

# System Requirements

## SAS<sup>®</sup> Digital Marketing 5.4

### Updated February 2013

This document provides requirements for installing and running SAS Digital Marketing software. You must update your system to meet the requirements before running SAS Digital Marketing software.

The major requirements listed in the document are:

- software requirements
- hardware requirements
- specific product requirements

For additional information and to view the latest system requirements for your system, access the Install Center site at

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

or contact SAS Institute Technical Support. Sites in the U.S. and Canada may call (919) 677-8008.

Other sites should contact their SAS Installation Representative or SAS Support Consultant for the nearest SAS Institute office.

## Software Requirements

### ***Locale***

The SAS Digital Marketing solution is supported in many countries and many languages but the system supports only one locale and language across any one solution installation.

### ***Administrator Privilege***

An installer must have administrator privilege to install various updates. This requirement ensures that SAS Digital Marketing 5.4 can be completely and safely installed. SAS Digital Marketing 5.4 is an application that can reside on multiple platforms.

SAS Digital Marketing 5.4 is a multi-tier application consisting of client tier, mid-tier and a server tier deployments.

### ***Client Tier***

The SAS Digital Marketing Client tier consists of:

- SAS Digital Marketing Studio 5.4
- SAS Enterprise Guide 4.3
- SAS Foundation 9.2
- SAS Foundation Services 9.2



Your SAS Digital Marketing package may also include the following SAS products:

- SAS/GRAPH
- SAS/SHARE

## Client Tier Operating System Support

Supported operating systems for the client tier are as follows:

Microsoft Windows Vista, Microsoft XP, and Microsoft Windows 7 32-bit products:

- Microsoft Windows 7 - Professional, Enterprise, and Ultimate Editions
- Microsoft Windows Vista - Enterprise, Business, and Ultimate Editions
- Microsoft Windows XP

Microsoft Windows Vista, Microsoft XP, and Microsoft Windows 7 x64 products:

- Microsoft Windows 7 for x64 systems - Professional, Enterprise, and Ultimate Editions
- Microsoft Windows Vista for x64 systems - Enterprise, Business, and Ultimate Editions
- Microsoft Windows XP

For specifics on patch levels, please contact SAS Technical Support.

## Web Browser Support

Operating System/ Web Browsers	Internet Explorer 6	Internet Explorer 7, 8	Firefox
Windows XP Pro 32-bit	✓	✓	✗
Windows Vista 32-bit	✓	✓	✗
Windows XP Pro x64	✓	✓	✗
Windows Vista, 7 x64	✓	✓	✗
Linux 32-bit (Red Hat/SLES)	✗	✗	✗
Linux x64 (Red Hat/SLES)	✗	✗	✗

## Citrix Support for Clients

- The Citrix XenApp 6 for Windows 2008 R2 is supported for the SAS Digital Marketing Studio 5.4 client only.
- **Note:** Citrix support is for five or fewer concurrent users



## Mid-Tier

### Mid-Tier Java Application Server Support

The relevant Java Software Developer Kit's (JDK) and the latest information and special instructions can be found in the Third Party Support web site:

<http://support.sas.com/resources/thirdpartysupport/v92m3/jdks.html>. The following table is a matrix of the Operating System and Mid-Tier Application servers that are supported for SAS Digital Marketing 5.4. For more specifics on the operating systems, please see the Mid-Tier Operating system support section.

Operating Systems/ App Servers*	JBoss Application Server 4.3* (Java 5)	Oracle (BEA) WebLogic 10.3.x (Java 6)	IBM WebSphere 6.1.0.21 ND & 7.0 (Java 5 & 6)
Windows Server 2003/2008 x64 Family	✓	✓	✓
Linux on x64 (Red Hat 5, Novell SuSE SLES 9, 10, 11)	✓	✗	✓  (Supported on RedHat Enterprise Linux version 5 only)
Solaris 10 on SPARC	✓	✓	✓
Solaris 10 on x64	✓	✓	✓
AIX 6.1	✓	✓	✓
HP-UX Itanium 11i v2 (11.23), 11i v3 (11.31)	✗	✓	✗

\*Notes on JBoss support:

- JBoss Enterprise Application Platform Version 4.2 and 4.3 can be used for Linux (Redhat Enterprise Version 5 and Novell SuSE SLES Version 11), Windows 2003 , Windows 2008, Solaris 10 for SPARC, Solaris 10 x86 (x64-86), HP-UX11i version 2, and AIX.
- JBoss Community Edition Version 4.2 can be used for Linux (Redhat Enterprise Version 5 and Novell SuSE SLES Version 11), Windows 2003 , Windows 2008, Solaris 10 for SPARC, Solaris 10 x86 (x64-86), HP-UX11i version 2, and AIX.

**Note:** Please see the following for conditions regarding support of JBoss community editions:

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

### Mid-Tier Operating System Support

**Note:** Windows is only supported on the 64-bit editions.

- AIX, Release 6.1
- HP-UX Itanium 11i version 2, (11.23), 11i version 3 (11.31)



- Solaris 10 for SPARC architecture with recommended Patch Cluster.
- Solaris 10 for x64
- Linux for x64
  - Red Hat Enterprise Linux (RHEL) version 5
  - Novell SuSE SLES 11
- Microsoft Windows Server 2003 x64 Family
  - Microsoft Windows Server 2003 for x64 systems, Standard Edition
  - Microsoft Windows Server 2003 for x64 systems, Enterprise Edition
  - Microsoft Windows Server 2003 for x64 systems, Datacenter Edition
- Microsoft Windows Server 2008 x64 Family
  - Microsoft Windows Server 2008 for x64 system, Standard Edition
  - Microsoft Windows Server 2008 for x64 systems, Enterprise Edition
  - Microsoft Windows Server 2008 for x64 systems, Datacenter Edition

For specifics on patch levels, please contact SAS Technical Support.

## **Server Tier**

Foundation SAS 9.2:

- SAS/GRAPH
- SAS/SHARE
- SAS Integration Technologies

## **Server Tier Operating System Support**

- AIX, Release 6.1
- HP-UX Itanium 11i version 2, (11.23), 11i version 3 (11.31)
- HP-UX PA-RISC 11i version 2, (11.23), 11i version 3 (11.31)
- Solaris 10 for SPARC architecture with recommended Patch Cluster.
- Solaris 10 for x64
- Linux for x64
  - Red Hat Enterprise Linux (RHEL) version 5
  - Novell SuSE SLES 11
- Microsoft Windows Server 2003 x64 Family
  - Microsoft Windows Server 2003 for x64 systems, Standard Edition
  - Microsoft Windows Server 2003 for x64 systems, Enterprise Edition
  - Microsoft Windows Server 2003 for x64 systems, Datacenter Edition
- Microsoft Windows Server 2008 x64 Family
  - Microsoft Windows Server 2008 for x64 system, Standard Edition
  - Microsoft Windows Server 2008 for x64 systems, Enterprise Edition
  - Microsoft Windows Server 2008 for x64 systems, Datacenter Edition

For specifics on patch levels, please contact SAS Technical Support.

SAS Digital Marketing Server can run independently of SAS 9.2 Foundation.

SAS Digital Marketing Grid Node can also run independently of SAS 9.2 Foundation.



Supported operating systems for both are as follows:

- AIX, Release 6.1
- HP-UX Itanium 11i version 2, (11.23), 11i version 3 (11.31)
- HP-UX PA-RISC 11i version 2, (11.23), 11i version 3 (11.31)
- Solaris 10 for SPARC architecture with recommended Patch Cluster.
- Solaris 10 for x64
- Linux for x64
  - Red Hat Enterprise Linux (RHEL) version 5
  - Novell SuSE SLES 11
- Microsoft Windows Server 2003 x64 Family
  - Microsoft Windows Server 2003 for x64 systems, Standard Edition
  - Microsoft Windows Server 2003 for x64 systems, Enterprise Edition
  - Microsoft Windows Server 2003 for x64 systems, Datacenter Edition
- Microsoft Windows Server 2008 x64 Family
  - Microsoft Windows Server 2008 for x64 system, Standard Edition
  - Microsoft Windows Server 2008 for x64 systems, Enterprise Edition
  - Microsoft Windows Server 2008 for x64 systems, Datacenter Edition

## Hardware Requirements

### ***Client Application Machine: Minimum Recommended***

- Intel or Intel-Compatible processor (minimum 1 GHz recommended)
- Memory: 1 Gigabyte or more for improved performance
- Disk Space:
  - SAS Digital Marketing Clients 5.4: 100 MB
  - Java Runtime Environment 1.5.0\_12 : 82 MB

### ***Mid-Tier Machine: Minimum Recommended***

#### **Memory**

The minimum recommended memory for the mid-tier is 6 gigabytes per core. Memory requirements for optimal performance may vary based on the requirements of other applications running.

#### **Disk Space:**

- SAS Digital Marketing Mid-Tier 5.4 (inside the firewall):
  - SAS Foundation Services: 84MB
  - Web Infrastructure Platform

Additional space may also be required for new content and customization.

Review the system requirements of your application server for additional space and memory requirements.



Application Server: As supported by SAS Digital Marketing and operating system (check support matrix above)

## **SAS Server Tier: Minimum Recommended**

- Intel or Intel-Compatible processor (minimum 2 GHz recommended).
- Memory: 4 gigabyte minimum (16 GB recommended for improved performance)
- Disk Space:
  - SAS Foundation 9.2: 1.4 GB
  - SAS Foundation Services 9.2: 84 MB
  - In addition, the SAS working directory should be at least five times the size of the input data sets. 500 GB – 1000 GB recommended.

For memory and disk space requirements of other SAS products, please see SAS 9.2 System Requirements located at <http://support.sas.com/resources/sysreq/92/index.html> under the relevant operating system.

## **Specific Product Requirements**

SAS Digital Marketing 5.4 can connect to various databases. The following list contains the versions of databases for which SAS Digital marketing 5.4 is compatible.

- Oracle 11g
- Oracle 10g
- Netezza 4.0
- Teradata 12 & 13
- DB2/UDB 9.1, 9.5, and 9.7
- MySQL 4.1
- SAS/SHARE 9.2
- SAS/IOM 9.2
- SQL Server Version 2005 Enterprise Edition and SQL Server Version 2008 Enterprise Edition—only through SAS/ACCESS to OLE DB, not ODBC  
*Note: The OLE DB access engine only runs in a Windows environment, therefore restricting support of SQL server to the Windows platform only*
- SQL Server Version 2008 Standard Edition - only through SAS/ACCESS to OLE DB, not ODBC  
*Note: The OLE DB access engine only runs in a Windows environment, therefore restricting support of SQL server to the Windows platform only*

**Note:** You should not hold SAS Digital Marketing Response and Opt-Out tables as SAS Datasets in order to avoid possible concurrent update issues. It is advisable to use another supported database, or if necessary, SAS/SHARE. See SAS Note 47241 available at <http://support.sas.com/kb/47/241.html> for further information.



SAS Digital Marketing requires a Mail Transfer Agent (MTA) Server. A Mail Transfer Agent is a mail server program. MTAs interact with each other generally through the Internet. Your customer needs to satisfy this requirement directly from a third party vendor of choice. Some MTA vendors include Port25's [PowerMTA](#) or code-crafter's [Ability Mail Server](#)

**Note:** Most high performance Mail Transfer Agents (MTA), like PowerMTA, automatically implement domain throttling. For high volume implementations that require domain throttling, such as a daily e-mail transmission rate over one million, throttling at the MTA level will be required.

In addition to a third party MTA, an SMS/MMS gateway is needed in order to send out SMS/MMS broadcasts. Commonly suggested gateways are Air2Web (<http://www.air2web.com/>), NowSMS (<http://www.nowsms.com/>) and Clickatell ([http://www.clickatell.com/products/sms\\_gateway.php](http://www.clickatell.com/products/sms_gateway.php)).

It is the customer's responsibility to satisfy this requirement if there is an interest in sending out SMS/MMS broadcasts. Except for Air2Web, contact the third party vendor of choice for pricing. Air2Web pricing can be provided by SAS.

You must also provide a fully configured e-mail server. JavaMail supports Simple Mail Transfer Protocol (SMTP), Post Office Protocol (POP), and Internet Message Access Protocol (IMAP) communication methods to an MTA.

**Note:** IMAP support for the JavaMail application programming interface (API) is experimental in this version of SAS Digital Marketing and that extended functionality, such as sub-folder processing, is not supported. Documentation is not available for this e-mail protocol.

SAS Digital Marketing also supports TinyMCE 3.x versions. See <http://tinymce.moxiecode.com/>.

## References

SAS Technical Support Install Center

<http://support.sas.com/documentation/installcenter/>

SAS 9.2 Foundation System Requirements for AIX

<http://support.sas.com/documentation/installcenter/en/ikfdtnr64sr/62124/PDF/default/sreq.pdf>

SAS 9.2 Foundation System Requirements for Linux for x64

<http://support.sas.com/documentation/installcenter/en/ikfdtnlaxsr/62147/PDF/default/sreq.pdf>

SAS 9.2 Foundation Systems Requirements for HP-UX

<http://support.sas.com/documentation/installcenter/en/ikfdtnh64sr/62126/PDF/default/sreq.pdf>

SAS 9.2 Foundation Systems Requirements for HP-UX for the Itanium Processor Family Architecture

<http://support.sas.com/documentation/installcenter/en/ikfdtnh61sr/61995/PDF/default/sreq.pdf>

SAS 9.2 Foundation System Requirements for Solaris for x64

<http://support.sas.com/documentation/installcenter/en/ikfdtnsaxsr/62150/PDF/default/sreq.pdf>



*System Requirements for SAS 9.2 Foundation for Microsoft Windows*

<http://support.sas.com/documentation/installcenter/en/ikfdtnwinsr/62187/PDF/default/sreq.pdf>

*System Requirements for SAS 9.2 Foundation for Microsoft Windows for x64*

<http://support.sas.com/documentation/installcenter/en/ikfdtnwx6sr/62191/PDF/default/sreq.pdf>

*Third Party Software Requirements*

<http://support.sas.com/resources/thirdpartysupport/v92m3/index.html>

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