

Application Compatibility Manager (ACM) is significantly updated and is now the functional centerpiece of ACT.

The new Runtime Analysis Package (RAP) gathers compatibility information and replaces the issue detectors and down-level agents from previous ACT releases. RAP runs in the background on the computers where application testing is being performed.

Inventory collection now supports inventories of 64-bit applications and ActiveX issues, and other Internet Explorer add-ons.

Application compatibility information is now focused on operating system deployment. Compatibility information for updates has been removed.

For more information, see [Application Compatibility Toolkit](#).

## **Deployment and Imaging**

You can use the following tools to customize Windows images and to automate installation and image management.

Deployment Image Servicing and Management (DISM) enables you to capture, apply, and service Windows images. DISM has the following new features:

Command-line options to capture, apply, and mount an image file. This functionality was previously available in the ImageX tool. ImageX is deprecated in this release.

DISM PowerShell cmdlets, which enable you to use PowerShell to create and deploy images.

Support for mounting and servicing Virtual Hard Disk (.vhd) files and Windows Imaging Format (.wim) files.

A new API to enable programmatic management of Windows images.

Windows System Image Manager (Windows SIM) enables you to create answer files to use during Windows deployment.

Windows Help & Support Customization Tools enable you to customize the Windows help experience. You can customize three pages in Help and Support: Home, Escalation, and the new Browse page. On these pages you can add your information, links to FAQs, and links to your top-level custom topics, so customers can find the Help they need without picking up the phone. New features include:

- A new help & support framework allows you to use XHTML to author help pages for inclusion with the Windows 8 help content.

- Easily add your custom help content to the Windows 8 help collection by packaging up your files in a .zip file.

For more information, see [Deployment Tools](#).

## **User State Migration Tool**

User State Migration Tool (USMT) allows IT professionals to migrate user data from a previous installation of Windows to a new installation. USMT has the following new features:

- Two new command-line options for the UsmtUtils tool:

  - `/verify`. Verifies the status of each file in a compressed migration store. The default summary report lists the number of files that are intact and the number of files that are corrupted. It can also list all files, only the corrupted files, or only the catalog file.

`/extract`. Extracts all files from a compressed migration store, including files that become corrupted during the migration. This option can also extract specific files.

Improved error management:

A USMT error summary in the ScanState and LoadState log files helps you understand error messages and correct the errors.

When using the `/c` parameter in the ScanState and LoadState tools, a new return code indicates that non-fatal, unexpected errors were ignored during the migration process, so that you can decide whether to perform additional review.

For more information, see [User State Migration Tool](#).

## **Volume Activation Management Tool**

Volume Activation Management Tool (VAMT) enables IT professionals to automate and centrally manage the activation of Windows®, Windows Server®, and Microsoft® Office 2010. VAMT provides the following new features:

A new, three-pane user interface in which you can easily perform the following volume activation and license management tasks:

- Select a menu item to see the actions that apply to that item.

- Select a Windows or Office product to see a list of all of the computers in the database on which that product is installed, and the license status of each computer.

- Click a computer name listed in one of the Volume Licensing Reports or Products lists to see details about installed products, product versions, and license status.

- Select product keys that have been assigned to your organization, as well as the number of remaining activations available for each key.

Computer information is now stored in a Microsoft SQL Server® database, providing better performance for larger sets of data. We recommend using SQL Server 2008 R2, but VAMT also supports SQL Server Express.

Five new Volume Licensing reports enable you to view the licensing status of every computer in the database, including:

- The products that are at risk for entering an unlicensed state.

- Computers that have a duplicate Computer Machine ID (CMID). This can occur when Sysprep was not run against a Windows installation before the image was captured.

- The current state of usage of the MAK keys.

- The products that are currently in an unlicensed state.

- A list of the computers that are activated through KMS and those that are activated through AD.

Better multiple-key management to save time with the capability of importing multiple keys at once, including the ability to import keys from a file.

For more information, see [Volume Activation Management Tool](#).

## Assessments

Windows Assessments help you assess the performance, reliability, or functionality of a running operating system, or a set of features, so that you can diagnose problems and make improvements. This feature is new in Windows 8, and consists of the following tools:

### Assessment Lab Management Console

This tool automates measurement of performance, reliability and functionality, in a lab environment on multiple computers. You can install this tool on a computer that runs a Windows client or server operating system. The tool interacts with Windows Assessment Services, which must be installed on a computer that runs Windows Server.

### Results Database Tools

These tools interact with Windows Assessment Services (Windows AS) and Windows Assessment Services-Client to manage the result files that other tools produce after assessing a computer.

For more information, see [Windows Assessment Toolkit](#) and [Windows Assessment Services](#).

## Windows Performance Analysis Tools

These tools provide in-depth information enabling you to analyze and trace system and application performance.

Windows Performance Analyzer shows traces from Windows Performance Recorder and shows assessments created by the Windows Assessment Platform. Windows Performance Analyzer offers the following new features:

- Recording controlled through the UI.

- Simplified command-line syntax.

Windows Performance Recorder, which replaces Xperf and is based on Event Tracing for Windows (ETW). Windows Performance Recorder offers these new features:

- Powerful new UI with dynamically synchronized graphs and summary tables.

- Issues window to help identify problems on the system.

- Ability to zoom in on a time interval to see greater detail.

- Full text search capabilities in summary tables.

- WPRControlAPI enables you to write applications that interact with Windows Performance Recorder.

For more information, see [Windows Performance Analysis Tools](#).

## Windows Preinstallation Environment

Windows Preinstallation Environment (Windows PE) is a minimal operating system designed to prepare a computer for installation and servicing of Windows. Windows PE has enhanced image management command-line scripts. CopyPE.cmd creates and populates working directories, and renames the base image. Makewinpemedial.cmd creates a bootable Windows PE image on removable media. Windows PE includes new optional components, including .NET Framework 4 (WinPE-NetFX4), PowerShell (winPE-PowerShell3), Internet SCSI (WinPE-iSCSICmdlets) and others. A new command line option for **WPEUtilWaitForNetwork** instructs Windows PE to wait for the network card to be initialized. This new option is helpful when you run scripts to ensure that the network settings are initialized.

For more information, see [Windows Preinstallation Environment](#)