



Instructions for running the Microsoft Assessment and Planning Toolkit (MAP)



Microsoft®
Assessment and Planning
Toolkit

Overview

The Microsoft Assessment and Planning (MAP) toolkit is a free of charge scanning tool from Microsoft that allows for an agentless scan of the corporate network, and will report on installed and running Microsoft applications, as well as virtualisation, Active Directory users and devices and client access license requirements for certain server based applications. The MAP software can be downloaded from <http://www.easysam.co.uk/wp-content/uploads/user-uploads/MapSetup.zip>

In addition to the MAPsetup.exe file, you can also download a training kit and sample documentation from the Microsoft website (a link can be found at the end of this guide). This will provide basic training on how to use MAP for different scenarios to help with inventory and migration planning. For SAM and audit purposes, we will use the MAP scenarios primarily to create an inventory baseline to help with the creation of a software compliance report.

MAP has a built in SQL Server 2014 runtime database that doesn't require an additional licensing. This is sufficient for most customers, and this document assumes that the built in run time database will be used. Please refer to the training kit or documentation should you require a different setup.

To install MAP, please make sure you meet the minimum requirements below

Supported Operating Systems

Windows 7 Service Pack 1, Windows 8, Windows 8.1, Windows Server 2008 R2 SP1, Windows Server 2012, Windows Server 2012 R2

Hardware Requirements

A computer with at least the following minimum configuration:

A dual-core 1.5GHz processor

2.0 GB of RAM

1 GB of available disk space

Network adapter card

Graphics adapter that supports 1024x768 or higher resolution. At 1024x768, using a DPI setting of more than 100% is not supported. At higher resolutions, DPI settings higher than 100% are supported.

Note: Inventory, assessment, and reporting performance are based primarily on the speed of the CPU and the amount of available RAM.

Software Requirements

Operating system. Any of the following:

Windows 8.1 (Professional and Enterprise editions only)

Windows 8 (Professional and Enterprise editions only)

Windows 7 with Service Pack 1 (Professional, Enterprise, and Ultimate editions only)

Windows Server 2012 R2

Windows Server 2012

Windows Server 2008 R2 with Service Pack 1

.NET Framework 4.5 (download from <http://go.microsoft.com/fwlink/?LinkId=389161>)

Installation of all updates for the operating system. Note: In some cases updates may not install automatically. To download updates for your computer manually, go to <http://update.microsoft.com>.

By default, the MAP Toolkit will install SQL Server 2012 Express LocalDB during setup. You may also use an existing installation of SQL Server 2008, SQL Server 2008 R2, or SQL Server 2012 if you create an instance named "MAPS" before running the MAP Toolkit installer. The MAP Toolkit requires the collation order of the database engine to be set to "SQL_Latin1_General_CP1_CI_AS".

Notes

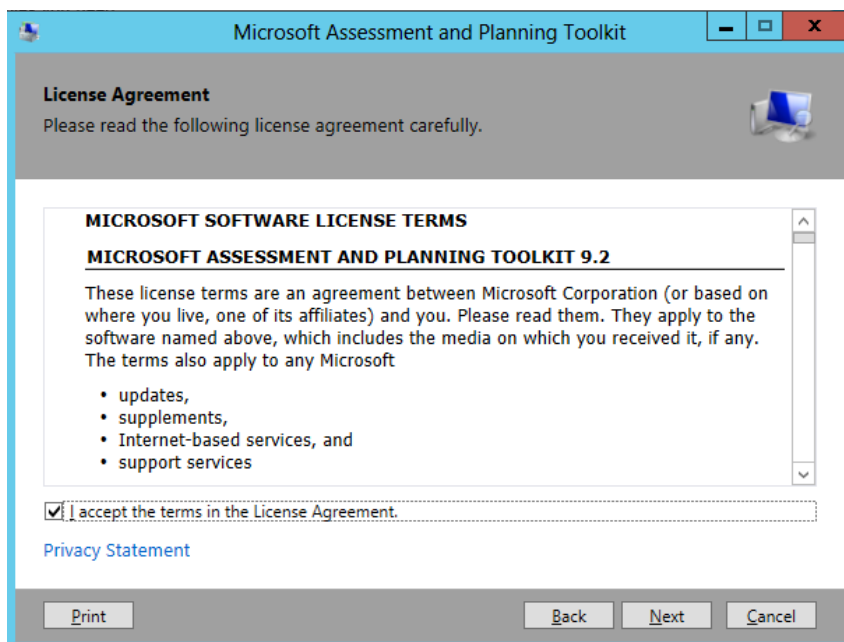
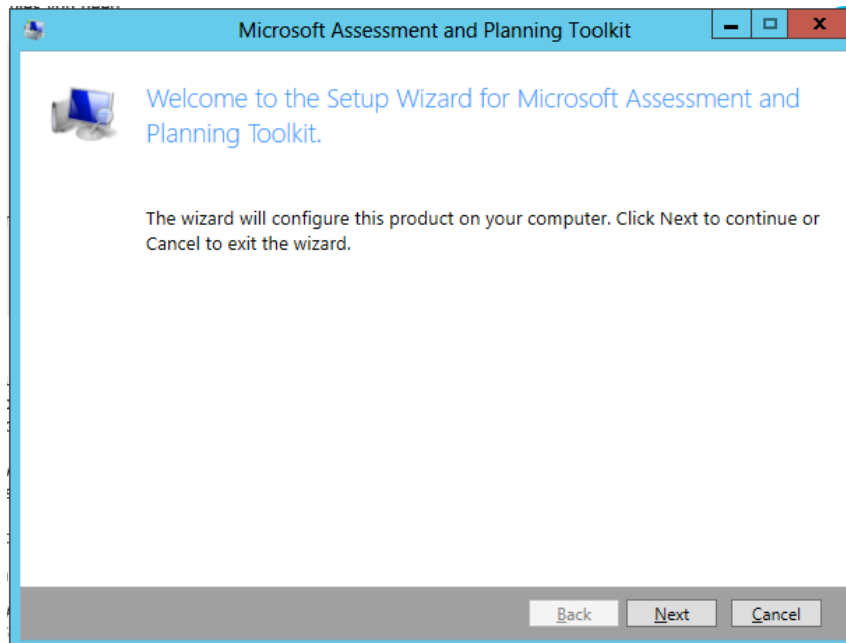
Some of these prerequisites require restarting your computer. You may have to restart multiple times if all the prerequisites are not met prior to running Microsoft Assessment and Planning Toolkit setup.

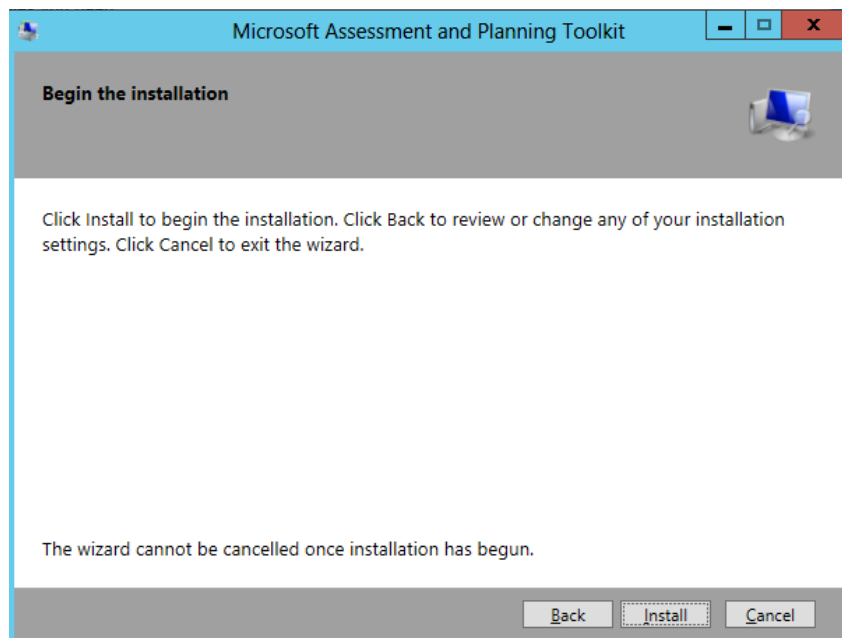
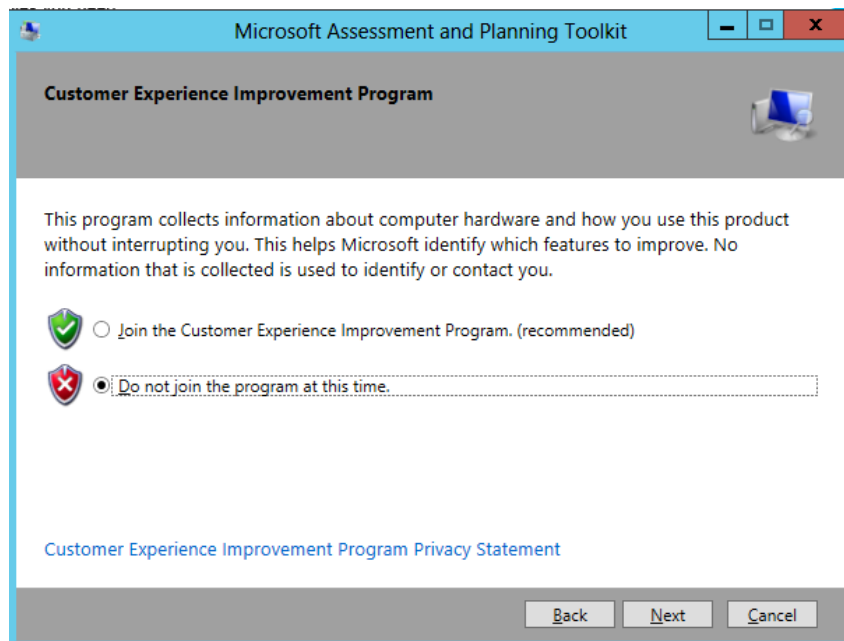
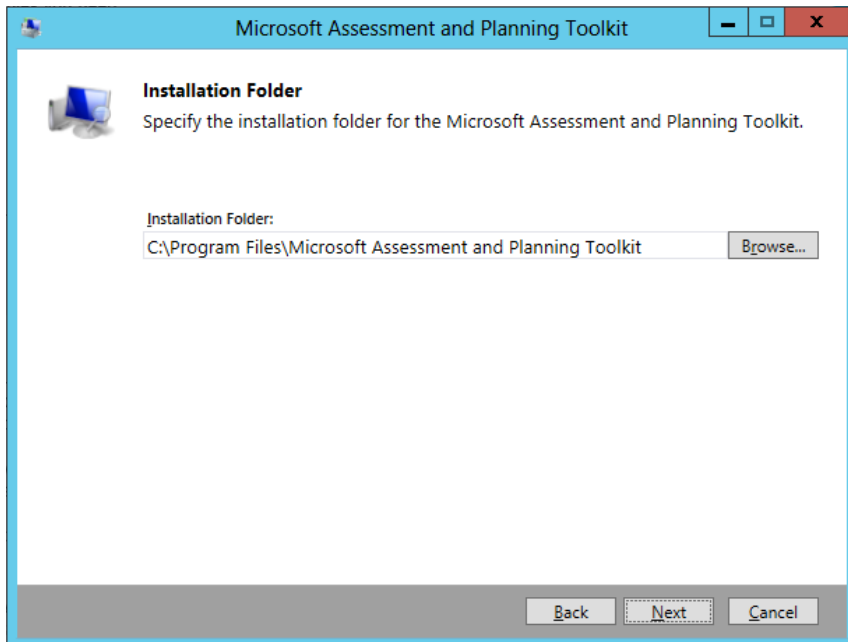
Scenario-dependent Requirements

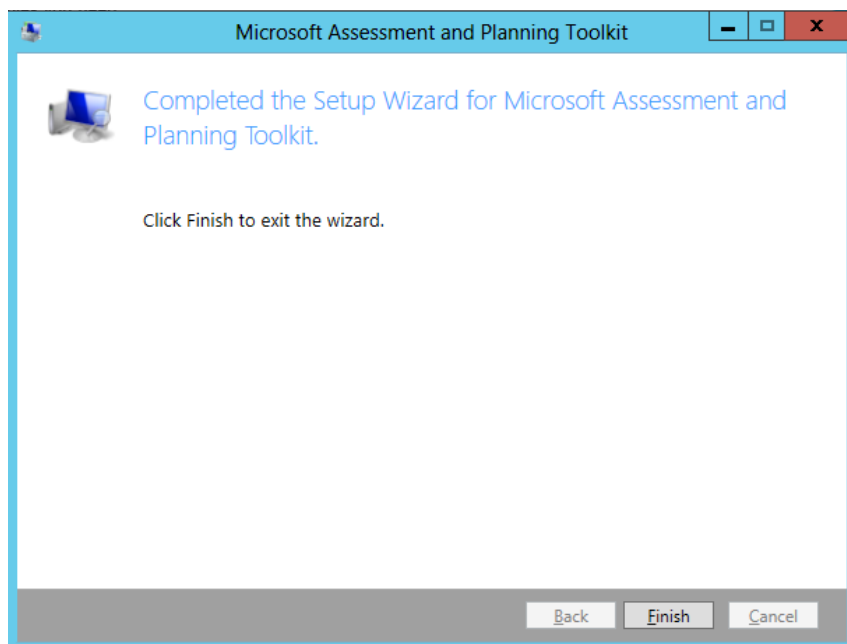
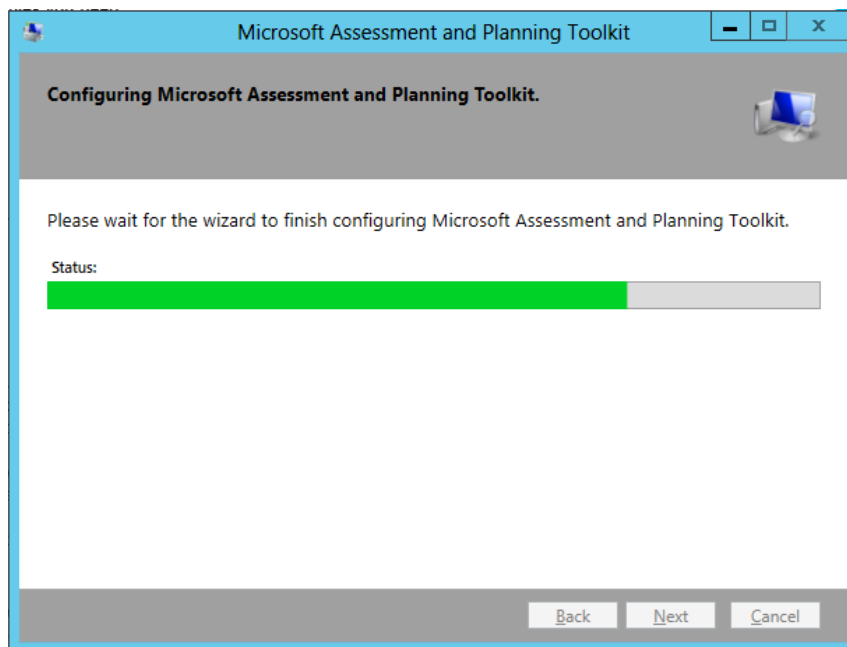
For machines that will be used to run the Forefront Endpoint Protection Usage Tracking, Lync Usage Tracking, Exchange Server Usage Tracking, or Volume Licensing scenarios, please note: PowerShell 2.0 or higher must be installed.

For machines that will be used to collect Oracle schema information, please note: The 64 bit Oracle client must be installed on the MAP machine to collect the schema information. If the 64 bit client is not installed, MAP will only be able to collect instance information. MAP will not collect schema information if the 32 bit Oracle client is installed.

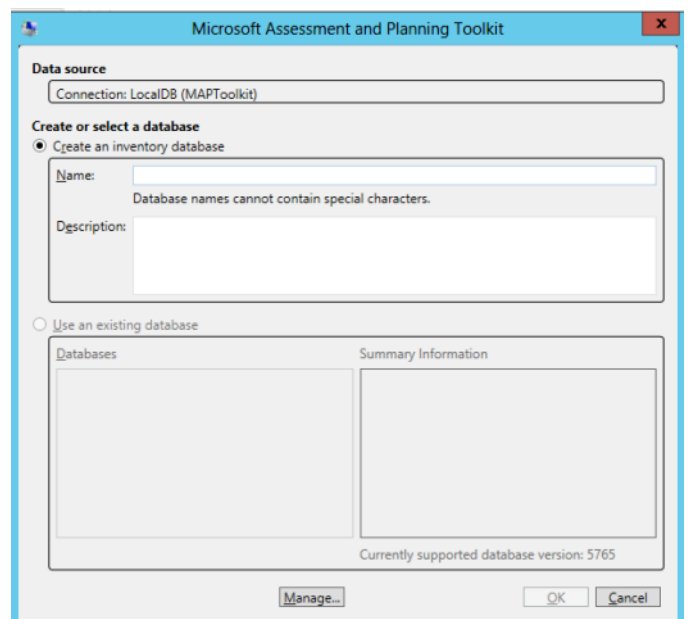
Installation







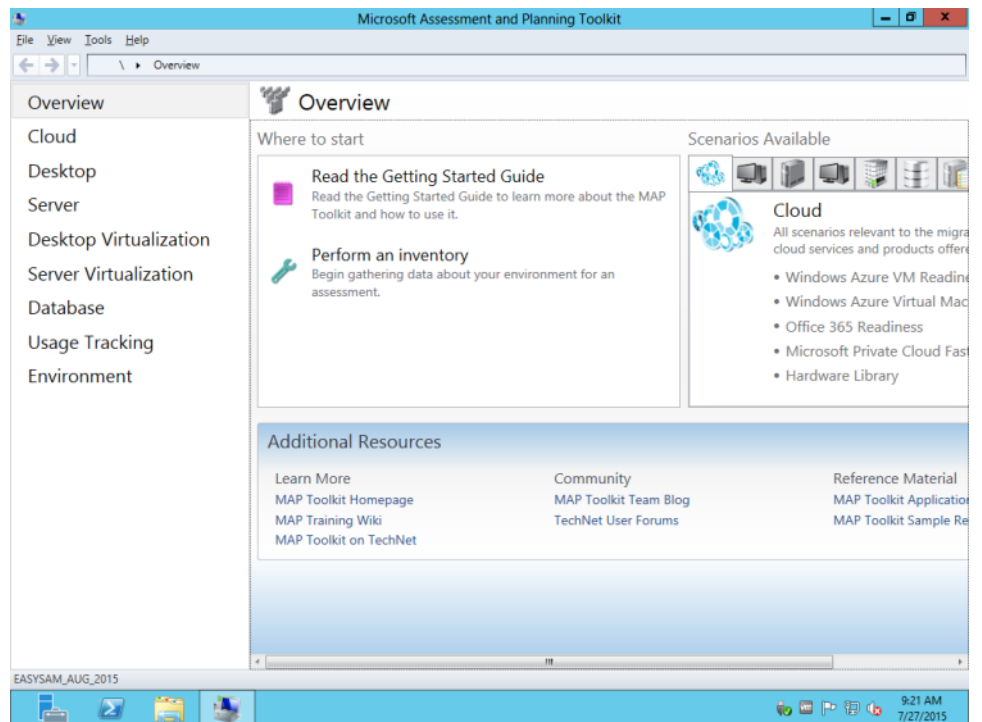
This completes the installation of the Microsoft Assessment and Planning Toolkit. When you first run MAP it will prompt you to create a database. Because MAP uses additive scans (i.e. anything you scan for this month will be added to last months data) it makes sense to utilise a new database every couple of months. This allows MAP to identify currently connected devices and to ignore any decommissioned devices on subsequent scans. It makes sense to identify the timescale of the database in the database name. So for example we might use EASYSAM_AUG_2015 as our database name. This identifies the customer, as well as the date of the scan.



Running a MAP scan

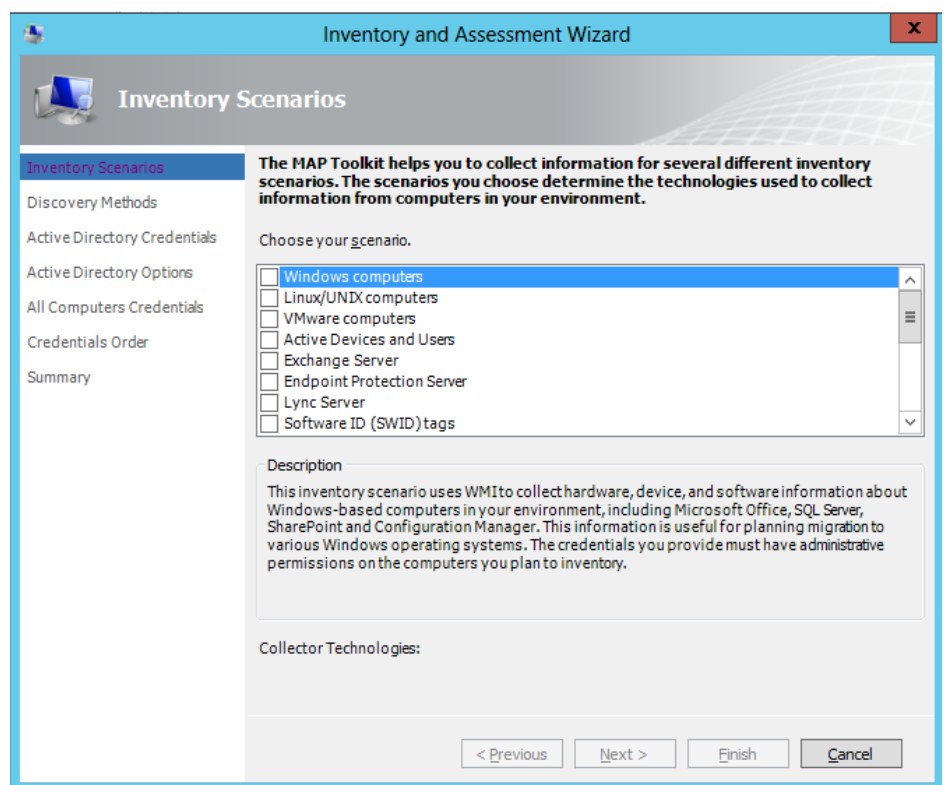
MAP uses the idea of scanning for particular scenarios to gather audit and usage data across the network infrastructure. For SAM and compliance purposes, we will use some, but not all of the scenarios MAP includes.

To initiate a MAP scan, choose the "Perform an inventory" link from the MAP homepage



This will open the Inventory and Assessment Wizard, which is where we initiate the scenario scans. The scenarios we will use are:

- Windows computers
- VMware computers
- Active devices and users
- Exchange Server
- Endpoint Protection Server
- Lync Server
- Software ID (SWID) Tags
- SQL Server
- SQL Server with Database Details
- Windows Volume Licensing
- Client Access Tracking for Windows Server 2012 or later
- Client Access Tracking for SQL Server 2012 or later
- Client Access Tracking for Configuration Manager
- Client Access Tracking for SharePoint Server 2013
- Client Access Tracking for Remote Desktop Services



Please place a check box next to each of the scenarios above.

The next screen allows you to select the targets to scan for. The default option is to use Active Directory however, there are other options available, including pulling device information from SCCM or using a specific IP address range. The IP address range is useful when scanning a remote location.

The screenshot shows the 'Discovery Methods' screen of the 'Inventory and Assessment Wizard'. The left sidebar contains a list of steps: 'Inventory Scenarios', 'Discovery Methods' (highlighted), 'Active Directory Credentials', 'Active Directory Options', 'All Computers Credentials', 'Credentials Order', 'Connection Properties', and 'Summary'. The main area is titled 'Select which methods to use to discover computers.' and contains six checkboxes: 'Use Active Directory Domain Services (AD DS)' (checked), 'Use Windows networking protocols', 'Use System Center Configuration Manager (SCCM)', 'Scan an IP address range', 'Manually enter computer names and credentials', and 'Import computer names from a file'. At the bottom, there are four buttons: '< Previous', 'Next >', 'Finish', and 'Cancel'.

For the active directory scan to work correctly you need to provide AD credentials that can access the AD you are connecting to. This doesn't need any special rights (e.g. admin rights) as any account that can authenticate with AD can be used to pull user and device information.

The screenshot shows the 'Active Directory Credentials' screen of the 'Inventory and Assessment Wizard'. The left sidebar is the same as the previous screen, with 'Active Directory Credentials' highlighted. The main area is titled 'Specify the logon information used to connect to the Active Directory forest and discover domain-joined computers.' and contains three input fields: 'Domain:' with a text box and examples 'domainname.microsoft.com or domainname', 'Domain account:' with a text box and examples 'domain\user or user@domain.com' and a note 'This account does not require administrative privileges.', and 'Password:' with a text box. At the bottom, there are four buttons: '< Previous', 'Next >', 'Finish', and 'Cancel'.

The options available depend on the scanning range you use (e.g. Active Directory, IP address range etc) but are self explanatory so won't be covered here.

After you have selected the scanning method and options, you will be prompted for an account to use for remote connectivity. This DOES need to be an admin account, so either a domain admin account for domain connected devices or a local admin account for workgroup or non-domain devices. You can enter multiple account details so for example you could enter 3 domain admin accounts for different domains, and a separate local admin account as a backup. Please check all of the scenario options in the "Applies to" box.

The screenshot shows the 'All Computers Credentials' dialog box within the 'Inventory and Assessment Wizard'. The left sidebar contains a list of steps: 'Inventory Scenarios', 'Discovery Methods', 'Scan an IP Address Range', 'All Computers Credentials' (which is highlighted), 'Credentials Order', 'Connection Properties', and 'Summary'. The main area of the dialog has a title bar 'All Computers Credentials' and a subtitle 'Please supply account credentials for the platforms and technologies you've chosen. These credentials will be used to connect to the machines you've specified.' Below this, there is an 'Account Entry' section with fields for 'Account name', 'Password', and 'Confirm password'. Examples for the account name are provided: 'username, domain/username, username@domain'. There is a checkbox for 'Validate credentials with the Domain Controller'. Below the account entry section is a 'Technology' section with a list of technologies to apply to: 'WMI', 'VMware', 'Active Directory', 'PowerShell', 'SQL Windows', and 'SQL Native'. The 'WMI', 'VMware', 'Active Directory', and 'SQL Windows' checkboxes are checked. At the bottom of the dialog are three buttons: 'Save', 'Save and New', and 'Close'.

The next screen allows you to choose the order the credentials are applied in. Please ensure that the most popular accounts are at the top of the list and the less likely accounts are lower in the list, as they will be scanned in this order.

The screenshot shows the 'Credentials Order' dialog box within the 'Inventory and Assessment Wizard'. The left sidebar is the same as the previous screenshot, with 'Credentials Order' highlighted. The main area has a title bar 'Credentials Order' and a subtitle 'You can prioritize the list of All Computers credentials for each collector technology. Credentials will be tried on each computer in the order they appear in the list.' Below this is a section titled 'Set the sequence of credentials to use for each technology.' It contains two columns: 'Technology' and 'Credentials'. The 'Technology' column lists 'WMI', 'VMware', 'Active Directory', 'PowerShell', 'SQL Windows', and 'SQL Native'. The 'Credentials' column lists 'robbie@easysam.co.uk' and 'administrator'. To the right of the 'Credentials' list are two buttons: 'Move Up' and 'Move Down'. At the bottom of the dialog are four buttons: '< Previous', 'Next >', 'Finish', and 'Cancel'.

There are default connection properties for VMware and PowerShell—as a rule these do not need to be changed.

Inventory and Assessment Wizard

Connection Properties

Some collector technologies require certain connection properties, such as TCP/IP port or encryption, to allow access to a computer to gather information.

Choose the technology and then specify the connection properties to use.

Technology	Connection Properties
VMware	TCP Port: 80, Validate SSL Certificate: <input type="checkbox"/>
PowerShell	TCP Port: 443, Validate SSL Certificate: <input type="checkbox"/>

Buttons: Move Up, Move Down, Create, Remove

Navigation: < Previous, Next >, Finish, Cancel

Finally there is a confirmation of the options selected. Hit finish to start the scan

Inventory and Assessment Wizard

Summary

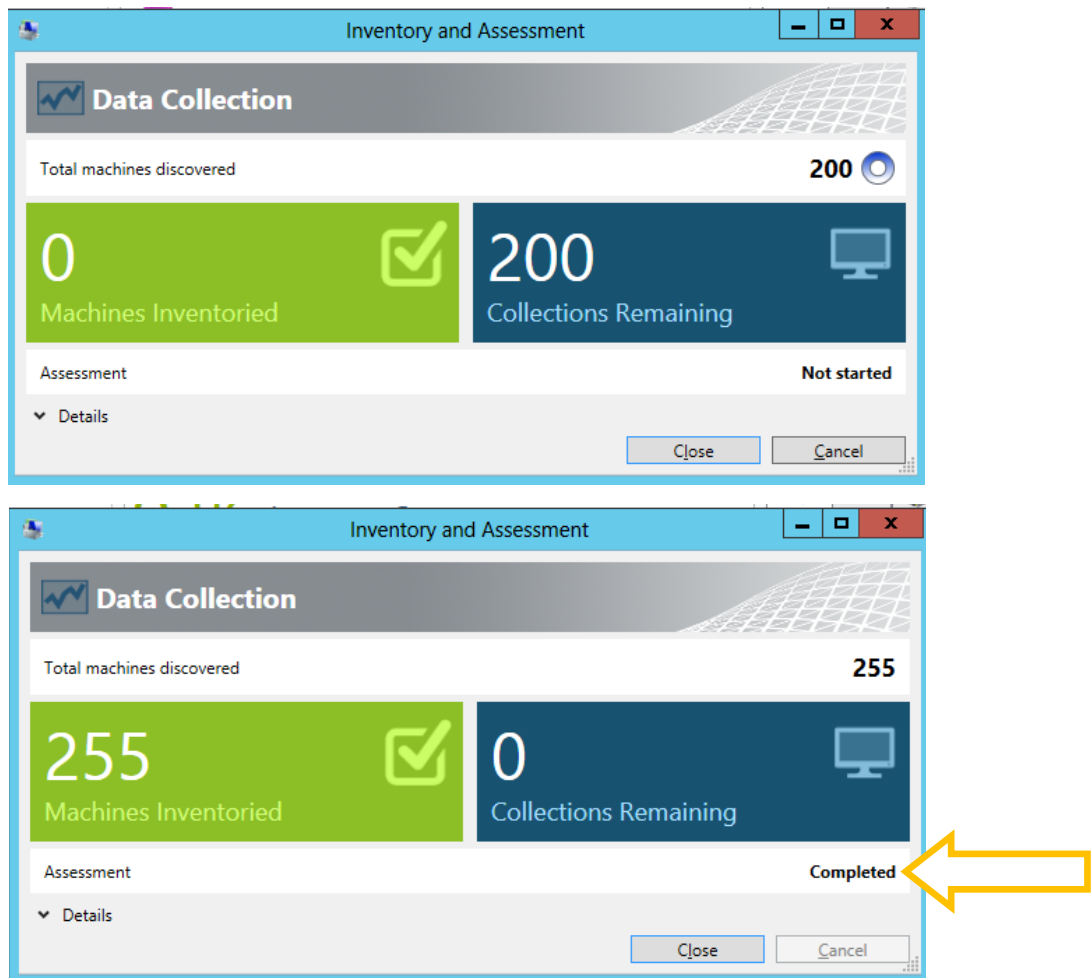
Your selections are summarized below, including any detected errors.

Review your selections and resolve any detected errors before starting the inventory.

- Summary
 - Inventory Scenarios
 - Windows computers
 - VMware computers
 - Exchange Server
 - Endpoint Protection Server
 - Lync Server
 - Software ID (SWID) tags
 - SQL Server
 - SQL Server with Database Details
 - Windows Volume Licensing
 - Client Access Tracking for Windows Server 2012 or Later
 - Client Access Tracking for SQL Server 2012 or Later
 - Client Access Tracking for Configuration Manager
 - Client Access Tracking for SharePoint Server 2013
 - Client Access Tracking for Remote Desktop Services
 - Selected Collector Technologies: Active Directory, PowerShell, SQL Native, SQL Wi
 - Discovery Methods
 - Active Directory Domain Services: Not Selected
 - Windows Networking protocols: Not Selected

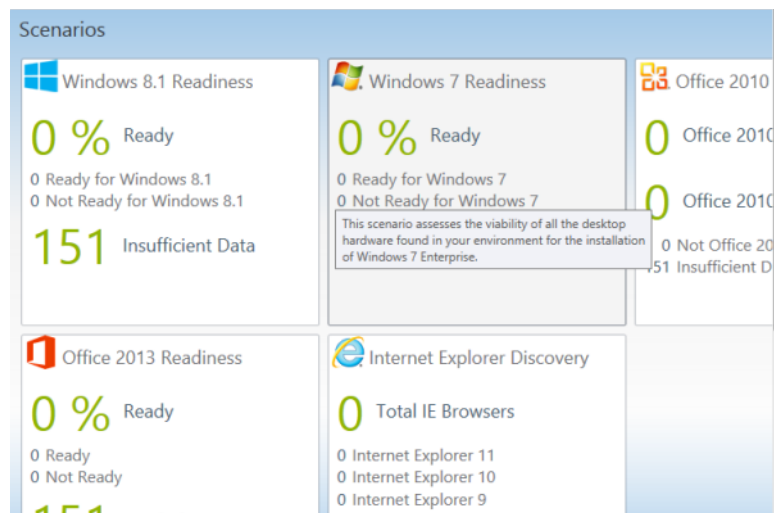
Navigation: < Previous, Next >, Finish, Cancel

The scan progress will be shown on the popup window and can take several hours to complete. Once the scan is completed, this will be shown next to the Assessment line

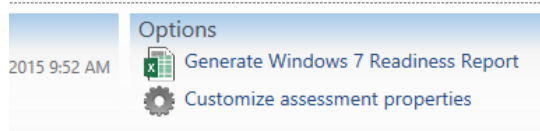


At this point you need to run each of the requested exports and e-mail them back.

To run the exports, you need to select each environment on the left one at a time (e.g. Cloud, Desktop etc) and then select the individual areas on the right



Once you have drilled into a particular area, you will get an option to Generate a report (in some areas there may be more than one report). Select this option and repeat for each of the environments and each report within that environment.



The reports will all be saved to the same folder, and can be zipped and uploaded to the EasySAM FTP server.

Additional information

Additional information and support for the MAP toolkit can be found using the links below

The MAP FAQ: <http://go.microsoft.com/fwlink/?LinkID=233058>

The MAP TechNet Forum: <http://go.microsoft.com/fwlink/?LinkID=233057>

The MAP Training Kit (with sample database): <http://go.microsoft.com/fwlink/?LinkID=196614>