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# **SAS<sup>®</sup> Marketing Operations Management 6.3**

Installation, Configuration, and  
Administration Guide

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# Using This Book

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## Audience

This documentation is intended primarily for users who are responsible for implementing SAS Marketing Operations Management. The intended audience includes users who are responsible for installing, configuring, and administering SAS Marketing Operations Management. Examples of users include system administrators, database administrators, and high-level risk-management personnel. The scope of this documentation is focused on the administrative tasks that these users are likely to perform. This documentation assumes users have familiarity with the technical terminology and concepts that are required to perform these tasks.





# Part 1

## Installation

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## 1

# System and Software Configuration

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## Supported System Configurations

SAS Marketing Operations Management is supported on the following system configurations, which can consist of one to four servers.

In a given configuration, you need to select one or more components while you are installing SAS Marketing Operations Management on an individual server in the configuration. The installer components that you select depend on the tiers that the server will host.

The installation consists of the following five tiers:

- application tier
- web server tier
- cataloger tier
- media processor tier
- database tier

The installer has components that relate to the first four tiers. You do not need to run the installer for the database tier.

This document applies to the following system configurations that consist of the following servers:

Solutions Server  
Hosts the web server tier.

Web Services Server  
Hosts the application tier.

Cataloger Server  
Hosts the cataloger tier.

Media Processor  
Hosts the media processor tier.

Database Server  
Hosts the database tier.

## Third-Party Software

Install the following third-party software on the specified servers before you install SAS Marketing Operations Management version 6.3. Contact Technical Support for the location of the installers for the following software. The names of the installer packages are mentioned in the following table:

**Table 1.1** *Installer Packages for Third-Party Software*

Software	Web Services Server	Solutions Server	Cataloger Server	Media Server	Database Server	Media Processor for InDesign	MS Office Server	Media Generator	Media Processor for FLV Generator
Windows Server 2008 R2 (64 Bit) or Windows Server 2012 R2 (STANDARD EDITION) (LOCALE EN-US)	Y	Y	Y	Y	Y	Y for 2008 R2 only	Y	Y	Y
IIS 7.5 on Windows 2008 R2 SP1 or IIS 8.5 on Windows Server 2012 R2	Y	Y	Y	Y		Y	Y	Y	Y
MSMQ v6.3.9600.16384 for Windows Server 2012 R2 or MSMQ v6.1.7600.16385 for Windows Server 2008 R2	Y	Y	Y	Y		Y	Y	Y	Y

.NET Framework 4.5.1 (To be installed on Windows Server 2008 R2 SP1)	Y	Y	Y	Y		Y	Y	Y	Y
MSXML 4.0 SP3 Parser (msxml 4.0 SP3.msi)	Y	Y	Y	Y					
Microsoft SQL Server System CLR Types (x64) (Version 10.50.1600.1) (SQLSysClrTypes.msi)	Y	Y	Y	Y			Y		
Microsoft SQL Server 2008 R2 Management Objects (x64) (Version 10.50.1600.1) (SharedManagementObjects.msi)	Y	Y	Y	Y			Y		
Access Database Engine x64 2010 (Version 14.0.4763.1000) (AccessDatabaseEngine_x64.exe) or Microsoft Access 2013 Runtime (Version 15.0.4517.1004) (AccessRuntime_en-us_x64.exe)	Y	Y	Y						
Microsoft WSE 3.0 (Microsoft WSE 3.0.msi)	Y	Y	Y	Y	Y	Y	Y	Y	Y
Microsoft SQL Server 2008 R2 or SQL Server 2012 SP1 (Standard Edition)					Y				
Adobe Acrobat X and XI Professional Edition		Y (if WebDAV is used)					Y		
Microsoft Visual C++ 2008 Redistributable - x64 9.0.30729.17 (vcredist_x64.exe)	Y	Y	Y	Y		Y	Y	Y	Y

SAP Crystal Reports runtime engine for .NET Framework (64-bit)	Y	Y							
Microsoft Office 2010 or Microsoft Office 2013 x64-bit (Standard or Professional)							Y		
ImageMagick: 6.8.8-Q16-x64 (ImageMagick-6.8.8-Q16-x64-dll.exe)								Y	
ASP.NET State Service version 4.0.30319.33440		Y							
Adobe InDesign CS 5.5 or CS6 server (required only if Artwork Producer is deployed)						Y			
GPL Ghostscript (http://downloads.ghostscript.com/public/gs914w64.exe) Ghostscript: 9.14								Y	

Consider the following when you are installing the software that is listed in this table:

- Install Microsoft Office on a separate server in the network or on any one of the other servers (provided that the servers are within the firewall).
- **SAS Marketing Operations Management Security Recommendations:** You should use Transport Layer Security (TLS) in order to have a secure browser connection with the SAS Marketing Operations Management web server. This requirement guards against session fixation, theft of user credentials, and other attacks that depend on inspecting and forging the data exchanged between the web browser and the web server.
- While you are installing Access Database Engine x64, ensure that no 32-bit version of Microsoft Office components are installed.
- You need to disable the dialog boxes for online updates and software registration for Adobe Acrobat after you install it. Refer to [“Suppress Dialog Boxes for Automatic Updates” on page 68](#) for more information.
- Install the Windows component Messaging Queuing Service with HTTP support enabled.
- You should use Microsoft SQL Server 2012 SP1.

**Table 1.2** *Installer Packages and Their Usage*

Software	How Obtained	Usage
Windows Server 2008 R2 (64 Bit) or Windows Server 2012 R2 (STANDARD EDITION) (LOCALE EN-US)	License required.	Used by the operating system
IIS 7.5 on Windows 2008 R2 SP1 or IIS 8.5 on Windows Server 2012 R2	Comes with Windows server.	Used by the web server.
MSMQ v6.3.9600.16384	Comes with Windows server.	Used for sending messages via queues by all modules in SAS Marketing Operations Management.
.NET Framework 4.5.1 (To be installed on Windows Server 2008 R2 SP1)	Freely downloadable.	.NET required by application.
MSXML 4.0 SP3 Parser (msxml 4.0 SP3.msi)	Freely downloadable.	Required for XML processing. Used by all modules.
Microsoft SQL Server System CLR Types (x64) (Version 10.50.1600.1) (SQLSysClrTypes.msi)	Redistributed via the SAS Marketing Operations Management Package.	Executing database script files.
Microsoft SQL Server 2008 R2 Management Objects (x64) (Version 10.50.1600.1) (SharedManagementObjects.msi)	Redistributed via the SAS Marketing Operations Management package	Executing database script files.
Access Database Engine x64 2010 (Version 14.0.4763.1000) (AccessDatabaseEngine_x64.exe) Or Microsoft Access 2013 Runtime (Version 15.0.4517.1004) (AccessRuntime_en-us_x64.exe)	Redistributed via the SAS Marketing Operations Management package.	Reading Excel using OLE DB
Microsoft WSE 3.0 (Microsoft WSE 3.0.msi)	Redistributed via the SAS Marketing Operations Management package	Used to transfer binary files across machines. Used by application server and web services. Used for encryption and decryption of database connection strings, passwords, and URL parameters.
Microsoft SQL Server 2008 R2 or SQL Server 2012 SP1 (Standard Edition)	License required.	Used by the database for SAS Marketing Operations Management.

Adobe Acrobat X and XI Professional Edition	License required.	Adobe Acrobat is required on the Microsoft Office Processor. It is optional on the web server, required only if WebDAV is used.  <b>Note:</b> If SAS Marketing Operations Management Media annotations is not used for approvals, a per-user Adobe License for all users of approvals should be purchased.)
Microsoft Visual C++ 2008 Redistributable - x64 9.0.30729.17 (vcredist_x64.exe)	Redistributed via the SAS Marketing Operations Management package.	Executing C++ COM DLLs
SAP Crystal Reports runtime engine for .NET Framework (64-bit) (Go to <a href="http://scn.sap.com/docs/DOC-7824">http://scn.sap.com/docs/DOC-7824</a> . Download the 64bit msi for version 13.0.6.1027 CRRuntime_64bit_13_0_6.msi.)	Freely downloadable.	Required for generating reports.
Microsoft Office 2010 or Microsoft Office 2013 x64-bit (Standard or Professional)	License required.	Used for consolidating comments by approvals tasks and jobs, and for importing and exporting Excel by all modules.
ImageMagick: 6.8.8-8-Q16-x64 (ImageMagick-6.8.8-8-Q16-x64-dll.exe)	Redistributed via the SAS Marketing Operations Management package.	Used to generate previews and thumbnails for digital assets in the Digital Library.
ASP.NET State Service version 4.0.30319.33440	Comes with .NET framework.	Required along with .NET.
Adobe InDesign CS 5.5 OR CS6 server (required only if Artwork Producer is deployed)	License required.	Used by Artwork Producer (required only if Artwork Producer is deployed and you are using InDesign templates).
GPL Ghostscript ( <a href="http://downloads.ghostscript.com/public/gs914w64.exe">http://downloads.ghostscript.com/public/gs914w64.exe</a> ) Ghostscript: 9.14	Freely downloadable.	Used for media file processing by the Digital Library along with ImageMagick.

## Client Requirements

The following software is required on the client:

- **Windows:** Microsoft Windows 7 or Microsoft Windows 8
- **Macintosh:** Snow Leopard 10.6.8
- **Browsers:** Internet Explorer 9.0 or later (Windows 32- and 64-bit), Firefox 12.0 or later (Windows 64-bit), Google Chrome 15.0 or later (Windows 64-bit) or Safari 5.1.5 or later (Macintosh).

**Note:** Disable the pop-up blocker on the browsers that you use for SAS Marketing Operations Management solution.

- **Acrobat Professional or Standard X:** For adding comments to PDF files (only if you use WebDAV).
- **Adobe Acrobat X or XI Professional, Standard, or Reader:** For offline approvals.
- **Microsoft Office 2007, 2010, or 2013:** For opening office documents (reports) and adding comments to Word and Excel documents during approval.
- **Adobe Flash Player 11.1 or later:** For viewing the dashboard channels, media annotations, resource manager and artwork producer, and so on.
- **Adobe AIR 13.0:** For using the SAS Marketing Operations Management desktop.

---

## Pre-Installation Checklist

Check for the following before you install SAS Marketing Operations Management:

- 1 List of third-party software that is required, including the licensed software.
- 2 Port communication. List of ports that need to be open on the servers
- 3 Hardware requirements.
- 4 SQL Server configuration.
- 5 WebDAV configuration.
- 6 IIS settings.
- 7 ASP.NET state service start up.
- 8 SQL Server configuration.

---

## Port Communication

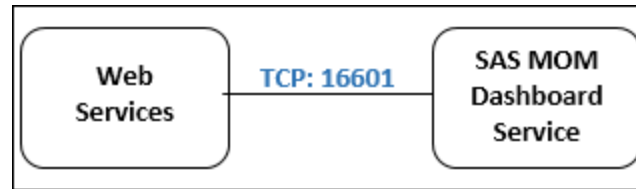
Port 80 needs to be open on all the servers on which SAS Marketing Operations Management is installed.

## Configure Communication between Web Services and SAS MOM Dashboard Service

SAS MOM Dashboard service is a Windows service. This service generates the SAS Marketing Operations Management dashboard for each tenant. By default, the web services machine communicates with the SAS MOM Dashboard service using TCP on port number 16601.

You can configure an alternative port number in the DashboardService.exe.config file. This file is available in the *<Installation Dir>\Binaries* folder on the web services machine.

**Figure 1.1** Port Communication between Web Services and SAS MOM Dashboard Service



To configure an alternative port:

- 1 Open the DashboardService.exe.config file and search for the following node:

```
<add key="TCPChannelPortNumber" value="16601"/>
```

- 2 Update value with the new port number.

- 3 Open the Web.config file. This file is available in the <Installation Dir>\ALServices folder on the web services machine. Search for the following node:

```
<add key="DashboardServiceHost" value="tcp://localhost:16601 /DashboardGenerator"/>
```

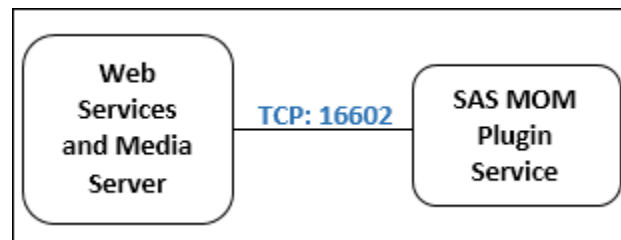
- 4 Update value with the new port number.
- 5 Restart the SAS MOM Dashboard service.

## Configure Communication between Web Services and Media Server to SAS MOM Plug-in Service

SAS MOM plug-in service is a Windows service. This service is used to invoke the plug-ins that are registered for the service. By default, the web service and media server communicate with the plug-in service using TCP on port number 16602.

You can configure an alternative port number in the PluginService.exe.config file. This file is available in the <Installation Dir>\Binaries folder on the web services machine and on the Media Server machine.

**Figure 1.2** Port Communication between Web Services and Media Server and SAS MOM Plug-in Service



To configure an alternative port:

- 1 Open the PluginService.exe.config file and search for the following node:

```
<add key="TCPChannelPortNumber" value="16602"/>
```



- 2 Update `value` with the new port number.
- 3 Open the `Web.config` file. This file is available in the `<Installation Dir>\ALServices` folder on the web services machine. Search for the following node:
 

```
<add key="PluginServiceHost" value="tcp://localhost:16602 /PlugineServer"/>
```
- 4 Update `value` with the new port number.
- 5 Restart the SAS MOM Plug-in Service after you change the port number on the web services machine and on the Media Server machine.

## Configure Communication between the Media Processor for InDesign and the InDesign CS5.5 or CS6 Server

The Media Processor for the InDesign machine communicates with the InDesign CS5.5 or CS6 server using HTTP on port number 16603. The InDesign CS5.5 or CS6 Server is used to generate artwork. The artwork is used by the Artwork Producer.

You can configure an alternative port number in the `InDesignCS3_Config.xml` file. This file is located in the `<Installation Dir>\Configuration\XML` folder on the Media Processor for InDesign machine and on the web services machine.

To configure an alternative port:

- 1 Open the `InDesignCS3_Config.xml` file and search for the following nodes:
 

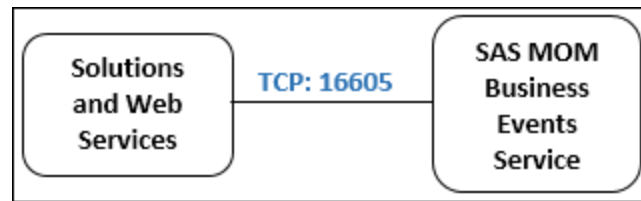
```
<ARGUMENTS>-port 16603</ARGUMENTS>
<INDESIGNWEBSERVICEURL>
http://localhost:16603
</INDESIGNWEBSERVICEURL>
```
- 2 Update the port number.
- 3 In the Task Manager, end the InDesign Server process. Restart the SAS MOM Queue Manager Service on the Media Processor for InDesign machine and on the web services machine.

## Configure Communication between Solutions and Web Services to SAS MOM Business Events Service

The Business Events service is a windows service. SAS MOM Business Events service is used to track changes for entities and facets. The solutions machine and the web services machine communicate with the SAS MOM Business Events service using TCP on port number 16605.

You can configure an alternative port number in the `BusinessEventsService.exe.config` file. This file is located in the `<Installation Dir>\Binaries` folder on the Solutions machine and on the web services machine.

**Figure 1.3** Port Communication between Solutions and Web Services and SAS MOM Business Events Service



To configure an alternative port:

- 1 Open the BusinessEventsService.exe.config file and search for the following node:

```
<add key="TCPChannelPortNumber" value="16605"/>
```

- 2 Update `value` with the new port number.
- 3 Open the Web.config file. This file is available in the `<Installation Dir>\ALSservices` folder on the web services machine. This file is also available in the `<Installation Dir>\<Tenant Name>` folder on the Solutions machine. You must configure the port in both Web.config files. Search for the following node:

```
<add key = "BusinessEventsTCPChannelPortNumber" value="16605"/>
```

- 4 Update `value` with the new port number.
- 5 Restart SAS MOM Business Events Service after you change the port number on the solutions machine and on the web services machine.

## 2

## Pre-Installation Tasks

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## Set Up Roles and Features on Windows 2012

To set up roles and features on Windows 2012:

- 1 Open Server Manager. In the left navigation pane, click **Dashboard**.
- 2 In the right pane, click **Add roles and features**. The Add Roles and Features Wizard appears.
- 3 On the Before You Begin page, click **Next**.

- 4 On the Select Installation Type page, select **Role-based or feature-based installation**. Click **Next**.
- 5 On the Select Destination Server page, select **Select a server from the server pool**, and then select a server from the **Server Pool** list. Click **Next**.
- 6 On the Select Server Roles page, select **Web Server (IIS)** from the list of **Roles**. Click **Next**.
- 7 On the Select Features page, select the following options from the **Features** list, and then click **Next**.
  - **.NET Framework 3.5 (includes .NET 2.0 and 3.0)**
  - **ASP.NET 4.5**
  - **HTTP Activation**
  - **Message Queuing Services**
  - **HTTP Support**
- 8 On the Web Server Role (IIS) page, click **Next**.
- 9 On the Select Role Services page, select **Dynamic Content Compression**, **Basic Authentication**, and **Windows Authentication** from the **Role services** list. Click **Next**.
- 10 On the Confirm Installation Selections page, click **Install**.
- 11 The Installation Progress page shows the installation progress. After the installation is complete, click **Close** to close the Add Roles and Features Wizard.

---

## Set up Roles and Features on Windows 2008

To set up the roles and features on Windows 2008:

- 1 Open Server Manager. In the left navigation pane, right-click **Roles**, and then select **Add Roles**.
- 2 On the Before You Begin page, click **Next**. The Add Roles Wizard appears.
- 3 On the Select Server Roles page, select Web Server (IIS) and click **Next**.
- 4 On the Web Server (IIS) page, click **Next**.
- 5 On the Select Roles Services page, select the following roles:
  - **Common Http Features**: Select all the features.
  - **Application Development**: Select ASP.NET, .NET Extensibility, ASP, CGI, ISAPI Extensions and ISAPI Filters.
  - **Health and Diagnostics**: Select HTTP Logging, Request Monitor, and Request Filtering.
  - **Performance**: Select Static Content Compression.

- **Management Tools:** Select IIS Management Console. Under IIS 6 Management Compatibility, select IIS 6 Metabase Compatibility.
- **FTP Publishing Service:** Select all the features.

Click **Next**.

- 6 On the Confirmation page, click **Next**.
- 7 On the Progress page, click **Next**.
- 8 On the Installation Results page, click **Close**.

Set up the features by following the steps below:

To set up features on Windows 2008:

- 1 Open the Server Manager. In the left navigation pane, right-click **Features**, and then select **Add Features**. The Add Features Wizard appears.
- 2 On the Select Features page, select the following features:
  - **.NET Framework 3.0 Features (Installed):** Select all the features.
  - **WCF Activation:** Select all the features.
  - **Message Queuing:** Select Message Queuing Server and HTTP Support.

Click **Next**.

- 3 On the Web Server (IIS) page, click **Next**.
- 4 On the Roles Services page, click **Next**.
- 5 On the Progress page, click **Next**.
- 6 On the Installation Results page, click **Close**.

---

## Installing Third-Party Software

### Install the MSXML 4.0 SP3 Parser

To install the MSXML 4.0 SP3 parser:

- 1 Run the MSXML 4.0 SP3.msi file. The Setup Wizard appears.
- 2 On the End-User License Agreement page, read and accept the terms in the license agreement, and then click **Next**.
- 3 On the Customer Information page, enter your user name and organization name, and then click **Next**.
- 4 On the Choose Setup Type page, click **Install Now**.
- 5 After the installation is complete, click **Finish** to close the Setup Wizard.

## Install the Microsoft SQL Server System CLR Types (x64)

To install Microsoft SQL Server System CLR Types (x64):

- 1 Run the SQLSysClrTypes.msi file. The Installation Wizard appears. Click **Next**.
- 2 On the License Agreement page, read and accept the terms in the license agreement, and then click **Next**.
- 3 On the Registration Information page, enter your user name and organization name, and then click **Next**.
- 4 On the Ready to Install the Program page, click **Install**.
- 5 After the installation is complete, click **Finish** to close the Installation Wizard.

## Install the Microsoft SQL Server 2008 R2 Management Objects (x64)

To install the Microsoft SQL Server 2008 R2 Management Objects (x64):

- 1 Run the SharedManagementObjects.msi file. The Installation Wizard appears. Click **Next**.
- 2 On the License Agreement page, read and accept the terms in the license agreement, and then click **Next**.
- 3 On the Registration Information page, enter your user name and organization name, and then click **Next**.
- 4 On the Ready to Install the Program page, click **Install**.
- 5 After the installation is complete, click **Finish** to close the Installation Wizard.

## Install the Access Database Engine x64 2010

**Note:** Install Access Database Engine x64 2010 when Microsoft Office 2010 x64-bit is installed. Ensure that no 32-bit version of MS Office components are installed.

To install the Access Database Engine x64 2010:

- 1 Run the AccessDatabaseEngine\_x64.exe file.
- 2 Read and accept the terms in the license agreement, and then click **Continue**.
- 3 After the installation is complete, click **Close** to close the Installation Wizard.

## Install Microsoft Access Runtime 2013

**Note:** Install Microsoft Access Runtime 2013 when Microsoft Office 2013 x64-bit is installed. Ensure that no 32-bit version of MS Office components are installed.

To install Microsoft Access Runtime 2013:

- 1 Run the AccessRuntime\_en-us\_x64.exe file.
- 2 Read and accept the terms in the license agreement, and then click **Continue**.
- 3 After the installation is complete, click **Close** to close the Installation Wizard.

## Install Microsoft WSE 3.0

To install Microsoft WSE 3.0:

- 1 Run the Microsoft WSE 3.0.msi file. The Installation Wizard appears. Click **Next**.
- 2 On the License Agreement page, read and accept the terms in the license agreement, and then click **Next**.
- 3 On the Setup Type page, select **Runtime** setup type (default), and then click **Next**.
- 4 On the Ready to Install the Program page, click **Install**.
- 5 After the installation is complete, click **Finish** to close the Installation Wizard.

## Install Microsoft Visual C++ 2008 Redistributable - x64 9.0.30729.17

To install Microsoft Visual C++ 2008 Redistributable - x64 9.0.30729.17:

- 1 Run the vcredist\_x64.exe file. The Installation Wizard appears. Click **Next**.
- 2 On the License Terms page, read and accept the license terms, and then click **Install**.
- 3 After the installation is complete, click **Finish** to close the Installation Wizard.

## Install the SAP Crystal Reports Runtime Engine for .NET Framework (64-bit)

To install the SAP Crystal Reports runtime engine for .NET Framework (64-bit):

- 1 Run the CRRedist2008\_x64.msi file. The Installation Wizard appears. Click **Next**.
- 2 On the License Agreement page, read and accept the license terms, and then click **Next**.

- 3 On the Start Installation page, click **Next**.
- 4 After the installation is complete, click **Finish** to close the Installation Wizard.

## Install ImageMagick 6.8.8-8-Q16-x64

To install ImageMagick 6.8.8-8-Q16-x64:

- 1 Run the ImageMagick-6.8.8-8-Q16-x64-dll.exe file. The Setup Wizard appears. Click **Next**.
- 2 On the License Agreement page, read and accept the license terms, and click **Next**.
- 3 On the Information page, read the instructions, and click **Next**.
- 4 On the Select Destination Location page, specify the location for the installation, and click **Next**.
- 5 On the Select Start Menu Folder page, specify the location where the program's shortcut should be created. Click **Next**.
- 6 On the Select Additional Tasks page, select **Create a desktop icon** and **Add application directory to your system path**, and click **Next**.
- 7 On the Ready to Install page, click **Install**.
- 8 After the installation is complete, the Information page shows the instructions for verifying the installation. To continue with the setup, click **Next**.
- 9 After the setup is complete, click **Finish** to close the Setup Wizard.

## Install GPL Ghostscript

To install GPL Ghostscript:

- 1 Click <http://downloads.ghostscript.com/public/gs914w64.exe>.
- 2 In the self-extractor dialog box, click **Setup**.
- 3 In the **GPL Ghostscript Setup** dialog box, specify the locations for installation and shortcuts. Click **Install**.

---

## For SAS Marketing Operations Management Desktop

SAS Marketing Operations Management Desktop is an extended part of the SAS Marketing Operations Management solution, which is built on the AIR platform from Adobe. The Desktop helps to catalog digital data in bulk or batch into the Digital Library. You can easily associate metadata or business information with it (which is not possible through the web-based solution).



File Sharing:

- 1 The Desktop connects to the Cataloger Server to transfer the selected files to catalog into the SAS Marketing Operations Management system.
- 2 The Desktop then connects to the Solution Server to validate the user and retrieve the section hierarchy the user has access to.

System Requirements for using the Desktop:

- Ensure that a minimum of 5 MB disk space is available.
- To deploy the SAS Marketing Operations Management Desktop on the end-user desktop machine, you must connect to the SAS Marketing Operations Management web server and the cataloger machine. Either the machine's IP address or its DNS name should be publicly visible via the Internet.

---

## Configuring the SQL Server

### Set Up the Communication Protocol

To set up the communication protocol for the SQL server:

- 1 Select **Start ► Programs ► Microsoft SQL Server 2008 R2 ► Configuration Tools ► SQL Configuration Manager**.
- 2 Expand **SQL Native Client Configuration**, and select the **Client Protocols** option.
- 3 Enable the **TCP/IP** protocol.

### Set the Time-out for Query Execution

To set the query execution time-out for the SQL server to 0 (that is, to be infinite):

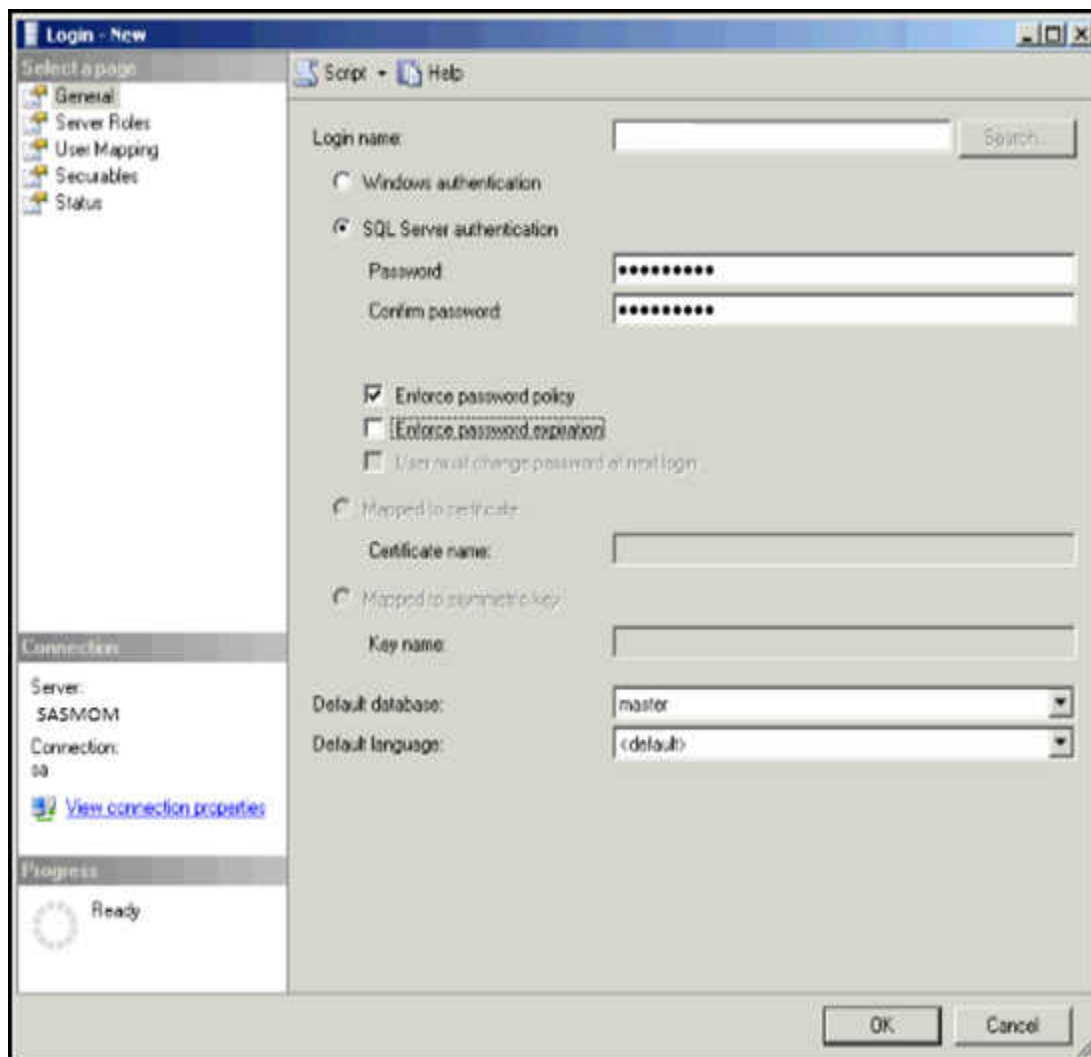
- 1 Open Microsoft SQL Server Management Studio.
- 2 Connect to the database server by supplying the appropriate credentials.
- 3 Select **Tools Menu ► Options**.
- 4 In the tree view, expand **Query Execution ► SQL Server**.
- 5 Click **SQL Server**. A list of settings is displayed. Set the value of the execution time-out to 0. Save the setting.
- 6 Close all instances of SQL Server Management Studio and restart the SQL Server (MSSQLSERVER) from the Services panel.

## Create a Database User Login Account in SQL Server

To create a SAS Marketing Operations Management database user login account in SQL Server 2008 R2:

- 1 Launch SQL Server Management Studio by selecting **Start ► Programs ► Microsoft SQL Server 2008 R2**.
- 2 Expand the **Security** folder in the left pane.
- 3 Right-click **Logins** and select **New Login**. The Login - New window appears.

Display 2.1 Login-New Window



- 4 Specify the following information:
  - a Select **SQL Server authentication** and enter the password for this login.
  - b Clear the **Enforce password expiration** check box.
  - c Select **master** as the default database.

## Installing WebDAV

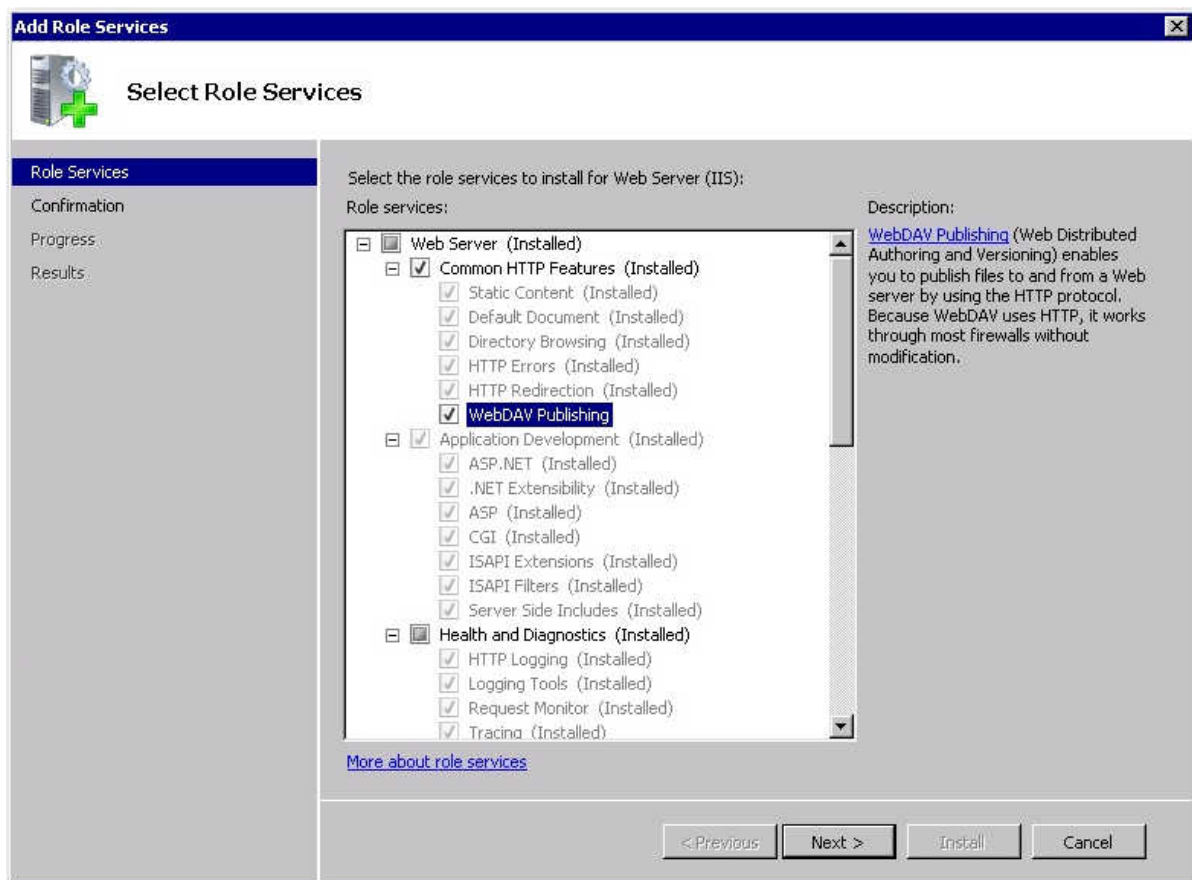
WebDAV is required only for the Approvals and Marketing Workbench.

### Install WebDAV on Windows 2012 and IIS 8.5

To install WebDAV:

- 1 Select **Start ► Run**, and enter **Server Manager**.
- 2 Click the **Server Manager** node, which is in the left pane at the top of the tree view.
- 3 In the right pane, determine whether the WebDAV feature is installed in the web server (IIS) role. If it is not installed, then click the **Add Role Services** link and select the **WebDAV Publishing Service**.

*Display 2.2 Select Role Services*



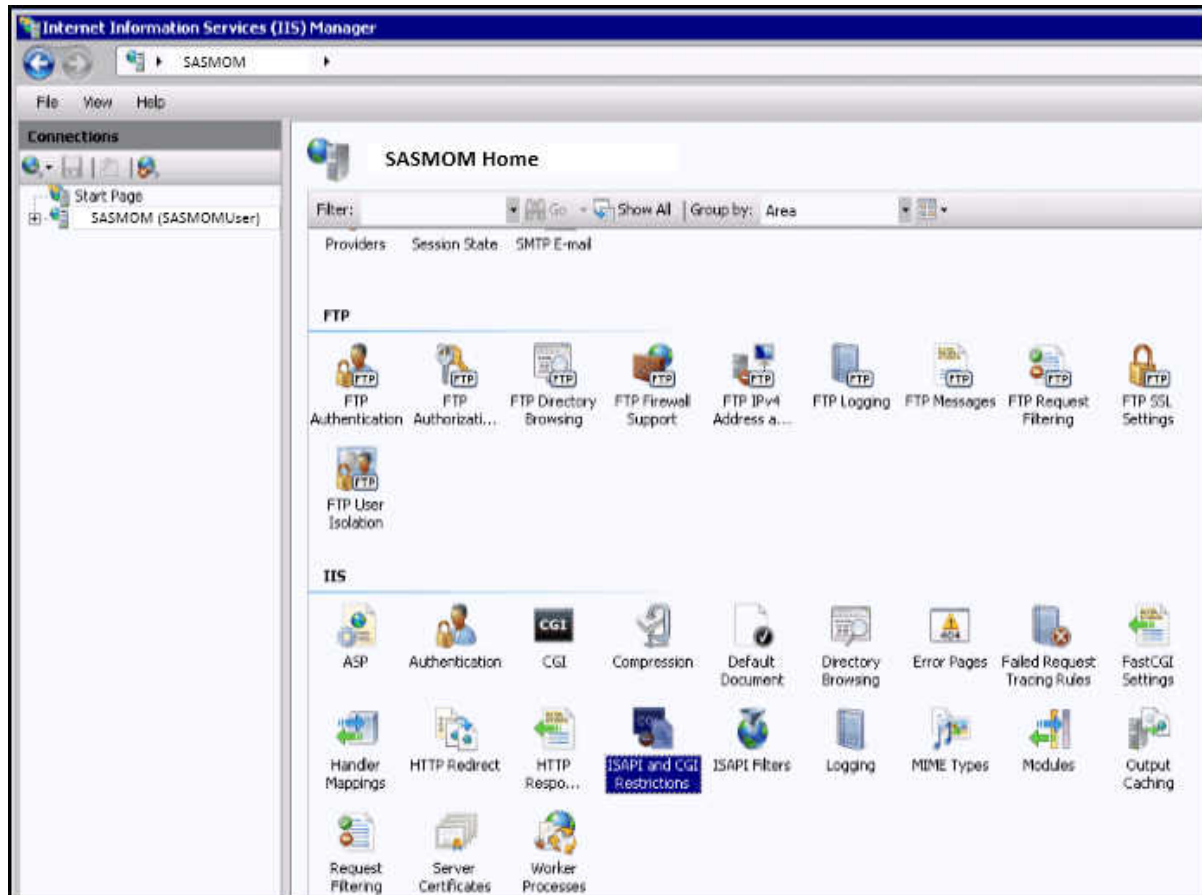
Click **Next**.

- 4 On the Confirm Installation Instructions page, read the information and click **Install**.
- 5 On the Result page, click **Close**.

## Verify IIS Settings


Ensure that the web service extensions section for the default web site allows ASP.NET for version v4.0.30319. Go to the Internet Information Service (IIS) Manager, click on the <Server Name> item in the **Connections** menu on the left pane. In the IIS section, double-click the **ISAPI and CGI Restrictions** icon.

Display 2.3 Connections



Ensure that **Allowed** is set for ASP.NET v4.0.30319 for 64 bit.

Display 2.4 ISAPI and CGI Restrictions

 **ISAPI and CGI Restrictions**

Use this feature to specify the ISAPI and CGI extensions that can run on the Web server.

Group by: No Grouping

Description	Restriction	Path
[No Description]	Allowed	C:\Windows\system32\mqise.dll
Active Server Pages	Allowed	C:\Windows\system32\inetrv\asp.dll
ASP.NET v2.0.50727	Allowed	C:\Windows\Microsoft.NET\Framework64\v2.0.50727\aspnet_isapi.dll
ASP.NET v2.0.50727	Allowed	C:\Windows\Microsoft.NET\Framework\v2.0.50727\aspnet_isapi.dll
ASP.NET v4.0.30319	Allowed	C:\Windows\Microsoft.NET\Framework\v4.0.30319\aspnet_isapi.dll
ASP.NET v4.0.30319	Allowed	C:\Windows\Microsoft.NET\Framework64\v4.0.30319\aspnet_isapi.dll
WebDAV	Allowed	C:\Windows\system32\inetrv\webdav.dll

# Start ASP.Net State Service

Start the ASP.Net State Service if it is not already started. and Ensure that this service has the start up type set as automatic.



## 3

# Installing SAS Marketing Operations Management

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## Installing SAS Marketing Operations Management

### Initial Steps

If you are installing an individual server in the target configuration, you might need to select one installer component or multiple installer components. How many you select is dependent on which tiers are to be hosted on that server. During the installation process, the installation folder is created and a SASMOMTools folder is created on the same drive. You must restart every server after the installation process is complete.

You can install SAS Marketing Operations Management application on a single server or on multiple servers.

- 1** In the SAS Software Depot, double-click **Setup**.
- 2** Select the language, and click **OK**.
- 3** On the Select Deployment Task page, select **Install SAS software**. Click **Next**.
- 4** On the Specify SAS Home page, select the **SAS home** folder. Click **Next**.
- 5** On the Select Products to Install page, select **SAS Marketing Operations Management**, and click **Next**.
- 6** On the Select Regional Settings page, select **English** for the locale, and click **Next**.
- 7** Depending on whether you want a single-machine installation or a multiple-machine installation, perform the relevant steps:
  - For single-machine installation, see [“Additional Steps for a Single-Machine Installation” on page 26](#).

- For multiple-machine installation, see “[Additional Steps for a Multiple-Machine Installation](#)” on page 27.

## Additional Steps for a Single-Machine Installation

In order to perform the following steps, you must have completed the steps described in “[Initial Steps](#)” on page 25.

- 1 On the SAS Marketing Operations Management Setup page, select all the components that you want to install. Click **Browse** to select the destination folder, and then click **Next**.

**Note:** If you anticipate high usage of video files, the Media Processor for FLV generator should be on an independent machine because a considerable amount of memory is required. If you do not install it on a separate machine, all the other requests might be delayed.

- 2 On the User Details page, enter the user password, and click **Next**. The password should match the password policy of the server. The user is created automatically during the installation process.
- 3 On the Server Details page, enter all the server details. Enter the server names or IP addresses of the machines on which the components are installed. Select a communication protocol, and click **Next**.
- 4 On the Number of Catalogers page, select **No** for the **Will this be set up with two catalogers** field. Click **Next**. On the Catalogers Details page, enter the cataloger server name or IP address.  
**Note:** In a single-machine configuration, there can be only one cataloger.
- 5 On the Additional Component Details page, enter the names or IP addresses for the machines, and click **Next**.
- 6 On the WebDAV Support page, select the **Does this setup support WebDAV** option, if applicable. Click **Next**.
- 7 (Optional) If you selected the **Does this setup support WebDAV** option: On the WebDAV Details page, enter the WebDAV folder path, and then click **Next**.
- 8 On the Script Execution page, choose how you want to execute the scripts, and then click **Next**. The script is executed only when you are migrating the system to a newer version and not for an initial installation. Continue with the default selection.
- 9 On the **E-mail Information** page, enter the first name, last name, and e-mail address of the user who will receive e-mail notifications from the system.
- 10 After the file system check is complete, click **Next**.
- 11 On the Deployment Summary page, click **Start**.
- 12 After the installation is complete, click **Next**. On the next page, click **Finish** to close the SAS Deployment Wizard.



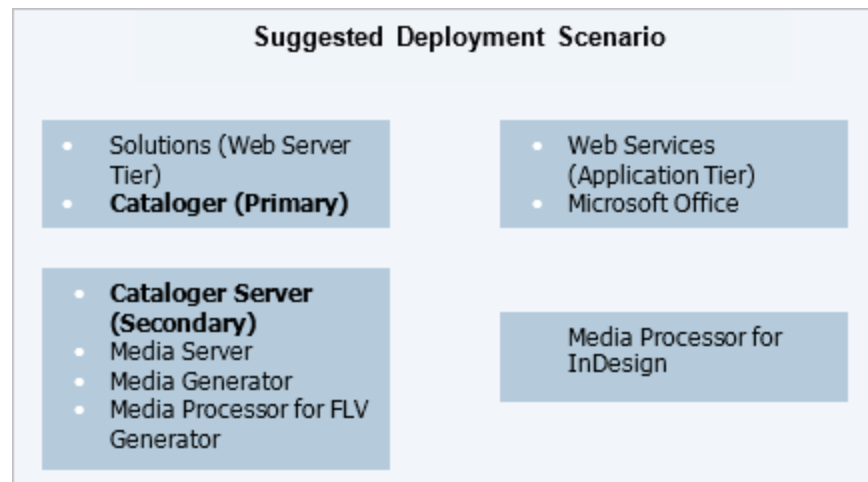
## Additional Steps for a Multiple-Machine Installation

### Prerequisites

Run the SAS Deployment Wizard on each machine in the configuration. All the components need to be installed on the same drive and on the same network. The password for the ALUser should be the same on all the machines.

The following figure shows a sample deployment of SAS Marketing Operations Management on multiple servers. The figure shows a deployment that uses two catalogers, primary and secondary. If you are using only one cataloger, then you need to install the primary cataloger on the Cataloger Server.

*Display 3.1 Suggested Deployment Scenario*



### Install Solutions and Primary Cataloger on the Web Server Tier

If you are installing only one cataloger, you must install that cataloger on the Cataloger Server, not on the Web Server tier.

To install solutions and the primary cataloger (in a two-cataloger deployment) on the Web Server tier:

- 1 On the SAS Marketing Operations Management Setup page, select **Solutions** and **Cataloger**. Click **Browse** to select the destination folder, and then click **Next**.
- 2 On the User Details page, enter the user password, and click **Next**. The password should match the password policy of the server. The user is created automatically during the installation process.
- 3 On the Server Details page, enter all the server details. Enter the server names or IP addresses of the machines on which the components are installed. Select a communication protocol, and then click **Next**.
- 4 On the Number of Catalogers page:

- If you are installing two catalogers, select **Yes** for the **Will this be set up with two catalogers** field. Click **Next**.
  - If you are installing only one cataloger, select **No** for the **Will this be set up with two catalogers** field. Click **Next**.
- 5 On the Cataloger Details page, enter the cataloger details and specify whether this machine is the primary cataloger. Click **Next**.
  - 6 On the Additional Component Details page, enter the names or IP addresses for the machines, and then click **Next**.
  - 7 On the WebDAV Support page, select the **Does this setup support WebDAV** option, if applicable. Click **Next**.
  - 8 (Optional) If you selected the **Does this setup support WebDAV** option: On the WebDAV Details page, enter the WebDAV folder path, and then click **Next**.
  - 9 After the file system check is complete, click **Next**.
  - 10 When you are prompted for a reboot, click **Allow**.
  - 11 After the installation is complete, click **Next**. On the next page, click **Finish** to close the SAS Deployment Wizard.

### Install Web Services and Microsoft Office Processor

- 1 On the SAS Marketing Operations Management Setup page, select **Web Services** and **Microsoft Office Processor**. Click **Browse** to select the destination folder, and then click **Next**.
- 2 On the User Details page, enter the user password, and then click **Next**. The password should match the password policy of the server. The user is automatically created during the installation process.
- 3 On the Server Details page, enter all the server details. Enter the server names or IP addresses of the machines on which the components are installed. Select a communication protocol, and then click **Next**.
- 4 On the Number of Catalogers page:
  - If you are installing two catalogers, select **Yes** for the **Will this be set up with two catalogers** field. Click **Next**.
  - If you are installing only one cataloger, select **No** for the **Will this be set up with two catalogers** field. Click **Next**.
- 5 On the Cataloger Details page, enter the cataloger details, and then click **Next**.
- 6 On the Additional Component Details page, enter the names or IP addresses for the machines, and then click **Next**.
- 7 On the Script Execution page, choose how you want to execute the scripts, and then click **Next**. The script is executed only when you are migrating the system to a newer version and not for an initial installation. Continue with the default selection.
- 8 On the **E-mail Information** page, enter the first name, last name, and e-mail address of the user who will receive e-mail notifications from the system.

- 9 After the file system check is complete, click **Next**.
- 10 On the Deployment Summary page, click **Start**.
- 11 When you are prompted for a reboot, click **Allow**.
- 12 After the installation is complete, click **Next**. On the next page, click **Finish** to close the SAS Deployment Wizard.

### Install Secondary (or Only) Cataloger, Media Server, Media Generator, and Media Processor for FLV Generator

If you are installing only one cataloger, you must install that cataloger on this tier.

- 1 On the SAS Marketing Operations Management Setup page, select **Cataloger, Media Processor for FLV Generator, Media Server, and Media Generator**. Click **Browse** to select the destination folder, and then click **Next**.
- 2 On the User Details page, enter the user password, and then click **Next**. The password should match the password policy of the server. The user is automatically created during the installation process.
- 3 On the Server Details page, enter all the server details. Enter the server names or IP addresses of the machines on which the components are installed. Select a communication protocol, and then click **Next**.
- 4 On the Number of Catalogers page:
  - If you are installing two catalogers, select **Yes** for the **Will this be set up with two catalogers** field. Click **Next**.
  - If you are installing only one cataloger, select **No** for the **Will this be set up with two catalogers** field. Click **Next**.
- 5 On the Cataloger Details page, enter the cataloger details and specify whether this machine is the primary cataloger. Click **Next**.
- 6 On the Additional Component Details page, enter the names or IP addresses for the machines, and then click **Next**.
- 7 On the **E-mail Information** page, enter the first name, last name, and e-mail address of the user who will receive e-mail notifications from the system.
- 8 After the file system check is complete, click **Next**.
- 9 After the installation is complete, click **Finish** to close the SAS Deployment Wizard.

**Note:** When you have completed the installation, restart the machine. If you are installing SAS Marketing Operations Management on multiple machines, restart each machine after installation.

### Install Media Processor for InDesign

- 1 On the SAS Marketing Operations Management Setup page, select **Media Processor for InDesign**. Click **Browse** to select the destination folder, and then click **Next**.

- 2 On the Server Details page, enter all the server details. Enter the server names or IP addresses of the machines on which the components are installed. Select a communication protocol, and then click **Next**.
- 3 On the Number of Catalogers page:
  - If you are installing two catalogers, select **Yes** for the **Will this be set up with two catalogers** field. Click **Next**.
  - If you are installing only one cataloger, select **No** for the **Will this be set up with two catalogers** field. Click **Next**.
- 4 On the Cataloger Details page, enter the cataloger details and specify whether this machine is the primary cataloger. Click **Next**.
- 5 On the Additional Component Details page, enter names or IP addresses for the machines, and then click **Next**.
- 6 On the **E-mail Information** page, enter the first name, last name, and e-mail address of the user who will receive e-mail notifications from the system.
- 7 After the file system check is complete, click **Next**.
- 8 After the installation is complete, click **Finish** to close the SAS Deployment Wizard.

**Note:** When you have completed the installation, restart the machine. If you are installing SAS Marketing Operations Management on multiple machines, restart each machine after installation.

# Part 2

## Post-Installation

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## 4

## Post-Installation Tasks

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### Overview

After you complete the installation, restart the machine. If you have performed a multi-machine installation, restart each machine after the installation process is complete. Refer to *SAS Marketing Operations Management: Quick Start Guide* for a quick installation verification and application functionality validation.

After the installation is completed, check the log files for any exceptions. The log files (InstallationSettingsLog.txt and CreateTenant\_<Tenant Name>.txt) are stored under the <Installation folder> on the machine.

### Confirm Installation of Windows Services

The Windows services are installed on all the servers where SAS Marketing Operations Management is installed. Go to the services panel by clicking on **Start ► Administrative Tools ► Server Manager**, and then click the **Services** item. Right-click each service and start the service. The installer sets the service to automatic and sets the selected services to run under the ALUser account.

**Note:** If any of the services are not installed, launch the InstallServices.bat file located under <Installation Path>/Binaries and refer to [“Running a Service under the ALUser Context” on page 86](#) for more information. The Installation folder is in the location that you specified when you installed SAS Marketing Operations Management.

**Note:** You can start the SAS MOM Cataloger and SAS MOM File Watcher services only after you have set the mount points for a tenant. You set the mount points after you create the tenant. Refer to [“Create the Tenant” on page 39](#).

The DAM Job copy service and Replication service are required only if you are using a setup where an external setup is available. These two services are not

installed by the installer, and you need to install them manually. To install these services, run the following batch files, which are located at *<Installation folder>/Binaries*:

- **InstallDAMJobCopyServices.bat**: Install this service on the network machine on which the cataloger mount point for external setup is configured.
- **InstallReplicationAgentServices.bat**: Install this service on the solutions machine.

Confirm successful installation of all the following services by launching the Services applet from the **Administrative Tools** control panel:

**Note:** You can start the services mentioned in the table in any order.

**Table 4.1** Services

Services	.exe File	User Account	Component	Description
SAS MOM Back-Office Service	ALBackOfficeService.exe	Local System	Web Services	This service executes back-end processes at a specified time daily within SAS Marketing Operations Management for each tenant.
SAS MOM Dashboard Service	ALDashboardService.exe	Local System	Web Services	This service generates the SAS Marketing Operations Management dashboard for each tenant.
SAS MOM Notification Service	ALNotificationService.exe	Local System	Web Services	This service sends e-mail notifications to the SAS Marketing Operations Management users.
SAS MOM Text Cataloger Service	ALTextCatalogerService.exe	Local System	Web Services	This service extracts text from specific searchable files and make it available for text searches.
SAS MOM Queue Manager Service	ALQueueManagerService.exe	AIUser	All components.	This service is used to process the messages added in SAS Marketing Operations Management queues.
SAS MOM Cataloger Service	ALCatalogerService.exe	AIUser	Cataloger	This service processes the catalog jobs for each tenant.



Services	.exe File	User Account	Component	Description
SAS MOM File Watcher Service	ALFileWatcherService.exe	AIUser	Cataloger	This service monitors the cataloger mount point on the arrival of a new catalog job for each tenant.
SAS MOM Format Watcher Service	ALFormatWatcherService.exe	Local System	Solutions	This service monitors the format watcher mount point for a new format job and processes it for each tenant. This service is used for the Artwork Producer.
SAS MOM WebDAV Service	ALWebDAVService.exe	Local System	Solutions	This service monitors the WebDAV location for each tenant for the arrival of approvals comments.
SAS MOM PluginService Service	ALPluginService.exe	AIUser	Web Services, Media Server	This service invokes the plug-ins that are registered for the service.
SAS MOM BusinessEvents Service	ALBusinessEventsService.exe	AIUser	Solutions, web Services	This service is used to track changes for entities and facets.
SAS MOM Report Scheduler	ALReportScheduler.exe	Local System	Web Services	This service sends scheduled SAS Marketing Operations Management reports.
SAS MOM Service Monitor	ALServiceMonitor.exe	AIUser	All the Machines	This service monitors other SAS Marketing Operations Management services.
SAS MOM NTFS Monitoring Service	ALNTFSMonitoringService.exe	Local System	Web Services	This service monitors the specified NTFS folder and adds events in the MSMQ on the NTFS change event. This service functions across all the tenants.

**Note:** The SAS MOM Service Monitor monitors all the SAS Marketing Operations Management services on all the machines on which SAS Marketing Operations Management is installed. If any of the services stop for any reason, this service restarts it. You can adjust the interval of the polling in the .xml file. For more information about the SAS MOM Service Monitor configuration, refer to [“SAS Marketing Operations Management Service Monitor Configuration” on page 73](#).

---

## Microsoft Office Processor Machine Settings

ALUser is automatically created by the installer. After this user is created, complete the following steps on the machine on which Microsoft Office Processor is installed.

To consolidate Microsoft Word documents in an Approval job or in a Marketing Workbench task:

- 1 Log on as ALUser and launch Microsoft Word on the web services machine.
- 2 Select **Use recommended settings**, and click **Accept**.
- 3 On the Welcome page, click **Next**.
- 4 On the Sign in page, click **No thanks, maybe later**.
- 5 On the **Meet SkyDrive** page, click **Next**.
- 6 On the last page, click **All done!**.

For Adobe Acrobat:

- 1 Launch Adobe Acrobat 8.0, 9.0, or X Professional.
- 2 In the Getting Started dialog box, select **Do not show at startup**, and then close the dialog box.
- 3 Log off as ALUser from this machine.

---

## Configuring Security Permissions for Application Launch

- 1 Select **Start ▶ Run** and type `Dcomcnfg.exe`.
- 2 Navigate to **Component Services ▶ Computers ▶ My Computer ▶ DCOM Config**.
- 3 For each application listed in [Table 4.2 on page 37](#), complete the following steps:
- 4 Right-click on the application and select **Properties**.

5 On the **Security** tab, specify the following settings:

- **Launch and Activation Permissions:** If you select the **Customize** option, click **Edit**. Add users in the **Group or user names** section. Allow Local Launch, Remote Launch, Local Activation and Remote Activation permissions.
- **Access Permissions:** If you select the **Customize** option, click **Edit**. Add users in the **Group or user names** section. Allow Local access and Remote access permissions.
- **Configuration Permissions:** If you select the **Customize** option, click **Edit**. Add users in the **Group or user names** section. Allow **Full Control** to the user.

**Note:** When Digital Library supports a shared network folder, you must specify the DCOM settings for ALUser on the Application Services, Media Services, and the Cataloger tiers.

Here are the DCOM settings for the Microsoft Office Processor Server:

*Table 4.2 DCOMConfig*

User: Network Service, ALUser (IIS)	Applications		
	Microsoft Excel Application	Microsoft Word 97–2003 Document	Microsoft PowerPoint Slide
Permissions			
Launch and Activation	Customize	Customize	Customize
Access	Use Default	Use Default	Use Default
Configuration	Customize	Customize	Customize

On the **Identity** tab, complete the following steps for all applications mentioned in [Table 4.2 on page 37](#):

- 1 Select the **This User** radio button.
- 2 Click **Browse** to select ALUser.
- 3 Add the user to the group or user names box. Provide the appropriate password for the **Password** and **Confirm Password** field.
- 4 Click **Apply** to apply the configuration, and then click **OK** to save and close the configuration.

If the Queue Manager Service fails to launch the respective applications, then change the DCOM configuration settings:

- 1 Select **Computer Management** ► **System Tools** ► **Local Users and Groups** and add **ALUser** to the Administrators group.
- 2 Go to the DCOM Config settings, right-click the item, and select **Properties** from the speed menu.

- 3 Click the **Identity** tab, and then select **The Launching User**.
- 4 Click **Apply** and **OK** to save the settings.

---

## Configure Settings for a Digital Library That Supports a Shared Network Folder

To set up the configuration:

- 1 Create a shared drive folder on any machine that is on the same network as the installation machines.
- 2 ALUser should have complete access to the shared drive folder.

**Note:** Specify access for ALUser on both the **Security Permissions** tab and the **Sharing Permissions** tab.

- 3 Allow Full Control to ALUser for the following locations:

- *Installation* folder
- Windows **Temp** folder
- **Temporary ASP.NET Files** folder .NET framework
- **c:\Temp** (Temp folder set in environment variable)
- On the Network folder that is created

**Note:** If the installation is in the DMZ, that is, if the solution is installed on an external machine, then add the following key in the `<tenant>\web.config` directory on the external machine: `<add key="CURRENTNETWORK" value="EXTERNAL" />`. When you add this key, functionality that is specific to network folder usage is not shown on the external machine because that machine cannot access the network folder.

## 5

## Tenant-Related Configuration Tasks

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---

## Configuring the Tenant

### Create the Tenant

If you are creating the database automatically, give dbcreator rights to the SAS Marketing Operations Management database user account created in . Go to SQL Server Management Studio by selecting **Start ► Programs ► Microsoft SQL Server 2008 R2 ► Security ► Logins** and double click the SAS Marketing Operations Management database user account and follow the steps given below:

- Select Server Roles from the left pane.
- Select the dbcreator and public server roles for the new login. Click OK.

**Note:** The installation folder (which was created on all the machines during the setup process) must be given Write access. Remove the Read-Only setting for this folder.

To create the tenant, double-click the TenantCreation application located in the folder *Installation Folder\Tenant Creation*.

The following figure shows typical inputs that you supply to the tenant creation utility.

**Display 5.1** Tenant Creation

Tenant Creation	
Tenant Name	MOM
Database Type	SQL Server
Database Machine Name	10.10.10.10
Database Server Instance Name	DEFAULT
Database Name	MOM
ODS Database Name	MOM_ODS
Database User Name	SASMOM
Database Password	*****
Create Database Automatically	Yes
Use Media Server	No
Auditing	True
File System	WINDOWS
Mount Point (for Files)	C:\SASMOM\MountPoint
Out Box (for Files)	C:\SASMOM\OUTBOX
Max File Count (for Files)	1000
XML Mount Point	C:\SASMOM\XMLMountpoint
Server Installation Path	C:\SASMOM\
Default Language	English

Note : 1. If this is a Load Balanced Setup, please provide the UNC Path for Mount Point, Out Box and XML Mount Point paths.  
For e.g: \\<Machine Name>\...

2. Out Box for all tenants must be the same

Save

Here are the guidelines for creating the tenant:

- You can use only English alphabets (A–Z) and Arabic numerals (0–9) for the tenant name. The tenant name cannot start with a numeric character, cannot contain spaces, and cannot contain the string `xml` as part of the name.
- Select **SQL Server** as the database type.
- Enter a database machine name or an IP address.
- The database server instance is populated as soon as you select the database type. You should not change it unless required. For **SQL Server**, the value is **Default**.
- Enter the database name for creating the database (the tenant creation utility creates the database). The database user name and password are the credentials of the SQL Server login created in [“Create a Database User Login Account in SQL Server”](#) on page 20.
- The **ODS Database Name** field is `Database name_ODS` by default. You should not change this value.
- The **Server Installation Path** field refers to the installation path that you selected at installation.
- The **Auditing** field is set to **True** by default.
- On the web services machine, the MountPoint (for files) and the XML Mount Point should be located in a folder other than the tenant folder. It can reside within the installation directory but not under the tenant folder because this setup creates a performance issue. Every tenant should have an individual mount point and XML mount point.
- The virtual directory **DashboardImages** points to the Outbox folder of the tenant. If you have more than one tenant in a single-machine installation, all the tenants should point to the same Outbox folder.

**Note:** The Outbox path that you specify for the tenant should be such that the same drive can be specified on the Media Server Machine.

- In the **Max File Count** field, specify the maximum number of files that can reside within a folder under the Mountpoint or Vaults. When the file count

reaches the maximum count, a new folder is created and the subsequent files are put under this folder.

- If you have a multiple-machine installation, the **DashboardImages** points to the **DashboardImages** folder on the solutions machine.
- If any errors are generated while the tenant is being created, you can view the error details in a log file that is created in the path *Installation Folder\CreateTenant\_TenantName.txt*. This log file is created only on the solutions machine. If you have a multiple-machine installation, the log file is created on the web services machine.

## Folder Permissions

After you have created the tenant, give permissions for the following folders using the instructions in [“Grant Folder Permissions” on page 84](#). If these folders are in the installation folder, then you do not need to give permissions to them.

- MountPoint
- XMLMountPoint
- OutBox

## Create the Cataloger Mount Point

Enter the following URL in a browser to view the Login screen for the tenant: `http://IP Address/Tenant Name`. For the initial logon to the SAS Marketing Operations Management web application, use the following credentials:

- User Name: admin
- Password: sa

After you log on, you are prompted to enter a new password for the admin user. On the left pane under **Administration**, click the **Settings** link to navigate to the SAS Marketing Operations Management Settings page. In the **Cataloger Settings** section, specify the **MountPoint** for the primary cataloger. Specify the **Secondary MountPoint** if you have a secondary cataloger. The expected input for this field is the path in the file system to which the batch cataloger jobs will be submitted. (The mount point should not be inside the Installation folder)

**Note:** The MountPoints should not exist. They are created after you save the settings. The File Watcher Service polls this folder to detect the arrival of batch cataloging jobs. Be sure to start or restart the Cataloger and File Watcher services after you have saved these settings. Refer to [“Confirm Installation of Windows Services” on page 33](#) for more information about restarting the services.

In the tenant settings, the Cataloger Mount Point path should be specified as an UNC path. For example, `\\Machine name\Shared Folder Name\Cataloger Mount point`.

**Display 5.2** Cataloger Settings

**Note:** Any changes to these settings will require Cataloger and Filewatcher services to be restarted.

\* MountPoint: C:\SASMOM63\_R1\MountPointPri

\* Secondary MountPoint: C:\SASMOM63\_R1\MountPointSec

External MountPoint:

Retry Count: 5

Retry Interval (Milliseconds): 5000

Enable Versioning (Digital Asset with same name): Yes

Overwrite Business Information during Versioning: No

Thread Time Out (Milliseconds): 3600000

\* Preview height: 768

\* Preview width: 1024

Preview depth: 24

Preview DPI: 72

\* Thumbnail height: 125

\* Thumbnail width: 125

Thumbnail depth: 24

Thumbnail DPI: 72

The following guidelines apply:

- 1 If the *Cataloger Mount Point* folder is outside the installation directory, then you must give **Full Control** to the IUSR, NETWORK SERVICE, and SYSTEM user accounts in the *Cataloger Mount Point* folder.
- 2 The cataloger mount point should be a shared folder and ALUser should have complete access to the cataloger mount point.

**Note:** Right-click on the folder and specify access for ALUser on both the **Security Permissions** tab and the **Sharing Permissions** tab.

If the Cataloger and the Media Server are on separate machines, then the Cataloger Mount Point is a shared folder.

**Note:** Ideally the Cataloger and Media Server should be installed on the same machine.

If the Cataloger and the Media Server are on separate machines, complete the following steps:

- 1 ALUser should be configured with the same password on both the Cataloger and Media server machine.
- 2 Create a shared folder on the Cataloger machine.
- 3 On the **Sharing Permissions** tab and on the **Security Permissions** tab, grant complete access to shared folder to the following users:
  - ALUser
  - IUSR
  - NETWORK SERVICE
  - SYSTEM
- 4 Run the File Watcher and Cataloger Services under the ALUser account.



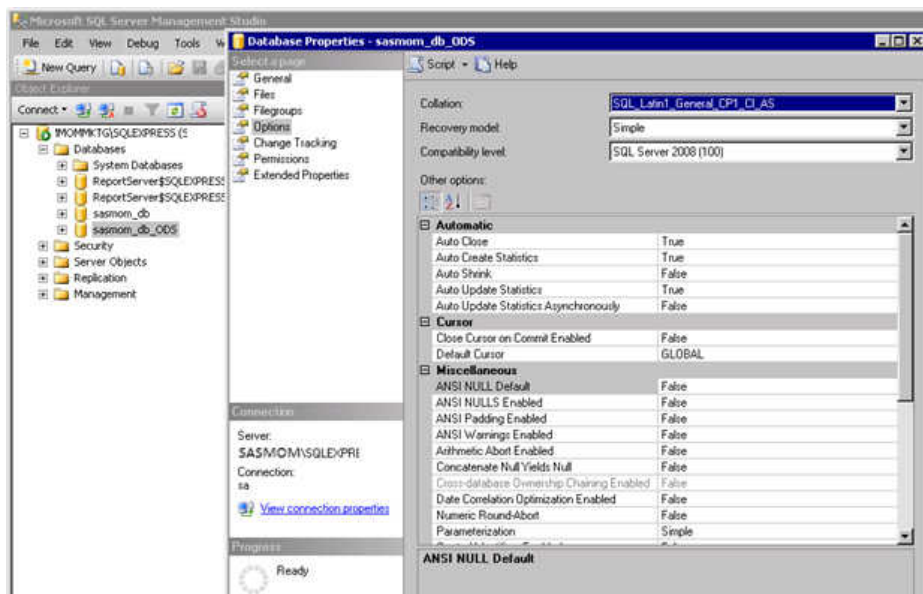
## Configuring Additional Settings for the Tenant

### Grant Permission to the Database

The database user should have permissions to set the recovery model for the database as **Simple** mode in order to minimize the accumulation of log files in the database.

This setting is applicable for the SAS Marketing Optimization Management ODS database, which is created by the tenant application. The following figure shows where to make this change in Microsoft SQL Server Management Studio.

Display 5.3 Database Properties



### Grant Permissions to the Database User

In day-to-day usage, the SAS Marketing Operations Management database user does not require a creator or owner permission. To grant the limited set of permissions to the SAS Marketing Operations Management database user on the Tenant and ODS database, complete the following steps.

#### Note:

- Complete these steps on both Tenant and the ODS database separately.
- Complete the steps using the sa login account or a user account that has permissions to create a user and role. Change the user role membership and database ownership, and grant or deny the database permission.
- Before you apply these settings, make sure no one is using SAS Marketing Operations Management. Stop the SAS Marketing Operations Management

services and IIS on all the servers and ensure that none of the SAS Marketing Operations Management scheduled tasks are running during this time. After all these settings are applied, start the services that were stopped.

- The SAS Marketing Operations Management database user login account refers to the database server login account that was created through **Server ► Security ► Logins** for the Tenant.
- The SAS Marketing Operations Management database user refers to the user account that was created for the individual database that corresponds to the user login account created in [“Create a Database User Login Account in SQL Server” on page 20](#).

To grant the required permissions:

- 1 Go to **Databases ► Database ► Security ► Roles ► Database Roles**, and select **New Database Role**. Create the role <SASMOMRole>, and click **OK**.
- 2 Double-click the <SASMOMRole> role, and then click **Securables** in the left pane.
- 3 In the right pane, search for the *Tenant* database and the ODS database. Select the following permissions:

**Table 5.1** Permissions List

Grant List	Deny List
Alter	Alter any application role
Authenticate	Alter any assembly
Connect <b>Note:</b> Do not select this access on SQL Server 2008 R2.	Alter any asymmetric key
Delete	Alter any certificate
Execute	Alter any contract
Insert	Alter any database audit
Select	Alter any database DDL trigger
Update	Alter any database event notification
	Alter any dataspace
	Alter any fulltext catalog
	Alter any message type
	Alter any remote service binding
	Alter any role
	Alter any route

Grant List	Deny List
	Alter any service
	Alter any symmetric key
	Alter any user
	Backup database
	Backup log
	Checkpoint
	Create aggregate
	Create assembly
	Create asymmetric key
	Create certificate
	Create contract
	Create database ddl event notification
	Create default
	Create fulltext catalog
	Create function
	Create message type
	Create queue
	Create remote service binding
	Create role
	Create route
	Create rule
	Create schema
	Create service
	Create symmetric key
	Create type
	Create view

Grant List	Deny List
	Subscribe query notifications
	Take ownership

- 4 If you created the database automatically, the SAS Marketing Operations Management database user has the db\_owner rights. That is, the user belongs to the db\_owner role. Remove the user from the db\_owner role.

Verify whether the SAS Marketing Operations Management database user is listed under **Databases** ► **<Database>** ► **Security** ► **Users**, and do one of the following:

- If the SAS Marketing Operations Management database user is not listed, then verify whether the dbo user corresponds to the SAS Marketing Operations Management database user account. Double-click on the dbo user and verify whether the login name is the same as the SAS Marketing Operations Management database user login account. If they are the same, then set the database owner to the sa account. Right-click on the database, select **Properties**, and then click the **Files** link in the left pane.
  - If the SAS Marketing Operations Management database user is listed, then double-click on the SAS Marketing Operations Management database user. Remove the user from the db\_owner role by clearing the check box (in the **Database role membership** section), and then click **OK**.
- 5 If the SAS Marketing Operations Management database user is not listed under **Databases** ► **<Database>** ► **Security** ► **Users**, then create a SAS Marketing Operations Management database user corresponding to the user login account that you created for the database server. Right-click **Users** and select **New User**. Provide the SAS Marketing Operations Management database user name for the **User name** and select the SAS Marketing Operations Management database user login account for the login name.
- 6 Go to **Databases** ► **<Database>** ► **Security** ► **Users**. Double-click on the user name and select the **<SASMOMRole>** role under the **Database role membership** section in the right pane.
- 7 If the user is a member of the dbcreator role, remove the SAS Marketing Operations Management database user login account from that role. To do so go to **Server** ► **Security** ► **logins**, double-click on the user name, and click the Server Roles link in the left pane.

**Note:**

- Before you create a new tenant, add the SAS Marketing Operations Management database user login account back into the dbcreator role.
- Similarly before you perform a migration or update of SAS Marketing Operations Management, you must add the SAS Marketing Operations Management database user back into the dbowner role and remove it from the **<SASMOMRole>** role.

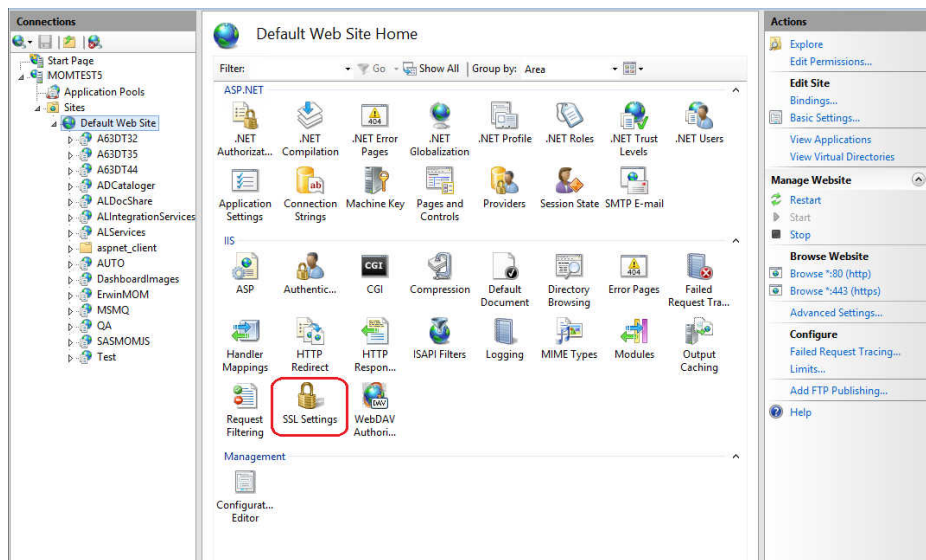
## Disable HTTP

If you selected the HTTPS protocol while you were installing SAS Marketing Operations Management, you must disable HTTP.

To disable HTTP:

- 1 Select **Start ▶ Run** and type **IIS Manager**.
- 2 Click the **Default Web Site** node in the tree view in the left pane.
- 3 Double-click the **SSL Settings** icon.

**Display 5.4** IIS Manager Window



- 4 Select the **Require SSL** check box.
- 5 Select the **Ignore** radio button for the Client certificates.

## Configure FTP Sites for the Artwork Producer

If you are using Artwork Producer, then you need to create the following FTP sites:

**Table 5.2** FTP Sites

FTP Site Name	Folder Path	Description
ExportedFormats or <TenantName>_ExportedF ormats	<Installation Dir> \<TenantName> \Exported Formats	Formats exported from the system are copied into this folder. You can use this FTP site to download the exported format.

FTP Site Name	Folder Path	Description
DownloadedFormats or <TenantName>_Download edFormats	<Installation Dir> \<TenantName> \Downloaded Formats	Formats downloaded from the system are copied into this folder. You can use this FTP site to download the format.
<Any Name>	<Installation Dir> \<TenantName>\Import Formats	The system uses this folder to pick up formats to be exported out of the system. You can upload exported formats (to be imported into the system) to the folder by using this FTP site.

After you create these FTP sites, you must modify the <TenantName>.xml file that is located in <InstallationDir>\Configuration\XML on the solutions machine. Make the following changes in this file:

```

<ARTWORKPRODUCER>
  <DOWNLOADFORMAT>
    <FTPNAME>DownloadedFormats</FTPNAME>
    <FTPROOTPATH>C:\Assetlink60\ALMOM\Downloaded Formats</FTPROOTPATH>
  </DOWNLOADFORMAT>
  <EXPORTFORMAT>
    <FTPNAME>ExportedFormats</FTPNAME>
    <FTPROOTPATH>C:\Assetlink60\ALMOM\Exported Formats</FTPROOTPATH>
  </EXPORTFORMAT>
  <IMPORTFORMAT>
    <IMPORTPATH>C:\Assetlink60\ALMOM\Import Formats</IMPORTPATH>
  </IMPORTFORMAT>
</ARTWORKPRODUCER>

```

- 1 Go to the ARTWORKPRODUCER\EXPORTFORMAT\FTPNAME node and modify the FTP name to be the name that was supplied when ExportedFormats was created.
- 2 Go to the ARTWORKPRODUCER\DOWNLOADFORMAT\FTPNAME node and modify the FTP name to be the name that was supplied when ExportedFormats was created

## Restart the Windows Services

After you create the Cataloger Mount Point, restart the following Windows services:

- SAS MOM Back-Office Service
- SAS MOM Cataloger Service
- SAS MOM DAM Job Copy Service (only if this service is installed)
- SAS MOM Dashboard Service
- SAS MOM File Watcher Service
- SAS MOM Format Watcher

- SAS MOM Notification Service
- SAS MOM PluginService Service
- SAS MOM Queue Manager Service
- SAS MOM Replication Agent Service (only if this service is installed)
- SAS MOM Report Scheduler
- SAS MOM Service Monitor
- SAS MOM Text Cataloger Service
- SAS MOM WebDAV Service (only if WebDAV is installed)
- SAS MOM NTFS Monitoring Service

Refer to [“Confirm Installation of Windows Services” on page 33](#) for more information.

## Verify Scheduled Tasks

The following scheduled tasks are created automatically:

- AL\_DAMBackgroundRequestHandler
- ALCleanUp utility
- DAMVaultUserAccessUpdate
- MOMDiagnosticUtilityRptGenerator
- SecurityPolicyUpdate

If these tasks are not scheduled, determine whether the scheduled tasks have been created. Refer to [“Configuring Scheduled Tasks” on page 111](#) for more information.





## 6

## Additional Configuration Tasks

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## Changing the ALUser Password

### Overview of Changing the ALUser Password

The ALUser is created at the time of installation. Depending on the password policies at your organization, you need to change the ALUser password periodically.

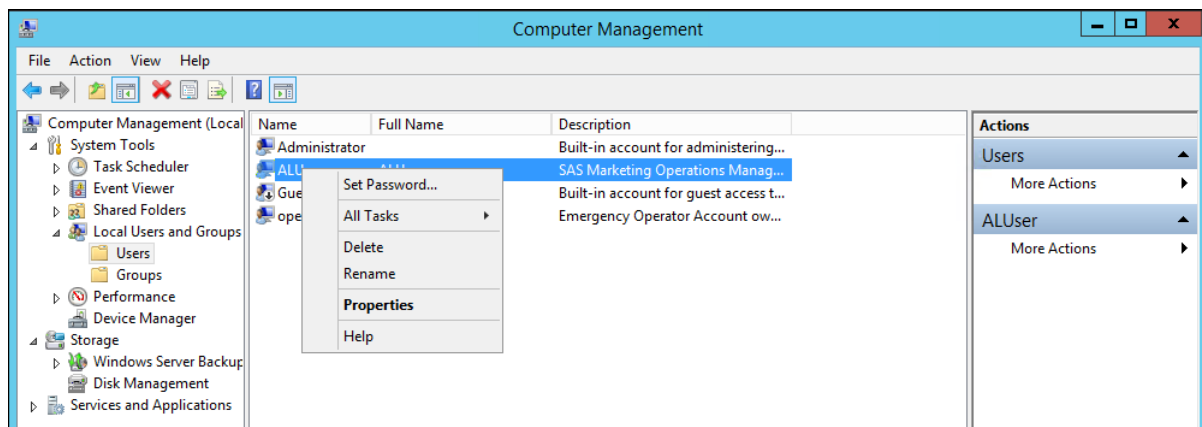
**Note:** The password for ALUser should be the same on all servers in your configuration.

### Change the ALUser Password on the Servers

To change the password for ALUser on all the servers in your setup:

- 1 Navigate to Computer Management from **Start ► Control Panel ► Administrative Tools ► Computer Management**.
- 2 In the tree view, expand **Local Users and Groups** under **Computer Management**.
- 3 Right click **ALUser** and select **Set Password**.

*Display 6.1 Computer Management Window*



- 4 Enter the new password, and click **OK**.

## Windows Services

You must modify the Windows services related to SAS Marketing Operations Management, which run on the ALUser account.

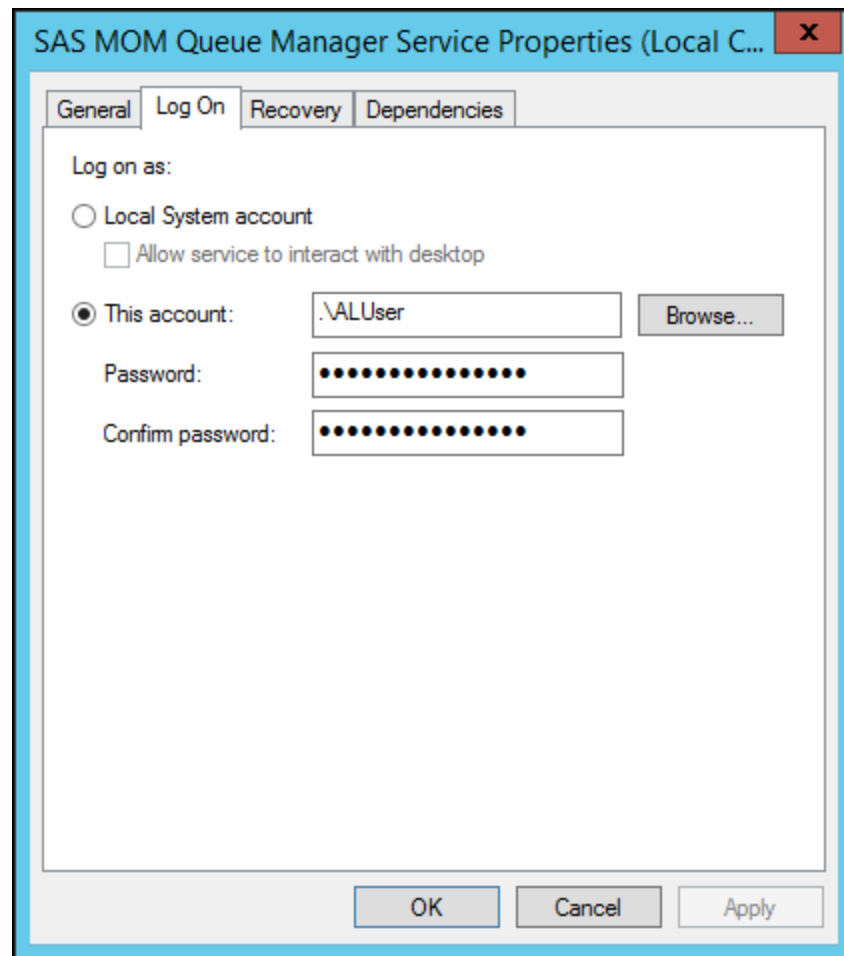
Complete the following steps for each SAS Marketing Operations Management service that is in your configuration:

**Note:** You must complete these steps on all the servers that are in your setup.

- 1 Open the Services applet.

- 2 Right-click on a service, and select **Properties**.
- 3 Click the **Log On** tab. ALUser is the default account.

*Display 6.2 SAS MOM Queue Manager Service Properties*



- 4 Modify the password.
- 5 Click **Apply** to apply the settings. Click **OK**.
- 6 Restart the service.

## Change the ALUser Password in the DCOM Configuration

You need to change the DCOM configuration for Microsoft Office Processor, depending on which components are installed in your environment:

- Microsoft Excel Application
- Microsoft Office Word Document
- Microsoft Office PowerPoint Slide

To change the password for ALUser in the DCOM configuration:

- 1 Select **Start** ► **Run**, and then open DCOMCnfg.

- 2 Select **Component Services** ► **Computers** ► **My Computer** ► **DCOM Config**.
- 3 Right-click on the application and select **Properties**. On the **Identity** tab, change the settings. ALUser is selected.
- 4 Modify the password.
- 5 Click **Apply** to apply the settings.
- 6 Click **OK** to save and close the configuration.

## Change the ALUser Password for Application Pools

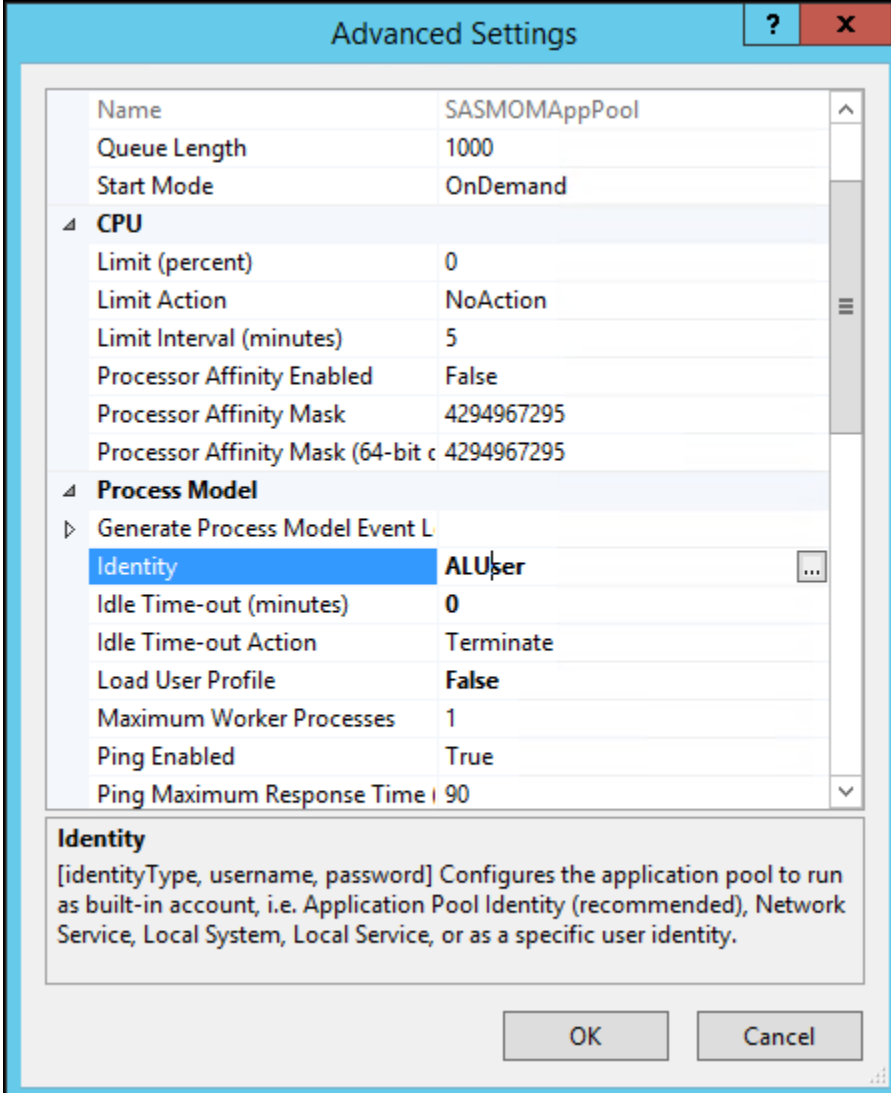
Complete the following steps to change the ALUser password for SASMOMAppPool.

**Note:** You need to follow the steps on solutions, web services, cataloger, media server, and Microsoft Office processor servers.

To change the ALUser password for the SASMOMAppPool:

- 1 Open Internet Information Services (IIS) Manager from the **Start** menu. Navigate to the path <Server Name>\Application Pools.
- 2 Click the **Advanced Settings** option for SASMOMAppPool.
- 3 Expand the Process Model section. Click the ellipses button in the **Identity** row.

Display 6.3 Advanced Settings Dialog Box



The dialog box is titled "Advanced Settings" and contains a table of configuration options for the "SASMOMAppPool". The table is organized into sections: General, CPU, Process Model, and Identity. The "Identity" section is currently selected, showing the "Identity" dropdown set to "ALUser".

Advanced Settings	
Name	SASMOMAppPool
Queue Length	1000
Start Mode	OnDemand
<b>CPU</b>	
Limit (percent)	0
Limit Action	NoAction
Limit Interval (minutes)	5
Processor Affinity Enabled	False
Processor Affinity Mask	4294967295
Processor Affinity Mask (64-bit c	4294967295
<b>Process Model</b>	
Generate Process Model Event L	
Identity	ALUser
Idle Time-out (minutes)	0
Idle Time-out Action	Terminate
Load User Profile	False
Maximum Worker Processes	1
Ping Enabled	True
Ping Maximum Response Time	90
<b>Identity</b> [identityType, username, password] Configures the application pool to run as built-in account, i.e. Application Pool Identity (recommended), Network Service, Local System, Local Service, or as a specific user identity.	

Buttons: OK, Cancel

- 4 Click **Custom account**, and then click **Set**.
- 5 Modify the password and click **OK**.

## Verify the System

After you complete all the changes for the ALUser password, complete the following tasks:

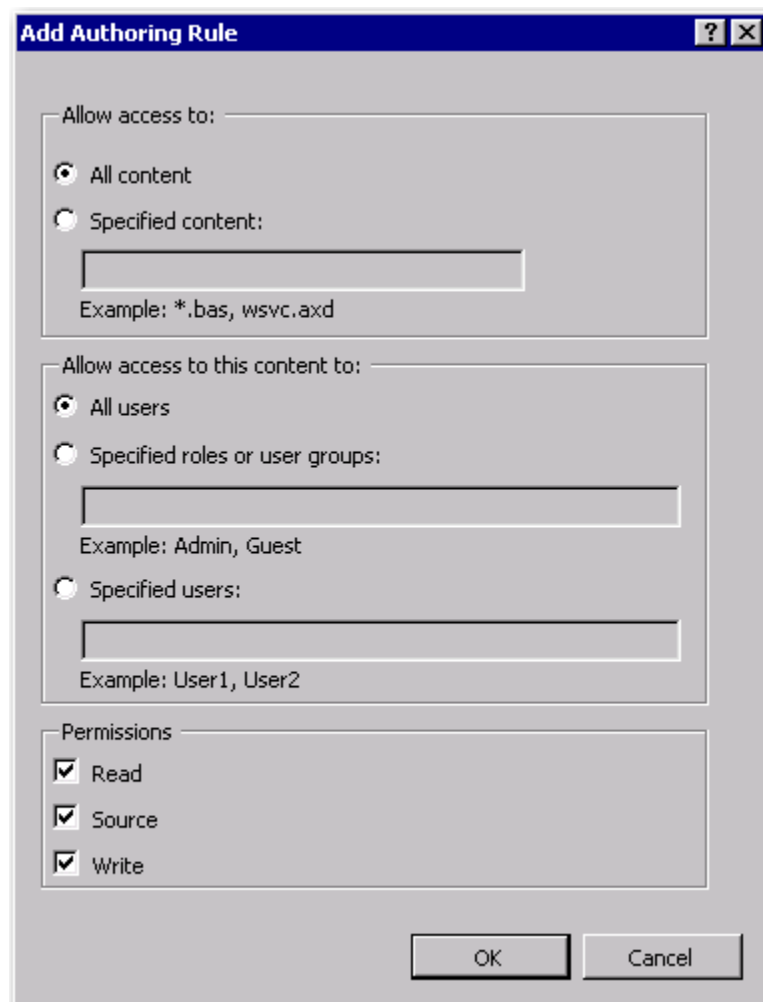
- Verify that the Windows services are started on all the servers.
- Verify that a login to the SAS Marketing Operations Management system via a browser is successful.
- Test the specific modules.

## Enabling WebDAV

Configure the following settings in IIS Manager:

- 1 Select **Start ► Run**, and type **IIS Manager**.
- 2 Select the **Default Web Site** node in the tree view on the right pane.
- 3 Double-click the **WebDAV Authoring Rules** icon.
- 4 Click **Enable WebDAV** in the **Actions** section on the right pane.
- 5 Click the **Add Authoring Rule** link to add an authoring rule for **Default Website**. Select the Read, Source, and Write permissions.

*Display 6.4 Add Authoring Rule Dialog Box*



## Configuring WebDAV on IIS 8.5

To configure WebDAV on IIS 8.5, complete the following on the web server machine for WebDAV:

- 1 Make sure you know the password for ALUser. Create a string in the user:password format. For example, ALUser:test
- 2 Convert this string to a Base64 string by using the converter at the following site: <http://www.motobit.com/util/base64-decoder-encoder.asp>. The example ALUser:test convert to QUxVc2VyOnRlc3Q=.
- 3 Navigate to <http://www.iis.net/downloads/microsoft/url-rewrite#additionalDownloads> and install the appropriate URL Rewrite module from this site.
- 4 After you install the appropriate URL Rewrite module, create an authoring rule in **WebDAV Authoring Rules** for ALUser. Open IIS Manager on the web server machine and double-click the **WebDAV Authoring Rules** icon.
- 5 Click **Add Authoring Rule** in the right pane. The Add Authoring Rule dialog box appears.
- 6 Select **Specified users**. In the **Permissions** section, select **Read**, **Source**, and **Write** permissions for ALUser.
- 7 To create a Server Variable HTTP\_Authorization:
  - a After you install the appropriate URL Rewrite module from the IIS website, the **URL Rewrite** icon is available in IIS Manager. Double click the **URL Rewrite** icon.
  - b Click the **View Server Variables** link available in the right pane under **Manage Server Variables**.
  - c Click **Add** in the right pane, and add a server variable with the name HTTP\_Authorization.
- 8 Double-click the **URL Rewrite** icon and create a rule under the ALDocShare virtual directory. The rule must set the server variable HTTP\_Authorization to *Basic <base64 encoded in step 2>*. This setting will modify the web.config code that is located in the root of the WebDAV directory.
  - a Open **URL Rewrite** from the ALDocShare virtual directory.
  - b Create a blank rule by clicking the **Add Rule(s)** link in the left pane. Click **Blank Rule**.
  - c Enter the following values to set the inbound rule:
    - a Enter a name.
    - b In the **Match URL** section:
      - **Requested URL**: Select **Matches the Pattern**.
      - **Using**: Select **Wildcards**.

- **Pattern:** Enter **\***.
  - c **Conditions input:**

```
{REQUEST_METHOD}
```
  - d Check if input string: Select **Matches the pattern**.
  - e **Pattern:** Enter **\***.
  - d Set the server variable for the rule. Use the base64 encoded value for the user:password string that you generated in [Step 2 on page 57](#), and provide it as a value for the server variable name value as `Basic` `<base64 encoded in step 2>`.
  - e Select the action type as **None**, and select the **Stop processing of subsequent rules** check box.
- 9 Under the WebDAV virtual directory, disable **Anonymous Authentication**, and enable only **Basic Authentication**.
- 10 Restart IIS on the web server.

---

## Configuring the Media Server Proxy

SAS Marketing Operations Management uses the Media Server component to share the load of the IIS for downloading data from the system. When you are downloading files, SAS Marketing Operations Management directly accesses the Media Server. If you have a DMZ setup and the media server is installed on an internal server, then SAS Marketing Operations Management cannot access the Media server directly. To handle this situation, use the following workaround:

When you are installing solutions in DMZ, select **Media Server** along with the other components. This Media Server will be treated as a proxy of the internal Media Server. You must change the following configuration after the installation.

Tenant Web.config on the external solution machine:

```
<add key="DeploymentMode" value="MULTI" />

<add key="ALMEDIASERVERFILEDOWNLOADURL"
value="http://<External solution machineIP>/ALMediaServices/Aspx/FileDownload.aspx" />
```

Media services web.config on the external solution machine. Add the following keys:

```
<add key="ALMEDIASERVERMTOMWS"
value="http://<Media ServerIP>/ALMediaServices/ALMTOMWS.asmx" />

<add key="ISMEDIASERVERPROXYINSTALLED" value="true" />

<add key="UploadAssemblyName"
value="<Installation Dir>\SAS MOM\<Tenant Folder>\Bin\ALCommonExtension.dll" />
```

Dashboard service exe configuration on the internal server, `InstallationMode = MULTI`.

After you complete these changes, the external solution will be able to download the original and preview files from the system and display the digital asset channels on the external server.



## Configuring the Replication Agent

The following sections provide the guidelines for installing the Replication Agent, which is used to replicate files across machines. You must complete the following configurations before you start the agent.

### Configure the Replication Agent

The Replication Agent is always installed on the Solutions (web server) machine. The Replication Configuration .XML file is present in *<Installation Directory>\Configuration\ReplicationAgentConfig.xml*.

**Note:** Replication does not replicate sites across machines. You must manually replicate sites that are created in the system through an internal or external setup onto other machines. Sites that are created on the internal setup have to be copied manually on the external machine. This holds true for external to internal also. Whenever any changes are made to a site, you should complete the replication process.

To configure the Replication Agent:

- 1 Replace \$AL\$INSTALLDIR\$AL\$ with installation directory path. For example, replace \$AL\$INSTALLDIR\$AL\$ with D:\SASMOM60\_R14.

**Note:** Do not include a backslash at the end of the path.

- 2 Replace \$AL\$TENANTNAME\$AL\$ with the name of the created tenant. For example, replace \$AL\$TENANTNAME\$AL\$ with ASO.

- 3 FILESTOPRESERVE: This has to be configured only when certain attributes from the file need to be retained after replication. For example, for AEO, an internal machine, WEBDAVREQUIRED is always set to **YES**. For an external machine, the WEBDAVREQUIRED is always set to **NO**.

**Note:** If attributes do not need to be retained after replication, remove the **FILESTOPRESERVE** node.

The following folders and files are monitored by the Replication Agent Service:

**Table 6.1** Folders and Files Monitored by the Replication Agent Service

Folder	File
\$AL\$INSTALLDIR\$AL\$\\$AL\$TENANTNAME\$AL\$\DAM\Configuration\XML	*.xml
\$AL\$INSTALLDIR\$AL\$\\$AL\$TENANTNAME\$AL\$\DAM\Configuration\XML \FormBuilder	*.xml
\$AL\$INSTALLDIR\$AL\$\\$AL\$TENANTNAME\$AL\$\MediaLibrary \Configuration\XML	*.xml
\$AL\$INSTALLDIR\$AL\$\\$AL\$TENANTNAME\$AL\$\MediaLibrary \Configuration\XML \FormBuilder	*.xml

Folder	File
\$AL\$INSTALLDIR\$AL\$\'\$AL\$TENANTNAME\$AL\$\'StrategicPlanner \Configuration\XML	*.xml
\$AL\$INSTALLDIR\$AL\$\'\$AL\$TENANTNAME\$AL\$\'StrategicPlanner \Configuration\XML \FormBuilder	*.xml
\$AL\$INSTALLDIR\$AL\$\'\$AL\$TENANTNAME\$AL\$\'MarketingWorkbench \Configuration\XML	SolutionConfiguration.xml
\$AL\$INSTALLDIR\$AL\$\'\$AL\$TENANTNAME\$AL\$\'MarketingWorkbench \Configuration\XML	*_DataTransferConfig.xml
\$AL\$INSTALLDIR\$AL\$\'\$AL\$TENANTNAME\$AL\$\'MarketingWorkbench \Configuration\XML \FormBuilder	*.xml
\$AL\$INSTALLDIR\$AL\$\'\$AL\$TENANTNAME\$AL\$\'Approvals \Configuration\XML\	*.xml
\$AL\$INSTALLDIR\$AL\$\'\$AL\$TENANTNAME\$AL\$\'Approvals \Configuration\XML\FormBuilder	*.xml
\$AL\$INSTALLDIR\$AL\$\'\$AL\$TENANTNAME\$AL\$\'Administration \Configuration\XML	*.xml
\$AL\$INSTALLDIR\$AL\$\'\$AL\$TENANTNAME\$AL\$\'Administration \Configuration\XML\FormBuilder	*.xml
\$AL\$INSTALLDIR\$AL\$\'\$AL\$TENANTNAME\$AL\$\'ResourceManagement \Configuration\XML	*.xml
\$AL\$INSTALLDIR\$AL\$\'\$AL\$TENANTNAME\$AL\$\'ResourceManagement \Configuration\XML\FormBuilder	*.xml

## Configure the Replication Server

The Replication Server is always installed on the SAS Marketing Operations Management Services machine.

On that machine, configure the ReplicationServerConfig.xml file that is located in the *<Installation Directory>\Configuration\XML* folder. You must change the following configuration to indicate the agents that are present and the details about that agent.

```
<CONFIGURATION>
  <AGENTLIST>
    <INTERNALAGENT/>
    <EXTERNALAGENT/>
  </AGENTLIST>
</CONFIGURATION>
```

After you change the configuration, the .XML file contains information similar to the following:

```
<CONFIGURATION>
```

```

<AGENTLIST>
<INTERNALAGENT>
<AGENT IP="198.113.120.127" >c:\SAS MOM 60</AGENT>
</INTERNALAGENT>
<EXTERNALAGENT>
<AGENT IP="198.113.120.172">E:\SAS MOM 60</AGENT>
</EXTERNALAGENT>
</AGENTLIST>
</CONFIGURATION>

```

If the communication protocol for internal agents is always `TCP`, then the communication protocol for external agents is `http://` by default.

## Routing Media Requests

This setting is required only if you are using an external machine (not in network).

Open the file in `<Installation Directory>\Configuration\XML\MediaRequestRouter.xml`. You need to change the node that is specific to ReplicationServer in MEDIAPROCESSQ to point to the internal machine ReplicationServerQ. Change the highlighted portion to the following:

```

FormatName:DIRECT=http://<Internal machine IP address>
/msmq/Private$/ReplicationServerQ

```

After you make the changes, the .XML file contains information that is similar to the following:

```

<MEDIAPROCESSOR SOLUTIONNAME="ReplicationManager">
<ROUTEMESSEAGETIMEOUT>720</ROUTEMESSEAGETIMEOUT>
<APPLICATION TYPE="ReplicationServer">
<MEDIAPROCESSORQPATH>FormatName:DIRECT=
http://198.113.120.127/msmq/Private$/ReplicationServerQ</MEDIAPROCESSORQPATH>
<FILEPATH>
<REPLACEABLEPATH>D:\SAS MOM\Replication</REPLACEABLEPATH>
<NETWORKPATH/>
</FILEPATH>
</APPLICATION>
<APPLICATION TYPE="ReplicationAgent">
<MEDIAPROCESSORQPATH>FormatName:
DIRECT=TCP:198.113.120.172\Private$\ReplicationAgentQ</MEDIAPROCESSORQPATH>
<FILEPATH>
<REPLACEABLEPATH>D:\SAS MOM\Replication</REPLACEABLEPATH>
<NETWORKPATH/>
</FILEPATH>
</APPLICATION>
</MEDIAPROCESSOR>

```

## Installing Replication Agent Services

After you have completed the configuration, start the services. To install the Replication Agent, run the `InstallReplicationAgentServices.bat` file from the `<Installation Directory>\Binaries` folder. The service is installed and is displayed in the Services Panel.

Replication also requires the SAS MOM Queue Manager Service to be running. Start both the services from Service Panel.

**Note:** To uninstall the replication service, run the UninstallReplicationAgentServices.bat file from <Installation Directory>\Binaries. The SAS MOM Replication Agent Service is removed from the Service Panel.

## Fine-Tuning Tips

### Running Services Selectively

When SAS Marketing Operations Management is installed, several Windows services are also installed. These services run in the background to facilitate certain functionality that is provided by different solutions. As these processes run in the background, they consume resources in terms of database access and memory. You can selectively start these services, depending on whether the service is required.

**Table 6.2** Services and Dependencies

Service Name	Applications that Require this Service
SAS MOM Back-Office Service	Marketing Workbench, Approvals, Timesheets, Campaign Manager, Strategic Planner
SAS MOM BusinessEvents Service	Strategic Planner (This can be for Marketing Workbench, Claims Management, Offer Management and all other solutions where change management – Audit History on forms is tracked)
SAS MOM Cataloger Service	DAM (Mainly DAM, but can be used by other modules (such as Artwork Producer) if cataloging is used.
SAS MOM DAM Job Copy Service	DAM
SAS MOM Dashboard Service	Dashboard and Calendars
SAS MOM File Watcher Service	DAM (Mainly DAM, but could be used by other modules (such as Artwork Producer) if cataloging is used.
SAS MOM Format Watcher	Artwork
SAS MOM Notification Service	All Modules
SAS MOM NTFS Monitoring Service	Campaign Manager
SAS MOM PluginService Service	Marketing Workbench, Approvals, Strategic Planner
SAS MOM Queue Manager Service	Marketing Workbench, Approvals, Ad hoc Reports, Timesheets, Strategic Planner, DAM

Service Name	Applications that Require this Service
SAS MOM Replication Agent Service	All modules
SAS MOM Report Scheduler	Ad hoc Reports, Standard Reports
SAS MOM Service Monitor	All modules (this service monitors all the services that are used by various modules)
SAS MOM Text Cataloger Service	DAM (Text Search)
SAS MOM WebDAV Service (only if WebDAV is installed)	Marketing Workbench, Approvals, Strategic Planner

## Improving the Performance of the Digital Library Solution

Here are the keys and their values that need to be added in the Web.config file located at `<Installation Directory>\<Tenant Name>\` on the server on which the solutions are installed.

Example values:

```
<add key="MULTIDOMAINSUPPORT" value="true" />
<add key="MAXDOMAINCOUNT" value="5" />
<add key="PREFIXDOMAINNAME" value="Sun" />
<add key="SUFFIXDOMAINNAME" value="india.sas.com" />
```

Multi-domain support improves performance while fetching the thumbnails in DAM. The browser serializes the request to download a particular file. If there are 100 assets to be shown on the screen, then more time is required to download the files. You can download only two files at a time. If multiple domains are configured, then these requests are divided into the number of domains, which improves performance.

**Note:** Configure the domain before you set the multidomain key to `True`.

## Improving the Performance of SAS Marketing Operations Management

### SQL Services

In order to improve the performance of SAS Marketing Operations Management, start only the SQL services that the following table indicates should be started.

**Table 6.3** SQL Services

SQL Service	Started or Not Started	Automatic, Manual, or Disabled
SQL Server (MSSQLSERVER)	Started	Automatic
SQL Server Active Directory Helper	Not Started	Disabled
SQL Server Agent (MSSQLSERVER)	Started	Automatic
SQL Server Analysis Services (MSSQLSERVER)	Not Started	Manual
SQL Server Browser	Not Started	Disabled
SQL Server FullText Search (MSSQLSERVER)	Started	Automatic
SQL Server Integration Services	Not Started	Manual
SQL Server Reporting Services (MSSQLSERVER)	Off	Manual
SQL Server VSS Writer	Off	Manual

## Cache Management

Cache management is implemented in SAS Marketing Operations Management for quick retrieval of data rather than searching for information in the database every time. Information such as Entity Type, Facet Type, and Relationship Type are stored in memory. Information such as Named Hierarchies is stored in the file system.

- **Application Service Cache:** The Application Service caches the metadata such as Entity Type, Facet Type, and Relationship Type as an in-memory cache. This type of cache reduces queries to the database. The cache is configurable, and you can turn it on by using the following key in the Web.config file of the ALServices virtual directory: `<add key="OMCacheEnabled" value="true"/>`. The value `true` indicates that the cache is enabled.

**Note:** The cache is refreshed if the metadata is modified from the Schema Designer. If the metadata is modified from somewhere else, then restart the web server on the web services server machine.

- **Named Hierarchy Cache:** SAS Marketing Operations Management caches the Named Hierarchy information as a persistent data on the file system. This improves performance because data is fetched from the cache instead of by web service calls. The cache is stored at the following location:  
`<Installation Directory>\Temp\<Tenant Name>_Cache`

All the named hierarchies are stored as an XML file.

You can configure the cache and turn it on by using the following key in the Web.config file of the <TenantName> virtual directory on the SAS Marketing Operations Management Solutions machine: <add

key="PersistentCacheEnabled" value="true"/>. The value true indicates that the cache is enabled.

**Note:** If possible, keep this folder out of the cleanup process. The cache is refreshed if the named hierarchy is changed from the Schema Designer. If the named hierarchy is modified from somewhere else, then you must delete the .XML files from the persistent cache.

---

## Tuning the Database

To tune the database for better performance:

- 1 Ensure that there are no active connections to the database:
  - a Stop all SAS Marketing Operations Management Services on all the servers in the installation.
  - b Reset IIS on the web services server.
  - c Run the following script using SQL Server Management Studio. Do not run this script on the ODS database.

```
DECLARE @SPID NVARCHAR(5),@CURRENT_SPID SMALLINT,@DBNAME NVARCHAR(75)
SELECT @CURRENT_SPID = @@SPID
SELECT @DBNAME = DB_NAME()

DECLARE C1 CURSOR FOR
SELECT SP.SPID
FROM
SYS.SYSPROCESSES SP INNER JOIN SYS.DATABASES DB
ON SP.DBID = DB.DATABASE_ID AND DB.NAME = @DBNAME AND SP.SPID <>
(SELECT @@SPID)

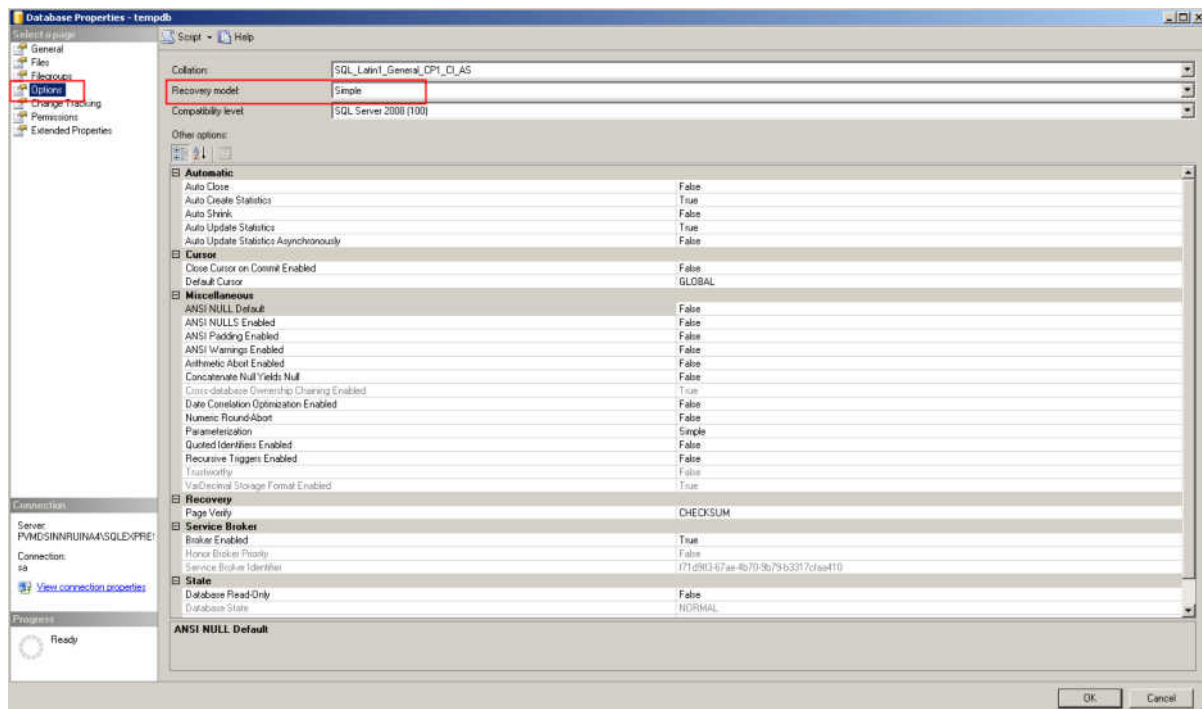
OPEN C1
FETCH NEXT FROM C1 INTO @SPID
WHILE @@FETCH_STATUS = 0
BEGIN
    EXEC ('KILL ' +@SPID)
    FETCH NEXT FROM C1 INTO @SPID
END
CLOSE C1
DEALLOCATE C1

EXEC (N'ALTER DATABASE ' +@DBNAME+' SET READ_COMMITTED_SNAPSHOT ON ')
GO
```

**Note:** Ideally, this script should not take more than 10 seconds to run. If you do not complete all the previous steps in this process, it will run in an infinite loop. The user running this script must have ALTER permission to the database.

- d Start all SAS Marketing Operations Management Services.
- 2 The Tenant Database log files and the Operational Data Store (ODS) transaction log files increase in size over long periods of system usage. You need to truncate the logs manually at regular intervals with the help of a Database Administrator to ensure that the disk space is optimally used.
- 3 Temp DB optimization recommendations:
  - **Recovery Model:** Set the recovery model of tempdb to **SIMPLE**.

Display 6.5 Recovery Model



- **Number of data files:** Create one data file per CPU. A dual-core CPU is considered to be two CPUs. Click **Files** and enter the following information:
  - Initial Size: 100 Mb
  - Autogrowth (File growth): By 10 %, Unrestricted growth
  - **Path (Location):** You should add the tempdb database on disks that differ from those that are used by user databases.

**Note:** For more information about these recommendations, see <http://msdn.microsoft.com/en-in/library/ms175527%28v=sql.105%29.aspx>.

## IIS Performance Tuning

### Minimize Logging

Microsoft recommends IIS logging to be minimized or even disabled completely on the production servers to improve IIS performance.



For more information about how to disable IIS logging, see the information about logging at <http://msdn.microsoft.com/en-us/library/ee377050%28BTS.10%29.aspx>.

## Application Pool Settings

SAS Marketing Operations Management is based on Microsoft .NET technology. It uses various Microsoft technologies in its own solution. It is assumed that SAS Marketing Operations Management is installed on a Windows 2008 Server and that IIS 7.0 is the base platform. For optimal performance of SAS Marketing Operations Management, the following configuration is required on Internet Information Services (IIS).

ASP.NET is disabled by default in IIS 7.0. If you do not enable ASP.NET, an error might be generated.

To enable ASP.NET:

- 1 Open Internet Information Services Manager.
- 2 Click **ISAPI and CGI Restrictions**.
- 3 Right-click **ASP.NET v4.0.30319** and select **Allow**.

The following steps describe the configuration that is recommended for the SASMOMAppPool application pool. (If SAS Marketing Operations Management is configured on any other Application Pool, then the following steps are applied for the configured Application Pool):

- 1 Recycling: The SASMOMAppPool application pool has the **Recycle Worker Process** setting enabled, which restarts the ASP.NET worker process after 1740 minutes (that is, 29 hours). You should disable the settings by completing the following steps:
  - a Open the Internet Information Services Manager.
  - b Go to **Application Pools / SASMOMAppPool / properties**.
  - c Click the **Recycling** tab and clear the **Recycle Worker Processes** check box.
- 2 Performance: The SASMOMAppPool application pool has the **Idle Timeout Shutdown Worker Process** setting enabled, which shuts down the ASP.NET worker process if the worker process is idle for 20 minutes. You should disable this setting by completing the following steps:
  - a Open the Internet Information Services Manager.
  - b Go to **Application Pools / SASMOMAppPool / properties**.
  - c Click the **Performance** tab and clear the **Shutdown worker processes after being idle for** check box.

---

## Configure SAS Marketing Operations Management for Full Text Searching

The default logical operator that is used for a simple search based on multiple words is AND. You can configure the default logical operator.

To change the logical operator to OR:

- 1 Open the `<TenantName>.xml` file from `<Installation Directory>\Configuration\XML`.

- 2 Look for the following XML node.

```
<FULLTEXTSEARCH>  
<LOGICALOPERATOR>AND</LOGICALOPERATOR>  
</FULLTEXTSEARCH>
```

- 3 Change the AND to OR.

```
<FULLTEXTSEARCH>  
<LOGICALOPERATOR>OR</LOGICALOPERATOR>  
</FULLTEXTSEARCH>
```

---

## Suppress Dialog Boxes for Automatic Updates

To disable the automatic updates in Adobe Acrobat 8.0 and 9.0:

- 1 Select **Help ► Check for Updates**. The Preferences link appears after updates are checked.
- 2 Click the **Preferences** link. The **Automatically check for updates** check box is displayed.
- 3 Clear the **Automatically check for updates** check box, and click **OK**.

---

## SAS Marketing Operations Management Diagnostic Utility

Beginning with SAS Marketing Operations Management 6.0 R14 Update 2, no files in the file system are physically deleted from the system. This prevents files from being accidentally deleted or lost. When a file is updated or overwritten, either in the user interface or by the system, a **Marked for deletion** flag is appended to the file. Since the files are not explicitly deleted, these files are present in the file system. These files must be cleaned up by a services person or by an administrative user with sufficient product knowledge.

Use the following utilities to clean the system:

- 1 **MOMDiagnosticUtilityRptGenerator:** This utility generates an XML report containing a list of files that are marked for deletion and that need to be removed from the server. This utility is executed by a scheduled task (MOMDiagnosticUtilityRptGenerator task) that is created on the application server after installation. This scheduled task runs at 12 a.m. every night and generates one report per tenant. The report is generated at *<Installation Directory>\Logs\MOMDiagnosticUtility* on the application server.

Read the report in the following manner:

- The utility creates multiple reports in an XML format in batches of 10,000 file entries. For example, if a total of 100,000 entries are found for MARKEDASDELETED, ORPHAN, or MISSING files, then the utility generates 10 reports of 10,000 entries each.
- The report naming convention is MDURG\_**<Tenant Name>**\_**<Date Time>**\_**<Sequence Number>**.xml. The sequence number begins at 0. In the previous example, the reports are created from 0 to 9.
- The last file contains the summary information about the space consumed and the file count. The following table describes the summary information:

**Table 6.4** Summary Information Generated by the MOMDiagnosticUtilityRptGenerator Utility

Node in Log File	Description
APP_SERVER_FILES	List of files on the application server that are to be cleaned up.
MEDIA_SERVER_FILES	List of files on the media server that are to be cleaned up.
MARKASDELETEDFILES	List of files on all servers that are marked for deletion.
MARKASDELETEDFILES (with MISSING attribute set to 1)	List of files that are missing. An entry for the file is in the ALFS_FILE table but there is no corresponding physical file on the NTFS.
ORPHANFILES	List of files that are orphaned. A physical file was found on the NTFS but there is no entry in the ALFS_FILE table.
SPACE_CONSUMED	Space consumed (in bytes) by the files marked for deletion on every server. Space is calculated per drive. A combined total of space consumed on all drives is also provided.
FILE_COUNTS	Count of the files to be cleaned up on every server.

- 2 **MOMDiagnosticUtilityRptProcessor:** Run this utility manually. This utility uses the reports generated by the MOMDiagnosticUtilityRptGenerator utility. It

cleans the files in the file system and the database entries. It is located in the `<Installation Directory>\Binaries` folder directory. This utility performs the cleanup per tenant, and then it generates the log files per tenant.

Read the report in the following manner:

- The utility creates multiple reports in an XML format that correspond to the reports generated by the MOMDiagnosticUtilityRptGenerator utility.
- The report naming convention is MDURP\_<Tenant Name>\_<Date Time>\_<Sequence Number>.xml. The sequence number begins at 0. In the previous example, the reports are created from 0 to 9.
- The last file contains the summary information about the space recovered and the file count. The following table describes the summary information:

**Table 6.5** Summary Information Generated by the MOMDiagnosticUtilityRptProcessor Utility

Node in Log File	Description
APP_SERVER_CLEANUP	List of files on the application server that were cleaned up.
MEDIA_SERVER_CLEANUP	List of files on the media server that were cleaned up.
MARKASDELETEDFILES	List of files on all servers that were marked for deletion and were cleaned up.
MARKASDELETEDFILES (with MISSING attribute set to 1)	List of files that were noted as missing on a server and were cleaned up.
ORPHANFILES	List of files that were orphaned on a server and were cleaned up.
SPACE_RECOVERED	Space recovered (in bytes) by the files that were cleaned up on every server. Space is calculated per drive. A combined total of space recovered on all drives is also provided.
FILE_COUNTS	The count of the files that were submitted to the utility for cleanup, per server.
FILE_COUNTS_PROCESSED	The log count of the files that were successfully processed or that failed while the utility was running.

**Note:**

- Remember to back up the file mount point, vaults, and database before you execute the MOMDiagnosticUtilityRptProcessor utility.
- You do not need to run this utility daily.
- Run this utility when the system is minimally used or outside of business hours.

## Configure SAS Marketing Operations Management Cleanup Utility

The ALCleanup utility is used to periodically clean the temporary folders and files that are used by the SAS Marketing Operations Management system. A copy of this utility is on all the machines in the installation except for the Media Processor. You need to schedule this utility to run on each of the machines in the setup. It works on a configuration XML that specifies the folder and files to be deleted and the folders to exclude during cleanup.

The configuration XML and the Tenant XML are located at `<Installation Directory>\Configuration\XML\ALCleanup.xml`.

The TempFolder node specifies the folder contents that need to be deleted. The attribute Location of TempFolder specifies the path of the folder. For example, `C:\Temp` is the folder whose contents will be deleted.

The DeleteOlderThan attribute specifies how old the files are that you want to delete. The value 2 specifies that files older than 2 days need to be deleted.

The FileExtList attribute specifies the type of files that you want to delete. You can specify the extension list, separated by a semicolon (;) if you want to delete only specific type of files. If you want to delete all the files, specify \*.\*.

You can specify to delete multiple folders by using the TempFolder node multiple times. You can also specify folders inside the `C:\Temp` that you do not want to delete by adding AVOIDFOLDERLIST inside the TempFolder node.

```
<TempFolder Location="C:\Temp" DeleteOlderThan="2" FileExtList="*.jpg;
@.bmp" Comments=""></TempFolder><TempFolder Location="C:\SASMOM\Temp"
DeleteOlderThan="2" fileExtList="*.*" Comments=""><AVOIDFOLDERLIST><AVOIDFOLDERLIST>
C;\SASMOM\Temp\FileConverter</AVOIDFOLDER><AVOIDFOLDERLIST></TempFolder>
```

The above code specifies not to delete the FileConverter folder or its contents, which is inside `C:\<Installation Directory>\Temp`. You can add multiple AVOIDFOLDER nodes in order to specify multiple folders (under the parent path) that should not be deleted.

The following folders need to be cleaned on all the machines:

**Table 6.6** Folders to Delete on All Machines

Location	File Extension List	Delete Older Than	Folder Deletion Frequency	Folder Deletion Day	Folder location to be avoided for deletion
<code>&lt;Installation Directory&gt;\Temp</code>	*.*	2	DAILY	1	<code>&lt;Installation Directory&gt;\Temp\&lt;TenantName&gt;_Cache</code>

Location	File Extension List	Delete Older Than	Folder Deletion Frequency	Folder Deletion Day	Folder location to be avoided for deletion
<Installation Directory> \<TenantName> \DownloadFiles	*.*	12	WEEKLY	1	
<Installation Directory> \<TenantName> \UploadedFiles	*.*	5	WEEKLY	1	
C:\Temp	*.*	2	DAILY	1	
<Outbox Path>	*.*	2	DAILY	1	
<Installation Directory> \MediaProcessor	*.*	7	DAILY	1	<Installation Directory> \MediaProcessor \ArtworkCache and <Installation Directory> \MediaProcessor \FormatCache
C:\Temp \Plugins	*.*	As per the setting in the Digital Library	DAILY	1	
<Installation Directory> \MediaProcessor \ArtworkCache	*.*	365	DAILY	1	
<Directory> \Errors	*.*	180	DAILY	1	
<Installation Directory> \Logs	*.*	180	DAILY	1	
<Installation Directory> \<TenantName> \Logs	*.*	180	WEEKLY	1	

---

## SAS Marketing Operations Management Service Monitor Configuration

The SAS Marketing Operations Management services are installed on all the machines on which the software is installed. Depending on which components are installed, the services are installed. If you do not want to watch a specific service, then remove its respective node from the list and restart the monitoring service. The .XML file for the SAS MOM Service Monitor service is in `<Installation Directory>\Configuration\XML\ALServiceMonitorConfiguration.xml`.







# Uninstalling SAS Marketing Operations Management

*Uninstall SAS Marketing Operations Management* ..... 75

## Uninstall SAS Marketing Operations Management

To uninstall a SAS Marketing Operations Management setup:

- 1 Select **Start ► Control Panel ► Programs and Features**. Select **SAS Marketing Operations Management<version number><release number>**. Right-click and select **Uninstall**.
- 2 Restart the server after the process is completed.
- 3 After restarting the server, clean up the following items:
  - a If there are shared folders within the installation folder, remove the sharing and then delete the installation folder.
  - b Delete any folders that were created for the SAS Marketing Operations Management installation outside the installation folder, such as **FileMountPoint**, **XmlMountPoint** or **DAM Vault folders**.
  - c Delete the registry values that are located at **HKEY\_LOCAL\_MACHINE>>SOFTWARE>>Assetlink** within the registry.
  - d Within the IIS Manager, delete all virtual directories that were created for SAS Marketing Operations Management. These directories are found under **<Machine Name>\Sites\Default Web Site** and include directories such as **ADCataloger**, **ALIntegrationServices**, **ALMediaServices**, **ALServices**, **DashboardImages**, **SASMOMJS**, and all directories that point to the tenant folders. To identify virtual directories that point to a tenant, look for the virtual directory that has the same name as the tenant, or check for the **Physical Path** attribute.
  - e Under the IIS Manager, remove **SASMOMAppPool** within the Application Pools section.
  - f In the **Computer Management** section, look for local user with the name **ALUser** and delete it.
  - g Remove the SAS Deployment Wizard entry for the installation:

- a** Open the **deploymntreg** folder, which is below the **SASHOME** folder. Open the file registry.xml.
  - b** Remove the mominstall key and all the keys directly below it. Save the file.
- 4** On the database machine, delete all databases that point to the tenants.



# Part 3

## Troubleshooting

### *Chapter 8*

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# 8

## Troubleshooting

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---

## User Creation Fails—Configure Windows User on the Server

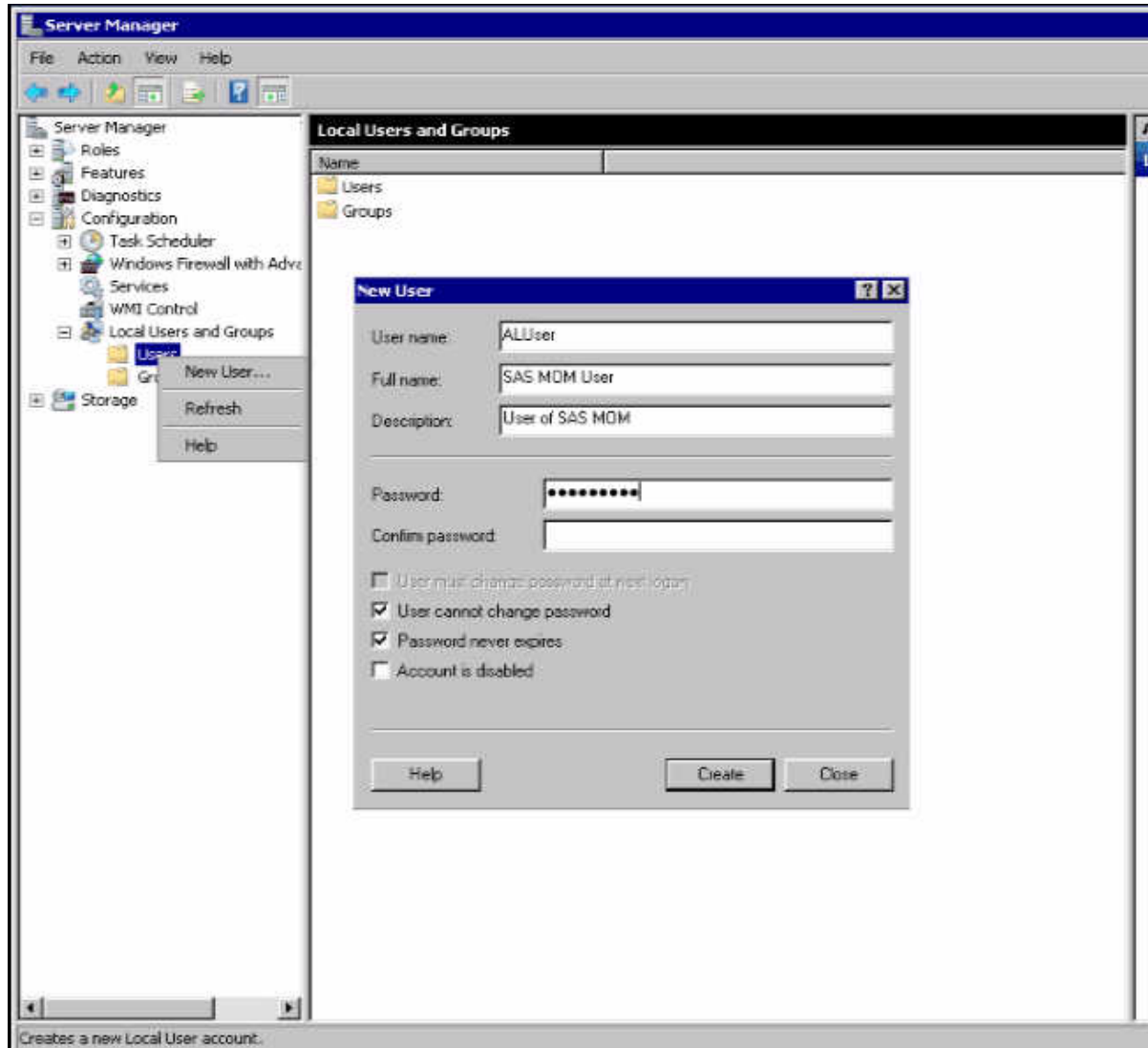
**Note:** If ALUser already exists on the machine, then the password is reset to what the user entered while installing SAS Marketing Operations Management.

ALUser should be created on all the machines on which SAS Marketing Operations Management is installed and on the machine on which the shared network folder is created (for supporting a shared network folder). ALUser should belong to the Administrators group.

To create the ALUser:

- 1 Go to **Start ► Administrative Tool ► Server Manager ► Configuration ► Local Users and Groups ► Users**.
- 2 Right-click **Users** and select **New User** from the speed menu.
- 3 Enter all the necessary values such as name (ALUser) and password.
- 4 Select **User cannot change password**.
- 5 Select **Password never expires**.
- 6 Click **Create**.

Display 8.1 New User



**Note:** Make sure that the user name and password is the same on all the machines in the configuration.

## Configure Environment Variables—Failed

If the installer fails to configure the environment variables, then follow the steps given below.

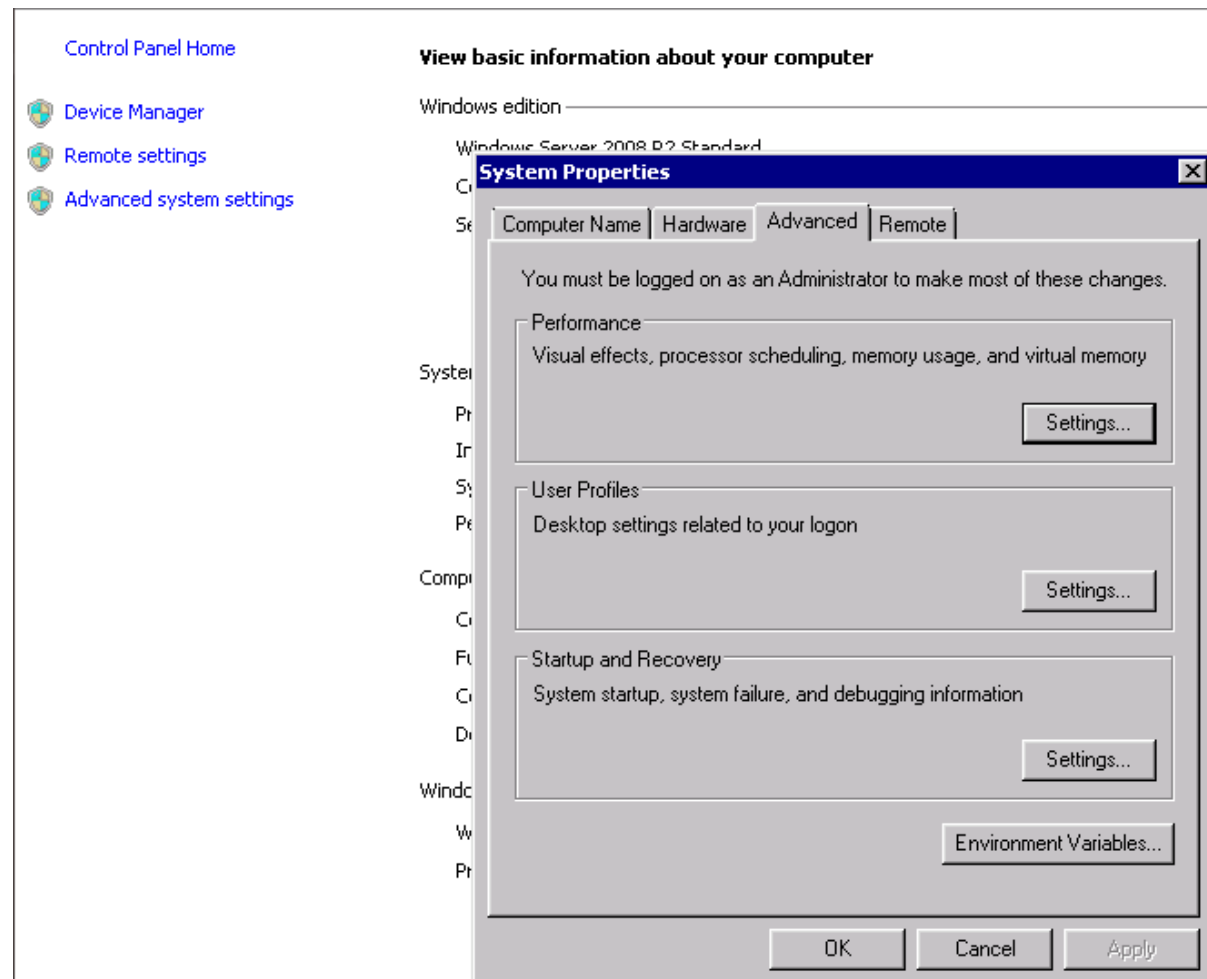
### Configure Environment Variables For All Machines

The same settings need to be specified on all the machines that are involved in the setup.

Right-click the **Computer** icon, click **Properties**, and then click **Advanced System Settings**. Click the **Advanced** tab. Click **Environment Variables**. Set the system environment variables TEMP and TMP to point to folder `c:\Temp`.

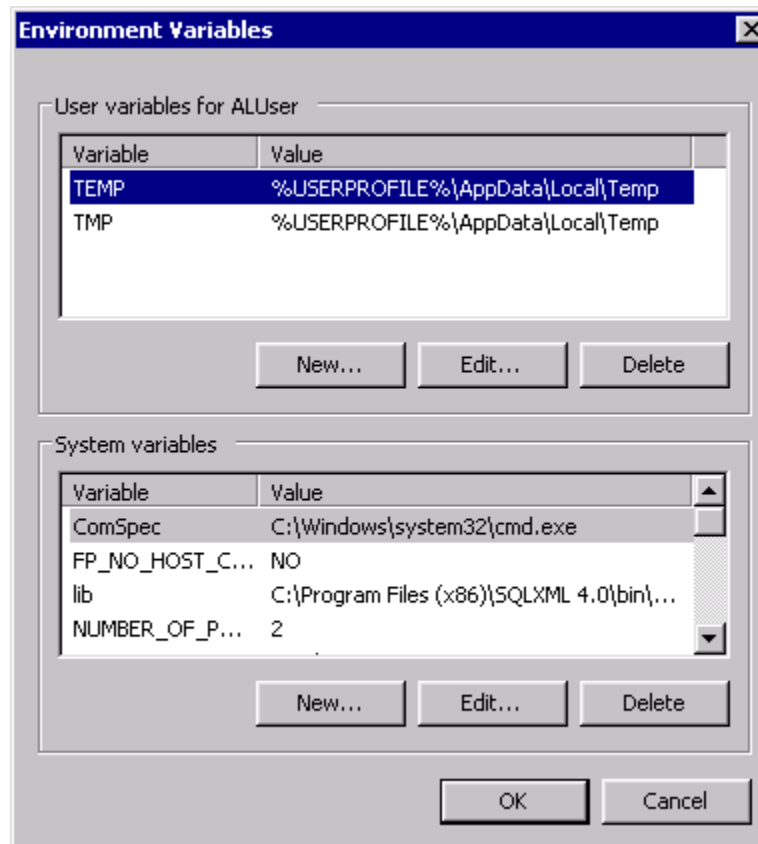
Create the folder `c:\Temp` if it does not exist. Allow **Everyone** and **ALUser** full control on this folder.

**Display 8.2** System Properties





Display 8.3 Environment Variables



**Note:** Do not edit the TEMP and TMP variables.

---

## Virtual Folder aspnet\_client Creation Failed

Create a virtual folder named aspnet\_client. Point to the aspnet\_client folder under www root (for example, C:\Inetpub\wwwroot\aspnet\_client).

---

## No Security Permissions Exist

If the security permissions are not provided during the installation process, complete the tasks in the following sections.

### On ASP.NET Temporary Files

The folder C:\Windows\Microsoft.NET\Framework64\v4.0.30319\Temporary ASP.NET Files should have **Full Control** to the **Users** groups (right-click on this folder and open the **Security** tabs).

## Registry Access

For ALUser: This setting needs to be specified on all the machines on which SAS Marketing Operations Management is installed.

To give registry access to the newly created user (ALUser):

- 1 Open the registry by entering `regedit` in the Run window.
- 2 Navigate to the path `HKEY_LOCAL_MACHINE\SYSTEM\ControlSet001\Services\Eventlog`.
- 3 Right-click and click on the permissions. Add the newly created user (ALUser) and give ALUser full control.

For NETWORK SERVICE users: This setting needs to be specified on all the machines on which SAS Marketing Operations Management is installed.

To give registry access to network services users:

- 1 Open the registry by entering `regedit` in the Run window.
- 2 Navigate to the path `HKEY_LOCAL_MACHINE\SYSTEM\ControlSet001\Services\Eventlog`.
- 3 Right-click and click on the permissions. Add the network services users and give them full control.

## Grant Folder Permissions

Allow the IUSR, NETWORK SERVICE, and ALUser user accounts full control to the *<Installation Path>* folder on all the machines on which SAS Marketing Operations Management is installed.

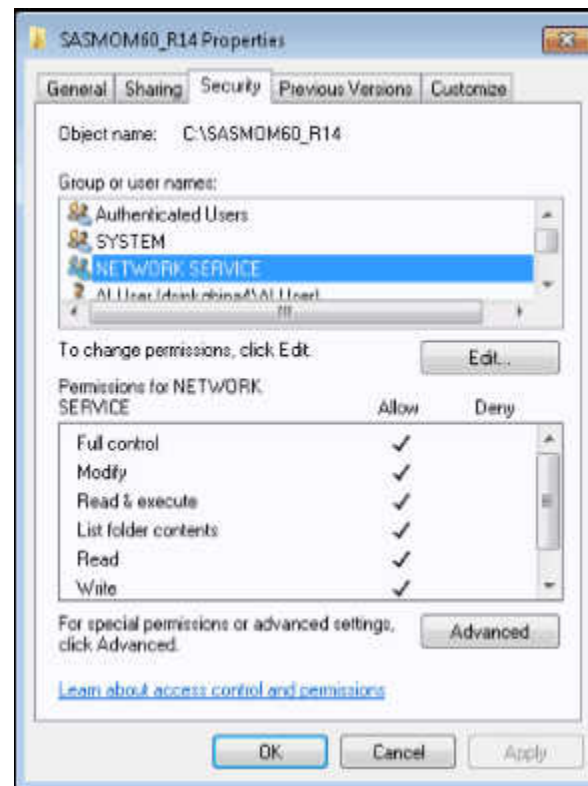
In Windows Explorer:

- 1 Right-click on the installation folder and select **Properties**.
- 2 Click the **Security** tab.
- 3 Select the user and give **Full control**.

For example, if the server on which the solution is installed is called Metis, the accounts IUSR and NETWORK SERVICE users should be granted full control to the *<Installation Path>* folder.

**Note:** Give full control to ALUser on all the machines where the ALUser has been created.

Display 8.4 Folder Permissions



## Adding DLL in GAC

In a multi-machine installation, both the DLLs (FluorineFx.dll and itextsharp.dll) are not required for every component, but the installer tries to install both. Because only the DLL that is required on a particular machine will be available, the installer writes a fatal error to the log file if one of the DLLs is not found.

You can ignore this error message under certain conditions:

- FluorineFx.dll is required if the following components are installed on a machine:
  - ☐ Cataloger
  - ☐ Solutions
- itextsharp.dll is required if the following components are installed on a machine:
  - ☐ Cataloger
  - ☐ WebServices
  - ☐ MediaProcessor for InDesign
  - ☐ Solutions
  - ☐ MediaServer
  - ☐ MediaProcessor for FLV Generator

If a DLL is required and it is not installed on GAC, complete the following steps to put the files into the assembly:

- 1 If Microsoft Visual studio is installed on the machine:
  - a Install the DLL in GAC
  - b Enter the following command at the VS command prompt for Microsoft Visual Studio: `sn -vr <Dll Path>`  
 For example, enter `sn -vr C:\GACDemo\fluorinefx.dll`  
 Enter the following command at the VS command prompt for Microsoft Visual Studio: `gacutil -i <Dll Path>`  
 For example, enter `gacutil -i C:\GACDemo\fluorinefx.dll`
- 2 If you are working in Windows 7 or Windows Server 2008 R2 (64-bit SP1), drag the DLLs to the assembly folder (C:\Windows\assembly).
- 3 If you are working in Windows Server 2012 R2, you can use the following PowerShell script on Windows Server 2012 R2 to install the DLL to GAC.

The following example shows how you can add FlourineFx to GAC:

```
[System.Reflection.Assembly]::Load
("System.EnterpriseServices, Version=4.0.0.0, Culture=neutral,
PublicKeyToken=b03f5f7f11d50a3a")
$publish = New-Object System.EnterpriseServices.Internal.Publish
$publish.GacInstall("C:\SASMOMTools\Fluorinefx.dll")
```

---

## Running a Service under the ALUser Context

Some selected services need to run under ALUser. If the installer fails to do this, then complete the following steps:

Apply the following settings for the SAS MOM Queue Manager, Cataloger, BusinessEvents, PluginService, File Watcher, and Service Monitor services in the Services applet:

- 1 Go to the Services panel by selecting **Start ► Administrative Tools ► Server Manager**, and then click **Services**.
- 2 Right-click on the service and select **Properties**.
- 3 Click the **Log On** tab.
- 4 Select the **This account** option.
- 5 Click **Browse** and select the **ALUser** account.
- 6 Click the **General** tab.
- 7 Select the start up type as **Automatic**.
- 8 Click **OK** to apply the settings.

**Note:** On both the machines, ALUser needs to be given full control to the installation folder.

---

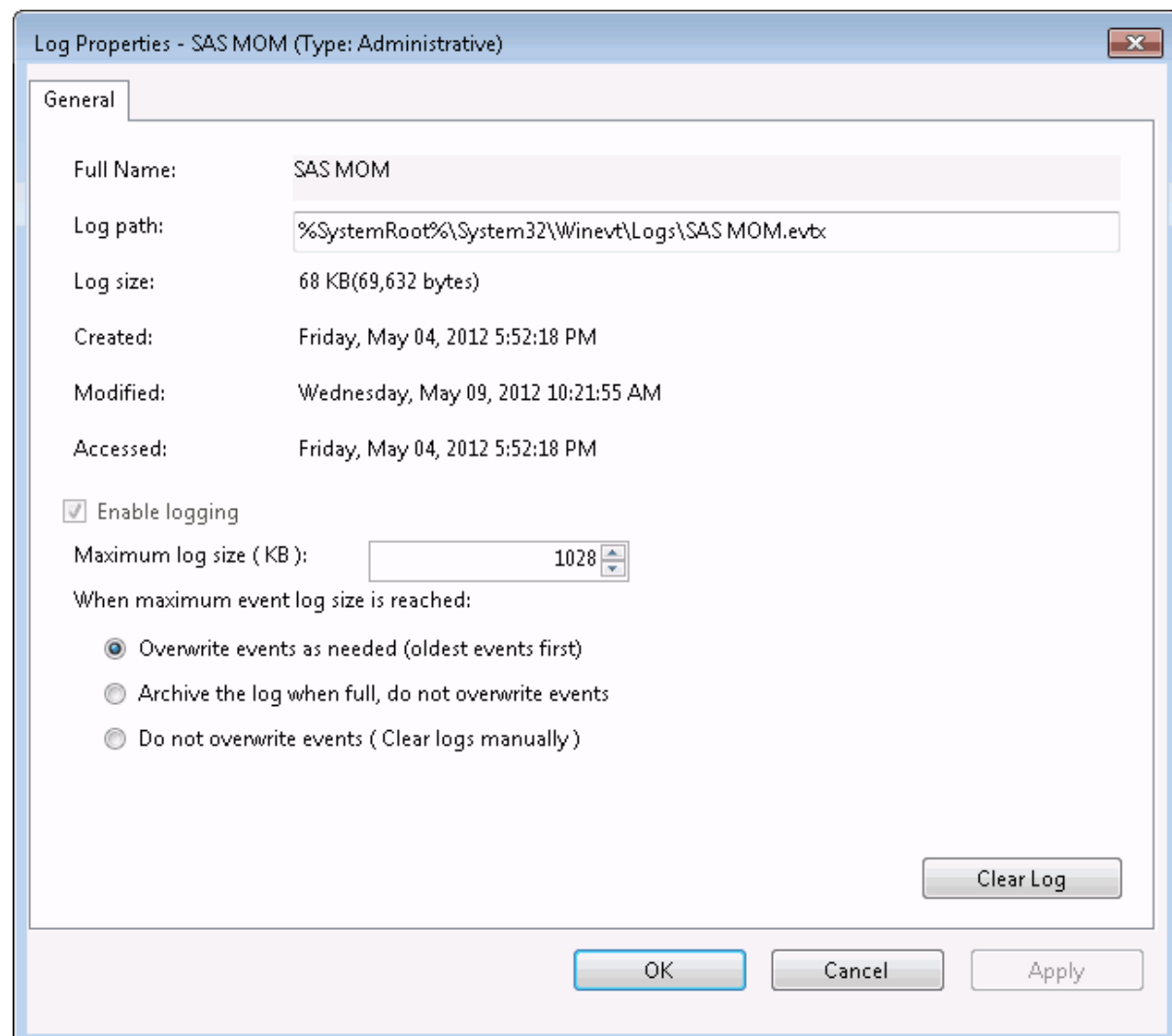
## Setting the Event Log

When the SAS MOM Queue Manager Service is started on any machine, it creates a SAS MOM event log on the event viewer. You should edit a property of this event log so that the event log will never be full.

To change the event log setting in the Event Viewer:

- 1 Start all the services on all the machines in your configuration.
- 2 Select **Start ► Administrative Tools ► Diagnostics** and click **Event Viewer**.
- 3 In the left pane, right-click the SAS MOM log and select **Properties**.
- 4 Select **Overwrite events as needed**.

Display 8.5 Log Properties

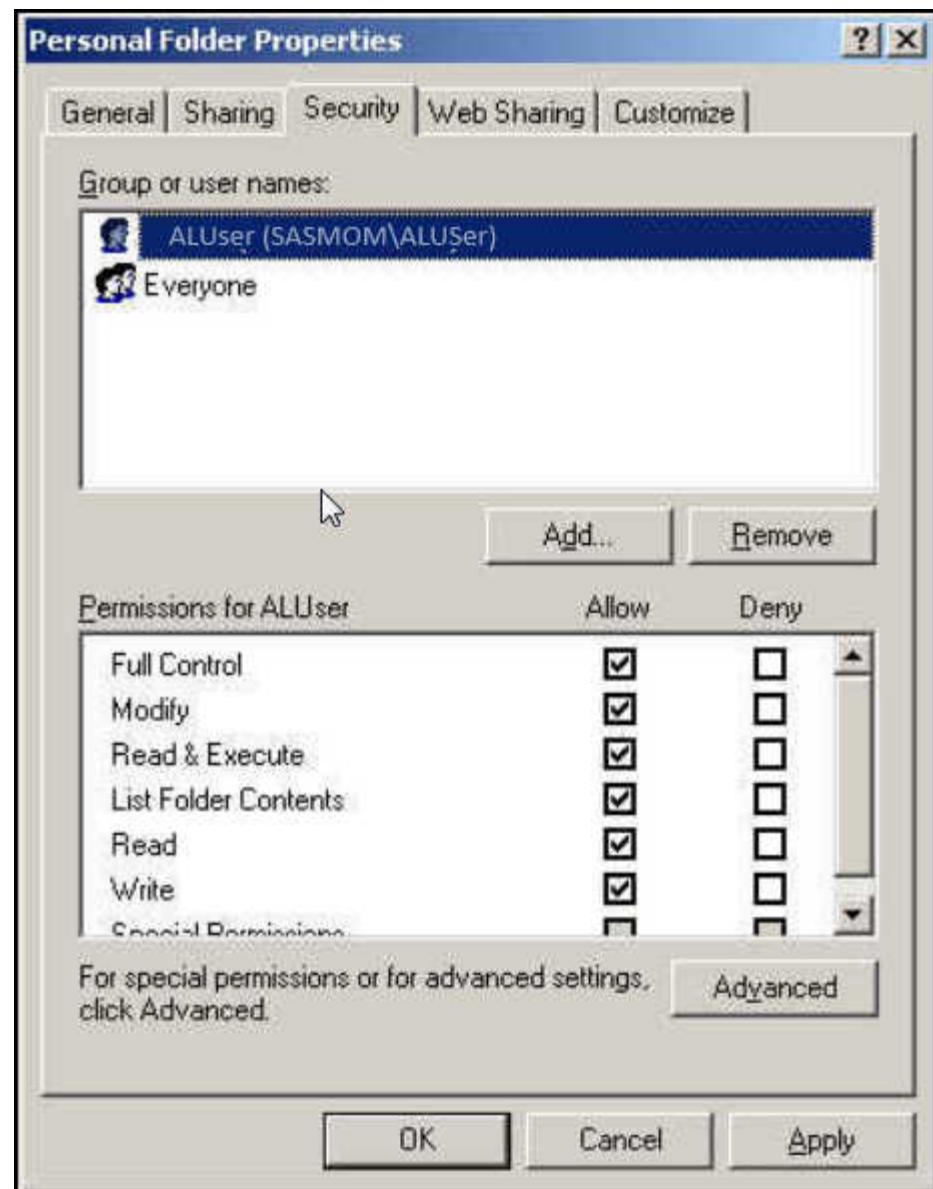


## Create Shared Drive

A *MediaProcessor* folder is created on the web services and Media Server machines after SAS Marketing Operations Management is installed. It is created under the installation folder. On both the machines, share the folder, add **ALUser** on the **Security** and the **Sharing** tab, and specify **Full Control** to the user.

**Note:** Make sure the shared folder has the name *MediaProcessor* on both the machines. Do not change the name.

Display 8.6 Personal Folder Properties



## Database Creation Fails

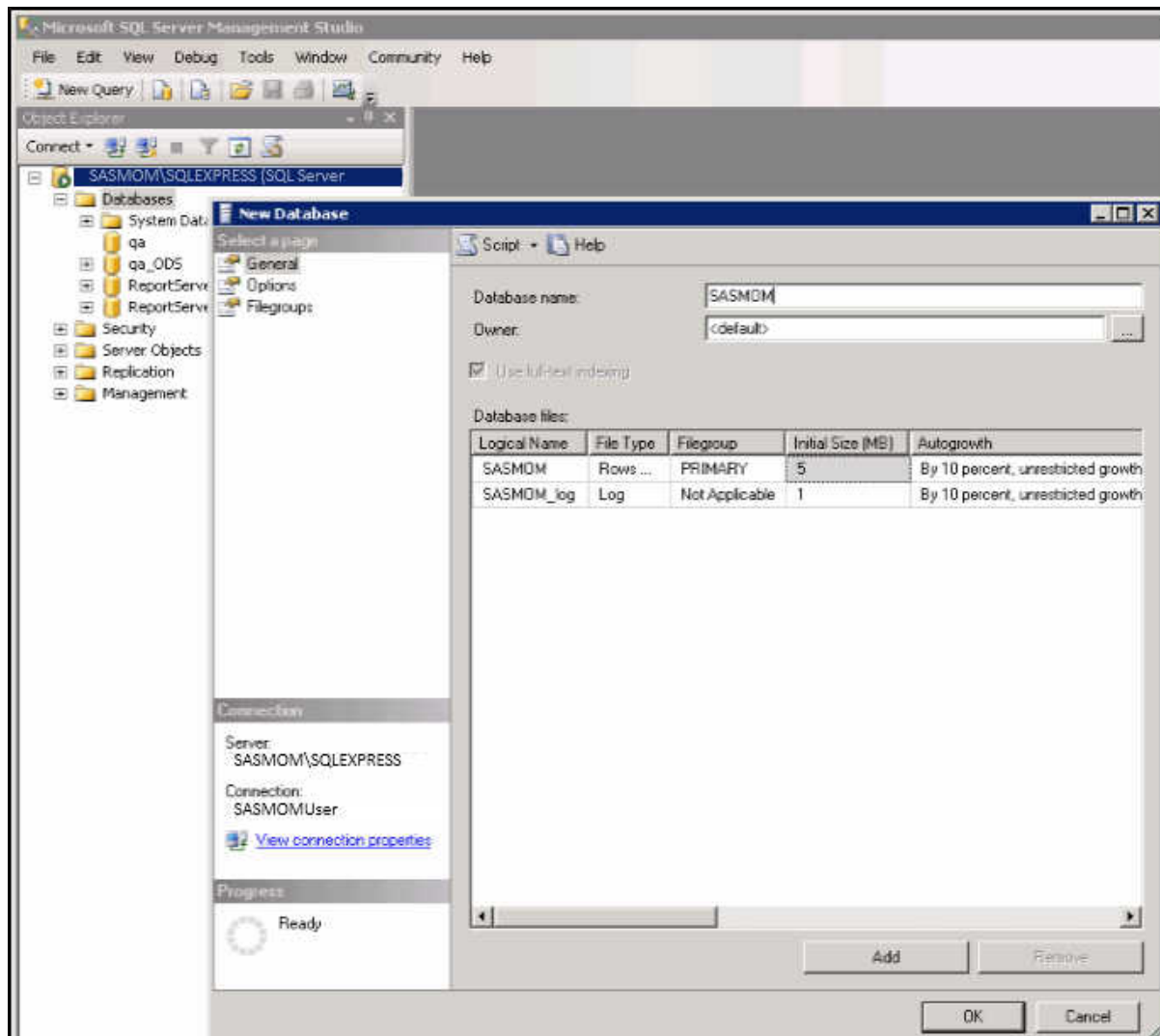
If database creation fails, you must create a separate database for each tenant.

### Create Database for Tenant

- 1 Navigate to **Start** ► **Programs** ► **Microsoft SQL Server 2008 R2**.
- 2 Connect to the server by entering the database user credentials.
- 3 In the left pane, right-click **Databases**, and then click **New Database**.

- 4 In the New Database dialog box, enter the new database name and click **OK**. The new database is now created.

*Display 8.7 New Database*

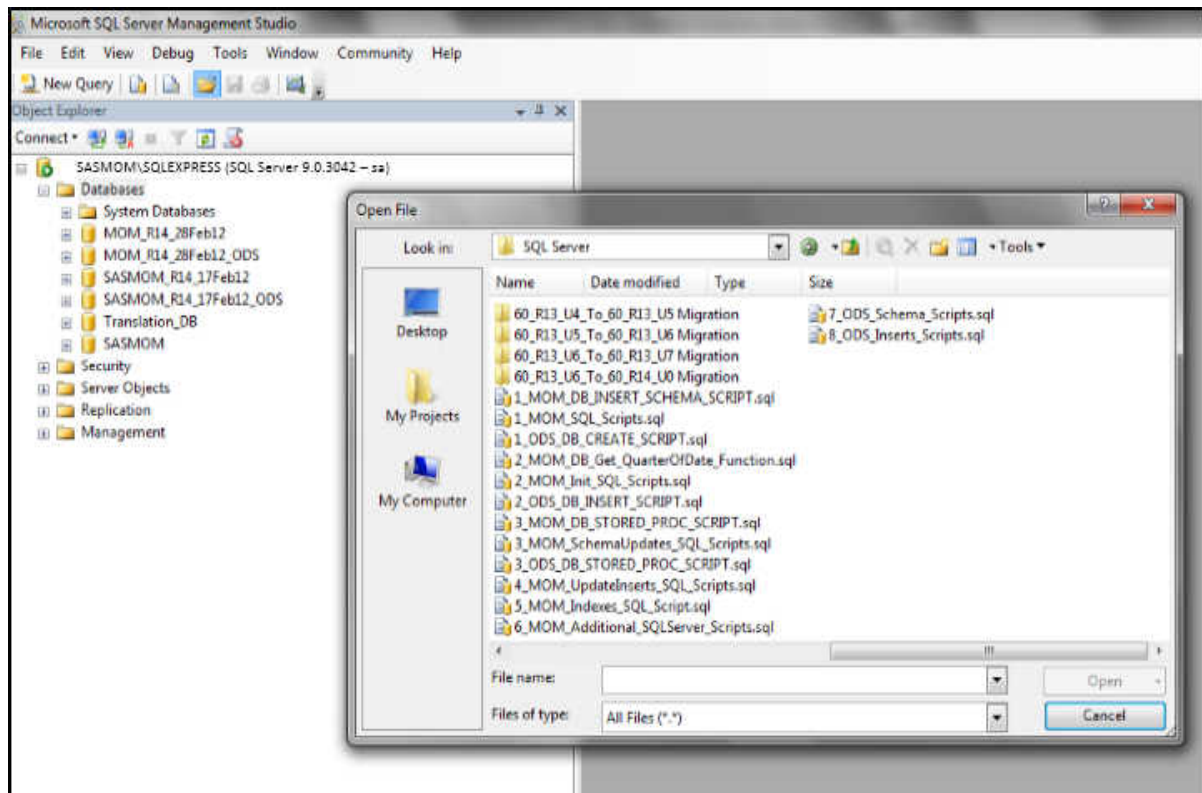


## Run the Database Scripts

Run the database scripts against the tenant database by connecting to the SQL Server, using the new login you created in [“User Creation Fails—Configure Windows User on the Server”](#) on page 80. The database scripts are under at **<installation folder> ► <Database> ► SQL Server**.



Display 8.8 Database Scripts



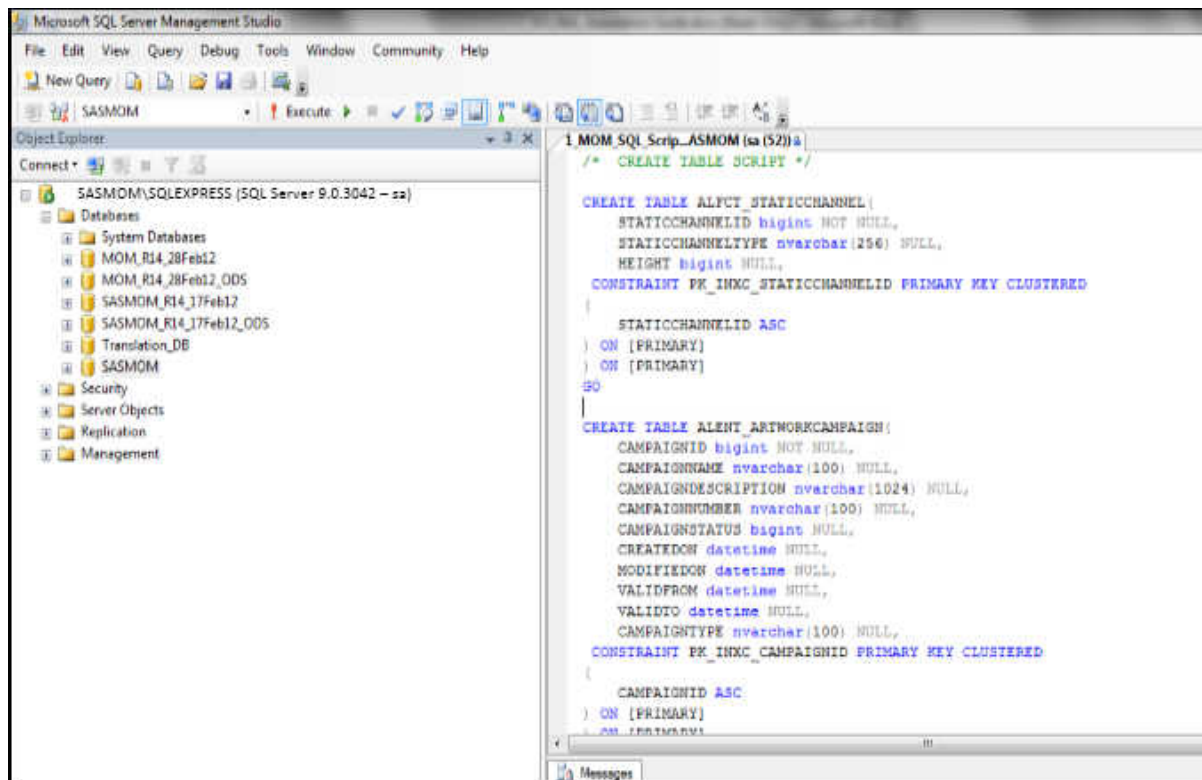
Select the database and click **File ► Open ► File>>** and select the scripts from the **<installation folder> ► <Database> ► SQL Server**. Click **Open**. Click **Execute** and connect to the SQL Server using the login that you created for the database.

**Note:** Keep checking the database name to make sure the scripts are run on the selected database.

Run the database scripts in the following sequence:

- 1 1\_MOM\_SQL\_Scripts.sql
- 2 2\_MOM\_Init\_SQL\_Scripts.sql
- 3 3\_MOM\_SchemaUpdates\_SQL\_Scripts.sql
- 4 4\_MOM\_UpdateInserts\_SQL\_Scripts.sql
- 5 5\_MOM\_Indexes\_SQL\_Script.sql
- 6 1\_MOM\_DB\_Insert\_Schema\_Script.sql
- 7 2\_MOM\_DB\_Get\_QuarterOfDate\_Function.sql
- 8 3\_MOM\_DB\_Stored\_Proc\_Script.sql

Display 8.9 Database Scripts



## Create an ODS Database for the Tenant

After you complete the steps in “[Create Database for Tenant](#)” on page 89, you must create another database. The convention that needs to be followed for name of the ODS Database is *<DB Name for the Tenant>\_ODS*.

Execute the following scripts for the ODS database:

- 1 1\_ODS\_DB\_Create\_Script.sql
- 2 2\_ODS\_DB\_Insert\_Script.sql
- 3 3\_ODS\_DB\_Stored\_Proc\_Script.sql

## Creating Queues Manually

Queues are created when SAS Marketing Operations Management is installed. If queues were not created, then you can create the queues manually. Run the batch files Createqueues.bat file located under *<Installation Path>\Binaries*.

The following queues are created:

- On the solution or web server machine:

- ☐ MEDIARESPONSEQ
- ☐ UNDELIVEREDQ
- ☐ REPLICATIONAGENTQ
- ☐ AP\_PREVIEWGENERATIONQ
- ☐ WB\_SOLUTIONSQ
- ☐ EVENTQ
- ☐ ALCHANGEMANAGEMENTQ
- On the web services machine:
  - ☐ EMAILQ
  - ☐ MEDIARESPONSEQ
  - ☐ UNDELIVEREDQ
  - ☐ ALPROCESSMESSAGEQ
  - ☐ EVENTQ
  - ☐ ALINTERNALPROCESSQ
  - ☐ ALACTUALSQ
  - ☐ REPLICATIONSERVERQ
  - ☐ SIMULTANEOUSCHECKOUTQ
  - ☐ SEQUENTIALCHECKOUTQ
  - ☐ FILEMETADATAHANDLERQ
  - ☐ COPYMOVEREQUESTHANDLERQ
  - ☐ ALESTIMATEQ
  - ☐ IMPORTJOBQ
  - ☐ COPYPLANQ
  - ☐ SIMULTANEOUSEVENTQ
  - ☐ ALCHANGEMANAGEMENTQ
- On the InDesign Machine:
  - ☐ INDESIGNCS3Q
  - ☐ RESPONSEUNDELIVEREDQ
  - ☐ png\_in
  - ☐ png\_out
- FLV Generator Machine
  - ☐ RESPONSEUNDELIVEREDQ
  - ☐ APP\_FLVGENERATORQ\_SIM
  - ☐ DAM\_FLVGENERATORQ\_SEQ
- Cataloger Machine
  - ☐ MEDIARESPONSEQ
  - ☐ UNDELIVEREDQ

- ☐ UPDATEASSETPROCESSQ
- ☐ CATALOGERJOBQ
- Media Server
  - ☐ SEQUENTIALCHECKOUTQ
  - ☐ SIMULTANEOUSCHECKOUTQ
  - ☐ MEDIARESPONSEQ
  - ☐ UNDELIVEREDQ
- Media Generator Machine
  - ☐ RESPONSEUNDELIVEREDQ
  - ☐ APP\_MEDIAGENERATORQ\_SIM
  - ☐ DAM\_MEDIAGENERATORQ\_SEQ
- MS Office Processor Machine
  - ☐ MSOFFICEPROCESSORQ
  - ☐ RESPONSEUNDELIVEREDQ

---

## Deleting a Tenant

### Prerequisites

The following information is required for the tenant be deleted:

- 1 Name of the tenant database and the ODS database for the tenant
  - a Tenant and ODS database names for the tenant are available in the *<Tenant Name>.xml* file on the Web Services server.
  - b Navigate to *<Tenant Name>.xml* in the *<Installation Directory>\Configuration\XML* folder.
  - c In the *<Tenant Name>.xml* file, the value of the CONNECTIONSTRING node contains the name of the tenant database. The value of the CONNECTIONSTRINGFORODS node contains the name of the ODS database for the tenant. The values are encrypted. To get the name of the database, the value should be decrypted.

**Note:** The web page used to decrypt the value is not deployed with SAS Marketing Operations Management. You must request the page from SAS Technical Support.

Display 8.10 Tenant XML File

```

<CONFIGURATION>
  <DATABASE>
    <CONNECTIONSTRING>UEMq514HksreRiduozyYwTWwRadIdt8yQDjyJizp2tmJtr1
    <CONNECTIONSTRINGFORSP>MdTce6FXhNNhmlCEg30YpjYZx1CshTLtlWYCFpSkmd
    <CONNECTIONSTRINGFORODSSP>A2nEIEmkRjKd+4BoIEiwejpkRW03bpGyeb8wp6
    <CONNECTIONSTRINGFORODS>goQZwekSDL/DcThyEYn9DTFJUdqfImadGjs4N5KyD
    <RETRYSLEEPPDURATION>1000</RETRYSLEEPPDURATION>
    <COMMANDTIMEOUT>180</COMMANDTIMEOUT>
  </DATABASE>
</CONFIGURATION>

```

- d After decrypting the values, check for the Initial Catalog parameter. The value of this parameter is the database name.

Display 8.11 Initial Catalog Parameter

Data Source=172.26.77.68;Initial Catalog=MOM\_DB;

- 2 The Cataloger Mount Point, Secondary Mount Point, and External Mount Point configured for the tenant
  - a Log on to the system using the browser and navigate to the **Settings** link in the left pane under the **Administration** task pane.
  - b Locate the mount points in the **Cataloger Settings** section.

Display 8.12 Cataloger Settings

▲ Cataloger Settings

Note: • Any changes to these settings will require Cataloger and Filewatcher services to be restarted.  
• Cataloger MountPoint must be a shared folder on the Cataloger machine.  
e.g. \\MachineName\SharedFolder\<CatalogerMountPoint>

* MountPoint:	\\17.6.8.9\MOUNT_POINT\Cataloger_
* Secondary MountPoint:	\\17.6.8.2\MOUNT_POINT\Cataloger_ ?
External MountPoint:	?
Retry Count:	5

**Note:**

- The Secondary MountPoint is available if SAS Marketing Operations Management is set up with two catalogers.
  - If the specified path is a non-UNC path, then the MountPoint and Secondary MountPoint are on the Primary and Secondary Cataloger servers respectively.
  - If the specified path is a non-UNC path, then the External MountPoint is on the server on which the SAS Marketing Operations Management DAMJobCopy Service is installed.
- 3 Network folder path for the tenant
    - a Log on to the system using the browser and navigate to the **Settings** link in left pane under the **Administration** task pane.
    - b Locate the network folder path in the **DAM Settings** section.

Display 8.13 DAM Settings

▲ DAM Settings

Overwrite Links of Asset during Versioning: No ▾

Show section asset count: Yes ▾

Enable Asset expiry: Yes ▾

Send Notification for Asset expiry: Yes ▾

Email Ids for Asset Expiry Notification: aladmin@sas.com

Support Network folder: Yes ▾ ?

Network folder path: \\aladmin4\test\_folder1 ? (Login Name folders for every user should be created under this path.)

XMP Support Required: Yes ▾ (Any change to this setting will require Cataloger and Filewatcher services to be restarted. )

Enable Change Management: Yes ▾ ?

- 4 Format Watcher Mount Point and the Invoice Mount Point and Archive File Path for the tenant
  - a Log on to the system using the browser and navigate to the **Settings** link in the left pane under the **Administration** task pane.
  - b Locate the Format Watcher Mount Point in the **Format Watcher Settings** section.

Display 8.14 Format Watcher Settings

▲ Format Watcher Settings

Note: Any change to this setting will require Format Watcher service to be restarted.

\* Format Watcher Mount Point: C:\SASMOM\Format Watcher Mount

**Note:** Format Watcher Mount Point is found on the web server.

- 5 Locate the Invoice Mount Point and Archive File Path in the **Import Invoice Settings** section.

Display 8.15 Import Invoice Settings

▲ Import Invoice Settings

Invoice MountPoint: C:\SASMOM\Invoice Mount Point ?

Archive File Path: ?

Send Notification for Imported Invoices: No ▾ ?

Email Ids for Imported Invoice Notification: ?

**Note:** If the specified path is a non-UNC path, then the Invoice Mount Point and the Archive File Path are on the web services server.

- 6 Mount Point and XML Mount Point for the tenant
  - a Navigate to <Installation Directory>\Configuration\XML on the web services server and open <Tenant Name>.xml.
  - b In the XML file, check the values for the MOUNTPOINT and XMLMOUNTPOINT nodes. These values are the paths of the Mount Point and the XML Mount Point configured for the tenant.

Display 8.16 XML Mount Point

```

<CONFIGURATION>
  <DATABASE>...</DATABASE>
  <SEPARATOR>...</SEPARATOR>
  <FULLTEXTSEARCH>...</FULLTEXTSEARCH>
  <FILESYSTEM>
    <TYPE>WINDOWS</TYPE>
    <MOUNTPOINT>C:\SASMOM63_R1\Data\MOM_MP</MOUNTPOINT>
    <OUTBOX>C:\SASMOM63_R1\OUTBOX</OUTBOX>
    <MAXFILECOUNT>100</MAXFILECOUNT>
    <ASSEMBLYNAME>WINDOWSASSETMANAGER.DLL</ASSEMBLYNAME>
    <MEDIASERVER>...</MEDIASERVER>
  </FILESYSTEM>
  <XMLFILESYSTEM>
    <XMLMOUNTPOINT>C:\SASMOM63_R1\DATA\MOM_XMP</XMLMOUNTPOINT>
  </XMLFILESYSTEM>
  <TRACING>FALSE</TRACING>
  <SESSION Timeout="43200" DatabaseUpdateInterval="1800" />
  <ACCOUNTPOLICIES>...</ACCOUNTPOLICIES>
  <PASSWORDPOLICIES>...</PASSWORDPOLICIES>

```

**Note:** If the specified path is a non-UNC path, then the MountPoint and XML MountPoint are on the web services server.

## 7 Vaults for the tenant

- a Log on to the system using the browser and navigate to the **Digital Library** link in the left pane under the **MOM** task pane.
- b In the Digital Library, click the **Vaults** link in the left pane under the **Administration** task pane.

Display 8.17 Vault List

Administration: Vault		
Vault List		
Name	Description	Location
AdminGrpUserVault		C:\SASMOM63_R1\Data\Vaults\AdminGrpUserVault
ArtworkProducer		C:\SASMOM63_R1\Data\Vaults\ArtworkProducer
Brands		C:\SASMOM63_R1\Data\Vaults\Brands
IngaeBank		C:\SASMOM63_R1\Data\Vaults\IngaeBank
MWB Vault		C:\SASMOM63_R1\Data\Vaults\MWB Vault
Products		C:\SASMOM63_R1\Data\Vaults\Products
Vault_On_OtherMachine		C:\SASMOM63_R1\Data\MOM\Vaults\Vault_On_OtherMachine
VaultForOrgAccess		C:\SASMOM63_R1\Data\Vaults\VaultForOrgAccess
Zapline		C:\SASMOM63_R1\Data\Vaults\Zapline

- c Locate the system vaults and the vault specified for Artwork Producer on the web services server. Locate the name of the vault used for Artwork Producer in the **Tenant** settings.

Display 8.18 Artwork Producer Settings

Artwork Producer Settings	
* Vault Name:	ArtworkProducer
* Format Definition Section Name:	Formats
* Generated Artwork Section Name:	Generated Artworks



**Note:** If the path specified for a non-system vault is a non-UNC path, then the vaults are on the web services server. If Media Server is configured for the tenant, then the vaults are on the Media Server.

## 8 WebDAV folder for the tenant on the web server

- a Navigate to `<Installation Directory>\Configuration\XML` folder and open `Assetlink.xml`.
- b Search for the `WEBDAVLOCATION` node. The value of this node is the WebDAV location that was selected during the installation of SAS Marketing Operations Management. Navigate to this location on the new technology file system (NTFS). Locate the `<Tenant Name>` folder.

*Display 8.19 WebDAV Location*



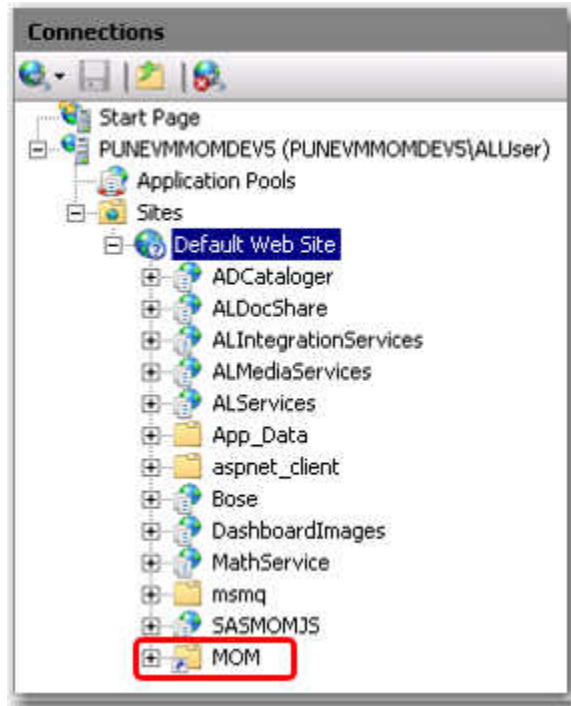
## Delete a Tenant

To delete a tenant:

- 1 Stop all the SAS Marketing Operations Management Windows Services on all the servers used for the deployment. Stop the IIS service on the web server, web services server, and Media Server.
- 2 Delete the following for each tenant:
  - Cataloger Mount Point, Secondary Cataloger Mount Point, and External Mount Point.
  - Format Watcher Mount Point, Invoice Mount Point, and Archive File Path
  - Network Folder path
  - Mount Point and XML Mount Point
  - Vaults
  - `<Tenant Name>` folder under the WebDAV location
- 3 Delete the `<Tenant Name>` virtual directory from IIS on the web server. Navigate to **Start ► Administrative Tools ► Internet Information Services** and remove the `<Tenant Name>` virtual directory.

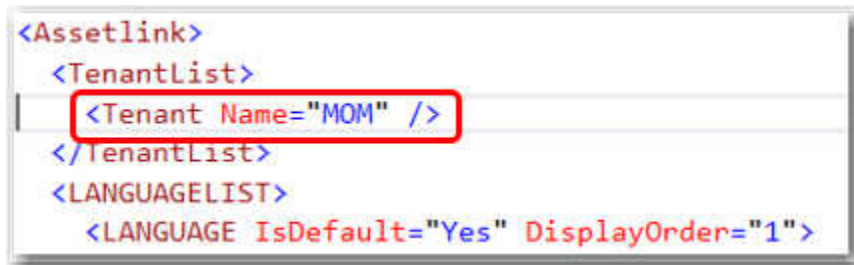


Display 8.20 Tenant Name Virtual Directory



- 4 Remove the tenant reference from the Assetlink.xml on the web server and the web services server.
  - a Navigate to *<Installation Directory>\Configuration\XML* folder and open Assetlink.xml.
  - b Delete the Tenant Name node.

Display 8.21 Tenant Name



- 5 Remove the tenant folder from the installation directory on the web server and the web services server.
  - a Navigate to the *<Installation Directory>*.
  - b Delete the *<Tenant Name>* folder and the *<Tenant Name>* file exchange folder.

Display 8.22 Tenant File Exchange Folder

MediaProcessorLog	1/8/2014 11:25 AM	File folder
Migration	3/3/2014 9:07 AM	File folder
MigrationBinaries	3/7/2014 9:29 AM	File folder
MOM	1/22/2014 1:55 PM	File folder
MOM File Exchange	1/22/2014 1:52 PM	File folder
NOTIFICATION_LOG	1/22/2014 1:59 PM	File folder
NotificationAttachments	1/8/2014 11:54 AM	File folder

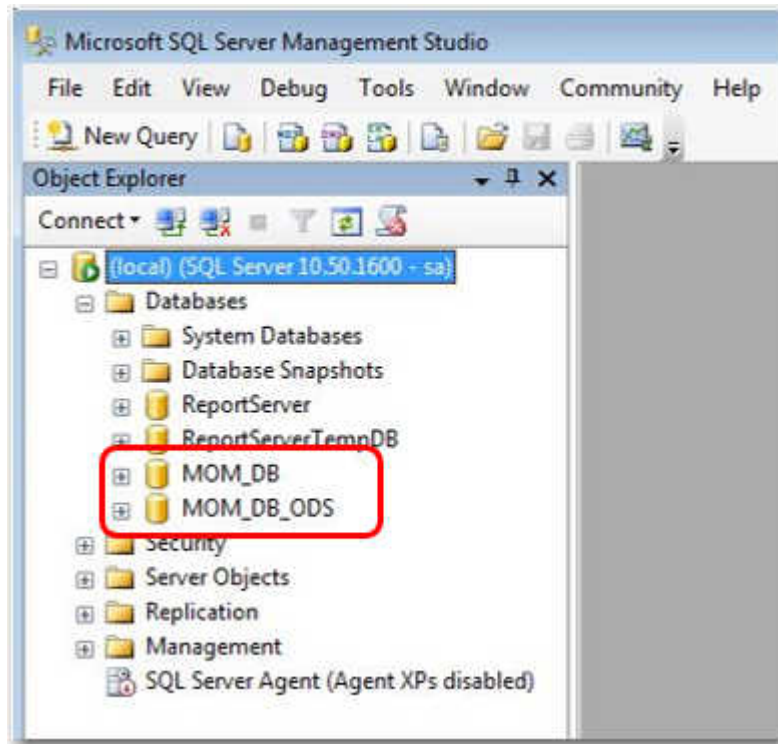
- 6 Remove the cache files for the tenant from the Application Server.
  - a Navigate to the <Installation Directory>\OMCACHE folder.
  - b Delete all the files that start with the <Tenant Name>.

Display 8.23 Tenant Files

Name	Date modified	Type	Size
MOM_ALOM_ACCESSORROLE	3/7/2014 1:35 AM	Text Document	1 KB
MOM_ALOM_ACCESSRULE	3/7/2014 1:35 AM	Text Document	1 KB
MOM_ALOM_ACCESSRULECLAUSES	3/7/2014 1:35 AM	Text Document	1 KB
MOM_ALOM_ENTITYTYPE	3/7/2014 1:35 AM	Text Document	1 KB
MOM_ALOM_FACETTYPE	3/7/2014 1:35 AM	Text Document	1 KB
MOM_ALOM_RELATIONSHIPTYPES	3/7/2014 1:35 AM	Text Document	1 KB
MOM_ALOM_SCHEMA	3/7/2014 1:35 AM	Text Document	1 KB

- 7 Remove the databases for the tenant from the Database Server:
  - a Navigate to SQL Server Management Studio.
  - b Delete the tenant database and the ODS database that were created for the tenant.

Display 8.24 Tenant and ODS Databases



- 8 Remove the tenant reference from the Framework\_Tree.xml file on the web server:
  - a Navigate to `<Installation Directory>\Configuration\XML` folder and edit `FrameWork_Tree.xml`.
  - b Search for the treenode that has the tenant name as the value for the text attribute, and delete that node.

Display 8.25 Framework Tree

```

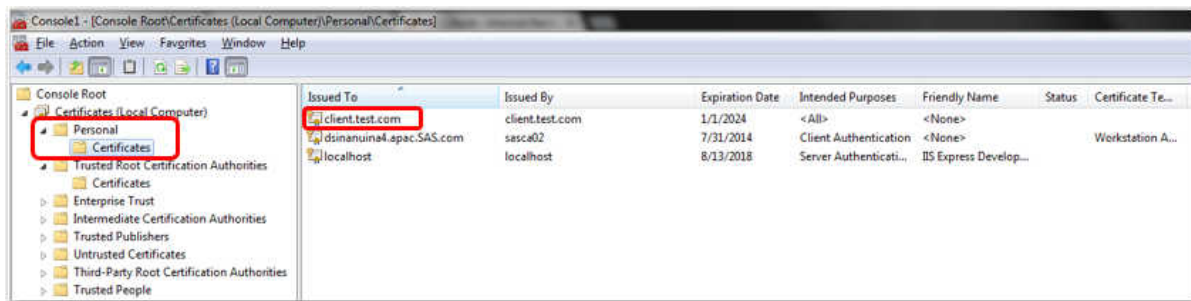
<TreeNodes Count="6">
  <TreeNode Text="Tenants" NavigateUrl="" ShowExpanded="true">
    <!--<TreeNode Text="TenantName" Tooltip="TenantName" TenantName="TenantName" ID="0" NavigateUrl="" SelectedNode="true" ShowExpanded="true">
      <TreeNode NodeType="Solution" Tooltip="TestSolution" Name="TestSolution" Text="TestSolution" SelectedNode="true" ShowExpanded="true">
        <TreeNode NodeType="Scene" Tooltip="DefaultScene" Name="DefaultScene" Text="DefaultScene" SelectedNode="true" ShowExpanded="true">
          <TreeNode NodeType="Page" Tooltip="DefaultPage" Name="DefaultPage" Text="DefaultPage" SelectedNode="true" ShowExpanded="true">
            </TreeNode>
          </TreeNode>
        </TreeNode>
      </TreeNode>
    </TreeNode>
  </TreeNode>
  <TreeNode Text="TenantName" Tooltip="TenantName" TenantName="TenantName" ID="0" NavigateUrl="" SelectedNode="true" ShowExpanded="true">
    <TreeNode NodeType="Solution" Tooltip="Strategic Planner" Name="StrategicPlanner" Text="Strategic Planner" SelectedNode="true" ShowExpanded="true">
      <TreeNode NodeType="Solution" Tooltip="Marketing Workbench" Name="Marketingworkbench" Text="Marketing Workbench" SelectedNode="true" ShowExpanded="true">
        <TreeNode NodeType="Solution" Tooltip="Approvals" Name="Approvals" Text="Approvals" DisplayTextID="Approvals" SelectedNode="true" ShowExpanded="true">
          <TreeNode NodeType="Solution" Tooltip="Administration" Name="Administration" Text="Administration" DisplayTextID="Administration" SelectedNode="true" ShowExpanded="true">
            <TreeNode NodeType="Solution" Tooltip="Digital Library" Name="DAM" Text="Digital Library" DisplayTextID="Digital Library" SelectedNode="true" ShowExpanded="true">
              <TreeNode NodeType="Solution" Tooltip="Resource Management" Name="ResourceManagement" Text="Resource Management" SelectedNode="true" ShowExpanded="true">
                <TreeNode NodeType="Solution" Tooltip="Artwork Producer" Name="ArtworkProducer" Text="Artwork Producer" SelectedNode="true" ShowExpanded="true">
                  <TreeNode NodeType="Solution" Tooltip="Campaign Manager" Name="CampaignManager" Text="Campaign Manager" SelectedNode="true" ShowExpanded="true">
                    <TreeNode NodeType="Solution" Tooltip="Claims Management" Name="ClaimsManagement" Text="Claims Management" SelectedNode="true" ShowExpanded="true">
                      <TreeNode NodeType="Solution" Tooltip="Timesheets" Name="Timesheets" Text="Timesheets" DisplayTextID="Timesheets" SelectedNode="true" ShowExpanded="true">
                        <TreeNode NodeType="Hidden" Tooltip="Product Information Management" Name="PIM" Text="PIM" DisplayTextID="Product Information Management" SelectedNode="true" ShowExpanded="true">
                          </TreeNode>
                        <TreeNode Text="MOM" Tooltip="MOM" TenantName="MOM" ID="0" NavigateUrl="" SelectedNode="true" ShowExpanded="true">
                          <TreeNode NodeType="Solution" Tooltip="Strategic Planner" Name="StrategicPlanner" Text="Strategic Planner" SelectedNode="true" ShowExpanded="true">
                            <TreeNode NodeType="Solution" Tooltip="Marketing Workbench" Name="Marketingworkbench" Text="Marketing Workbench" SelectedNode="true" ShowExpanded="true">
                              <TreeNode NodeType="Solution" Tooltip="Approvals" Name="Approvals" Text="Approvals" DisplayTextID="Approvals" SelectedNode="true" ShowExpanded="true">
                                <TreeNode NodeType="Solution" Tooltip="Administration" Name="Administration" Text="Administration" DisplayTextID="Administration" SelectedNode="true" ShowExpanded="true">
                                  <TreeNode NodeType="Solution" Tooltip="Digital Library" Name="DAM" Text="Digital Library" DisplayTextID="Digital Library" SelectedNode="true" ShowExpanded="true">
                                    <TreeNode NodeType="Solution" Tooltip="Resource Management" Name="ResourceManagement" Text="Resource Management" SelectedNode="true" ShowExpanded="true">
                                      <TreeNode NodeType="Solution" Tooltip="Artwork Producer" Name="ArtworkProducer" Text="Artwork Producer" SelectedNode="true" ShowExpanded="true">
                                        <TreeNode NodeType="Solution" Tooltip="Campaign Manager" Name="CampaignManager" Text="Campaign Manager" SelectedNode="true" ShowExpanded="true">
                                          <TreeNode NodeType="Solution" Tooltip="Claims Management" Name="ClaimsManagement" Text="Claims Management" SelectedNode="true" ShowExpanded="true">
                                            <TreeNode NodeType="Solution" Tooltip="Timesheets" Name="Timesheets" Text="Timesheets" DisplayTextID="Timesheets" SelectedNode="true" ShowExpanded="true">
                                              <TreeNode NodeType="Hidden" Tooltip="Product Information Management" Name="PIM" Text="PIM" DisplayTextID="Product Information Management" SelectedNode="true" ShowExpanded="true">
                                                </TreeNode>
                                              </TreeNode>
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            </TreeNode>
          </TreeNode>
        </TreeNode>
      </TreeNode>
    </TreeNode>
  </TreeNode>
</TreeNodes>

```

- 9 Remove CreateTenant\_<Tenant Name>.txt from the web server. Navigate to the <Installation Directory> folder and delete CreateTenant\_<Tenant Name>.txt.
- 10 If SAS Marketing Operations Management and Marketing Automation have been integrated, then remove the <Tenant Name>\_QuickStart wsdl.dll from the web server:
  - a If SAS Marketing Operations Management and Marketing Automation integration is configured for a tenant and the WSS feature is set to **yes**, then navigate to <Installation Directory>\Binaries folder and delete <Tenant Name>\_QuickStart wsdl.dll.
  - b You should remove the security certificate that is installed on the SAS Marketing Operations Management Web Server for this tenant:
    - a Open a command prompt window.
    - b Type **mmc** and press Enter. To view the certificates in the local machine store, you must be an Administrator.
    - c On the file menu, click **Add/Remove Snap In**.
    - d Click **Add**.

- e In the Add Standalone Snap-in dialog box, select **Certificates**.
- f Click **Add**.
- g In the Certificates snap-in dialog box, select **Computer account** and click **Next**. You can select **My User account** or **Service account**. If you are not an administrator of the computer, you can manage certificates only for your user account.
- h In the Select Computer dialog box, click **Finish**.
- i In the Add Standalone Snap-in dialog box, click **Close**.
- j In the Add/Remove Snap-in dialog box, click **OK**.
- k In the Console Root window, click **Certificates (Local Computer)** to view the certificate stores for the computer.
- l In the tree view, expand **Personal** ► **Certificates**. In the details section, a certificate installed for MOM-MA integration will be listed. Select the certificate and delete it.

Display 8.26 Certificates

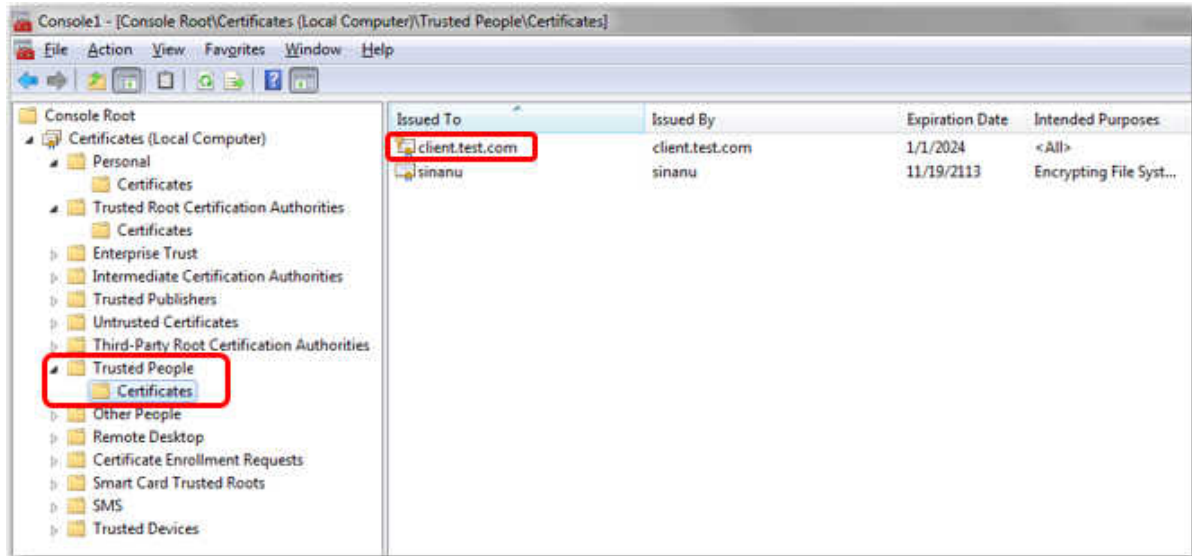


**Note:** In this example, client.test.com is the name of the certificate. The name of your certificate might differ based on the name that was specified when the certificate was installed.

- m In the tree view, expand **Trusted People** ► **Certificates**. In the details section, a certificate installed for MOM-MA Integration will be listed. Select the certificate and delete it.



Display 8.27 Certificates



**Note:** In this example, client.test.com is the name of the certificate. The name of your certificate might differ based on the name that was specified when the certificate was installed.

## Configuraing WebDAV for PDF Approvals

### Creating a WebDAV Folder

A WebDAV folder needs to be created on the web server machine. The path should correspond to the path that was specified during the installation process for the WebDAV setup.

### Creating a Virtual Directory for the WebDAV Folder

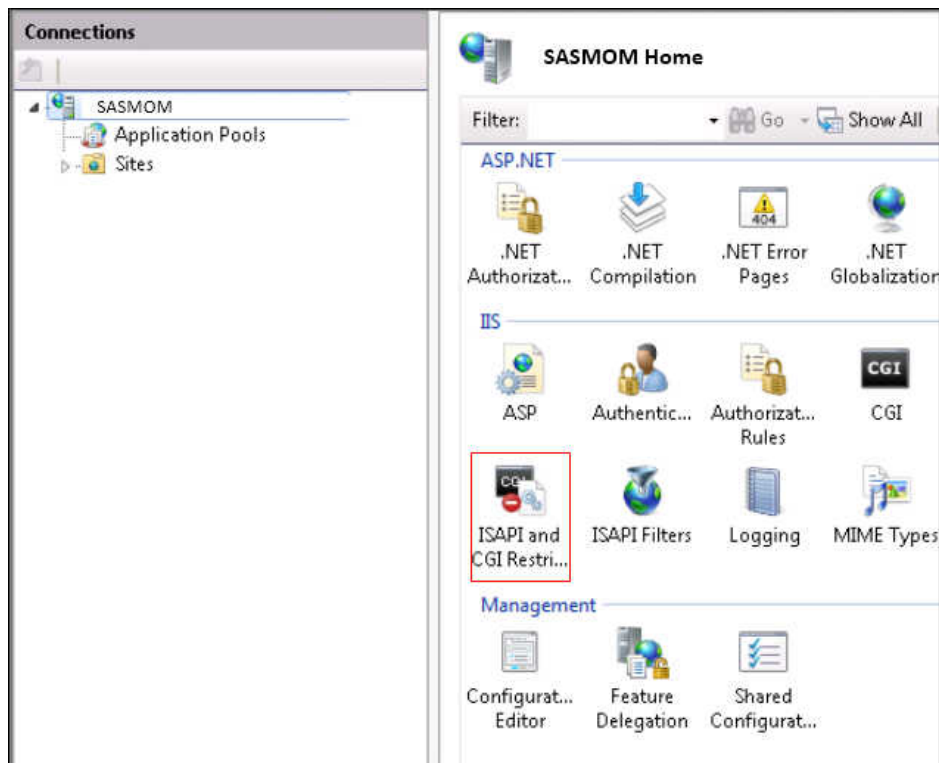
Create a virtual directory named ALDocShare and refer to the WebDAV folder specified during the installation process. Refer to [“Configure the Virtual Folder” on page 105](#) for information about creating a virtual directory. Give Read, Write, and Directory Browsing access to the ALDocShare virtual directory.

**Note:** You must create this virtual directory on the Solutions machine.

### Change the Web Service Extension in the IIS on the Solutions Machine

In the IIS Manager on the solutions machine, click on the **<Machine Name>**. Double-click **ISAPI and CGI Restrictions**. Right-click **WebDAV** and select **Allow**.

Display 8.28 SAS MOM Home



Display 8.29 ISAPI and CGI Restrictions

ISAPI and CGI Restrictions		
Use this feature to specify the ISAPI and CGI extensions that can run on the Web server.		
Group by: No Grouping		
Description	Restriction	Path
[No Description]	Allowed	C:\Windows\system32\MQISE.DLL
Active Server Pages	Allowed	C:\Windows\system32\inetrv\asp.dll
ASP.NET v2.0.50727	Allowed	C:\Windows\Microsoft.NET\Framework64\v2.0.50727\aspnet_isapi.dll
ASP.NET v2.0.50727	Allowed	C:\Windows\Microsoft.NET\Framework\v2.0.50727\aspnet_isapi.dll
ASP.NET v4.0.30319	Allowed	c:\Windows\Microsoft.NET\Framework\v4.0.30319\aspnet_isapi.dll
ASP.NET v4.0.30319	Allowed	c:\Windows\Microsoft.NET\Framework64\v4.0.30319\aspnet_isapi.dll
WebDAV	Allowed	C:\Windows\system32\inetrv\webdav.dll

## Configure a Virtual Folder for the Tenant

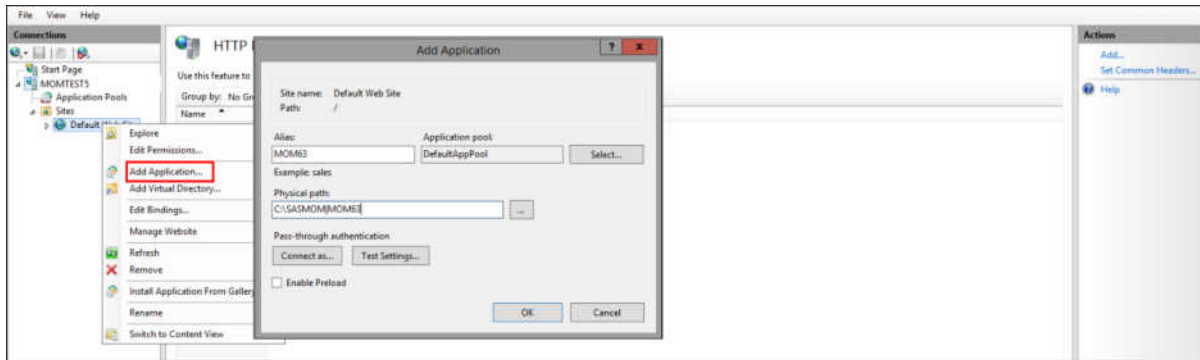
The virtual directories are created automatically during installation and tenant creation. If it fails, create a virtual folder named *<Tenant Name>* that points to *<Installation Folder>\<Tenant Name>* folder as its physical path. Then configure the virtual folder.

### Configure the Virtual Folder

Go to the IIS Manager (select **Start** ► **Administrative Tools** ► **Internet Information Services (IIS) Manager**). To create virtual directories:

Right-click **Default Website** and select **Add Application**. Add a new application by entering the alias (the tenant name), and enter the path `<Installation folder>\<tenant name>`. Click **OK** to save the information.

Display 8.30 Virtual Folder Configuration

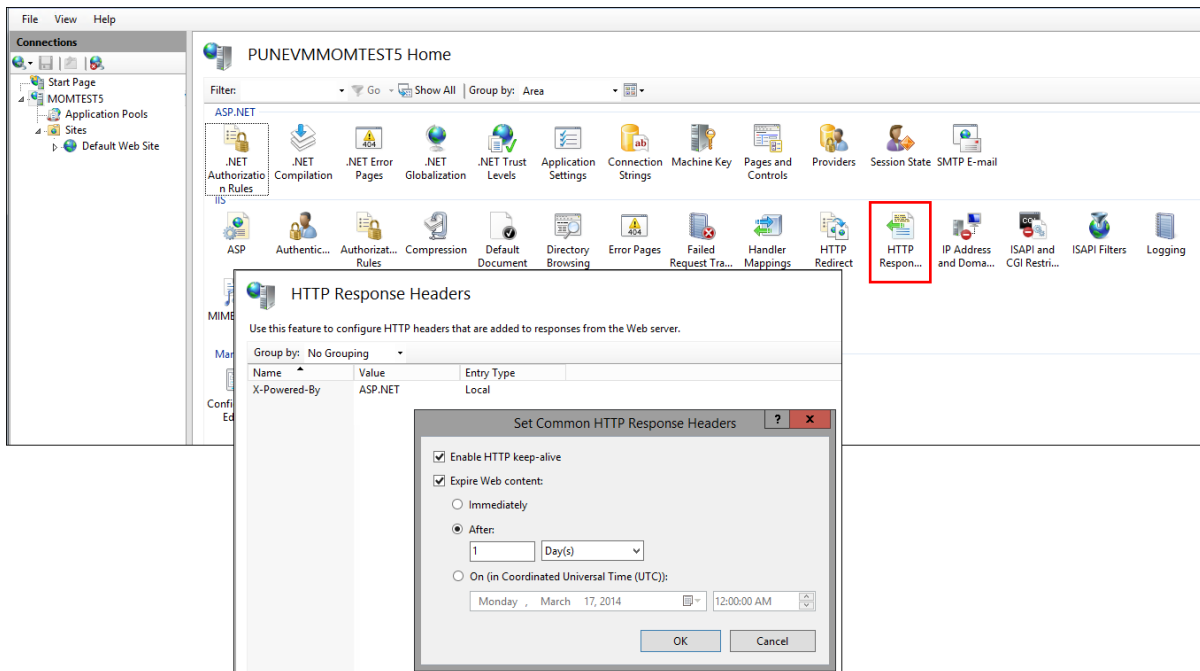


To configure a virtual directory for each tenant:

- 1 Ensure that in the Default Document window, the document default.aspx is present and is at the top.
- 2 Double click the **HTTP Response Headers** icon. The HTTP Response Headers window appears. Right-click on the screen and select **Set Common Headers**. Select **Expire Web content** and **After**, and enter the number of days.

**Note:** If you have an HTTPS setup for an installation, set the web content expiration to 1 or more days in the IIS for the tenants.

Display 8.31 Virtual Folder Configuration



- 3 To configure new MIME types, double-click the **MIME Types** icon. Click **Add** in the right pane. Add the new MIME types with the following extensions:



Table 8.1 Extensions

Associated Extension	Content Type (MIME)
.axd	text/plain
.css	text/css
.gif	image/gif
.js	application/x-javascript
.xpdI	text/plain
.flv	video/x-flv
.swz	application/x-swz
.air	application/vnd.adobe.air-application-installer-package+zip

**Note:** You should clear the browser cache after any new installation.

## Creating a Virtual Folder for Dashboard

Create a virtual directory named **DashboardImages**. See [“Configure the Virtual Folder” on page 105](#) for information about creating a virtual directory. Give Read access to the virtual directory. The virtual directory should be created on the Solutions machine (web server).

You must create this virtual folder on the web server machine where SAS Marketing Operations Management solutions are installed. On a single-machine configuration, the DashboardImages virtual directory should point to the Outbox. In a multi-machine configuration, OutBox is created on the Service Machine. On the Solutions machine, you must manually create a DashboardImages folder and point this to the virtual directory of DashboardImages.

---

## Creating the Desktop Folder

Create a Desktop folder (if one has not already been created) at the following location:

```
<WindowsInstallationDir>\System32\config\systemprofile\
```

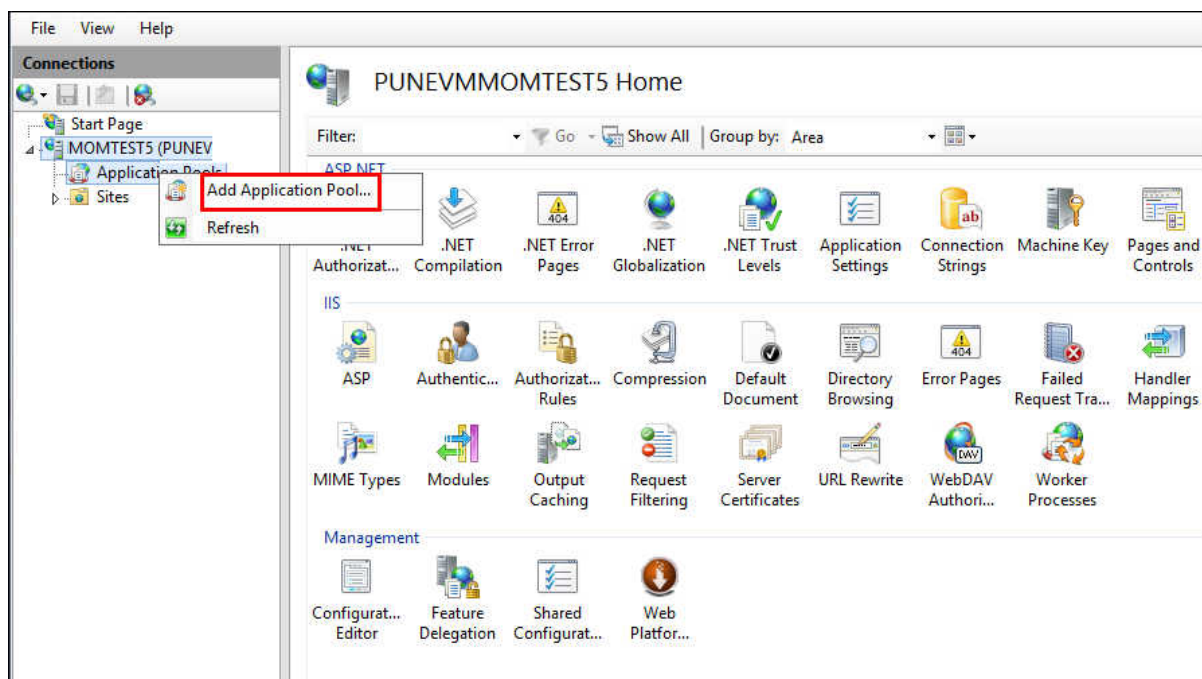
## IIS Manager—Application Pools

### Creating Application Pools

If the creation of the application pool fails, you must manually create the application pool:

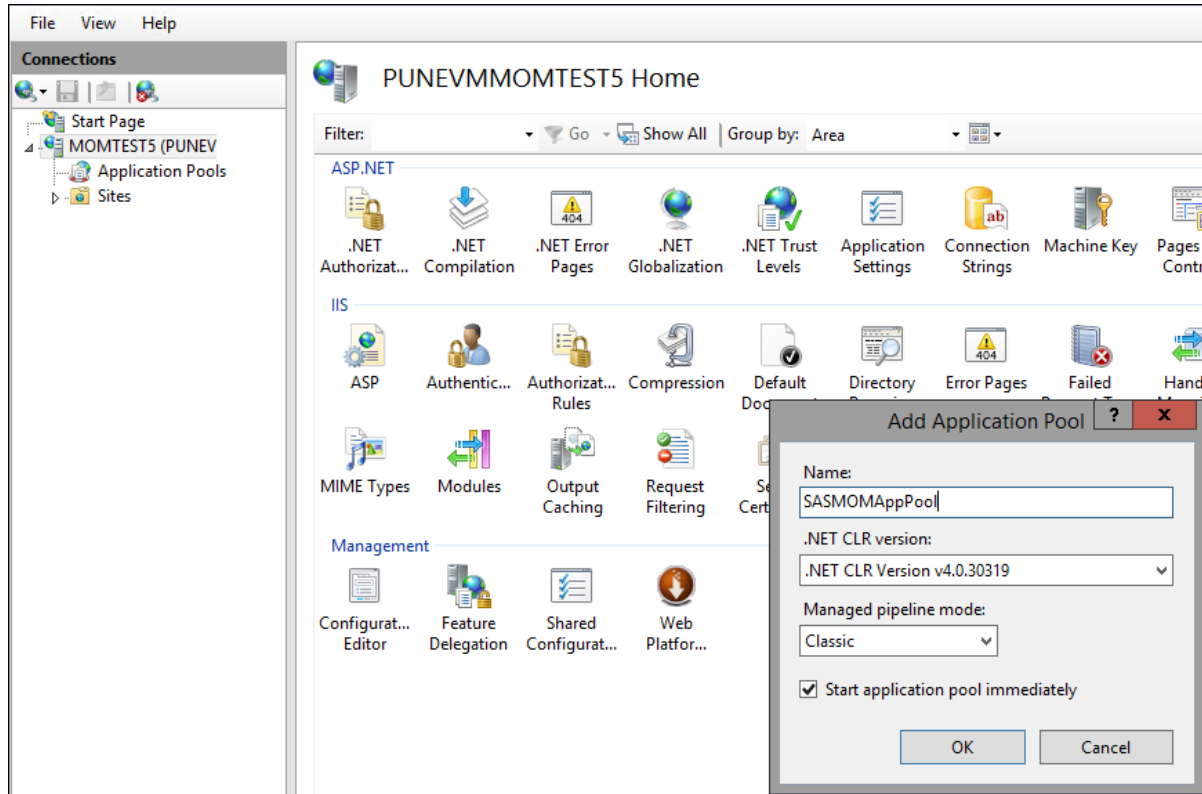
- 1 Go to **Internet Information Services(IIS) Manager**.
- 2 Right-click **Application Pools** and select **Add Application Pool**.

*Display 8.32 Add Application Pools*



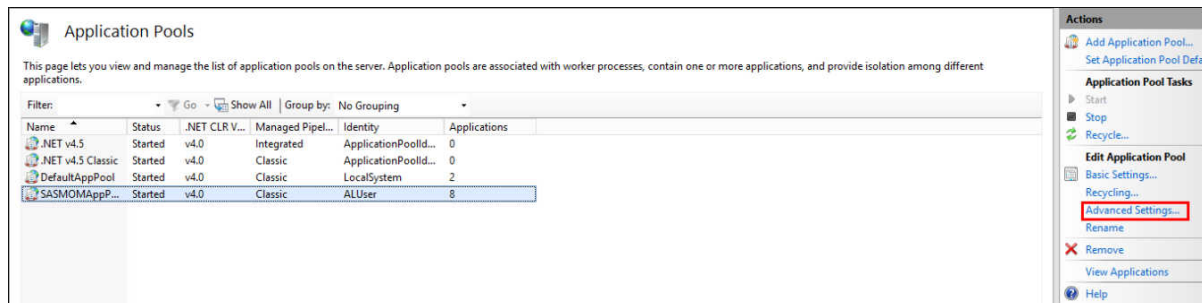
- 3 Enter **SASMOMAppPool1** for the name.
- 4 Select **.Net CLR Version v4.0.30319** for **.NET CLR version**.
- 5 Select **Classic** for the **Managed pipeline mode**.

Display 8.33 Add Application Pools



- 6 Select the newly created SASMOMAppPool and click **Advance Settings** in the right pane.

Display 8.34 Application Pools



- 7 Change the value of **Regular Time Interval (minutes)** to 0.

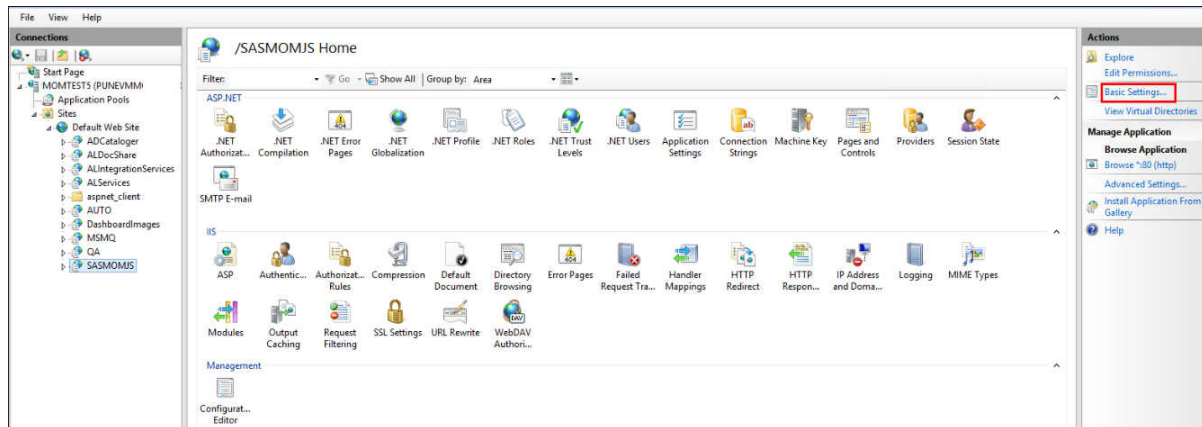
**Note:** If the creation of SASMOMAppPool also failed during the installation process, you must also manually configure SASMOMAppPool.

## Configuring Applications in the Application Pool

If the configuration of applications for the application pool fails, you must manually configure them.

- 1 Select the website (each website created by the SAS Marketing Operations Management application) and click **Basic Settings** in the right pane. The Edit Application dialog box appears.

Display 8.35 Basic Settings



- 2 Click **Select** to change the application pool.

The above steps need to be done on the following servers and their respective applications (websites):

#### ■ Solutions

- ☐ Tenant
- ☐ DashboardImages
- ☐ ALIntegrationServices
- ☐ ALServices
- ☐ SASMOMJS

#### ■ Web Services

- ☐ ALServices

#### ■ Cataloger

- ☐ ALServices
- ☐ ADCataloger

#### ■ Media Server

- ☐ ALMediaServices
- ☐ ALServices

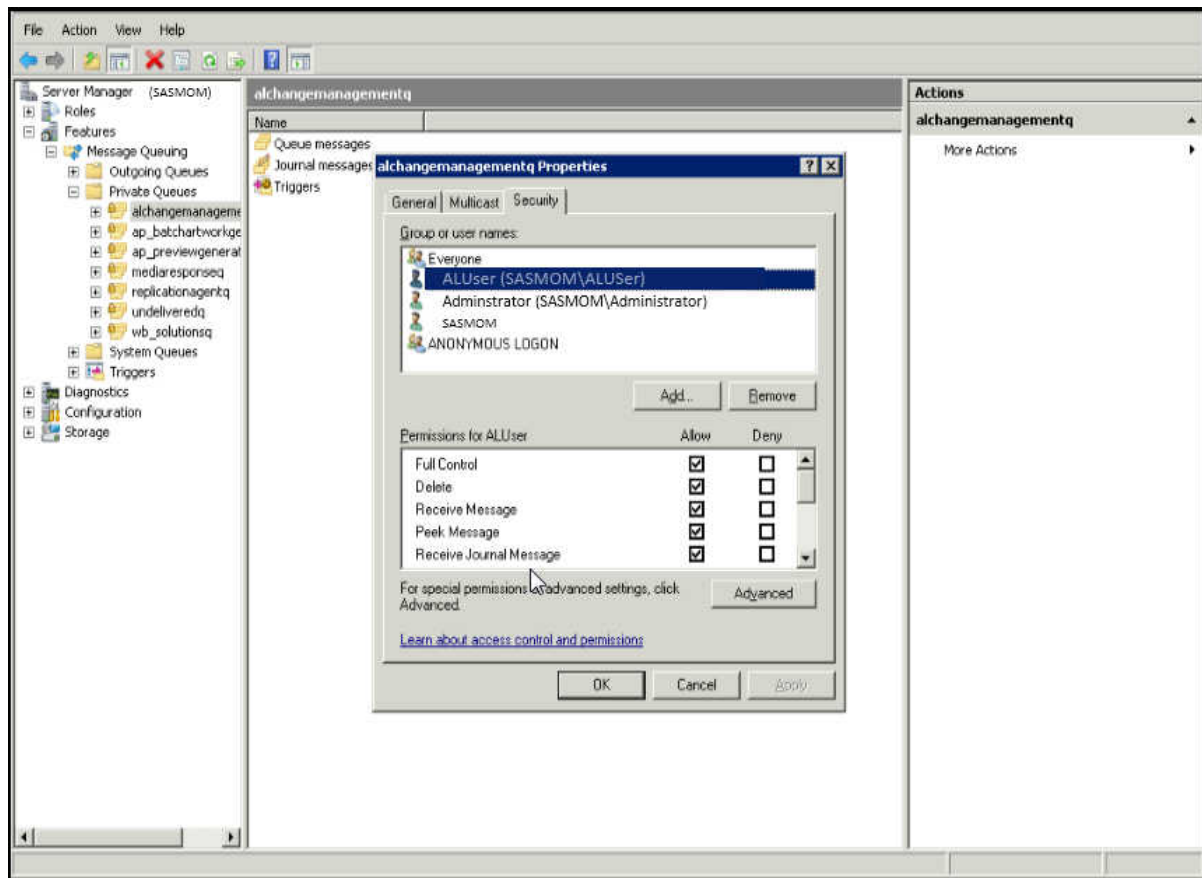
#### ■ Microsoft Office Processor

- ☐ ALServices

## Complete Access for ALUser

Verify that ALUser has complete access on all private messaging queues (MSMQs). Go to **Programs** and right-click **Computer**. Expand **Features** ► **Messaging Queues** ► **Private Queues**. For all the SAS Marketing Operations Management queues, verify that ALUser has complete access by right-clicking on each of the queues and clicking the **Security** tab.

Display 8.36 Properties



## Configuring Scheduled Tasks

### Schedule the Utility

**Note:** The scheduled tasks are created automatically. Please check to determine whether the scheduled tasks are created.

To schedule the utility:

- 1 Select **Start** ► **Programs** ► **Accessories** ► **System Tools** ► **Task Scheduler**.
- 2 Right-click **Task Scheduler (Local)** and select **Create Task**.
- 3 Click the **General** tab and enter and name for the task. Select **Run whether user is logged on or not**.
- 4 On the **Triggers** tab, click **New** and schedule the task by setting the time at which the task needs to run.
- 5 On the **Actions** tab, click **New**. Browse and select the .exe file located in *<Installation folder>\Binaries*.

- 6 The default settings need to be used on the **Conditions** tab and the **Settings** tab.

The utility is now scheduled and will automatically run every day at the time that you specified. The following utilities are scheduled using the above process:

- Schedule Task for Digital Library
- Security Policy Report Generation for Digital Library
- DAM Vault User Access Report Generation

## Schedule Task for Digital Library

Schedule AL\_DAMBackGroundRequestHandler.exe to run at a time when there is little or no activity on the server. This exe is located in *<installation Directory>\binaries*. It has to be added as a scheduled task on the web services machine.

This task should be scheduled to run at a time when the fewest users are logged in to the system. It needs to be run at a time when the system is not due for restart. This operation takes a while to execute, so ensure that there is sufficient time between the start of the task and the restart of the system.

Perform the following three operations:

- **Recycle Bin cleanup:** To empty the recycle bin of content that is marked for permanent deletion.
- **For marking the assets as expired:** To mark assets that have an expiration date that is before the current date.

**Note:** This task should be scheduled to be run after 12.00 a.m. This operation takes a while to execute.

- **To calculate the total disk space usage by the Vaults:** To calculate the total space used by the vaults in DAM.

To change the application behavior, the following parameters need to be set in the 'AL\_DAMBackGroundRequestHandler.exe.config' file:

### SENDEMAILFORVAULTDISKSPACE

If the total used disk space percentage for the vault is greater than the configured number, then notification specifying disk space details for the vault are sent to the System Administrator and the configured users, depending on the value specified for this configuration. By default, the value is `true`.

### NOTIFYIFUSEDISKSPACEPERCENTAGEGREATERTHAN

Number specifying the percentage allowed for total used disk space. By default the value is 80.

### EMAILIDSFORVAULTDISKSPACENOTIFICATION

Comma-separated e-mail IDs of users who should be notified.

Display 8.37 Parameters

```

<appSettings>
  <add key="DAMWSURL" value="http://198.113.120.114/ALServices/ALDAMWS.asmx"/>
  <add key="ALInfrastructureWS" value="http://198.113.120.114/ALServices/ALInfrastructureWS.asmx"/>
  <add key="ALSearchWS" value="http://198.113.120.114/ALServices/ALSearchWS.asmx"/>
  <add key="ALNotificationWS" value="http://198.113.120.114/ALServices/ALNotificationWS.asmx"/>
  <add key="REASONFORASSETEXPIRY" value="Reason for Asset Expiry is: System expires asset."/>
  <add key="EMAILIDSFORVAULTDISKSPACE" value="admin@assetlink.com"/>
  <add key="SENDEMAILFORVAULTDISKSPACE" value="true"/>
  <add key="NOTIFYIFUSEDISKSPACEPERCENTAGEGREATERTHAN" value="80"/>
</appSettings>

```

## Schedule Security Policy Report Generation for Digital Library

To generate data for a Security Policy report, the SecurityPolicyService.exe application needs to be scheduled to run periodically. The default interval is 3 hours. Create a schedule task for this application. This exe is located in the *<installation Directory>\binaries* folder. It has to be added as a scheduled task on the web services machine.

## Schedule a DAM Vault User Access Report Generation

This report is used to get information related to user's access to vaults in the system. It's an off line report that is used to populate a temporary table in the database, which is used by the report to display data. To generate data for a DAM Vault User Access report, the DAMVaultUserAccess.exe application needs to be scheduled to run periodically. The default interval is 3 hours. Create a schedule task for this application. This exe is located in the *<installation Directory>\binaries* folder. It has to be added as a scheduled task on the web services machine.

---

## Checking Logs for Errors

After installation, if any errors occur while using the SAS Marketing Operations Management system, you can check the logs at the following locations:

- On the Solution machine, the logs are located at *<Installation folder>\Logs* and *<Installation folder>\<Tenant Name>\Logs\Exception*
- On the web services machine, the logs are located at *<Installation folder>\<Tenant Name>\Logs*, *<Installation folder>\Logs*, and *<Installation folder>\MediaProcessorLog*
- On the Cataloger machine, the logs are located at *<Installation folder>\<Tenant Name>\Logs*, *<Installation folder>\Logs*, *<Installation folder>\Errors*, and *<Installation folder>\MediaProcessorLog*
- On the InDesign machine, the logs are located at *<Installation folder>\Logs* and *<Installation folder>\MediaProcessorLog*





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