

SAS[®] Financial Management 5.6: Installation and Configuration Guide



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The correct bibliographic citation for this manual is as follows: SAS Institute Inc., *SAS Financial Management 5.6: Installation and Configuration Guide*, Cary, NC: SAS Institute Inc., 2019.

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SAS Institute Inc., SAS Campus Drive, Cary, North Carolina 27513.

June 2019

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Chapter 1 — Getting Started with SAS Financial Management and SAS Capital Planning and Management

Before You Begin the Installation

SAS Software Order and SAS Software Depot

Your SAS Software Order E-Mail (SOE) will provide you with information about how to download your SAS Software Depot. Follow those instructions to download your software and create a SAS Software Depot. An instructional video for 9.4 Software Depots is at this location: <http://support.sas.com/documentation/installcenter/gettingstarted/94/index.html>

Quick Start Guide

Your SAS Software Order E-Mail (SOE) and the SAS Download Manager instruct you to follow the steps in the [Quick Start Guide: SAS® 9.4 Planned Deployments using Electronic Software Delivery](#). A link to the *Quick Start Guide* is found in your SAS Software Order. You can also access it in the `depotsummary.html` file which is located at the top level of the SAS Software Depot.

Deployment Plan and SAS 9 Pre-Installation Checklist

These solutions require you to complete a planned installation.

Deployment Plan

A deployment plan is an XML-based description of the topology for your SAS system. The deployment plan describes the intended final SAS software environment. It is used in the SAS software deployment process to tell the SAS Deployment Wizard (the SDW) which software components to install and configure on each machine.

A deployment plan will be generated and provided for each deployment. For more information about deployment plans, see “[Planning Your Deployment](#)” in the *SAS 9.4 Intelligence Platform: Installation and Configuration Guide*.

Pre-Installation Checklist

The *SAS 9 Pre-Installation Checklist* document is found in the same directory as the deployment plan and will explain the users, groups and third-party software are needed on each tier of this deployment. In these instructions, “pre-installation checklist” refers to this customized document.

Migration Guides

If you have already installed SAS Financial Management 4.4/4.4.1 and want to maintain data, refer to the *SAS Performance Management Solutions: 9.1.3 to 9.2 Migration Guide*.

If you have already installed SAS Financial Management 5.1 or 5.2 and want to maintain data, refer to the *SAS Financial Management 5.3: Migration Guide*.

If you have already installed SAS Financial Management 5.3 or 5.2 and want to maintain data, refer to the *SAS Financial Management 5.5: Migration Guide*. It is also applicable for SAS Financial Management 5.6.

Chapter 2 — Pre-Installation Steps

Steps to Perform Before You Install SAS Software

Note: For important information about these steps, completing the pre-installation checklist and reading the *SAS 9.4 Intelligence Platform Installation and Configuration Guide* are required.

<http://support.sas.com/documentation/onlinedoc/intellplatform/index.html>

Operating System Users and Groups

Create the users and groups that are specified in the pre-installation checklist for each tier of your installation.

Third-Party Software and System Requirements

The *Quick Start Guide* contains a link to the System Requirements on SAS Install Center. Review the system requirements for the products that you will install. Install the required third-party products. SAS Financial Management and SAS Capital Planning and Management system requirements can be found here:

<http://support.sas.com/documentation/onlinedoc/fm/index.html>

The 9.4 Third-Party documentation is located here:

<http://support.sas.com/resources/thirdpartysupport/v94/index.html>

UNIX Hostname

The hostname command should return the fully qualified hostname for your servers. Verify this by issuing the hostname command:

```
hostname  
yourhost.yourdomain.com
```

If your site requires a shortened form of the hostname, remember to use that name consistently throughout your configuration steps.

Alternate Database Server

Note the following items if you are using a third party PostgreSQL data server instead of the SAS Supplied Data Server for SAS solutions content.

- SAS Financial Management supports using PostgreSQL 9.1.9 or later. Other databases are not supported for SAS Financial Management content.
- If the SAS Financial Management database is third party, be sure to fill in the pre-install checklist section, "SAS Financial Management Database Information."
- Create an account in the database who is a super user. During the installation and configuration, the SDW will prompt for this user and the default ID is `sqladmin`.
- The super user account will be used to create a database named `sas sdm`. This name cannot be modified.
- During the install and configuration, the SDW will prompt for a separate user to be created for this database. The default is `sas sdmdbadm`.
- Windows services are not created or managed for a third-party database.

- On UNIX, there is a startup script that should be updated to include the Financial Management base. See your “Configuration Guidelines and Details” file (instructions.html) for more information on its location.

In addition, if the SAS Shared Services database is third party, fill in the data in the pre-install checklist section, “SAS Shared Services Database,” and refer to this document:

<http://support.sas.com/resources/thirdpartysupport/v94/appservers/SharedServicesAlternativeDatabase.pdf>

Chapter 3 — Install and Configure SAS Software

SAS Deployment Wizard

Adding SAS Financial Management to an Existing SAS 9.4 Intelligence Platform Deployment

Follow the steps outlined in *SAS 9.4 Intelligence Platform Installation and Configuration Guide* “Managing your SAS Deployment: Adding SAS Products.” This document can be found here: <http://support.sas.com/documentation/cdl/en/biig/63852/PDF/default/biig.pdf>

SAS Deployment Wizard

The *Quick Start Guide* explains how to launch the SAS Deployment Wizard. Use the SAS Deployment Wizard help and SAS 9.4 Intelligence Platform documentation to guide you as needed. In addition, see the *SAS Deployment Wizard and SAS Deployment Manager 9.4: User’s Guide*:

<http://support.sas.com/documentation/installcenter/en/ikdeploywizug/66034/PDF/default/user.pdf>

Installation on Two Tiers (Data Tier/Mid-Tier and Client Tier)

Client Tier

Refer to “Chapter 5 — Installing Client Applications” on page 11 for installation of the client software.

Before You Begin the Data Tier and Mid-Tier on a Single Server

This document describes the prompts and windows that apply only to SAS Financial Management and SAS Capital Planning and Management.

Note: Refer to the *SAS 9.4 Intelligence Platform Installation and Configuration Guide* for detailed information about the steps that are not specific to SAS Financial Management. This guide is required for installing SAS Financial Management.

Verify External Users and Groups

1. Verify that the following users and group have been created on the data tier machine as instructed in the pre-installation checklist.

	Windows	UNIX
SAS Installer	mydomain\installer-ID	sas
SAS Spawmed Servers account	mydomain\sassrv	sassrv
SAS First User	mydomain\sasdemo	sasdemo
Solutions Host User	mydomain\sassln	sassln
SAS Server Users group	SAS Server Users	sas

- On Windows, the SAS Installer account should be available in the long term for future SAS maintenance.
- On AIX, make sure that “**User can LOGIN?**” is set to true for the SAS Installer ID.
- On UNIX, do not use *root* as the SAS Installer account.

2. Follow the instructions for your platform:
 - On Windows, verify that SAS Server Users group has the user right “Log on as a batch job.” The SAS Spawned Servers Account (sassrv) and the Solutions Host User (sassln) can be added to this group to obtain this right or it can be assigned by the SAS Deployment Wizard.
 - On UNIX, verify that the SAS Spawned Servers and SAS Installer account are members of a same group and that group is the primary group for both groups.

UNIX Mid-Tier

First, refer to the pre-installation steps for the middle tier:

<https://support.sas.com/en/documentation/third-party-software-reference/9-4/support-for-web-application-servers.html>

See the *SAS Financial Management 5.5: Performance Guide* for solution-specific settings for the hard limit on number of open file descriptors and the soft limit on maximum number of processes on Red Hat Enterprise Linux 6 platform.

Note: The 5.5 version of the *Performance Guide* is also applicable for SAS Financial Management 5.6.

Software Deployment Wizard for Data Tier and Mid-Tier on a Single Server

1. On the **Select Products to Install** dialog box, select “Server and Middle Tier” as the machine.
2. Select **Typical** in the **Select Configuration Prompting Level** dialog box.

Note: If you select “Custom” for the prompting level, do not select the check box to **Secure JMS Resources** in the dialog box labeled **Web Application Server: Secure JMS Resources**.
3. When you are prompted for the **SAS Internal Account: Solutions Administrator**, enter a password for the slnadm user. This is not an external system user.
4. For the solution-specific dialog boxes listed below, the following information supplements the help screens:
 - A. **SAS Financial Management Database Server** dialog box; accept the default or enter the hostname and port number of your database server instance for SAS Financial Management. Click the checkbox if you plan to use your own database server for solution content.
 - B. **SAS Solutions Services Mid-Tier: ODCS** dialog box; accept the default or enter the host name and port number of your ODCS server. The default port is specified in your pre-install checklist for the application server that you specified in your plan file.
 - C. **External Account: Solutions Host User** dialog box; enter the user that you defined for access to SAS Datasets by JDBC. The default user name is sassln.
 - D. **Database Account: Database Administrator** dialog box; specify the database account credentials for the Financial Management Database Administrator identity. The default user name is sqladmin. Enter a user ID and password. This is not an operating system account but is used to secure and administer the SAS Financial Management database.

- E. **Database Account: SASSDM Database Administrator** dialog box; the default database account identity is `sassdmdbadm`. Enter a user ID and password. This is not an operating system account but is used to secure and administer the SASSDM database.
5. In the Deployment Summary dialog box, click **Start**.

Installation on Three Tiers (Data Tier, Mid-Tier and Client Tier)

This document describes the prompts and windows that apply only to Financial Management and SAS Capital Planning and Management.

Note: Refer to the [SAS 9.4 Intelligence Platform Installation and Configuration Guide](#) for detailed information on the steps that are not specific to SAS Financial Management. This guide is required for installing SAS Financial Management.

Client Tier

Refer to “Chapter 5 — Installing Client Applications” on page 11 for instructions on installing the client software.

Before You Begin Installing the Data Tier

Verify External Users and Groups

1. Verify that the following users and group have been created on the data tier machine as instructed in the pre-installation checklist.

	Windows	UNIX
SAS Installer	mydomain\installer-ID	sas
SAS Spawnd Servers account	mydomain\sassrv	sassrv
SAS First User	mydomain\sasdemo	sasdemo
Solutions Host User	mydomain\sassln	sassln
SAS Server Users group	SAS Server Users	sas

- On Windows, the SAS Installer account should be available in the long term for future SAS maintenance.
 - On AIX, make sure that **User can LOGIN?** is set to **true** for the SAS Installer ID.
 - On UNIX, do not use `root` as the SAS Installer account.
2. Follow the instruction for your platform:
 - On Windows, verify that SAS Server Users group has the user right “Log on as a batch job.” The SAS Spawnd Servers Account (sassrv) and the Solutions Host User (sassln) can be added to this group to obtain this right or it can be assigned by the SAS Deployment Wizard.
 - On UNIX, verify that the SAS Spawnd Servers and SAS Installer account are members of a same group and that group is the primary group for both groups.

Software Deployment Wizard for Data Tier

1. Select **Server** as the machine in the Select Products to Install dialog box.
2. Specify **Typical** in the Select Configuration Prompting Level dialog box. If the default values are appropriate for your site, you can accept many of the SAS Deployment Wizard dialog boxes as they are presented. Noted below are changes that are required.

3. When you are prompted for the **SAS Internal Account: Solutions Administrator**, enter a password for the `slnadm` user. This is not an external system user.
4. For the solution-specific dialog boxes listed below, the following information supplements the help screens:
 - A. **SAS Financial Management Database Server** dialog box; accept the default or enter the hostname and port number of your database server instance for SAS Financial Management. Click the checkbox if you plan to use your own database server for solution content.
 - B. **External Account: Solutions Host User** dialog box; enter the external user account that you have defined for access to SAS Datasets by JDBC. The default user name is `sassln`.
 - C. **Database Account: Database Administrator** dialog box; specify the database account credentials for the Financial Management Database Administrator identity. The default user name is `sqladmin`. Enter a user ID and password. This is not an operating system account but is used to secure and administer the SAS Financial Management database.
 - D. **Database Account: SASSDM Database Administrator** dialog box; the default database account identity is `sassdmdbadm`. Enter a user ID and password. This is not an operating system account but is used to secure and administer the SASSDM database.
5. In the **Deployment Summary** dialog box, click **Start**.

Before You Begin the Mid-Tier Installation

UNIX

First, refer to the pre-installation steps for the middle tier:

<http://support.sas.com/resources/thirdpartysupport/v94/appservers/preinstall.html>

See the *SAS Financial Management 5.5: Performance Guide* for solution-specific settings for the hard limit on number of open file descriptors and the soft limit on maximum number of processes on Red Hat Enterprise Linux (RHEL) 6 platform.

Note: The 5.5 version of the *Performance Guide* is also applicable for SAS Financial Management 5.6.

Software Deployment Wizard for Mid-Tier

1. In the **Select Products to Install** dialog box, select “Middle Tier” as the machine.
2. Specify *Typical* in the **Select Configuration Prompting Level** dialog box. If the default values are appropriate for your site, you can accept many of the SAS Deployment Wizard dialog boxes as they are presented. Required changes are noted.

Note: If you select “Custom” for the prompting level, do not check the checkbox to **Secure JMS Resources** in the dialog box labeled **Web Application Server: Secure JMS Resources**.
3. In the **SAS Metadata Server** dialog box, enter or change the server name to the fully qualified hostname of the data tier server.

4. When prompted for the **SAS Internal Account: Solutions Administrator**, enter the password for the `slnadm` user that you entered in the same dialog box on the data tier server. This is not an operating system user.
5. For the solution-specific dialog boxes listed below, the following information supplements the help screens:
 - A. **SAS Solutions Services Mid-Tier: ODCS** dialog box; accept the default or enter the host name and port number of your ODCS server.
 - B. **External Account: Solutions Host User** dialog box; enter the user that you defined for access to SAS Datasets by JDBC. The default user name is `sassln`. This external user is typically local to the data tier server.
 - C. **Database Account: Database Administrator** dialog box; the default user name is `sqladmin`. Enter a user ID and password. This is not an operating system account but is used to secure and administer the SAS Financial Management database. Enter the same password provided in the same dialog box in the Software Deployment Wizard for the data tier machine.
 - D. **Database Account: SASSDM Database Administrator** dialog box; the default database account identity is `sassdmdbadm`. Enter a user ID and password. This is not an operating system account, but it is used to secure and administer the SASSDM database. Enter the same password provided in the same dialog box in the Software Deployment Wizard for the data tier machine.
6. In the **Deployment Summary** dialog box, click **Start**.

Installation on Multiple Tiers

This document describes prompts and windows that apply only to SAS Financial Management and SAS Capital Planning and Management.

Note: Refer to the [SAS 9.4 Intelligence Platform Installation and Configuration Guide](#) for detailed information about the steps that are not specific to SAS Financial Management. The information in this guide is required for installing SAS Financial Management.

Topologies Supported

The SAS Financial Management software can be deployed across multiple “tiers.” The available tiers are listed below. If you are installing on these tiers or a subset, install components in the following order.

1. Metadata Server
2. Web Infrastructure Platform Data Server
3. FM Database Server
4. FM Data Server
5. Mid-Tier Server

If the ‘ODCS Read-only Server’ is on a separate machine, a recoverable error occurs. During the “Web Application Server Configuration” step, SASFinancialManagement and SASFinancialManagementMobile web apps (SASServer3) fail to start. The log contains this message: “Application ‘ODCS for Sol WebServices 5.6’ does not exist.” Click **Continue** to complete the configuration of the middle tier. Once ODCS Server has been configured, restart SASServer3.

6. ODCS Read-only Server

7. FM Query Processors

Configuration Guidelines and Details

Open the `Instructions.html` file found in the configuration directory in a web browser. For example, if `/SAS/Config` is the path to your configuration directory, open `/SAS/Config/Lev1/Documents/Instructions.html`.

Perform the manual configuration and validation steps that are outlined in the *Configuration Guidelines and Details for 'Server Name'* document (`Instructions.html`). Then follow any SAS Financial Management-specific post-configuration steps in “Chapter 4 – Post-Configuration Guide.”

Note: *SAS Capital Planning and Management includes steps for loading sample data in the `Instructions.html` file for the data tier machine.*

Chapter 4 — Post-Configuration Guide

Additional Resources

After you complete the installation and configuration of your software, follow the post-configuration steps in the *SAS Financial Management 5.6: System Administrator's Guide*.

The *SAS Financial Management 5.5: Performance Guide* describes performance tuning parameters and guidelines for SAS Web applications, the Web application servers, Java Virtual Machines (JVM), and operating systems. For best performance after your initial installation, begin the tuning process immediately after you have completed the installation and configuration steps.

Note: *The 5.5 version of the Performance Guide is also applicable for SAS Financial Management 5.6.*

Both of these guides and application specific guides can be found here:

<http://support.sas.com/documentation/onlinedoc/fm/index.html>

The *SAS 9.4 Intelligence Platform: System Administration Guide* provides additional general information on system administration and can be found here:

<http://support.sas.com/documentation/cdl/en/bisag/64875/PDF/default/bisag.pdf>

Chapter 5 — Installing Client Applications

About the Client Applications

Client applications must be installed on Windows machines. The following client applications are available for SAS Financial Management:

Application Descriptions

SAS Financial Management Studio

SAS Financial Management Studio enables users to build and manage the infrastructure for SAS Financial Management, including cycles, models, dimensions, and form sets.

SAS Financial Management Add-In for Microsoft Excel

SAS Financial Management Add-In for Microsoft Excel is used by financial process administrators, form submitters or approvers, and financial report creators. This add-in connects a desktop copy of Microsoft Excel to the middle tier and provides access to SAS Financial Management data. With this client, users can take the following actions:

- build reports that are based on data in the SAS Financial Management database
- build forms for entering financial or operational data into the database
- enter financial planning data

Client Applications in SAS Intelligence Platform

In addition to the SAS Financial Management client applications, other client applications are in your order. See the system requirements for SAS Financial Management or SAS Capital Planning and Management for more information.

Specifying a SAS Environment File for New Installations

SAS Financial Management Studio and SAS Financial Management Add-In for Microsoft Excel use the SAS environment file (`sas-environment.xml`). This file enables desktop client applications to determine the location of required services on the middle tier and to obtain a list of services available in the environment.

During the installation, you are asked to supply the URL for the SAS environment file (`sas-environment.xml`). The default path is described below where **server** is the name of the middle-tier server that you want to connect to. The port defaults to 80 for Windows and 7980 for UNIX.

<http://server.domain:port/sas/sas-environment.xml>

For more information about this URL, see “Configuring the SAS Environment Files” in the *SAS Financial Management: System Administrator’s Guide*.

Java Runtime Environment (JRE)

SAS Financial Management Studio requires the use of a Java Runtime Environment (JRE) on the client tier which is provided by SAS and installed by the SAS Deployment Wizard. Refer to the SAS 9.4 section of the Third-Party Software Requirements web page for more information:

<https://support.sas.com/en/documentation/third-party-software-reference.html>.

If you want to configure SAS Financial Management Studio to use a different JRE, add a `-vm` option to the `fmstudio.ini` file, with the path to the appropriate EXE or DLL file. The INI file is found in `SAS-installation-directory\SASFinancialManagement\5.6`. The `-vm` option must appear before the `-vmargs` line. Here is an example:

```
-vm
C:\oracle-j2sdk1.8\jre\bin\client\jvm.dll
-vmargs
...
```

Installing SAS Financial Management Add-in for Microsoft Excel and SAS Financial Management Studio

Software Deployment Wizard for the Client Tier

1. Launch the SAS Deployment Wizard from the `setup.exe` file in your SAS Software Depot.
2. If you are installing SAS Financial Management clients only, select only **Install SAS Software** from the Select Deployment Type dialog box. Select **Perform a Planned Deployment**. If you are installing other SAS clients, verify that **Install SAS Software** and **Configure SAS Software** are both selected.
3. Enter the path to your deployment plan from the **Specify Deployment Data** dialog box.
4. Select `Clients` as the machine in the **Select Deployment Step and Products to Install** dialog box.
5. Select the location of your SAS installation data file in the **Specify SAS Installation Data File** dialog box.
6. Select languages from the **Select Language Support** dialog box.
7. In the **Select Microsoft Applications** dialog box; if you are installing SAS Add-in for Microsoft Office, select the Microsoft Applications that you wish to use with SAS Add-in for Microsoft Office.
8. In the **SAS Environments URL** dialog box, specify the URL that defines the SAS Environments that you have access to. Check with your site administrator for this value. The default is `http://host:port/sas/sas-environment.xml`. For more information, see “Specifying a SAS Environment File for New Installations” above.
9. Most installations will use the recommended Java Runtime Environment. For more information, see the section “Java Runtime Environment (JRE)” above.
10. If you are configuring, then specify *Typical* in the **Select Configuration Prompting Level** dialog box. In the **Specify Configuration Information** dialog box, select a directory where configuration files will be stored. Complete the configuration prompts for additional SAS Software.
11. In the **Deployment Summary** dialog box, click **Start**.

Secure Socket Layer Post-Installation Step

Import the server's certificate into your browser's trusted signer's area so that the browser can trust the certificate. A self-signed certificate must be in the Windows System trust store, not in the private JRE trust store.

For instructions, consult the Help for your web browser.



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