

# Hot Fix Installation Instructions for SAS<sup>®</sup> Activity-Based Management 6.4.2



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**Hot Fix Installation Instructions for SAS® Activity-Based Management 6.4.2**  
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## Table of Contents

<b>Chapter 1 – Overview .....</b>	<b>2</b>
<b>Chapter 2 – SQL Server Analysis Services 2005 Support.....</b>	<b>3</b>
<b>Overview .....</b>	<b>3</b>
<b>Update the Database Server and OLAP Server .....</b>	<b>4</b>
Backup your Data.....	4
Install SQL Server 2005 SP2 and SSAS 2005 SP2 .....	4
<b>Update the Default Timeout.....</b>	<b>7</b>
<b>Update Permissions.....</b>	<b>8</b>
<b>Update the Activity-Based Management Server.....</b>	<b>9</b>
<b>Chapter 3 – Installing the Hot Fix .....</b>	<b>12</b>
<b>Overview .....</b>	<b>12</b>
<b>Install the Hot Fix on the SAS Activity-Based Management Server.....</b>	<b>12</b>
<b>Install the Proc Abc Hot Fix on the SAS Activity-Based Management     Calculation Server .....</b>	<b>14</b>
<b>Install the Hot Fix on the SAS Activity-Based Management Client(s) .....</b>	<b>15</b>
<b>Verification.....</b>	<b>16</b>

## Chapter 1 – Overview

The SAS Activity-Based Management 6.4.2 hot fix includes all the bug fixes contained in the 6.4.1 hot fix plus additional fixes and adds support for SQL Server Analysis Services 2005. You may install this hot fix and continue using your existing OLAP server, regardless of its type. Installation of this hot fix does not require you to migrate to SQL Server Analysis Services 2005 now or in the future.

If your server currently has Microsoft Analysis Services 2000 installed and you want to upgrade to SQL Server Analysis Services 2005, please read the instructions in “Chapter 2 – SQL Server Analysis Services 2005 Support.” If you are only interested in the bug fixes, you can skip Chapter 2 and begin reading “Chapter 3 – Installing the Hot Fix.”

**Tip:** *As part of the SQL Server 2005 release, Microsoft renamed Microsoft Analysis Services (MSAS) to SQL Server Analysis Services (SSAS).*

## Chapter 2 – SQL Server Analysis Services 2005 Support

SAS Activity-Based Management 6.4 and 6.4.1 support Microsoft SQL Server 2000 & 2005 and Oracle 9i & 10g databases. However, only SAS OLAP Server 9.1.3 and MSAS 2000 OLAP servers are supported. In addition to various bug fixes, the 6.4.2 hot fix adds support for SQL Server Analysis Services 2005.

**Note:** *SSAS 2005 should not be used with SQL Server 2000. This configuration is not supported by SAS.*

### Overview

Based on tests at SAS, Microsoft's tool for migrating MSAS 2000 cubes to a SSAS 2005 OLAP server may encounter numerous problems from which there is no recovery. Since the time spent on this process is very large (processing the cubes on MSAS 2000, migrating the cubes to SSAS 2005, and then reprocessing the cubes on SSAS 2005) and may not be successful, SAS does not recommend this and **does not** support the cube migration process for SAS Activity-Based Management.

SAS recommends that the MSAS 2000 cubes not be migrated to SSAS 2005; instead they should be rebuilt natively in the SSAS 2005 environment.

If your installation of SAS Activity-Based Management contains a large number of cubes or a small number of very large cubes, you may find that they exceed the capacity of a 32 bit version of SSAS 2005 – even though they fit comfortably in a 32 bit version of MSAS 2000. There are at least three steps to take to mitigate this problem:

- Enable the “3GB mode”
- Optimize the configuration settings of your SSAS 2005 instance
- Switch to a 64 bit version of SSAS 2005

The first step, enabling the “3GB mode” may be necessary because it appears that SSAS 2005 uses system memory resources less efficiently than MSAS 2000. Enabling the “3GB mode” increases the system memory available to SSAS 2005 from 2GB to 3GB. In situations where SSAS 2005 is managing many cubes or large cubes, enabling this option often increases performance and capacity.

Secondly, optimizing your SSAS 2005 settings may also be necessary. When installed, SSAS 2005 uses default settings for how much memory to reserve for its use, how it performs aggregations, etc. Many of these settings can be customized to increase performance or capacity on your particular hardware configuration.

Finally, switching to a 64 bit version of SSAS 2005 (and SQL Server 2005 as well) that runs on a 64 bit operating system may also improve performance. This happens because 64 bit applications may access more than the 4GB of memory that 32 bit applications are limited to. Please be aware however, that simply installing a 64 bit version of the software on your existing hardware might not produce noticeable performance or capacity gains. This occurs because both 32 and 64 bit version of SSAS initialize many settings based upon your hardware configuration. Without any custom configuration, both versions may create the same default settings that produce identical, or nearly so, behavior on the same hardware.

For more information on all these topics, please refer to the Microsoft document [Microsoft SQL Server 2005 Analysis Services Performance Guide](#). The chapter entitled, “Increasing Available Memory” is particularly useful.

## Update the Database Server and OLAP Server

### Backup your Data

Before continuing, please backup the data on your database installation. In particular, you need to backup three databases in SQL Server plus the cube data in the MSAS installation.

- The Analysis Services Repository
- The OEADMIN database
- The OEMODELS database
- The cube data. A **.CAB** archive file is created for each cube database using the **Archive Database** command in Analysis Manager.

The precise names of these databases may vary depending on the naming convention for your installation.

***Note:** If you have not migrated your Analysis Services repository to SQL Server, then by default, MSAS is storing its OLAP repository data in a local version of the Microsoft Access database. In this case, you will not have a repository database in your SQL Server. SAS recommends that you migrate the repository using the installation instructions included with SAS Activity-Based Management 6.4 before continuing. For more information, see “Installation Instructions for SAS Activity-Based Management 6.4.”*

### Install SQL Server 2005 SP2 and SSAS 2005 SP2

Before installing SQL Server 2005 SP2 or SSAS 2005 SP2, SAS recommends you update your existing SQL Server 2000 and MSAS 2000 installations to SP4.

You have two Methods to update to SQL Server 2005 and SSAS 2005:

1. Install SQL Server 2005 and SSAS 2005 over their 2000 counterparts
2. Install SQL Server 2005 and SSAS 2005 as new “named instances”

The advantage of following Method 1 is its simplicity. The advantage of following Method 2 is that your existing SQL Server 2000 and SSAS 2000 installations remain intact and may be used should problems arise in the upgrade process. The downside to Method 2 is that you must update your SAS Activity-Based Management server to refer to these new instances and that your existing saved OLAP views must be exported and re-imported to update their references as well. Additionally, your existing SQL Server 2000 instance and its installation remain and must be manually uninstalled once the SQL Server 2005 installation process is completed.

These instructions will guide you through the basic installation process using Method 1. This process guides you through 2 installations: Once to install SQL Server 2005 as a replacement default instance (which includes migrating the SQL data) and a separate installation of SSAS 2005 (which **does not** migrate the OLAP cubes). This two step process is followed even if the SQL Server 2005 and SSAS 2005 installations are on the same computer.

If your database server already has SQL Server 2005 SP2 installed, you can omit the portions relating to installing SQL Server 2005 and the Workstation Components. Instead, you need only perform the steps for installing SSAS 2005.

Depending on your deployment configuration, there are up to 3 components from the SQL Server 2005 installation CD that you need to install:

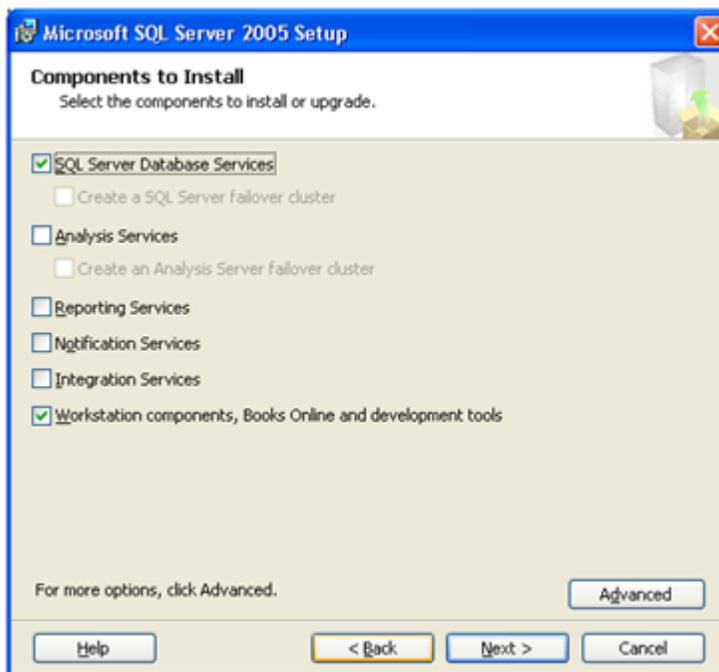
- SQL Server Database Services – This is the Microsoft SQL Server database. It needs to be

installed on the computer hosting your database server.

- Analysis Services – This is the Microsoft OLAP server. It needs to be installed on the computer hosting your OLAP server.
- Workstation components, Books Online and development tools - This is the suite of tools used to remotely access the database. It needs to be installed on the SAS Activity-Based Management server. It may also be installed on your database server, at your option, to facilitate database management. But its presence is not required by SAS Activity-Based Management.

Follow these steps to complete the installation:

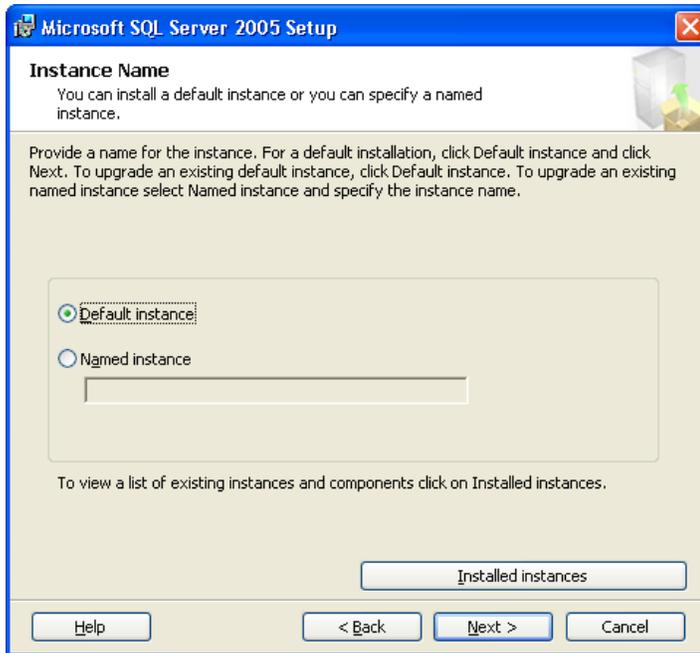
1. Close all non-essential applications.
2. Verify that no users are currently using SAS Activity-Based Management.
3. Make sure you are logged into the computer as the same user who originally installed SQL Server 2000. Differences in user permissions can cause problems when performing the update and data migration.
4. Install SQL Server 2005 by choosing Setup.exe from the **Servers** folder on the installation CD.
5. Depending on your deployment configuration and which server you are currently installing on, select the proper components to install. The example dialog below shows all the required components selected for an integrated server (database and SAS Activity-Based Management server on a single computer).



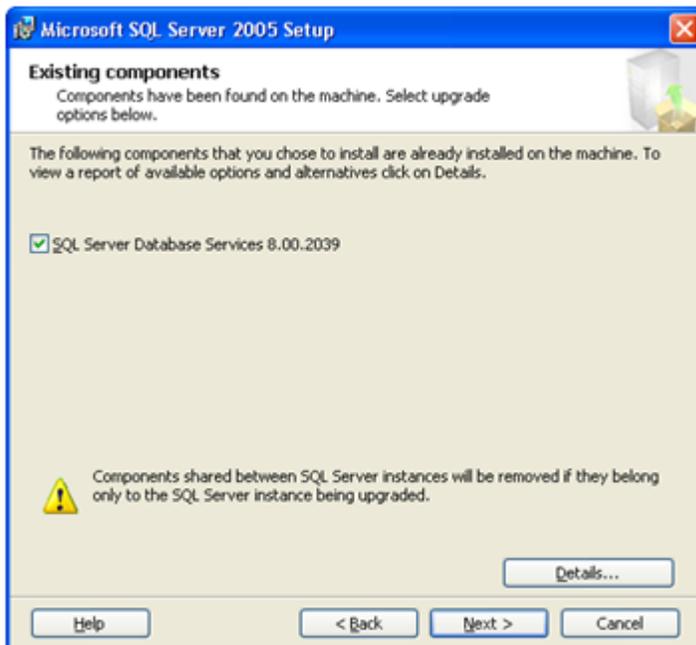
6. Depending on your deployment configuration, the database instance used by SAS Activity-Based Management may be a default instance or may be a named instance, as shown in the dialog below. Choose the option that is identical to the one your installation currently uses. This will update the database “in place” and will ensure that references to the server name and instance name within SAS Activity-Based Management remain intact.

**Warning:** If you choose **not** to update your SQL Server “in place” then the computer name and instance name of the OLAP server will be out of sync in any saved **OLAP Views** in SAS

*Activity-Based Management. This can be corrected by exporting your **OLAP Views** and re-importing them. The process of importing them scans the OLAP views and re-establishes the proper connection to the currently configured OLAP server.*



7. Prior to beginning the installation of new files, the Setup process identifies any existing components from the current installation. In the example dialog below, it identifies that SQL Server and Analysis Services will be updated. Depending on your installation, another component for the Workstation components may also be identified.



Clicking the **Details...** button displays the following dialog. Again, it identifies that SQL Server will be updated. If this dialog does not indicate that the existing components will be updated, and

you are certain that you are updating an existing installation, you may not have SP4 installed on your existing SQL Server 2000 or MSAS 2000 installation. If that is the case, cancel the installation; install SP4 on SQL Server 2000 and/or MSAS 2000 as needed, then try installing SQL Server 2005 and its components again.

**Warning:** *If you choose to ignore the contents of this dialog, then your existing data may not be properly migrated to the new SQL Server 2005 installation.*



8. Complete the setup process to finalize your database installation. You may need to repeat this process several times on different computers to ensure that the necessary servers in your deployment are properly updated with the SQL Server 2005 components.
9. Verify that your installation of SQL Server 2005 includes SP2. Launch **SQL Server Management Studio** by choosing **Start**→**All Programs**→**Microsoft SQL Server 2005 Choose**→**SQL Server Management**. Execute the query :

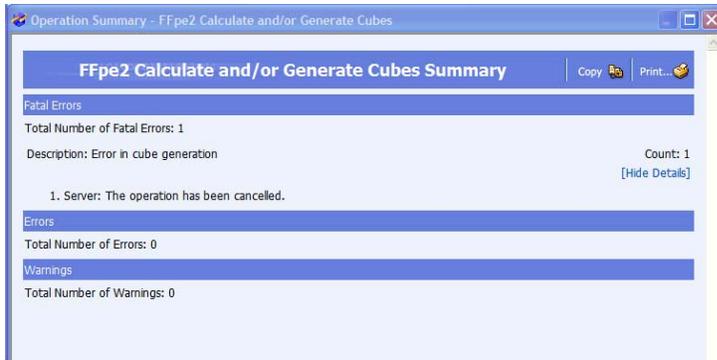
```
SELECT SERVERPROPERTY('productversion'), SERVERPROPERTY
('productlevel'), SERVERPROPERTY ('edition')
```

Verify the version number is 2005.90.3042.

10. Repeat Steps 1 through 8 for installing SSAS 2005. However do not attempt to migrate the OALP data.

### **Update the Default Timeout**

By default, SSAS 2005 SP2 sets the default timeout for queries that are executed during cube processing and querying at 30 seconds. When large cubes are being built, multiple SAS Activity-Based Management users are building cubes simultaneously, or large queries are executed, the default timeout value can be exceeded. When this occurs, an error message of the form, “The operation has been cancelled” is returned signifying that SSAS 2005 halted the cube building process or MDX query. See the screen image below. SAS recommends that this default time be increased to 5 minutes.



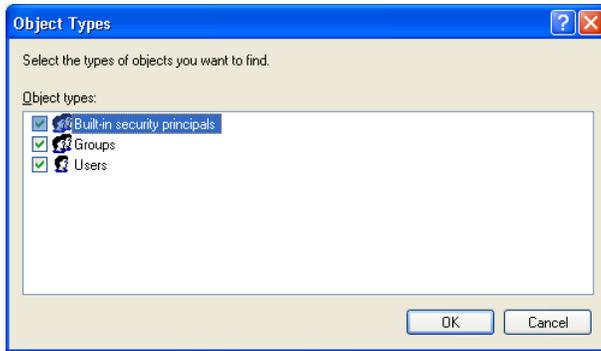
The value that is best for your installation may need to be determined by trial-and-error. If it is too short, complex queries from the SAS Activity-Based Management OLAP viewer may fail or cube processing may fail when building cubes. If it is too long, SSAS will waste server resources needlessly when a user unexpectedly closes the SAS Activity-Based Management client while an OLAP query was running. To change the default timeout, perform the following steps:

1. Log into **SQL Server Management Studio** and attached to your SSAS 2005 OLAP Server. Make sure you choose **Analysis Services**.
2. Select your SSAS 2005 server in the left hand pane. Click the right mouse button and choose **Properties**. The **Analysis Services Properties** dialog displays.
3. Choose **General** under the section labeled **Choose a page**. The main area of the dialog displays a grid of property values.
4. Scroll down to find the value labeled `ForceCommitTimeout`. The value is displayed in milliseconds. To increase the value to 5 minutes, enter `300000`. Click **Ok**.

### **Update Permissions**

Depending on the operating system version and service pack level of the computer hosting your SSAS 2005 installation, you may need to update your server's security settings so SAS Activity-Based Management can programmatically create cubes. To verify that your computer has the proper security settings, perform the following steps.

1. Log into **SQL Server Management Studio** and attached to your SSAS 2005 OLAP Server. Make sure you choose **Analysis Services**.
2. Select your SSAS 2005 server in the left hand pane. Click the right mouse button and choose **Properties**. The **Analysis Services Properties** dialog displays.
3. Choose **Security** under the section labeled **Choose a page**. The main area of the dialog displays **NT Users and Groups**.
4. Click the **Add...** button. The **Select Users or Groups** dialog displays.
5. Click the **Objects or Types...** button. Make sure the **Groups** items is selected as shown below. Click **Ok**.



6. In the **Enter the object names to select** field, type “olap administrators”. Click the **Check Names** button. The field changes to reflect the OLAP Administrators group prefixed with your SSAS computer name as shown below. Now type “power users”. Click the **Check Names** button. The field changes to reflect the Power Users group prefixed with your SSAS computer name as shown below. Click **Ok**.



**Tip:** *If this is a new installation of SSAS 2005 (i.e. you did not migrate this computer from MSAS 2000), your computer may not contain the OLAP Administrators group. In this case, you do not need to add OLAP Administrators. The OLAP Administrators group is a “hold over” from MSAS 2000.*

7. The **OLAP Administrators** and **Power Users** names should display in the **Analysis Services Properties** dialog. Click Ok.

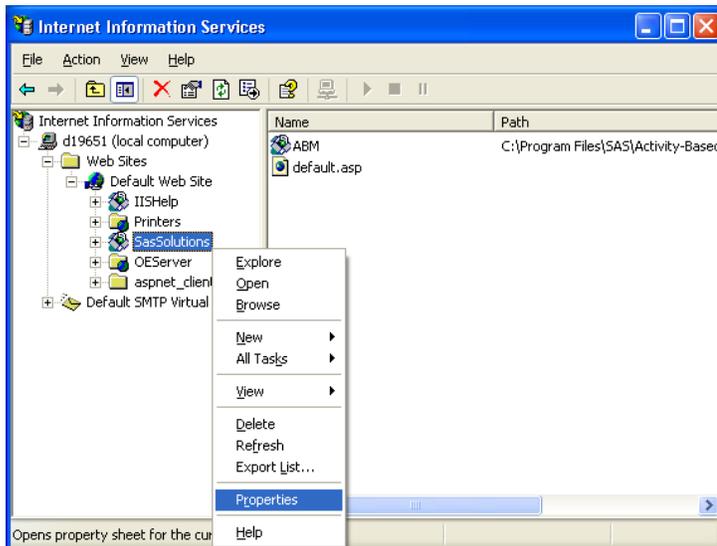
## Update the Activity-Based Management Server

SAS Activity-Based Management requires .NET 2.0 to programmatically create cubes.

1. Close all non-essential applications.
2. Verify that no users are currently using SAS Activity-Based Management.
3. Make sure you are logged into the computer as the same user who originally installed SAS Activity-Based Management. Differences in user permissions can cause problems when performing the update.
4. Install the .NET 2.0 runtime facility. It can be downloaded from here:  
<http://www.microsoft.com/downloads/details.aspx?familyid=0856eacb-4362-4b0d-8edd-aab15c5e04f5&displaylang=en>

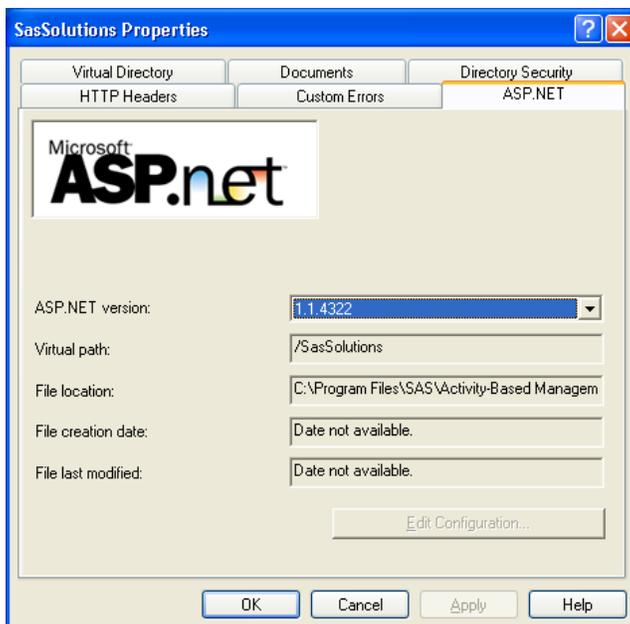
Due to incompatibilities with .NET 2.0, the Activity-Based Management server requires that .NET 1.1 be used to process all web services calls. Verify that the installation of .NET 2.0 did not change this setting.

1. Open **Administrative Tools** in the **Control Panel**.
2. Choose **Internet Information Services**.
3. In the **Tree** tab pane, expand **<MyComputerName> (local computer)** where **<MyComputerName>** is the name of your computer, until you see **SasSolutions**.
4. Select **SasSolutions** and click the right mouse button. Choose **Properties**.



5. The **SasSolutions Properties** dialog appears. Choose the **ASP.NET** tab. Verify that the ASP.NET version is 1.1.x.

**Note:** The exact version number of ASP.NET may vary depending upon which Service Packs you have installed on your operating system. However, it must not be version 2 or higher.





## Chapter 3 – Installing the Hot Fix

### Overview

The SAS Activity-Based Management 6.4.2 hot fix is a cumulative hot fix. It contains all the bug fix in the 6.4.1 hot fix as well as those that are new for 6.4.2. The SAS Activity-Based Management 6.4.2 hot fix is downloaded as a zip file containing 3 pieces:

- The SAS Activity-Based Management server-side hot fix
- The SAS Activity-Based Management Proc Abc hot fix
- The SAS Activity-Based Management client-side hot fix

Each portion must be installed on the proper computer to update your SAS Activity-Based Management installation.

### *Install the Hot Fix on the SAS Activity-Based Management Server*

Install the SAS Activity-Based Management server hot fix.

1. Close all non-essential applications.
2. Verify that no users are currently using SAS Activity-Based Management.
3. Make sure you are logged into the computer as the same user who originally installed SAS Activity-Based Management. Differences in user permissions can cause problems when performing the update.
4. If you have installed the Contribution Server functionality for SAS Activity-Based Management, you need to halt Apache/Tomcat in order to release the java files used by the Contributions Server so the hot fix installer can update them. To accomplish this, perform the following steps:
  - Stop Tomcat.
  - Delete the folder **sas.solutions.abm** which is typically located at <<My Tomcat Directory>>\webapps.
5. Copy the hot fix zip file into a directory on your SAS Activity-Based Management application server. Unzip the files.
6. Run **serverhotfix.exe**. It creates two batch files on your computer:
  - **serverhotfix.bat** – backs up existing files and copies new files
  - **serverhotfixundo.bat** - removes the hot fix by restoring files from the backup directory

Then it executes the **serverhotfix.bat** file.

7. After completing the hot fix installation, the SAS Activity-Based Management **Server Configuration** utility is run. If you are migrating to SSAS 2005, make sure you navigate to the **OLAP Server** page and verify that **SQL Server Analysis Services (2005)** is selected and that the configuration information for your OLAP server is correct.
8. To uninstall the hot fix. Run **serverhotfixundo.bat**.

***Note:** If you migrated to SSAS 2005, uninstalling the server or client hot fix will prevent SAS Activity-Based Management from properly accessing your cubes. Once you migrate to SSAS 2005, the server and client hot fixes should not be uninstalled.*

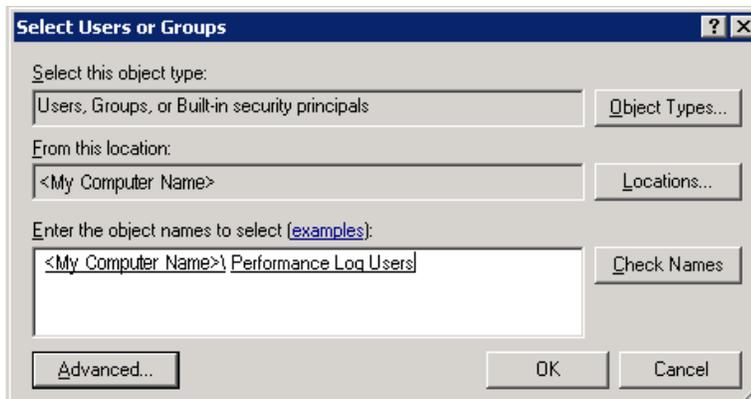
9. For advanced users, a **/fileonly** switch is available for the **serverhotfix.exe**. When used (i.e. **serverhotfix.exe /fileonly**), it only creates the two batch files but will not execute **serverhotfix.bat**.

10. On Windows Server 2003, the **Performance Log Users** group needs to have **Read & Execute, List Folder Contents, and Read** privileges on these two directories, where <My SQL Server Installation Directory> is typically located in “C:\Program Files”:

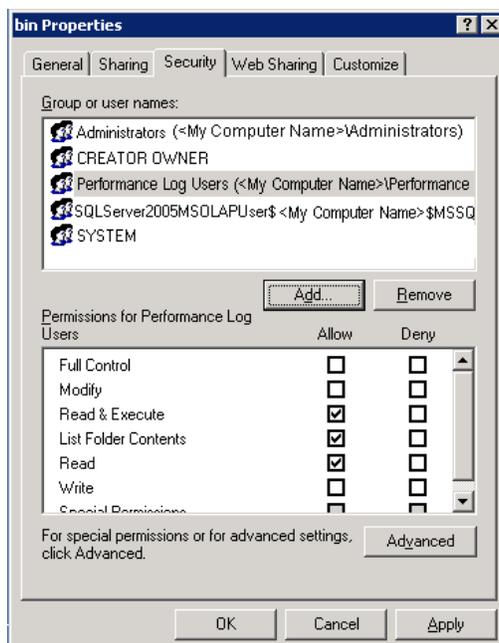
- <My SQL Server Installation Directory>\Microsoft SQL Server\MSSQL.1\MSSQL\Binn
- <My SQL Server Installation Directory>\Microsoft SQL Server\MSSQL.2\OLAP\Bin

To set these permissions, follow these steps:

- Open **Windows Explorer** and navigate to the first directory listed above.
- Select the folder, right-click and select **Properties**. The **... Properties** dialog displays.
- Choose the **Security** tab. Select the **Add...** button. The **Select Users, Computers, or Groups** dialog displays.
- Enter the **Performance Log Users** name as shown below. Select **OK**.



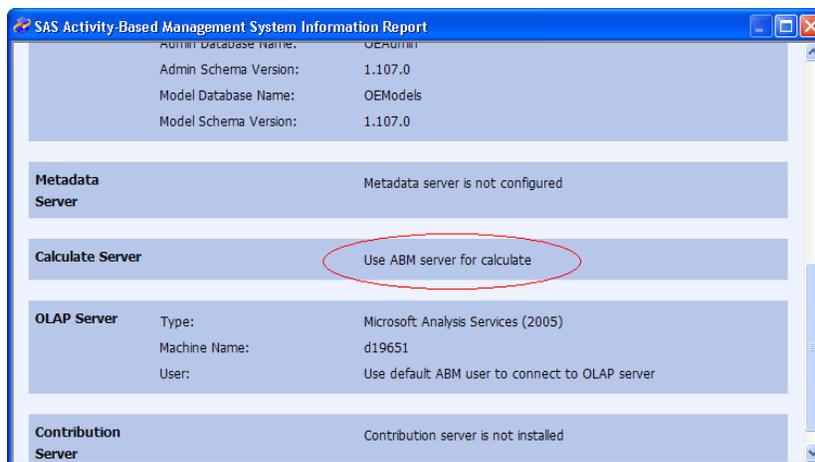
- Verify this user has **Read & Execute, List Folder Contents, and Read** privileges. Select **OK**.



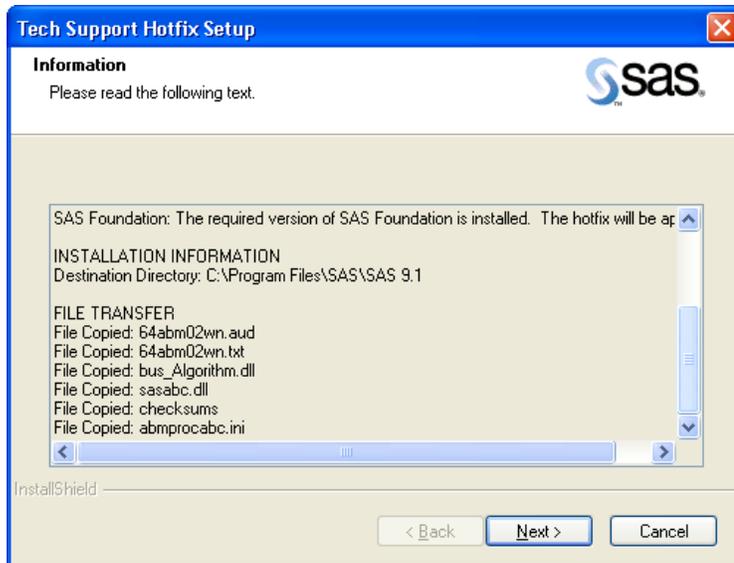
- vi. Repeat for the second directory.
10. If you have installed the Contribution Server functionality for SAS Activity-Based Management, you need to restart Apache/Tomcat. To accomplish this, perform the following steps:
- Verify that the hot fix installation copied a new version of **sas.solutions.abm.war** into the directory you used in Step 4 (typically <<My Tomcat Directory>>\webapps). You should see a recent date on the file.
  - Start Tomcat.

## Install the Proc Abc Hot Fix on the SAS Activity-Based Management Calculation Server

Proc Abc is the engine that performs the model calculations for SAS Activity-Based Management. This hot fix should be installed on the computer that hosts Proc Abc. You can determine which server in your installation is hosting Proc Abc by running the Server Configuration utility. This utility can be accessed by clicking on the **System Info...** button in the **About SAS Activity-Based Management** dialog box in the SAS Activity-Based Management client application. In the screen image below, the Calculation Server is running on the same computer as the Activity-Based Management server.



1. Close all non-essential applications.
2. Verify the **sas.exe** process is not running in Window's **Task Manager**. If it is, you can halt it by clicking the right mouse button on the **sas.exe** process and choosing **End Process**. This is important because it may lock the files that need to be updated by the hot fix installer.
3. Run the **64abm02wn.exe** hot fix installer to install the Proc Abc hot fix.
4. Verify that that all the files were updated correctly as shown in the dialog box below. If some files are reported as "File Not Copied", it is because they were locked by Windows. If ending the **sas.exe** process did not release them, they are being cached by Windows and you will need to reboot your server to force Windows to release them, then re-install the hot fix.



## ***Install the Hot Fix on the SAS Activity-Based Management Client(s)***

If you migrated to SSAS 2005, you must update the OLEDB for OLAP driver on your client computer to access the cubes. If you did not migrate to SSAS 2005, you may skip this step.

1. Close all non-essential applications.
2. Verify that no users are currently using SAS Activity-Based Management.
3. Make sure you are logged into the computer as the same user who originally installed SAS Activity-Based Management. Differences in user permissions can cause problems when performing the update.
4. Install the new OLEDB for OLAP driver on each of your SAS Activity-Based Management client computers. This driver is part of the “Feature Pack” for SQL Server 2005 and can be downloaded from here: <http://www.microsoft.com/downloads/details.aspx?FamilyId=D09C1D60-A13C-4479-9B91-9E8B9D835CDC&displaylang=en>

Next, install the SAS Activity-Based Management client hot fix.

1. Copy the hot fix zip file into a directory on your client computer. Unzip the files.
2. Run **clienthotfix.exe**. It creates two batch files on your computer:
  - a. **clienthotfix.bat** – backs up existing files and copies new files
  - b. **clienthotfixundo.bat** - removes the hot fix by restoring files from the backup directory

Then it executes the **clienthotfix.bat** file.

3. To uninstall the hot fix. Run **clienthotfixundo.bat**.

**Note:** *If you migrated to SSAS 2005, uninstalling the server or client hot fix will prevent SAS Activity-Based Management from properly accessing your cubes. Once you migrate to SSAS 2005, the server and client hot fixes should not be uninstalled.*

4. For advanced users, a **/fileonly** switch is available for the **clienthotfix.exe**. When used (i.e. **clienthotfix.exe /fileonly**), it only creates the two batch files but will not execute **clienthotfix.bat**.
5. Install the hot fix for the SAS OLAP Analyzer, the cube viewer used by SAS Activity-Based Management. It is required if you migrated to SSAS 2005. In addition to bug fixes that will be valuable to all users, it contains specific fixes for SSAS 2005. It is available for download here: [http://ftp.sas.com/techsup/download/hotfix/ent\\_guide41.html](http://ftp.sas.com/techsup/download/hotfix/ent_guide41.html).

## Verification

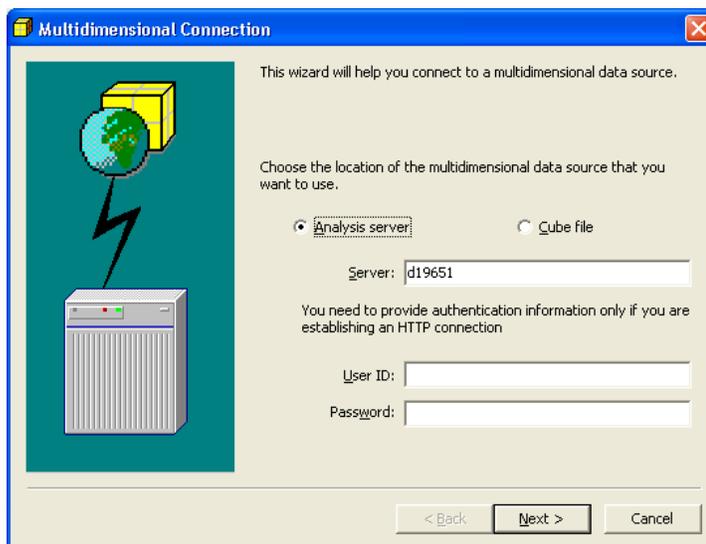
Verify that the version of your updated clients is 6.4.2.

1. Launch the SAS Activity-Based Management client.
2. Select **Help**→**About SAS Activity-Based Management**. Verify that the version is **6.4.2.xxxx**.

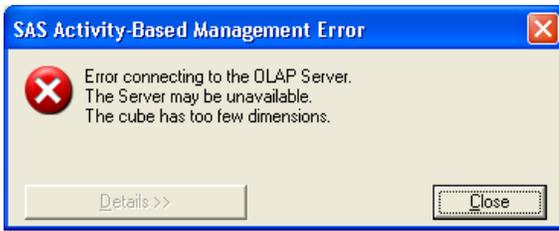
If you did not migrate your SAS Activity-Based Management system to SSAS 2005, no further troubleshooting is necessary. Your system is ready to use.

If you migrated to SSAS 2005 and are having problems viewing cubes, try the following steps.

1. If you try to view cubes on a SAS Activity-Based Management 6.4.2 server configured with a SSAS 2005 OLAP server with an SAS Activity-Based Management 6.4 or 6.4.1 client, this dialog will display. Alternatively, this dialog might display if you have not installed the newer OLEDB for OLAP drivers on the client.



2. If you have installed the 6.4.2 client and have updated the OLEDB for OLAP drivers on your client computer, but the cubes you migrated from MSAS 2000 to SSAS 2005 have not been processed, you will likely receive this dialog box.





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