

Sage MAS 200® Supported Platform Matrix

Revised as of October 11, 2005

The information in this document applies to Sage MAS 200 Levels 3.71 through 4.10. Sage Software generally only supports the current Sage MAS 200 level and one prior major level. As of the Version 4.10 release, Sage MAS 200 Levels 3.70 and prior are no longer supported by Sage Software. For more information, see the Miscellaneous Notes section in this document. Alternative support options may be available through your Sage Software business partner. Program fixes will continue to be made available on the current version of the software only. Detailed information about support policies can be found in the Sage Software Online area of the Sage Software Web site at www.sagesoftwareonline.com

The Supported Platform Matrix is intended to cover all information, as of October 11, 2005, regarding the compatibility of various operating systems with Sage MAS 200. Any operating system not listed should be assumed to be *incompatible*. If your platform is not listed, the Sage Software Customer Support department cannot provide support for you on that platform. Requests to support additional operating systems should be e-mailed to Productmarketing@sagesoftware.com

Note: It is critical that before and during an installation, this document be thoroughly reviewed, along with the *Sage MAS 200 Installation and System Administrator's Guide* and the Hot Pre-Installation Information in the Sage Software Online area of the Sage Software Web site at www.sagesoftwareonline.com. It is also recommended that only the current release levels of the product be run. If Master Developer customizations or modifications have been made to your Sage MAS 200 software, coordinate with your Sage Software business partner and your Master Developer before performing installations.

For information about third-party compatibility, including Crystal Reports and WinFax Pro, see the **Integrated Solutions Compatibility Matrix** in the Sage Software Online area of the Sage Software Web site at www.sagesoftwareonline.com

Web site content can change at any time. Sage Software has no control over, and cannot be responsible for, the content of other companies' Web sites.

Supported Workstations	Remarks
Windows XP Professional	Service Pack 1 is recommended. Service Pack 2 is supported. For more information, see #30 and #31 in the Miscellaneous Notes section.
Windows XP Tablet PC Edition	Windows XP Tablet PC Edition is only supported with Sage MAS 200 Version 4.x.
Windows XP Home Edition	Windows XP Home Edition is not supported with Sage MAS 200 Version 4.x. Any information below referencing Windows XP Home Edition only applies to Sage MAS 200 Level 3.71. Home Edition was designed for home use and is not recommended for business or network use. By default Windows XP Home Edition installs personal features. To maintain stability and performance in Sage MAS 200, do not install personal features that require a large amount of memory, resources, or processor usage. Windows XP Home Edition cannot join network server domains. If applications will be used that require a valid ODBC path to Sage MAS 200, such as Crystal Reports or Business Insights, verify that the workstation can browse to the ..\Sage MAS200 directory before running workstation setup. Windows XP Home Edition must be configured for TCP/IP. Service Pack 1 is recommended.
Windows 2000 Professional	Service Pack 1 is required. Service Pack 4 is recommended. If Service Pack 3 is used in a Terminal Services environment, either download the hot fix from Microsoft, or use Service Pack 1, 2, or 4. Refer to Microsoft Article Q328020 for details. The client must be installed on the local workstation and must be configured for TCP/IP.

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Servers	Remarks
<p>Windows Server 2003</p> <p>Small Business Server 2003</p> <hr style="width: 20%; margin-left: 0;"/> <p>Windows 2000 Server</p> <p>Windows 2000 Advanced Server</p> <p>Small Business Server Edition 2000</p>	<p>Although supported, certain Windows server configurations are not recommended due to possible instability and performance issues. Depending on the configuration, results will vary from network to network. For best results, Sage Software recommends installing Sage MAS 200 on its own dedicated member/application server. Support from Sage Software Customer Support may be limited in any of the following circumstances:</p> <ul style="list-style-type: none"> ▪ Running Sage MAS 200 on a Windows server acting as an Active Directory domain controller managing a large number of user accounts, computer accounts, group policies, organizational units, remote sites, or other network resources. ▪ Running Sage MAS 200 on any server actively running other applications or services, such as e-mail (for example, Exchange Server), IIS, Fax programs, SQL Server, or other software. ▪ Running Sage MAS 200 on any Windows Small Business Server operating system. Small Business Server runs Exchange Server by default, and has been a factor in many reported cases of instability and performance issues. Instability may also result if Sage MAS 200 Small Business Server is further configured to run other applications concurrently, such as IIS, Shared Fax Services, SQL Server 2000, Microsoft Outlook, and/or Microsoft FrontPage. <p>Utilizing the server as a Sage MAS 200 workstation is not supported (not even as a client to another server).</p> <p>Sage MAS 200 4.10: If Windows Server 2003 is used as the TS/Citrix Server, Crystal Reports 10.0 and Crystal Enterprise 10.0 is supported.</p> <p>Sage MAS 200 versions earlier than 4.10: Business Objects (formerly Crystal Decisions) does not support Crystal Enterprise 8.x or Crystal Reports 8.x with Windows Server 2003. Do not use Windows Server 2003 as the Terminal Services/Citrix server or the IIS server if you are using Crystal Reports 8.5 or Crystal Enterprise 8.0. Although Business Objects supports Crystal Reports 9 with Windows Server 2003, it is not compatible with Sage MAS 200 and is not supported.</p> <p>For Windows 2000 Server, Service Pack 1 is required; Service Pack 4 is recommended. For information regarding Service Pack 3, see the Terminal Services section below.</p> <p>Sage MAS 200 was not designed for Windows 2000 Datacenter Server and is not supported on this platform.</p> <p>Due to unresolved issues with Microsoft's implementation of IPX/SPX protocol, this protocol should be avoided on Windows networks unless necessary. For more information, refer to the Microsoft Knowledge Base Article Q161080 on Microsoft's Web site at support.microsoft.com</p>

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Terminal Services/Citrix	Remarks
<p>Windows Server 2003 Terminal Services</p> <p>Windows 2000 Terminal Server</p> <p>Citrix MetaFrame</p> <p>Citrix MetaFrame XP</p>	<p>If Sage MAS 200 is run with Terminal Services, Citrix MetaFrame, or Citrix MetaFrame XP:</p> <ul style="list-style-type: none"> ▪ Terminal Services or Citrix must be installed on a different server than the Sage MAS 200 server. Installing Terminal Services or Citrix on the same server as Sage MAS 200 is not supported. ▪ Terminal Services or Citrix must be installed on a Windows 2000 Server or Windows Server 2003. Running Sage MAS 200 through Windows NT Terminal Server Edition is not supported. Sage MAS 200 Level 3.71 can be installed on either Windows 2000 Server or Windows NT Server 4.0. ▪ For Sage MAS 200 Version 4.10, Crystal Reports 10.0 is supported. ▪ For Sage MAS 200 versions earlier than 4.10, Crystal Reports Version 8.5 is supported with Windows Server 2003 Terminal Services/Citrix server. There are no known issues with this configuration; however, because Business Objects (formerly Crystal Decisions) does not support Crystal Reports Version 8.5 in this configuration, any discovered defects will not be corrected by Sage Software. ▪ Symantec does not support WinFax PRO on Terminal Services or Citrix. WinFax PRO is therefore not supported with Sage MAS 200 running in a Terminal Services or Citrix environment. ▪ Microsoft has reported an issue with redirected printing using Windows 2000 Service Pack 3. Either download the hot fix from Microsoft, or use Service Pack 1, 2, or 4. Refer to Microsoft Article Q328020 for details. ▪ If Windows 2003 Server is used, apply the hotfix from Microsoft Knowledge Base Article 811492. ▪ Citrix MetaFrame XP for Windows Feature Release 2/Service Pack 2 (FR2/SP2) is supported with Windows 2000. ▪ No level of Sage MAS 200 is supported with Citrix WinFrame or WinView. ▪ Windows thin clients are supported with Terminal Services and Citrix. For more information, go to http://www.microsoft.com ▪ For more information on Terminal Services/Citrix, see the Miscellaneous Notes section in this document.

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Miscellaneous Notes

1. Sage Software generally only supports the current Sage MAS 200 version and one prior major release of the software. As of the Sage MAS 200 Version 4.10 release, support for Levels 3.70 and prior has been discontinued.
2. See the **Integrated Solutions Compatibility Matrix** on the Sage Software Web site at www.sagesoftware.com for information about integrated applications, including WinFax Pro and Crystal Reports.
3. Running Windows from a shared network drive and/or attaching to the server as a Windows diskless workstation is not supported.
4. When running Sage MAS 200 over a Local Area Network (LAN) environment, the ping timings will vary depending on the speed and configuration of the network. Typical ping timings with 1,800 bytes of data should be between 20–30 milliseconds or faster. Unacceptable ping speeds are over 40 milliseconds.
5. In the Sage MAS 200 client/server environment, integrated applications do their processing at the workstation, not at the server. As a result, users may experience performance issues when running integrated applications from remote locations. Some of the applications affected include: Crystal Reports, FRx, and F9.

For example, prior to version 4.10, Sage MAS 200 uses client-based ODBC processing for Crystal forms and reports, which may result in slow performance for remote workstations, particularly those with low bandwidth connections. To determine the cause of extremely slow performance related to remote Crystal printing, the user must determine whether the issue is report design or client-based ODBC processing. If the same Crystal form or report that runs slowly from a remote location also runs slowly from a workstation located on the same LAN as where the server is located, the issue is most likely report design. If the same Crystal form or report that runs slowly from a remote location runs fast from a workstation on the LAN, the problem may be client-based ODBC processing. Starting with version 4.10, Sage MAS 200 includes a Client/Server based ODBC driver. This can be used instead of the client ODBC driver for faster processing.

Note: If running on Version 4 and the report was created using the Business Insights Reporter (BIR) and was not further modified with Crystal Reports, it is not likely to be a report design issue because reports created using the BIR run off a single pre-populated view.

6. The Sage MAS 200 implementation of Crystal Enterprise (CE) allows thin-client web reporting through Sage MAS 200. Sage MAS 200 uses CE to process Crystal forms and reports across the Internet or through an intranet for remote users. This implementation of CE provides server-based ODBC processing on the Host/Application Server, which results in better performance. However, it does not directly support many of the CE features, such as using the browser to select and dynamically run reports from a Web page, publishing reports, and scheduling reports.

Note: Additionally, the Sage MAS 200 implementation of CE includes no support for:

- The multi-part feature of graphical forms
- Printing of Accounts Payable or Payroll checks
- Custom reports that use parameter fields

Note: Crystal Enterprise ships with a five-user license. Additional licenses can be purchased from Sage Software.

Solutions for faster remote printing of Crystal reports include:

- Using the client/server ODBC driver on version 4.10
- Using Citrix MetaFrame or Terminal Services.
- Using Business Insights Reporter Version 4.0 to take advantage of reporting from pre-defined views.
- Using non-graphical forms (those not based on Crystal Reports) where available.

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7. Wide Area Network (WAN) connections should be set up as point-to-point connections as opposed to internet connections, for better stability and performance. If an internet connection is used, ensure the Internet Service Provider (ISP) can provide a guaranteed bandwidth otherwise users may experience dropped sessions and lost connections. With any type of low speed WAN connection, for each remote user, select the Low Speed Connection checkbox in User Maintenance in Version 4.x.
8. Sage Software requires a guaranteed minimum bandwidth of 28.8 Kbps per user for running Sage MAS 200 through a remote connection such as RAS. For each user, 56k or higher is recommended. The server that has the RAS connection must be able to ping the workstation by IP address. Sage Software recommends that the RAS server be different than the Sage MAS 200 server when running multiple RAS connections. Select the Low Speed Connection check box in User Maintenance in version 4.10
9. With both Version 4.x and Level 3.x, if a VPN connection is used, keep in mind the following:
 - VPN solutions are either software-based, hardware-based (such as a VPN firewall) or a hybrid of both.
 - If a hardware-based solution is used on Level 3, verify that it supports secure, encrypted connections for applications that use back channels.
 - Software-based VPNs result in slower connection speeds due to the security overhead of encrypting the data.
 - Low-speed connections, such as dial-up connections, are subject to considerable performance issues when using a software-based VPN. It may cause the connection to have a bandwidth of less than 28.8 Kbps. See the note above regarding guaranteed minimum bandwidth requirements.
10. TCP/IP must be installed and properly configured so that you can ping by computer name and IP address from the workstation to the server. The server must be able to ping the workstation by IP address. You must also be able to use the MPING.EXE utility (or equivalent) to communicate with the host program on a specific port ID and IP address, or on a specific port ID and name from all workstations to the server. If this cannot be done, you must contact your Microsoft support organization. The Sage Software Customer Support department cannot assist with this task. For more information on connection requirements, refer to your Sage MAS 200 Installation and System Administrator's Guide.

Note: MPING.EXE is not available on Sage MAS 200 Version 4.x. Use an IP port scanning utility instead.
11. In Sage MAS 200 Version 4.0x, the Application Server (known as the Host on Level 3.x) is a Windows Sockets application that listens on a single port (typically port 10000). You must open this port on your firewall/router so clients can connect to the Application Server properly. The client does not listen back on its own port. Also, the Application Server is compatible with Network Address Translation (NAT).

In Sage MAS 200 Version 4.10, the Application Server is used in a limited capacity to support better performance. As a result, the Application Server is not compatible with Network Address Translation (NAT); however, this feature can be re-enabled in the Application Server.

Sage MAS 200 Level 3.x, the Host (known as the Application Server on Version 4.0) listens on a single port (typically port 10000). You must open this port on your firewall/router so clients can connect to the Host properly. The Host creates a back channel on the connection to send data back to the client, which listens on a single random port from 10000 – 11999. These ports must remain open on the client side and cannot be blocked by firewalls/routers. If this creates a security concern or is not possible, (for example, running through an ISP) consider using a Virtual Private Network (VPN) connection so that all data transmissions are rerouted through a single VPN port.

Additionally with Level 3.x, due to the dual listening port scheme, Dynamic NAT and IP masquerading are not compatible. However Static NAT may be compatible depending on the capabilities of your firewall software or router. You must create a static mapping table that maps every internal client IP address for ports 10000 – 11999 to a translated external IP address for the same range of ports. Repeat this for every Sage MAS 200 workstation. The process of creating a static mapping table varies. Sage Software Customer Support cannot provide assistance in this task.

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12. If a VPN connection is used, keep in mind the following:
 - VPN solutions are either software-based, hardware-based (e.g., VPN firewall) or a hybrid of both.
 - If a hardware based solution is used on Level 3, verify that it supports secure, encrypted connections for applications that use back channels.
 - Software-based VPNs result in slower connection speeds due to the security overhead of encrypting the data.
 - Low-speed connections, such as dial-up connections, are subject to considerable performance issues when using a software-based VPN. It may cause the connection to have a bandwidth of less than 28.8 Kbps. See the note above regarding guaranteed minimum bandwidth requirements.
13. If the Sage MAS 200 Host/Application Server is configured to run as a service and you are experiencing “white screens”, hanging, or slow performance, but only after a certain number of Sage MAS 200 users are in the system, review document SS3003-A on Sage Software Online at www.sagesoftware.com. If you are running the Host/Application Server on the desktop instead of running it as a service, the same problem may occur in a very large multi-user environment. If that is the case, review document SS3003-A at Sage Software Online.
14. Verify that all hardware involved in running Sage MAS 200 is on your operating system vendor’s Hardware Compatibility List. Incompatible hardware can cause severe data corruption. For more information, see the Microsoft Hardware Compatibility List at www.microsoft.com/whdc/hcl/search.msp
15. Download and apply the Program Fix Collection for your version from Sage Software Online. If third-party enhancements are installed, contact your Master Developer to verify compatibility before installing the program fixes. Also note that some program fixes are specifically excluded from the Program Fix Collection and should be installed only if you are experiencing the problem they address. Also note that some program fixes must be applied at each workstation in addition to being applied at the server.
16. Sage Software is committed to supporting future Microsoft and Novell operating systems as they are released to market for all Sage MAS 200 modules; however, Sage Software does not support beta-level operating systems. As new operating system levels are scheduled for general release, Sage Software will verify their compatibility and this matrix will be updated when Sage Software's evaluations are completed.
17. The installation of Windows XP Service Pack 2 will enable the Windows Firewall by default. When launching Level 3.x Sage MAS 200, a Windows Security Alert message will appear asking, "Do you want to keep blocking this program?" Click Unblock to add "ProvideX for Windows" to the exception list. You can alternatively configure the firewall manually by selecting the Windows Firewall shortcut from your desktop. In the Windows Firewall window, select the Exceptions tab and click Add Program. In the Add Program window, add the local PVXWIN32.exe to the exception list. For more information, search the Sage InfoSource Knowledge Base on Sage Software Online using the keywords, "Is Windows XP SP2 supported?"

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Recommended Minimum System Configuration			
	Recommended Minimum ¹		
Single User/Client Workstation	Processor	Physical Memory (RAM)	Available Memory (RAM) ²
Workstation (client) operating system versions not listed in this document will not be supported with Sage MAS 200 Version 4.x.			
Windows 2000 Professional	Pentium 4 class	512 MB	128 MB
Windows XP Professional Edition	Pentium 4 class	512 MB	128 MB
Windows XP Tablet PC Edition	Pentium 4 class	512 MB	128 MB
Network Bandwidth (for multi-user systems)	Recommended Minimum		
	100 Base-T – 100 Mbps at Full Duplex		
Terminal Services and Citrix	Processor	Memory (RAM)	
Windows 2000 Terminal Services Citrix MetaFrame, or Citrix MetaFrame XP	As required by Terminal Services or Citrix	As required by Terminal Services or Citrix, plus 48 MB per concurrent user ³	
Windows Server 2003 Terminal Services Citrix MetaFrame, or Citrix MetaFrame XP	As required by Terminal Services or Citrix	As required by Terminal Services or Citrix, plus 48 MB per concurrent user ³	

¹ The recommended minimum is designed to ensure that the systems used for Sage MAS 200 are capable of providing acceptable performance with a standard complement of normally installed applications, such as virus protection software.

² Regardless of the recommended minimums specified above, users should check the available memory on the workstation prior to installing Sage MAS 200 and use the Windows Task manager to check the Available Physical Memory on the Preference tab. A minimum of 128 MB of PHYSICAL RAM should be available to Sage MAS 200 when all other applications that will be used with Sage MAS 200 are loaded. Sage cannot guarantee acceptable performance when running Sage MAS 200 concurrently with other applications that consume system resources required for Sage MAS 200 to perform at an optimum level. Refer to the article “How to determine memory” on the Sage Software Online Web site at www.sagesoftware.com

³ 48 MB is based on an average of three concurrent tasks per user (Desktop plus two additional tasks, such as Sales Order Data Entry or Customer Maintenance). Averages of more than three concurrent tasks per user will require additional RAM.

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Recommended Minimum System Configuration		
Servers		
Recommended Minimum ¹		
Supported Servers	Processor	Memory (RAM)
Windows 2000 Server Windows 2000 Advanced Server	Pentium 4 class Dual processors recommended	512 MB + 48 MB per concurrent user
Windows Server 2003 Windows Server 2003 Enterprise Edition	Pentium 4 class Duel processors recommended	512 MB + 48 MB per concurrent user

¹ The recommended minimum is designed to ensure that the systems used for Sage MAS 200 are capable of providing acceptable performance with a standard complement of normally installed applications, such as virus protection software.