

System Requirements

SAS® Digital Marketing 5.3

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 SAS Institute Web 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 5.3 can be completely and safely installed. SAS Digital Marketing 5.3 is an application that can reside on multiple platforms.

SAS Digital Marketing 5.3 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 5.3
- Enterprise Guide 4.2

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

SAS 9.2:

- SAS/GRAPH
- SAS/SHARE

Client Tier Operating System Support

Supported operating systems for the client tier are as follows:

SAS Digital Marketing Studio 5.3 support is listed below:

- 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 32-bit*
 - Red Hat Enterprise Linux (RHEL) version 5
 - Novell SuSE SLES 11
- Microsoft Windows XP and Microsoft Windows Vista 32-bit products*:
 - Microsoft® Windows® XP Professional, updated with Service Pack 2
 - Microsoft® Windows® Vista - Enterprise, Business, and Ultimate Editions

SAS Enterprise Guide 4.2 support is listed below:

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

- Microsoft® Windows® XP Professional, updated with Service Pack 2
- Microsoft® Windows® Vista - Enterprise, Business, and Ultimate Editions

Microsoft Windows XP and Microsoft Windows Vista x64 products:

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

Microsoft Windows Server 2008 32-bit Family

- Microsoft® Windows® Server 2008 Standard Edition
- Microsoft® Windows® Server 2008 Enterprise Edition
- Microsoft® Windows® Server 2008 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

Microsoft Windows Server 2003 32-bit Family

Note: SAS recommends that users with Microsoft Windows Server 2003 install the Microsoft software update that is available [here](#).

- Microsoft® Windows® Server 2003, Standard Edition updated with Service Pack 1
- Microsoft® Windows® Server 2003, Enterprise Edition updated with Service Pack 1
- Microsoft® Windows® Server 2003, Datacenter Edition updated with Service Pack 1

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

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

SAS 9.2: SAS/GRAPH and SAS/SHARE support is listed below:

- 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 32-bit
 - Red Hat Enterprise Linux (RHEL) version 5
 - Novell SuSE SLES 11
- Linux for x64
 - Red Hat Enterprise Linux (RHEL) version 5
 - Novell SuSE SLES 11
- Microsoft Windows XP and Microsoft Windows Vista 32-bit products:
 - Microsoft® Windows® XP Professional, updated with Service Pack 2
 - Microsoft® Windows® Vista - Enterprise, Business, and Ultimate Editions
- Microsoft Windows on Itanium
 - Microsoft Windows Server 2008 for Itanium-based Systems edition with SAS 9.2 TS Level 2M2.
 - Microsoft Windows Server 2003 for Itanium-base systems:
 - Enterprise Edition updated with Service Pack 1
 - Datacenter Edition updated with Service Pack 1
- Microsoft Windows Server 2003 32-bit Family

Note: SAS recommends that users with Microsoft Windows Server 2003 install the Microsoft software update that is available [here](#)

 - Microsoft® Windows® Server 2003, Standard Edition updated with Service Pack 1
 - Microsoft® Windows® Server 2003, Enterprise Edition updated with Service Pack 1
 - Microsoft® Windows® Server 2003, Datacenter Edition updated with Service Pack 1
- 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 32-bit Family
 - Microsoft® Windows® Server 2008 Standard Edition
 - Microsoft® Windows® Server 2008 Enterprise Edition
 - Microsoft® Windows® Server 2008 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

Web Browser Support

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

Mid-Tier

Mid-Tier Java Application Server Support

The relevant Java 2 Software Developer Kit's (J2SDK) and the latest information and special instructions can be found in the Third Party Support web site:

<http://support.sas.com/resources/thirdpartysupport/v92/dks.html>.

The following table is a matrix of the Operating System and Mid-Tier Application servers that are supported for SAS Digital Marketing 5.3. For more specifics on the operating systems, please see the Mid-Tier Operating system support section.

SAS Digital Marketing 5.3 Mid-Tier Support

Operating Systems/App Servers	JBoss Application Server 4.3* (Java 5)	Oracle (BEA) WebLogic 10gR3 (10.3) (Java 6)	IBM WebSphere 6.1.0.21 & 7.0 (Java 5 & 6)
Windows Server 2003/2008 32-bit	✓	✓	✓
Windows Server 2003/2008 x64 Family	✗	✗	✗
Linux on x64 (Red Hat 4, 5, Novell SuSE SLES 9, 10, 11)	✗	✗	✓ Redhat Enterprise Linux Version 5

Operating Systems/App Servers	JBoss Application Server 4.3* (Java 5)	Oracle (BEA) WebLogic 10gR3 (10.3) (Java 6)	IBM WebSphere 6.1.0.21 & 7.0 (Java 5 & 6)
Solaris 10 on SPARC	✓	✓	✓
Solaris 10 on x64	✓	✓	✓
AIX 6.1	✓	✓	✓
HP-UX Itanium 11i v2 (11.23), 11i v3 (11.31)	✗	✓	✗

✓ = supported

✗ = not supported

*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

- 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
- **Microsoft Windows Server 2003 32-bit Family***
 - Note:** SAS recommends that users with Microsoft Windows Server 2003 install the Microsoft software update that is available [here](#).
 - Microsoft® Windows® Server 2003, Standard Edition updated with Service Pack 1
 - Microsoft® Windows® Server 2003, Enterprise Edition updated with Service Pack 1
 - Microsoft® Windows® Server 2003, Datacenter Edition updated with Service Pack 1
- **Microsoft Windows Server 2008 32-bit Family***
 - Microsoft® Windows® Server 2008 Standard Edition
 - Microsoft® Windows® Server 2008 Enterprise Edition
 - Microsoft® Windows® Server 2008 Datacenter Edition

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

Server Tier

Foundation SAS 9.2:

- SAS/GRAPH
- SAS/SHARE
- SAS Integration Technology

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 32-bit*
 - Red Hat Enterprise Linux (RHEL) version 5
 - Novell SuSE SLES 11
- Linux for x64
 - Red Hat Enterprise Linux (RHEL) version 5
 - Novell SuSE SLES 11
- Microsoft Windows XP and Microsoft Windows Vista 32-bit products *:
 - Microsoft® Windows® XP Professional, updated with Service Pack 2
 - Microsoft® Windows® Vista - Enterprise, Business, and Ultimate Editions
- Microsoft Windows on Itanium
 - Microsoft Windows Server 2008 for Itanium-based Systems edition with SAS 9.2 TS Level 2M2.
 - Microsoft Windows Server 2003 for Itanium-base systems:
 - Enterprise Edition updated with Service Pack 1
 - Datacenter Edition updated with Service Pack 1
- Microsoft Windows Server 2003 32-bit Family*

Note: SAS recommends that users with Microsoft Windows Server 2003 install the Microsoft software update that is available [here](#).

 - Microsoft® Windows® Server 2003, Standard Edition updated with Service Pack 1
 - Microsoft® Windows® Server 2003, Enterprise Edition updated with Service Pack 1
 - Microsoft® Windows® Server 2003, Datacenter Edition updated with Service Pack 1
- 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 32-bit Family*
 - Microsoft® Windows® Server 2008 Standard Edition
 - Microsoft® Windows® Server 2008 Enterprise Edition
 - Microsoft® Windows® Server 2008 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 Foundation SAS 9.2.

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

Supported operating systems for both are as follows:

- **Microsoft Windows Server 2003 32-bit Family***
 - Note:** SAS recommends that users with Microsoft Windows Server 2003 install the Microsoft software update that is available [here](#).
 - Microsoft® Windows® Server 2003, Standard Edition updated with Service Pack 1
 - Microsoft® Windows® Server 2003, Enterprise Edition updated with Service Pack 1
 - Microsoft® Windows® Server 2003, Datacenter Edition updated with Service Pack 1
- **Microsoft Windows Server 2008 Family**
 - Microsoft® Windows® Server 2008 Standard Edition
 - Microsoft® Windows® Server 2008 Enterprise Edition
 - Microsoft® Windows® Server 2008 Datacenter Edition
- 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 32-bit***
 - Red Hat Enterprise Linux (RHEL) version 5
 - Novell SuSE SLES 11

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 5.3: 100MB
 - Java Runtime Environment 1.5.0_12 : 82MB

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 5.3 (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 SDM and OS (check support matrix)

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 5.3 can connect to various databases. The following list contains the minimum versions of databases for which SAS Digital marketing 5.3 is compatible.

- Oracle 11g
- Oracle 10g
- Netezza 4.0
- Teradata 12 & 13
- DB2 8.2
- MS-SQL - SQL Server 2000
- MySQL 4.1
- SAS/Share 9.2
- SAS/IOM 9.2

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 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: [NowSMS](#) and [Clickatell](#). It is the customer's responsibility to satisfy this requirement if there is an interest in sending out SMS/MMS broadcasts. Contact the third party vendor of choice for pricing.

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 2.x versions. See <http://tinymce.moxiecode.com/>.

*** Linux 32-bit and Windows 32-bit will not be supported platforms at future releases. Windows 64-bit for IPF will not be a SAS-supported platform at SAS 9.3 and beyond.**

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/ikfdtnh6isr/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/v92/index.html>

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