

SAS® Financial Management 5.3: Installation and Configuration Guide



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SAS Financial Management 5.3: Installation and Configuration Guide

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Chapter 1 — Getting Started

Before you begin the installation

SAS Software Order and SAS Software Depot

Your SAS Software Order 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.

QuickStart Guide

Your SAS Software Order and the SAS Download Manager instruct you to follow the steps in the *QuickStart Guide: SAS® 9.3 Planned Deployments using Electronic Software Delivery*.

A link to the *QuickStart Guide* is found in your SAS Software Depot 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. A deployment plan is an XML-based description of the topology for your SAS system. The plan file describes the intended final SAS software environment. The plan file is used in the SAS software deployment process to tell the SAS Deployment Wizard which software components to install and configure on each machine.

A deployment plan will be generated and provided for each deployment. There are sample plans for complex deployments in the SAS Planning Application. The SAS Planning Application can only be used by SAS representatives. You must log in with a valid `sas.com` email address before accessing the Planning Application 2.0. More information about the planning application and sample plans is found in the SAS Planning Application, <http://support.sas.com/planning>.

Pre-Installation Checklist

The *SAS 9 Pre-Installation Checklist* document is found in the same directory as the plan file. The filename is `checklist.pdf` or `checklist.rtf`. The *SAS 9 Pre-Installation Checklist* document will explain what users, groups and third party software are needed on each tier of the 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, please 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, please refer to the *SAS Financial Management 5.3 Migration Guide*.

Chapter 2 — Pre-Installation Steps

Steps to Perform Before You Install SAS Software

For more information about these steps, please see the pre-installation checklist and the *SAS 9.3 Intelligence Platform Installation and Configuration Guide*:

<http://support.sas.com/93administration>

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 *QuickStart 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. Financial Management system requirements can be found here:

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

MySQL Database Server Components

The pre-installation checklist provides the location of the installation instructions for MySQL, “MySQL Database Server Installation Guide for SAS Human Capital Management, SAS Human Capital Management, and SAS Strategy Management” is located here:

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

Note: *If you are migrating from SAS Financial Management 5.1 or 5.2 on SAS 9.2, you must upgrade to MySQL 5.1.55.*

Java Development Kit

The Java Development Kit requirements for SAS 9.3 in general are found here:

<http://support.sas.com/resources/thirdpartysupport/v93/jdks.html>.

Be sure to get the JDK that matches your Web application server.

Note: *Oracle WebLogic Server 10.3gR3 requires the Sun JDK version 1.6.0 with a required update level. See the Third Party documentation above for the update level.*

Note: *IBM WebSphere installs the corresponding JDK with their application server install.*

JBoss Application Server

Financial Management supports JBoss 5.

Note: *Please see the Financial Management System Requirements 9.3 for details about supported version of JBoss.*

Apply all of the patches referenced for the Web Application server. Follow any post-installation steps for your platform documented on the site above.

WebLogic Application Server

Financial Management supports Oracle WebLogic Server 10g Release 3.

Note: Please see the *Financial Management System Requirements 9.3* for details about supported version of WebLogic.

Note: *Financial Management 5.3* does not support WebLogic on the AIX operating system at this time.

Install your Web Application server using the documentation and system requirements found here:

<http://support.sas.com/resources/thirdpartysupport/v93/appservers/weblogicsw.html>

If you have received Oracle WebLogic from SAS, WebLogic 10.3 can be located in the SAS Software Depot under `third_party\WebLogic\10_3`. Please see the `readme.pdf` file in this location for information about installing the WebLogic software and applying the required patches.

Another issue with the WebLogic installation is documented in SAS Installation Note 38566 “The Oracle WebLogic 10.3 installer fails when you run it from a network location that is specified as a universal naming convention (UNC) path” at <http://support.sas.com/kb/38/566.html>.

Apply all of the patches referenced for the Web Application server. Follow any post-installation steps for your platform documented on the site above.

WebSphere Application Server Network Deployment

Financial Management support IBM WebSphere Application Server Network Deployment Release 7.0.0.13, 8.0.0.2 and 8.5.0.1.

Note: Please see the *Financial Management System Requirements 9.3* for details on supported version of WebSphere.

Install your Web Application server using the documentation and system requirements found here:

<http://support.sas.com/resources/thirdpartysupport/v93/appservers/webspheresw.html>

If you have received IBM WebSphere from SAS, WebSphere 7.0.0.13 can be located in the SAS Software Depot under `third_party\WebSphere\7_0_0_13`. Please see the `readme.pdf` file in this location for information about installing the WebSphere software and applying the required patches.

For either version, apply all of the patches referenced for the Web Application server. Follow any post-installation steps for your platform documented on the site above.

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.

Chapter 3 — Install and Configure SAS Software

SAS Deployment Wizard

Adding SAS Financial Management to an Existing SAS 9.3 Intelligence Platform Deployment

Follow the steps outlined in *SAS 9.3 Intelligence Platform Installation and Configuration Guide* “Managing your SAS Deployment: Adding SAS Products,” which can be found in these two locations:

<http://support.sas.com/documentation/cdl/en/biig/62611/PDF/default/biig.pdf>

or

<http://support.sas.com/documentation/cdl/en/biig/62611/HTML/default/viewer.htm#titlepage.htm>

If the current deployment’s Web application server is not the required version for Financial Management, or the deployment has been configured with only a single managed server, the Web application server must be temporarily removed from your deployment. Follow these steps:

1. Use the instructions in *SAS 9.3 Intelligence Platform Installation and Configuration Guide* “Removing a SAS Configuration.”
2. During the add-on of the Financial Management, redeploy the Web application server at the required version and configuration along with *all* of your Web applications.

Quickstart Guide

The *QuickStart Guide* explains how to launch the SAS Deployment Wizard. Prompts and windows that apply only to these solutions are documented in this reference. Use the SAS Deployment Wizard help screens and SAS 9.3 Intelligence Platform documentation to guide you as needed.

Installation on 2-Tiers (Data Tier/Mid-Tier and Client Tier)

Refer to the *SAS 9.3 Intelligence Platform Installation and Configuration Guide* for more detailed information about the installation:

<http://support.sas.com/93administration>

Client Tier

Refer to “Chapter 5 – Installing Client Applications” on page 18 for installation of the client software.

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

Verify External Users and Groups

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

| | Windows | UNIX |
|-----------------------------|-----------------------|--------|
| SAS Installer | mydomain\installer-ID | sas |
| SAS Spawned 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 the “**User can LOGIN?**” setting 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 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 account is a member of a group that is the primary group for the SAS Installer account.
 - On UNIX, verify that the SAS Installer account is a member of a group that is the primary group for the SAS Spawnd Servers account.

Verify Third Party Products

1. Review the System Requirements and verify that the following third party products are installed:
 - JBoss Application Server 5.1
or
Oracle WebLogic Server 10.3
or
IBM WebSphere Application Server Network Deployment 7.0.0.13, 8.0.0.2, and 8.5.0.1.
 - Sun Java Development Kit 6 with required update level (WebLogic only)
 - MySQL Enterprise Database Server 5.1.55
 - MySQL Connector J 5.1.13
 - MySQL Database Runtime Library 5.1.55 (Windows only)
 - Internet Explorer 7, 8 or 9 – For more information see the “SAS Financial Management 5.3 System Requirements”
2. On Windows, if the Web Application server is WebLogic, stop the Oracle Weblogic NodeManager service before configuring your software.


```
net stop "Oracle Weblogic NodeManager (C_bea_wlserver_10.3)"
The Oracle WebLogic NodeManager (C_bea_wlserver_10.3) service is
stopping.
The Oracle WebLogic NodeManager (C_bea_wlserver_10.3) service was
stopped successfully.
net start
```

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

1. On the **Select Products to Install** dialog, select “Server and Middle Tier” as the machine.
2. On Windows, at the **Specify SAS PC Files Server Options** dialog, check “Start Service Now and Automatically when Windows Starts.”
3. After the **Review Required Software** dialog, you will be prompted for third-party software. The default locations are below. Refer to the notes you made on your pre-installation checklist to find the locations you chose if they are not the default locations.
 - **MySQL Connector_J Configuration 5.1:**
 - Windows: C:\Program Files\SASHome\MySQLConnectorJ
 - UNIX: /usr/local/SAS/MySQLConnectorJ
 - Note:* Enter the location of MySQL Connector_J jar version 5.1.13.
 - **MySQL Database Runtime Library Configuration 5.1:**
 - Windows only: C:\mysql\bin
 - **MySQL Database Server Configuration 5.1:**
 - Windows: C:\mysql
 - UNIX: /usr/local/mysql
 - **JBoss Application Server 5:**
 - Windows: C:\Program Files\jboss-eap-5.1\jboss-as
 - UNIX: /usr/local/jboss/jboss-eap-5.1/jboss-as
 - Note:* SAS Financial Management requires JBoss 5.
 - or
 - **Oracle WebLogic Server:**
 - Windows: C:\bea\wlserver_10.3
 - UNIX: /usr/bea/wlserver_10.3
 - or
 - **IBM WebSphere Application Server:**
 - Windows: C:\Program Files\IBM\WebSphere\AppServer
 - UNIX: /usr/IBM/WebSphere/AppServer
 - **Java Development Kit: (JBoss and WebLogic only)**
 - Windows: C:\Program Files\Java\jdk1.6.0_XX
 - UNIX: /usr/jdk/jdk1.60._XX
 - Note:* WebLogic and JBoss require Java Development Kit 1.6.0 with an update level.
4. Select *Typical* in the **Select Configuration Prompting Level** dialog.
 - Note:* If you select “Custom” for the prompting level, do not check the checkbox to **Secure JMS Resources** in the dialog **Web Application Server: Secure JMS Resources**.
5. 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.

6. **SAS OLAP Data and Compute Server: Deployment Instance Name** dialog; leave this blank or enter a unique instance name. If you have more than one ODCS server in your deployment then you must enter a unique name such as the short hostname of the server.
7. For the solution-specific dialogs listed below, the following information supplements the help screens:
 - A. **MySQL Database Host** dialog; accept the defaults or enter the location and port of the MySQL server.
 - B. **MySQL Database** dialog:

Deployment Instance Name: Leave this blank or enter a unique instance name. If you have more than one MySQL server in your deployment then you must enter a unique name such as the short hostname of the server.

SAS/Access to MySQL Directory: On UNIX, enter the location where you want the shared object library stored. The default is `/usr/local/SAS/libmysql`.

Service Name: During *Custom* prompting level only, enter the name of the service you chose during the MySQL installation configuration.
 - C. **SAS Solutions Services Mid-Tier: ODCS** dialog; accept the default or enter the host name and port number of your ODCS server. If the ODCS server is on the same machine as the SAS Solutions Server this is `SASServer4`. The default port is specified in your pre-install checklist for the application server that you specified in your plan file.
 - D. **MySQL / SASOP database Installation** dialog; enter the host name and port number of your MySQL server. This is typically your data tier server and the default port is `3306`.
 - E. **SAS OLAP Data and Compute Server: Installation** dialog; specify that this is the primary ODCS server.
 - F. **SAS Content Server: Repository Directory** dialog; select 'No' for "Use configured database for content storage."
 - G. **SAS Web Infrastructure Platform: Database Type** dialog; Select database type. MySQL is recommended.
 - H. **External Account: Solutions Host User** dialog; enter the user that you defined for access to SAS Datasets by JDBC. The default user name is `sasln`.
 - I. **Database Account: Database Administrator** dialog; the default user name is `sqladmin`. Enter a userid and password. This is not an operating system account but is used to secure and administer the MySQL database server.
 - J. **Database Account: SASSDM Database Administrator** dialog; the default database account identity is `sasdmdbadm`. Enter a userid and password. This is not an operating system account but is used to secure and administer the MySQL SASSDM database.
 - K. **SAS Web Infrastructure Database Properties** dialog; enter parameters of the MySQL database.
 - L. **SAS Web Infrastructure Database JDBC Properties** dialog; if you are using MySQL, enter the password for the `sqladmin` database user and the path to `MySQL Connector/J`.
 - M. **SAS Financial Management Web Data Entry: Deployment Instance Name** dialog; leave this blank or enter a unique instance name. If you have more than

one WDE server in your deployment then you must enter a unique name such as the short hostname of the server.

- At the Deployment Summary dialog, press **Start**.

Installation on 3-Tiers (Data Tier, Mid-Tier and Client Tier)

Refer to the *SAS 9.2 Intelligence Platform Installation and Configuration Guide* for more detailed information about the installation: <http://support.sas.com/93administration>

Client Tier

Refer to “Chapter 5 – Installing Client Applications” on page 18 for installation of client software.

Before You Begin the Data Tier

Verify External Users and Groups

- Verify that the following users have been created on the data tier 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 the **User can LOGIN?** setting is set to **true** for the SAS Installer ID.
 - On UNIX, do not use *root* as the SAS Installer account.
- 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 account is a member of a group that is the primary group for the SAS Installer account.
 - On UNIX, verify that the SAS Installer account is a member of a group that is the primary group for the SAS Spawnd Servers account.

Verify Third Party Products

- Verify that the following third party products are installed:
 - MySQL Database Server 5.1.55
 - MySQL Connector J 5.1.13
 - MySQL Database Runtime Library 5.1.55 (Windows only)

- Internet Explorer 7, 8 or 9 – For more information, about the browser requirements, see the “SAS Financial Management 5.3 System Requirements.”

Software Deployment Wizard for Data Tier

1. Select *Server* as the machine in the “**Select Products to Install**” dialog.
2. On Windows, at the **Specify SAS PC Files Server Options** dialog, check “Start Service Now and Automatically when Windows Starts.”
3. After the **Review Required Software** dialog, you will be prompted for third-party software. The default locations are below. If the locations you chose were not the default locations, refer to the notes you made on your pre-installation checklist.
 - **MySQL Connector_J Configuration 5.1:**
 Windows: C:\Program Files\SASHome\MySQLConnectorJ
 UNIX: /usr/local/SAS/MySQLConnectorJ
Note: Enter the location of MySQL Connector_J jar version 5.1.13.
 - **MySQL Database Runtime Library Configuration 5.1:**
 Windows only: C:\mysql\bin
 - **MySQL Database Server Configuration 5.1:**
 Windows: C:\mysql
 UNIX: /usr/local/mysql
4. Specify *Typical* in the **Select Configuration Prompting Level** dialog. If the default values are appropriate for your site, you can accept many of the SAS Deployment Wizard dialogs as they are presented. Noted below are changes that need to be made.
5. 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.
6. For the solution-specific dialogs listed below, the following information supplements the help screens:
 - A. **MySQL Database Host** dialog; accept the defaults or enter the location and port of the MySQL server.
 - B. **MySQL Database** dialog;

Deployment Instance Name: Leave this blank or enter a unique instance name. If you have more than one MySQL server in your deployment then you must enter a unique name such as the short hostname of the server.

SAS/Access to MySQL Directory: On UNIX, enter where you want the shared object library stored. The default is `/usr/local/SAS/libmysql`.

Service Name: During *Custom* prompting level only, enter the name of the service you chose during the MySQL installation configuration.
 - C. “**External Account: Solutions Host User**” dialog; 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; the default user name is `sqladmin`. Enter a userid and password. This is not an operating system account but is used to secure and administer the MySQL database server.
 - E. “**Database Account: SASSDM Database Administrator**” dialog; the default database account identity is `sasdmdbaadm`. Enter a userid and password. This is

not an operating system account but is used to secure and administer the MySQL SASSDM database.

7. At the **Deployment Summary** dialog press **Start**.

Before You Begin the Mid-Tier

Verify Third Party Products

1. Verify that the following third party products are installed:
 - JBoss Application Server 5.1
or
Oracle WebLogic Server 10.3
or
IBM WebSphere Application Server Network Deployment 7.0.0.13, 8.0.0.2, and 8.5.0.1
 - Sun Java Development Kit 6 with required update level (JBoss and WebLogic)
 - MySQL Connector J 5.1.13
 - Internet Explorer 7, 8 or 9 – For more information about browser requirements, see the SAS Financial Management 5.3 System Requirements.
2. On Windows, if the Web Application server is WebLogic, stop the Oracle Weblogic NodeManager service before configuring your software.

```
net stop "Oracle Weblogic NodeManager (C_bea_wlserver_10.3)"
The Oracle WebLogic NodeManager (C_bea_wlserver_10.3) service
is stopping.
The Oracle WebLogic NodeManager (C_bea_wlserver_10.3) service
was stopped successfully.
net start
```

Software Deployment Wizard for Mid-Tier

1. In the **Select Products to Install** dialog, select “Middle Tier” as the machine.
2. After the **Review Required Software** dialog, you will be prompted for third-party software. The default locations are below. If the locations you chose were not the default locations, refer to the notes you made on your pre-installation checklist.

- **MySQL Connector_J Configuration 5.1:**

```
Windows: C:\Program Files\SASHome\MySQLConnectorJ
UNIX: /usr/local/SAS/MySQLConnectorJ
```

- **JBoss Application Server 5:**

```
Windows: C:\Program Files\jboss-eap-5.1\jboss-as
UNIX: /usr/local/jboss/jboss-eap-5.1/jboss-as
```

Note: SAS Financial Management requires JBoss 5.

or

- **Oracle WebLogic Server 10.3:**

```
Windows: C:\bea\wlserver_10.3
UNIX: /usr/bea/wlserver_10.3
```

or

- **IBM WebSphere Application Server:**

Windows: C:\program Files\IBM\WebSphere\AppServer

UNIX: /usr/IBM/WebSphere/AppServer

Note: The system requirement is for IBM WebSphere Network Deployment 6.1 or 7.0.

- **Java Development Kit JAVA 6:**

Windows: C:\Program Files\Java\jdk1.6.0_XX

UNIX: /usr/jdk/jdk1.60._XX

Note: Jboss and WebLogic require Java Development Kit 1.6.0 with an update level.

3. Specify *Typical* in the **Select Configuration Prompting Level** dialog. If the default values are appropriate for your site, you can accept many of the SAS Deployment Wizard dialogs as they are presented. Noted below are changes that need to be made.

Note: If you select “Custom” for the prompting level, do not check the checkbox to **Secure JMS Resources** in the dialog **Web Application Server: Secure JMS Resources**.

4. In the **SAS Metadata Server** dialog, enter or change the server name to the fully qualified hostname of the data tier server.
5. When prompted for the **SAS Internal Account: Solutions Administrator**, enter a password for the `slnadm` user. This is not an operating system user.
6. **SAS OLAP Data and Compute Server: Deployment Instance Name** dialog; leave this blank or enter a unique instance name. If you have more than one ODCS server in your deployment then you must enter a unique name such as the short hostname of the server.
7. For the solution-specific dialogs listed below, the following information supplements the help screens:
 - A. **SAS Solutions Services Mid-Tier: ODCS** dialog; accept the default or enter the host name and port number of your ODCS server. If the ODCS server is on the same machine as the SAS Solutions Server this is `SASServer4`.
 - B. **MySQL / SASOP database Installation** dialog; enter the host name and port number of your MySQL server. This is typically your data tier server and the default port is 3306. If SAS Operational Planning data tier is on a separate server, then enter that hostname and port.
 - C. **SAS OLAP Data and Compute Server: Installation** dialog; specify that this is the primary ODCS server.
 - D. **SAS Content Server: Repository Directory** dialog; select ‘No’ for “Use configured database for content storage.”
 - E. **SAS Web Infrastructure Platform: Database Type** dialog; Select database type. MySQL is recommended.
 - F. **External Account: Solutions Host User** dialog; 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.
 - G. **Database Account: Database Administrator** dialog; the default user name is `sqladmin`. Enter a userid and password. This is not an operating system account but is used to secure and administer the MySQL database server.
 - H. **Database Account: SASSDM Database Administrator** dialog; the default database account identity is `sasdmdbadm`. Enter a userid and password. This is

not an operating system account but is used to secure and administer the MySQL SASSDM database.

- I. **SAS Web Infrastructure Database Properties** dialog; enter parameters of the *MySQL database server on the data tier server*.
- J. **SAS Web Infrastructure Database JDBC Properties** dialog; if you are using MySQL, enter the password for the `sqladmin` database user and the path to `MySQL Connector/J`.
- K. **SAS Financial Management Web Data Entry: Deployment Instance Name**; if there is only one instance of the Web application configured, leave the name blank. Otherwise, enter a unique instance name such as the short hostname of the Mid-Tier server.

8. At the **Deployment Summary** dialog, press **Start**.

Installation of SAS Financial Management on 5-Tiers (Data Tier, Mid-Tier, ODCS Secondary, Operation Planning Data Tier and Client Tier)

Refer to the *SAS 9.2 Intelligence Platform Installation and Configuration Guide* for more detailed information about the installation: <http://support.sas.com/93administration>

Client Tier

Refer to “Chapter 5 – Installing Client Applications” on page 18 for installation of client software.

Deployment of the Data Tier

Follow the instructions in the Data Tier section “Installation on 3-Tiers (Data Tier, Mid-Tier and Client Tier)” on page 8.

Deployment of the Operation Planning Data Tier

Before You Begin the Operational Planning Data Tier, Verify Third Party Products

Verify that the following third party products are installed:

- MySQL Database Server 5.1.55
- MySQL Connector J 5.1.13
- Internet Explorer 7, 8 or 9 – For more information see on browser requirements see the “SAS Financial Management 5.3 System Requirements.”

Software Deployment Wizard for the Operational Planning Data Tier

1. Select “Operation Planning Data Tier” as the machine on the **Select Products to Install** dialog.
2. After the **Review Required Software** dialog, you will be prompted for third-party software. The default locations are below. If the locations you chose were not the default locations, refer to the notes you made on your pre-installation checklist.

- **MySQL Connector_J Configuration 5.1:**

Windows: `C:\Program Files\SASHome\MySQLConnectorJ`

UNIX: `/usr/local/SAS/MySQLConnectorJ`

Note: Enter the location of `MySQL Connector_J jar version 5.1.13`.

- **MySQL Database Server Configuration 5.1:**

Windows: C:\mysql

UNIX: /usr/local/mysql

3. Specify *Typical* in the **Select Configuration Prompting Level** dialog. If the default values are appropriate for your site, you can accept many of the SAS Deployment Wizard dialogs as they are presented. Noted below are changes that need to be made.
4. When prompted for the “**SAS Metadata Server**,” enter the fully qualified hostname and port of the SAS Metadata Server. This is typically your data-tier server. The default port is 8561.
5. For the following solution-specific dialogs, the associated information supplements the help screens:
 - A. **MySQL Database Host** dialog; enter the hostname and MySQL port of this server. The default port is 3306.
 - B. **MySQL Database** dialog
Deployment Instance Name: enter the short name of this server for the deployment instance.
SAS/Access to MySQL Directory: On UNIX, enter the location where you want the shared object library to be stored. The default is /usr/local/SAS/libmysql.
Service Name: During *Custom* prompting level only, enter the name of the service you chose during the MySQL installation configuration.
 - C. **Database Account: Database Administrator** dialog; the default user name is *sqladmin*. Enter a userid and password. This is not an operating system account but is used to secure and administer the MySQL database server.
 - D. **Database Account: SASSDM Database Administrator** dialog; the default database account identity is *sasdmdbadm*. Enter a userid and password. This is not an operating system account but is used to secure and administer the MySQL SASSDM database.
6. At the **Deployment Summary** dialog; press Start.

Deployment of the Mid-Tier

Configure the Mid-Tier using the instructions in the Mid-Tier section “Installation on 3-Tiers (Data Tier, Mid-Tier and Client Tier)” on page 8 with these notes:

1. SAS OLAP Data and Compute Server will have a secondary server so make this adjustment to the 3-tier Mid-Tier instructions:

SAS OLAP Data and Compute Server: Deployment Instance Name dialog; enter a unique instance name such as the short hostname of this server.
2. SAS Operational Planning Data Tier on a separate tier so make this adjustment to the 3-tier Mid-Tier instructions:

MySQL / SASOP database Installation dialog; enter the host name and port number of MySQL on your SAS Operational Planning Data Tier server. The default port is 3306.
3. SAS Financial Management Web Data Entry will have an additional deployment instance on the secondary ODCS Server.

SAS Financial Management Web Data Entry: Deployment Instance Name dialog; enter a unique instance name such as the short hostname of this server.

Deployment of the SAS OLAP Data and Compute Server (ODCS) Secondary Mid-Tier

Before You Begin the SAS ODCS Secondary Mid-Tier, Verify Third Party Products

1. Verify that the following third party products are installed:
 - JBoss Application Server 5.1
or
Oracle WebLogic Server 10.3gR3
or
IBM WebSphere Application Server Network Deployment 7.0.0.13, 8.0.0.2, and 8.5.0.1
 - Sun Java Development Kit 6 with required update level (WebLogic and Jboss)
 - MySQL Database Server 5.1.55
 - MySQL Connector J 5.1.13
 - Internet Explorer 7, 8 or 9 – For more information see on browser requirements see the “SAS Financial Management 5.3 System Requirements.”
2. On Windows, if the Web Application server is WebLogic, stop the Oracle Weblogic NodeManager service before configuring your software.

```
net stop "Oracle Weblogic NodeManager (C_bea_wlserver_10.3)"
The Oracle WebLogic NodeManager (C_bea_wlserver_10.3) service is
stopping.
The Oracle WebLogic NodeManager (C_bea_wlserver_10.3) service was
stopped successfully.
net start
```

Software Deployment Wizard for the SAS ODCS Secondary Mid-Tier

- Select “ODCS Secondary” as the machine in the **Select Products to Install** dialog.
- After the **Review Required Software** dialog, you will be prompted for third-party software. The default locations are below. If you did not select the default locations, refer to the notes you made on your pre-installation checklist to find the locations you chose.

- **MySQL Connector_J Configuration 5.1:**

Windows: C:\Program Files\SASHome\MySQLConnectorJ

UNIX: /usr/local/SAS/MySQLConnectorJ

Note: Enter the location of MySQL Connector_J jar version 5.1.13.

- **MySQL Database Server Configuration 5.1:**

Windows: C:\mysql

UNIX: /usr/local/mysql

- **JBoss Application Server 5:**

Windows: C:\Program Files\jboss-eap-5.1\jboss-as

UNIX: /usr/local/jboss/jboss-eap-5.1/jboss-as

Note: SAS Financial Management requires JBoss 5.

or

Oracle WebLogic Server:

Windows: C:\bea\wlserver_10.3

UNIX: /usr/bea/wlserver_10.3

or

IBM WebSphere Application Server:

Windows: C:\Program Files\IBM\WebSphere\AppServer

UNIX: /usr/IBM/WebSphere/AppServer

- **Java Development Kit JAVA 6:**

Windows: C:\Program Files\Java\jdk1.6.0_XX

UNIX: /usr/jdk/jdk1.60._XX

Note: JBoss and WebLogic requires Java Development Kit 1.6.0 with an update level.

- Specify **Typical** in the **Select Configuration Prompting Level** dialog. If the default values are appropriate for your site, you can accept many of the SAS Deployment Wizard dialogs as they are presented. Noted below are changes that need to be made.

Note: If you select “Custom” for the prompting level, do not check the checkbox to **Secure JMS Resources** in the dialog **Web Application Server: Secure JMS Resources**.

- In the **SAS Metadata Server** dialog, enter or change the server name to the fully qualified hostname of the data tier server.
- When prompted for the “**SAS Internal Account: Solutions Administrator**,” enter a password for the slnadm user. This is not an operating system user.
- In the **WebLogic Web Application Server: Node Manager** dialog, enter the hostname of the ODCS secondary server is being configured.
- In the **Web Application Server: Administration Server** dialog, enter the hostname of the mid-tier server.
- For the following solution-specific dialogs, the following information supplements the help screens:
 - A. When prompted for the “**Web Application Server: Fourth Managed Server**,” enter a unique name such as *SASServer4ODCS2*.
 - B. When prompted for the “**Web Application Server: Fifth Managed Server**,” enter a unique name such as *SASServer5WDE*.
 - C. **MySQL Database Host** dialog; enter the hostname and port of this server. The default port is 3306.
 - D. **MySQL Database** dialog

Deployment Instance Name: enter a unique instance name such as the short hostname of this server.

Service Name: During *Custom* prompting level only, enter the name of the service you chose during the MySQL installation configuration.
 - E. **SAS OLAP Data and Compute Server Mid-Tier for Solutions Dependencies - MySQL Database server**; select the MySQL on this server.
 - F. **SAS OLAP Data and Compute Server: Installation Type** dialog; select secondary installation.
 - G. **SAS OLAP Data and Compute Server: Installation MySQL host**; enter the host and port of the primary MySQL instance. This typically is the name of the data tier server.

- H. **Database Account: Database Administrator** dialog; the default user name is `sqladmin`. Enter a userid and password. This is not an operating system account but is used to secure and administer the MySQL database server.
 - I. **Database Account: SASSDM Database Administrator** dialog; the default database account identity is `sasdmdbadm`. Enter a userid and password. This is not an operating system account but is used to secure and administer the MySQL SASSDM database.
 - J. **SAS Financial Management Web Data Entry: Deployment Instance Name** dialog; enter a unique instance name such as the short hostname of this server.
- At the **Deployment Summary** dialog, press Start.

Configuration Guidelines and Details

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

Perform the manual configuration and validation steps outlined in the *Configuration Guidelines and Details for 'Server Name'* document. Then follow any solutions-specific post-configuration steps in "Chapter 4 — Post-Configuration Guide."

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 5.3 System Administration Guide*.

The *SAS Financial Management 5.3: 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 installation and configuration.

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

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

The *SAS 9.3 Intelligence Platform: System Administration Guide* provides additional general information on System Administration and can be found here:

<http://support.sas.com/93administration>

WebLogic

If you are running WebLogic Release 10.3.5 only, refer to SAS Note

<http://support.sas.com/kb/45/293.html> for information on configuring data sources.

Chapter 5 — Installing Client Applications

About the Client Applications

Client applications must be installed on Windows machines. The following client applications are available for the Performance Management solutions:

Application Description

SAS Financial Management Studio

SAS Financial Management Studio enables users to build and manage the infrastructure for SAS Financial Management.

SAS Financial Management Add-In for Microsoft Excel

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 client applications that are part of the solutions, users might need to install one or both of these client applications that are part of the SAS Intelligence Platform:

- SAS Management Console (for system administrators)
- SAS Data Integration Studio (for data administrators)

About the SAS Environment Files

SAS Solutions Services and the solutions use two environment files:

- **the SAS environment file** (`sas-environment.xml`): applies to the SAS Financial Management Studio
- **the Solutions environment file** (`EnvironmentFactory.xml`): applies to the SAS Financial Management Add-In for Microsoft Excel

These files enable 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.

SAS Financial Management Studio

Overview

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

Installation Notes

Java Runtime Environment (JRE)

These client applications use the default JRE on the client machine. If you want the application to use a different JRE, add a `-vm` option to the SAS Financial Management Studio `fmstudio.ini` file, with the path to the appropriate EXE or DLL file. The `-vm` option must appear before the `-vmargs` line. Here is an example:

```
-vm
C:\j2sdk1.6.0_XX\jre\bin\client\jvm.dll
-vmargs
...
```

Specifying a SAS Environment File for New Installations

During the installation, you are asked to supply the URL for the SAS environment file (`sasenvironment.xml`). The default path is as follows where `server` is the name of the middle-tier server that you want to connect to:

- JBoss: <http://server:8080/SASLogon/sas-environment.xml>
- WebLogic: <http://server:7001/SASLogon/sas-environment.xml>
- WebSphere: <http://server:9080/SASLogon/sas-environment.xml>

The SASLogon Web application is part of the `sas.wip.apps9.3.ear` enterprise application (EAR), which by default is deployed to the managed server on port 8080 for JBoss, port 7001 for WebLogic and port 9080 for WebSphere. If your site deployed this EAR to a managed server on a different port, supply the appropriate port number. For information about this file, see “Configuring the SAS Environment Files” in the *SAS Financial Management System Administration Guide*.

Note: The location of the SAS Environment File is stored in `SASHOME/sassw.config`. If you need to change this value after the initial installation, update this line:
`SASENVIRONMENTURL=http://server.domain:port/SASLogon/sas-environment.xml`

SAS Financial Management Add-In for Microsoft Excel

Overview

SAS Financial Management Add-In for Microsoft Excel is used by financial process administrators, form submitters or approvers, and financial report creators.

Installation Notes

Java Runtime Environment (JRE)

The add-ins use the JRE that is defined in the `JREHOME` environment variable in the `sassw_config.xml` file. That file is located in the `Program Files\SAS` directory.

Specifying a Solutions Environment File

During the installation of SAS Financial Management Add-In for Microsoft Office, you are asked to supply the URL for the Solutions environment file (`EnvironmentFactory.xml`). The default value is as follows where `server` is the name of the middle-tier server that you want to connect to. (The installation procedure adds the rest of the URL, including the file name.)

- JBoss: <http://server:8280>

- WebLogic: <http://server:7201>
- WebSphere: <http://server:9082>

The `EnvironmentFactory.xml` file is part of the `sas.solutionservices5.3.ear` enterprise application, which by default is deployed to the managed server on port 8280 for JBoss, port 7201 for WebLogic and port 9082 for WebSphere. If your site deployed this EAR to a managed server on a different port, adjust the port number accordingly. For information about this file, see “Configuring the SAS Environment Files” in the *SAS Financial Management System Administration Guide*.

Microsoft Office 2010

A Microsoft Patch is needed for Microsoft Office 2010. For more information, refer to the SAS Note at <http://support.sas.com/kb/45/236.html>.

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

Software Deployment Wizard for Client Tier

1. Launch the SAS Deployment Wizard from the `setup.exe` file in your SAS Software Depot.
2. Select *Perform a Planned Deployment* from the “**Select Deployment Type**” dialog. If you are installing other clients besides SAS Financial Management Add-In and SAS Financial Management Studio, be sure that *Install SAS Software* and *Configure SAS Software* are both checked. If you are installing SAS Financial Management clients only, you can check only *Install SAS Software*.
3. Enter the path to your plan file from the “**Specify Deployment Data**” dialog.
4. Select *Clients* as the machine in the “**Select Deployment Step and Products to Install**” dialog.
5. Select the location of your SAS installation data file in the “**Specify SAS Installation Data File**” dialog.
6. Select languages needed from the “**Select Language Support**” dialog.
7. In the “**Solutions Office Add-ins: Specify URL of Available Servers**” dialog, enter the Solutions Environment URL in the form of `http://<server name>:<port>`. Your site administrator will provide you with the correct URL.
8. In the “**SAS Environments URL**” dialog, enter 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/SASLogon/sas-environment.xml>. For more information, see “Specifying a SAS Environment File for New Installation” above.
9. Most installations will use the recommended Java Runtime Environment. For more information, see the section “Java Runtime Environment (JRE)” above.
10. In the “**Select Microsoft Applications**” dialog; if you are installing SAS Add-in for Microsoft Office, check the Microsoft Applications that you wish to use with SAS Add-in for Microsoft Office.
11. If you are configuring, then specify *Typical* in the **Select Configuration Prompting Level** dialog. In the “**Specify Configuration Information**” dialog, select a directory where

configuration files will be stored. Complete the configuration prompts for additional SAS Software.

12. At the **Deployment Summary** dialog press **Start**.

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