versions of AutoSuite that are supported on each released version of FTPC.

Table 12-1 AutoSuite Supported Versions

FactoryTalk ProductionCentre Build	AutoSuite Build
106677	3.0.3506

