

APPENDIX B

Reference URLs

This appendix includes a number of reference URLs associated with System Center 2012 R2 Configuration Manager (ConfigMgr). URLs do change: Although the authors have made every effort to verify the references here as working links, there is no guarantee they will remain current. It is quite possible some will change or be “dead” by the time you read this book. Sometimes the Wayback Machine (<https://www.archive.org/>) can rescue you from dead or broken links. The Wayback Machine site is an Internet archive, and it takes you back to an archived version of a site...sometimes.

These links are also available “live” at Pearson’s InformIT website, at <http://www.informit.com/store/system-center-2012-r2-configuration-manager-unleashed-9780672337154>, under the Downloads tab. Look for Appendix B, “Reference URLs.”

General Resources

A number of websites provide excellent resources for Configuration Manager. This section lists some of the more general resources available:

- ▶ <http://www.myITforum.com> is a community of worldwide Information Technology (IT) professionals and a website established in 1999 by Rod Trent. myITforum includes topics on System Center and IT.

The list of blogs and other ConfigMgr-related articles at myITforum.com is enormous. This appendix includes some specific links and pertinent information, but it does not include everything.

IN THIS APPENDIX

- ▶ General Resources
- ▶ Microsoft’s Configuration Manager Resources
- ▶ Other Configuration Manager Resources
- ▶ Blogs
- ▶ Public Forums
- ▶ Utilities

- ▶ The Windows IT Pro forums are now at <http://myITforum.com/forums>.
- ▶ A great source of information is for all things System Center related, including Configuration Manager, is System Center Central, at <http://www.systemcentercentral.com>.
- ▶ If you are not already receiving email notifications of new articles in the Microsoft Knowledge Base from kbalertz, you can sign up at [http://kbalertz.com/!](http://kbalertz.com/) You just need to create an account and select those technologies you want to be alerted about.
- ▶ The System Center Virtual User Group is dedicated to providing educational resources and collaboration between users of System Center technologies worldwide. Meetings present topics from industry experts, including Microsoft engineers. These Live Meeting sessions are recorded for your convenience. To join the user group, go to <http://www.linkedin.com/groupRegistration?gid=101906>. You can also visit the System Center User Group website at <http://www.systemcenterusergroup.net/>.
- ▶ FAQShop.com, published by Enterprise Client Management (ECM) MVP Cliff Hobbs at <http://www.faqshop.com/wp/>, provides hints, tips, and answers to frequently asked questions (FAQs) related to Microsoft's various systems management technologies including the System Center components. Cliff has completely redeveloped FAQShop, which now includes System Center 2012 Configuration Manager content.
- ▶ Microsoft now includes people-centric IT (PCIT) as part of their overall Cloud OS vision. For more information on PCIT, see <http://www.microsoft.com/en-us/server-cloud/cloud-os/pcit.aspx> and download the PCIT whitepaper.
- ▶ People-centric IT enables each person you support to work from nearly anywhere on the device of their choice and gives you a consistent way to manage and protect it all (see <http://www.microsoft.com/en-us/server-cloud/cloud-os/pcit.aspx#fbid=5bZ1uqqRqIt>).
- ▶ With the release of System Center 2012, Microsoft bundles the previously different products as components in the System Center product. <http://www.microsoft.com/en-us/server-cloud/system-center/datacenter-management-capabilities.aspx> provides an overview of the System Center components and capabilities.
- ▶ Microsoft's jumping off point for System Center technical resources starts at <http://technet.microsoft.com/en-us/systemcenter/>.
- ▶ Microsoft has published a whitepaper on performance and tuning guidelines for Windows Server 2012 R2 at <http://msdn.microsoft.com/en-us/library/windows/hardware/dn529133.aspx>.
- ▶ Following are links to previous versions of performance and tuning guidelines:
 - ▶ For Windows Server 2012, see <http://msdn.microsoft.com/en-us/library/windows/hardware/dn529134>.
 - ▶ You can download the Windows Server 2008 R2 version from <http://msdn.microsoft.com/en-us/windows/hardware/gg463392>.

- ▶ You can download the Windows Server 2008 version from http://www.microsoft.com/whdc/system/sysperf/Perf_tun_srv.aspx.
- ▶ Read about monitoring and tuning SQL Server 2012 for performance at <http://technet.microsoft.com/en-us/library/ms189081.aspx>.
- ▶ <http://technet.microsoft.com/en-us/ff657833.aspx> provides information on SQL Server Reporting Services (SSRS).
- ▶ Michael Pearson has an excellent article discussing SSRS recovery planning, available online from the SQL Server Central community (SQLServerCentral.com) at <http://www.sqlservercentral.com/columnists/mpearson/recoveryplanningforsqlreportingservices.asp>. You must register with SQL Server Central to view the full article.
- ▶ <http://technet.microsoft.com/en-us/library/ms156421.aspx> discusses moving the SSRS databases to another computer.
- ▶ <http://blogs.msdn.com/b/sqlserverfaq/archive/2014/02/06/how-to-move-databases-configured-for-sql-server-alwayson.aspx> discusses moving databases configured for SQL Server AlwaysOn.
- ▶ For information on SQL Server best practices, see <http://technet.microsoft.com/en-us/sqlserver/bb671430.aspx>.
Read about the SQL Server 2012 Best Practice Analyzer at <http://blogs.msdn.com/b/sqlsecurity/archive/2012/04/19/sql-server-2012-best-practices-analyzer.aspx>, and download it from <http://www.microsoft.com/download/en/details.aspx?id=29302>.
- ▶ Use the SQL Server Profiler to view SQL requests sent to a SQL Server database. See <http://msdn.microsoft.com/en-us/library/ms187929.aspx> for information.
- ▶ Read about the SQL Server Service Broker at <http://social.technet.microsoft.com/wiki/contents/articles/6598.sql-server-service-broker-at-a-glance.aspx>.
- ▶ To test Simple Mail Transfer Protocol (SMTP) using Telnet from a command prompt, follow the steps at <http://technet.microsoft.com/en-us/library/aa995718%28EXCHG.65%29.aspx>.
- ▶ A somewhat dated but still useful IDC whitepaper sponsored by Microsoft quantifies how businesses can reduce costs by managing the Windows desktop. This whitepaper is available for download at http://download.microsoft.com/download/a/4/4/a4474b0c-57d8-41a2-afe6-32037fa93ea6/IDC_windesktop_IO_whitepaper.pdf.
- ▶ According to the SANS Institute, the threat landscape is increasingly dynamic, making efficient and proactive update management more important than ever. <http://www.sans.org/top20/> provides information.
- ▶ Information regarding the Active Directory schema is at [http://msdn.microsoft.com/en-us/library/ms675085\(VS.85\).aspx](http://msdn.microsoft.com/en-us/library/ms675085(VS.85).aspx).
- ▶ Information on LDIFDE is located at <http://technet.microsoft.com/en-us/library/cc731033.aspx>.

- ▶ <http://support.microsoft.com/kb/555636> describes the process of exporting and importing objects using LDIFDE.
- ▶ Requirements for Windows To Go are at http://technet.microsoft.com/library/hh831833.aspx#wtg_hardware.
- ▶ To learn more about the Microsoft Operations Framework (MOF)? Information about version 4.0 is at <http://technet.microsoft.com/library/cc506049.aspx>.
- ▶ Information on the MOF Deliver Phase is at <http://technet.microsoft.com/en-us/library/cc506047.aspx>.
- ▶ You can read about the MOF Envision SMF at <http://technet.microsoft.com/en-us/library/cc531013.aspx>.
- ▶ For information on MOF 4.0 and the Manage layer, see <http://technet.microsoft.com/en-us/library/cc506048.aspx>
- ▶ Information on the IO (Infrastructure Optimization) model is available at <http://www.microsoft.com/technet/infrastructure>.
- ▶ If you want to learn about Service Modeling Language (SML), see <http://www.w3.org/TR/sml/>. For additional technical information on SML from Microsoft, visit <http://technet.microsoft.com/en-us/library/bb725986.aspx>.
- ▶ Information on the IO (Infrastructure Optimization) model is available at <http://technet.microsoft.com/en-us/library/bb944804.aspx>.
- ▶ The Windows Server technical library is located at <http://technet.microsoft.com/en-us/library/bb625087.aspx>.
- ▶ Microsoft's Sysinternals website is at <http://technet.microsoft.com/en-us/sysinternals/default.aspx>.
- ▶ Download the Microsoft Security Compliance Manager (SCM) solution accelerator at <http://www.microsoft.com/download/en/details.aspx?displaylang=en&id=16776>.
- ▶ Silect Software (<http://www.silect.com>) offers CP Studio. CP Studio, like SCM, enables authoring of configuration baselines and configuration items outside the ConfigMgr console.
- ▶ To understand Unified Extensible Firmware Interface (UEFI), see http://en.wikipedia.org/wiki/Unified_Extensible_Firmware_Interface and <http://technet.microsoft.com/en-us/library/hh824898.aspx>. <http://technet.microsoft.com/en-us/library/hh824839.aspx> discusses configuring EUFI partitions. For a Windows and GUID Partition Table (FPT) FAQ, see [http://msdn.microsoft.com/en-us/library/windows/hardware/dn640535\(v=vs.85\).aspx](http://msdn.microsoft.com/en-us/library/windows/hardware/dn640535(v=vs.85).aspx).
- ▶ XML Notepad 2007 is an intuitive tool for browsing and editing XML documents. Read about it at <http://msdn2.microsoft.com/en-us/library/aa905339.aspx>, and download the tool from <http://www.microsoft.com/downloads/details.aspx?familyid=72d6aa49-787d-4118-ba5f-4f30fe913628&displaylang=en>.

- ▶ The Windows Automated Deployment Kit (ADK) for Windows 8.1 is available at <http://www.microsoft.com/en-us/download/details.aspx?id=30652>.
- ▶ You can download the Windows Automated Installation Kit (WAIK) 3.0 from <http://www.microsoft.com/en-us/download/details.aspx?id=5753>, and the WAIK 3.1 Supplement is at <http://www.microsoft.com/en-us/download/details.aspx?id=5188>.
- ▶ Learn how to create a custom Windows PE image at [http://technet.microsoft.com/en-us/library/dd744533\(WS.10\).aspx](http://technet.microsoft.com/en-us/library/dd744533(WS.10).aspx). Add drivers following the steps at [http://technet.microsoft.com/en-us/library/dd744355\(v=WS.10\).aspx#AddDriverDISM](http://technet.microsoft.com/en-us/library/dd744355(v=WS.10).aspx#AddDriverDISM).
- ▶ Understand PAE, NX, and SSE2 processor features used to run Windows 8.1 at <http://windows.microsoft.com/en-US/windows-8/what-is-pae-nx-sse2>.
- ▶ Windows IT Pro publishes online articles about System Center and other topics. See <http://www.windowsitpro.com/> for information.
- ▶ Microsoft provides an entire portal on application compatibility at <http://technet.microsoft.com/en-us/windows/aa905066.aspx>.
- ▶ Microsoft's vision for mobile computing is at http://blogs.technet.com/b/in_the_cloud/archive/2014/01/29/a-people-first-approach-to-mobile-device-management.aspx.
- ▶ The whitepaper at <http://go.microsoft.com/fwlink/?LinkID=279003> lists the Open Mobile Alliance - Uniform Resource Identifier (OMA-URI) values of possible settings in Windows Phone 8.1.
- ▶ Information about configuring certificate enrollment profiles is available at <http://technet.microsoft.com/en-us/library/dn270539.aspx>.
- ▶ An overview of the sideloading enhancements with Windows 8.1 Update is at <http://blogs.windows.com/windows/b/springboard/archive/2014/04/03/windows-8-1-sideloading-enhancements.aspx>. You may also want to see the Microsoft Windows volume licensing guide at http://download.microsoft.com/download/9/4/3/9439A928-A0D1-44C2-A099-26A59AE0543B/Windows_8-1_Licensing_Guide.pdf.
- ▶ Want to create drilldown SSRS reports? See <http://technet.microsoft.com/en-us/library/dd207042.aspx>.
- ▶ <http://msdn.microsoft.com/en-us/library/ms157403.aspx> provides a complete listing of SQL Server Report Server log files.
- ▶ An overview of Windows Azure Active Directory is at <http://www.windowsazure.com/en-us/services/active-directory/>.
- ▶ Read about directory integration at <http://technet.microsoft.com/en-us/library/jj573653.aspx>.
- ▶ Prepare for directory synchronization by reading <http://technet.microsoft.com/en-us/library/jj151831.aspx> to learn about architecture and deployment considerations.

- ▶ Information on password synchronization is available at <http://technet.microsoft.com/en-us/library/dn246918.aspx>.
- ▶ Information on Windows Management Instrumentation (WMI) is available at <http://msdn.microsoft.com/en-us/library/aa394582.aspx>.
- ▶ [http://msdn.microsoft.com/en-us/library/aa394564\(VS.85\).aspx](http://msdn.microsoft.com/en-us/library/aa394564(VS.85).aspx) discusses WMI logging.
- ▶ For a discussion of User Account Control and WMI, see [http://msdn.microsoft.com/en-us/library/aa826699\(VS.85\).aspx](http://msdn.microsoft.com/en-us/library/aa826699(VS.85).aspx).
- ▶ Command-line tools to manage WMI can be downloaded at [http://msdn.microsoft.com/en-us/library/aa827351\(VS.85\).aspx](http://msdn.microsoft.com/en-us/library/aa827351(VS.85).aspx).
- ▶ See [http://msdn.microsoft.com/en-us/library/aa394603\(v=vs.85\).aspx](http://msdn.microsoft.com/en-us/library/aa394603(v=vs.85).aspx), <http://technet.microsoft.com/en-us/library/cc180763.aspx>, and <http://blogs.technet.com/b/configmgrteam/archive/2009/05/08/wmi-troubleshooting-tips.aspx> for information on WMI troubleshooting.
- ▶ For information regarding WMI Query Language (WQL), see <http://msdn.microsoft.com/en-us/library/aa394606.aspx>.
- ▶ Information regarding Windows network load balancing (NLB) is available in the Network Load Balancing Deployment guide at [http://technet.microsoft.com/en-us/library/cc754833\(WS.10\).aspx](http://technet.microsoft.com/en-us/library/cc754833(WS.10).aspx).
- ▶ [http://technet.microsoft.com/en-us/library/cc732906\(WS.10\).aspx](http://technet.microsoft.com/en-us/library/cc732906(WS.10).aspx) provides information on requesting an Internet Server certificate (IIS 7).
- ▶ The best way to add a certificate to a certificate store en masse is to use group policy; [http://technet.microsoft.com/en-us/library/cc770315\(WS.10\).aspx](http://technet.microsoft.com/en-us/library/cc770315(WS.10).aspx) provides a step-by-step example.
- ▶ [http://technet.microsoft.com/en-us/library/cc732597\(WS.10\).aspx](http://technet.microsoft.com/en-us/library/cc732597(WS.10).aspx) provides information about acquiring a code signing certificate.
- ▶ Learn about USMT 8.1 at <http://technet.microsoft.com/en-US/windows/dn168170.aspx>.
- ▶ Microsoft provides solution accelerators, which are guidelines and tools to leverage the full functionality of Microsoft usage within your organization. These are available for download at no cost at <http://technet.microsoft.com/en-us/solutionaccelerators/dd229342>.
- ▶ Learn about using the Visual Studio Report Designer at <http://msdn.microsoft.com/en-us/library/bb558708.aspx>.
- ▶ Learn about Workplace Join at <http://technet.microsoft.com/en-us/library/dn280945.aspx>.
- ▶ Web Application Proxy is discussed at <http://technet.microsoft.com/en-us/library/dn280942.aspx>.

- ▶ In January 2014, Microsoft reaffirmed its commitment to providing customers choice in management solutions by announcing new mobile device capabilities would be built into the cloud-only architecture with a goal of striving for parity between solutions. Read the announcement at <http://blogs.technet.com/b/server-cloud/archive/2014/01/29/new-enhancements-to-windows-intune.aspx/>.
- ▶ See <http://www.windowsintune.com> for information on Windows Intune for cloud PC management.
- ▶ Listen to a TechEd 2014 presentation on what's new in 2014 in application management with Configuration Manager and Windows Intune at <http://channel9.msdn.com/Events/TechEd/NorthAmerica/2014/PCIT-B323#fbid=qO-G9Ks6x0r>.
- ▶ The Windows Intune administrator console is located at <https://manage.microsoft.com>.
- ▶ The Windows Intune Account Portal, located at <https://account.manage.microsoft.com>, is for use with the Windows Intune service.
- ▶ Learn how to generate an application enrollment token (AET) for Windows Phone 8 at [http://msdn.microsoft.com/en-us/library/windowsphone/develop/jj735576\(v=vs.105\).aspx](http://msdn.microsoft.com/en-us/library/windowsphone/develop/jj735576(v=vs.105).aspx).
- ▶ Purchase a code-signing certificate for sideloading Windows Phone applications for Windows Phone from Symantec at <http://www.symantec.com/verisign/code-signing/windows-phone>.
- ▶ Microsoft provides the Support Tool for Windows Intune Trial Management for Windows Phone 8, which you can use to test application deployments to Windows Phone devices. Download the tool from <http://www.microsoft.com/en-us/download/details.aspx?id=39079>.
- ▶ Read about metered Internet connections for Windows 8.1 and Windows RT 8.1 at <http://windows.microsoft.com/en-US/windows-8/metered-internet-connections-frequently-asked-questions>.
- ▶ Trying to understand licensing?
 - ▶ General licensing information is at <http://www.microsoft.com/licensing/default.aspx>.
 - ▶ <http://www.microsoft.com/calsuites/en/us/products/default.aspx> discusses Server client access licenses (CALs) and the suites they may be included on. You can find the most current list of Microsoft CAL suite technologies at http://download.microsoft.com/download/3/D/4/3D42BDC2-6725-4B29-B75A-A5B04179958B/Licensing_Core_CAL_and_Enterprise_Suite.docx.
 - ▶ System Center volume licensing is discussed at <http://www.microsoft.com/licensing/about-licensing/SystemCenter2012.aspx>.

- ▶ See Gartner Group's positioning of Configuration Manager in their magic quadrant at http://www.itbl0b.com/2012/06/gartner-says-microsoft-is-leader-of.html#.U2_9-HkU_Gh and <http://www2.managedplanet.com/downloads/Gartner%20Client%20Management%20Magic%20Quadrant%202013.pdf> for the article it references.

Microsoft's Configuration Manager Resources

The following list includes some general Microsoft resources available for System Center 2012 Configuration Manager:

- ▶ Microsoft's Configuration Manager website is located at <http://www.microsoft.com/en-us/server-cloud/system-center/configuration-manager-2012.aspx>.
- ▶ Find Microsoft's Configuration Manager TechNet main library page at <http://technet.microsoft.com/library/gg682129>.
- ▶ What's new in Configuration Manager 2012 Service Pack (SP) 1? See <http://technet.microsoft.com/en-us/library/jj591552.aspx>.
- ▶ For what's new in Configuration Manager 2012 R2, see <http://technet.microsoft.com/en-us/library/dn236351.aspx>.
- ▶ The System Center 2012 Configuration Manager documentation library with links to the different technical guides is at <http://technet.microsoft.com/en-us/library/gg682041>.
- ▶ For a list of technical publications for Configuration Manager, see <http://technet.microsoft.com/en-us/library/hh531521.aspx>.
- ▶ Information on supported configurations for Configuration Manager is available at <http://technet.microsoft.com/en-us/library/gg682077.aspx>.
- ▶ Microsoft introduced a full PowerShell provider with ConfigMgr 2012 SP 1. As of the R2 release, there are 560 cmdlets for ConfigMgr. The cmdlet reference is at [http://technet.microsoft.com/en-us/library/jj821831\(v=sc.20\).aspx](http://technet.microsoft.com/en-us/library/jj821831(v=sc.20).aspx).
- ▶ <http://support.microsoft.com/kb/2932274> describes the PowerShell changes in ConfigMgr 2012 R2 CU 1.
- ▶ Read about planning for communications in Configuration Manager at <http://technet.microsoft.com/en-us/library/gg712701.aspx>, including wake-up proxy for clients.
- ▶ Documentation on planning for software updates and Windows Server Update Services (WSUS) is at http://technet.microsoft.com/en-us/library/gg712696.aspx#BKMK_SUMCapacity, and [http://technet.microsoft.com/en-us/library/dd939928\(WS.10\).aspx](http://technet.microsoft.com/en-us/library/dd939928(WS.10).aspx) documents WSUS 3.0 system requirements. You may also want to view <http://technet.microsoft.com/en-us/library/hh237372.aspx>, which lists prerequisites for software updates.

- ▶ Software update improvements in Service Pack 1 are discussed at <http://blogs.technet.com/b/configmgrteam/archive/2013/03/27/software-update-points-in-cm2012sp1.aspx>.
- ▶ Read about creating software update points in an untrusted forest at http://technet.microsoft.com/en-us/library/gg712696.aspx#BKMK_SUP_CrossForest.
- ▶ Microsoft recommends installing the reporting services point on a remote site system server for improved performance. See <http://technet.microsoft.com/en-us/library/hh394138.aspx>.
- ▶ SSRS should be installed in native mode for System Center 2012 Configuration Manager; this is discussed at <http://msdn.microsoft.com/en-us/library/ms143711.aspx>.
- ▶ You can script report backups using RS.exe. Documentation is available at <http://msdn.microsoft.com/en-us/library/ms162839.aspx> and <http://msdn.microsoft.com/en-us/library/ms159720.aspx>.
- ▶ You should always verify your reporting services installation before installing the reporting services point. <http://msdn.microsoft.com/en-us/library/ms143773.aspx> discusses the steps to take.
- ▶ Configuring reporting in ConfigMgr is discussed at <http://technet.microsoft.com/en-us/library/gg712698.aspx>.
- ▶ ConfigMgr reports are now fully enabled for role-based administration. For information, see the “Planning for Role-Based Administration for Reports” section at http://technet.microsoft.com/en-us/library/7ca322fc-bbbf-42c8-82c9-6fc8941ef2e6#BKMK_RoleBaseAdministration.
- ▶ Hardware sizing information for site systems can be found at <http://technet.microsoft.com/en-us/library/hh846235.aspx>.
- ▶ Ports used by Configuration Manager are discussed at <http://technet.microsoft.com/en-us/library/bb632618.aspx>. Information on configuring ports for Network Access Protection (NAP) is located at <http://technet.microsoft.com/en-us/library/bb694170.aspx>.
- ▶ See http://technet.microsoft.com/en-us/library/gg712701.aspx#Support_Internet_Clients to plan for implementing Internet-based client management.
- ▶ Configuring a service principal name (SPN) for SQL Server site database servers is discussed at <http://technet.microsoft.com/en-us/library/bb735885.aspx>.
- ▶ Guidance for securing specific site system servers is at http://technet.microsoft.com/en-us/library/gg682165.aspx#BKMK_Security_SiteServer.
- ▶ To configure proxy for site server roles, see http://technet.microsoft.com/en-us/library/gg712282.aspx#BKMK_PlanforProxyServers.
- ▶ Best practices for collections are at <http://technet.microsoft.com/en-us/library/gg699372.aspx>.

- ▶ Tips on installing and configuring distribution points (DPs) are at http://technet.microsoft.com/en-us/library/gg682115.aspx#BKMK_InstallDistributionPoint. You may also want to view <http://technet.microsoft.com/en-us/library/hh272770.aspx>, which discusses installing and configuring site system roles.
- ▶ Beginning with Service Pack 1, you can create a cloud DP in Windows Azure. Cloud-based DPs support both intranet and Internet-based clients, and automatically enable BranchCache on the DP to help you reduce content transfer from your cloud-based DP:
 - ▶ See http://technet.microsoft.com/en-us/library/b2516212-e524-4031-9a1f-7b768084304d#BKMK_PlanCloudDPs for more information about cloud DPs.
 - ▶ Also check out <http://blogs.technet.com/b/configmgrteam/archive/2013/01/31/new-distribution-points-in-configuration-manager-sp1.aspx>.
- ▶ <http://technet.microsoft.com/en-us/library/gg712321.aspx> discusses the automatic retry settings for a pull DP.
- ▶ When using HTTPS on a DP, you must import a certificate for the DP to use when it communicates with other site systems. This is discussed at http://technet.microsoft.com/en-us/library/230dfec0-bddb-4429-a5db-30020e881f1e#BKMK_clientdistributionpoint2008_cm2012.
- ▶ Learn how to customize Windows PE boot images for use in ConfigMgr at <http://technet.microsoft.com/en-us/library/dn387582.aspx>.
- ▶ http://technet.microsoft.com/en-us/library/hh427342.aspx#BKMK_OSDLog is a list of log files for operating system deployment (OSD).
- ▶ http://blogs.technet.com/b/inside_osd/archive/2007/12/13/troubleshooting-tips.aspx discusses OSD troubleshooting tips.
- ▶ <http://blogs.technet.com/b/configmgrteam/archive/2013/07/15/customizing-offline-servicing-of-operating-system-images.aspx> discusses customizing offline servicing of OSD images.
- ▶ For information about managing devices with write filters enabled using ConfigMgr, see <http://blogs.technet.com/b/configmgrteam/archive/2012/11/26/managing-embedded-devices-with-write-filters-in-configuration-manager-service-pack-1.aspx>.
- ▶ Read about integrating App-V into ConfigMgr; see the whitepaper at <http://www.microsoft.com/en-us/download/details.aspx?id=38177>.
- ▶ Read how to migrate user data from Windows XP to Windows 8.1 systems using ConfigMgr at <http://blogs.technet.com/b/configmgrteam/archive/2013/09/12/how-to-migrate-user-data-from-win-xp-to-win-8-1-with-system-center-2012-r2-configmgr.aspx>.

- ▶ Microsoft provides guidance on upgrading from Configuration Manager 2007 to System Center 2012 Configuration Manager at <http://technet.microsoft.com/en-us/library/gg682006.aspx>. Related is <http://technet.microsoft.com/en-us/library/gg712336.aspx>, which discusses security and privacy for migration to ConfigMgr 2012. <http://technet.microsoft.com/en-us/library/gg712275.aspx> discusses planning for content deployment during your migration.
- ▶ <http://technet.microsoft.com/en-us/library/jj822981.aspx> discusses upgrading from ConfigMgr 2012 RTM to SP 1 and then R2.
- ▶ Troubleshooting your ConfigMgr migration? See <http://technet.microsoft.com/en-us/library/gg712297.aspx>.
- ▶ Prerequisites for deploying the ConfigMgr client are discussed at <http://technet.microsoft.com/en-us/library/gg682042.aspx>.
- ▶ <http://technet.microsoft.com/en-us/library/hh427342.aspx> is a technical reference for ConfigMgr log files.
- ▶ See <http://technet.microsoft.com/en-us/library/bb680409.aspx> for information on configuring logging for Windows Mobile and Windows CE devices.
- ▶ Task sequence variables are documented at <http://technet.microsoft.com/en-us/library/gg682064.aspx> and <http://technet.microsoft.com/en-us/library/hh273375.aspx>.
- ▶ Learn about remote profile connections at
 - ▶ <http://technet.microsoft.com/en-us/library/dn261225.aspx>
 - ▶ <http://technet.microsoft.com/en-us/library/dn261201.aspx>
 - ▶ <http://technet.microsoft.com/en-us/library/dn261199.aspx>
- ▶ Microsoft's IT showcase for Configuration Manager is available at <http://technet.microsoft.com/en-us/library/bb687796.aspx>. It includes MSIT's early adopter experiences, best experiences, and lessons learned from their deployments of System Center Configuration Manager. You can also read about MSIT's upgrade of their user base from Windows 8 to Windows 8.1 at <http://www.microsoft.com/en-us/download/details.aspx?id=40811> and <http://www.microsoft.com/en-us/download/details.aspx?id=41965>.
- ▶ To configure SQL Server site database replication, check out <http://technet.microsoft.com/en-us/library/bb693697.aspx>. <http://technet.microsoft.com/en-us/library/bb693954.aspx> discusses disabling database replication.
- ▶ A TechNet virtual lab introducing System Center 2012 Configuration Manager is available at <https://msevents.microsoft.com/CUI/EventDetail.aspx?EventID=1032499898&culture=en-us>.

- ▶ Following are some videos on System Center 2012 Configuration Manager:
 - ▶ Wally Mead presents a ConfigMgr 2012 administration overview at the Belgian System Center Day 2011 on November 3, 2011; this was organized by the Belgian System Center User Group (<http://scug.be/>), see <http://technet.microsoft.com/en-us/edge/Video/hh536213>.
 - ▶ Nico Sienaert discusses what's new in OSD at the System Center User Group in Belgium on March 22, 2012, available at <http://technet.microsoft.com/en-us/video/sccm-2012-what-is-new-in-os-deployment>.
- ▶ The different database roles used in Configuration Manager are discussed at <http://technet.microsoft.com/en-us/library/bb632943.aspx>. Although referring to ConfigMgr 2007 when this appendix was written, the information is still applicable.
- ▶ Information on managing mobile devices in Configuration Manager is at <http://technet.microsoft.com/en-us/library/gg682022.aspx>.
- ▶ To identify the Windows groups and accounts used in Configuration Manager and any requirements, see <http://technet.microsoft.com/en-us/library/hh427337.aspx>.
- ▶ <http://technet.microsoft.com/en-us/library/gg712697.aspx> discusses backup and recovery in Configuration Manager.
- ▶ Use the `Set-CMSoftwareUpdatePoint` PowerShell cmdlet, documented at <http://technet.microsoft.com/library/jj821938.aspx>, to change settings for a software update point (SUP).
- ▶ PKI certificate requirements for ConfigMgr are discussed at <http://technet.microsoft.com/en-us/library/gg699362.aspx>.
- ▶ Certificate profiles in Configuration Manager are discussed at <http://technet.microsoft.com/en-us/library/dn248971.aspx>.
- ▶ Package Conversion Manager (PCM) allows you to convert ConfigMgr 2007 packages into ConfigMgr 2012 applications. See <http://technet.microsoft.com/en-us/library/hh531583.aspx> for information.
- ▶ Prerequisites for Endpoint Protection are documented at <http://technet.microsoft.com/en-us/library/hh508780.aspx>.
- ▶ You can download the ConfigMgr 2012 R2 SDK from <http://www.microsoft.com/download/en/details.aspx?id=29559>.
- ▶ Classes available for hardware inventory for mobile devices are listed at <http://technet.microsoft.com/en-us/library/dn469411.aspx>.
- ▶ Compliance settings for mobile devices in Configuration Manager are documented at <http://technet.microsoft.com/en-us/library/dn376523.aspx>.

- ▶ A guide for obtaining the Symantec certificate and signing the company portal app, written by Microsoft Intune Support Services, is at <http://blogs.technet.com/b/windowsintune/archive/2013/08/09/windows-intune-walkthrough-windows-phone-8-management.aspx?ocid=aff-n-we-loc--ITPRO40922>. Although written for the Intune cloud-only service, the Symantec code-signing certificate and company portal steps are the same for Intune, regardless of whether it is integrated with ConfigMgr.
- ▶ Download the Windows Intune company portal for Windows Phone, which works with ConfigMgr 2012 R2 and Windows Intune, at <http://www.microsoft.com/en-us/download/details.aspx?id=36060>.
- ▶ The System Center Configuration Manager Company Portal App is available at <http://www.microsoft.com/en-us/download/details.aspx?id=40795>.
- ▶ ConfigMgr 2012 R2 allows you to do a selective wipe on mobile devices that only removes company content. Read about the content removed on various devices at http://technet.microsoft.com/en-us/library/2c6bd0e5-d436-41c8-bf38-30152d76be10#bkmk_dev.
- ▶ See <http://blogs.technet.com/b/configmgrteam/archive/2013/03/13/troubleshooting-windows-rt-client-software-distribution-issues.aspx> for troubleshooting Windows RT client software distribution issues.
- ▶ http://technet.microsoft.com/en-us/library/da15f702-ba6a-40fb-b130-c624f17e2846#BKMK_ClientDeployPrereqforLnU discusses prerequisites for client deployment to Linux and UNIX servers.
- ▶ Linux/UNIX and Macintosh client agents are not included with the installation files for ConfigMgr. You must download the appropriate agent from the Microsoft Download Center:
 - ▶ For ConfigMgr 2012 SP 1, download the agent from <http://www.microsoft.com/en-us/download/details.aspx?id=36212>.
 - ▶ For ConfigMgr 2012 R2, download the agent from <http://www.microsoft.com/en-us/download/details.aspx?id=39360>.
- ▶ Installing the Linux/UNIX client is discussed at <http://technet.microsoft.com/en-us/library/jj573939.aspx>.
- ▶ Read about Mac OS X 10.9 support at <http://blogs.technet.com/b/configmgrteam/archive/2013/12/16/mac-os-x-10-9-support-for-sc-2012-config-manager-clients.aspx>.

Other Configuration Manager Resources

Microsoft of course is not the only organization to discuss Configuration Manager. A number of websites provide excellent resources for Configuration Manager. Following are several you may want to investigate:

- ▶ Looking for training?
 - ▶ Microsoft provides two courses on System Center 2012 R2 Configuration Manager:
 - 10747D—Administering System Center 2012 Configuration Manager:** Information on this 5-day class is available at <http://www.microsoft.com/learning/en-us/course.aspx?id=10747d>.
 - 10748C—Deploying System Center 2012 Configuration Manager:** Information on this 5-day class is at <http://www.microsoft.com/learning/en/us/course.aspx?id=10748c>.
 - ▶ A great ConfigMgr trainer who teaches the ConfigMgr MOC is Michael Head. His current course schedule is located at <http://www.HeadSmartGroup.com/>.
 - ▶ Infront Consulting Group offers System Center training; curriculum and syllabi are available at www.infrontconsulting.com/training.php.
 - ▶ Microsoft Virtual Academy provides an overview course at <http://www.microsoftvirtualacademy.com/tracks/overview-and-infrastructure-changes-in-sccm-2012>.
- ▶ <http://www.windows-noob.com/forums/index.php?/forum/92-configuration-manager-2012/> is a forum on System Center 2012 Configuration Manager.
- ▶ Configuration packs can be found at the System Center Marketplace. See <http://systemcenter.pinpoint.microsoft.com/en-US/applications/search/configuration-manager-d10?sort=released&q=partnertype%3aMicrosoft+System+Center>.
- ▶ You can use Orchestrator to automate the client install on a Linux/UNIX system. For information on the process and sample runbooks to download, see <http://blogs.technet.com/b/neilp/archive/2012/10/17/system-center-2012-automating-configuration-manager-client-deployment-to-linux-systems.aspx>.
- ▶ Curious about the content library store? See Kent Agerlund's blog post at <http://blog.coretech.dk/kea/understanding-the-new-content-library-store-in-5-minutes/>.
- ▶ Don Jones discusses defining parameters in PowerShell scripts at <http://technet.microsoft.com/en-us/magazine/jj554301.aspx>.
- ▶ For information on the PowerShell execution policy, see [http://4sysops.com/archives/powershell-execution-policy/?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+4sysops+\(4sysops\)](http://4sysops.com/archives/powershell-execution-policy/?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+4sysops+(4sysops)).
- ▶ Read about using PowerShell to troubleshoot and repair WMI errors by the Scripting Guy at <http://blogs.technet.com/b/heyscriptingguy/archive/2012/03/29/use-powershell-to-troubleshoot-and-repair-wmi-errors.aspx>.
- ▶ CIM is the component information model that WMI is based on. To learn more about CIM, read the tutorial at <http://www.wbem-solutions.com/tutorials/CIM/index.html>.

- ▶ Need help with troubleshooting client push installation? Check out <http://blogs.technet.com/b/sudheesn/archive/2010/05/31/troubleshooting-sccm-part-i-client-push-installation.aspx>.
- ▶ A step-by-step guide on using software metering is available at <http://blogs.msdn.com/b/minfangl/archive/2011/04/29/step-by-step-on-how-to-use-software-metering.aspx>.
- ▶ Steve Rachui discusses state messaging in depth at <http://blogs.msdn.com/b/steverac/archive/2011/01/07/sccm-state-messaging-in-depth.aspx>.
- ▶ Steve Rachui has written a series of blog posts on the software updates process as viewed through the log files:
 - ▶ <http://blogs.msdn.com/b/steverac/archive/2011/04/10/software-updates-internals-mms-2011-session-part-i.aspx>
 - ▶ <http://blogs.msdn.com/b/steverac/archive/2011/04/16/software-updates-internals-mms-2011-session-part-ii.aspx>
 - ▶ <http://blogs.msdn.com/b/steverac/archive/2011/04/30/software-updates-internals-mms-2011-session-part-iii.aspx>
- ▶ System Center Orchestrator is Microsoft's integration and automation tool. Steve Rachui provides runbooks as examples of using Orchestrator with ConfigMgr at <http://blogs.msdn.com/b/steverac/archive/2013/04/16/mms-2013-orchestrator-and-configmgr-better-together.aspx>.
- ▶ CoreTech provides an overview of cloud DPs at <http://blog.coretech.dk/kea/configmgr-cloud-distribution-points/>.
- ▶ <http://www.scconfigmgr.com/2014/02/27/monitor-osd-with-status-message-queries-in-configmgr-2012/> discusses using the status message viewer to determine the history of a task sequence deployment.
- ▶ Steve Rachui discusses OSD prestage and EFI systems at <http://blogs.msdn.com/b/steverac/archive/2013/09/13/osd-pre-stage-and-uefi-systems.aspx>.
- ▶ <http://blogs.msdn.com/b/steverac/archive/2014/03/29/the-suite-spot-of-imaging.aspx> discusses using OSD for imaging.
- ▶ <http://www.itninja.com> provides general guidance on software deployment and a forum for users to share their experiences testing whether software can be installed unattended. This site was previously known as AppDeploy.com.
- ▶ Read about open management infrastructure (OMI) at <http://www.opengroup.org/software/omi>. You can find more in-depth information on OMI and how it works at <https://collaboration.opengroup.org/omi/>. Download the OMI getting started guide from <https://collaboration.opengroup.org/omi/documents.php>.
- ▶ Steve Rachui discusses Linux and UNIX support in ConfigMgr 2012 SP 1 at <http://blogs.msdn.com/b/steverac/archive/2013/06/27/unix-and-linux-support-in-configmgr-2012-sp1.aspx>.

- ▶ TechNet Magazine provides a look at Configuration Manager 2012's user-centric approach at <http://technet.microsoft.com/en-us/magazine/gg675930.aspx>.
- ▶ Niall Brady, an ECM MVP, publishes guides for ConfigMgr 2012 at <http://www.windows-noob.com/forums/index.php?/topic/4045-system-center-2012-configuration-manager-guides/>.
- ▶ Steve Rachui discusses operating system deployment to Linux operating systems <http://blogs.msdn.com/b/steverac/archive/2014/01/02/osd-for-linux-imaging-yes-really.aspx>. Note that this is not supported by Microsoft.
- ▶ For information about converting WQL to SQL, Brian Leary has a nice article at <http://www.myITforum.com/articles/8/view.asp?id=9908>. Written for web reporting with ConfigMgr 2007, the information is still applicable.
- ▶ Santos Martinez provides a walk-through to help you build reports that support role-based administration; his blog post is available at <http://blogs.technet.com/b/smartinez/archive/2013/11/28/how-to-create-a-rba-capable-report-for-configmgr-r2.aspx>.
- ▶ Marcus Oh writes about retrieving objects into a collection that does not exist in another collection at <http://marcusoh.blogspot.com/2007/08/sms-selecting-objects-not-in-collection.html>.
- ▶ Beginning with Configuration Manager 2007 R2, ConfigMgr can define a task sequence variable on a collection or individual resource without a value. Read about it in a posting by coauthor Jason Sandys at <http://blog.configmgrftw.com/?p=44>.
- ▶ Ronni Pederson writes about using task sequence variables to customize deployments at <http://myITforum.com/cs2/blogs/rpedersen/archive/2008/07/01/using-task-sequence-variables-to-customize-deployments.aspx>.
- ▶ When a user with write permissions browses to a distribution point share on a Windows 7 system, he can accidentally modify the source for any package by simply viewing the contents. Windows 7 creates a thumbs.db that contains thumbnails of images in the folder. For additional information, see coauthor Greg Ramsey's post at <http://gregramsey.wordpress.com/2012/02/13/interesting-issue-with-thumbs-db/>.
- ▶ Flexera's AdminStudio (<http://www.flexerasoftware.com/products/adminstudio-suite.htm>) is a popular software packaging suite.
- ▶ AdapTiva Software (<http://www.adaptiva.com>) extends Microsoft's technologies to enhance PC power management. 1E (<http://www.1e.com>) also has a number of products to assist with sustainability and energy efficiency.
- ▶ Symantec offers mobile device management software for iOS, Android, and Windows Phone devices; <http://www.symantec.com/mobile-management#scm> provides details.

Blogs

Following are some blogs the authors have used. Some are more active than others are, and new blogs seem to spring up overnight:

- ▶ <http://bink.nu> is managed by Steven Bink, former MVP for Windows Server Technologies. According to the blog, it “watches Microsoft like a hawk.”
- ▶ Garth Jones, a ECM MVP, posts articles at <http://www.myITforum.com/contrib/default.asp?cid=116>. He also is affiliated with the SMS User Group in Canada; those blogs are at <http://smsug.ca/blogs/>.
- ▶ <http://sms-hints-tricks.blogspot.com/> is by Matthew Hudson, ECM MVP.
- ▶ Don Hite blogs at <http://myITforum.com/cs2/blogs/dhite/>.
- ▶ Ronni Pederson’s blog is at <http://ronnipedersen.com/>. Older articles are at <http://myITforum.com/cs2/blogs/rpedersen/>.
- ▶ Ron Crumbaker, ECM MVP, blogs at <http://myITforum.com/cs2/blogs/rcrumbaker/>.
- ▶ Kim Oppalfens blogs at <http://myitforum.com/cs2/blogs/koppalfens/default.aspx>.
- ▶ Sherry Kissinger, ECM MVP, blogs at <http://myITforum.com/cs2/blogs/skissinger/>.
- ▶ Roger Zander blogs at <http://myITforum.com/cs2/blogs/rzander/default.aspx>.
- ▶ <http://systemscentre.blogspot.com/> is maintained by MVP Steve Beaumont.
- ▶ Anthony Clendenen has a myITforum blog at <http://myITforum.com/cs2/blogs/socal/default.aspx>.
- ▶ By Carlos Santiago, a Premier Field Engineer at Microsoft, at <http://blogs.technet.com/carlossantiago>.
- ▶ The OSD Support Team blog is at http://blogs.technet.com/b/system_center_configuration_manager_operating_system_deployment_support_blog/.
- ▶ Microsoft’s server and cloud blog is at <http://blogs.technet.com/b/server-cloud/>.
- ▶ The Microsoft “Deployment Guys” have a blog at <http://blogs.technet.com/deploymentguys/default.aspx>.
- ▶ Paul Thomsen blogs at <http://myITforum.com/cs2/blogs/pthomsen/>.
- ▶ MVP Scott Moss blogs at <http://www.systemcentercentral.com/author/smoss/>.
- ▶ <http://blogs.technet.com/b/configmgrteam/> is the official blog of the Microsoft System Center Configuration Manager product group.
- ▶ Kevin Sullivan’s Management blog is at https://blogs.technet.com/kevinsul_blog/. (Kevin is a Technology Specialist at Microsoft focusing on management products.)
- ▶ <http://marcusoh.blogspot.com/> is a blog by MVP Marcus Oh.
- ▶ <http://www.msfaq.se/> is Stefan Schürling’s blog on Microsoft System Management. Stefan is an ECM MVP and contributor.

- ▶ Niall Brady, ECM MVP, blogs at <http://www.niallbrady.com/>. Former postings are at <http://myitforum.com/cs2/blogs/nbrady/>.
- ▶ Samuel Erskine blogs at <http://www.itprocessed.com/>.
- ▶ Torsten Meringer, ECM MVP, manages the German ConfigMgr blog <http://www.msscfaq.de>.
- ▶ <http://myITforum.com/cs2/blogs/sthompson> is the blog for Steve Thompson, ECM MVP.
- ▶ See <http://blogs.msdn.com/b/shitanshu/> for information about Configuration Manager in Microsoft IT.

Following are our own blogs:

- ▶ Kerrie Meyler, MVP and lead author for *System Center 2012 Configuration Manager Unleashed*, maintains a blog at <http://www.networkworld.com/author/kerrie-meyler/>.
- ▶ Check out the blog at <http://blog.configmgrftw.com/> by coauthor and ECM MVP Jason Sandys.
- ▶ Greg Ramsey, ECM MVP and a coauthor for this book, blogs at <http://gregramsey.wordpress.com/>.
- ▶ Panu Saukko, ECM MVP and a contributing author to this book, blogs at <http://myITforum.com/cs2/blogs/psaukko/>.
- ▶ Contributing author Kenneth van Surksom blogs at <http://www.vansurksom.com>.
- ▶ Contributing author Michael Wiles blogged at <http://blogs.technet.com/b/mwiles/while> at Microsoft.
- ▶ Steve Rachui is a CSS guru on ConfigMgr and our technical editor. Check out his blog at <http://blogs.msdn.com/steverac/>.

Public Forums

If you need an answer to a question, the first place to check is the Microsoft public forums. A list of available TechNet forums is maintained at <http://social.technet.microsoft.com/Forums/en-us/home>. It is best to see whether the question has already been posted before you ask it yourself!

The link to all the System Center 2012 Configuration Manager forums is <http://social.technet.microsoft.com/Forums/en-US/category/systemcenter2012configurationmanager>. Following are the specific forums (English):

- ▶ Configuration Manager 2012—General (<http://social.technet.microsoft.com/forums/en-US/configmgrgeneral/threads>).
- ▶ Configuration Manager 2012—Client and site deployment (<http://social.technet.microsoft.com/Forums/en-US/configmanagerdeployment/threads>).

- ▶ Configuration Manager 2012—Application management (<http://social.technet.microsoft.com/Forums/en-US/configmanagerapps/threads>).
- ▶ Configuration Manager 2012—Security and compliance (<http://social.technet.microsoft.com/Forums/en-US/configmanagersecurity/threads>).
- ▶ Configuration Manager—Operating System Deployment (<http://social.technet.microsoft.com/forums/en-US/configmgrosd/threads>).
- ▶ Configuration Manager—SDK (<http://social.technet.microsoft.com/forums/en-US/configmgrsdk/threads>).
- ▶ Configuration Manager 2012—Migration (<http://social.technet.microsoft.com/Forums/en-US/configmanagemigration/threads>).
- ▶ myITforum also has a discussion list for Configuration Manager along with a number of other discussion lists, see <http://myitforum.com/myitforumwp/services/email-lists-2/>.

Utilities

Following are some utilities, both Microsoft and third party:

- ▶ The WMI Diagnosis Utility (WMIDiag) is available at the Microsoft download site, <http://www.microsoft.com/downloads/details.aspx?familyid=d7ba3cd6-18d1-4d05-b11e-4c64192ae97d&displaylang=en>.
- ▶ The WMI Administrative Tools are downloadable at <http://www.microsoft.com/download/en/details.aspx?id=24045>.
- ▶ The Windows PowerShell Scriptomatic tool, created by Ed Wilson, enables you to browse WMI namespaces and automatically generate PowerShell code to connect to WMI objects. You can download the tool from <http://www.microsoft.com/download/en/details.aspx?displaylang=en&id=24121>.
- ▶ Use Process Monitor to capture detailed process activity on Windows systems. For information and a download link, see <http://technet.microsoft.com/en-us/sysinternals/bb896645.aspx>.
- ▶ NetDiag is a diagnostic tool that helps isolate networking and connectivity problems. For information, see <http://technet.microsoft.com/library/Cc938980>.
- ▶ Netperf is a benchmark that can be used to measure performance of many types of networking. It provides tests for both unidirectional throughput and end-to-end latency. For more information and to download the tool, see <http://www.netperf.org/netperf/>.
- ▶ You can download and install add-ons and extensions for System Center 2012 Configuration Manager at <http://www.microsoft.com/download/en/details.aspx?id=29265>. This includes the ConfigMgr toolkit and PCM.

- ▶ Troubleshoot port status issues using PortQry and PortQryUI, downloadable from <http://www.microsoft.com/downloads/details.aspx?familyid=89811747-C74B-4638-A2D5-AC828BDC6983&displaylang=en> and <http://www.microsoft.com/downloads/details.aspx?FamilyID=8355E537-1EA6-4569-AABB-F248F4BD91D0&displaylang=en>, respectively.
- ▶ System Center Update Publisher (SCUP) enables third-party vendors and IT administrators to import, manage, and develop software update definitions that can be deployed with ConfigMgr. You can download SCUP from <http://www.microsoft.com/download/en/details.aspx?id=11940>.
- ▶ At times creating WMI queries can be quite cumbersome. There are a number of tools available for free to help ease the process. Following are some popular ones:
 - ▶ **WMI Code Creator:** <https://www.microsoft.com/download/en/details.aspx?displaylang=en&id=8572>
 - ▶ **WMI Code Generator:** <http://www.robvanderwoude.com/wmigen.php>
 - ▶ **Scriptomatic:** <http://technet.microsoft.com/en-us/library/ff730935.aspx>; download it from <http://www.microsoft.com/downloads/details.aspx?FamilyID=d87daf50-e487-4b0b-995c-f36a2855016e&displaylang=en>.
- ▶ RSS Scripter, developed by SQL Server MVP Jasper Smith, simplifies creation of VB scripts for RS.EXE. Information is available at <http://www.sqlservercentral.com/Forums/Topic1439847-150-1.aspx>.