SAS Profitability Management 1.2
Installation Instructions

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SAS Profitability Management 1.2 Installation Instructions
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Using These Instructions

This document has three major sections:

- Pre-Installation Guide
- New Installation Guide
- Post-Installation Guide

Before you start, refer to the Pre-Installation Guide section for information about third-party software and operating system specifications.

The Pre-Installation Guide contains common steps that may be used for any of the tiers in the new installation guide.

The Installation Guide (beginning on page 5) outlines the steps that need to be taken for a successful installation of SAS Profitability Management 1.2 along with the SAS Enterprise BI Server.

If you have already installed SAS Metadata Server or SAS Enterprise BI Server **do not use** these instructions. Have your consultant give you the *Upgrade BI Enterprise Server with PM* document which can be found on the PM Consultant's web page.

The Post-Installation Guide can be found on page 15.

Late breaking news will be found in the release notes on the consultant's Web page. Ask your consultant for any new information.

Technical Support

Please visit the SAS Technical Support Web site for documentation and installation updates at `http://support.sas.com`.

Revised October 8, 2007.

Pre-Installation Guide

SAS Software

During the installation, you will need to have access to the SAS Software Depot, SETINIT, and plan file. Keep these in a location that is accessible to the servers.

Create a SAS Software Depot. For detailed instructions, please refer to the *User's Guide for the SAS Software Navigator* on the **Documentation for Installing and Configuring SAS** CD of the Installation Kit. The SAS Software Depot contains the SAS Software Navigator referenced in the instructions below.

Java 2 SDK for Servers

The install scripts need access to the Java 2 SDK. Please ensure that the Java 2 SDK `1.4.2_05` or newer is installed on all servers, and have it in the *Path* systems environment variable and ensure that the `JAVA_HOME` environment variable points to the correct Java 2 SDK.

Java 2 SDK can be found at the Sun archive download Web site, or you may follow the link from the SAS Technical Support Web site which will install Java 2 SDK 1.4.2_15:

`http://support.sas.com/documentation/configuration/thirdpartysupport/v913sp4/thirdparty913sp4.html#jdk`

Windows

For example, on a Windows 2000 Server, you would follow these steps assuming you installed Java 2 SDK `1.4.2_15`:

1. Select **Start→Settings→Control Panel→System→Advanced Tab**. Click the **Environment Variables** button.
2. Under **System Variables**, highlight `Path` and press the **Edit** button. Add or move the j2sdk path to the beginning of the variable value, normally `C:\j2sdk1.4.2_15\bin`. If the path contains another j2sdk, remove it. Press **OK** for each of the windows opened.
3. Under **System Variables**, highlight `JAVA_HOME` and press the **Edit** button. If `JAVA_HOME` does not exist, press the **New** button. Enter the path to the correct j2sdk, normally `C:\j2sdk1.4.2_15`. Press **OK** for each of the windows opened.

   Note: *Please close and reopen DOS prompts to pick up environment changes.*
4. Verify that the changes are correct by executing `java –version` in a command prompt. The results should return `java version "1.4.2_15"`.

UNIX

The following commands will set the `PATH` and `JAVA_HOME` environment variables. These statements can be added to the `.profile` file of the user that is running the installation.

For example assuming you installed Java 2 SDK 1.4.2_15, follow these steps

```
export PATH=$PATH:/usr/j2sdk1.4.2_15/bin
export JAVA_HOME=/usr/j2sdk1.4.2_15
```

Java Runtime for Clients

The computer that hosts the SAS Profitability Management rich client does not need the full Java 2 SDK. It only needs the Java Runtime Engine, JRE 1.4.2_09 or newer.

Apache Tomcat

The server that hosts the SAS Profitability Management Web server also needs Apache Tomcat 4.1. Verify that port 80 is available so Apache can properly respond to HTTP requests without conflicting with other Web servers. If port 80 is not available, reconfigure Apache or the other Web server, to respond to HTTP requests on another port.

Note: The Tomcat installation path should not contain any spaces. Do not take the default location for the code.

User ID for Installations

It is recommended that you use a generic User ID to install SAS Software. Install the software on all servers using the same User ID. Due to file permissions, any subsequent upgrades or service packs should be installed using this User ID.

For Windows, this user must be a member of the Administrators group.

For UNIX systems, you should log in as this generic user to install software. You do not need to log on as root for this purpose. On the other hand, some third-party products require that you be logged in as root when you install them.

Operating System Help

Help for many of the Windows operating systems steps can be found at **Start→Help and Support**. Enter phrases like “file permissions” or “create users” to find the specific steps for your operating system.

For UNIX, use the `man` command. For more information on this command, type `man man`.

Installation Guide

This section of the documentation will guide you through the installation of SAS Profitability Management 1.2. Please follow the instructions carefully.

Complete the section "Installation Setup" below. After you have successfully created the user accounts, choose from one of the following two sections: Windows Single Server Installation (on page 8) or Windows Dual Server Installation (page 9). Pick the set of instructions appropriate for your setup. After you have finished the Server Configuration, proceed with at least one client install and then proceed the steps in the Post-Installation (page 15) to complete the installation.

Before you continue, please visit our Technical Support Web site, http://support.sas.com, for any additional information. In particular, refer to the *SAS® 9.1.3 Intelligence Platform: Installation Guide* located at http://support.sas.com/documentation/configuration/913admin.html.

This document will help you install SAS Profitability Management along with the installation of SAS Enterprise BI Server.

Installation Setup

The following sections tell you how to create the necessary user accounts and groups as well as set the permissions on them.

Creating User Accounts

Before you begin to install your software, you must have user accounts available to the installation process. Networked user accounts are needed if the metadata server is on a separate machine from the other SAS processes.

If you choose to create local accounts for a multi-server installation, the local accounts are created on the machine where your metadata repository is located.

When you set up passwords for your SAS system users, it is *highly recommended* that these passwords not have to be reset on first log-on. It is also preferable that the passwords for these accounts do not expire.

Windows:

For example, on a Windows 2000 Server, you would follow these steps:

1. Open **Start→Settings→Control Panel→Administrator Tools→Computer Management**.
2. Expand **Local Users and Groups** and right-click **Users** to create a new user.
3. Fill in the user name and password.
4. Deselect **User must change password at next logon.**
5. Select **User cannot change password.**
6. Select **Password never expires.**
7. Select **Create**.
8. Continue with step 3 thru 7 until you have all the users added.
9. Click **Close**.

UNIX:

- Set the initial password.
- Do not select password aging and expiration options .
- If you create an account on an AIX system, make sure that the "User can LOGIN?" setting is set to "true" for the user.

The table below can be printed and used to record the passwords and locations for each user account. The values entered in this table will be used during the installation process.

Passwords for these user IDs cannot contain more than one '$' character.

Windows: Values for the User ID Prefix column will contain either a domain or server name. For example, if the network domain is MyDomain, and the metadata server is installed on the machine named OMRServer, and the account sastrust is created locally on OMRServer, then the User Id Prefix for sastrust is OMRServer. Alternatively, if sastrust was a network ID, then the User ID Prefix would be MyDomain.

UNIX: For local accounts, no prefix is used.

Full name	Default User ID	Default Password	User ID Prefix	User ID	Password
SAS Administrator‡	sasadm	AdminAdmin1			
SAS Server User*	sassrv	UserUser1			
SAS Guest User*	sasguest	UserUser1			
SAS Trusted User	sastrust	UserUser1			
SAS Demo User *	sasdemo	DemoDemo1			
SAS Web Administrator	saswbadm	AdminAdmin1			

‡ The SAS Administrator user ID and password can only contain the alphanumeric characters "a" through "z", "A" through "Z" and "0" through "9" and the special characters ".", "-", "*", and "_". All other characters in the SAS Administrator user id and password will cause error in export operations for Dimensional Metadata.

* If the metadata server is on a different machine from any of the other SAS processes, a network user ID is required (not an ID for a local account).

Creating and Updating Groups

Windows:

You must grant permissions to the users who can access servers. To simplify ongoing maintenance, we recommend that you create a group and then grant permissions to the group.

Create one new group called *SAS Servers* and add the above users to the group. Then create another group called *PM Users* and add *SAS Trusted User* to it:

1. Open **Start→Settings→Control Panel→Administrator Tools→Computer Management**.
2. Expand **Local Users and Groups** and right-click **Groups** to create a new group called *SAS Servers.*
3. Add each user above to this group. Click on **Close**.
4. Right-click **Groups** to create a new group called *PM Users.*
5. Each PM user will need to be added to this group. Also add *SAS Trusted User*.

6. Give both groups, *SAS Servers* and PM *Users* the ability to log on as a batch job.
7. Close **Computer Management**.

UNIX:

If you will be installing any SAS software on a UNIX system, you need to create a UNIX group to hold the IDs of the *SAS Trusted User*, SAS installer and the *SAS Server User*. We recommend that you name this group `sas`.

Create a new group called sas. Add the above SAS users to the group.

Granting Permissions on Windows

In granting permissions, it is necessary to update the local security settings on the server.

1. Bring up the Local Security Policy application via **Start→Settings→Control Panel→Administrator Tools→Local Security Policy**.
2. Under Local Policies, select **User Rights Assignment**.
3. Grant the **Log on as a batch job** permission/policy to *SAS Servers* and *PM Users* group.
4. If you are installing this software on Windows 2000, grant the **Act as part of the operating system** permission/policy to the SAS Server User (`sassrv`) user ID. You may have to log off or reboot after granting this permission.

Dual- and Multi-Server Installs

As stated above, if your metadata server and other SAS processes reside on different servers, a network ID is required for several of the accounts. The *PM Users* and *SAS Servers* groups should be created on any server that has a SAS process running on it, namely the metadata server and the SAS Profitability Management server. If the SAS Administrator, SAS Trusted User, and SAS Web Administrator are local accounts, they should be created on the metadata server.

Client Install

Whether you install SAS Profitability Management on a single server or dual servers, you need to install at least one SAS Profitability Management Client. This client will be used to populate the PMModel database as described in “Configure the SAS Profitability Management Database” on page 18.

Installing the client is described following the server installs.

Do not manually put anything in the PMModel database. Input data, output data, and the PMModel database should be in separate directories.

Windows Single Server Installation

This section provides instructions to install SAS Profitability Management on a single physical server. For information about installing on two or more machines, see the Dual Server section on page 9.

Getting Started

1. Copy your SAS Software Depot.
2. Place your `SID.txt` and plan files in a known location, such as `<Install Drive>:\SAS`.

Third Party Installation

Java SDK 1.4.2_05 or newer

1. Ensure that the Java Standard Development Kit has been installed.
2. Ensure that the `bin` directory is in the Path systems environment variable and that the `JAVA_HOME` environment variable is properly set to the correct. See the Pre-Installation Guide on page 3 for details.

   Note: Please close and reopen DOS prompts to pick up environment changes.

Install SAS Software

For SAS Profitability Management 1.2, no localizations are available. Only English is available.

1. Start the SAS Software Navigator.
2. Use the **Advanced Deployment** option. Click **Next**.
3. Enter the name and file location of the `SID.txt`, for example `<Install Drive>:\SAS\SID.txt`. Click **Next** twice.
4. Choose the **Specify a project directory…** option. Enter the location of your plan file, such as `<Install Drive>:\SAS\`. Click **Next**.
5. Un-check **Java Development Kit** since it has already been installed.
6. Un-check **Configuration Wizard.** It will be run later. Click **Next**.
7. By default all the necessary components for SAS Profitability Management will be selected for installation based upon the SID file selected in Step 3. For reference, those components are:
   - SAS 9.1
     - Base SAS
     - SAS Integration Technologies
     - SAS OLAP Server
     - SAS Transaction Assignment Server
     - SAS/ACCESS (choose the engine(s) you purchased)
     - SAS/CONNECT
     - SAS/GRAPH
     - SAS/SHARE
8. Perform the installation. During the installation of SAS 9.1 Foundation, if presented with the option to **Add Components to SAS,** keep it selected.

   Note: *If progress stops for an extended period of time, you may have a hidden dialog window that is waiting for user feedback. Use the control sequence (typically **alt-tab**) to determine if you have a hidden window.*
9. Click **Finish** to end the SAS Software Navigator.
10. Restart the SAS Software Navigator and repeat steps 3-6 above.
11. Check *only* **Configuration Wizard**. Click **Next.**
12. The Configuration Wizard will launch.

Configure SAS Software

1. The Configuration Wizard will prompt for user IDs and passwords. Please refer to the chart on page 6 for the appropriate values.
2. When asked during the Configuration Wizard sequence, customize the `editConfiguration.properties` file for your site. In most instances, the provided default values will be acceptable.

   If you need to customize the `editConfiguration.properties`, the following values are used by SAS Profitability Management:

   abmprofmva.sascode.dir: This value should point to the location that the Transaction Assignment Server is installed to.

   abmprofmva.data.model.dir: This is the location where the SAS Profitability Management models will be stored.

   abmprofmva.data.cubes.dir: This is the location where the cube data created by SAS Profitability Management for use by the SAS OLAP Server will be stored.

   Verify that all other values in `editConfiguration.properties` are correct. If you changed a default value during the installation, a corresponding value may exist in this file.
3. Save the `editConfiguration.properties` file.

   Note: *If you do not save the file before you close it, the changes that you made above* ***will not be committed****.*
4. End the Configuration Wizard and SAS Software Navigator. Verify that the Configuration Wizard completed successfully.

My Configuration Steps

Complete the instructions in the document *My Configuration Steps*.

Note: *If the document* My Configuration Steps *did not appear in a browser after the completion of the Configuration Wizard, double-click on the* `instructions.html` *file under your configuration directory, normally* `C:\SAS\SASSolutionsConfig`.

Note: *The completion of the Configuration Wizard automatically starts the metadata server and launches the SAS Management Console. When you log into the SAS Management Console for the first time, the Foundation Repository is created for you. These are the first three steps in the* My Configuration Steps *instructions.*

After you have completed the process outlined in *My Configuration Steps*, install at least one SAS Profitability Management Client (instructions on page 14) and proceed to the Post-Installation Guide on page 15.

Windows Dual-Server Installation

This section provides instructions to install SAS Profitability Management on two physical servers. One server hosts the Web (or mid-tier) Server and the second server hosts the SAS OLAP and Transaction Assignment Servers, where most of the large computational work is performed.

In order to deploy this dual-server configuration, the SAS Metadata Server must be installed on either of these two servers. Your plan file would have that defined in it.

Windows Mid-Tier Installation (Dual-Server)

Getting Started

1. Copy your SAS Software Depot.
2. Place your `SID.txt` and plan files in a known location, such as `<Install Drive>:\SAS`.

Third Party Installation

Java SDK 1.4.2.05 or newer

1. Ensure that the Java Standard Development Kit has been installed.
2. Ensure that the `bin` directory is in the Path Systems Environment Variable. See the Preprocessing Guide on page 3 for details.

   Note: Please close and reopen DOS prompts to pick up environment changes.

Install SAS Software

1. Start the SAS Software Navigator.
2. Use the **Advanced Deployment** option. Click **Next**.
3. Enter the name and file location of the `SID.txt`, for example `<Install Drive>:\SAS\SID.txt`. Click **Next** twice.
4. Choose the **Specify a project directory…** option. Enter the location of your plan file, such as `<Install Drive>:\SAS`. Click **Next**.
5. Choose the machine that corresponds to your server set-up, such as Midtier. Click **Next.**
6. Un-check **Java Development Kit** if the required J2SDK is already installed on the server. Click **Next**.
7. Perform the installation. During the installation of SAS 9.1 Foundation, if presented with the option to **Add Components to SAS,** keep it selected.

Note: *If progress stops for an extended period of time, you may have a hidden dialog window that is waiting for user feedback. Use the control sequence (typically **alt-tab**) to determine if you have a hidden window.*

8. By default all the necessary components for SAS Profitability Management will be selected for installation based upon the SID file selected in Step 3. For reference, those components are:
   - SAS 9.1
     - Base SAS
     - SAS Integration Technologies (if the mid-tier includes the Metadata Server)
     - SAS/CONNECT (if the mid-tier includes the Metadata Server)
9. Click **Finish** to end the SAS Software Navigator.
10. The Configuration Wizard will launch.

Configure SAS Software

1. The Configuration Wizard will prompt for user ids and passwords. Please refer to the chart on page 6 for the appropriate values.
2. Verify that all other values in `editConfiguration.properties` are correct. If you changed a default value during the installation, a corresponding value may exist in this file.

3. Save the `editConfiguration.properties` file.

   Note: *If you do not save the file before you close it, the changes that you made above* ***will not be committed****.*

4. End the Configuration Wizard and SAS Software Navigator. Verify that the Configuration Wizard completed successfully.

My Configuration Steps for the Mid-Tier

Follow the instructions in the document *My Configuration Steps*.

Note: *If the document* My Configuration Steps *did not appear in a browser after the completion of the Configuration Wizard, double-click on the* `instructions.html` *file under your configuration directory, normally* `C:\SAS\SASSolutionsConfig`.

Note: *The completion of the Configuration Wizard automatically starts the metadata server, if you installed it on this server and launches the SAS Management Console. When you log into the SAS Management Console for the first time, the Foundation Repository is created for you. These are the first three steps in the* My Configuration Steps *instructions.*

Windows SAS OLAP and Transaction Assignment Installation (Dual Server)

Getting Started

1. Copy your SAS Software Depot.
2. Place your `SID.txt` and plan files in a known location, such as `<Install Drive>:\SAS.Third Party Installation`.

Third Party Installation

Java SDK 1.4.2.05 or newer

1. Ensure that the Java Standard Development Kit has been installed.
2. Ensure that the `bin` directory is in the Path Systems Environment Variable. See the Preprocessing Guide on page 3 for details.

   Note: *Please close and reopen dos prompts to pick up environment changes.*

Install SAS Software and Apply Hot fixes

1. Start the SAS Software Navigator.
2. Use the **Advanced Deployment** option. Click **Next**.
3. Enter the name and file location of the `SID.txt`, for example `<Install Drive>:\SAS\SID.txt`. Click **Next** twice.
4. Choose the **Specify a project directory...** option. Enter the location of your plan file, such as `<Install Drive>:\SAS`. Click **Next**.
5. Choose the machine that corresponds to your server set-up, such as *Datatier*. Click Next.
6. Un-check **Java Development Kit** if the required J2SDK is already installed on the server.
7. Un-check **Configuration Wizard.** Click **Next**.

8. By default all the necessary components for SAS Profitability Management will be selected for installation based upon the SID file selected in Step 3. For reference, those components are:
   - SAS 9.1
     - Base SAS
     - SAS Integration Technologies
     - SAS OLAP Server
     - SAS Transaction Assignment Server
     - SAS/ACCESS (choose the engine(s) you purchased)
     - SAS/GRAPH
     - SAS/SHARE
     - SAS/CONNECT (if the Mid-Tier includes the Metadata Server)
9. Perform the installation.

   Note: *If progress stops for an extended period of time, you may have a hidden dialog window that is waiting for user feedback. Use the control sequence (typically **alt-tab**) to determine if you have a hidden window.*
10. Click **Finish** to end the SAS Software Navigator.
11. Restart the SAS Software Navigator and repeat steps 2-5 above.
12. Check *only* **Configuration Wizard**. Press **Next.**
13. Configuration Wizard will launch.

Configure SAS Software

1. The Configuration Wizard will prompt for the metadata server, user IDs and passwords. Please refer to the chart on page 6 for the appropriate values.
2. Verify that all other values in `editConfiguration.properties` are correct.
3. Save the `editConfiguration.properties` file.

   Note: *If you do not save the file before you close it, the changes that you made above **will not be** committed.*
4. End the Configuration Wizard and SAS Software Navigator. Verify that the Configuration Wizard completed successfully.

My Configuration Steps for the Data-tier

Complete the instructions in the document *My Configuration Steps*

Note: *If the document* My Configuration Steps *did not appear in a browser after the completion of the Configuration Wizard, double-click on the* `instructions.html` *file under your configuration directory, normally* `C:\SAS\SASSolutionsConfig`.

Note: *The completion of the Configuration Wizard automatically starts the metadata server, if you installed it on this server, and launches the SAS Management Console. When you log into the SAS Management Console for the first time, the Foundation Repository is created for you. These are the first three steps in the* My Configuration Steps *instructions.*

Once you have completed the process outlined in *My Configuration Steps*, install at least one Profitability Management Client on page 14 and then proceed to the Post Configuration Guide on page 15.

Windows Client Installation

This section provides instructions to install SAS Profitability Management on a client machine. You need to install SAS Rich Client Platform 3.2 and SAS Rich Client Platform Plug-ins 3.2 before you install SAS Profitability Management Client 1.2.

Getting Started

1. Copy your SAS Software Depot.
2. Place your `SID.txt` and plan files in a known location, such as `<Install Drive>:\SAS`.

Install SAS RCP Software

1. Start the SAS Software Navigator.
2. Use the **Advanced Deployment** option. Click **Next**.
3. Enter the name and file location of the SID.txt, for example `<Install Drive>:\SAS\SID.txt`. Click **Next** twice.
4. Choose the **Specify a project directory...** option. Enter the location of your plan file, such as `<Install Drive>:\SAS`. Click **Next**.
5. Choose the machine that corresponds to your client. Uncheck the **SAS Profitability Management Client** and the **SAS Configuration Wizard**. The client will be installed later. Click **Next.**
6. Perform the installation of the **SAS Rich Client Platform, Version 3.2** and the **SAS Rich Client Platform Plug-ins, Version 3.2**.
7. Click **Finish** to end the SAS Software Navigator.

Install SAS Profitability Management Client Software

1. Start the SAS Software Navigator.
2. Use the **Advanced Deployment** option. Click **Next**.
3. Enter the name and file location of the `SID.txt`, for example `<Install Drive>:\SAS\SID.txt`. Click **Next** twice.
4. Choose the **Specify a project directory...** option. Enter the location of your plan file, such as `<Install Drive>:\SAS`. Click **Next**.
5. Choose the machine that corresponds to your client. Uncheck **Select All** and then check the **SAS Profitability Management Client only**. Click **Next.**
6. Perform the installation of the **SAS**.
7. Click **Finish** to end the SAS Software Navigator.

Post-Installation Guide

After installation and configuration, follow these post-installation steps to verify the metadata and all configurations and to test the installation.

Validate Metadata Configuration.

You should validate *the SAS Trusted User*, *PM Users* Group, *PM Model* Library, and *Default Access Control Templates* (ACT). If the information is not correct, please correct it. If an object is missing, please create it.The information can be found in the `instructions.html` in the Metadata directory. See the section above the "Load SAS Profitability Management Metadata" section.

To validate the configuration do the following:

1. Open the SAS Management Console and select the **Foundation** repository.
2. Click on User **Manager**.
   a. Right-click on the **SAS Trusted User** in the right-hand panel and select **Properties.**
   b. Select the **Logins** Tab.
   c. If the first entry does not have **DefaultAuth** in the Authentication Domain, then select the first entry and click **Modify**. Change the **Authentication Domain** to **DefaultAuth**. Click **OK**.
   d. Click **OK**.
3. Right-click on the **PM Users** group in the right hand panel and select **properties**.
   a. Select the **Members** Tab.
   b. Verify that **SAS Trusted User** is in the Group. Click **OK**.
4. Open the **Authorization Manager** and click on the **Access Control Templates**.
   a. Right-click on the **Default ACT** in the right hand panel and select **properties**.
   b. Select the **Users and Permissions** tab.
   c. Click on the **PM Users** group and make sure it has all authorities but administer.
   d. Click **OK.**
5. Open the **Data Library Manager** and the **SAS Libraries.**
   a. Right-click on the **PMModel** library and select properties.
   b. Select the **Options** tab and see that the library path is correct.
   c. Select the **Assign** tab and see that one server is selected (highlighted).
   d. Click **OK.**
6. Close the SAS Management Console.

Configure SAS Profitability Management to Exist with Multiple Repositories

If your metadata server has more than one repository, put the following line in the beginning of the `CreateCube.sas` template and the `DeleteCube.sas` template. It should be placed after the %Let statement for the repository.

```
options metarepository="Foundation";
```

These templates can be found in the `<SAS Root>\abmprofmva\sasmisc` where `<SAS Root>` is the directory that you installed SAS 9.1 in. This is typically `C:\Program Files\SAS\SAS 9.1`.

Configure the SAS Profitability Management Language

SAS Profitability Management language needs to be set to English to run correctly. Use the following procedure to set the language.

1. Open the `config.ini` file in `<SAS Root>\SASProfitabilityManagement \1.2\configuration`.
2. Add this line to the end of the file:

   ```
   osgi.nl=en_US
   ```

3. Save the file.

Create SAS Profitability Management Users

Create a Profitability Management user in the SAS Metadata Console for each operating system user that will login to PM.

1. Open the SAS Management Console and select the **Foundation** repository.
2. Select **User Manager**.
3. Right-click **User Manager** and select **New ... User**.
4. Name: <<any name>>
5. Select the **Groups tab**.
6. Select the **PM users** group created above and click the right arrow to add the user to the group.
7. Select the **Logins** tab.
8. Click **NEW**.
9. Enter the user name as domain\user name, leave the authorization as default auth, and put in the password.
10. Click **OK**.
11. Click **OK** twice.
12. Close the SAS Management Console.

Note: *When assigning the login credentials for each user, make sure you prefix each user name with the domain name of the user.*

Adding Users to the PM Users Group

You need to add the users created above to the operating system PM Users group.

1. Open the Computer Management tool via **Start→Settings→Control Panel→Administrative Tools→Computer Management**.
2. Open the **Groups** folder under **Systems** Tools→**Local Users and Groups**.
3. Select the **PM Users** group, right-click and select **Properties**.
4. Click **Add**.
5. Put in the <<domain>>\<<username>>.
6. Click **OK** twice.
7. Close the **Computer Management** Dialog.

Configure Apache Tomcat

It is recommended that the memory usage settings for Tomcat be reviewed and adjusted based upon the available physical memory on your server up to no more than 1.5 gigabytes. You can adjust this in the `startServletContainer.bat` file. This file should be found at `<ConfigurationFolder>\Lev1\web\startServletContainer.bat`. Within this file is the variable `CATALINA_OPTS`. There are two options that can be adjusted to set a minimum heap size,-Xms, and maximum heap size, -Xmx, for the JVM, as follows:

```
set CATALINA_OPTS= -server –Xms<min>m –Xmx<max>m…….
```

The minimum should be no smaller than what it is currently set at. The maximum depends on the amount of installed RAM on the machine. If you will have more than 10 concurrent users use these settings:

```
set CATALINA_OPTS -server -Xms1280m -Xmx1280m …...
```

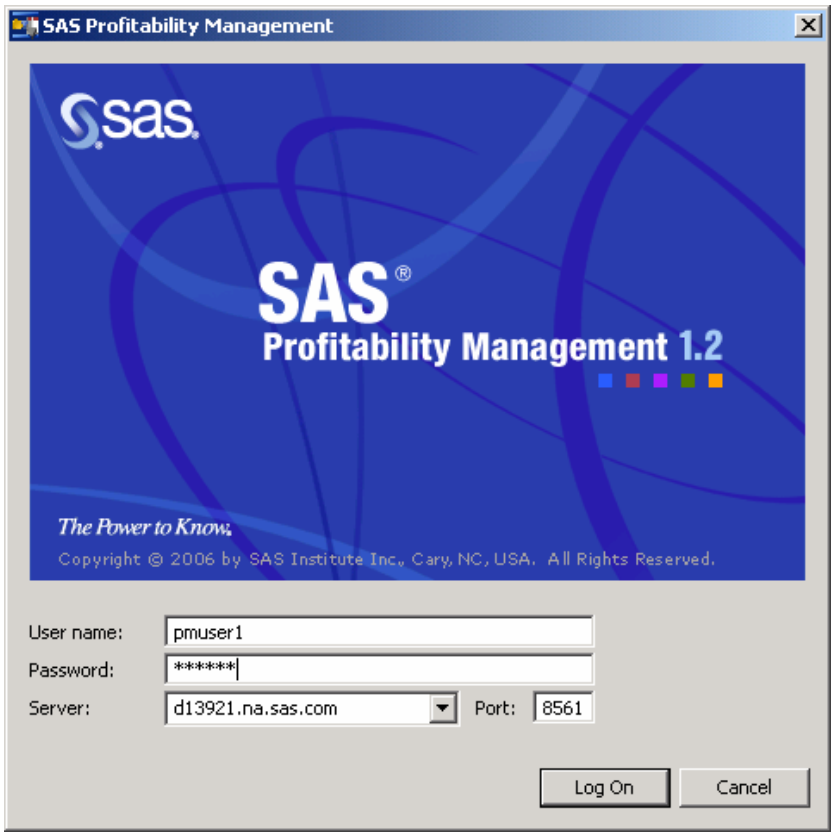
Configure the SAS Profitability Management Database

After the SAS Profitability Management client has been installed, the first user to log in will be prompted to create the PMModel database.

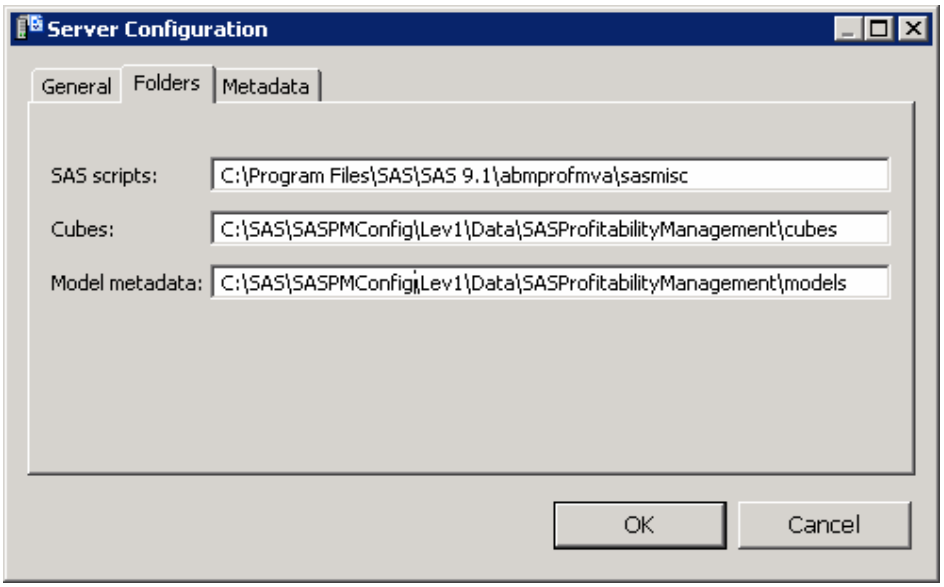
Do not manually put anything in the PMModel database. Input data, output data, and the PMModel database should be in separate directories.

To complete this action, perform the following steps:

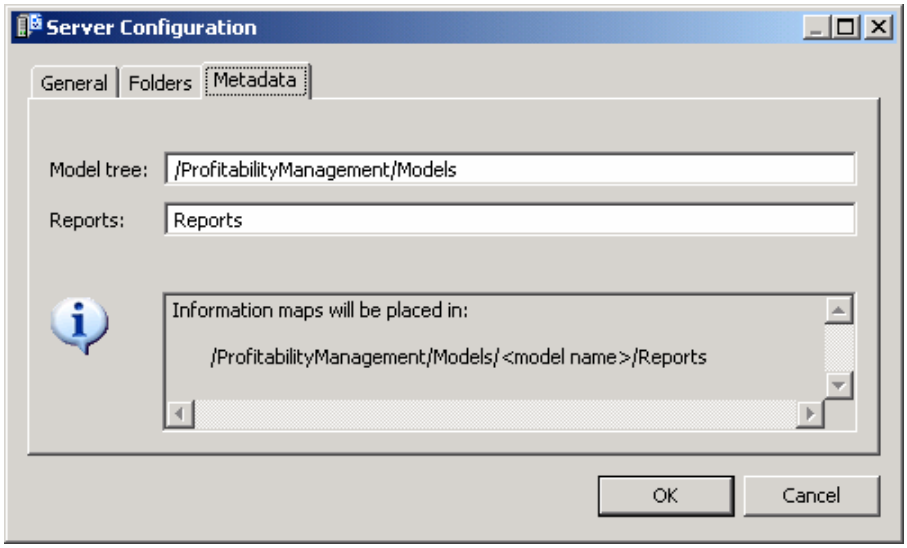
1. Launch the Profitability Management client. You will be prompted to log into the SAS Metadata server. Enter a user name and password that is valid for your metadata installation. If the user is a network user, then prefix the user name with its domain and a "\".



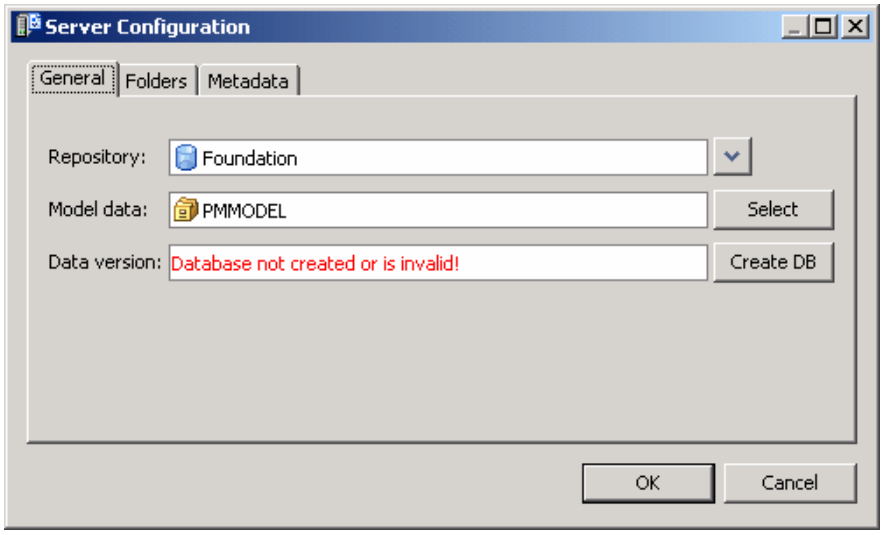
2. The Server configuration dialog appears. Select the Folders tab and supply the following paths for SAS scripts, Cubes, and Model metadata. If you did not put the Metadata into `C:\SAS\SASPMConfig` then change it in the Cubes and Model metadata folder names. The information can be found in the `instructions.html` in the Metadata direction. See the section above the "Load SAS Profitability Management Metadata" section.



3. Select the **Metadata** tab and supply the Model tree and Reports for metadata folders.



4. On the **General** tab, select the Foundation repository, select PMMODEL for Model data and then click the **Create DB** button. This populates the PMMODEL SAS library in the SAS Management Console. Select **OK** to close this dialog.



Once the necessary data has been supplied, the database will be created and the version will be displayed.

Set up the SAS Profitability Management Tutorial Data on a central server

In the following example, replace the `<ConfigurationFolder>` with the name of your SAS BI Data. An example is `C:\SAS\SASPMConfig`.

1. Install the tutorial file from the **SAS Profitability Management** CD**,** change the directory to `abmprof1cd_doc`, and open the file `en.zip`. Extract the `tutorial.zip` file to `<ConfigurationFolder>\Lev1\Data\PM_Tutorial` on the server machine. Click **OK** when it asks you if you want to create a new directory.

2. Expand the `<ConfigurationFolder>\Lev1\Data\PM_Tutorial\tutorial.zip` into `<ConfigurationFolder>\Lev1\Data\PM_Tutorial`.

3. Using Windows Explorer, create a target folder:

   `<ConfigurationFolder>\Lev1\Data\PM_Tutorial\Tutorial End`

4. Open the SAS Management Console and select the **Foundation** repository.

5. Expand **Data Library Manager**.

6. Right-click **SAS Libraries** and select **New Library...**.

7. Select **SAS Base Engine Library** and click **Next**.

8. Name: *Tutorial End* and click **Next**.

9. Libref: *Tut_End*

10. For path specification, click **New**.
11. Path: (conf folder)

    `<ConfigurationFolder>\Lev1\Data\PM_Tutorial\Tutorial End`

12. Click **OK**.
13. Click **Next**.
14. Select SASMain (or another server) and click **Next**.
15. Click **Finish**.
16. Repeat steps 6 through 14 with name= *Tutorial Start* and libref = *Tut_Star* and path `<ConfigurationFolder>\Lev1\Data\PM_Tutorial\Tutorial`.
17. Right-click on the new library, *Tutorial Start,* and select import tables.
18. Click on **Next.**
19. If prompted, put in a user ID and password that has access to the files and click **Next**.
20. Select all the tables and click **Next** twice.
21. Close SAS Management Console.
22. Using Windows Explorer, give PM Users OS group full access to both the *Tut_Star* and *Tut_End* folders.

Test SAS Profitability Management Client

The tutorial document is found in `<ConfigurationFolder>\Lev1\Data\PM_Tutorial\Tutorial` and named `SAS Profitability Management_Tutorial.pdf`. Work through the SAS Profitability Management tutorial to do the following:

1. Create a model following the tutorial in the tutorial zip file.
2. Create transactions.
3. Import the behaviors.
4. Import the associations.
5. Calculate the model.
6. Create the reports and generate a cube.

Test the Profitability Web

In the following example, replace the `<ConfigurationMenu>` with the name of your SAS BI Menu. An Example is SASPMConfig.

1. Start the SAS Services Application (**Start→Programs→SAS→** `<ConfigurationMenu>`**→Start SAS Services Application**) on the Web server.
2. Start Tomcat from the same place.
3. Open the Web browser and type in the URL for the SAS Profitability Management Web application. This is usually is `http://<<your server>>:8080/SASProfitability/`.

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