

Intel[®] Setup and Configuration Software (Intel[®] SCS)

Add-on for Microsoft* System Center
Configuration Manager

Version 2.1.9

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1 Introduction

This document describes how to install and use the Intel® SCS Add-on for Microsoft* SCCM (referred to in this document as “the Add-on”).

1.1 What is the Add-on?

The Add-on is a configuration wizard that you can use to integrate Intel® Setup and Configuration Software (Intel® SCS) with Microsoft* System Center Configuration Manager (SCCM). For each Add-on component that you select to install, the Add-on creates collections, deployments, packages, and task sequences for you in SCCM. Each of the items that the Add-on creates in SCCM is automatically pre-configured for you.

After installation you can then discover, configure, and maintain Intel products in your organization directly from the Configuration Manager Console of SCCM.

These are the main Add-on components that you can install:

- Platform Discovery Utility – The Platform Discovery Utility “discovers” which Intel products and capabilities exist on your platforms. You can use this data to determine which Intel products you can enable on your platforms, and which software or hardware updates are required.
- Intel® AMT – Intel® Active Management Technology is the Intel product for which Intel SCS was originally created. SCCM 2012 includes built-in options for Intel AMT. Installing this component replaces most of the SCCM 2012 built-in options.
- Solutions Framework – The Solutions Framework extends the discovery and configuration capabilities of Intel SCS to other Intel products (also referred to as “solutions”).
- Solution Plugins – The extended discovery and configuration capabilities of the Solutions Framework are enabled by using plugins located on the host platforms. Each Intel product that supports these capabilities will supply a host plugin. As more plugins become available you can add them to SCCM using the Add-on wizard.

Note:

Support for the Solutions Framework and Solution Plugins has been deprecated. The information in this guide related to these components is provided for informational purposes only.

1.2 How Do I Use It?

The collections, deployments, packages, and task sequences created by the Add-on are a “starting point”. They are working examples that you can use to quickly integrate the capabilities of Intel SCS into SCCM. You can use the items created by the Add-on in SCCM as they are, or as a basis from which to learn and expand.

Running the Add-on wizard and installing all the Add-on components requires you to make several decisions in advance. For example, do you want to use RCS Integration? Or, which method do you want to use to configure Intel AMT? These decisions might not be possible until you know more about the Intel products in your organization. For this reason, it is recommended to split implementation into two phases. Refer to [Required Software](#) on page 6 for more information.

Phase #1:

1. Import the files `sms_def_AMT.mof` and `sms_def_scsdiscovery.mof` (see [Adding Hardware Inventory Classes](#) on page 8).
2. Install the Add-on as described in [Installing the Add-on](#) on page 17, with these differences:
 - Install only the Platform Discovery Utility component.
 - Make sure that the RCS Integration check box is NOT selected.
3. In SCCM, enable and deploy the Platform Discovery task sequence on the Platform Discovery collection. The deployed package contains the `PlatformDiscovery.exe`. This small executable is deployed to the host systems and sends “top-level” discovery data to SCCM. This data is then used to populate the “Exists” collections that the Add-on created (see [What is Created by the Add-on?](#) on the next page).

Phase #2:

1. Use the results of Phase #1 to decide which Add-on components you want to install. For example:
 - If you discovered Intel® SSD Pro Series drives, install the Intel SSD Pro Series plugin component and the Solutions Framework component.
 - If you discovered Intel AMT systems, install the Intel AMT component.
2. Decide if you need to use RCS Integration (see [What is RCS Integration?](#) on page 12).
3. Create the relevant configuration profiles (Intel AMT/Intel solution).
4. Run the wizard again and install the additional Add-on components.
5. In the Configuration Manager Console, use the relevant task sequences (see [What is Created by the Add-on?](#) on the next page).

1.3 What is Created by the Add-on?

Each Add-on component that you select to install causes different items to be created in SCCM.

1.3.1 Platform Discovery Items

This table describes the items that are created if you select the Platform Discovery component.

Item	Description
Collections	<p>The Add-on creates these collections in Device Collections:</p> <ul style="list-style-type: none"> Intel SCS: Platform Discovery [Solution Name]: Exists <p>Note: The Add-on will create an "Exists" collection for each of the solutions that are supported by the version of the <code>PlatformDiscovery.exe</code> that was selected. To see which solutions are supported you can use the <code>-List</code> parameter, like this:</p> <pre>C:\PlatformDiscovery.exe -List</pre>
Task Sequences and Deployments	Intel SCS: Platform Discovery
Package	Intel SCS: Platform Discovery

1.3.2 Solutions Framework Items

This table describes the items that are created if you select the Solutions Framework component.

Item	Description
Collections	<ul style="list-style-type: none"> Intel SCS: Solutions Framework Installed Intel SCS: Solutions Framework Not Installed
Task Sequences and Deployments	Intel SCS: Solutions Framework Installation
Package	<p>Intel SCS: Solutions Framework</p> <div style="border: 1px solid black; padding: 5px;"> <p> Note:</p> <p>Support for the Solutions Framework and Solution Plugins has been deprecated. The information in this guide related to these components is provided for informational purposes only.</p> </div>

1.3.3 Items for All Components

This table describes the items that are created for each solution that you select.

Item	Description
Collections	<p>The Add-on creates these collections in Device Collections:</p> <ul style="list-style-type: none"> • [Solution Name]: Plugin Available • [Solution Name]: Plugin Not Installed • [Solution Name]: Managed
Task Sequences and Deployments	<p>The Add-on creates a task sequence (and a deployment with the same name) for each of the capabilities that you select:</p> <ul style="list-style-type: none"> • [Solution Name]: Installation • [Solution Name]: Discovery • [Solution Name]: Configuration • [Solution Name]: Unconfigure
Packages	<ul style="list-style-type: none"> • [Solution Name]: Installation • [Solution Name]: Action

1.3.4 Intel AMT Items

This table describes the items that are created if you select the Intel AMT component.

Item	Description
Collections	<p>The Add-on creates these collections in Device Collections:</p> <ul style="list-style-type: none"> • Intel AMT: Not Configured • Intel AMT: Configured • Intel AMT: Require Maintenance <p>Each collection contains a query that selects only Intel AMT systems that meet the query conditions (as described by the collection name).</p> <p>Note: A system will only be recognized as an Intel AMT system if the necessary drivers are installed (Intel MEI and LMS). This means that Intel AMT systems without these drivers installed will not be included in any of these collections.</p>

Item	Description
Task Sequences and Deployments	<p>The Add-on creates a task sequence (and a deployment with the same name) for each of the capabilities that you select. What is created depends on if you also selected the RCS Integration check box.</p> <p>If you did not select the RCS Integration check box:</p> <ul style="list-style-type: none"> • Intel AMT: Discovery • Intel AMT: Configuration • Intel AMT: Maintenance • Intel AMT: Unconfigure <p>If you selected the RCS Integration check box:</p> <ul style="list-style-type: none"> • Intel AMT: Discover and Report • Intel AMT: Remote Configuration • Intel AMT: Remote Maintenance • Intel AMT: Remote Unconfigure
Package	Intel AMT: Actions

1.4 What Changes are Made to the SCCM Files?

During installation, the Add-on makes changes to the SCCM Managed Object Format (MOF) file, `configuration.mof`.

The changes are made at the end of the file in the form of a specific "extension" for Intel SCS. No other existing SCCM settings are changed. If you uninstall the Add-on, the extensions sections added during installation are removed from the file.

2 Prerequisites

This section describes the prerequisites and tasks that you must perform before installing the Add-on.

2.1 Required Software

This table describes the required software.

Software	Description
Microsoft SCCM	<p>You can use the Add-on with these versions:</p> <ul style="list-style-type: none"> Microsoft SCCM 2012 R2 (Verified with build 5.0.8239.1000) <p>Note: For SCCM 2012 hierarchy with a Central Administration Site (as described here: http://technet.microsoft.com/en-us/library/gg712320.aspx), make sure you install the Add-on on the Central Administration Site (and not on a Primary/Secondary site).</p> <ul style="list-style-type: none"> Microsoft System Configuration Manager (verified with current branch - build 1806)
Intel SCS	<p>You can use version 2.1.9 of the Add-on only with Intel SCS version 12.0 and higher. Earlier versions of Intel SCS are not supported.</p> <p>Before running the Add-on wizard:</p> <ol style="list-style-type: none"> Download Intel SCS from: http://www.intel.com/go/scs. Unzip the download package and save it in a location that you will be able to access when running the Add-on wizard. The Add-on wizard will automatically take the components that it requires and place them in a packages folder. The download package also includes documentation to which you might need to refer.
Solutions Framework (Optional)	<p>The Solutions Framework extends the capability of Intel SCS to discover and configure other Intel products in addition to Intel AMT.</p> <p>Before running the Add-on wizard:</p> <p>Save Solutions Framework and solutions plugins to a location that you will be able to access when running the Add-on wizard. The Add-on wizard will automatically take the components that it requires and place them in a packages folder.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p> Note:</p> <p>Support for the Solutions Framework and Solution Plugins has been deprecated. The information in this guide related to these components is provided for informational purposes only.</p> </div>

Software	Description
Platform Discovery (Optional)	<p>The Platform Discovery Utility (PlatformDiscovery.exe) is used to “discover” which Intel products and capabilities exist on your platforms.</p> <p>Before running the Add-on wizard:</p> <ol style="list-style-type: none">1. Download Platform Discovery from http://www.intel.com/go/scs.2. Unzip the download package and save it in a location that you will be able to access when running the Add-on wizard. The Add-on wizard will automatically take the components that it requires and place them in a packages folder. The download package also includes documentation to which you might need to refer.
Windows* PowerShell	<p>The Solutions Framework and the solution plugins use scripts that were written in PowerShell 3.0. To use these scripts, version 2.0 or higher of PowerShell must be installed on each host computer where you want to use them. You can check the PowerShell version using this PowerShell command: <code>get-host</code>.</p>

2.2 Adding Hardware Inventory Classes

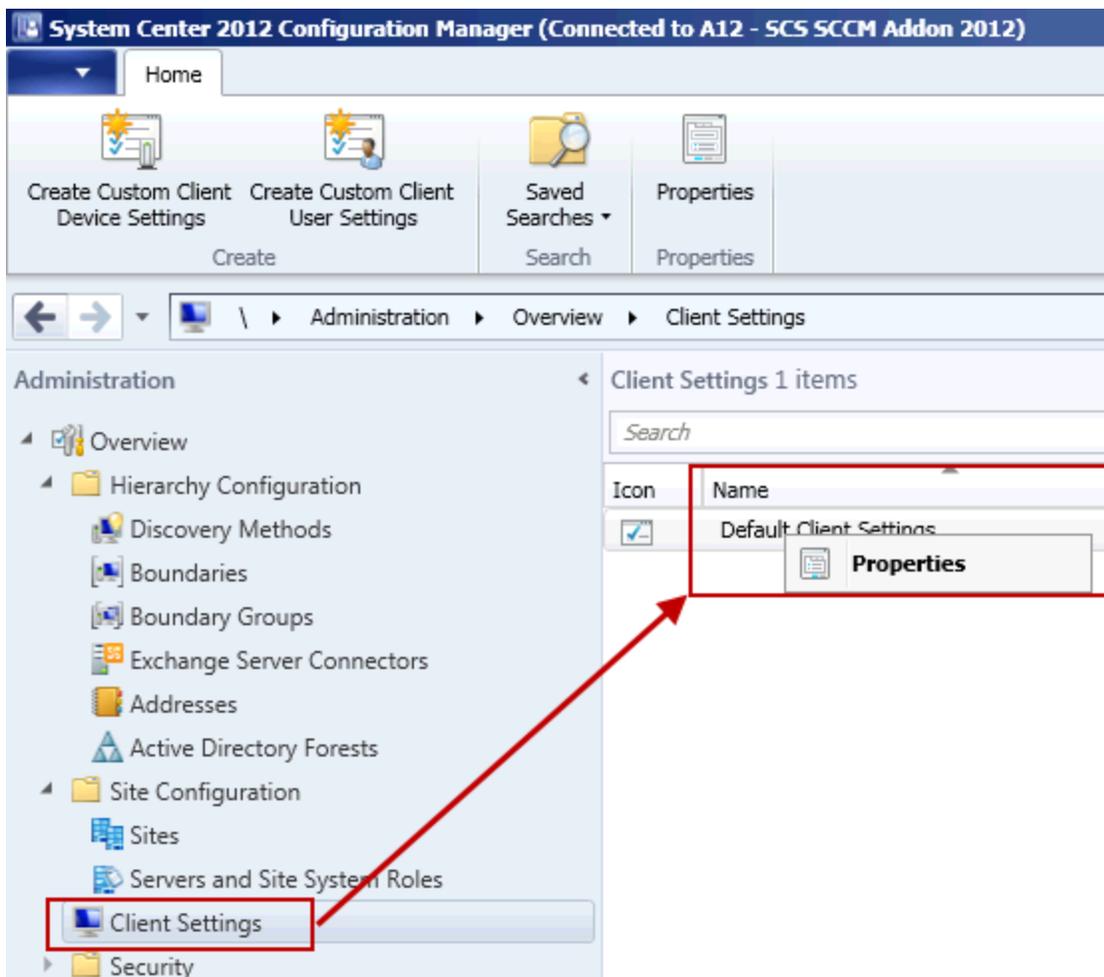
Before installing the Add-on, you must add some hardware inventory classes to SCCM. These classes are imported from files supplied with the Add-on:

- `sms_def_AMT.mof` – Adds classes with a prefix of `Intel_AMT`.
- `sms_def_SCSDiscovery.mof` – Adds a class named `Intel_SCS_Discovery`.

You must import both of these files regardless of the set of components you wish to install, otherwise your installation will fail.

To add the hardware inventory classes:

1. Open the Configuration Manager Console.
2. In the left pane, select **Administration > Client Settings**.
3. In the right pane, right-click **Default Client Settings** and select **Properties**.



The Default Settings window opens.

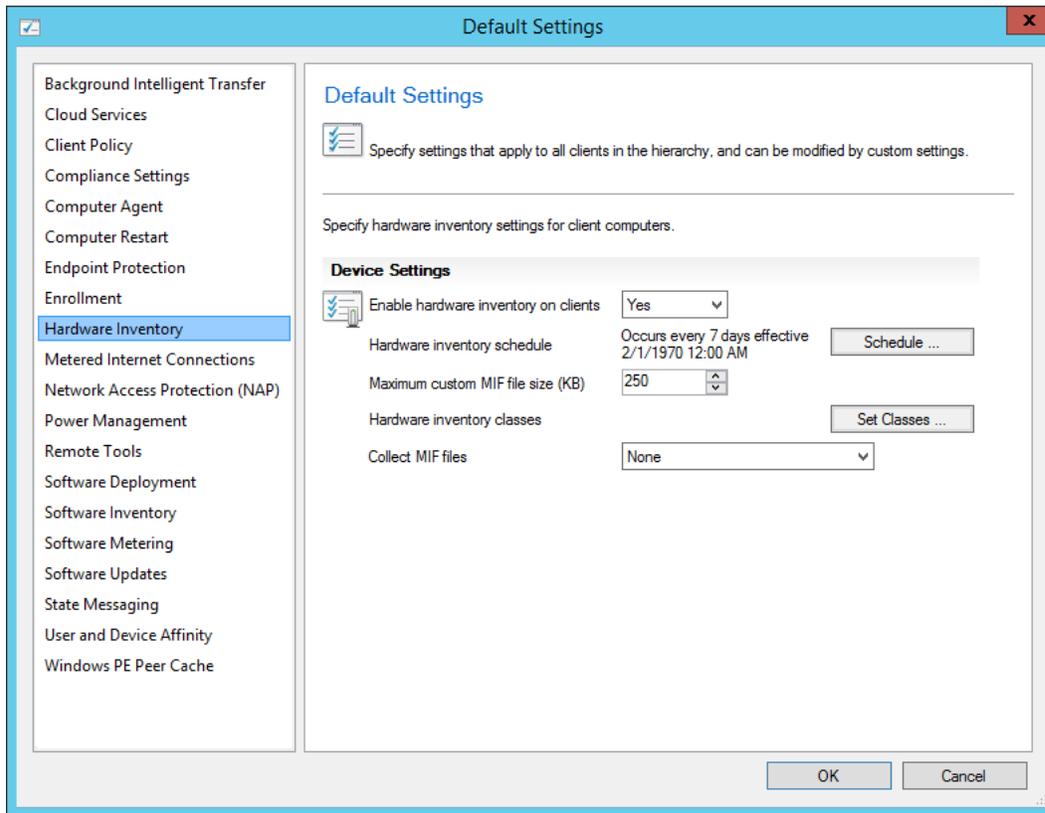
4. Select **Hardware Inventory**

Figure 1: Default Settings Window

5. Click **Set Classes**. The Hardware Inventory Classes window opens.

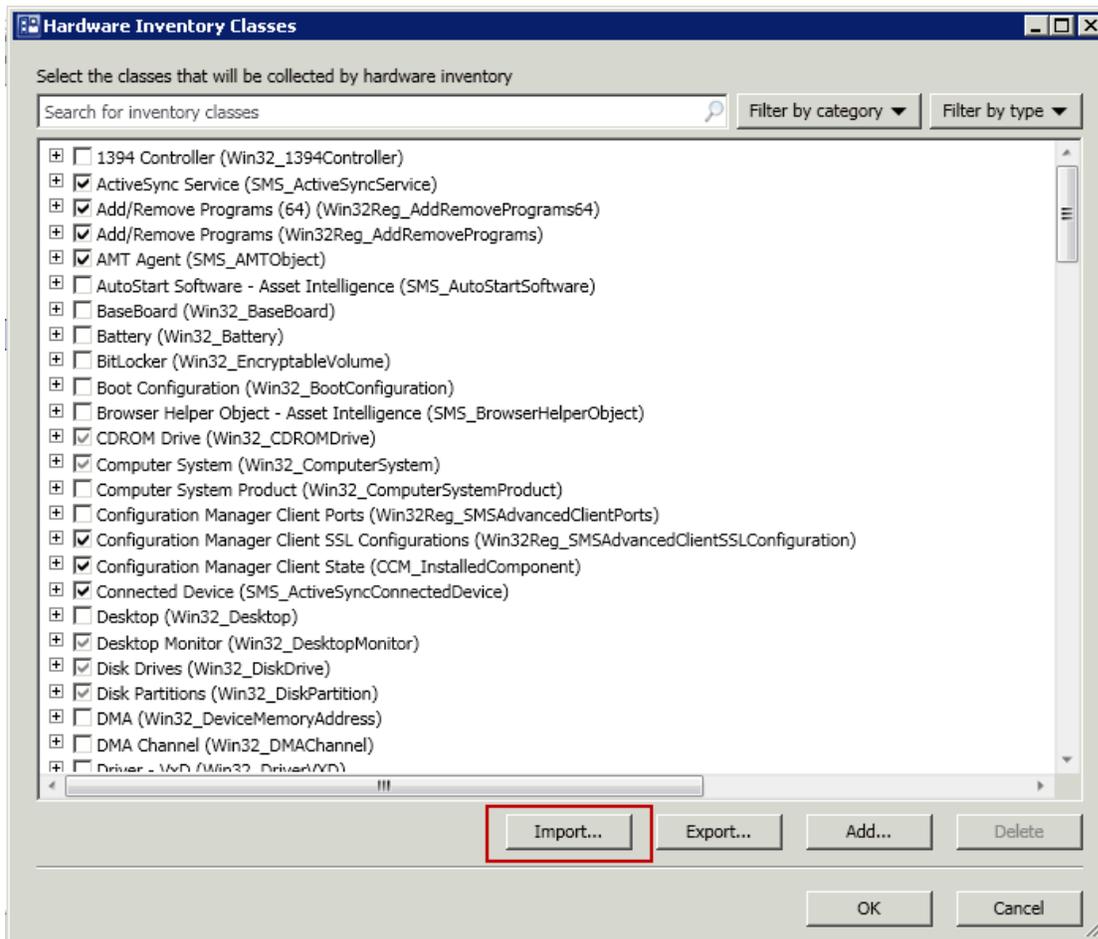


Figure 2: Hardware Inventory Classes Window

6. Click **Import**.

7. Navigate to the SCCMAddOn folder, select the sms_def_AMT.mof file that was included with the Add-on, and click **Open**. The Import Summary window opens.

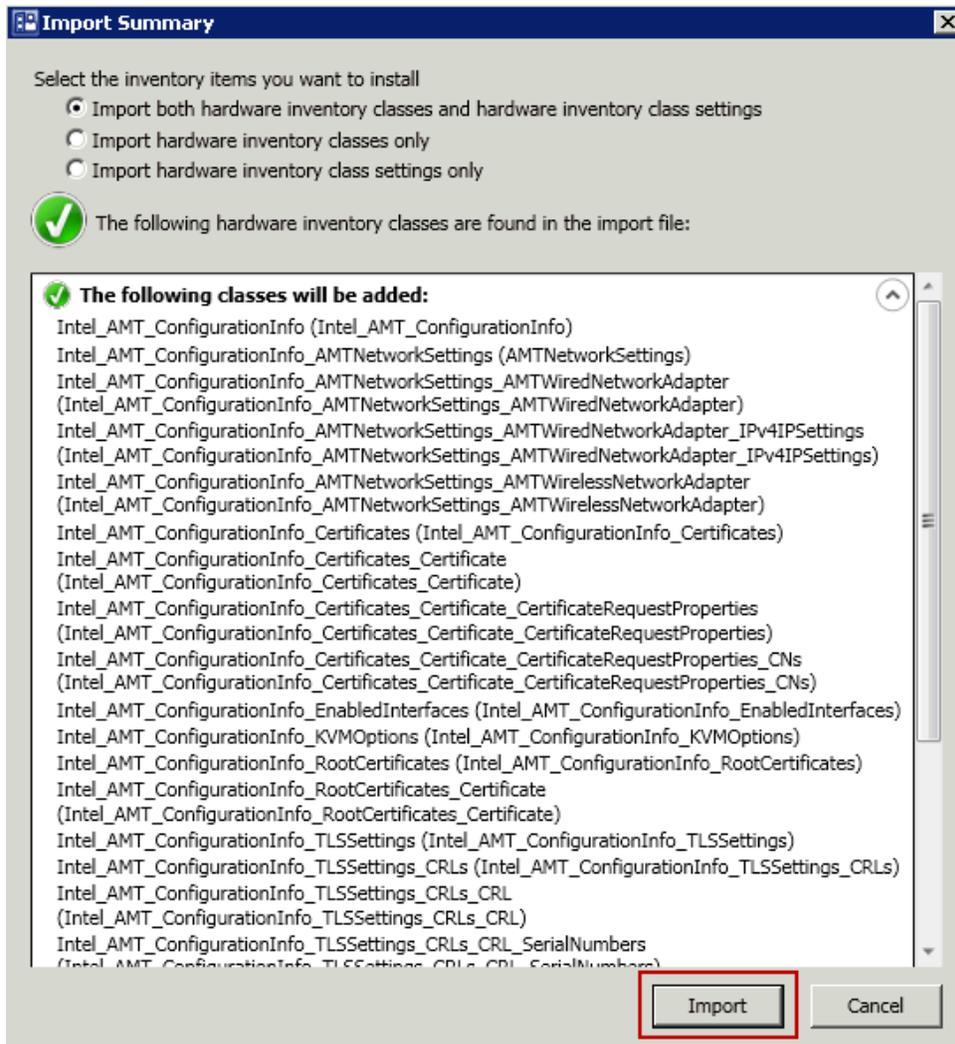


Figure 3: Import Summary Window

Note:

If you get an error in the Import Summary window, see [Problems Importing Hardware Inventory Classes](#) on page 27.

8. Click **Import** and then click **OK** two more times to close the open windows.
9. Repeat steps 6 through 8 to import the sms_def_SCSDiscovery.mof file.

2.3 Prerequisites for RCS Integration

This section describes the prerequisites and tasks you must perform if you want to use RCS Integration.

2.3.1 What is RCS Integration?

In the Select Components window (see [Select Components Window](#) on page 19) of the Add-on wizard, some components include a check box named "RCS Integration". This check box lets you define if you want that component to be integrated with the Remote Configuration Service (RCS). When you select the check box for a component, the Add-on defines the batch files and command line parameters in the packages to use the RCS. The RCS is a Windows* based service that runs on a computer in the network. When using the Add-on, Intel recommends that you use RCS Integration.

When integrated with SCCM, the RCS can:

- Process requests to remotely configure/maintain/unconfigure Intel AMT
- Handle the storage of configuration profiles created in the Console
- Receive discovery data sent from host platforms and store it in the Intel SCS database

The RCS can be installed in database mode or non-database mode. For some of the Add-on components, database mode is mandatory if you want to integrate with the RCS. In addition, integration with the RCS means different things for Intel AMT when compared to other Intel products. This table describes what happens for each component when integrated with the RCS.

Add-on Component	Supported RCS Installation Mode	If RCS Integration is Selected
Platform Discovery	Database mode only	In addition to sending the discovery data to SCCM, the data is also sent to the RCS.
Intel AMT	Database mode Non-Database mode	<ul style="list-style-type: none"> • If the RCS is installed in database mode, discovery data is sent to SCCM and also to the RCS. If the RCS is installed in non-database mode, the data is only sent to SCCM. • In both modes, the configuration profiles are created in the Console and stored by the RCS. • Selecting the RCS Integration check box for Intel AMT also means that you are selecting to use the remote configuration method. For more information, see Selecting the Configuration Method on page 14.
Solution Plugins	Database mode only	<ul style="list-style-type: none"> • In addition to sending the discovery data to SCCM, the data is also sent to the RCS. • The configuration profiles are created in the Console and stored by the RCS. The configuration script is defined to get the profile settings from the RCS. Unlike Intel AMT, all configuration is done locally via the solution plugin and the Solutions Framework.

2.3.2 Installing the RCS and Console

If you want to integrate any of the Add-on components with the RCS, you must install the RCS and the Console. The installer for these components is located in the `RCS` folder of the Intel SCS package that you downloaded (see [Required Software](#) on page 6).

For information about how to install the RCS and the Console, refer to the "Setting up the RCS" section of the `Intel(R)_SCS_User_Guide.pdf`.

Note:

- Make sure that you install the RCS in the correct mode (database or non-database) for your purposes.
- The "Jobs" option, available in database mode only, must NOT be used when using SCCM.

2.4 Prerequisites for Intel AMT

This section describes the prerequisites and tasks that you must perform if you want to use the Add-on with Intel AMT.

2.4.1 Active Directory

Intel AMT supports the Kerberos authentication method. This means that Intel SCS and management consoles (like SCCM) can authenticate with the Intel AMT device using "Kerberos" users. The users are defined in the Intel AMT device using the Access Control List. (Defining users in the ACL is described later in the "Creating a Profile..." section of the relevant configuration method you select.)

If you would like to use Kerberos authentication, integration of Intel AMT with your AD is required in order to use the Add-on. When integration is enabled, during configuration Intel SCS creates an AD object for the Intel AMT device. Some of the entries in this object define parameters used in Kerberos tickets.

Before you can integrate Intel AMT with your AD, you must:

1. Create an Organizational Unit (OU) in AD to store objects containing information about the Intel AMT devices. In a multiple domain environment, Intel recommends that you create an OU for each domain.
2. Give Create/Delete permissions in the OU you created to the user account running the Intel SCS component doing the configuration. This is described later in the "Required User Permissions" section of the relevant configuration method you select.
3. After the OU is created, you must define it in the configuration profile. This is described later in the "Creating a Profile..." section of the relevant configuration method you select.

2.4.2 Selecting the Configuration Method

For Intel AMT, the Add-on supports two configuration methods. Before installing the Add-on, you must decide which of these methods you want to use. Changing methods later on is possible, but to do this you will need to modify the Add-on installation.

This table is a summary of the two configuration methods supported by the Add-on.

Configuration Method	RCS Required	Configuration Certificate	Control Mode After Configuration
Host-based Configuration	No	Not used	Client Control Mode (CCM)
Remote Configuration	Yes	Required	Admin Control Mode (ACM)

Note:

The configuration method that the Add-on will use is defined during installation of the Intel AMT component (see [What is RCS Integration?](#) on page 12).

Considerations:

- Host-based configuration is the quickest and easiest configuration method to implement.
- Remote configuration requires a remote configuration certificate and several other prerequisites (described in the `Intel (R) _SCS_User_Guide.pdf`).
- Intel AMT systems in Client Control mode have some security related limitations. It is important to understand these limitations if you intend to use the host-based configuration method:
 - In Client Control mode, “user consent” is required for all KVM connections, redirection operations, and changes to the boot process. This means that when a remote connection to a computer starts, a message shows on the computer of the user. The message contains a code that the user must give to the person who wants to connect to his computer. The remote user cannot continue the operation until he supplies this code.
 - The Intel® Management Engine BIOS Extension (Intel® MEBX) is a BIOS menu extension on the Intel AMT system. This menu can be used to view and manually configure some of the Intel AMT settings. Access to the Intel MEBX is controlled by a password, referred to as the “Intel MEBX password”. Client Control mode does NOT support changing this password. This means that systems configured in Client Control mode will remain with the default Intel MEBX password (if it is not changed manually).
 - Unconfiguration of Intel AMT on a system in Client Control mode does not require administration privileges in Intel AMT. (In Admin Control mode, this is a prerequisite.) Potentially, anyone using a local user account with administrator permissions on the Intel AMT system can unconfigure the Intel AMT settings.

2.5 Required Permissions

By default, the packages created by the Add-on are run using the SCCM client on the host computer. It is also possible to select a different user account. You can do this by supplying user account credentials in the “User Account Settings” window (see [Installing the Add-on](#) on page 17) of the Add-on wizard. If you define a user account, all packages created by the Add-on will be defined to run using that account.

Whichever account is used to run the packages, this table describes the required permissions.

Add-on Component/Setting	Required Permissions
All Components	Local administrator permissions on the host computer
RCS Integration	<p>If you want to integrate any Add-on components with the RCS, permissions on these namespaces on the computer running the RCS:</p> <ul style="list-style-type: none"> • <code>Intel_RCS</code> (required to publish data to the RCS) • <code>Intel_RCS_Editor</code> (required by the account running the installer to get the configuration profiles from the RCS, not the account performing configurations).
Intel AMT	<p>If you want to configure Intel AMT:</p> <ul style="list-style-type: none"> • If RCS Integration is NOT selected – This means that configuration is done locally by the Configurator component of Intel SCS. The account running the Configurator will require permissions in the ADOU and the Certification Authority (CA). • If RCS Integration is selected – This means that configuration is done remotely by the RCS. The account running the Configurator will require permissions on the <code>Intel_RCS</code> namespace (to connect to the RCS). The user account running the RCS will require permissions in the ADOU and the CA. (You define that user account during installation of the RCS.)

Note:

These are the Windows Management Instrumentation (WMI) permissions required on the `Intel_RCS*.*namespace`:

- Execute Methods
- Full Write
- Remote Enable.

For information about how to give permissions on namespaces, go to this web page:

<http://technet.microsoft.com/en-us/library/cc771551.asp>.

Refer to the `Intel(R)_SCS_RCSUtility.pdf`.

3 Defining Configuration Profiles for Intel AMT

If you want to enable the configuration capability of the Add-on for Intel AMT, you must define a configuration profile for Intel AMT. How you create this profile depends on if you want to use RCS Integration with Intel AMT:

- If you want to use RCS Integration – The Add-on will define the packages to get the profile from the RCS and use the remote configuration method to configure Intel AMT. You must create the profile using the Console component of Intel SCS. For more information, refer to the `Intel (R) _SCS_User_Guide.pdf`.
- If you do not want to use RCS Integration – The Add-on will define the packages to get the profile from an XML file and use the host-based configuration method. You must create the profile using the Intel AMT Configuration Utility. For more information, refer to the `Intel (R) _AMT_Configuration_UTILITY.pdf`.

4 Installing/Uninstalling the Add-on

This section describes how to install and uninstall the Add-on.

4.1 Installing the Add-on

This procedure describes how to install the Add-on.

 **Warning:**

Upgrading existing installations of the Add-on is *not* supported. To install version 2.1.9 on systems with an earlier version currently installed, you must first completely uninstall the Add-on, then install version 2.1.9.

To install the Add-on:

1. Copy the `IntelSCS_SCCMAddon` folder to the computer where the Configuration Manager Console is running. (In a hierarchy with a Central Administration Site, this must be the computer of the Central Administration Site.)
2. In the `SCCMAddon` subfolder, double-click **SCCMAddon.exe**. The Welcome window opens.

 **Note:**

The Welcome window might show only modify/uninstall options. This can occur if the Add-on was uninstalled and SCCM has not recompiled the MOF files yet. If this occurs, click **Modify the Add-on Settings** and continue from step 6.

3. Click **Next**. The License Agreement window opens.

4. After reading the license agreement, select **I accept the terms of the license agreement** and click **Next**. The SCCM Settings window opens.

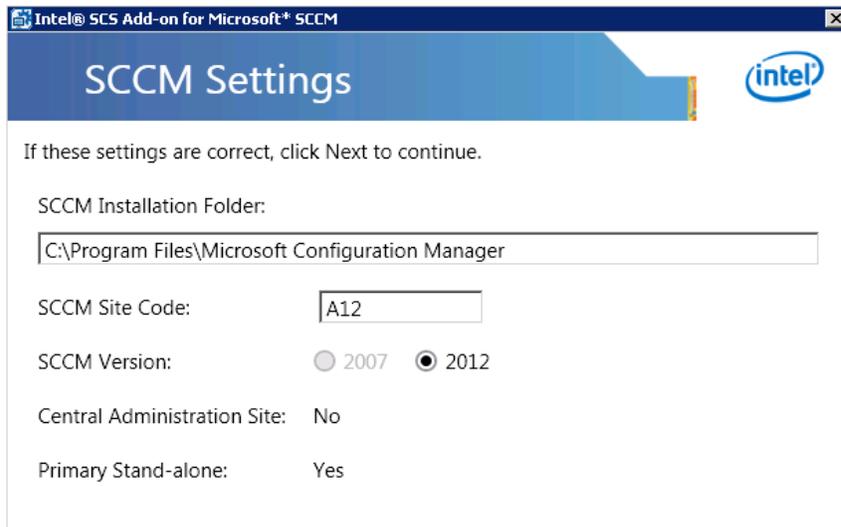


Figure 4: SCCM Settings Window

5. The wizard automatically detects the necessary SCCM settings. Make sure that the settings shown in the SCCM Settings window are correct (if they are incorrect, do not continue). Click **Next** to continue.

6. The Select Components window opens. The first time you run the wizard only the default Add-on components are shown. The necessary files for these components are located in the download package of the Intel SCS Framework, Platform Discovery, and Intel SCS, respectively.

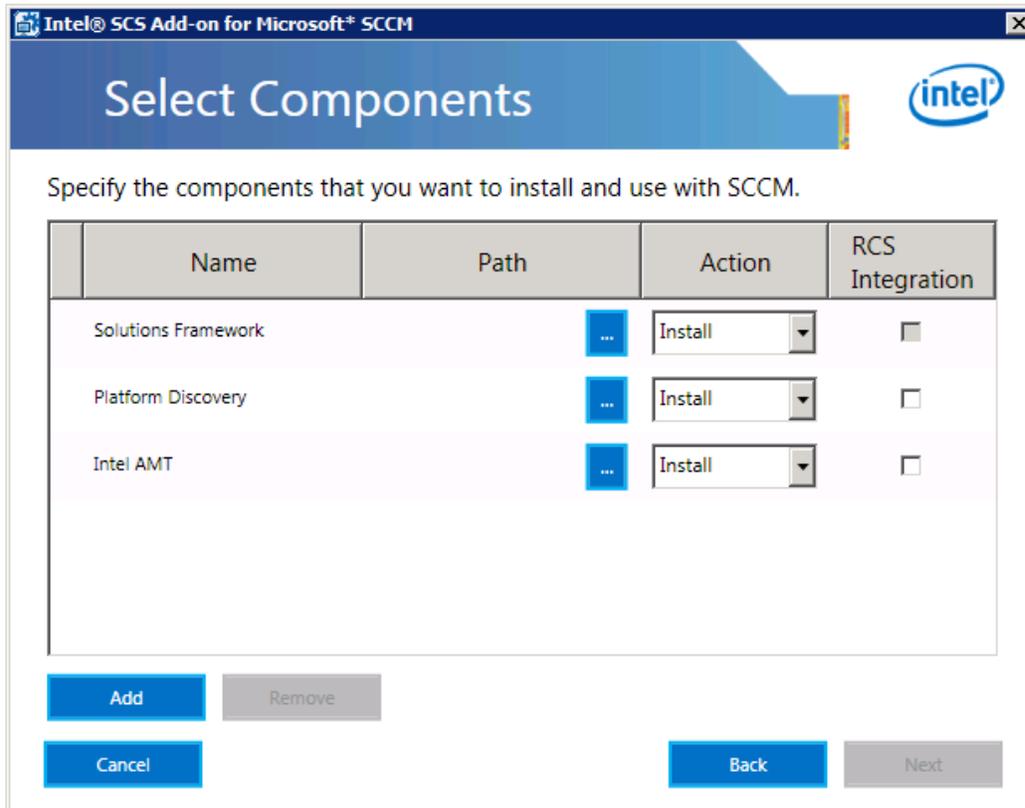


Figure 5: Select Components Window

- a. In the Path column of the Solutions Framework row, click .
- b. Browse to the `Intel_SCS_Framework_download_package_11.x\Framework` folder of the Solutions Framework download package and select the file named `HostSolutionManagerInstaller.msi`. (See [Required Software](#) on page 6 for more information)
- c. Click **Open**. The path to the file is updated in the Path column. In addition, the wizard automatically searches the download package for the required files of the remaining default components in these locations:
 - **Platform Discovery** — The `PlatformDiscovery.exe` file in the `Platform_Discovery_download_package_11.x` folder.
 - **Intel AMT** — The `ACUConfig.exe` file in the `Configurator` folder.

If successful, the paths to the files are updated in the Path column of each row. You can hover the mouse over the Path entry to show the full path.

7. For each row in the table of components, do these steps:
 - a. In the Action column, from the drop-down menu, select the action that you want:
 - **Install** – Install the component.
 - **No Change** – Make no changes to the current status of the component (the first time you run the wizard, this means do not install the component).
 - **Remove** – Uninstall the component.
 - b. If you want to integrate the component with the RCS, select the **RCS Integration** check box (see [What is RCS Integration?](#) on page 12).
8. Click **Next**. If you selected the RCS Integration check box, the Remote Configuration Service window opens.

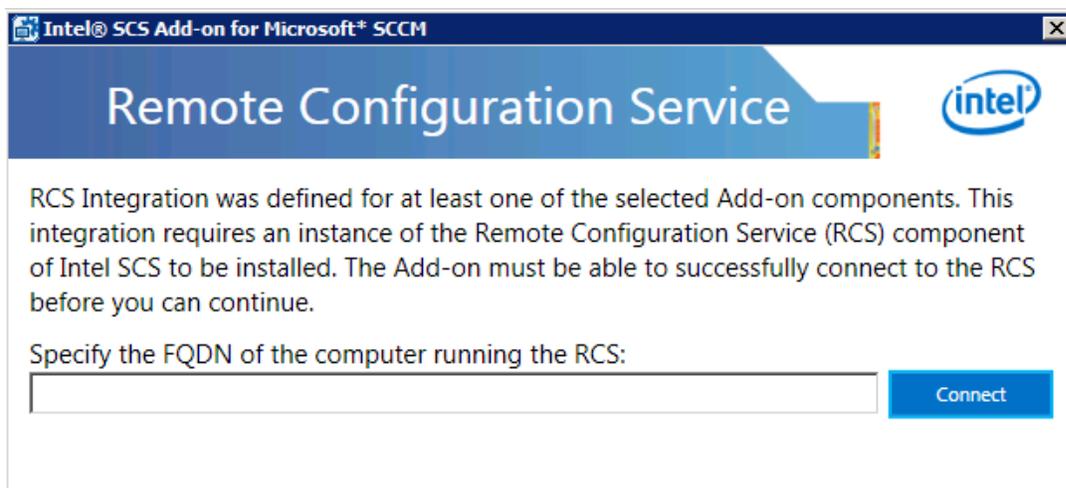


Figure 6: Remote Configuration Settings Window

- a. In the text box, type the FQDN (or the IP address) of the computer where the RCS is installed and running.
- b. Click **Connect**. The wizard will test the connection from the SCCM to the RCS. This test must succeed before you can continue.

9. Click **Next**. If you selected to install Intel AMT, the Intel AMT window opens.

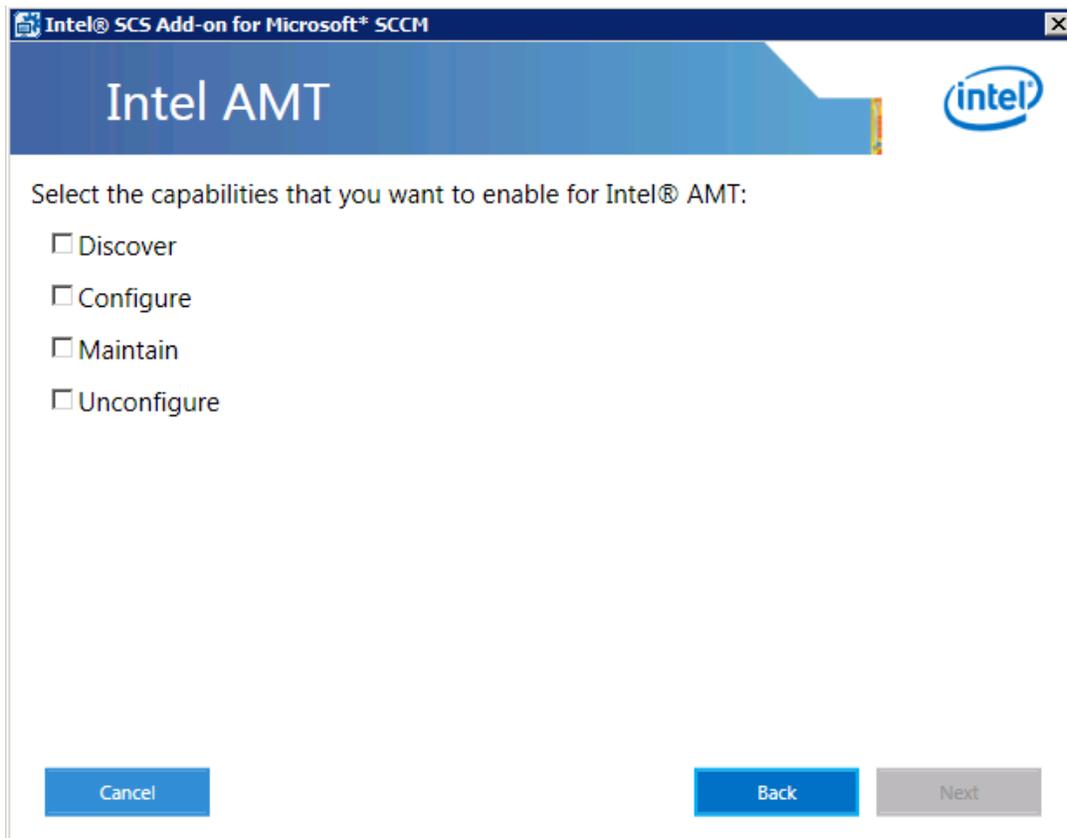


Figure 7: Intel AMT Window

- a. Select the check boxes of the capabilities that you want to enable. For each capability that you select, the Add-on will create packages and task sequences in SCCM (see [What is Created by the Add-on?](#) on page 3). It is recommended to enable all the capabilities.
- b. If you select the **Configure** or the **Maintenance** check box additional fields are shown. Use these fields to specify the configuration profile that you created (in advance) for Intel AMT:
 - If you selected the RCS Integration check box in the Select Components window, use the drop-down list to select the profile you created in the Console.
 - If you did not select the RCS Integration check box, click **Browse** to select the profile XML file that you created. If the file is encrypted, enter the password in the Encryption password field.

10. Click **Next**. The Add-on Packages Folder window opens.

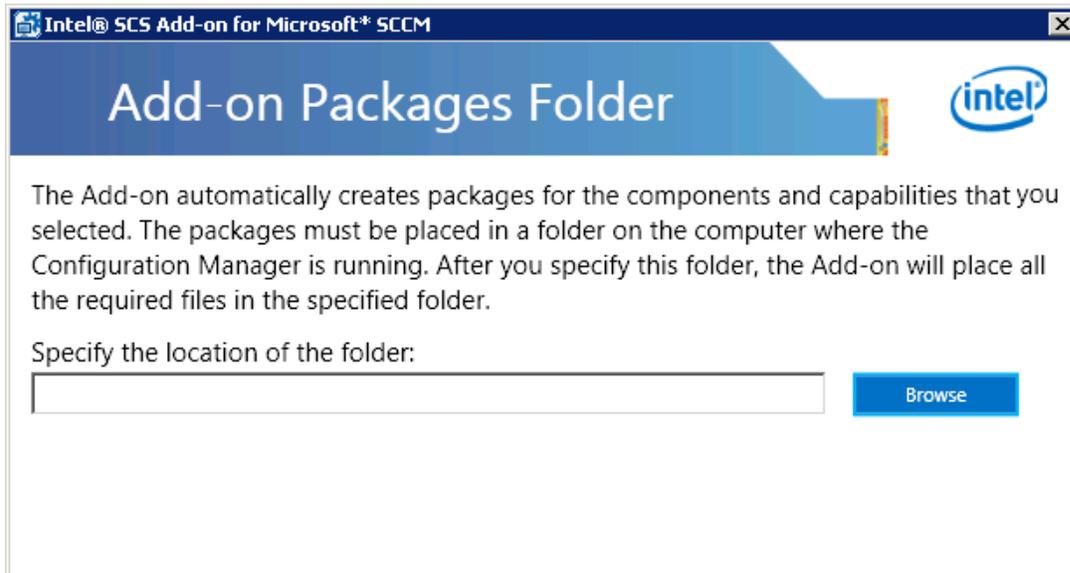


Figure 8: Add-on Packages Folder Window

During installation, the Add-on automatically creates packages for the components that you select to install. For each package, the Add-on creates a folder containing the files required by the package. For simplicity, all these folders will be located in a single parent folder that you define in this window. The parent folder must be in a location that the Configuration Manager can always access.

- a. Click **Browse**. The Browse for Folder window opens.
- b. Browse to a location that the Configuration Manager will always be able to access and create a parent folder for the Add-on packages. Give the folder a name that will help you to recognize the purpose of this folder.
- c. Click **OK** to close the Browse for Folder window.

 **Note:**

Each time that you run the wizard, if you make changes to a component, all the existing items for that component are replaced. This includes the contents of the packages folder created by the Add-on for the component. Any packages folders that you add manually in the parent folder will not be changed by the Add-on. If you want to edit or make changes to the packages of a component, make a copy of the relevant packages folder. Then rename the folder before editing/making your changes (and create new task sequences to use this new packages folder). This will make sure that the changes you make are not deleted if you run the Add-on again and select to change the component.

11. Click **Next**. The wizard installs the selected components. When complete, click **Next**. The Completed Successfully window opens.
12. Click **Finish** to exit the wizard and then perform the tasks described in [Post Installation Tasks](#) on the next page.

4.2 Post Installation Tasks

This section describes the tasks that you need to do after installing the Add-on.

4.2.1 Backing up the Settings File

After running the Add-on wizard, an XML settings file named `SCCMAddOnSettings.xml` is created in the same folder as the `SCCMAddOn.exe` file. This file contains information about the selections that you made the last time that you ran the wizard. In addition, the settings are saved in the registry at this location:

32-bit operating systems: `HKLM\SOFTWARE\Intel\Intel(R) Setup and Configuration Software\SCS SCCM Addon\Settings`

64-bit operating systems: `HKLM\SOFTWARE\Wow6432Node\Intel\Intel(R) Setup and Configuration Software\SCS SCCM Addon\Settings`

After each time that you run the wizard, it is recommended to create a backup of the settings file. To understand how the Add-on uses this file, see [About Modifying and Customization](#) on page 25.

4.2.2 Refreshing the Collections

After installation, the collections added by the Add-on might need to be updated in the Console.

To update the collections:

1. Select **Assets and Compliance > Overview > Device Collections**.
2. To update the members of a collection:
 - a. Right-click the collection and select **Update Membership**.
 - b. Right-click the collection again and select **Refresh**.

4.2.3 Enabling the Task Sequences

By default, the task sequences created by the Add-on are disabled. You will need to enable them before you can use them. If you installed the Platform Discovery component, the first task sequence that you should enable is the "Intel SCS: Platform Discovery" task sequence. (Enable this task sequence on the "Intel SCS: Platform Discovery" collection). When enabling a task sequence, remember to define a re-occurrence schedule according to your company policy. For Intel AMT, it is recommended to schedule a daily recurrence of Maintenance, Configuration, Unconfiguration, and a weekly recurrence of Discovery.

4.3 Uninstalling the Add-on

This procedure describes how to uninstall all the components that were created by the Add-on.

To uninstall the Add-on:

1. In the `SCCMAddOn` subfolder, double-click **SCCMAddOn.exe**. The Welcome window opens.
2. Select **Uninstall the Add-on**.
3. If you are sure that you want to uninstall all the Add-on capabilities from SCCM, click **OK** to close the warning message. The progress of the uninstall is shown and all items added to SCCM by the Add-on are removed. (The hardware inventory classes that you imported from the `sms_def_AMT.mof` file and the `sms_def_SCSDiscovery.mof` file are not removed. You can remove them manually in SCCM.)

5 Modifying the Add-on

This section describes how to modify the Add-on settings after installation.

5.1 About Modifying and Customization

You can run the Add-on wizard multiple times to modify the items defined in SCCM by the Add-on.

Because of the hierarchical design of SCCM and its use of replication, the Add-on wizard cannot use traditional “installer” techniques to record what it has installed. Instead, the wizard must use a combination of different methods. The main method that the wizard uses is to record data in a settings file. The settings file (`SCCMAddonSettings.xml`) is located next to the `SCCMAddon.exe` file and is updated each time that you run the wizard. In addition, the data is also recorded in the registry of the computer running the wizard. For the location in the registry, see [Backing up the Settings File](#) on page 23.

This is how the Add-on wizard determines the status of the Add-on components:

- If the settings file exists, the wizard reads the content of the file. Settings in the file always override settings in the registry.
- If the settings file does not exist, the wizard looks for settings in the registry.
- If neither a settings file or a registry entry exist, the wizard will start a “clean” installation with no components installed. (By deleting the settings file/registry entry, you can force the wizard to allow you to start a clean installation even if you have already installed some components.)

Important Recommendations

- Make regular backups of the settings file.
- If possible, always run the Add-on wizard on the same computer.
- Always make sure that the settings file is located next to the `SCCMAddon.exe` file. This is especially important if you run the Add-on wizard on a different computer.

Customization of Add-on Components

The items created in SCCM by the Add-on are ready to use without any customization. But you might want to make changes and customizations to the default settings that the Add-on has created for you. Selecting the “Change” action for a component (in the Select Components window) means that all the existing items for that component are deleted and then replaced. This means that any customizations you made to objects or files will be lost. If you want to customize an object or file that was created by the Add-on, rename all the relevant objects and files. After an object/file is renamed, the Add-on no longer “knows” that they exist. Running the Add-on again and selecting “Change” for a component will cause new objects/files to be created for any that are missing because they were renamed. If you rename an object/file, make sure that you rename all other objects/files that use or refer to the object/file that was renamed.

5.2 Modifying the Add-on Settings

This procedure describes how to modify the items defined in SCCM by the Add-on.

To modify the Add-on settings:

1. In the `SCCMAddOn` subfolder, double-click **SCCMAddOn.exe**. The Welcome window opens.
2. Select **Modify the Add-on Settings**. The Select Components window opens.

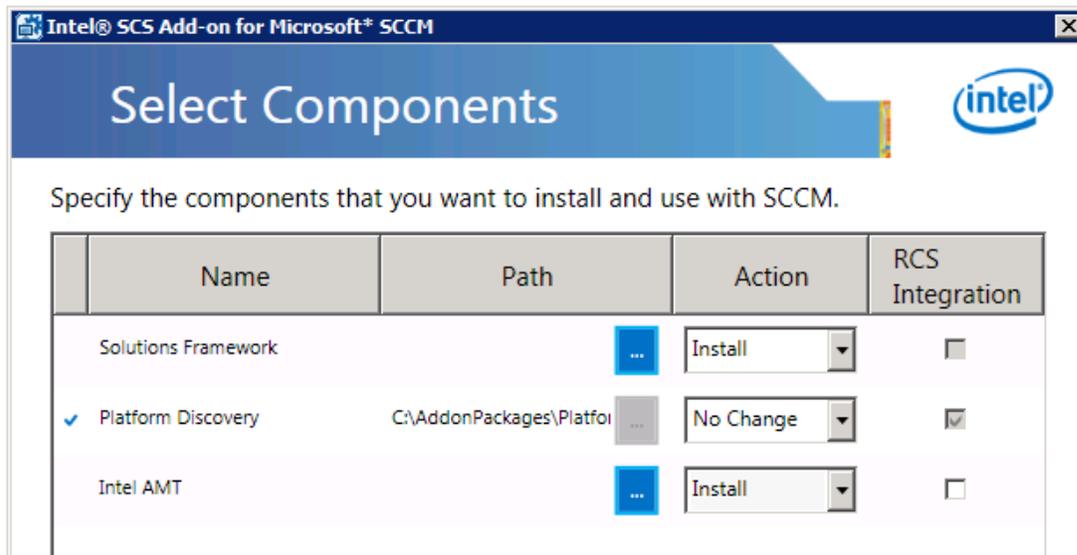


Figure 9: Select Components Window

A check mark is shown next to each component that was already installed by the Add-on. For these items, the default action is "No Change". This means that the Add-on will not make any changes to the current settings. If you want to make changes to the current settings of the component, select **Change**. (For example, if you want to change the configuration profile.) If you want to uninstall a component, select **Remove**.

3. Select the components that you want to install (or remove), and the settings that you want to change (or preserve), and continue in the wizard. The windows and options shown are the same as those described in [Installing the Add-on](#) on page 17.

Note:

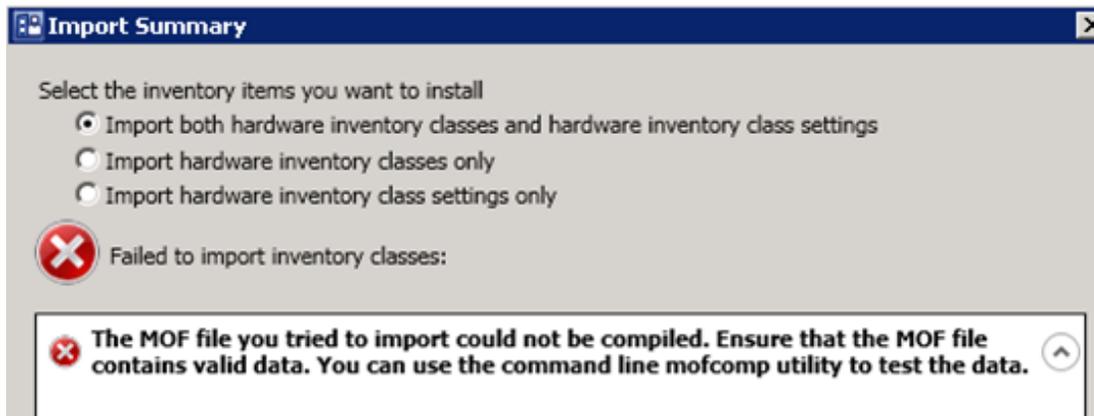
Selecting "Change" for a component means that all objects and files installed by the Add-on for that component are deleted and then replaced. This means that any customizations that you made to the objects and files will also be deleted. The exception to this rule is collections. Collection objects are edited. This means that any sub-collections you created manually will remain connected to their parent collections. For more information about customization, see [Customization of Add-on Components](#) on the previous page.

6 Troubleshooting

This section describes problems you might find when installing or using the Add-on, and provides their solutions.

6.1 Problems Importing Hardware Inventory Classes

In certain conditions, importing the hardware inventory classes might fail with this message:



This message and the suggested solutions are incorrect and not relevant when importing the MOF files supplied with the Add-on. If you see this message it means that the classes imported from the MOF file still exist in a temporary namespace used by SCCM. This can sometimes occur after importing/deleting the files multiple times using the SCCM GUI. The problem is that, in addition to not deleting the files, SCCM has also changed the hierarchy of the classes. This prevents you from re-importing the classes and installing the Add-on.

To fix this problem:

1. Copy these files to the computer running the Configuration Manager:
 - `fix_sccm_2012_mof.mof`
 - `fix_sccm_2012_mof.bat`
2. Open a command prompt as an administrator.
3. Run the batch file named `fix_sccm_2012_mof.bat`. This batch file deletes all the classes added by the imported Add-on files. They are deleted from the temporary namespace, located at:


```
root\CIMv2\sms\inv_temp
```
4. Import the classes again (see [Adding Hardware Inventory Classes](#) on page 8).
5. You can now install the Add-on.

6.2 Exit Code 110

This error is returned by the Configurator component (`ACUConfig.exe`) of Intel SCS. The Configurator is used in the task sequences created for Intel AMT.

The executable and DLL files of the Intel SCS components are digitally signed by Intel and include a timestamp. (This does not include third-party files.) Using digital signatures increases security because it gives an indication that the file is genuine and has not been changed. Digital certificates contain data about the organization from which they were issued. This data forms a “certificate chain” that ends in a trusted root certificate of a known CA. If the trusted root certificate is not installed in the operating system, Windows uses an automatic update mechanism to download the necessary root certificate from Microsoft.

Some versions of Windows do not include all the trusted root certificates necessary to validate time-stamped digital signatures. If these systems also do not have Internet access, the automatic update mechanism will fail. If the necessary root certificate cannot be located, the task sequence using the Intel SCS component will fail (because the operation will not be permitted to run).

Solution: Make sure that the client host operating system has access to the Internet. This is the easiest solution, because the certificate will be downloaded automatically.

 **Note:**

For more information on configuration of Trusted Root Certificates, see [https://docs.microsoft.com/en-us/previous-versions/windows/it-pro/windows-server-2012-R2-and-2012/dn265983\(v=ws.11\)](https://docs.microsoft.com/en-us/previous-versions/windows/it-pro/windows-server-2012-R2-and-2012/dn265983(v=ws.11))