

Development Partner Program

Certification Requirements





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Introduction

Sage offers a Sage Certified Solution Program for both packaged software applications and custom solutions from Gold level development partners. Sage certified solutions provide an enhanced level of consistency, predictability, and confidence to customers, developers, and business partners alike.

Purchasers and implementers of Sage certified solutions can be assured they follow certain minimum standards and have passed certain minimum tests for installation, functionality, design architecture, and feature support—and that testing has been accomplished at an independent agency. Over time, the Sage Certified Solution program will dramatically reduce technical support issues and raise the “certainty” bar within the Sage ecosystem.

Certifying an off-the-shelf or custom solution will also be an important requirement for Gold partner status and for receiving full benefits from the Sage Development Partner Program.

Please refer to the Gold Partner Program document for specific criteria related to product support and other business and infrastructure elements.

Testing

Certification testing is provided by the VeriTest service of Lionbridge, the world’s largest and best-known software product testing authority. VeriTest has certified tens of thousands of products on behalf of major certification programs, including Certified for Microsoft® Windows, Microsoft Windows Server, and many others. Lionbridge, headquartered in Waltham, Massachusetts, has more than 45 offices in 25 countries and is one of the world’s leading development, localization, and testing organizations, offering a broad range of services.

Please note that in addition to formal requirements, VeriTest will be offering optional certifications for certain down-level versions of Sage software for concurrent user performance and alternative platforms, such as earlier versions of Windows. Details will soon be available on the web at www.lionbridge.com\sage or email certlab@lionbridge.com.

Phased Deployment

Certification is now available for partner products integrating with the following products:

- Sage ERP Accpac
- Sage ERP MAS 90 and Sage ERP MAS 200
- Sage ERP MAS 500

Please review the details of this document to ensure you are ready for testing before you submit your solution to Lionbridge.

Cost

Pricing for each test is available on the Lionbridge website at: www.lionbridge.com/sage

Each includes one complete test run. Note that if possible, all testing will be completed during a Base Test, despite issues encountered during the run. Partners will then have the opportunity to correct noncompliance issues and retest at a substantially reduced fee. Retest pricing will be quoted on a case-by-case basis.

Certification Test Report

Following each PASS result, VeriTest will generate a Certification Report. These reports will be posted for viewing by customers and will include full details on the versions of all platform and supporting products used during the test. Notes will be made on special installation procedures, waivers, or issues of importance concerning the certified solution. Partners will have the opportunity to review, discuss, and comment on these reports before they are posted. See www.lionbridge.com/sage for posting details.

Certification Requirements

Unless otherwise indicated, requirements apply to all certified partner solutions.

1. Versioning

- 1.1. Sage Product Versions:** Partner solutions will be required to test only on the current shipping version of a Sage product line. This will be known as the **Base Test**. Partners must also commit to upgrading a certified solution to the next **major upgrade** version of the Sage product line.
- 1.2. Optional Certifications:** Down-level version certifications (for example, tests with Sage Accpac version 5.6) are offered as an optional, additional certification, at additional cost—however, down-level certifications are only available for product versions currently supported by Sage, and the product must also pass

the Base test. Additional certification statements will be reflected in the VeriTest Certification Report.

1.3. Sage Upgrades and Retesting: Retesting of certified solutions will only be required following **MAJOR** Sage upgrades, which will be announced well in advance of release, and clearly designated as “major” by Sage. Certified applications must additionally agree to support monthly updates and services packs from Sage, but retesting will not be required for these minor upgrades. **Grace periods** will be specific to partner lines. For example:

- Sage ERP MAS 90, Sage ERP MAS 200, and Sage ERP MAS 500 certified solutions must support each Product Update (every three to four months for Sage ERP MAS 500) within 30 days of its release (no retest required) and each MAJOR release within 60 days of RTM code or release of the SDK, whichever is later (retest required).
- Sage ERP Accpac certified solutions must support each Product Update within 90 days of its release (no retest required) and each MAJOR upgrade within 90 days of its release (retest required).

1.4. Grace Period Exceptions: If partners cannot release an upgrade within the above grace periods, they can discuss an extension with the Sage certification manager.

1.5. Partner Upgrades: Partners will be asked to recertify with a full retest after a major upgrade of their own solution, and before releasing to customers. Major upgrades include adding significant new functionality, altering the schema, or creating interactions with a new Sage module.

1.6. Revision of Certification Requirements: The requirements for the Sage Certified logo will be revised from time to time by Sage—and Sage expects to raise the bar on certification over time. Partners will always be given a minimum of six months’ notice before new requirements are implemented.

1.7. Third-Party Controls: Partners will be asked to document the inclusion of any third-party software controls, libraries, or products, and attest (in the Certification Statement, see below) that the partner has rights to that distribution.

1.8. Composites: *If a solution is a composite (partly SDK and partly not) then each part of the solution must follow the relevant guidelines below.*

2. Platform Configurations

2.1. Window Clients: Client-side solutions will be asked to support the most current versions of Windows XP Pro, Windows 7, and Windows Vista® Business, Ultimate, and Enterprise.

2.2. Server Components: Server components are required to support the most current 32-bit and 64-bit versions of Windows Server 2008, Windows Server 2003, and SQL Server® 2008 and 2005.

2.3. Other Platforms: Additional certifications will be available on other operating system versions at an additional cost, to be included in a VeriTest Certification Report. Such certifications will only be available on operating system versions and additional supporting products currently supported by Sage.

2.4. Change in Base Test Platform: In general, a change in Base Test Platform by Sage will not trigger a retest requirement for partners, unless it is identified as a “major upgrade” as above.

3. Installation

3.1. Automation: Certified applications must offer automated installation. Installation need not, however, be provided through a single installation program.

3.2. Documentation: Partner must document preinstallation requirements in user documentation.

3.3. Dependencies: The solution installer must automatically detect dependencies and alert users to conflicts and deficiencies in preinstalled products.

3.4. Waivers: If installation guidelines are not followed, partner must provide a valid reason for not doing so and request a waiver from the Sage certification manager.

3.5. Use Preinstalls: Partner must use Sage preinstalled compatible third-party integrated and accessory applications, if available.

3.6. No Unsupported: Partner must not install unsupported third-party integrated and accessory applications and must not overwrite supported products with different versions.

- **Sage ERP MAS 90 and 200:** This includes the version of ProvideX.

4. Uninstallation

4.1 Required: Certified applications must provide a clearly documented method for uninstallation. An automated uninstaller is strongly preferred.

4.2 No Damage: Product must uninstall such that all Sage product modules continue to function without damage. Specific requirements in this area may be released for each product line.

- **Sage ERP MAS 90, Sage ERP MAS 200, and Sage ERP MAS 500 only:**
Documented uninstall procedures may require reinstallation of certain Sage ERP MAS modules to maintain product continuity.

4.3 Data: Uninstall may leave certain data, in order to maintain Sage stability and audit trails. Data from Sage and third-party applications must not be damaged during uninstall.

4.4 Waivers: In certain cases, partner may request a waiver for uninstall requirements. Please contact Sage Certification Manager by emailing developmentprograms.na@sage.com.

5. Windows Support

Windows client solutions must install and run on the most-current 32-bit and 64-bit versions of Windows 7, Windows Vista, and Windows XP Professional. Server



components must install and run on the most-current 32-bit and 64-bit versions of Microsoft Windows Server 2008, Windows 2003, and SQL Server 2008 and SQL Server 2005. In addition):

5.1 Perform Version Checking Properly: An application must not fail to run if the OS version number increases, unless the End-User License Agreement prohibits use on future operating systems. If the application is supposed to fail, it must do so gracefully by sending a message to the user and writing a message to the NT event log.

Applications must use the version-checking APIs (GetVersionEx) to check the OS version. They must not read the following registry keys for the OS version:

HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion

5.2 Install to Correct Folders: Applications should be installed to Program Files or the user's AppData folder by default.

For per-machine installations, user data must be written at first run and not during the install. Since the install potentially elevates to a different user account during the per-machine install, there is no correct user location to store data at install time.

Certain product lines will include specific requirements. For example, Sage ERP Accpac SDK applications must correctly read the registry key indicating where System Manager is installed and install to that location (See SDK).

5.3 Install Windows Resources Properly: Applications must not attempt to install files or registry keys that are protected by Windows Resource Protection (WRP). If the application requires newer versions of system components, it must update these components by using a Microsoft Service Pack or a Microsoft-approved installation package containing the system component. System components must never be repackaged.

5.4 Do Not Overwrite Nonproprietary Files With Older Versions: The application's installation program must ensure that the latest file versions are installed. Installing an application must never regress any files that you do not produce or that are shared by applications that you do not produce. Replacing such a file with another language version of the same file is equally inappropriate. However, you own the files in your application's folder, and you can overwrite them as you want.

- **SAGE ERP MAS 500 AND SAGE ERP SOLUTIONS ONLY:** In Windows Vista and Windows 7, the application must support Windows Least-privilege User Account (LUA), sometimes known as User Account Protection or UAP.

LUA is a new feature in Vista that is intended to help prevent some of the issues seen in the past with Viruses/Spyware/malware taking advantage of users that run with administrator privileges. With LUA, any group membership permissions are stripped away, and all the users on the system (except for the built-in administrator account) run with standard user privileges. Instead of the group membership (in effect, administrators group) determining what your access privileges are, the group membership

determines your "elevation potential." **Note:** LUA in Vista is critical for Terminal Server support.

Partners will be asked to read the document "Applying the Principle of Least Privilege to User Accounts on Windows XP" posted at:

<http://technet.microsoft.com/en-us/library/bb456992.aspx> and attest to compliance.

In certain cases, partners may have a valid reason for not supporting LUA. In such cases, please contact the Sage Certification Manager.

6. Functional Minimums

- 6.1 Execution:** The partner solution must execute appropriately, exhibit stability, and function in accordance with user documentation.
- 6.2 Demo:** Partner must provide sample data and a real-time demo to VeriTest personnel.
- **Exotic Hardware:** During testing, partner must supply nonstandard/exotic hardware, software, and peripherals only when absolutely necessary to perform a real-world test for the typical user profile. These may include such items as handhelds, specializes printers, and so on, at partner's cost. Policies and procedures for returning these devices are available at www.lionbridge.com under "instructions."
 - **General Functionality and Stability Test:** Solution must pass the minimum General Functionality and Stability Test as defined by VeriTest, in cooperation with partner, and executed in a real-time demonstration. This test will include stability of the Sage product during application usage.
- 6.3 No Damage:** Product must not damage Sage data integrity. Partner must attest (in the Certification Statement) that the solution does not create data concurrency, consistency, or integrity issues with the Sage product. Specific tests have been developed for certain product lines.
- 6.4 Database Support:** Supports databases in addition to those required by the Sage Application.
- **Sage ERP Accpac solutions:** Must support both Pervasive and MS SQL Server. Optional certifications will be available on Oracle, at additional charge.
 - **Sage ERP MAS 90:** Must support ProvideX.
 - **Sage ERP MAS 200 SQL:** Must support MS SQL.
 - Solution must not include stored procedures or database triggers.
 - **Sage ERP MAS 500:** Must support MS SQL 2005 and 2008 32-bit and 64-bit.
- 6.5 Generally Accepted Accounting Principles:** Partner must attest that each certified solution follows generally accepted accounting principles as defined by the country in which the solution is sold.

7. Documentation

7.1 Pretest Documentation

- **Certification Statement:** Each solution must be submitted with a Certification Statement that covers significant certification criteria not tested by VeriTest.
- **Integration Spreadsheet:** Applications integrating with certain solutions must submit lists of integration points with Sage, along with lists of program files and tables added or modified. This documentation will be used for testing and technical support.
 - **Sage ERP MAS 90, Sage ERP MAS 200, and Sage ERP MAS 500:** Applications must submit a) a list of integration points; and b) the list of Program files added or modified. (See spreadsheet forms available at the certification website.)
 - **Sage ERP Accpac:** Integration spreadsheet not required at this time.

7.2 Adequacy of User Documentation: Certified solutions must provide user documentation with adequate:

- **Clarity**
- **Currency**
- **Completeness**

7.3 Review: Partners must submit user documentation for review (hardcopy, softcopy, or online is fine). VeriTest will subjectively evaluate UD according to the above criteria.

8. Performance/Concurrent Users

- 8.1** Sage urges all its partners to test for performance under different loads and numbers of concurrent users, but certification for concurrency will not be required.
- 8.2** ISVs will, however, be asked to make a statement about the number of concurrent users supported, as part of the testing process. This number will be reported as **unverified** on the test report.
- 8.3** VeriTest is highly qualified to perform this testing, and ISVs will be offered performance/concurrent user testing as an additional certification through VeriTest. Hence, a product will be able to choose to be additionally verified “for 100 users” or whatever number is chosen by the ISV.

9. Development and Architectural Guidelines

9.1 Credit Cards: If application processes credit cards, it must adhere to the payment card industry data security standard.

9.2 Development Guidelines:

- **For Sage ERP Accpac:**
 - **APIS:** Partner Solutions must utilize Sage ERP Accpac APIs to write to databases and must not write to Sage ERP Accpac databases directly.
 - **No UI in Views:** SDK applications for which Views have been written cannot include any UI code in those Views. This includes MessageBoxes. (Such UIs would disrupt Sage ERP Accpac if they were to pop up while Sage ERP Accpac is running Web Deployed or as a Windows Service.)
- **For Sage ERP MAS 90, Sage ERP MAS 200, and Legacy Applications:**
 - **General Standards:** Partner must attest (in the Certification Statement) that he or she has read the Sage ERP MAS 90 and 200 Legacy Standards and Utilities Manual and attest that the application generally conforms to its guidelines. Partners must list areas that represent significant deviations from the standards. **Important:** Significant deviation is not automatically a trigger for failing certification. However, Sage needs an overall sense of how your application follows the standards.
- **For Sage ERP MAS 90 and ASN 200 Source Code Applications Using Development Studio:**
 - **General Standards:** Partner must attest (in the Certification Statement) that he or she has read the Sage ERP MAS 90 and 200 Standards & Utilities Manual and attest that the application generally conforms to its guidelines. Partners must list areas that represent significant deviations from the standards. **Important:** Significant deviation is not automatically a trigger for failing certification. However, Sage needs an overall sense of how your application follows the standards. The following areas represent areas of significant customer concern, and will be verified during certification:
 - **UI Standards:** Programs must follow user interface standards in the current edition of the Standards & Utilities document.
 - **Naming:** Programs must follow the naming standards in the current edition of the Standards & Utilities document under Standards Reference/Naming Standards/Program Naming Standards.
 - **ProvideX:** ProvideX Data files must follow the naming standards in the current edition of the Standards & Utilities document under Standards Reference/Naming Standards/Data File and Dictionary Standards
 - Partner must supply necessary files to test visual integrator import. These files may include VI job definition and import source file.

- **Visual Integrator:** Application must provide Visual Integrator support if application modifies or enhances the ProvideX database schema.
- **Customizer:** All applications that use Development Studio for UI enhancement must provide Customizer support.
- **BF Standards:** To the extent that the developer is modifying a standard Sage ERP MAS 90 and 200 module, and if the Sage ERP MAS module is in the Business Framework (BF), then the modification must follow the BF development standards.
 - **Inheritance:** Partner must make no direct modifications to Sage classes. All modifications to existing Sage classes must be modified through Inheritance.
 - **Hooks:** In general, modifications to Sage Classes must use the predefined MD hooks or requested function breaks implemented by development partner and sent to Sage for inclusion in the next SU or product release. See function break documentation for details.
- **New Modules:** If the developer's modification creates a new module, it may use either BF or legacy development standards.
 - **BF Integration:** However, if the new module integrates with a standard Sage ERP MAS 90 module that is in the BF, then that integration must be accomplished using BF development standards.
- **Waivers:** If partner believes it is not possible to follow these requirements, partner should contact the Sage Certification Program Manager.
- **For All Sage ERP MAS 500 Partners:**
 - **SQL Naming:** Application must use proper naming standards for SQL Server. See the Sage ERP MAS 500 Developer Guide. Stored procedure names must be composed of three parts. All names of stored procedures must begin with the letters "sp." The second part is the Module, which indicates the module to which the stored procedure belongs. The third part, BaseName, is the name of the procedure. Stored procedure Name = ["sp"]+[Module][BaseName], for example: spimPostInventory.
 - **Tables:** Applications must follow guidelines for updating Sage ERP MAS 500 Tables:
 - When possible, use existing Sage ERP MAS 500 documented stored procedures to update tables.
 - When inserting or updating Sage ERP MAS 500 tables **directly**, application must be sure to do the following:

- Use Explicit Transactions ONLY when interfacing with SQL Server.
- Do not place any UI in the middle of a SQL transaction.
- Exhibit appropriate error handling.
- If an error occurs, application must roll back any existing transactions before presenting the UI, and before executing any long-running processes.
- The application should detect the error, and reinitialize as if the failed process never began.
 - Update the system columns if they exist in the table. For example, be sure to update UpdateUserID (tells what user made the change), UpdateDate (reflects date of change), and UpdateCounter (increments updates).

9.3 For Sage ERP MAS 500 Source Code Apps Using the SDK:

- **General Standards:** Partner must attest (in the Certification Statement) that he or she has read the Sage ERP MAS 500 Developer Guide and the application generally conforms to its guidelines. Partners must list areas, which may represent significant deviations from the standards. **Important:** Significant deviation is not automatically a trigger for failing certification. However, Sage needs an overall sense of how your application follows the standards. The following areas represent areas of significant customer concern, and **will be verified during certification:**
 - **Replicas:** It is recommended that any modifications to existing code, programs, stored procedures, reports, and so on be applied to replicas of the existing code and not to the original or factory code.
 - **Forms:** Application must follow requirements under “General Form Layout” in the Sage ERP MAS Developer Guide, such as:
 - Use the common Sage ERP MAS 500 tool bar and status bar controls to obtain consistent look and feel and behavior of Sage ERP MAS 500 forms.
 - See the section “Form Function Key Processing” and conform to the standard defined function keys.
- **Reports:** Application must follow “Report Design Specifications” and use the Sage report customization control. Application must comply with the sections in the Standard Report Template to achieve consistent report customization.
- **Controls:** Application must use standard controls unless the control does not offer the features required. Variations must be documented in the “significant deviations” report.

- **Standard Stored Procedures:** Any modifications required to standard stored procedures must be discussed with Sage and/or have Sage develop the code, whether it is for an existing or new stored procedure.
- **No Direct:** SDK Applications must not write to Sage ERP MAS 500 tables directly. All access must use published APIs. Where such APIs don't exist, ISV should work with Sage to have them developed.
- **Database:** Application must follow certain minimum SQL Server database best practices, and the database connection must use the standard Sage ERP MAS 500 connection settings (see connection string setting documentation).
 - **Integrated Security:** If feasible, application must support mixed mode standard and integrated SQL Server security models. If application does not support integrated security, partner must supply a valid technical reason for not doing so.
 - **Workstation Security:** Do not store SQL Server user ID or passwords on the workstation.
 - **Application Roles:** When connecting from a user workstation, support Sage ERP MAS 500 "Application roles" setting. **Note:** This should occur automatically when using the SDK.

10. Possible Future Requirements

The following requirements are being considered by Sage for future iterations of the Certification Program. We strongly suggest incorporating these in your current development and testing:

10.1 Internalization:

- **Sage ERP Accpac:** Applications may be required to utilize Sage ERP Accpac guidelines for internationalizing code, in order to make localization feasible.
- **Sage ERP MAS 90:** Applications may be required to provide messages only through the message library using the SY_UI class. This class is used to display windowed messages in place of legacy SWPROM called program and also instead of using hard-coded MSGBOX directives. This method is designed to be used with MESSAGE_LIB messages, but also supports on-the-fly arbitrary messages.

10.2 Windows Vista and Windows 7:

- **All Sage ERP MAS Products:** Support for Windows Vista User Account Control (UAC). UAC is a new security component in Windows Vista and Windows 7. UAC enables users to perform common tasks as nonadministrators, called standard users in Windows Vista, and as an administrator without having to switch users, log off, or use "Run As." A standard user account is synonymous with a user account in Windows XP. User accounts that are members of the local Administrators group will run most applications as a standard user. By separating user and administrator functions while enabling productivity, UAC is an important enhancement for Windows Vista and Windows 7.

Please see the following documents:

- <http://technet2.microsoft.com/WindowsVista/en/library/00d04415-2b2f-422c-b70e-b18ff918c2811033.mspx?mfr=true>
- <http://technet2.microsoft.com/WindowsVista/en/library/0d75f774-8514-4c9e-ac08-4c21f5c6c2d91033.mspx?mfr=true>

10.3 Components Running on Windows Server:

- Application binaries must have valid file information.
- Do not require the server computer to restart during installation.
- User control of install locations on Windows Server.
- Installation of any shared files to the correct locations.
- Support add or remove programs properly.

10.4 Recommended That You Have Integration to the New Web-based Sage ERP Accpac Portal.

11. Appendices and Essential Resources

- Partner Application File Information Form
- Sample Partner Application File Information Form
- Sage ERP MAS 90 Supported Platforms
- Sage ERP MAS 200 Supported Platforms
- Sage ERP MAS 500 Compatibility and Resource Guide
- Sage ERP MAS 90 and 200 Standards and Utilities Document
- Sage ERP MAS 500 Development Guidelines
- Sage ERP MAS 90 and 200 ProvideX Versions
- Sage ERP MAS 90 and 200 Supported Third-party Integrated and Accessory Apps
- Payment Card Industry Data Security Standard
- Sage ERP MAS 90 and 200 Standards for MD Hooks and Function Breaks
- Sage ERP MAS 500 Connection String Standards for SQL Server

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