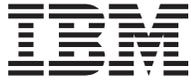


IBM System x

IBM Configuration Pack for
Microsoft System Center Configuration Manager 2007
User's Guide

Version 3.1





IBM System x

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Note

Before using this information and the product it supports, read the information in “Copyright notice and trademarks” on page 83.

Edition notice

This edition applies to version 3.1 of the IBM Configuration Pack for Microsoft System Center Configuration Manager 2007, v3.1, v3.1 User's Guide and to all subsequent releases and modifications until otherwise indicated in new editions.

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About this publication

This guide provides instructions for installing IBM Configuration Pack for Microsoft System Center Configuration Manager 2007, v3.1 and using it to author and manage IBM configuration data in your environment.

Conventions and terminology

Notices used in this guide

The following notices are designed to highlight key information:

Note: These notices provide important tips, guidance, or advice.

Important:

These notices provide information or advice that might help you avoid inconvenient or difficult situations.

Attention:

These notices indicate possible damage to programs, devices, or data. An attention notice appears before the instruction or situation in which damage can occur.

Terminology used in this guide

The following list describes some of the terms, acronyms, and/or abbreviations used in this document.

CI configuration item

ASU IBM Advanced Settings Utility

SCCM

Microsoft System Center Configuration Manager

DCM Desired Configuration Management

IBM System Configuration Setting

One IBM configuration setting defines one property of IMM/uEFI and its expected value, and returns an error when the property is not compliant with the expected value.

IBM System Configuration Setting Collection

A setting collection that contains one or more IBM System Configuration Settings. In this release, one collection has a firmware type of IMM or uEFI.

IBM System Configuration Item

A **configuration item** that is composed of other IBM Setting Collections.

IBM System Configuration Description

An XML file that contains IBM configuration setting/**configuration item** information.

DCM configuration item

Refers to the fundamental structural unit of a Desired Configuration Management system.

DCM configuration setting

A configuration setting that is composed of other configuration settings. You can define the evaluation condition and severity in each configuration setting.

DCM Configuration Baseline

A Configuration Baseline composed of other **configuration items**. The baseline can be assigned to the SCCMclient collection. You can evaluate these baselines on the endpoint.

IBM Configuration Pack

The IBM Configuration Pack is a .cab file and contains **configuration items** and baselines. You can import **configuration items** and baselines by importing the IBM Configuration Pack into the DCM server.

Digest Schema

In DCM, the Desired Configuration Management digest definition (XSD) defines the Desired Configuration Management documents (configuration items): the constraints upon the elements, the attributes that can appear, their relationship to each other, and what types of data can be in them. The IBM Configuration Pack XML file must align with the digest schema standard that can be imported into the DCM server.

IBM configuration data

IBM System Configuration Item **configuration items**, IBM System Setting Collections and IBM System Settings are collectively called IBM configuration data.

IBM Configuration Pack Editor

An editor that can author IBM CI and Setting Collections, and export IBM configuration data to a IBM Configuration Pack/Configuration Description.

IBM Configuration Capture

This tool can capture IMM/uEFI settings from the IBM server, and export those captured settings to a Configuration Description.

Information resources

You can find additional information about IBM Configuration Pack for Microsoft System Center Configuration Manager 2007, v3.1 on the World Wide Web.

PDF files

View or print documentation that is available in Portable Document Format (PDF).

Downloading Adobe Acrobat Reader

You need Adobe Acrobat Reader to view or print these PDF files. You can download a copy from the Adobe Reader Web site.

Viewing and printing PDF files

You can view or print any of the respective PDF files located on the Microsoft Systems Management Solutions for IBM Servers website. Please click the link provided to locate the individual product pages for each publication.

World Wide Web resources

The following web pages provide resources for understanding, using, and troubleshooting IBM System x, BladeCenter blade servers, and systems-management tools.

IBM System x Integration Offerings for Microsoft Systems Management Solutions

Here you can locate the latest downloads for IBM Configuration Pack for Microsoft System Center Configuration Manager 2007, v3.1.

IBM Systems: Technical support site

Locate support for IBM hardware and systems-management software.

IBM ServerProven® pages

System x ServerProven pages

BladeCenter ServerProven pages

Obtain information about hardware compatibility with IBM System x, IBM BladeCenter, and IBM IntelliStation hardware.

Microsoft TechNet: System Center Configuration Manager page

Locate support for the System Center Configuration Manager.

Chapter 1. Introduction to IBM Configuration Pack for Microsoft System Center Configuration Manager 2007, v3.1

What's new in version v3.1?

Free features

This release includes the following new features:

Capture IMM/uEFI settings

IBM Configuration Capture can capture IMM/uEFI settings from an IBM Server, and export those captured settings to an IBM System Configuration Description file. The exported Configuration Description file can be imported into any one IBM Configuration Pack Editor.

Premium features

The following features are fee-based functions that are enabled with a valid product license v3.1 or higher:

Author IBM System configuration data:

The IBM System configuration data is composed of IBM **configuration items**, IBM Configuration Setting Collections and IBM configuration settings. In this release, the IBM System configuration data scope is IMM/uEFI settings.

Support the common settings of IMM/uEFI:

The IBM Configuration Pack Editor supports some common settings of IMM/uEFI that can help you author IBM System configuration settings.

Export IBM System configuration data to a IBM Configuration Pack:

The IBM Configuration Pack contains **configuration items** and Setting Collections in a .cab file and up to DCM standards. This IBM Configuration Pack can be imported into the DCM server.

Export IBM System configuration data to a Configuration Description:

The Configuration Description is an XML file that describes the configuration data. You can share and edit configuration data: you can export IBM configuration data to a Configuration Description, or a Configuration Description can be imported into the IBM Configuration Pack Editor.

Import IBM System Configuration Description:

You can import a Configuration Description at one time, or in the Configuration Description, which can include more than one IBM CI/Setting Collections.

How IBM Configuration Pack for Microsoft System Center Configuration Manager 2007, v3.1 supports IBM systems

IBM Configuration Pack for Microsoft System Center Configuration Manager 2007, v3.1 provides the setting to check for IMM/uEFI. Use IBM Configuration Pack Editor to author settings that you want to validate on the endpoint.

These IBM configuration data can be exported by IBM Configuration Pack Editor to a Configuration Pack (.cab) file that can be imported in the SCCM DCM. Administrators can assign those configuration data to the specific collections in SCCM. These configuration data include vbscript, which will invoke the ASU.exe tool to validate the endpoint's compliance.

Advanced Settings Utility (ASU)

You can use the IBM Advanced Settings Utility (ASU) to modify firmware settings from the command line on multiple operating-system platforms like DOS, Linux, Solaris, Windows (also WinPE). It supports BIOS code, Remote Supervisor Adapter firmware, Remote Supervisor Adapter II firmware, Baseboard management controller firmware, IMM etc.

Note: IBM Configuration Pack for Microsoft System Center Configuration Manager 2007, v3.1 will use ASU v3.60 or above on the endpoint (<http://www-947.ibm.com/support/entry/portal/docdisplay?lnodocid=TOOL-ASU>). IBM configuration data doesn't include ASU.exe, so copy ASU.exe to the following specific place on the endpoint:

Copy the ASU.exe (for 32-bit OS) or ASU64.exe (for 64-bit OS) under the IBM_Support\ASU\ folder of the system directory, e.g. C:\IBM_Support\ASU\asu.exe, C:\IBM_Support\ASU\asu64.exe. The location of ASU.exe has been recorded in the registry: The string key "Location" under HKEY_LOCAL_MACHINE\SOFTWARE\ (Wow6432Node)\IBM\ASU\

In addition, you can type an absolute path of ASU.exe in the IBM Configuration Pack Editor.

Chapter 2. Installing the IBM Configuration Pack v3.1

1. Double click on the IBM Configuration Pack v3.1 installer (.exe file). The welcome page for IBM Configuration Pack appears.

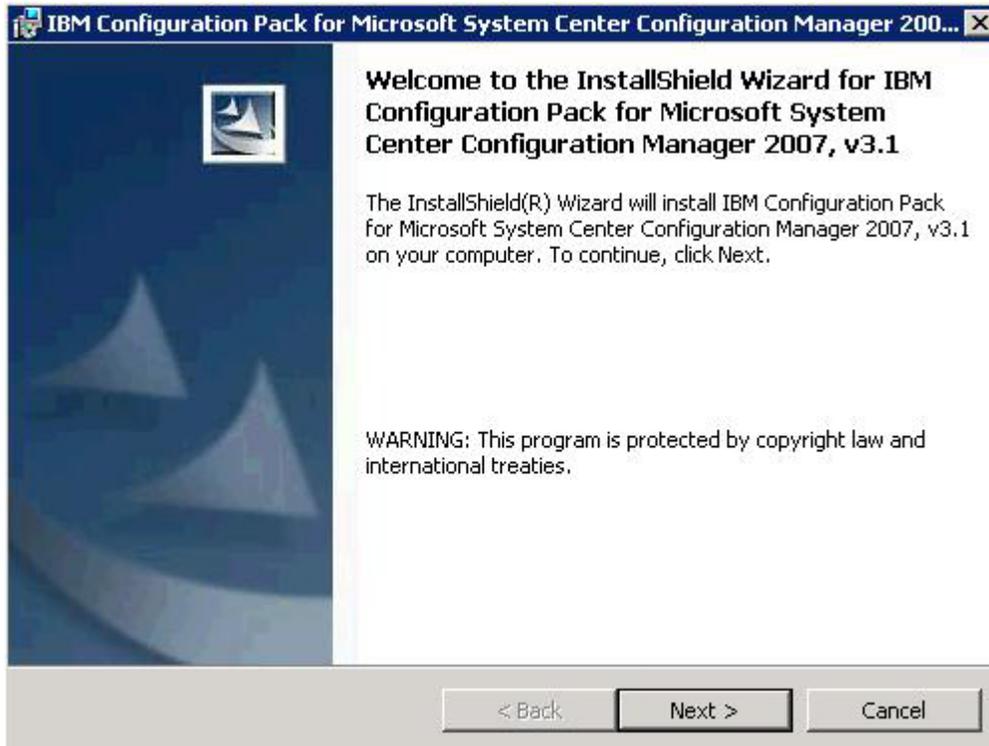


Figure 1. Install wizard welcome page

2. Click **Next** to proceed to the License Agreement page.

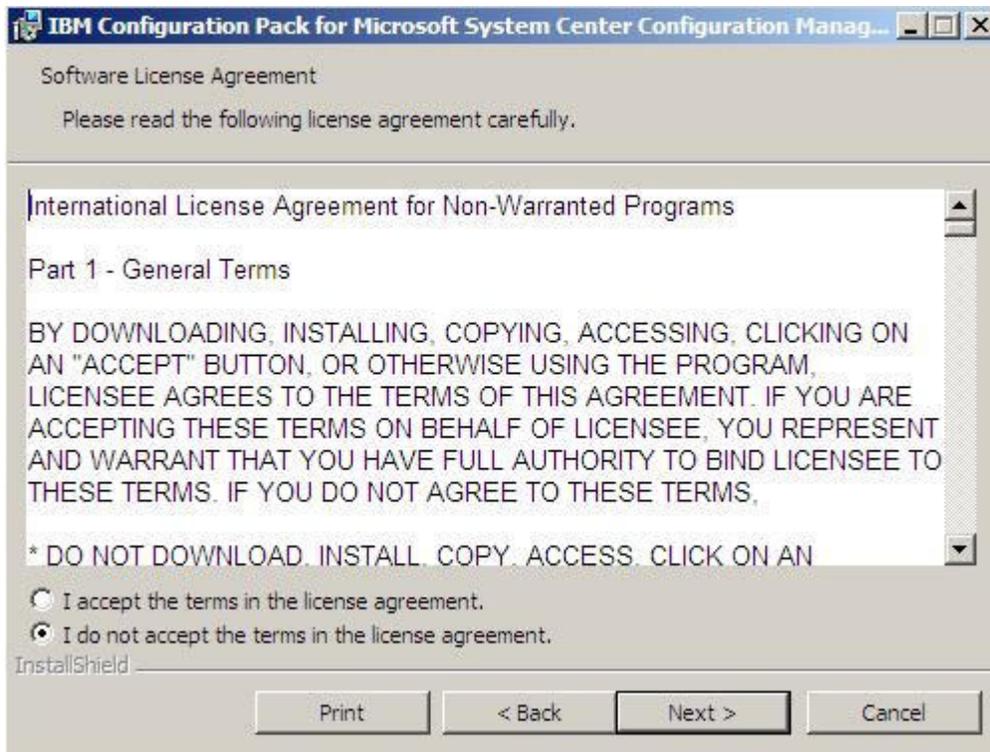


Figure 2. Install wizard license agreement

3. Select **I accept the terms in the license agreement** to accept the license. Click **Next** to proceed to the Destination Folder page.
4. On the Destination Folder page, you can change the directory to install the IBM Configuration Pack by clicking **Change...**

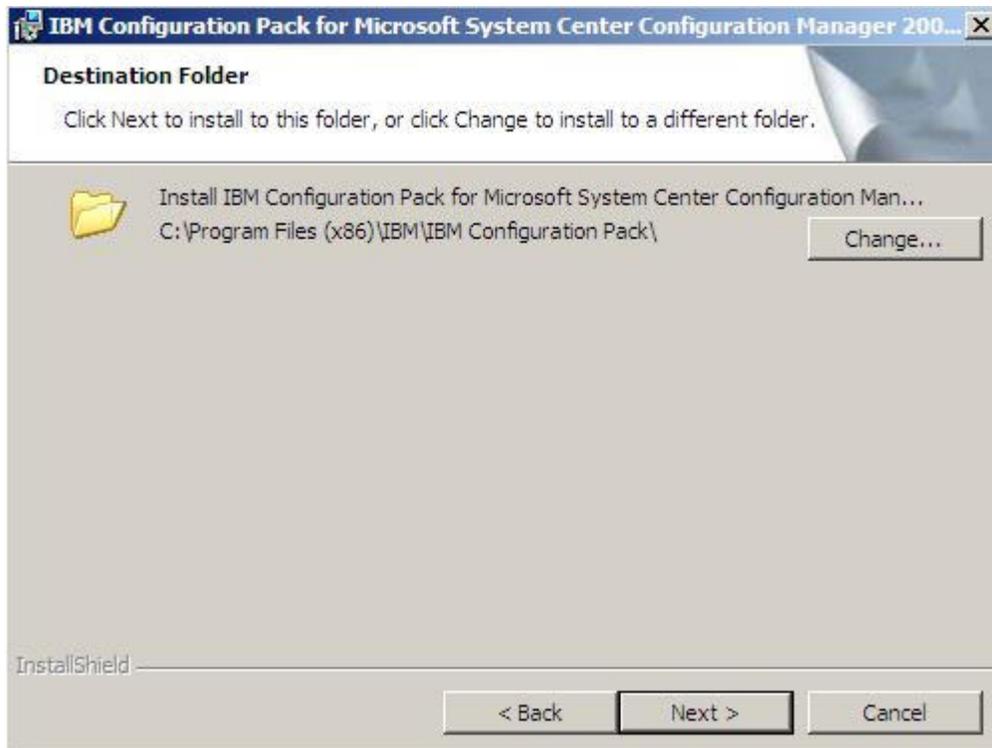


Figure 3. Destination Folder page

5. Click **Next** to proceed to the Ready To Install the Program page.

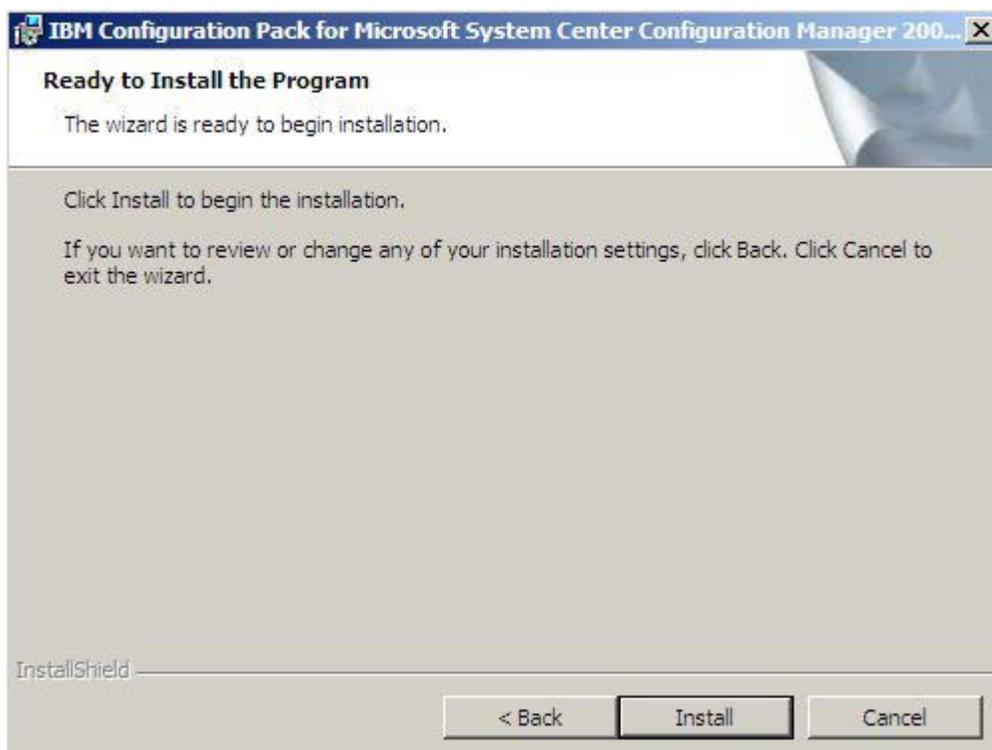


Figure 4. Ready to Install the Program page

6. Click **Install** to start the installation process. Notifications will appear if any errors occur during installation.

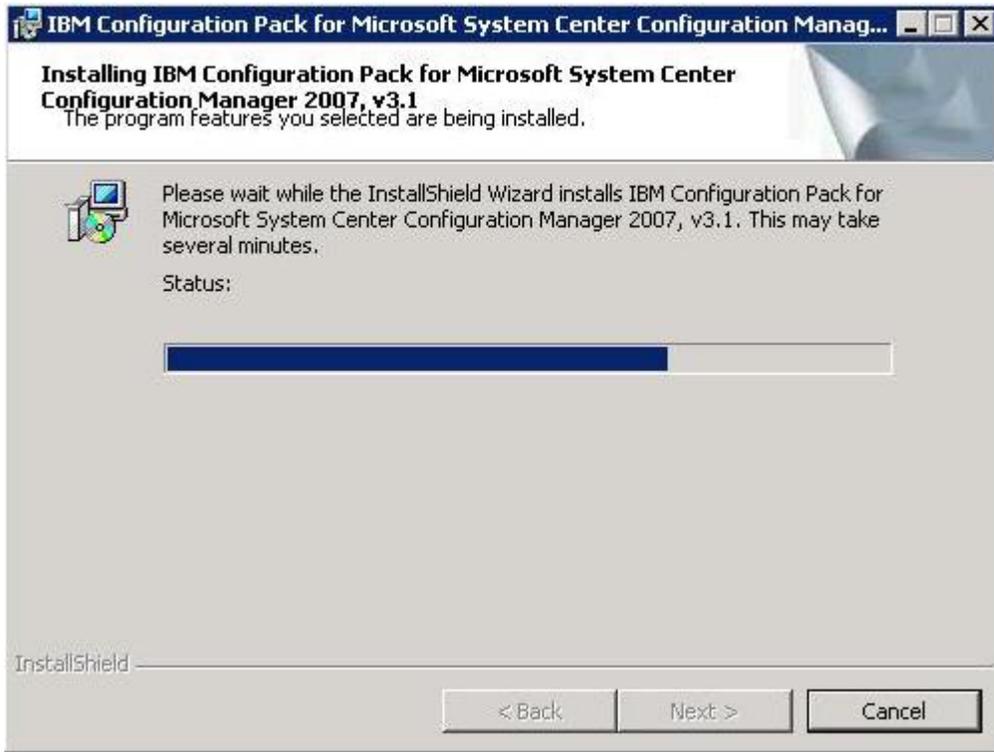


Figure 5. Installation status page

7. Click **Finish** to complete the installation.

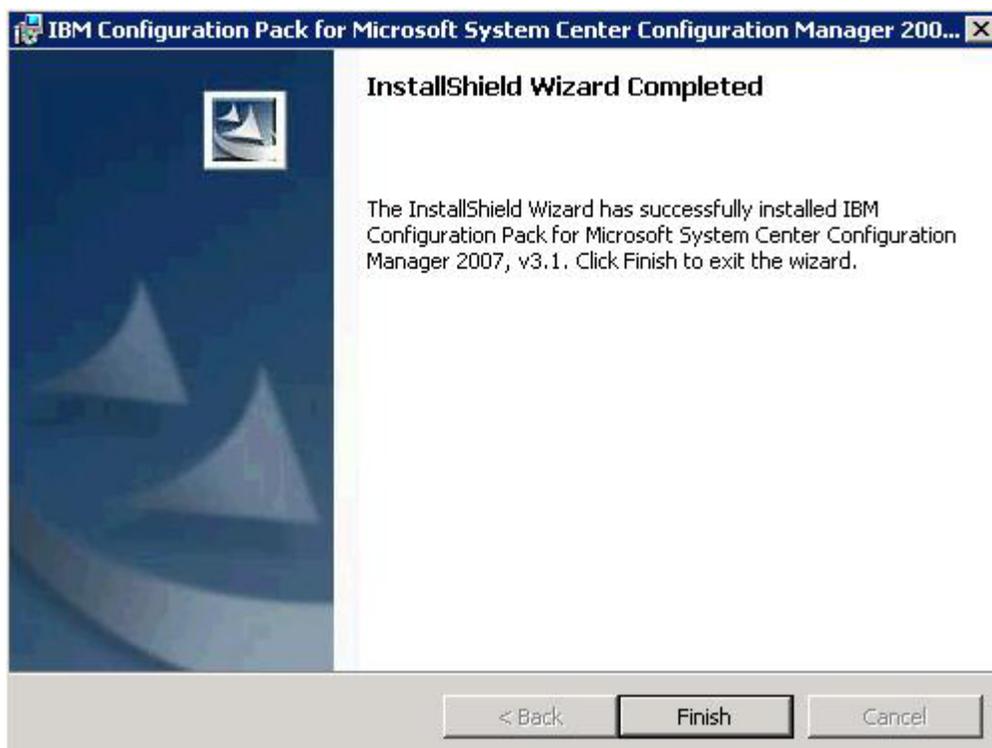


Figure 6. Installation complete page

IBM Configuration Pack v3.1uninstallation

There are three ways to uninstall IBM Configuration Pack v3.1:

- Uninstalling from Add or Remove Programs, or if the operating system is Microsoft Windows Server 2008, from Programs and Features.
- Running the IBM Configuration Pack v3.1 installer (.exe file) and selecting the **Remove** option.
- Using the IBM Upward Integrated Installer (see IBM Upward Integrated Installer User's Guide for more information).

Note: If you authored configuration data, you will be notified whether to delete the configuration data Folder during the uninstall process.

Chapter 3. Working with IBM Configuration Pack and Microsoft System Center Configuration Manager 2007

IBM Configuration Pack v3.1 provides an easy way to author IBM configuration data, and export them to a IBM Configuration Pack.

Brief introduction

The IBM Configuration Pack for SCCM v3.1 provides an easy way to author IBM configuration data, which can be imported into the SCCM DCM Server. The SCCM DCM Server assigns IBM configuration data to their clients to evaluate which clients are up to standard or not.

The following steps are a brief introduction about how to use IBM Configuration Pack and SCCM DCM:

1. Create IBM configuration data that you want to evaluate. You can create configuration data in one of the following ways:
 - You can create IBM configuration data in IBM Configuration Pack Editor. For more information, see “Create Setting Collection” on page 11 and “Creating a **configuration item**” on page 24
 - You can capture IBM configuration data from an IBM Server which has IMM/uEFI module. For details, see “Running IBM Configuration Capture” on page 72
2. Export the created IBM configuration data into the SCCM DCM Server. For details, see “Exporting **configuration items** to the IBM Configuration Pack .cab File” on page 46 and “Importing configuration data to DCM” on page 49.
3. Assign and evaluate IBM configuration data in the SCCM Client. For details, see “Assigning the Baseline to a collection” on page 63 and “Evaluating the Baseline on the Endpoint” on page 65.

Running IBM Configuration Pack Editor

You can click the IBM Configuration Pack Editor shortcut from Start Menu to launch IBM Configuration Pack Editor.

If License Entitlement has not been activated on the IBM System Configuration Server, the IBM Configuration Pack Editor will present a message box to remind you to activate License Entitlement.



Figure 7. No License dialog box

The IBM Configuration Pack Editor presents the following window:

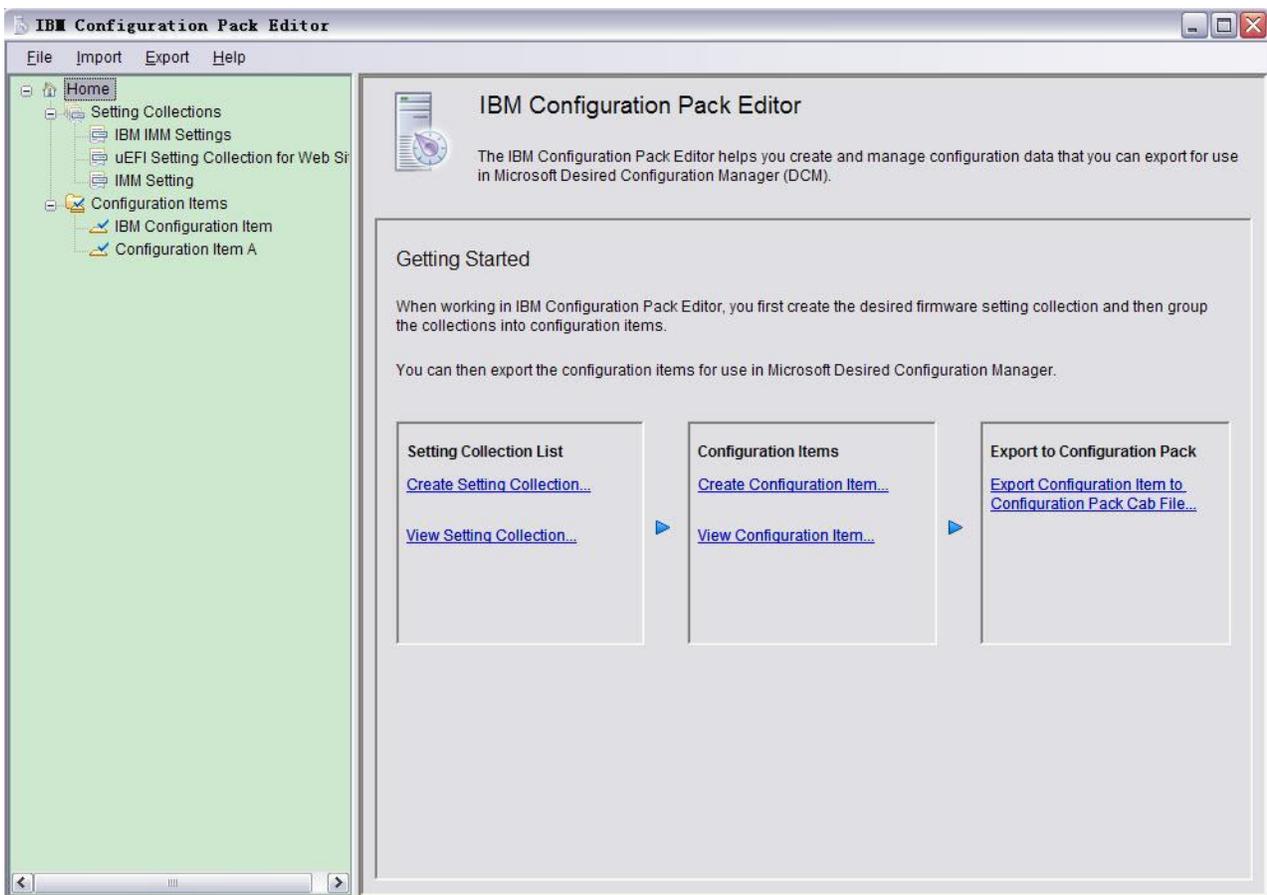


Figure 8. IBM Configuration Pack Editor main window

The left navigation pane of the window contains the following items:

- Home tree
- Setting Collections tree
- **configuration items tree**

Home tree

The Home page provides three sequential areas to guide you in getting started with IBM Configuration Pack Editor:

- Setting Collection List
- **configuration items**
- Export to IBM Configuration Pack

Setting Collection List Box

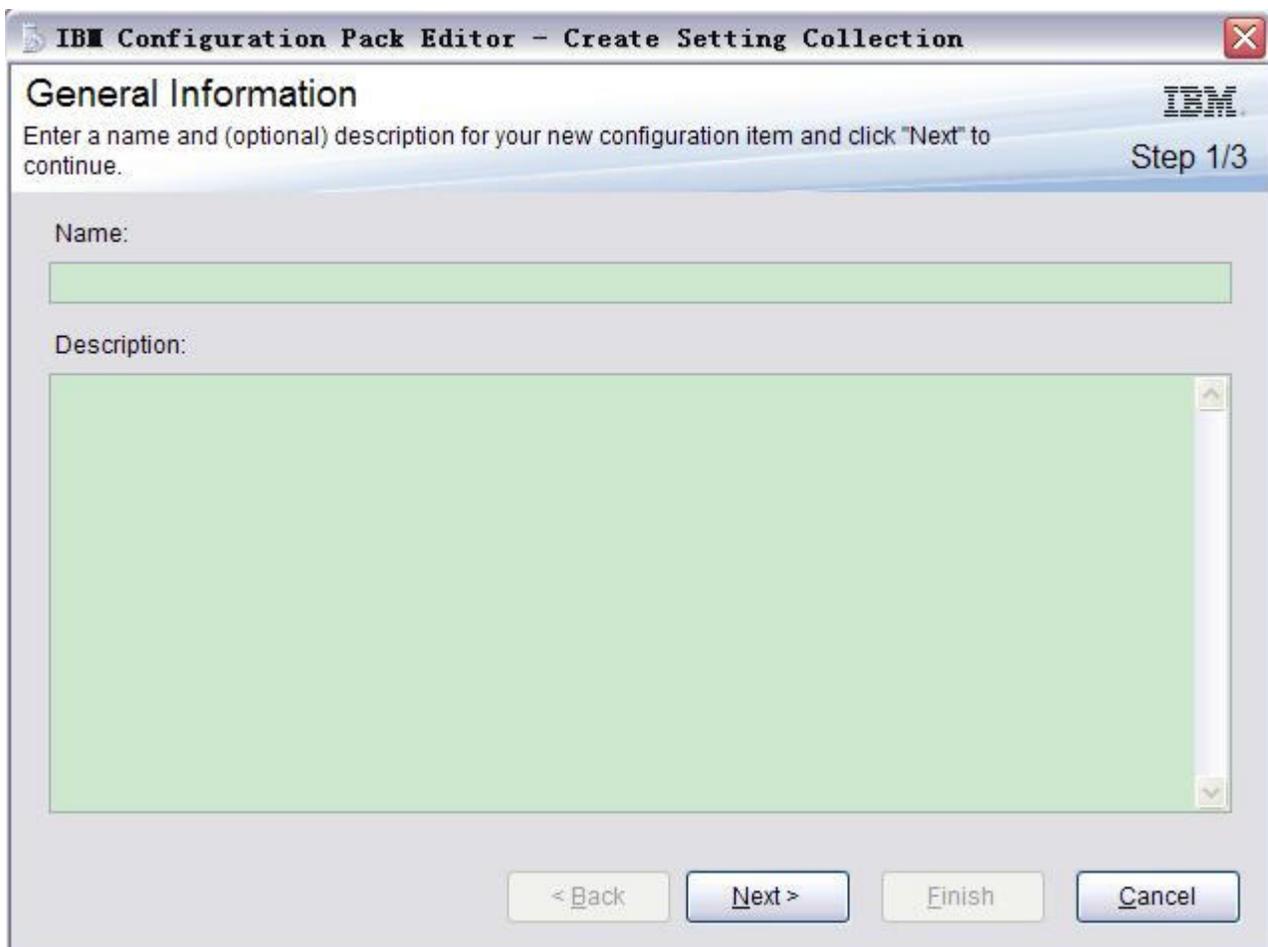
This box contains two links: Create Setting Collection, and View Setting Collection.

- Clicking the Create Setting Collection link will present a wizard to help you create an IMM/uEFI Setting Collection.
- Clicking the View Setting Collection link will display the Setting Collections Tree item, which will allow you to view the existing Setting Collections.

Create Setting Collection

1. Type a name and description for the Setting Collection, and click **Next**.

Note: The Name text box is required, but the description is optional.



The screenshot shows a window titled "IBM Configuration Pack Editor - Create Setting Collection". The window has a standard Windows-style title bar with a close button (X) in the top right corner. Below the title bar, the text "General Information" is displayed in a large font. To the right of this text is the IBM logo and the text "Step 1/3". Below the title bar, there is a blue gradient bar with the text "Enter a name and (optional) description for your new configuration item and click 'Next' to continue." Below this bar, there are two input fields: a "Name:" field with a single-line text box, and a "Description:" field with a multi-line text box. At the bottom of the window, there are four buttons: "< Back", "Next >", "Finish", and "Cancel".

Figure 9. General Information window

2. Select a setting type for the new Setting Collection. This version supports scopes IMM and uEFI.

Note: The setting type cannot be modified after it has been created.

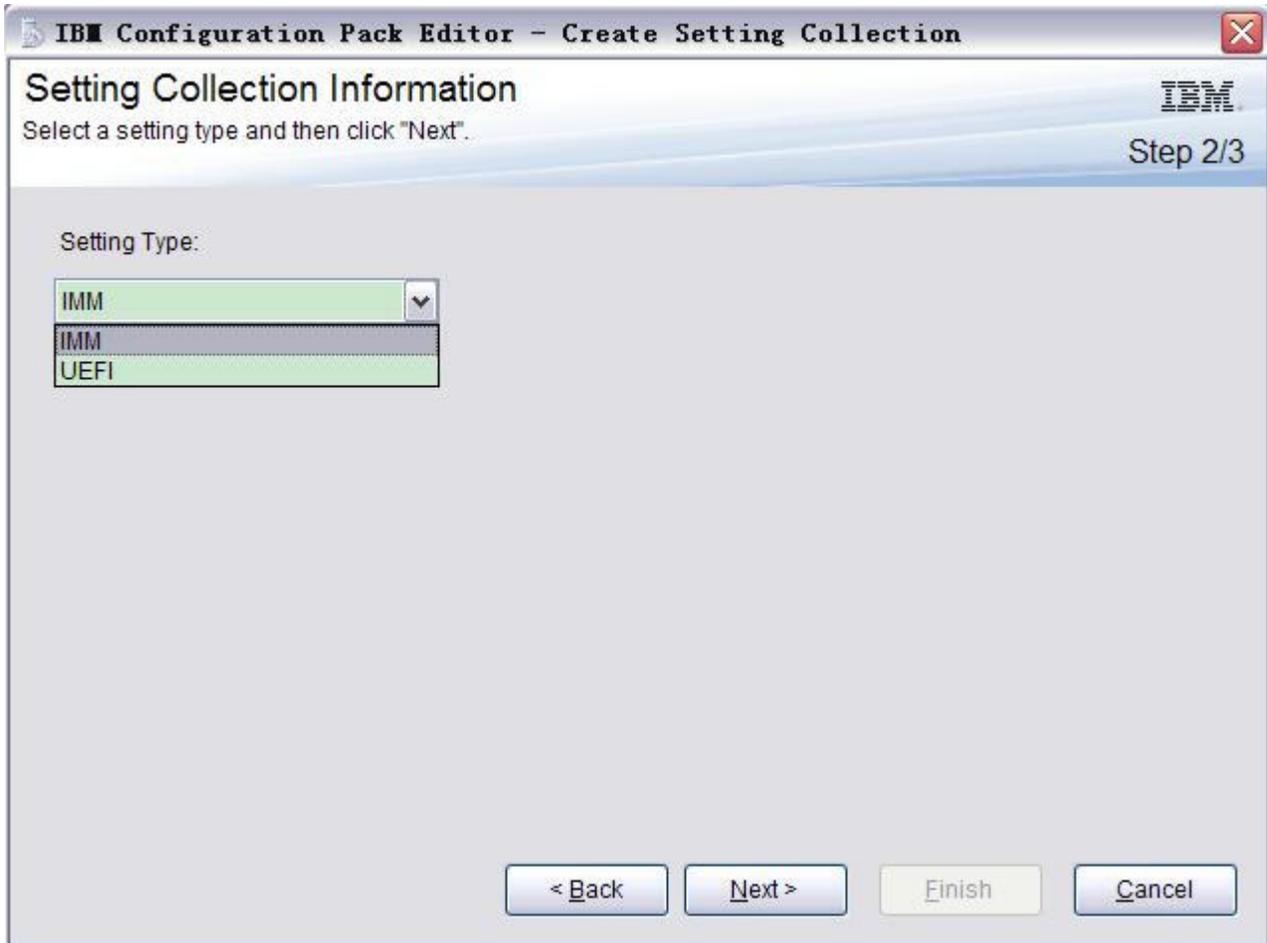


Figure 10. Setting Collection Information window

3. Click **Next**. The Property Thresholds page appears.

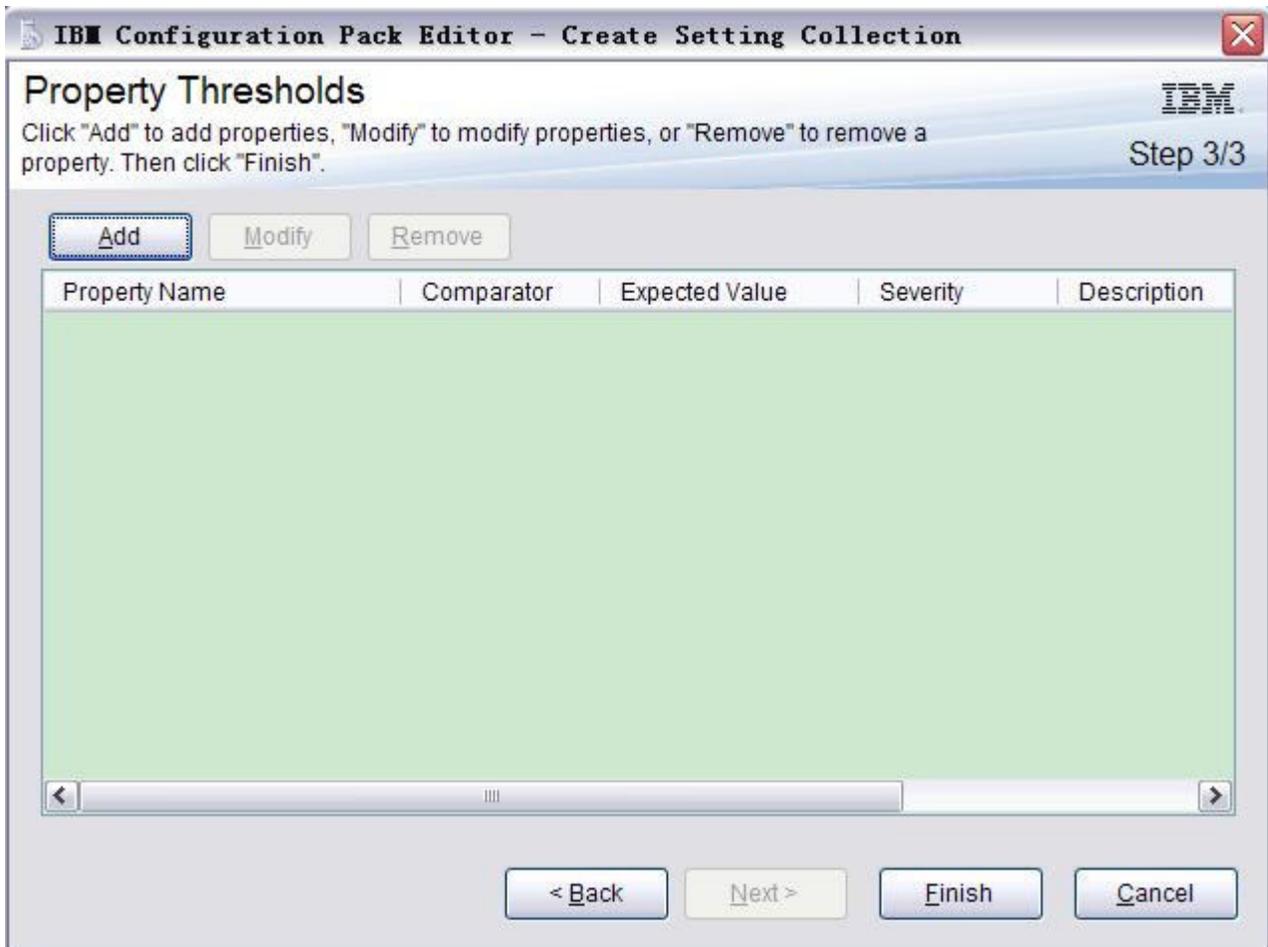


Figure 11. Property Thresholds page

4. Click **Add** to add a new property threshold. The Setting Editor window appears.

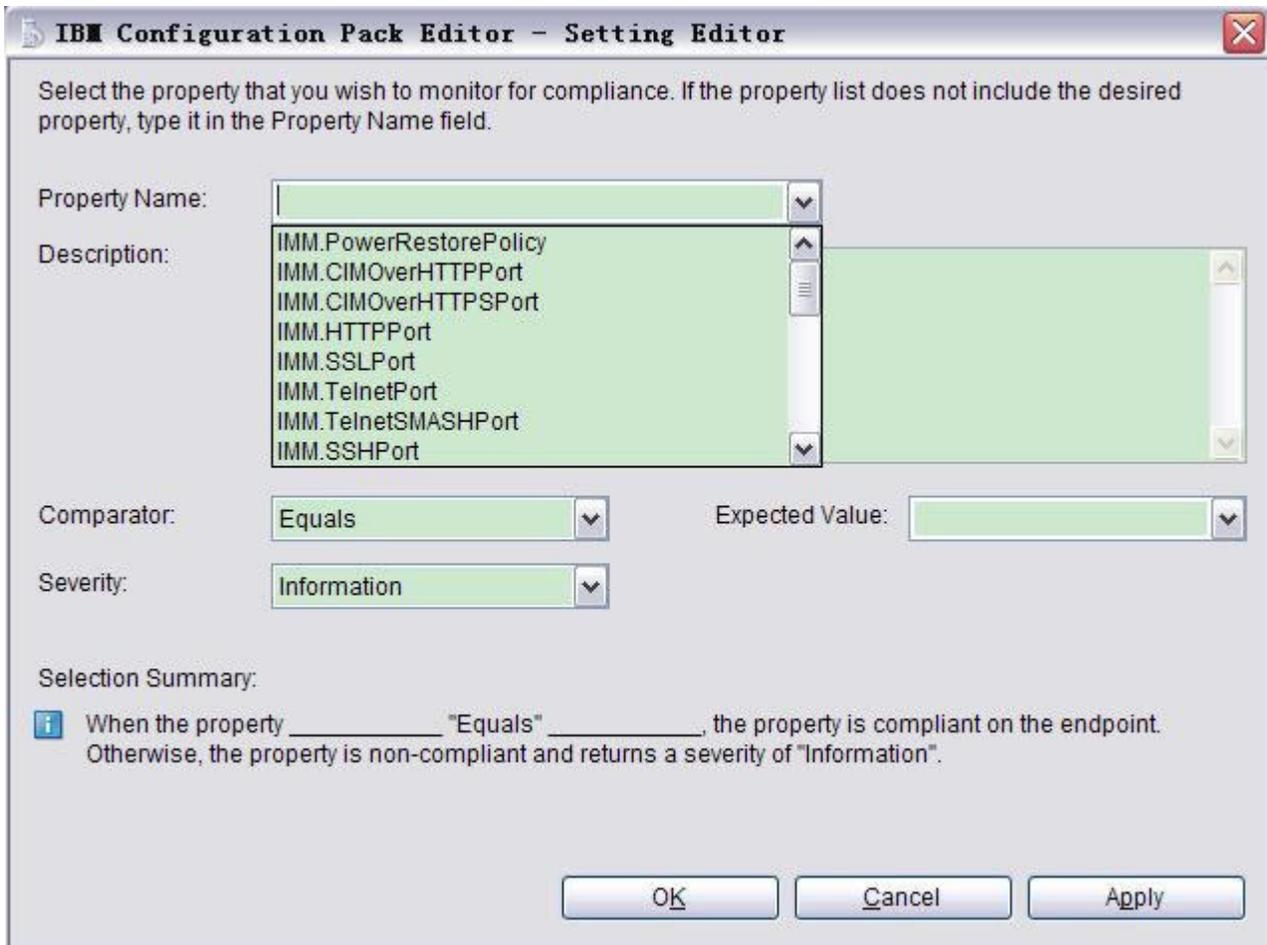


Figure 12. Setting Editor window

5. Complete the following fields:
 - **Property Name:** Select the specific IMM or UEFI setting (depending on the Setting Type selected in the Selecting Collection Information window previously).
 - **Comparator:** Each property name in the drop-down list has an associated return type, such as String, Integer, Version and Data Time, which requires you to select a comparator from the drop-down menu as follows:

Table 1. Comparators by return type

Return Type	Comparator	Description
String	Equals	If the evaluation property equals the Expected Value, the property is compliant on the endpoint. Otherwise, the property is non-compliant.
	Not Equals	If the evaluation property does not equal the Expected Value, the property is compliant on the endpoint. Otherwise, the property is non-compliant.
	Contains	If the evaluation property contains the Expected Value, the property is compliant on the endpoint. Otherwise, the property is non-compliant.
	One Of	If the evaluation property is one of the Expected Value, the property is compliant on the endpoint. Otherwise, the property is non-compliant.

Table 1. Comparators by return type (continued)

Return Type	Comparator	Description
Integer	Equals	If the evaluation property equals the Expected Value, the property is compliant on the endpoint. Otherwise, the property is non-compliant.
	Not Equals	If the evaluation property does not equal the Expected Value, the property is compliant on the endpoint. Otherwise, the property is non-compliant.
	Less	If the evaluation property is less than the Expected Value, the property is compliant on the endpoint. Otherwise, the property is non-compliant.
	Less or Equals	If the evaluation property is less than or equal to the Expected Value, the property is compliant on the endpoint. Otherwise, the property is non-compliant.
	Greater	If the evaluation property is greater than the Expected Value, the property is compliant on the endpoint. Otherwise, the property is non-compliant.
	Greater or Equals	If the evaluation property is greater than or equal to the Expected Value, the property is compliant on the endpoint. Otherwise, the property is non-compliant.

Table 1. Comparators by return type (continued)

Return Type	Comparator	Description
Version	Equals	If the evaluation property equals the Expected Value, the property is compliant on the endpoint. Otherwise, the property is non-compliant.
	Not Equals	If the evaluation property does not equal the Expected Value, the property is compliant on the endpoint. Otherwise, the property is non-compliant.
	Less	If the evaluation property is less than the Expected Value, the property is compliant on the endpoint. Otherwise, the property is non-compliant.
	Less or Equals	If the evaluation property is less than or equal to the Expected Value, the property is compliant on the endpoint. Otherwise, the property is non-compliant.
	Greater	If the evaluation property is greater than the Expected Value, the property is compliant on the endpoint. Otherwise, the property is non-compliant.
	Greater or Equals	If the evaluation property is greater than or equal to the Expected Value, the property is compliant on the endpoint. Otherwise, the property is non-compliant.

Table 1. Comparators by return type (continued)

Return Type	Comparator	Description
Data Time	Equals	If the evaluation property equals the Expected Value, the property is compliant on the endpoint. Otherwise, the property is non-compliant.
	Not Equals	If the evaluation property does not equal the Expected Value, the property is compliant on the endpoint. Otherwise, the property is non-compliant.
	Less	If the evaluation property is less than the Expected Value, the property is compliant on the endpoint. Otherwise, the property is non-compliant.
	Less or Equals	If the evaluation property is less than or equal to the Expected Value, the property is compliant on the endpoint. Otherwise, the property is non-compliant.
	Greater	If the evaluation property is greater than the Expected Value, the property is compliant on the endpoint. Otherwise, the property is non-compliant.
	Greater or Equals	If the evaluation property is greater than or equal to the Expected Value, the property is compliant on the endpoint. Otherwise, the property is non-compliant.

- **Severity:** Select one of three levels: Information, Warning, and Error. When the Setting is non-compliant with the expected value on the endpoint, the Setting will return the selected severity.

As you set the settings, the Selection Summary will auto fill the corresponding property, value, comparator and severity.

Note: You can type a property that does not exist in the property support list, but IBM Configuration Pack Editor will assume the property is a String type, and that means the Comparator will just list "Equals," "Not Equals," "Contains" and "One Of." You will still need to type an expected value for the property.

In addition, you can set duplicate settings in the Setting Collection.

6. Click **Apply** when you are finished adding the new property threshold.

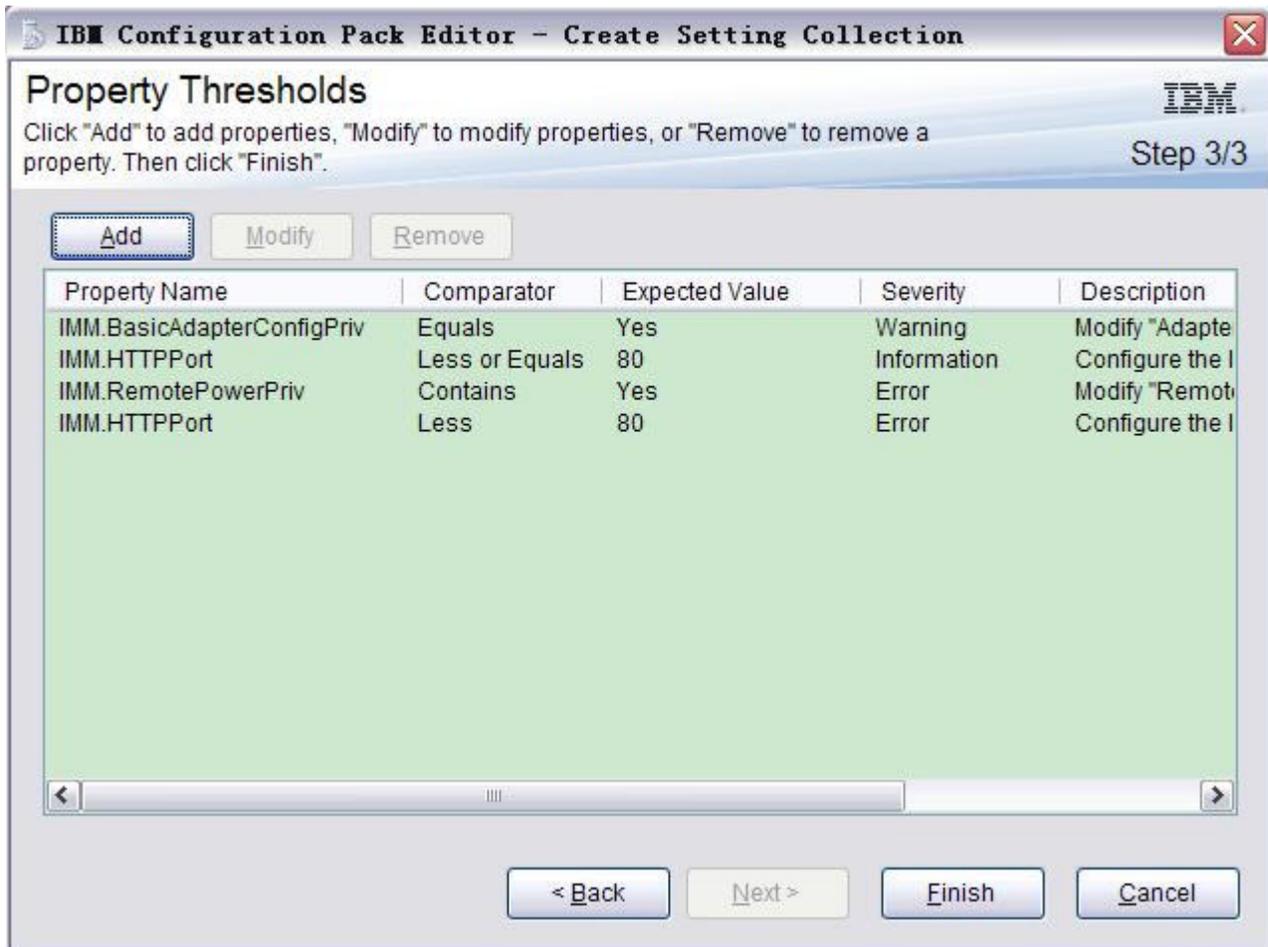


Figure 13. Property Thresholds window with list items

7. To modify a setting, select it and click **Modify**, or just double click the line item. To delete a setting, select one or more line items and click **Remove**.

View Setting Collection

About this task

After clicking **View Setting Collection**, the Setting Collection List will appear in the right pane.

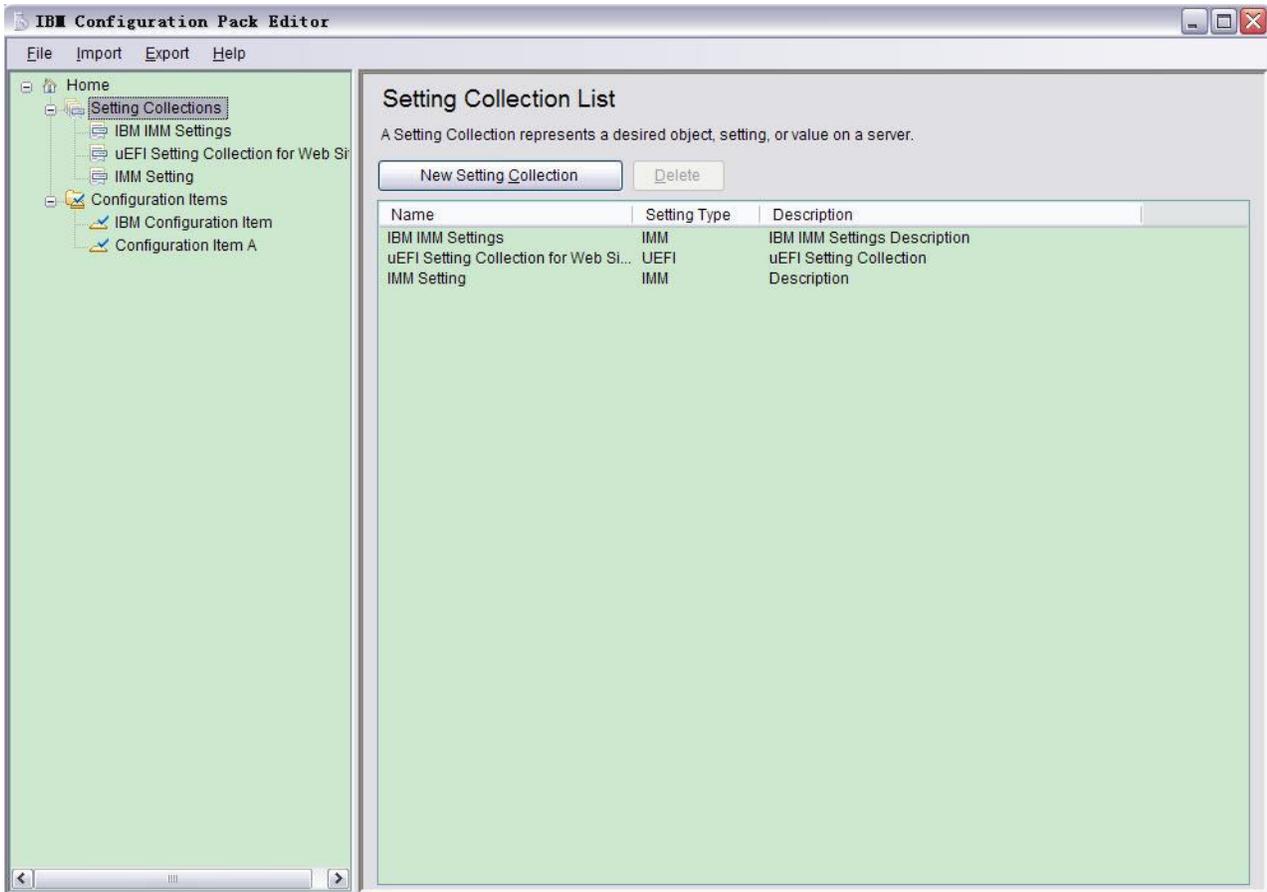


Figure 14. Setting Collection List window

- To create a new Setting Collection, right-click the Setting Collections tree item or click **New Setting Collection**.
- To delete Setting Collections, select one or more items in the list and click **Delete** or press the Delete key.
- Select a Setting Collection to view its properties or edit it.

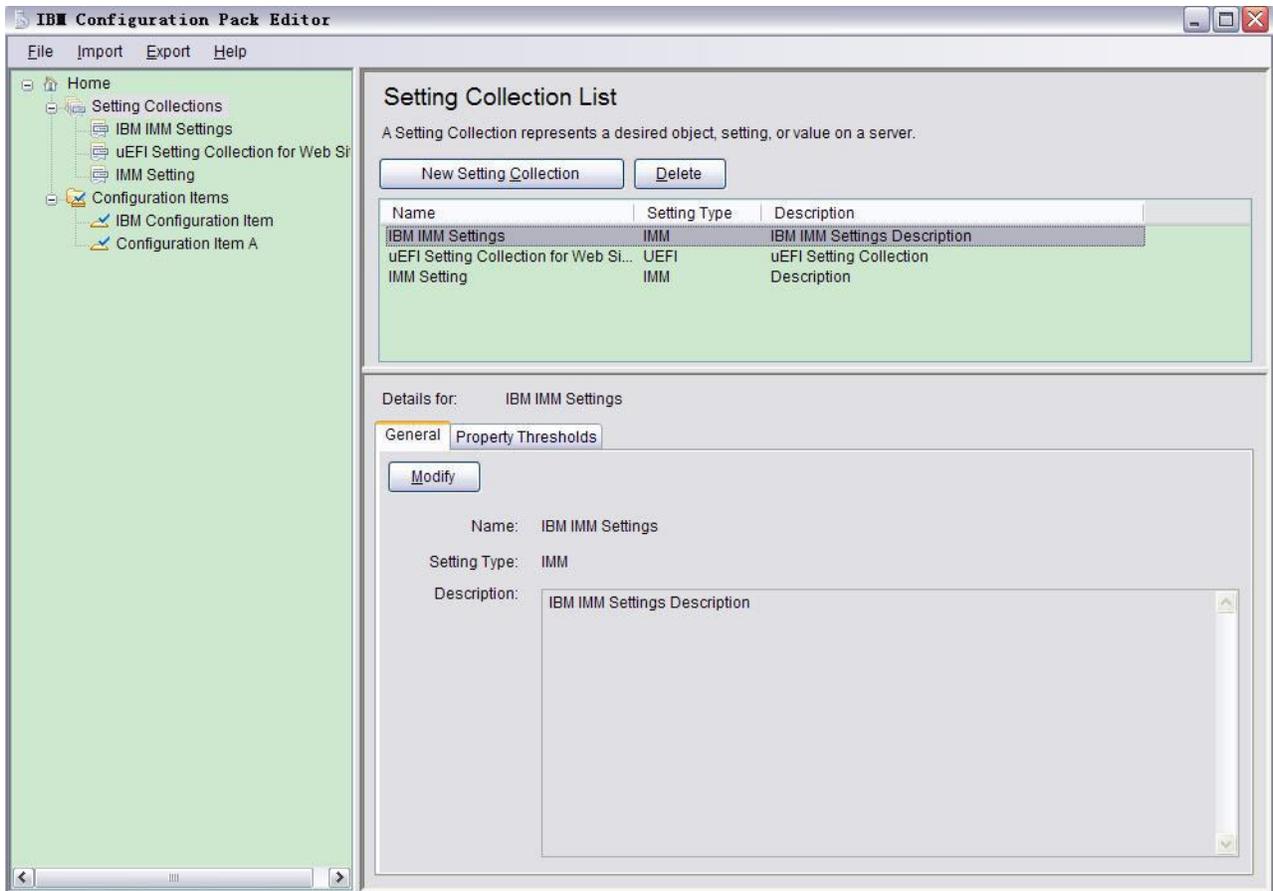


Figure 15. Setting Collection properties

Editing a Setting Collection: About this task

To edit a Setting Collection:

1. Click **Modify** on the General tab. The General Information window appears.

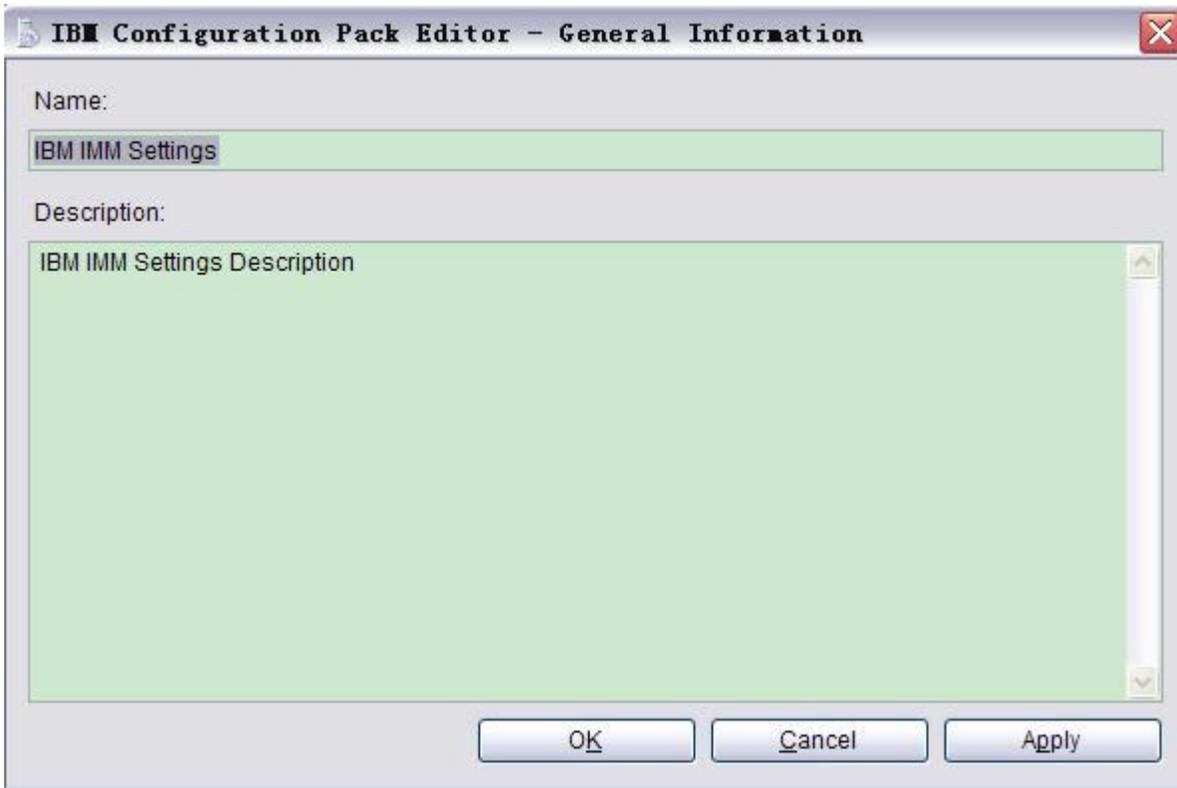


Figure 16. General Information window

2. Edit the **Name** and **Description** fields for this Setting Collection. For this Collection, but you would not be able to modify the setting type after being created.
3. Click the Property Thresholds tab. A list of existing property thresholds for the selected Setting Collection appears in the grid.

Figure 17. Figure 17. Property Thresholds tab

4. Click:
 - Add to add settings to the property thresholds.
 - Modify to edit a selected property threshold.
 - Remove to delete selected property thresholds.

Note: When a Setting Collection has been used in other **configuration items**, if deleted it will be in turn removed from those **configuration items**.

Duplicating a Setting Collection: About this task

To duplicate a Setting Collection, you can right click any Setting Collection in the Setting Collection List view or in the Setting Collections Tree view.

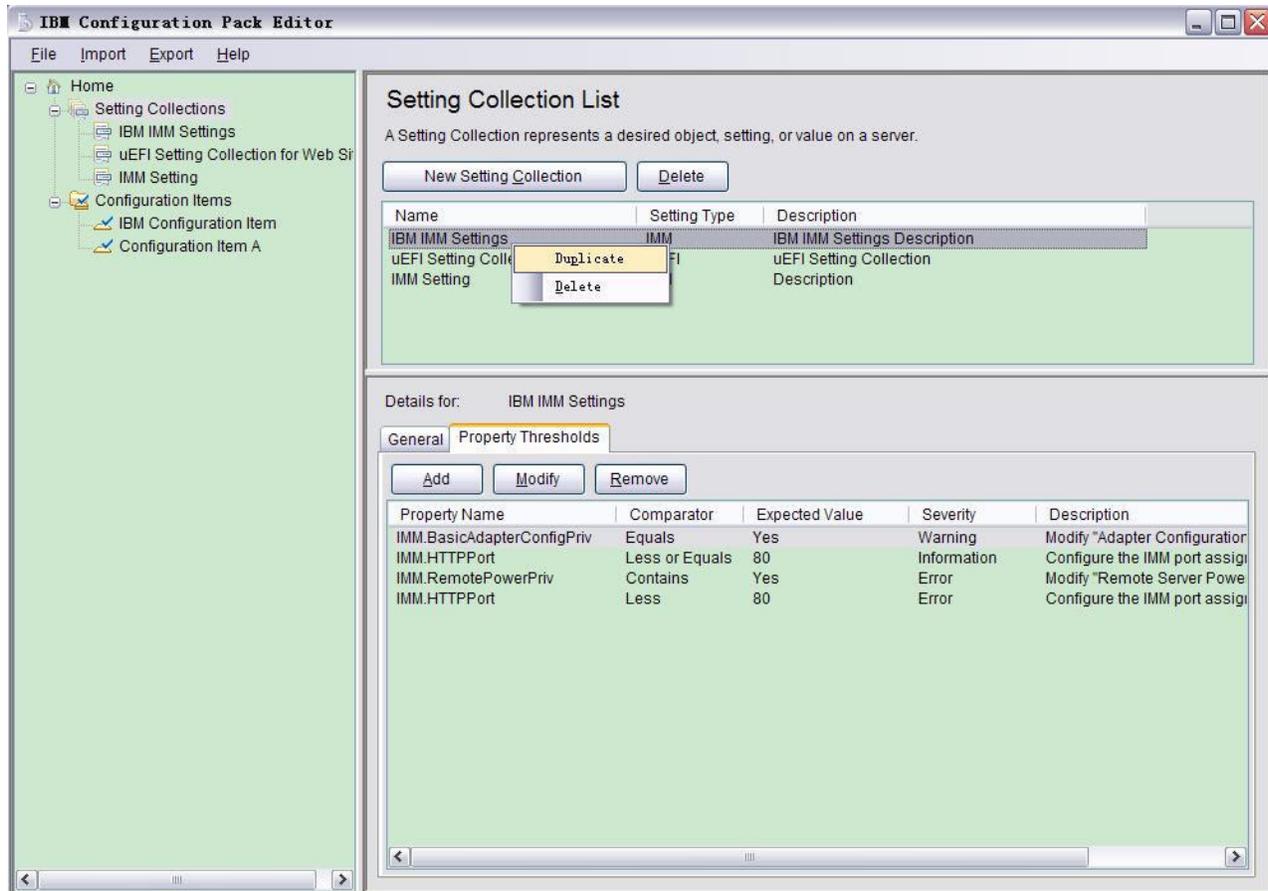


Figure 18. Duplicate function

The Duplication Dialog appears.



Figure 19. Duplication Dialog

The name of the duplicate Setting Collection can be the same name as an existing Setting Collection; however, it is recommended that you use a different name for the duplicate Setting Collection.

Note: If you duplicate a Setting Collection that is used in other **configuration items**, the new duplicate Setting Collection that is created will not be referred to by these **configuration items**.

configuration items list box

The **configuration items** Box is composed of the following link buttons:

- Create **configuration item** link
- View **configuration item** link

Creating a configuration item

1. Click **Create configuration item**. A wizard appears to guide you through creating a **configuration item**.

IBM Configuration Pack Editor - Create Configuration Item

General Information

Enter a name and (optional) description for your new configuration item and click "Next" to continue.

IBM Step 1/3

Name:

IBM Configuration Item

Description:

IBM Configuration Item

Include Setting Collections:
IBM IMM Settings
uEFI Setting Collection for Web Site

< Back Next > Finish Cancel

Figure 20. General Information window

2. Type a name and description for the **configuration item**.

Note: The Name field is required, but the Description field is optional.

3. Click Next. The IMM Information window appears.

IBM Configuration Pack Editor - Create Configuration Item

IMM Information

Enter the user ID and password, and specify the location of the asu.exe file on the endpoint.
Click "Next" to continue.

IBM Step 2/3

IMM Information

UserID
UserID

Password
***** ✓

Confirm Password
***** ✓

Specify the location of the asu.exe file on the endpoint
C:\IBM\ASU\Win32\asu.exe

< Back Next > Finish Cancel

Figure 21. IMM Information window

4. Enter a UserID and Password for IMM on the target server.

Note: The User ID and Password are not required if the default account is used on target IMM. IBM Configuration Pack Editor will not check whether the User ID and Password are correct.

5. In the field labeled **Specify the location of the asu.exe file on endpoint**, enter an absolute path to asu.exe on the target server. The collection's settings will use this path to invoke asu.exe to detect the settings. If you do not type the correct path, the setting will attempt to detect asu.exe as specified in this dialog box.

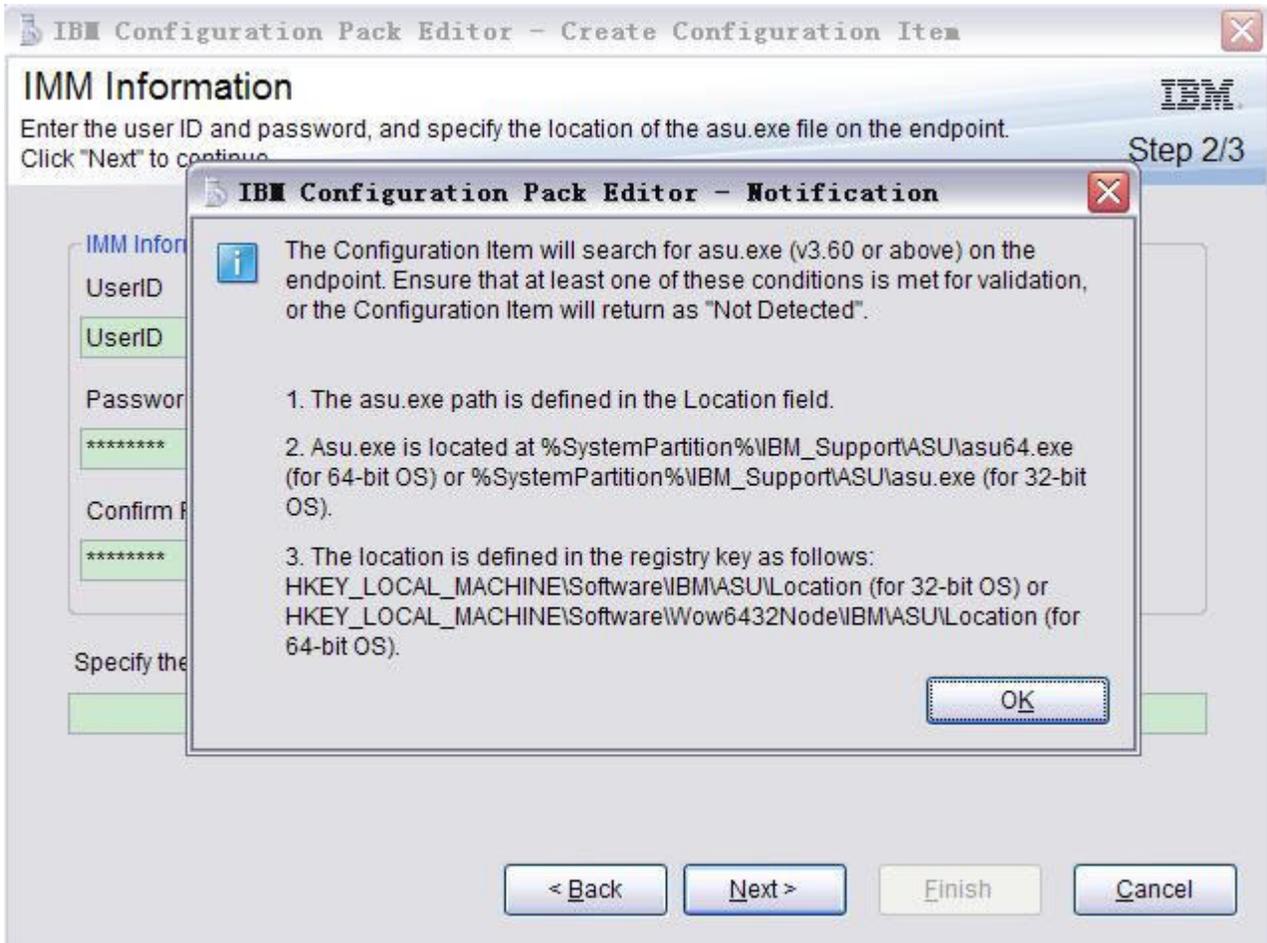


Figure 22. Asu.exe detection notification

6. Click **Next**. The **configuration items** window appears.

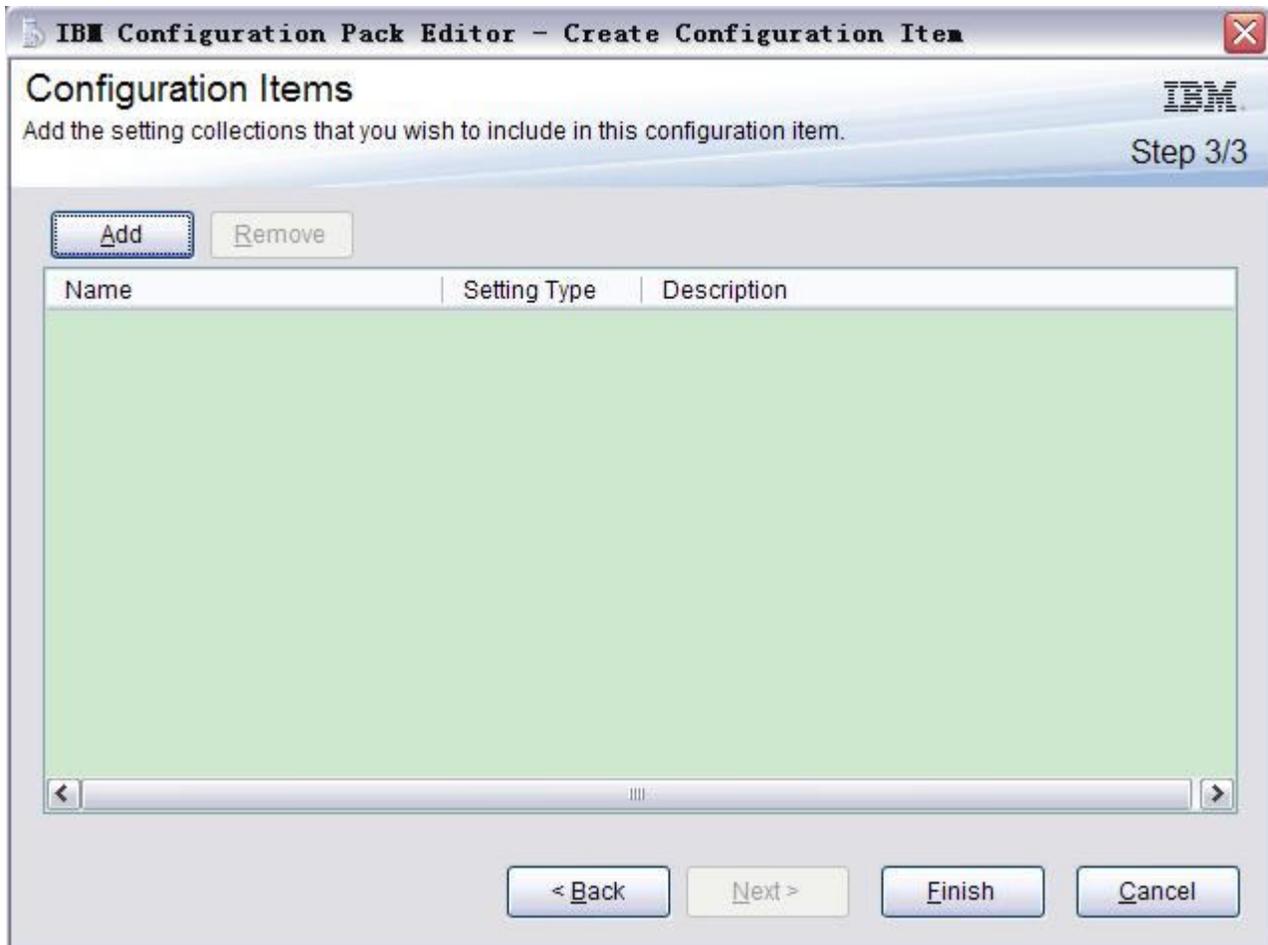


Figure 23. Add Setting Collections window

7. Use the **Add** button to add existing Setting Collections into the **configuration item**. The Add Setting Collections window appears.

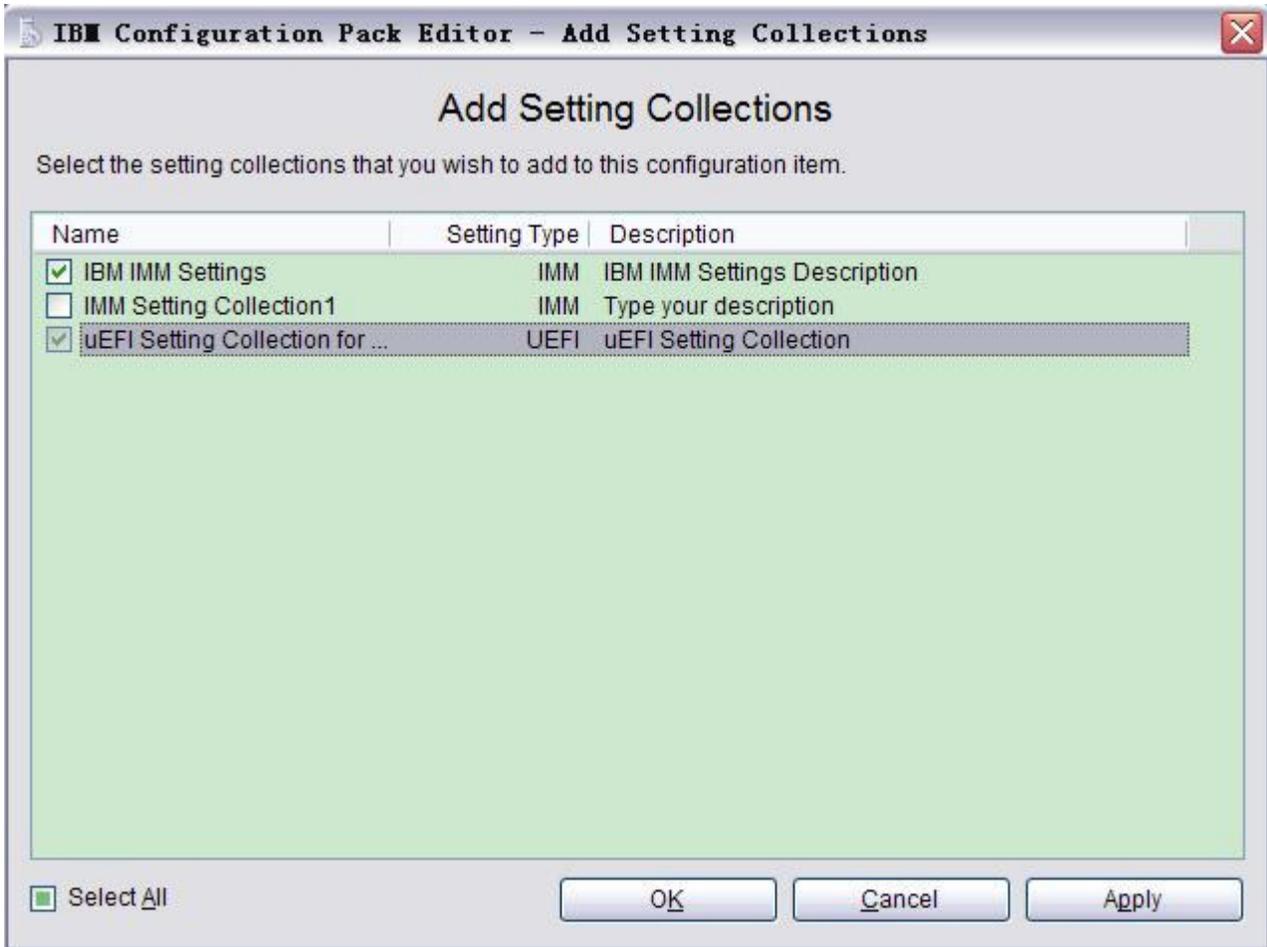


Figure 24. Setting Collections selection window

8. Select the check boxes that correspond to the Setting Collections you want to add to the **configuration item**, and click **OK**.

Note: One Setting Collection can be used in more than one **configuration item**.

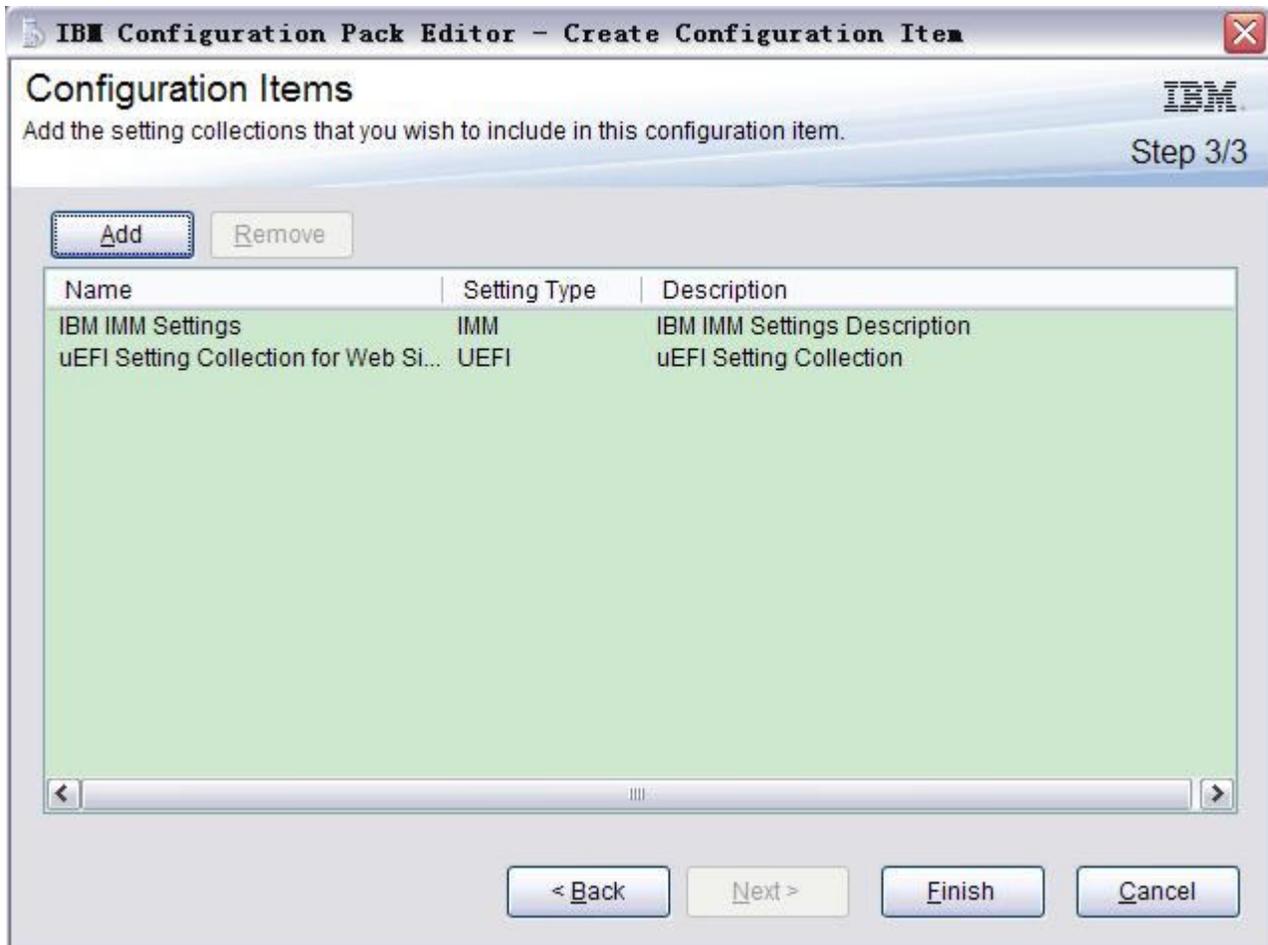


Figure 25. Add Setting Collections window with list items

9. To remove Setting Collections from a **configuration item**, select one or more Setting Collections in the list view and click **Remove**.

Note: Clicking **Remove** will delete the selected Setting Collections from the current **configuration item**, but it will not delete Setting Collections from this list view.

10. Click **Finish**.

Viewing a configuration item

1. Click **View configuration item**. The **configuration items** window appears.

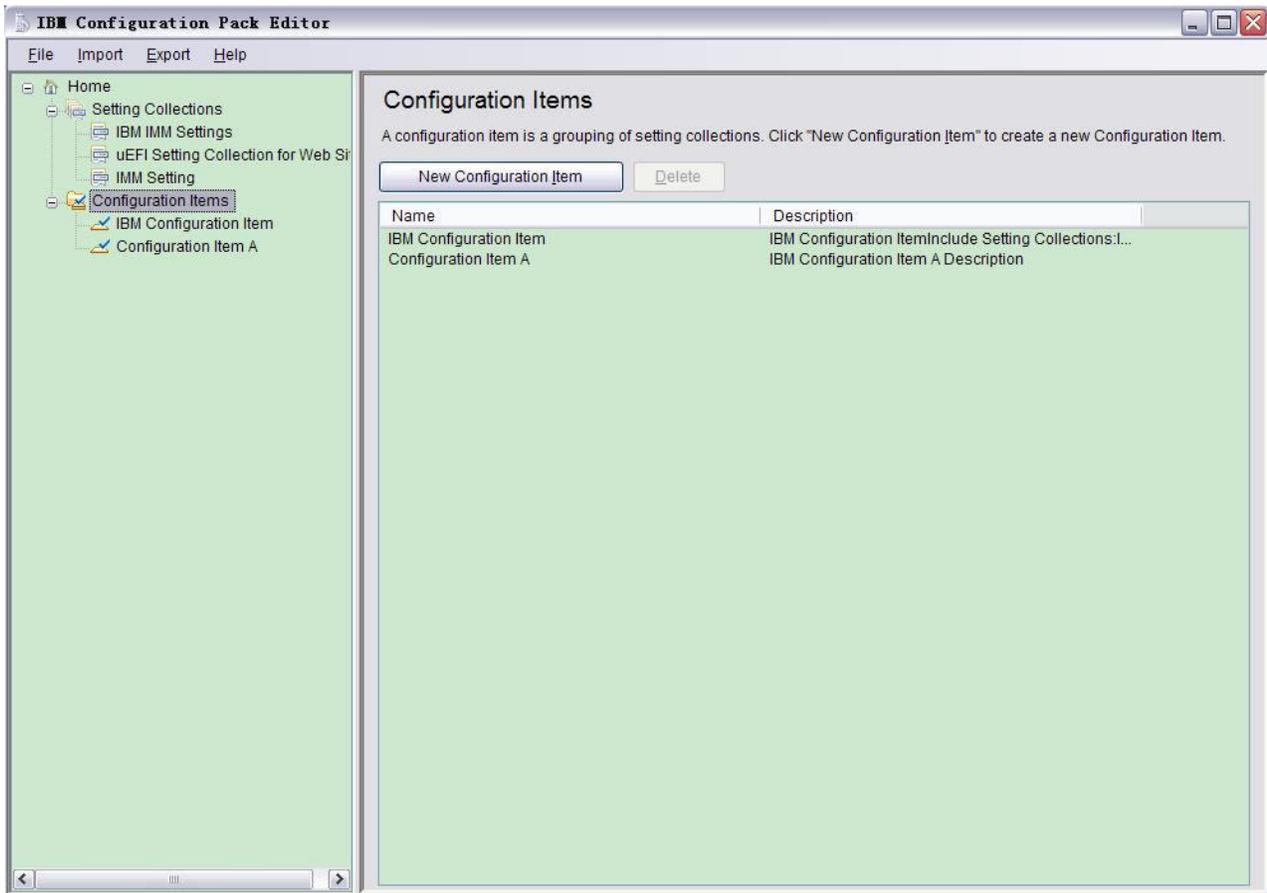


Figure 26. **configuration items** window

2. To create a new **configuration item**, right-click the Setting Collections tree item or click **New configuration item**.
To delete **configuration items**, select one or more items in the list and click **Delete**.
Select a **configuration item** to view its properties or edit it.

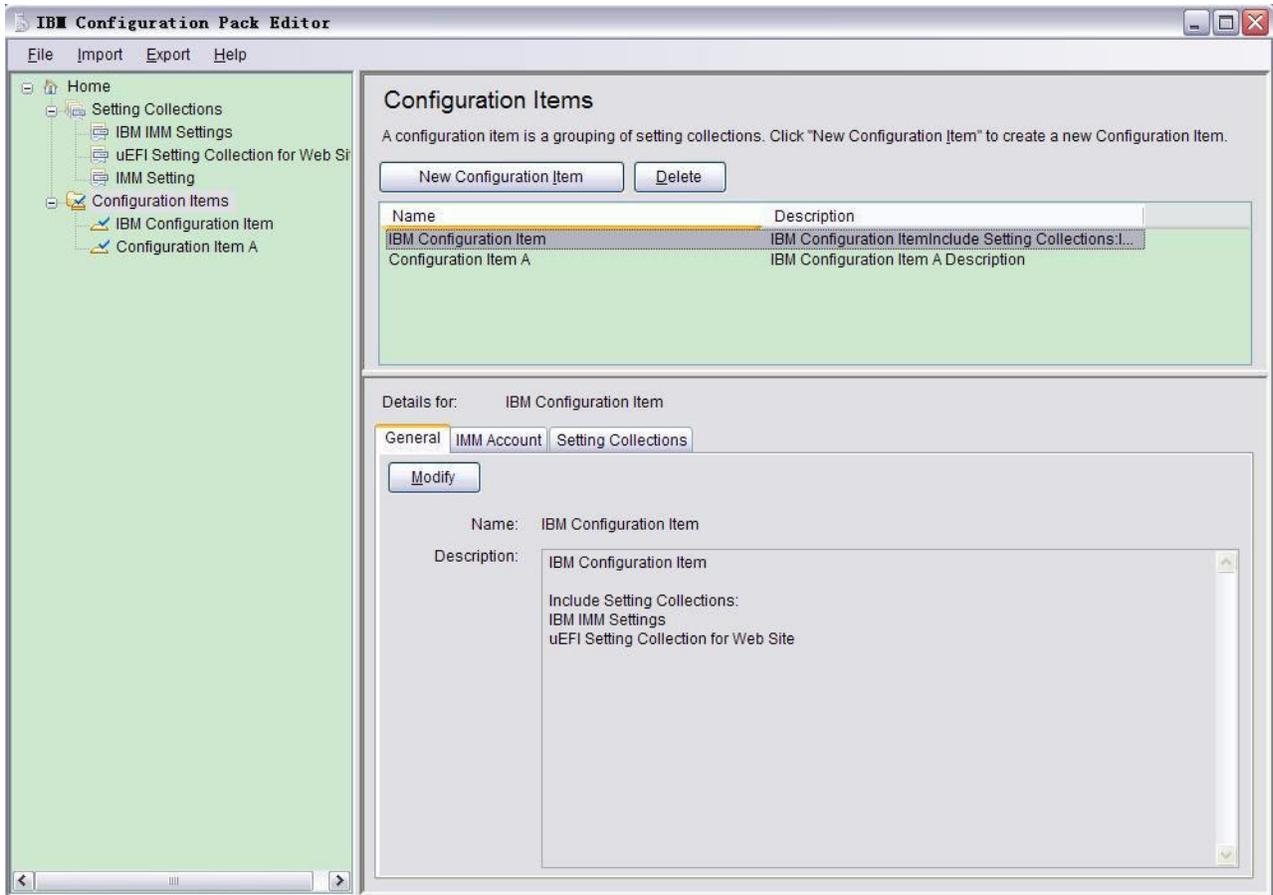


Figure 27. configuration item properties

Editing a configuration item About this task

To edit a **configuration item**:

1. Click **Modify** on the General tab. The General Information window appears.



Figure 28. **configuration item**: General Information window

2. Edit the **Name** and **Description** fields for this **configuration item**.
3. Click the IMM Account tab.

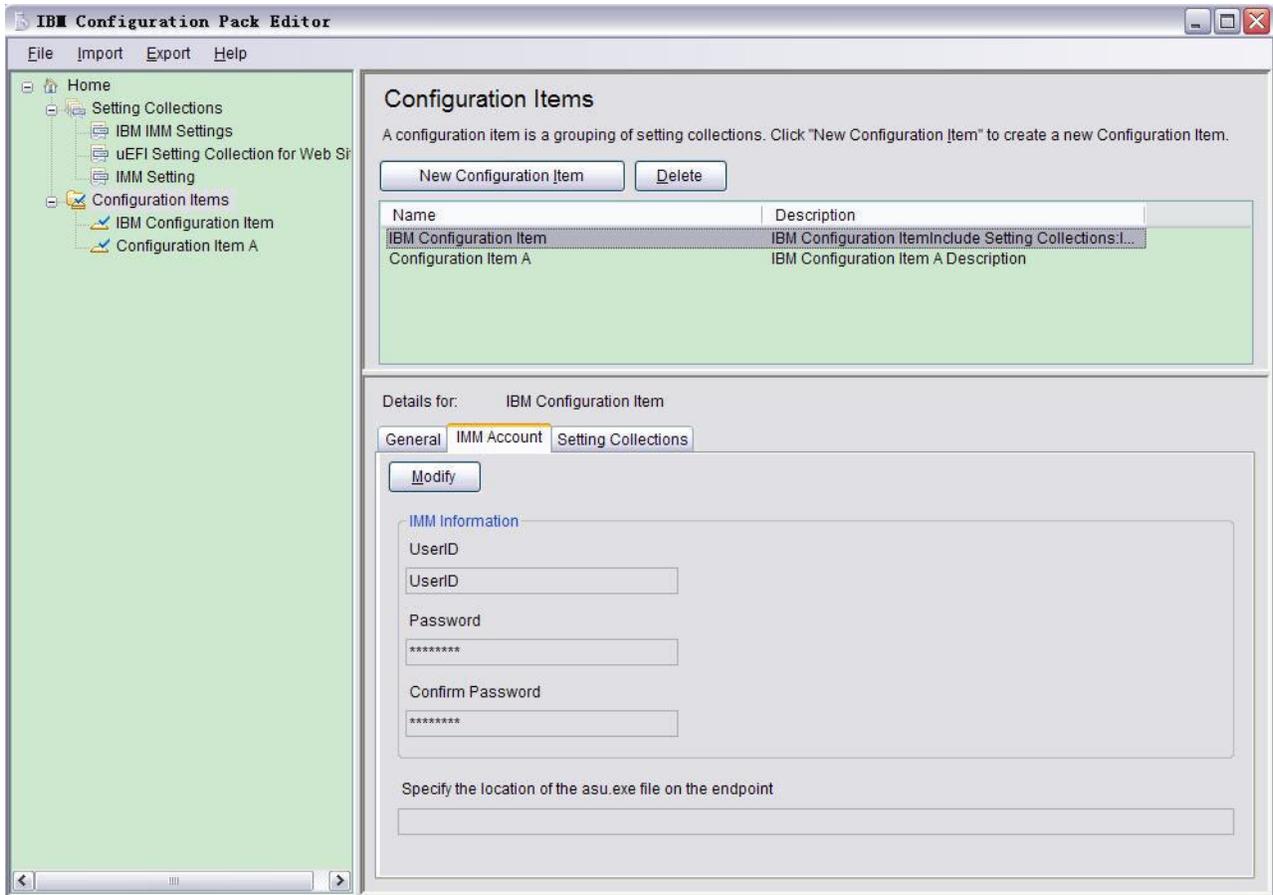


Figure 29. IMM Account tab

4. Click **Modify** to enter a UserID and Password for IMM on the target server.

Note: IBM Configuration Pack Editor will not check whether the User ID and Password are correct. It is recommended that you use the default account to eliminate any errors.

5. In the field labeled **Specify the location of the asu.exe file on endpoint**, enter an absolute path to asu.exe on the target server. The collection's settings will use this path to invoke asu.exe to detect the settings. If you don't type the correct path, the setting will attempt to detect asu.exe as specified in this dialog box.

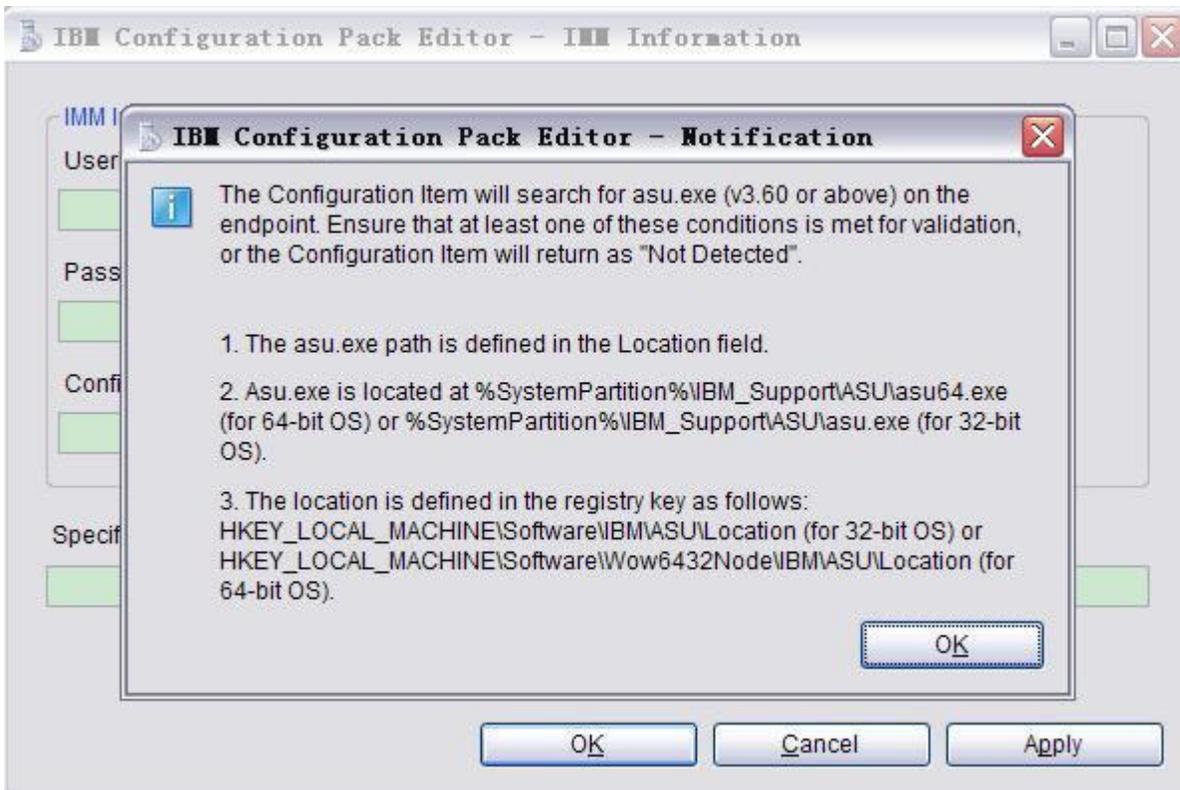


Figure 30. Asu.exe detection notification dialog

6. Click the Setting Collections tab.

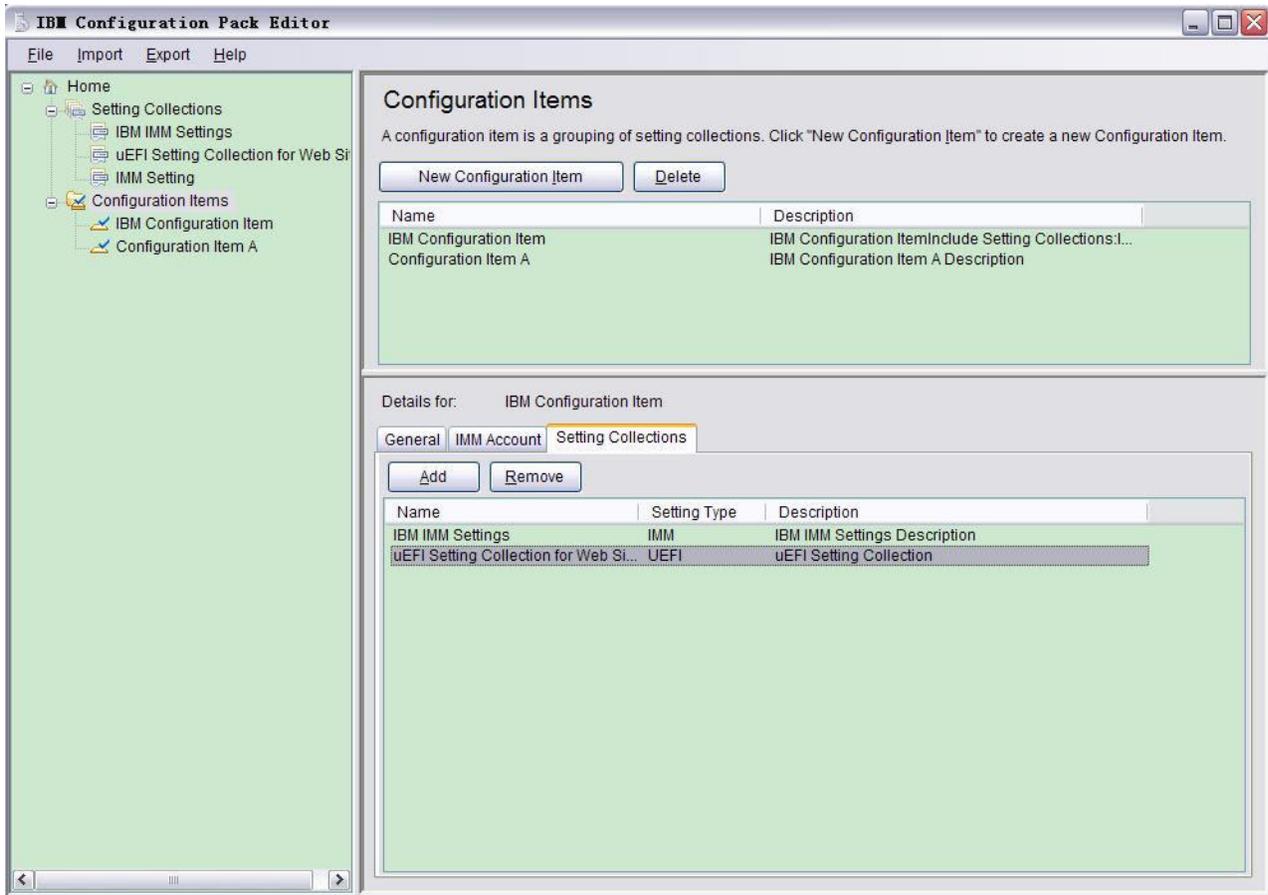


Figure 31. Setting Collections tab

7. Use the **Add** button to add existing Setting Collections into the **configuration item**. The Add Setting Collections window appears.

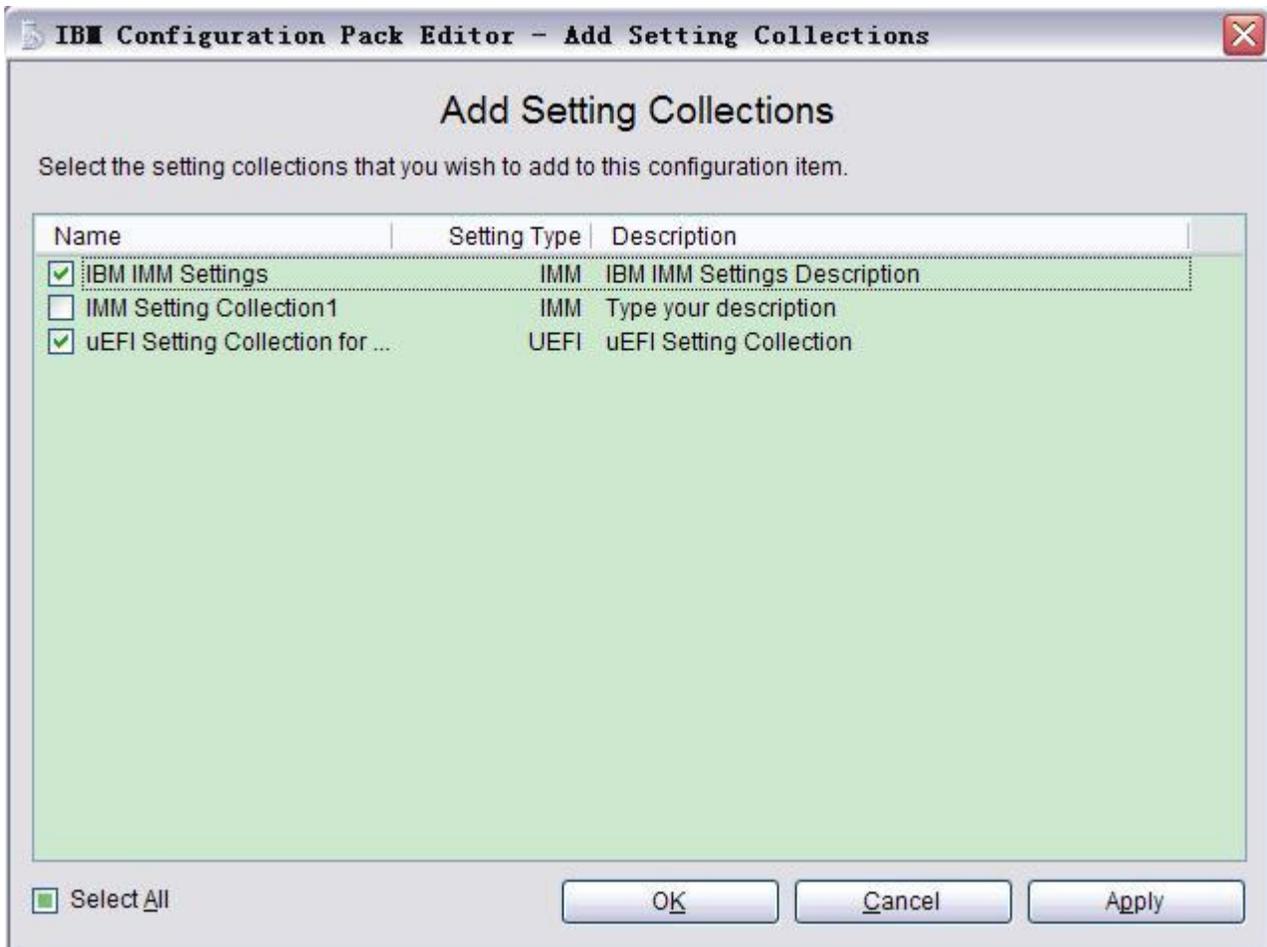


Figure 32. Add Setting Collections selection window

8. Select the check boxes that correspond to the Setting Collections you want to add to the **configuration item**, and click **OK**.

Note: One Setting Collection can be used in more than one **configuration item**.

9. To remove Setting Collections from a **configuration item**, select one or more Setting Collections in the list view and click **Remove**.

Note: Clicking **Remove** will delete the selected Setting Collections from the current **configuration item**, but it will not delete the Setting Collections from other **configuration items**.

Duplicating a configuration item

About this task

To duplicate a **configuration item**, you can right click any **configuration item** in the **configuration item** List view or the **configuration item** Tree view.

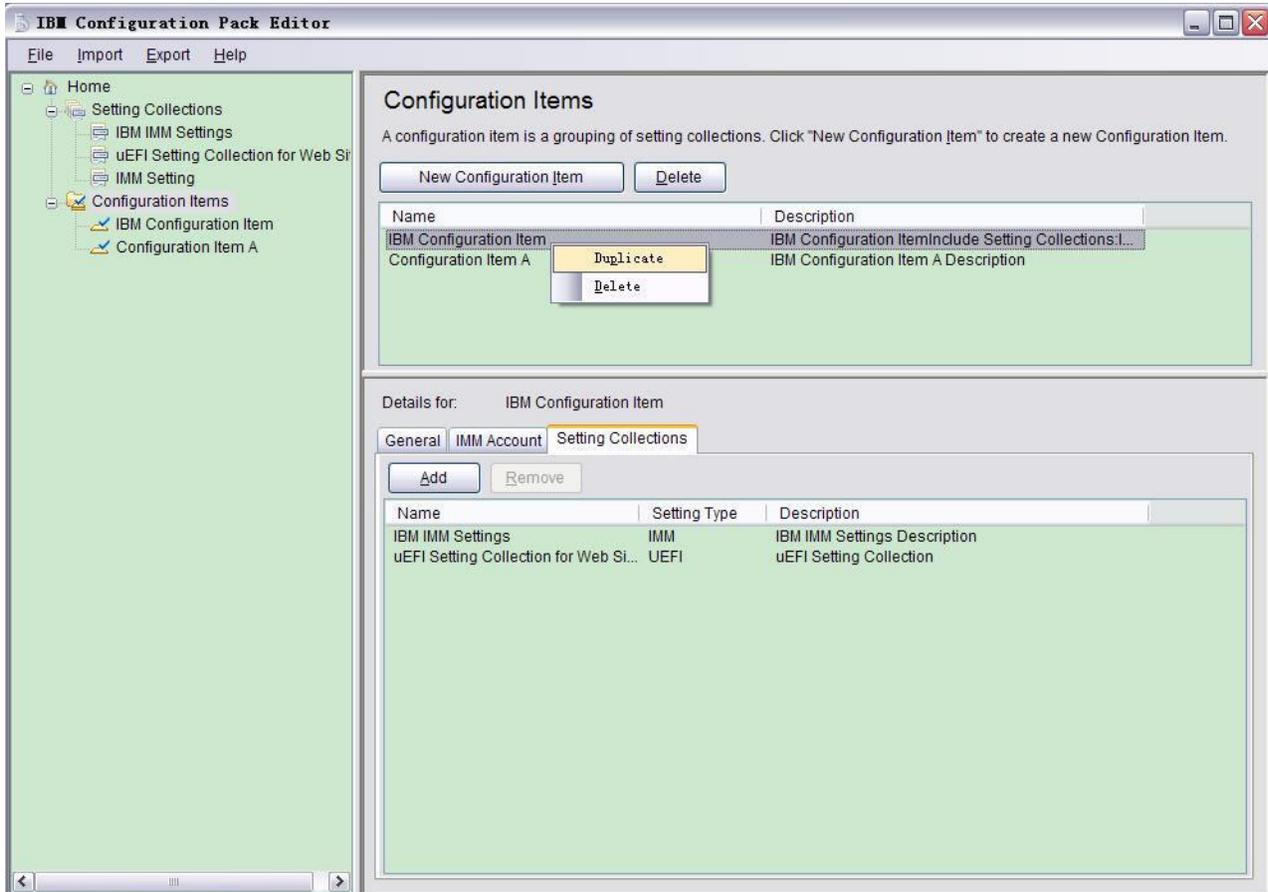


Figure 33. Duplicate **configuration items** function

The Duplication Dialog appears.

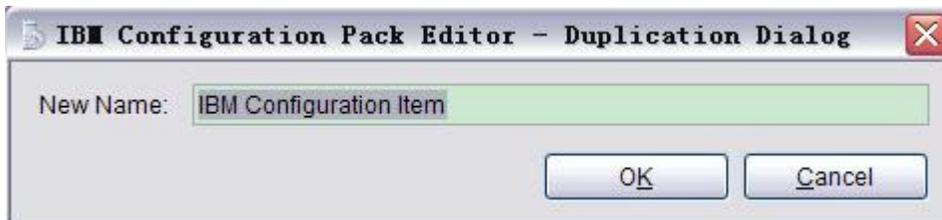


Figure 34. **configuration item** Duplication Dialog

The name of the duplicate **configuration item** can be the same name as an existing **configuration item**; however, it is recommended that you use a different name for the duplicate **configuration item**.

Note: After you duplicate a **configuration item**, the new duplicate **configuration item** will refer to the same Setting Collections of the source **configuration item**.

Deleting a configuration item

About this task

To delete a **configuration item**, select it in the list view and click **Delete**, or right-click the selected **configuration item** and select **Delete**.

Note: The child Setting Collections of a deleted **configuration item** are not deleted.

Exporting configuration data to a Configuration Description File

About this task

You can export **configuration items** and their children Setting Collections into the Configuration Description File (.xml). This enables administrators to share and author their configuration data.

1. From the pull-down menu, select **Export -> To Configuration File**.

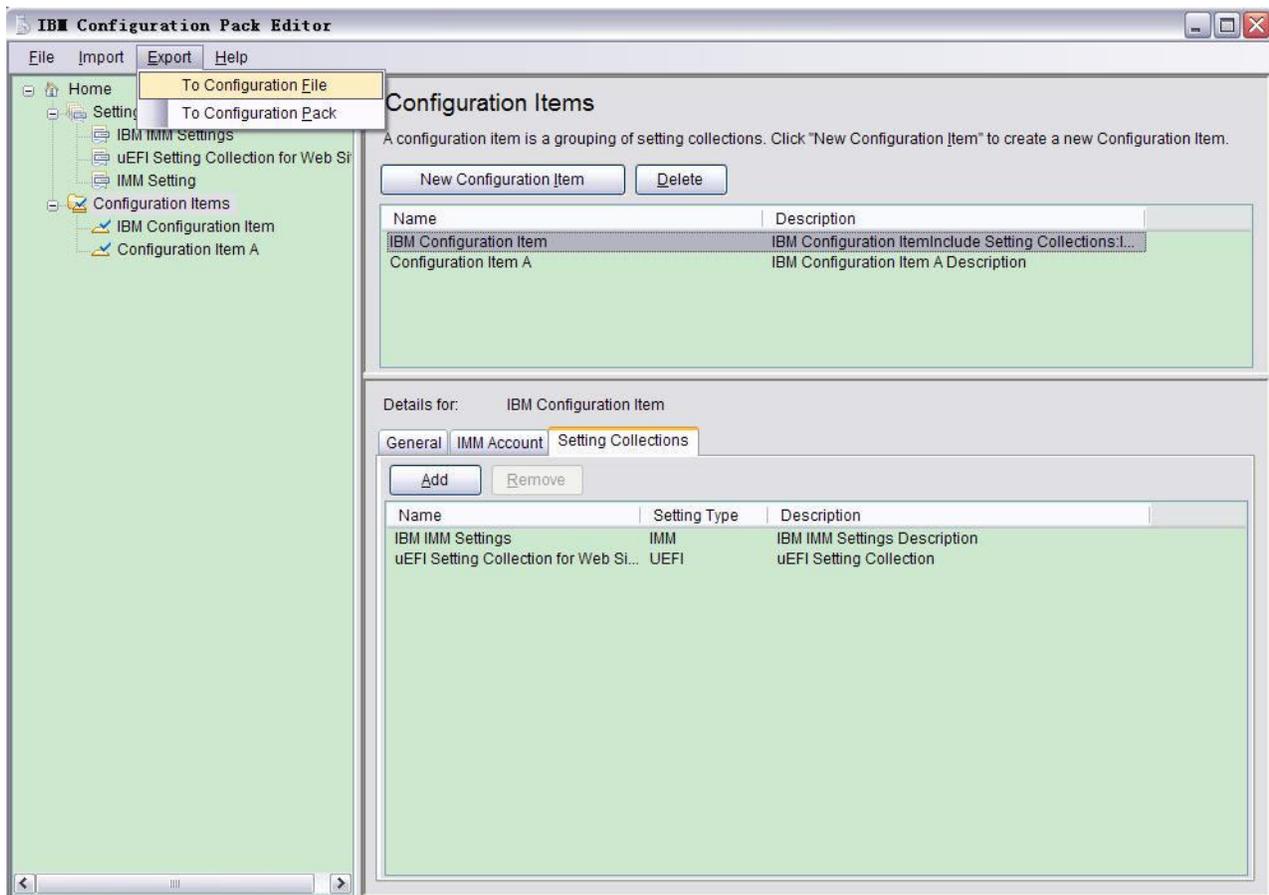


Figure 35. Export -> To Configuration File menu item

The Export to Configuration Description (.xml) window appears.

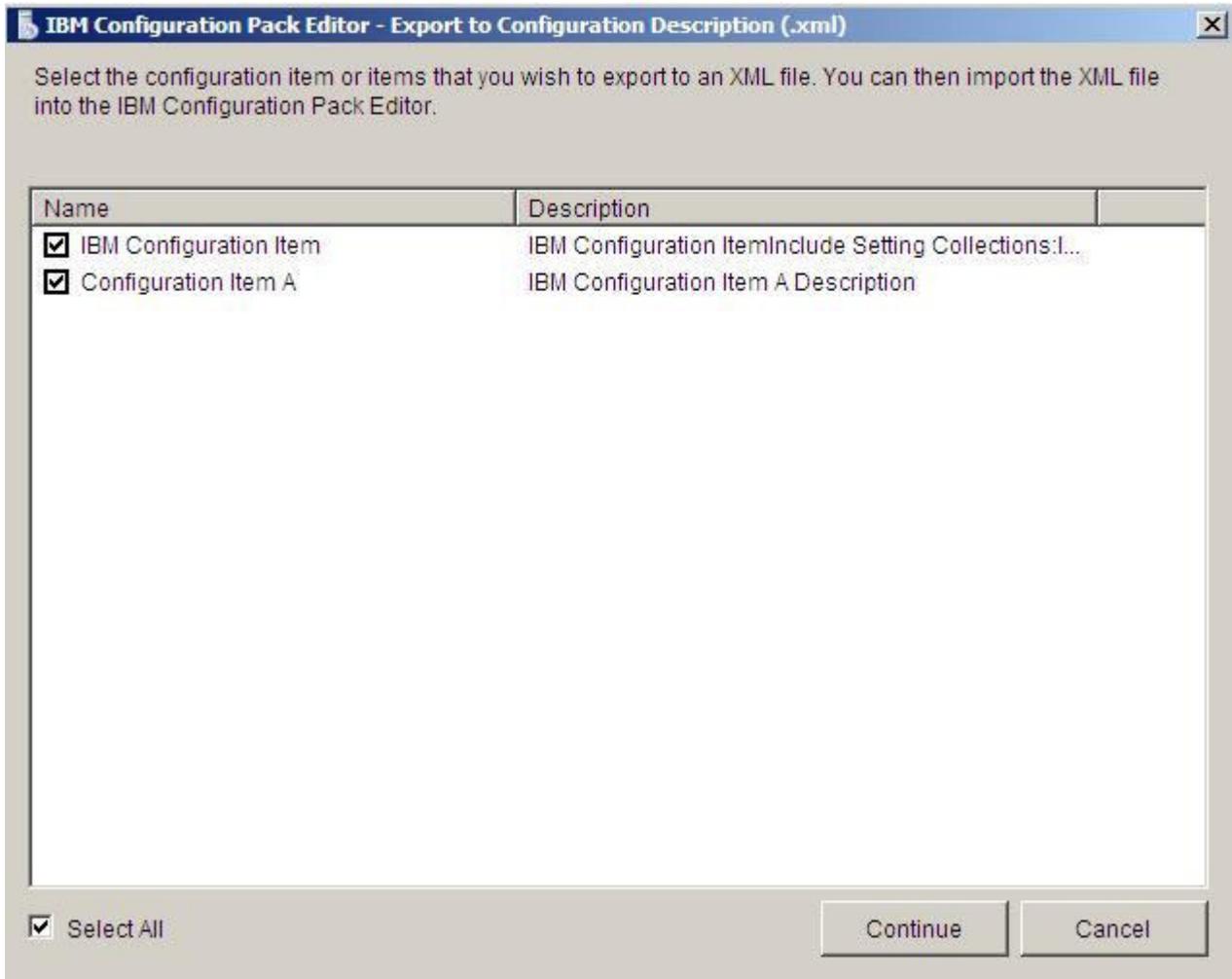


Figure 36. Export to Configuration Description (.xml) window

2. Select the check boxes that correspond to the **configuration items** that you want to export. The child Setting Collections of the selected **configuration items** will also be exported automatically.
3. Click **Continue**. The file navigation window appears.

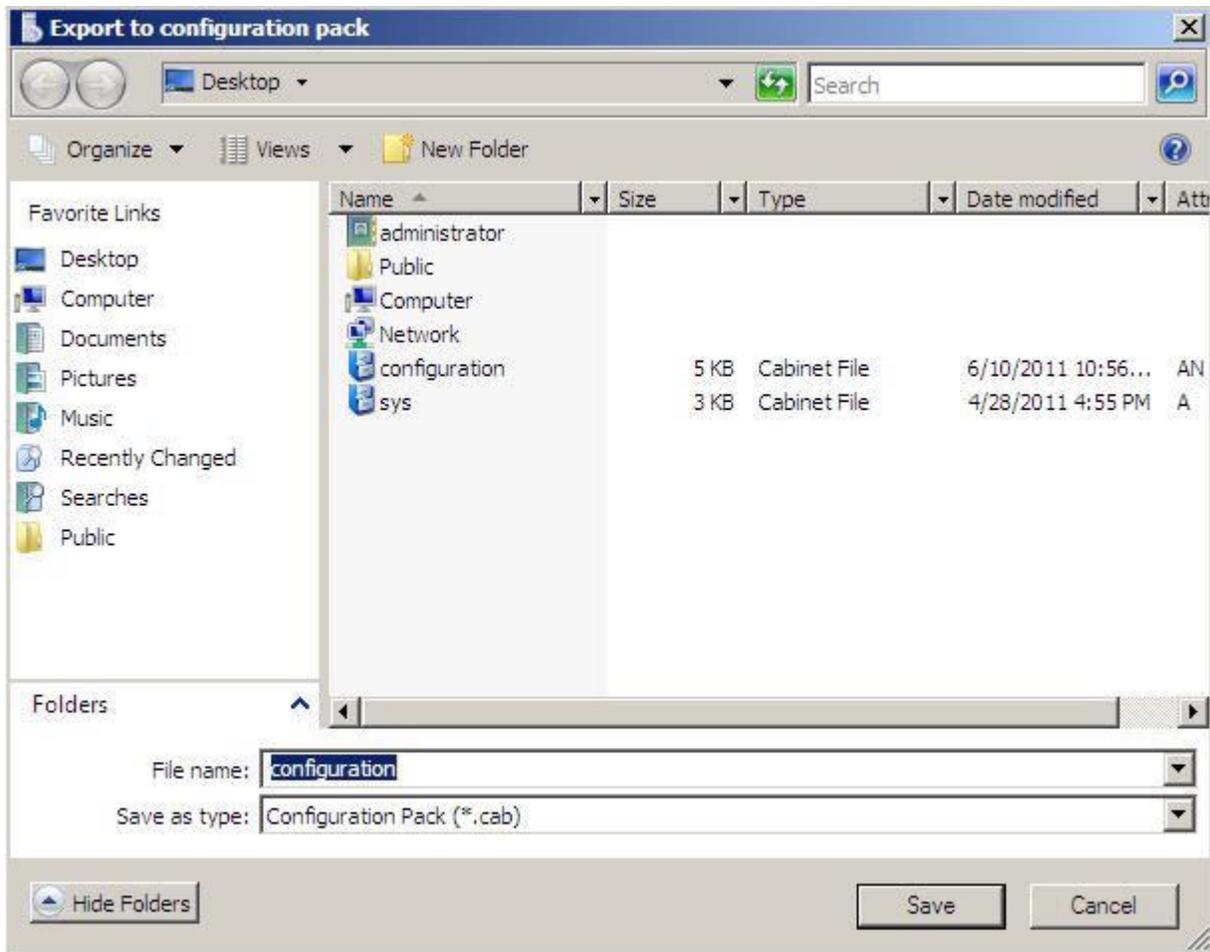


Figure 37. Export to Configuration Description file navigation window

4. Enter a name for the Configuration Description .xml file and click **OK**.
5. A dialog box appears indicating the export was successful. Click **OK**.

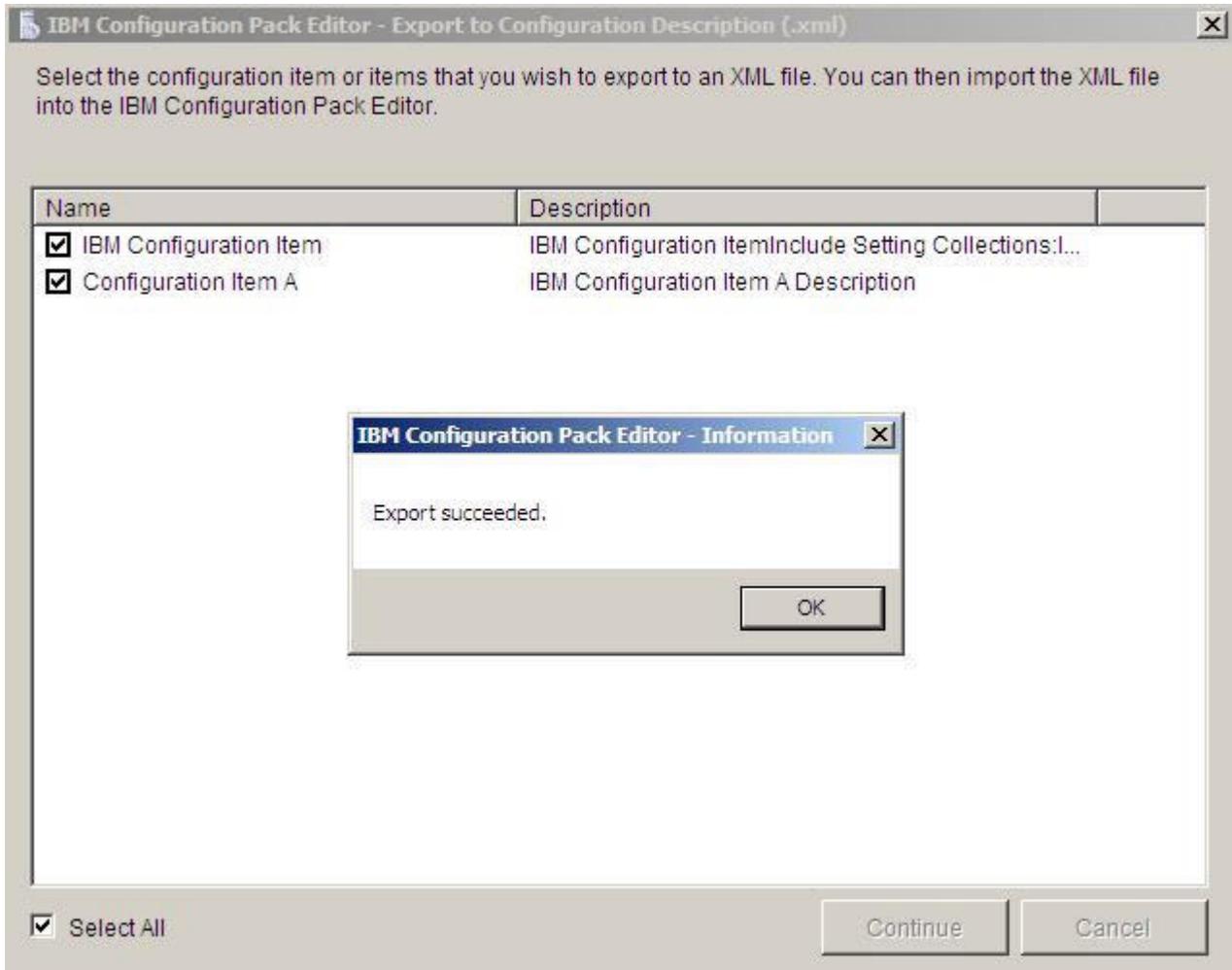


Figure 38. Export Succeeded dialog box

Importing the Configuration Description xml file

1. From the pull-down menu, select **Import -> Configuration File**.

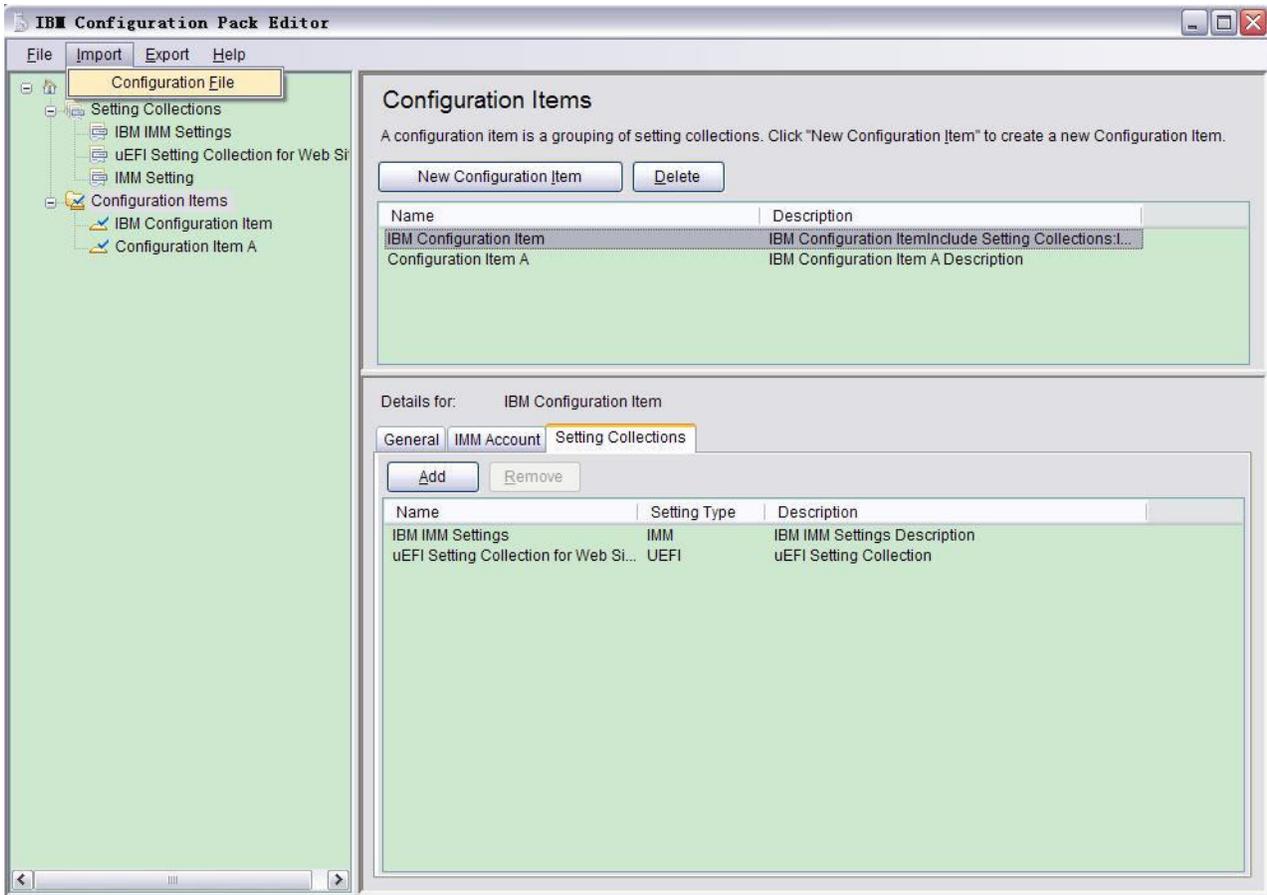


Figure 39. Import -> Configuration File menu item

The file navigation window appears.

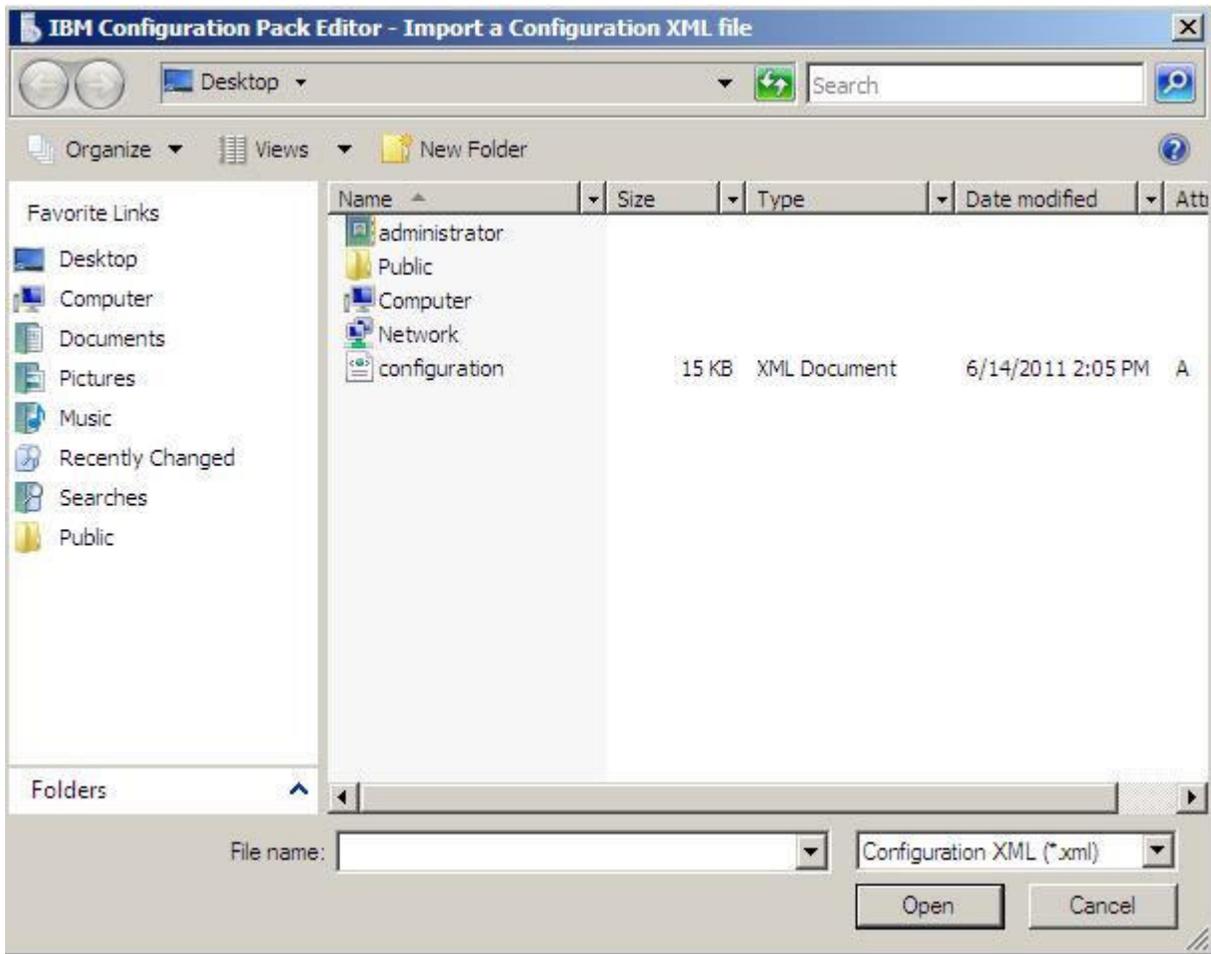


Figure 40. Import a Configuration XML file navigation window

2. Select a Configuration Description xml file to import and click **OK**.



Figure 41. Confirm Replace Setting Collection window

In the IBM Configuration Pack Editor, every Setting Collection and **configuration item** has a unique identifier. When the same ID has been used even if their names are different, the Editor will present a dialog box to confirm whether you want to replace the existing configuration data.

Note: If you import a Setting Collection that has the same ID as an existing Setting Collection in the Configuration Item, the imported Setting Collection will replace the existing Setting Collection. The **configuration item** will refer to the imported Setting Collection regardless of whether its content is or is not the same as the previous Setting Collection's content.

Checking your license validation status

1. From the pull-down menu, select **Help -> License**.

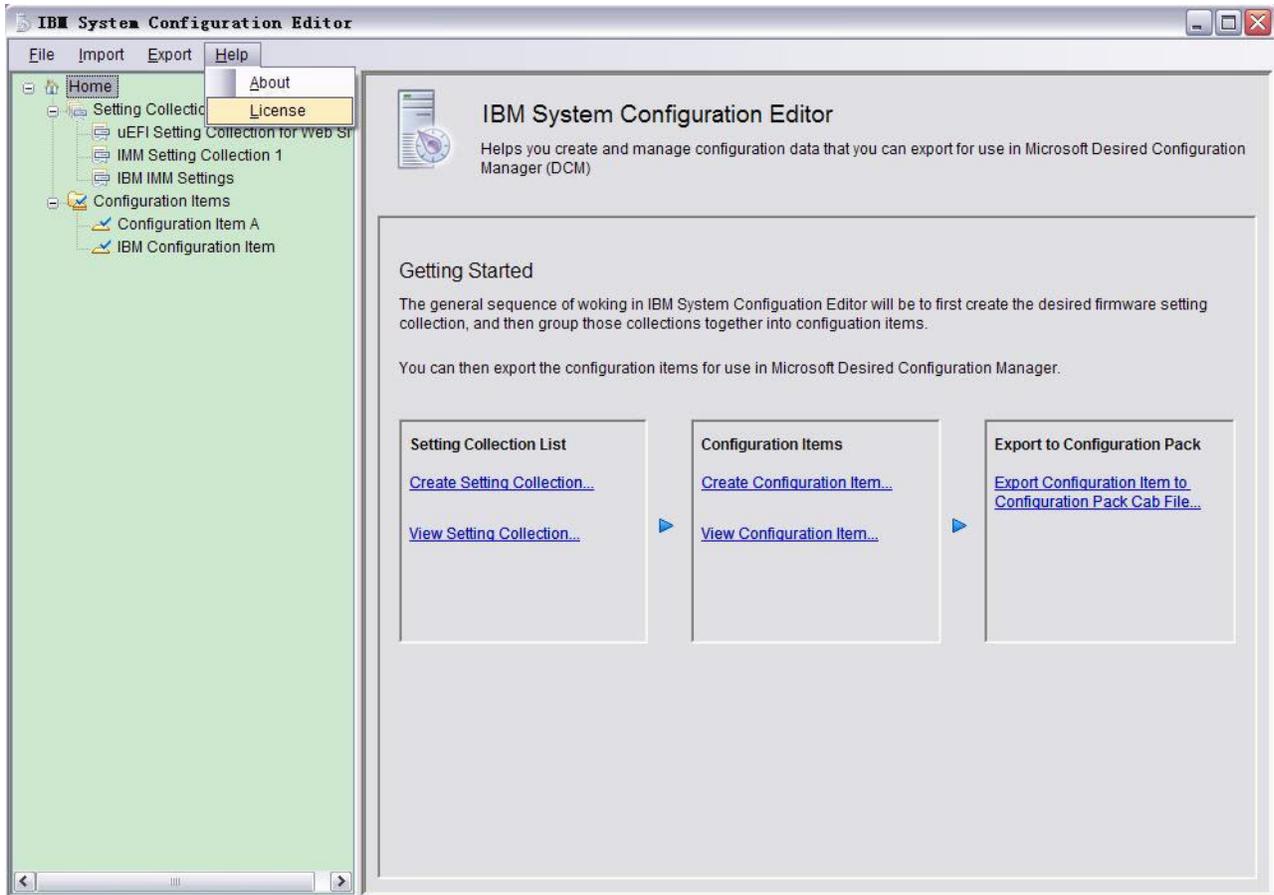


Figure 42. Help -> License menu item

2. The License Entitlement window appears. Click **OK** to exit the window when finished.

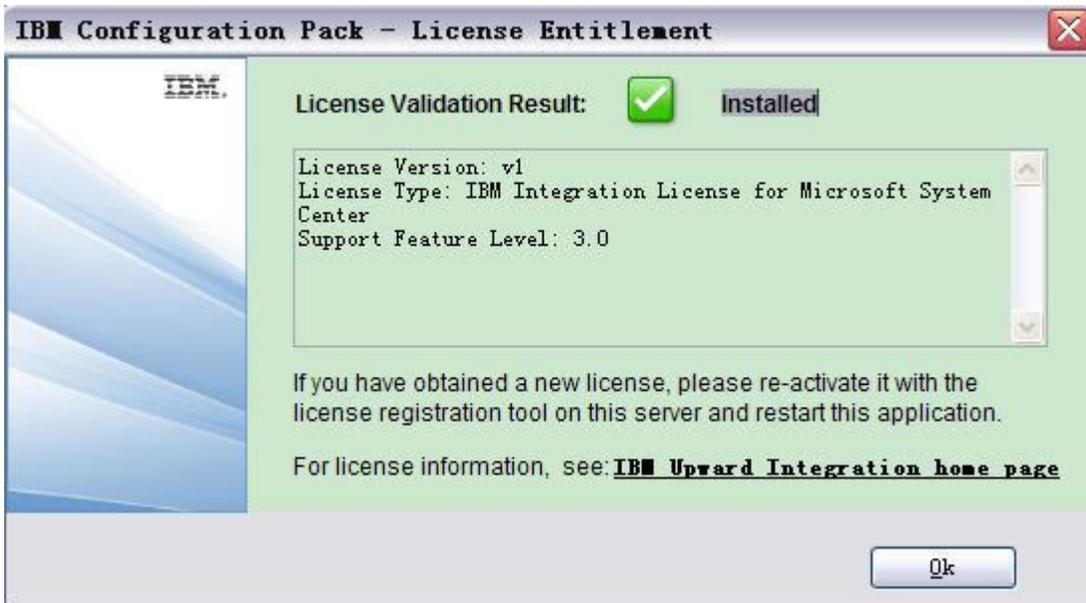


Figure 43. License Entitlement window

Export to IBM Configuration Pack list box

The Export to IBM Configuration Pack Box is composed of the Export **configuration item** to IBM Configuration Pack Cab File link.

The Export **configuration item** to IBM Configuration Pack Cab File function can export multiple **configuration items** and their children Setting Collections to a .cab file. The .cab file is named IBM Configuration Pack, which can be imported into the SCCM Server.

Exporting configuration items to the IBM Configuration Pack .cab File

1. From the main IBM Configuration Pack Editor window, click **Export configuration item to Configuration Pack Cab File**. The Export to IBM Configuration Pack (.cab) window appears.

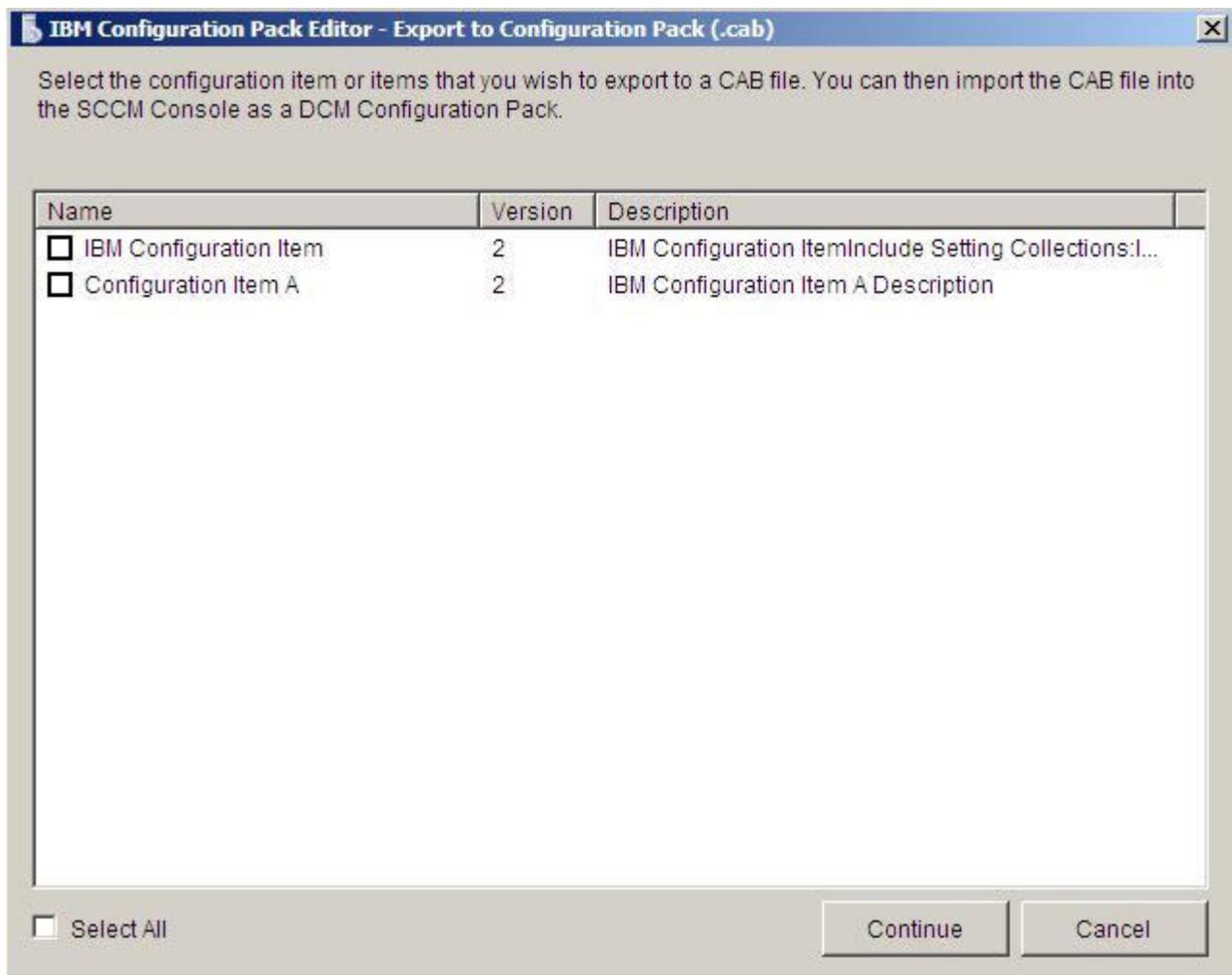


Figure 44. Export to IBM Configuration Pack window

2. Select the check boxes corresponding to the **configuration items** you want to export.

Note: The version of a **configuration item** is an internal variable that cannot be modified directly. SCCM DCM will use this version variable to evaluate whether a **configuration item** needs to upgrade.

When you update configuration data in Configuration Manager 2007, previous versions are overwritten so that clients will always evaluate using the latest version.

For more details on how to manage **configuration items** version refer to the following web link: <http://technet.microsoft.com/en-us/library/bb632925.aspx>

3. Click **Continue**. The Export to IBM Configuration Pack file navigation window appears.

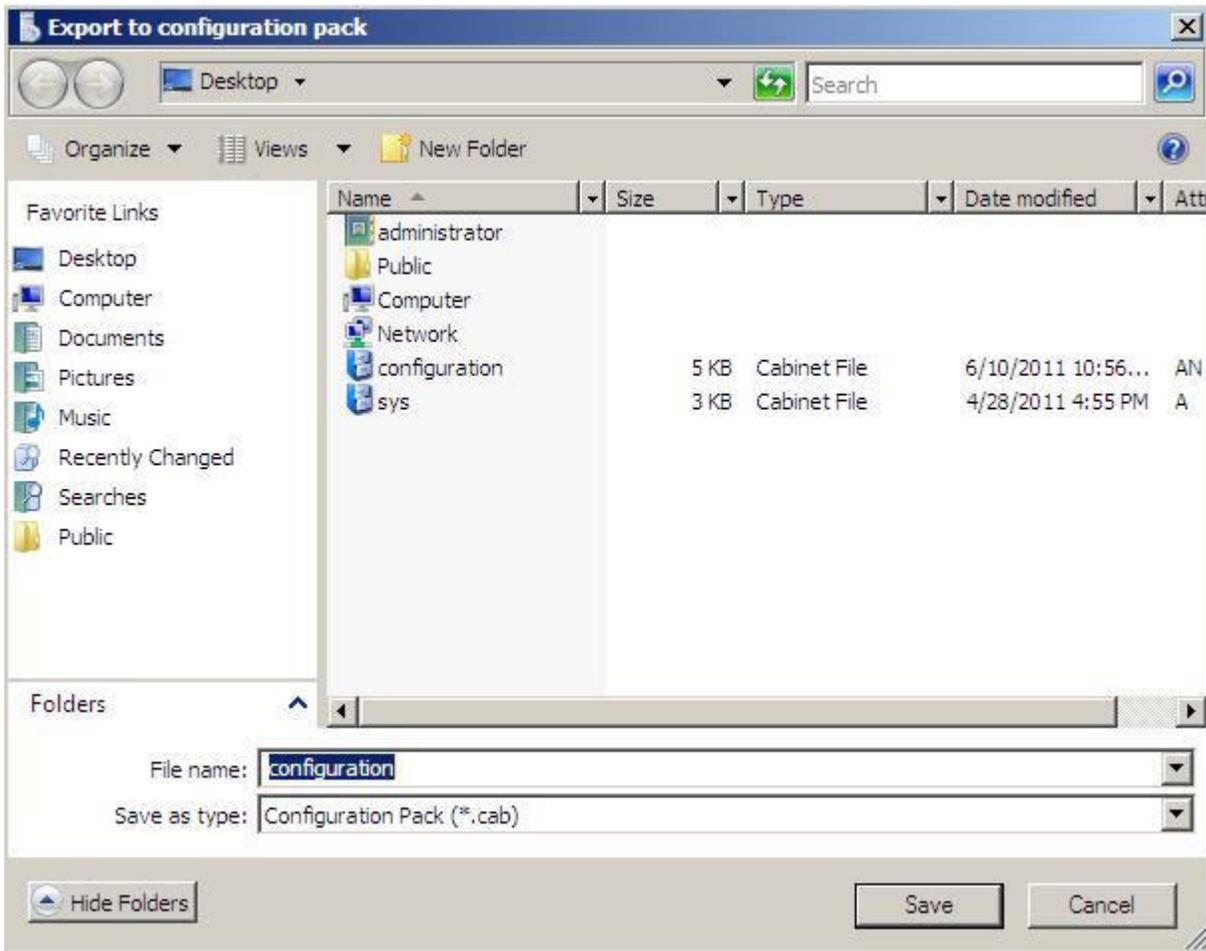


Figure 45. Export to IBM Configuration Pack window

4. Enter a name for the .cab file and click **OK**.
A dialog appears indicating that the export succeeded.

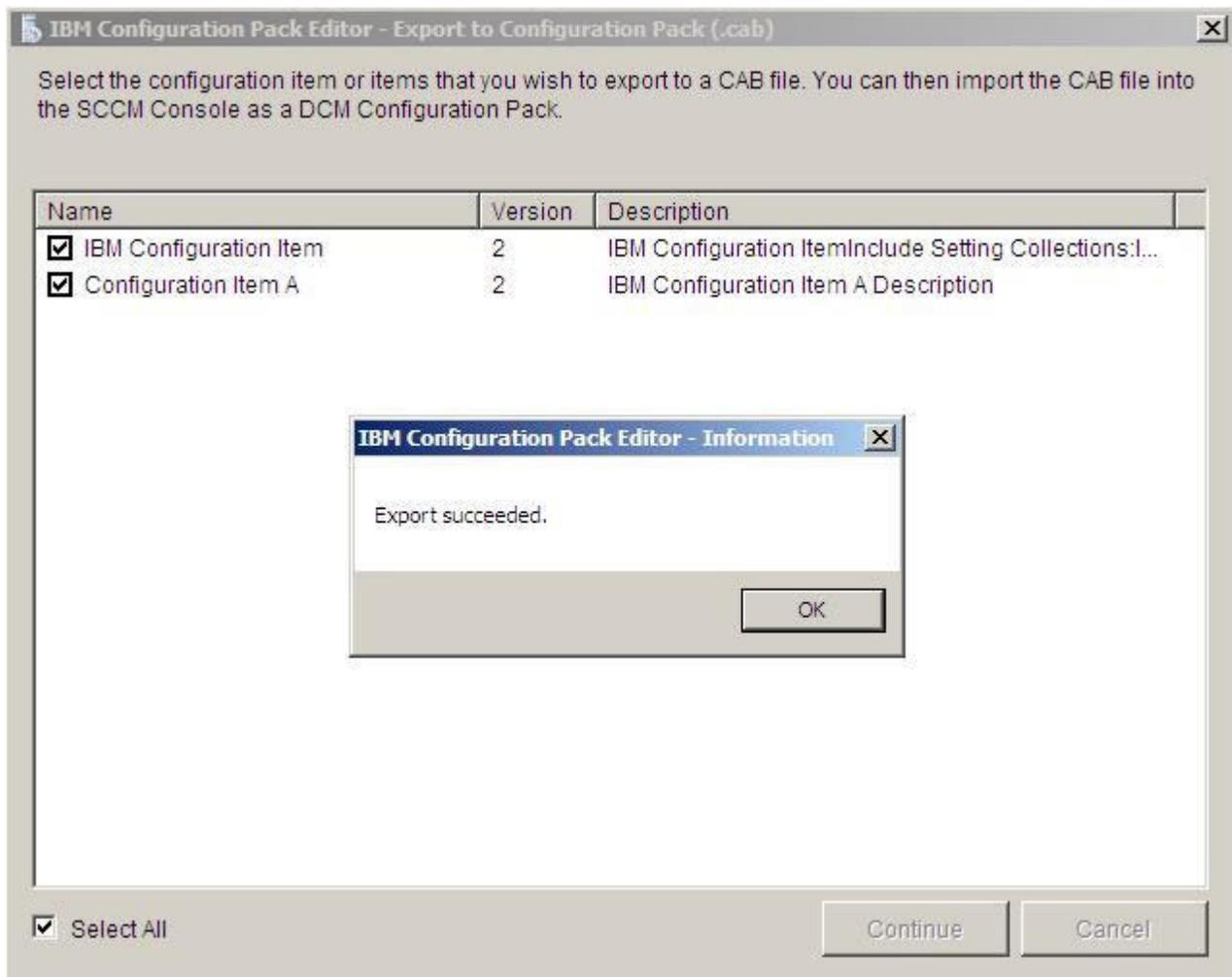


Figure 46. Export Succeeded dialog box

Applying IBM Configuration Pack to SCCM Console

Importing configuration data to DCM

1. Open the SCCM Console and expand Desired Configuration Management. Right click Configuration Baselines or **configuration items**, and select **Import configuration data**.

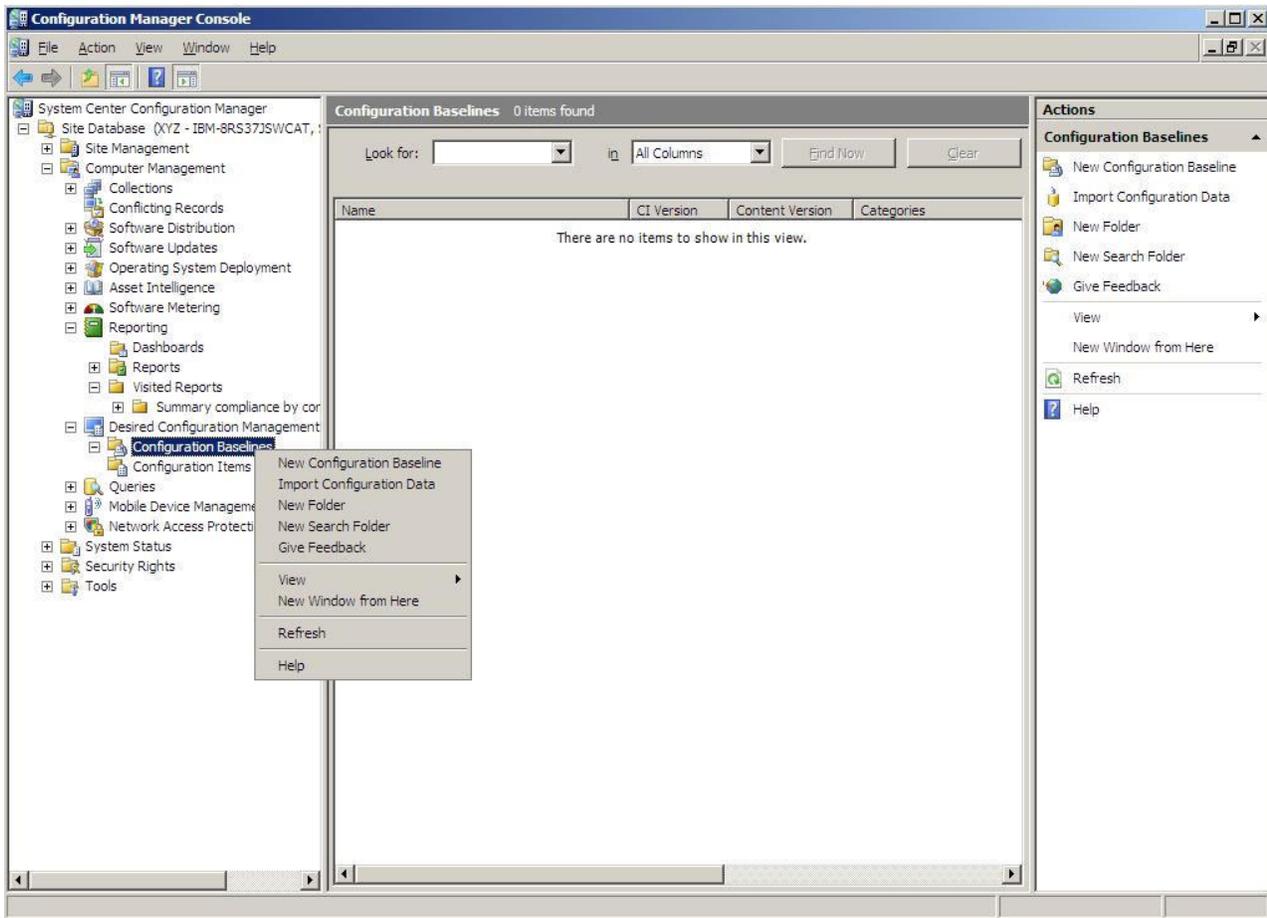


Figure 47. Import Configuration Window function

2. Click **Add** to select the exported IBM Configuration Pack .cab file.

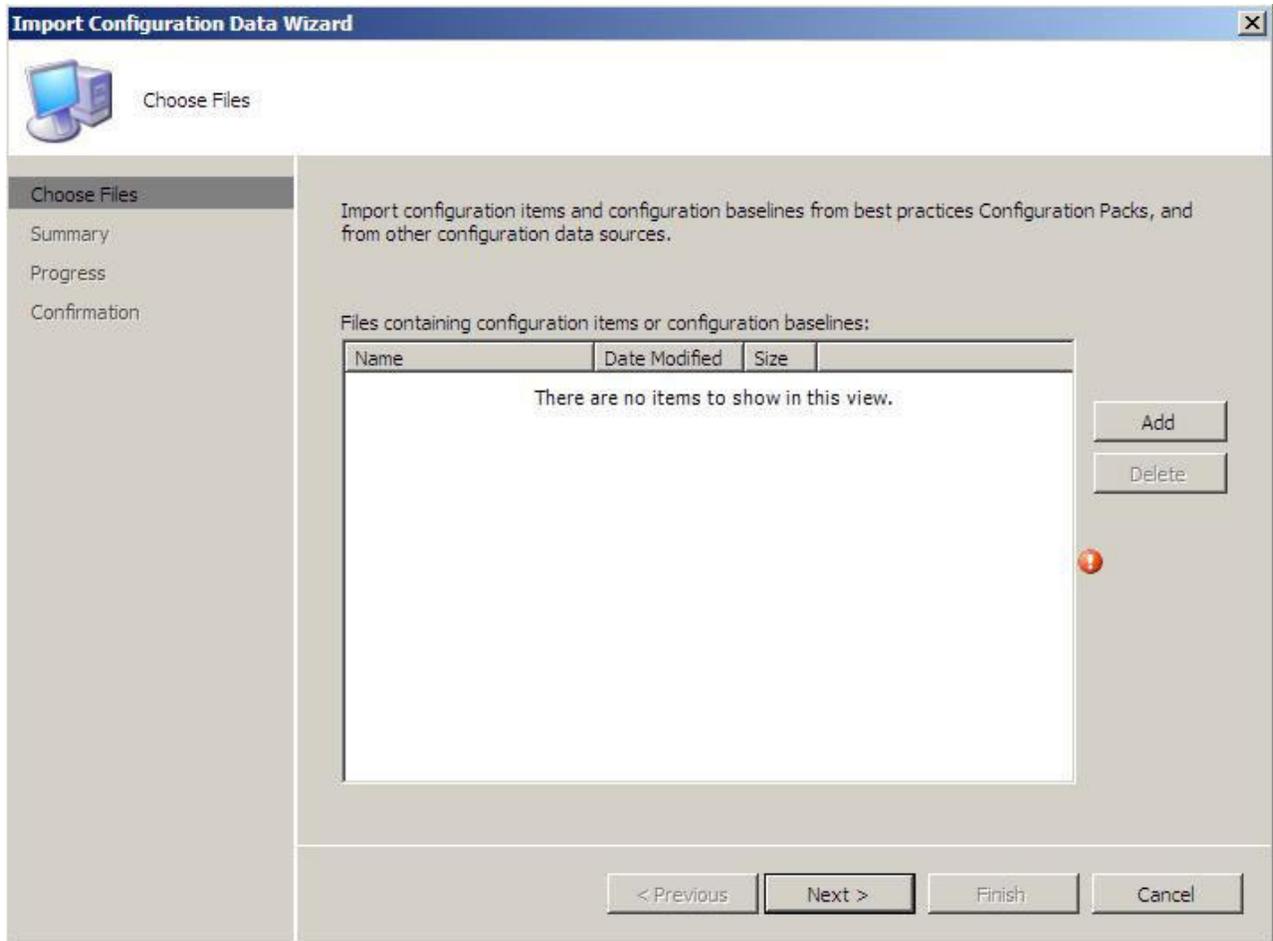


Figure 48. Add exported IBM Configuration Pack .cab file

3. Select the IBM Configuration Pack and click **Open** to import it.

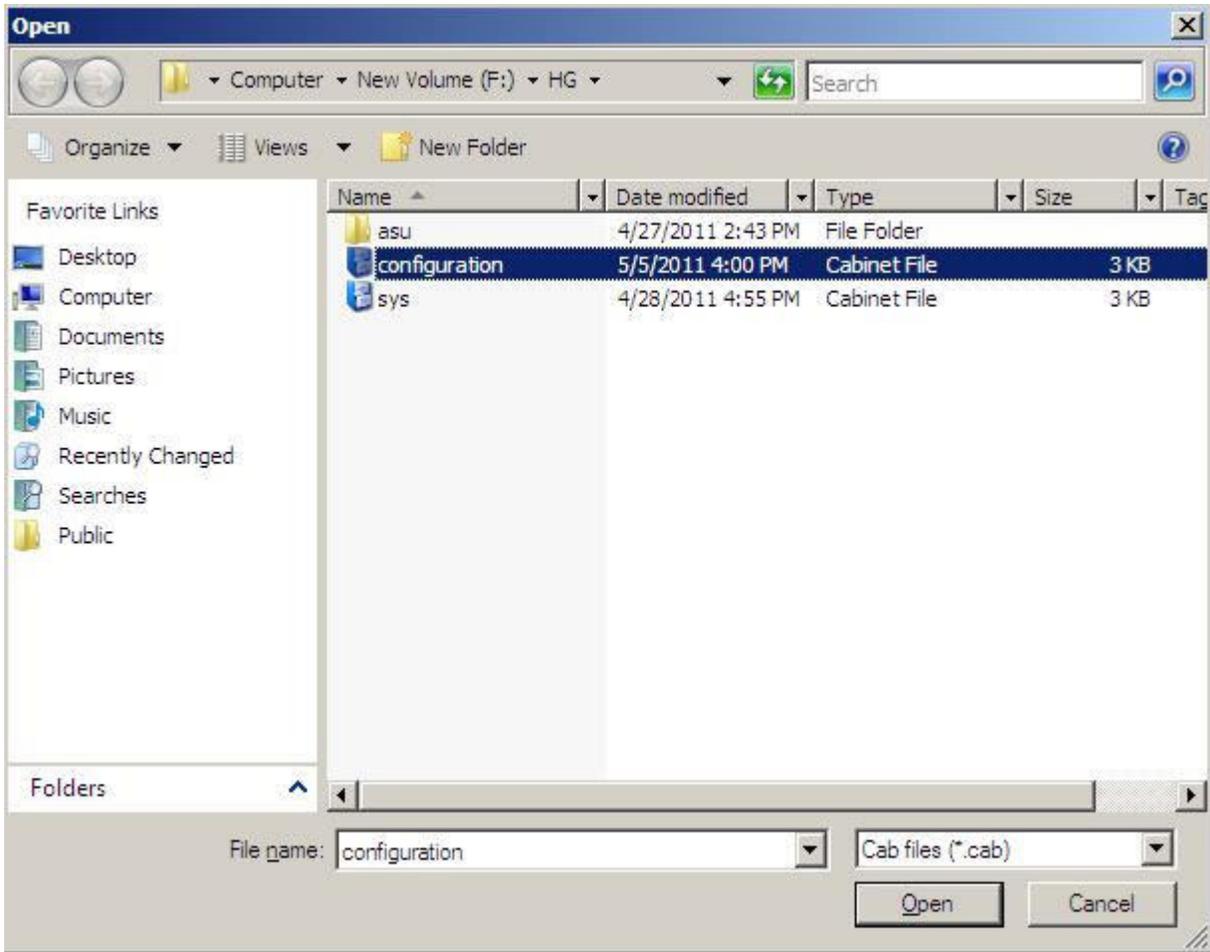


Figure 49. Selecting the exported .cab file

4. A **Skip Authenticode signature check?** dialog appears. Click **Yes** to skip the signature checking.

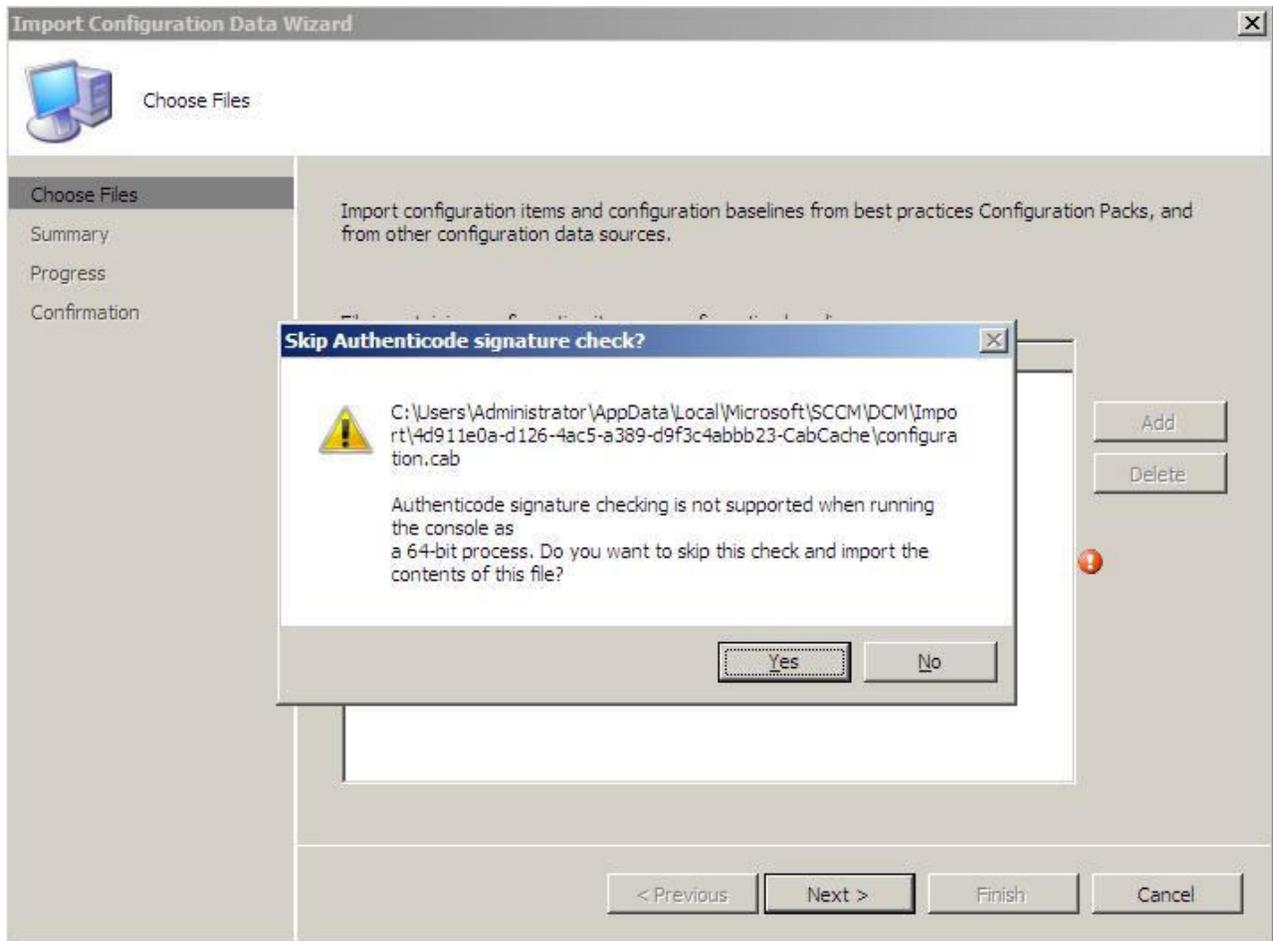


Figure 50. Skip Authenticode Signature Check dialog box

5. Click **Next** to import the IBM Configuration Pack .cab file.

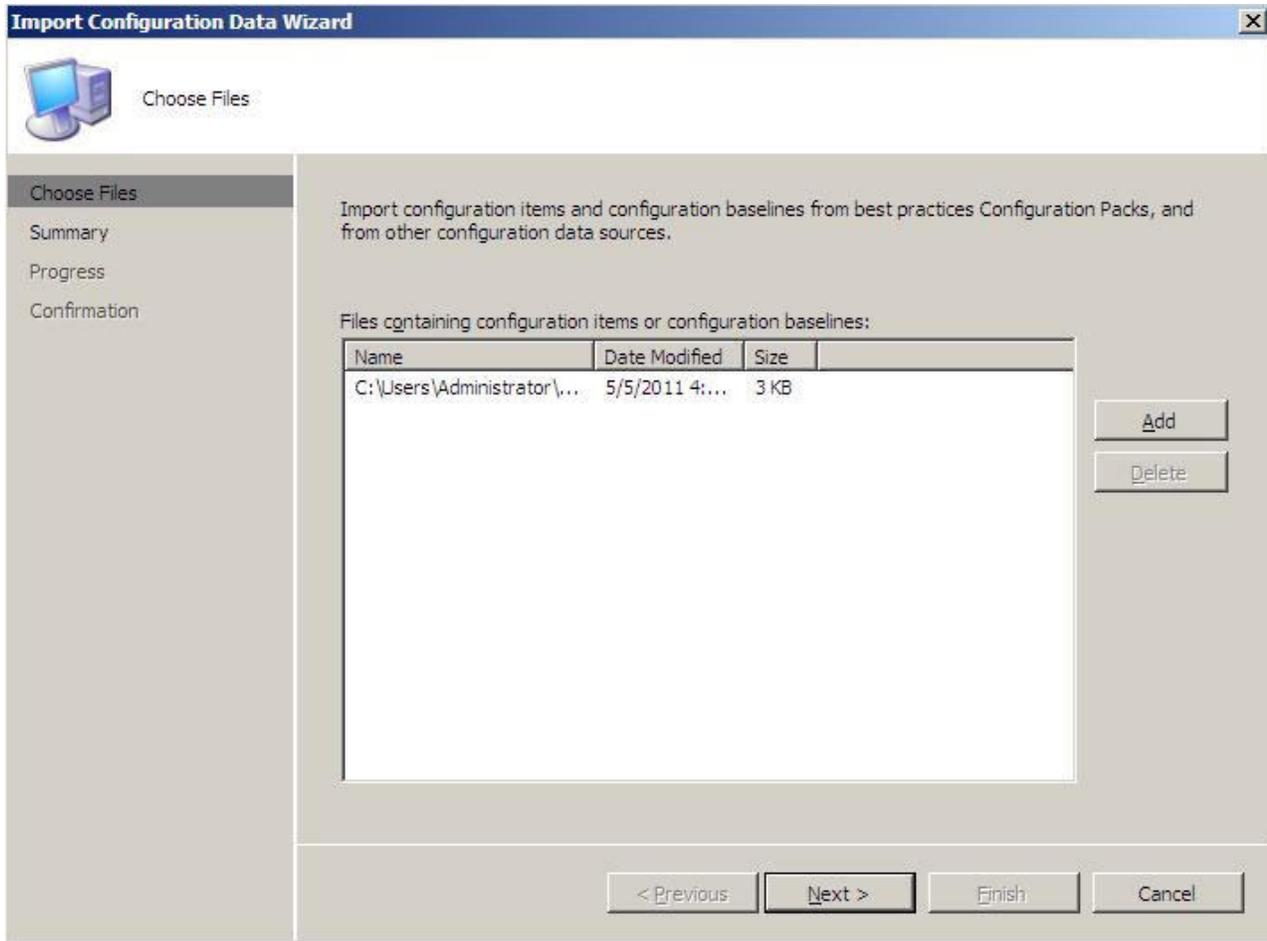


Figure 51. Importing the selected .cab file

6. Your **configuration items** appear in the IBM Configuration Pack tree. Click **Next**.

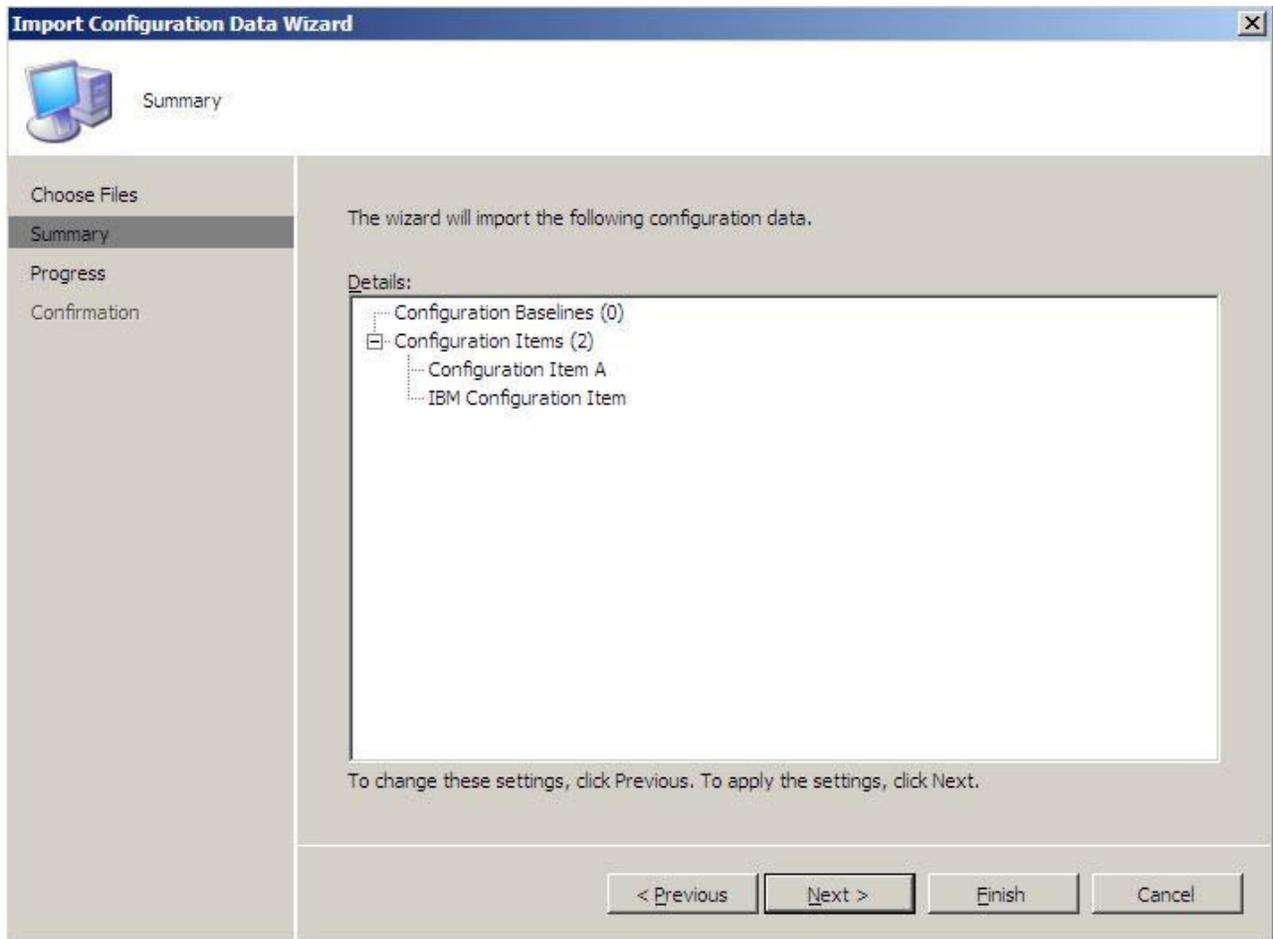


Figure 52. Imported configuration items

7. A message appears in the wizard window indicating that you have imported configuration data successfully. Click **Close** to exit this wizard.

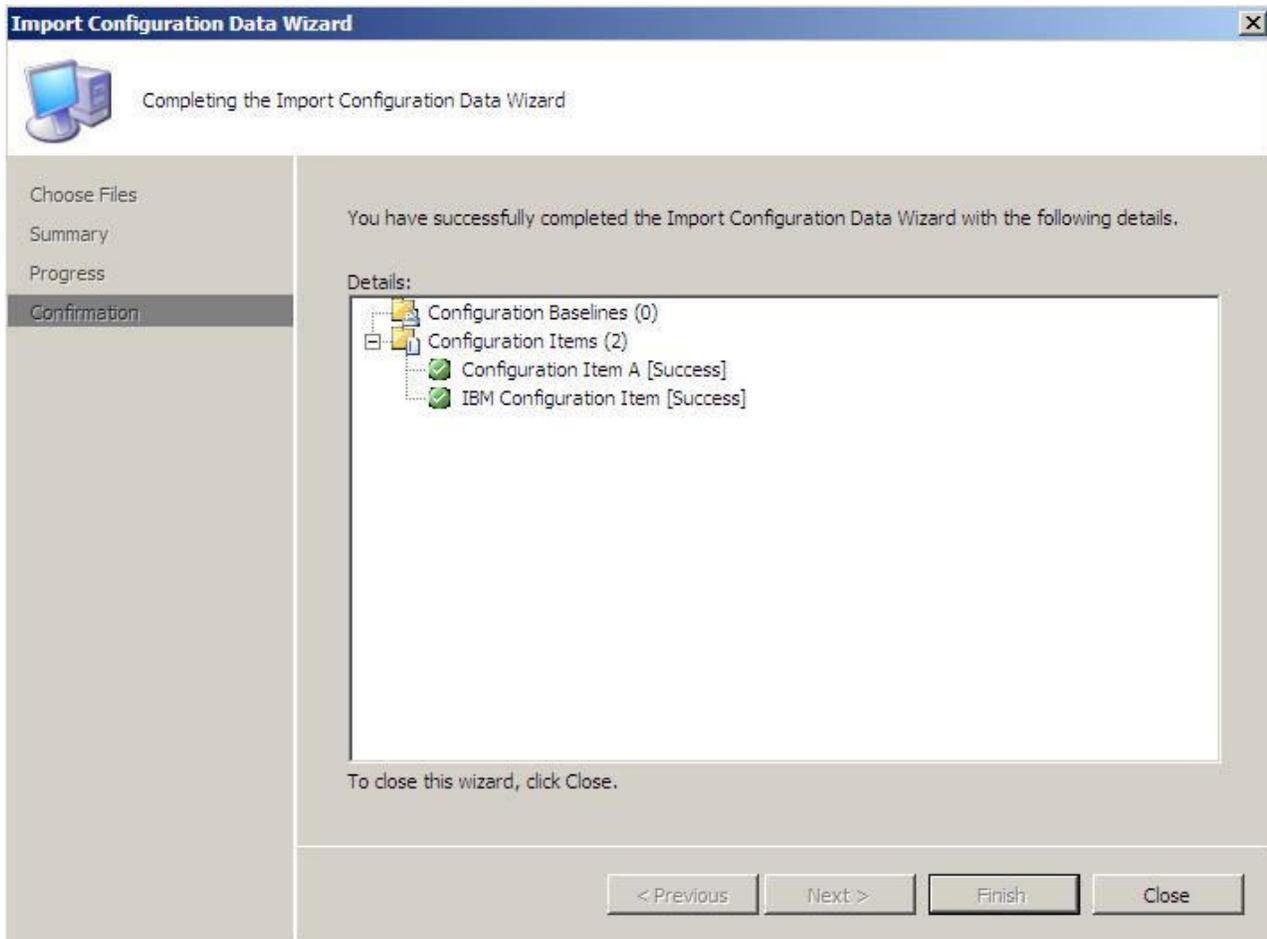


Figure 53. Successful completion window

8. Right click the **configuration items** node and select **Refresh**. The imported **configuration items** appear in the window.

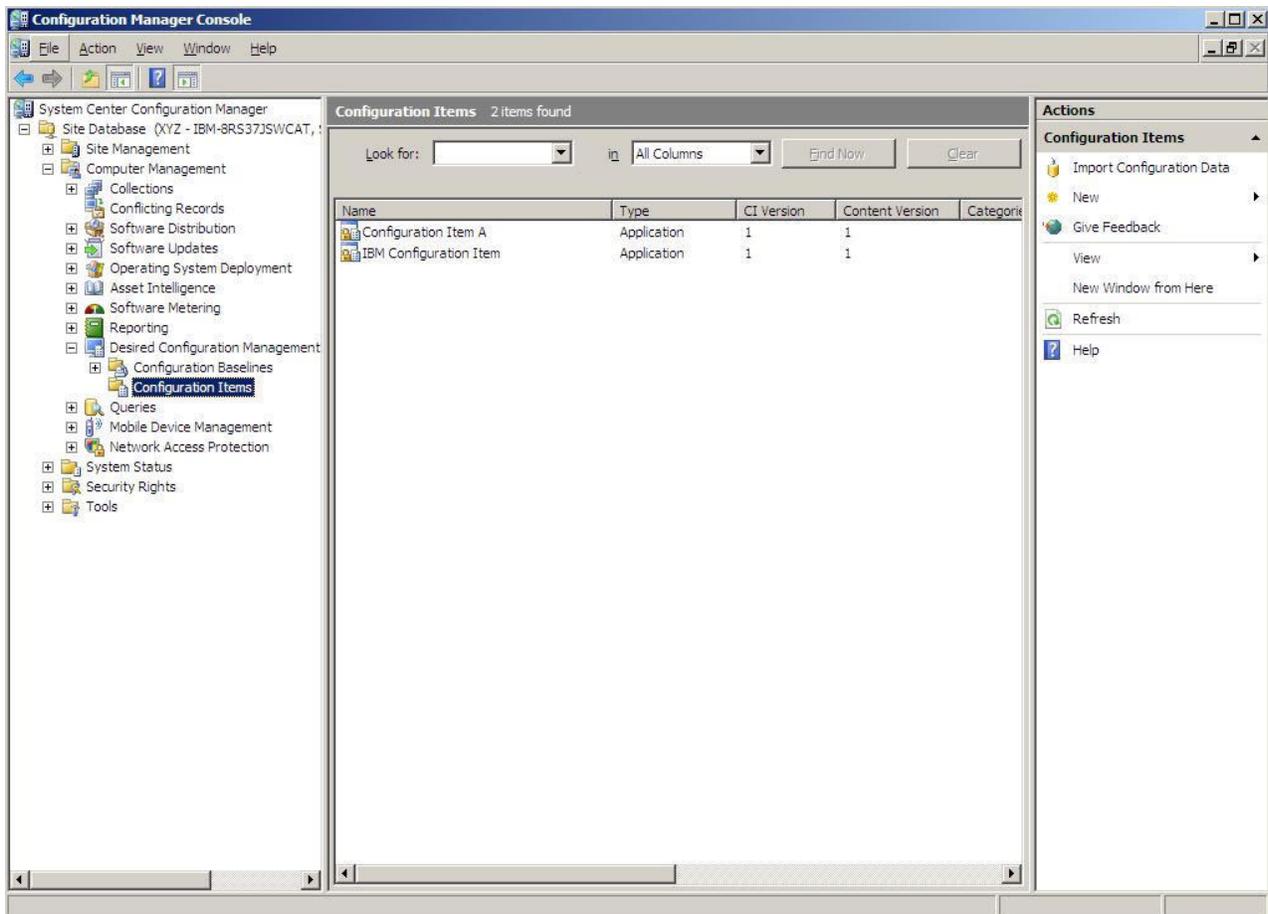


Figure 54. SCCM with imported configuration items

Note: The imported **configuration items** may have a “Lock” status. The Lock status is due to the following reasons:

- The configuration data is read-only.
- The configuration data were not authored by the SCCM console administrator.

Viewing configuration item properties

1. Double click a **configuration item** to view its properties dialog. Under the Settings tab, the IBM Setting Collections are under the Settings group. You can select any one setting to see the setting validation.

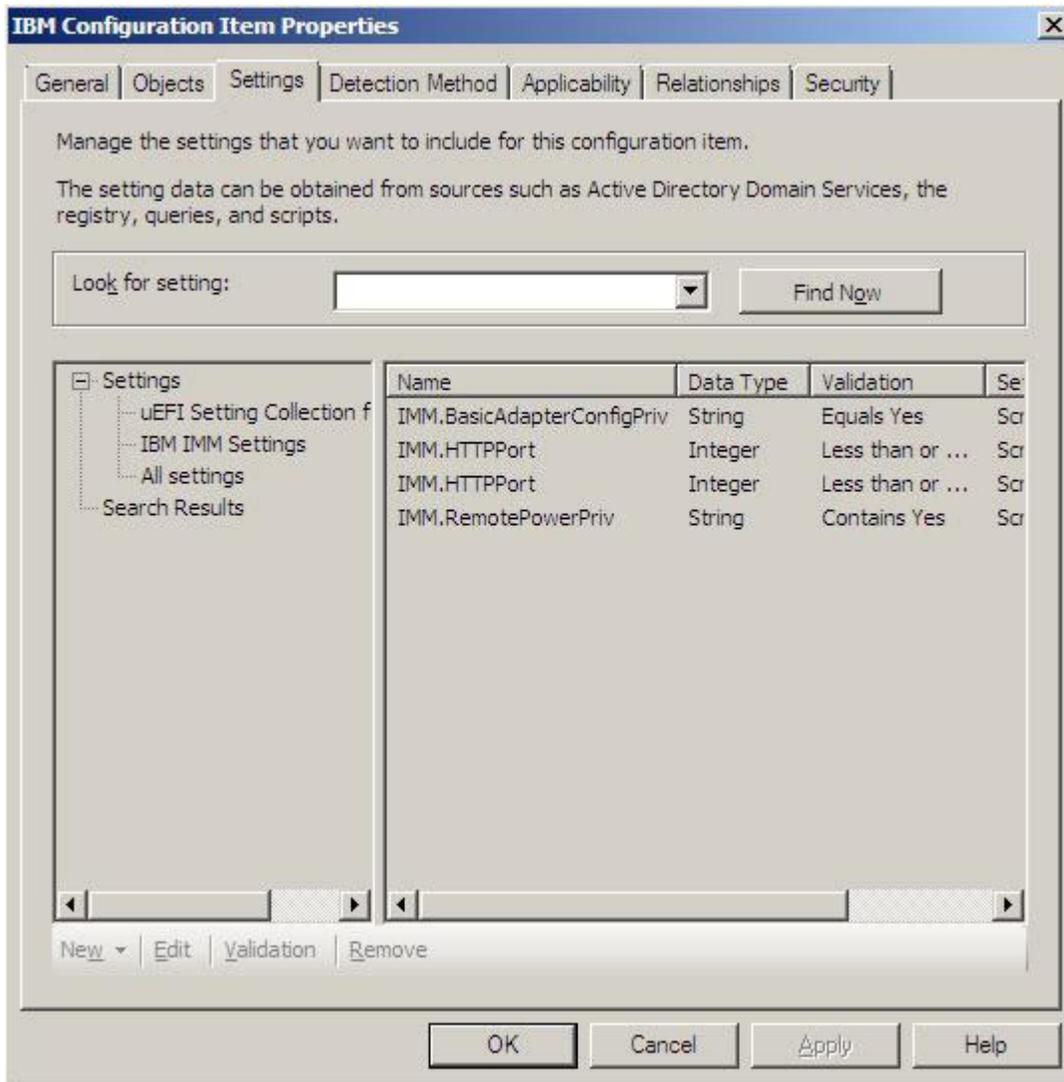


Figure 55. Settings tab

2. On the Detection Method tab, IBM Configuration Pack Editor defines the detection method for every **configuration item**. This detection method will check whether `asu.exe` exists on the endpoint. If it does not, the **configuration item** will return the "Not Detected" state, and the children Settings Group will not continue to be validated.

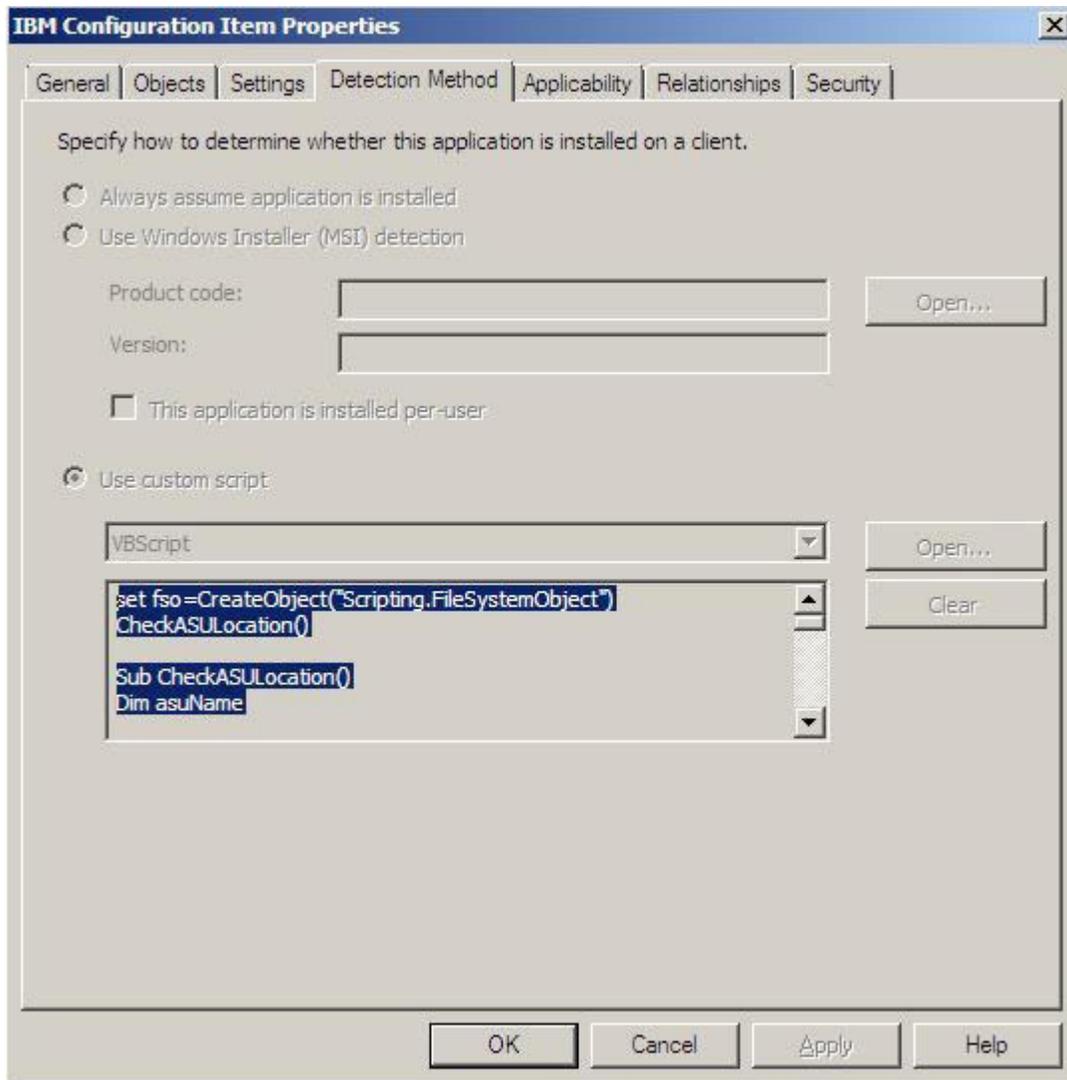


Figure 56. Detection Method tab

Creating a baseline

About this task

You will need to create a Baseline that contains all of **configuration items** that you want to validate on endpoints.

Note: The **configuration items** cannot be assigned to the endpoints without a Baseline.

1. In the SCCM console, expand the Desired Configuration Management node.
2. Right-click Configuration Baselines and select **New Configuration Baseline**.

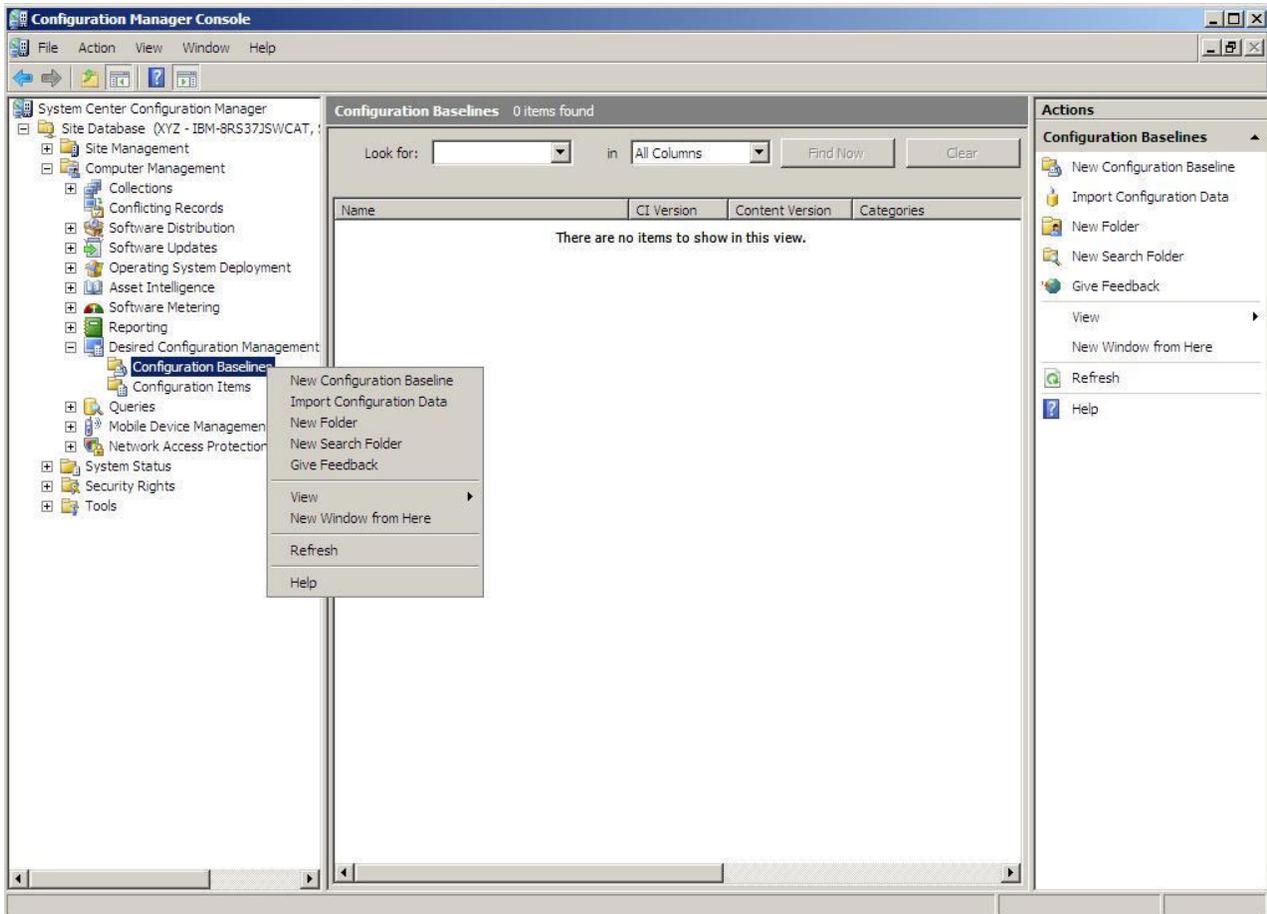


Figure 57. New Configuration Baseline function

The Create Configuration Baseline Wizard appears.

Figure 58. Identification window

3. Enter a name and, optionally, a description for your Baseline. Click **Next**.
4. Click the **applications and general** link to select the **configuration items** that you want to validate.

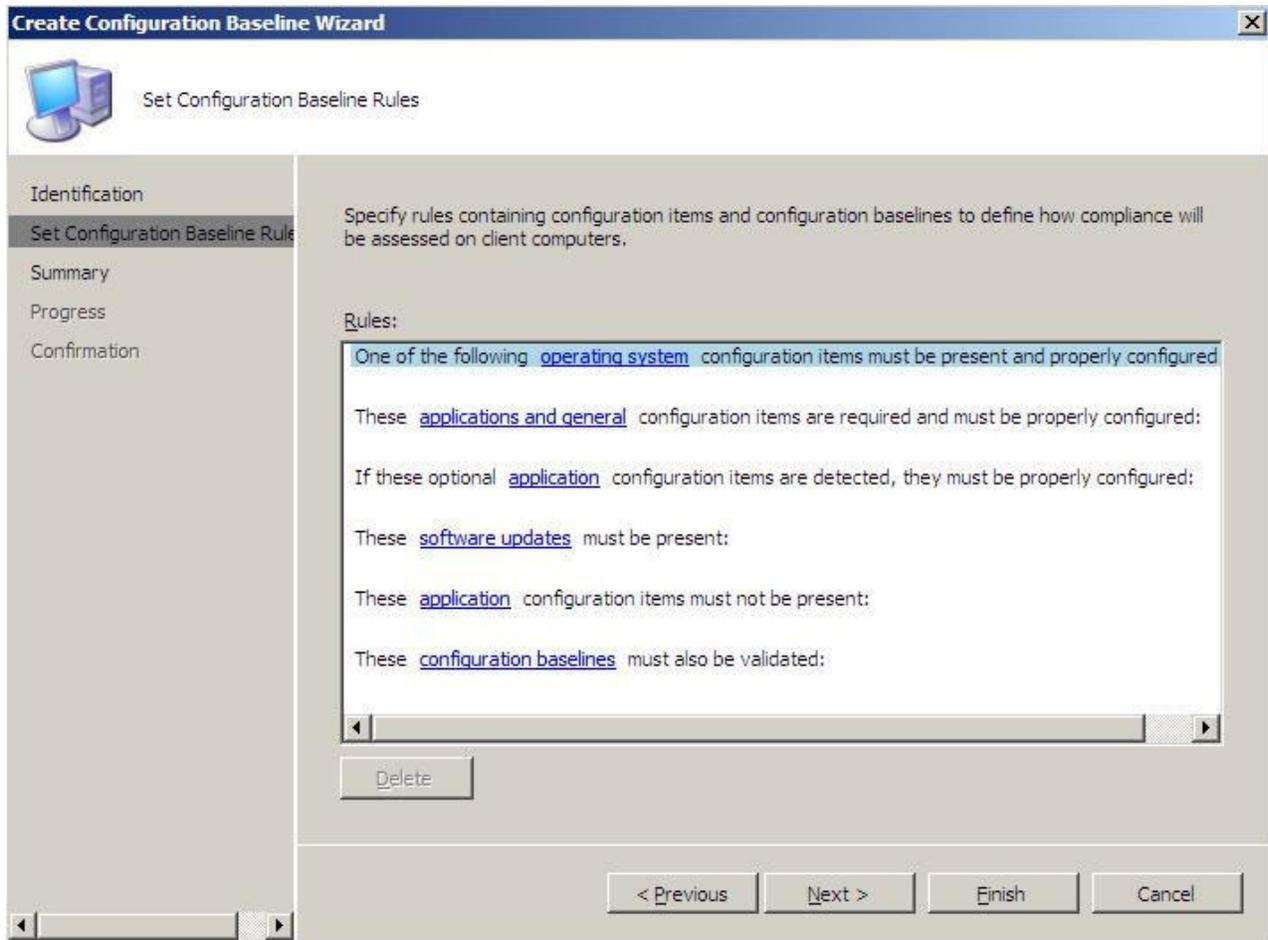


Figure 59. Applications and general link

The Choose **configuration items** window appears.

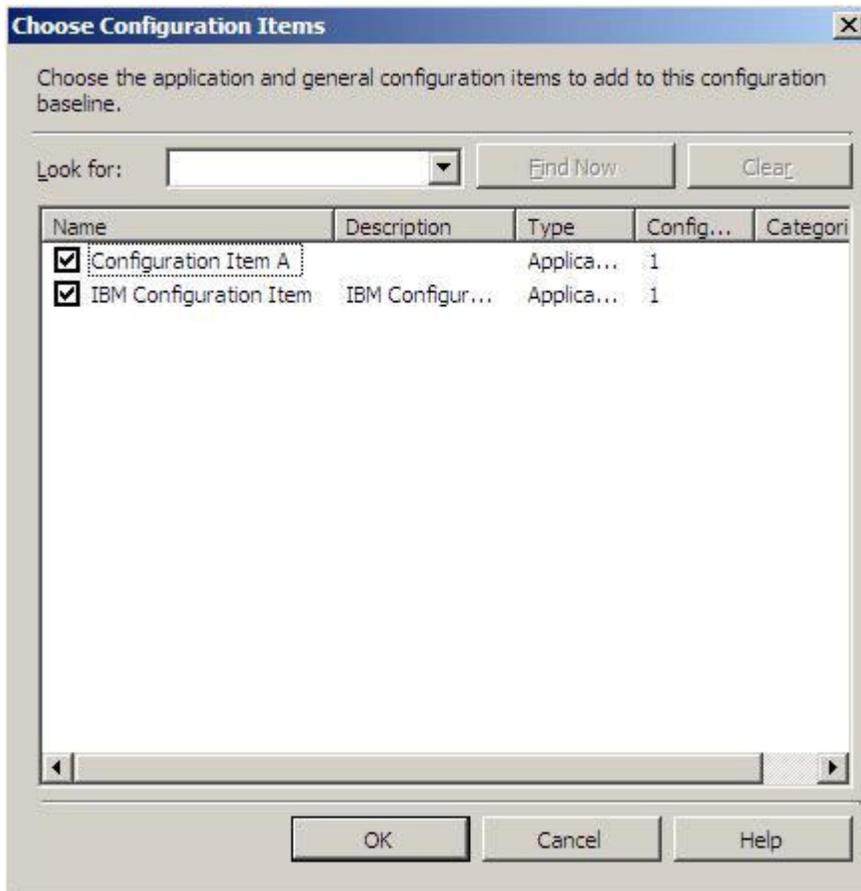


Figure 60. Choose **configuration items** window

5. Select the check boxes that correspond to the Configuration Items you want to validate on endpoints, and click **OK**.

The selected **configuration items** appear under the **applications and general** link.

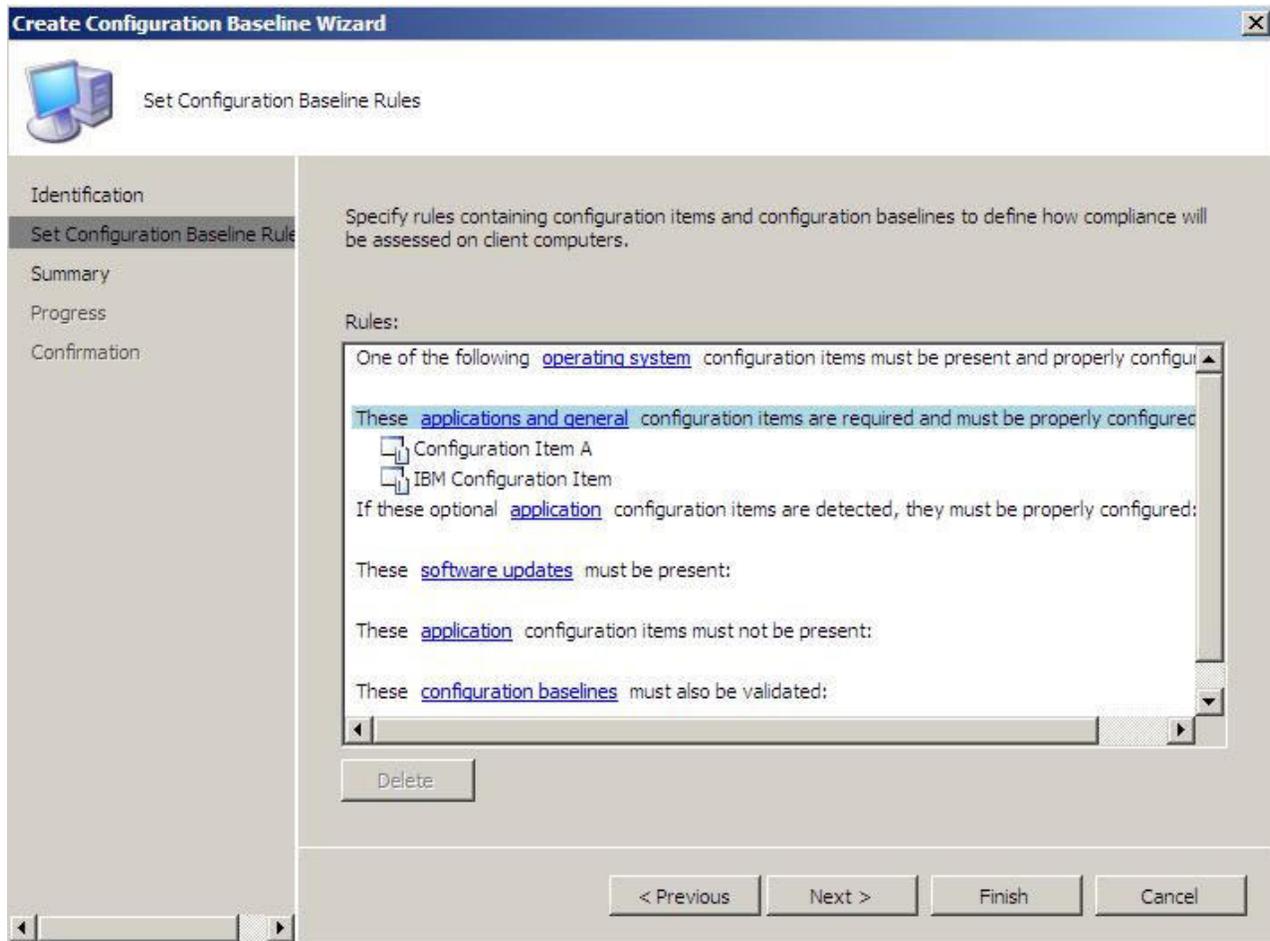


Figure 61. Applications and general link with selected configuration items

6. Click **Finish** to exit the wizard.

Assigning the Baseline to a collection

1. In the SCCM console, right-click the new Baseline and select **Assign to a Collection**.

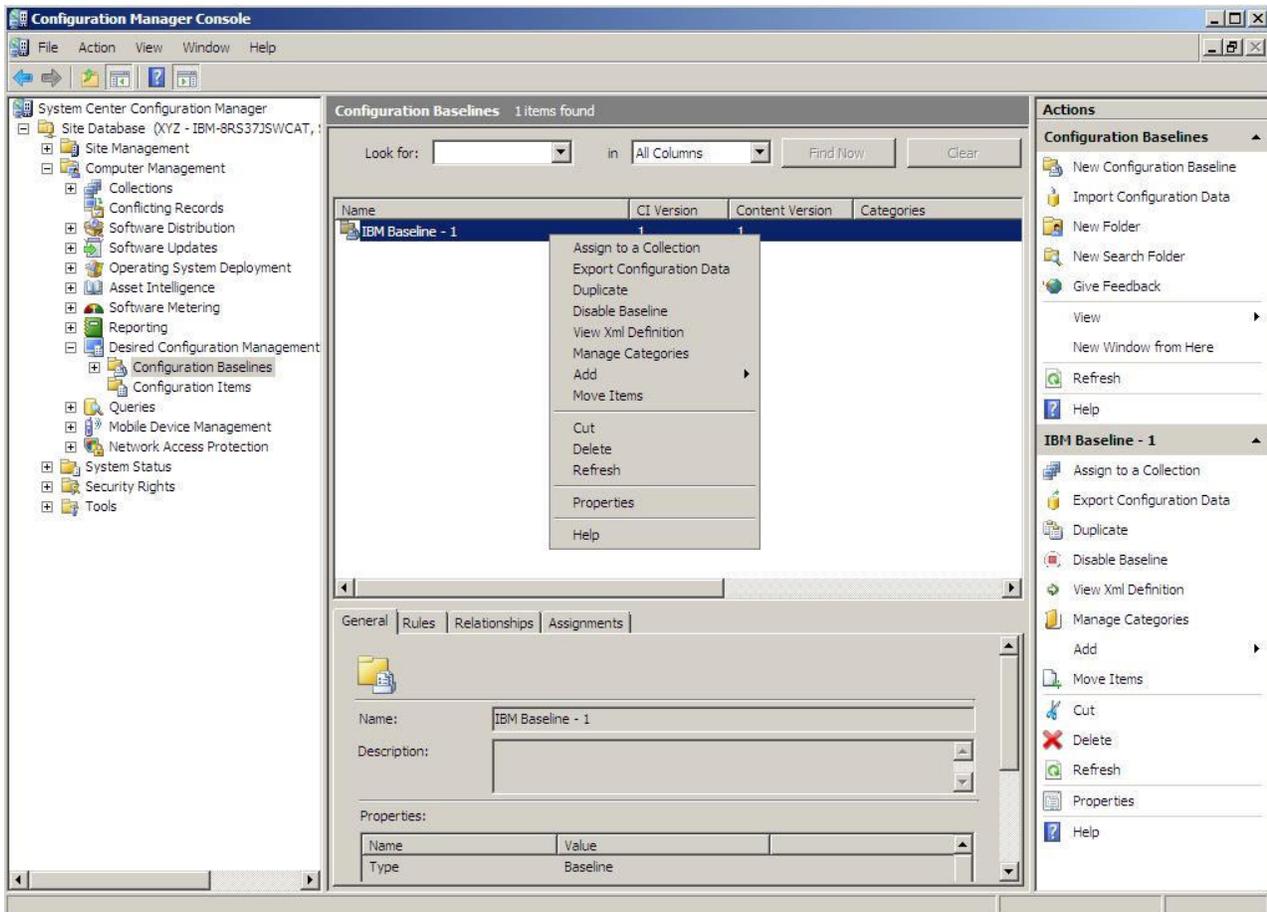


Figure 62. Assign to a Collection function

The Assign Configuration Baseline Wizard appears.

Figure 63. Choose Collection window

2. In the Choose Collection step, click **Browse** to select a target client collection.
3. Click **Next**.
4. Select a schedule for your Baseline validation. You can select a simple schedule or create a custom schedule.

Figure 64. Set Schedule window

5. Click **Finish** to exit the wizard.

Evaluating the Baseline on the Endpoint

About this task

The Baseline and its child **configuration items** will be auto evaluated in the custom schedule. But you can advance for evaluation as follows.

1. Ensure that the endpoint can be found on the SCCM server, and that you have the SCCM client agent installed. Otherwise, the endpoint won't receive the Baseline from the SCCM server.
2. If the endpoint is 32-bit, open **Control Panel -> Configuration Manager**. If the endpoint is 64-bit, open **Control Panel -> View 32-bit Control Panel Items -> Configuration Manager**.

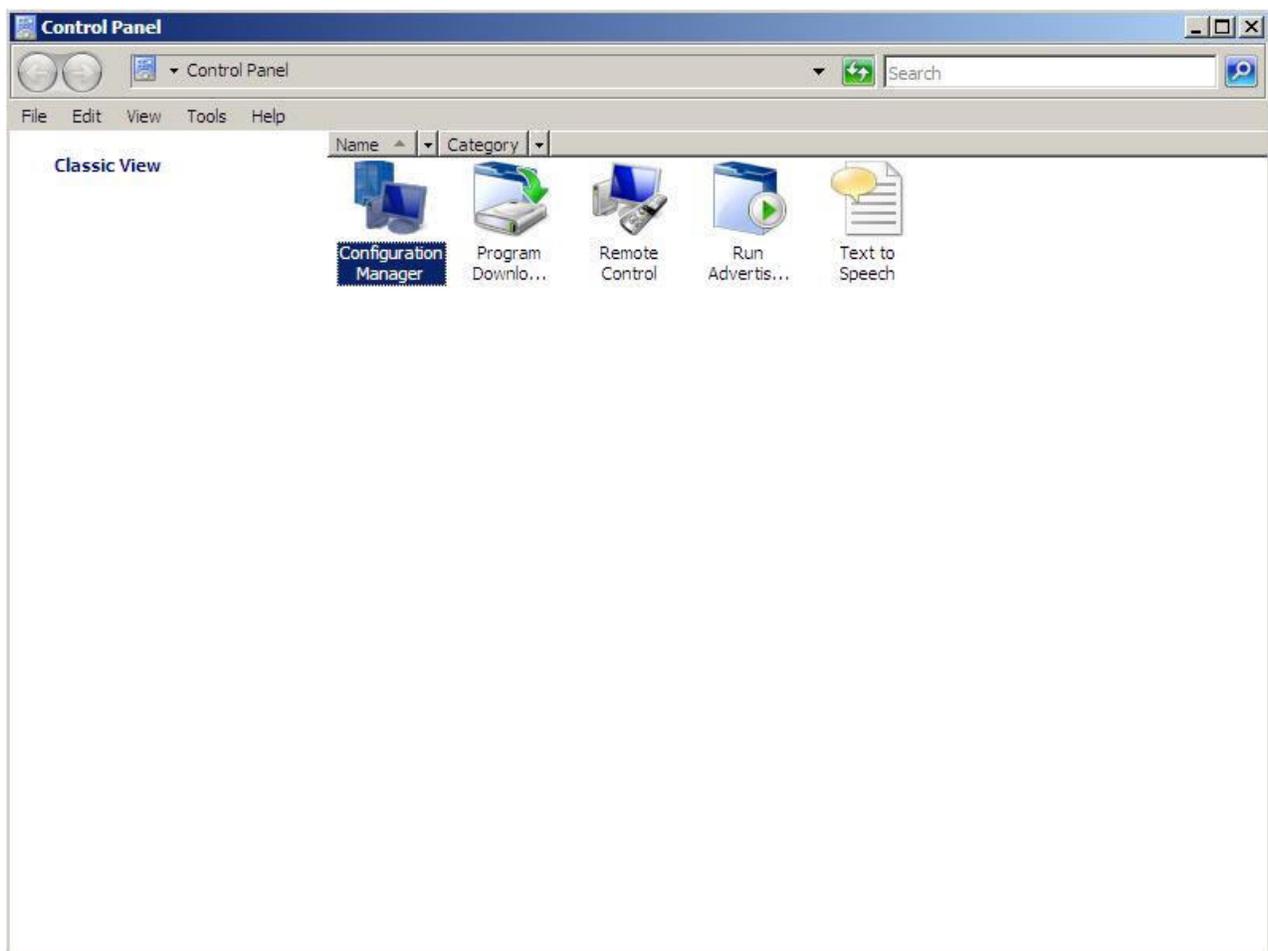


Figure 65. Configuration Manager in Control Panel folder

The Configuration Manager Properties window appears.

3. On the Actions tab, select **Machine Policy Retrieval & Evaluation Cycle** and click **Initiate Action**. A dialog box appears notifying you that the action has been initiated. Click **OK**.

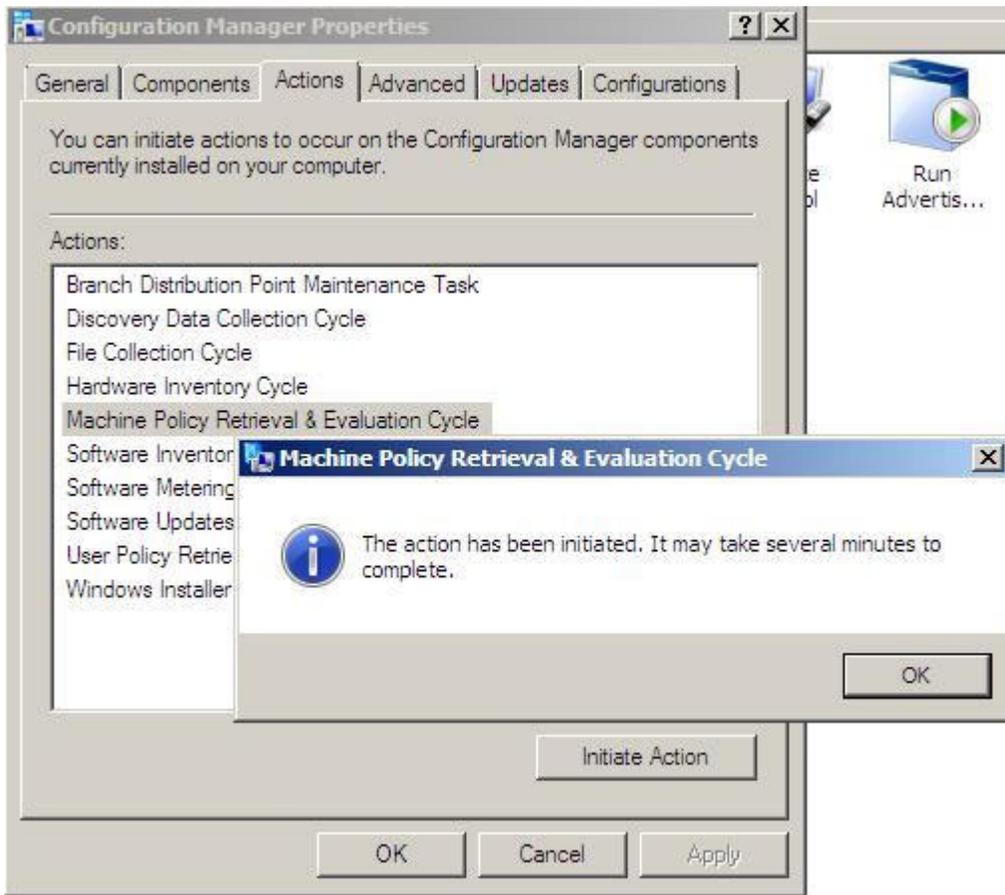


Figure 66. Action Initiated dialog

4. After a few minutes, you can find the Baseline under the Configurations tab. If not, click **Refresh**.

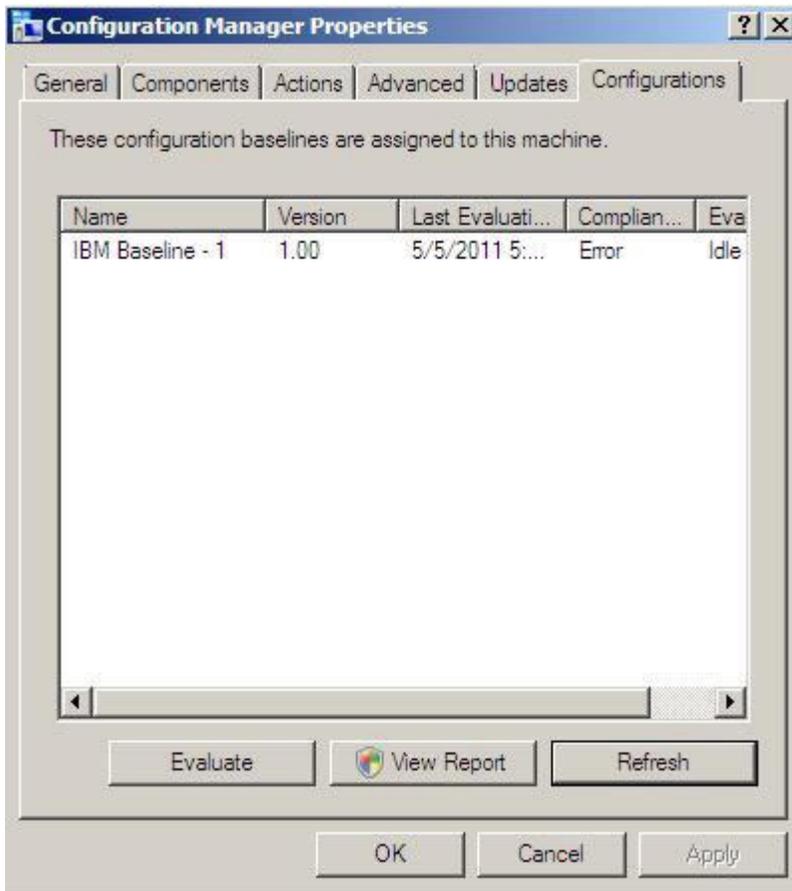


Figure 67. Configurations tab

Note: If the Baseline does not appear in the Configuration Baseline List View after few minutes, ensure that your SCCM client agent can be found on SCCM Console, as below.

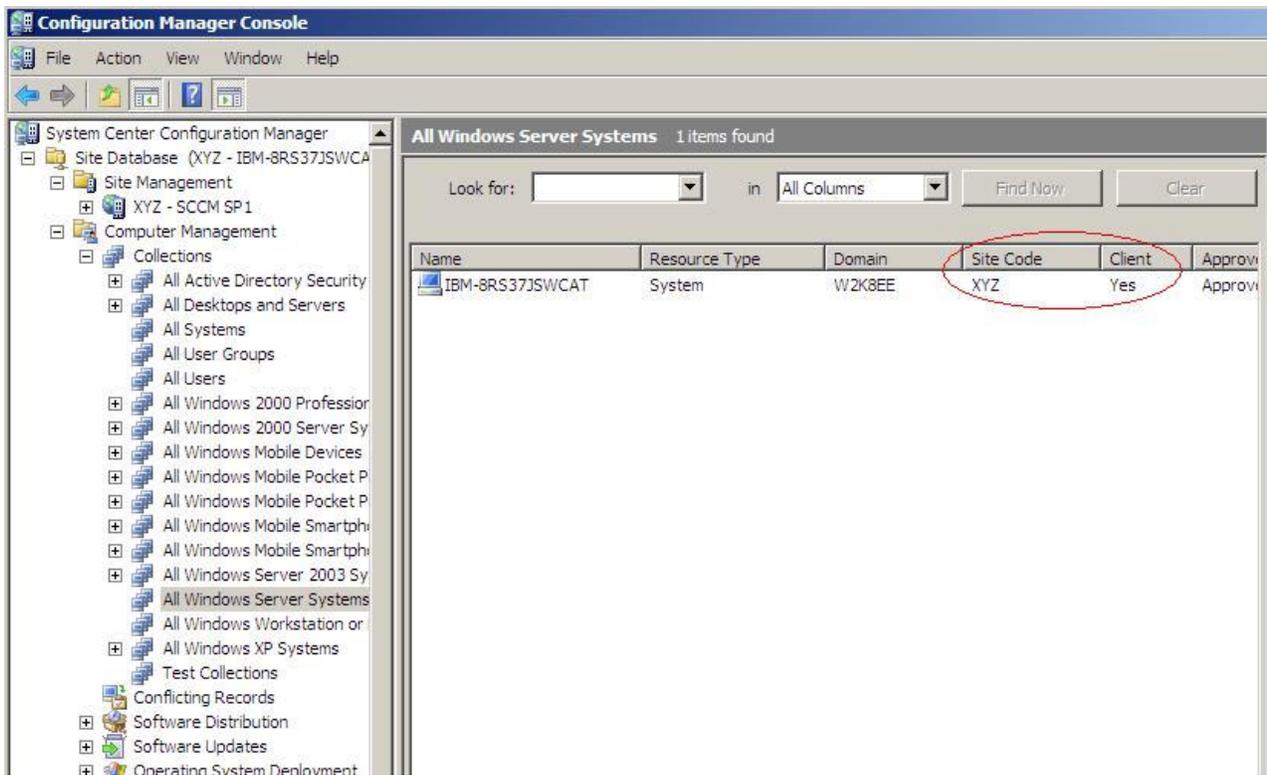


Figure 68. SCCM Client Agent Status

5. Select the Baseline and click **Evaluate**. After a few minutes, when the **Evaluate** button is enabled again, you can select this Baseline and click **View Report** to check the report.

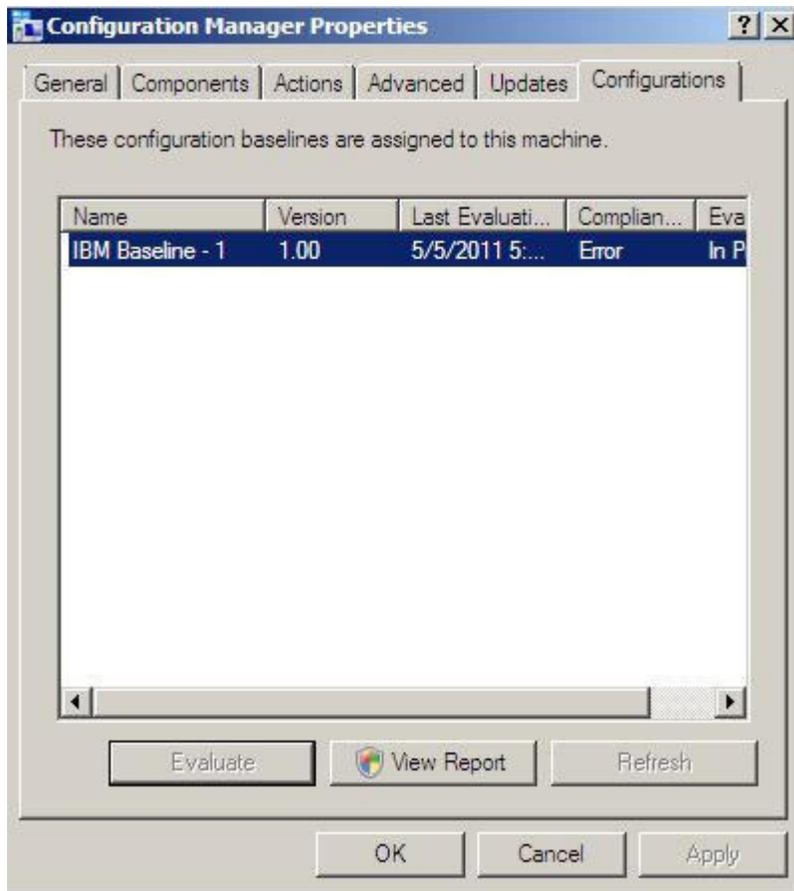


Figure 69. Configurations tab with View Report button enabled

Click **View Report** to check the evaluation report view.

Evaluation Report View

There are some situations where the evaluated setting (Script) will not return any value.

- The endpoint does not have the IMM module.
- The endpoint has the IMM module, but the evaluated setting cannot be found on the endpoint.
- Using the wrong user ID and password to connect the IMM module.
- Asu.exe is not v3.60 or above.
- Evaluation Time Out (5 mins).

Note: If the evaluated setting does not return any value, the SCCM Client agent will deem this setting as non-compliant on the endpoint, and its severity level is Information. The evaluation report cannot specify the causes; you will need to check the logs in Windows Event Viewer to get the details.

Setting/Object Name	Setting/Object Type	Setting/Object Description	Constraint Name	Constraint Description	Severity	Constraint	Instance Data	Current Value
IMM.CIMOverHTTPPort	Script	Configure the IMM port assignment for "IBM Systems Director over HTTP." min="0" max="65535" default="5988"	Instance count validation	The validation of the number of instances of an object or setting	Information	(number(count (ns_ScopeId_550a3dbb-8f51-47a7-86ac-eef6929722ab_this:Setting_a006e5d1-83e7-4c9b-bc0c-748ec061f2be)) >number(0))		0
IMM.PowerRestorePolicy	Script	mode of operation if a power loss occurs. This setting can also be configured via BIOS F1 setup. Restore: Restores system to the same state it was before power failed.	Instance count validation	The validation of the number of instances of an object or setting	Information	(number(count (ns_ScopeId_550a3dbb-8f51-47a7-86ac-eef6929722ab_this:Setting_afeee205-85be-4fa3-9782-8de1bf9d0792)) >number(0))		0

Figure 70. Evaluated setting with no value returned

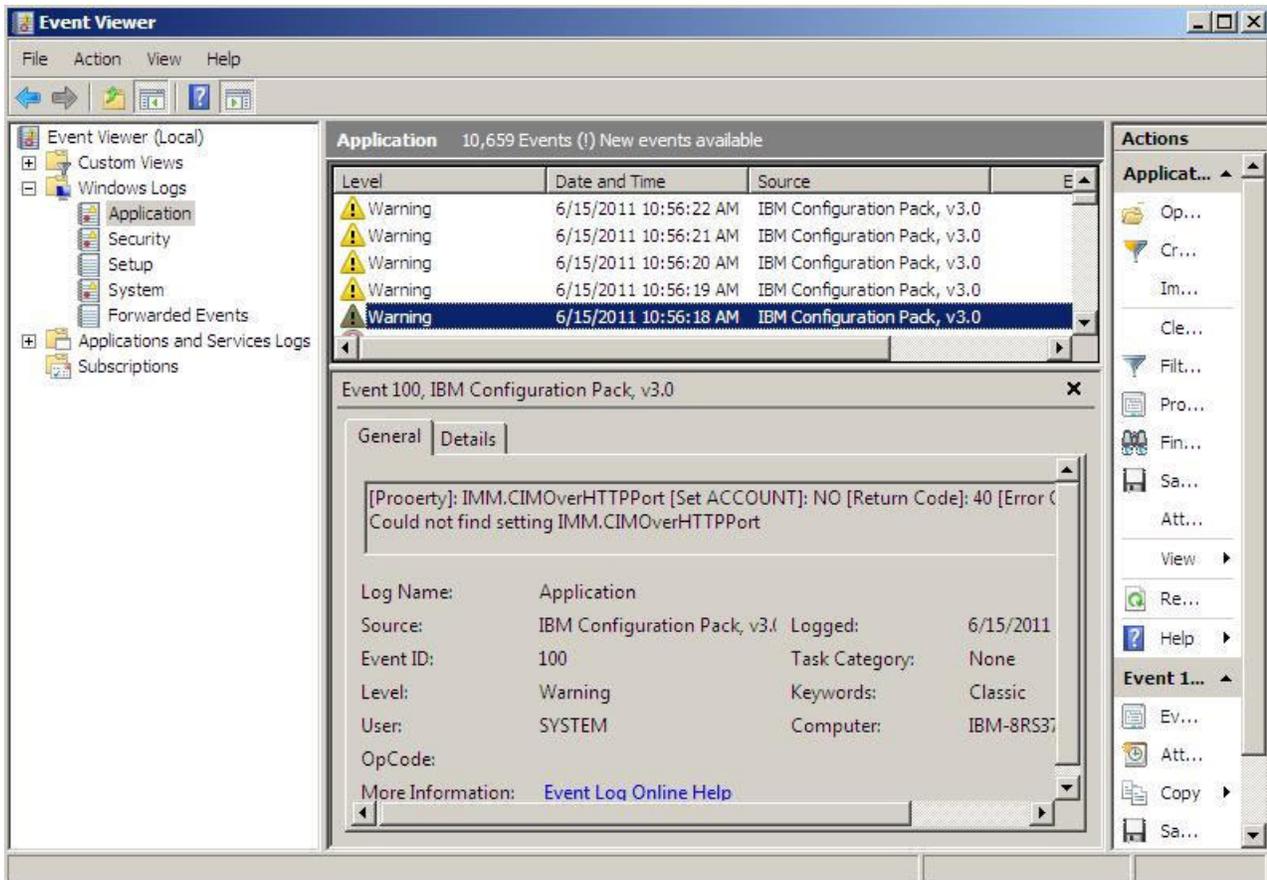


Figure 71. Windows Event Viewer logs

Running Homepage Summarization

1. In the SCCM Console, right-click **Desired Configuration Management** and select **Run Homepage Summarization**.

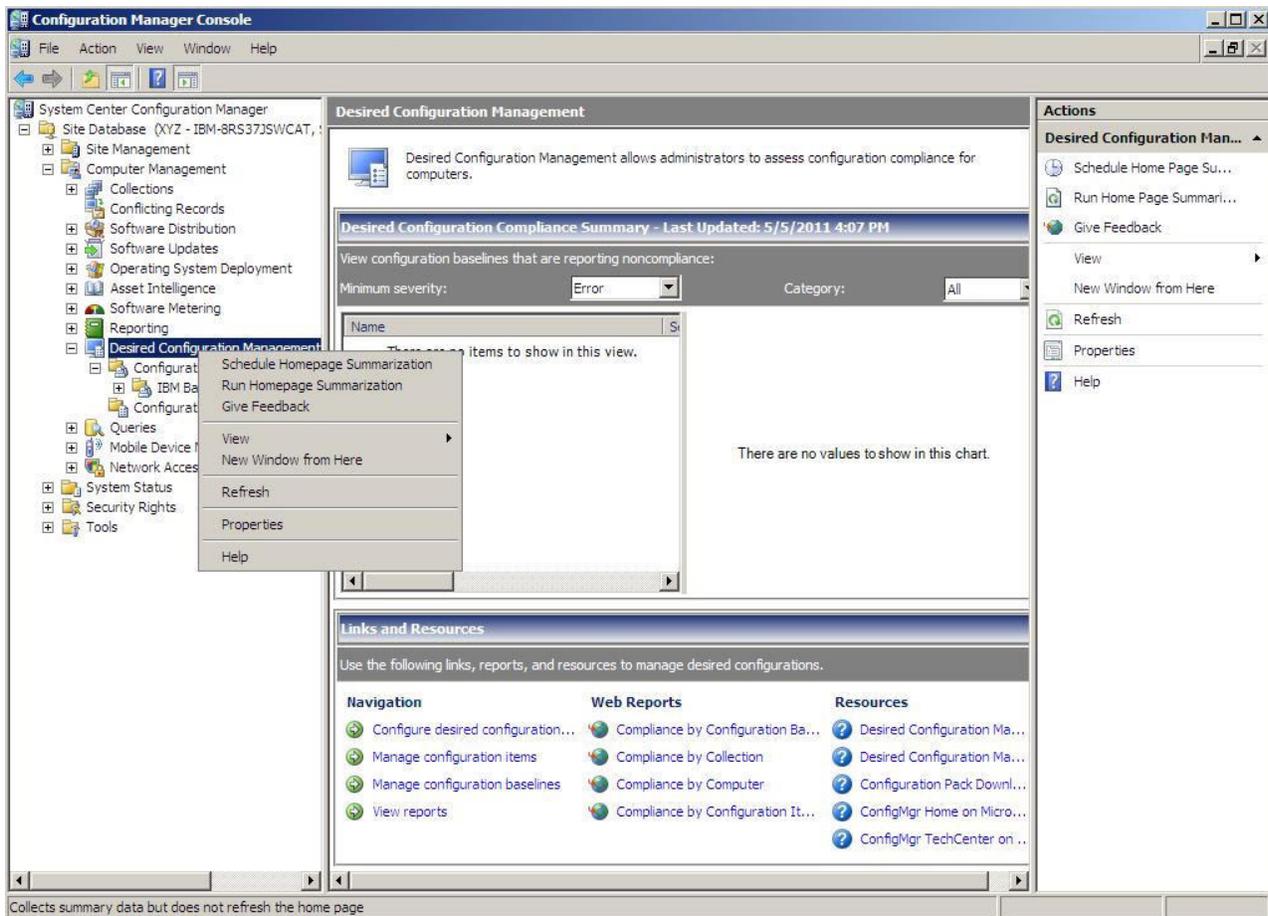


Figure 72. Run Homepage Summarization function

2. After a few minutes, right-click **Desired Configuration Management** again and select **Refresh**. The assigned Baseline report appears in the window.

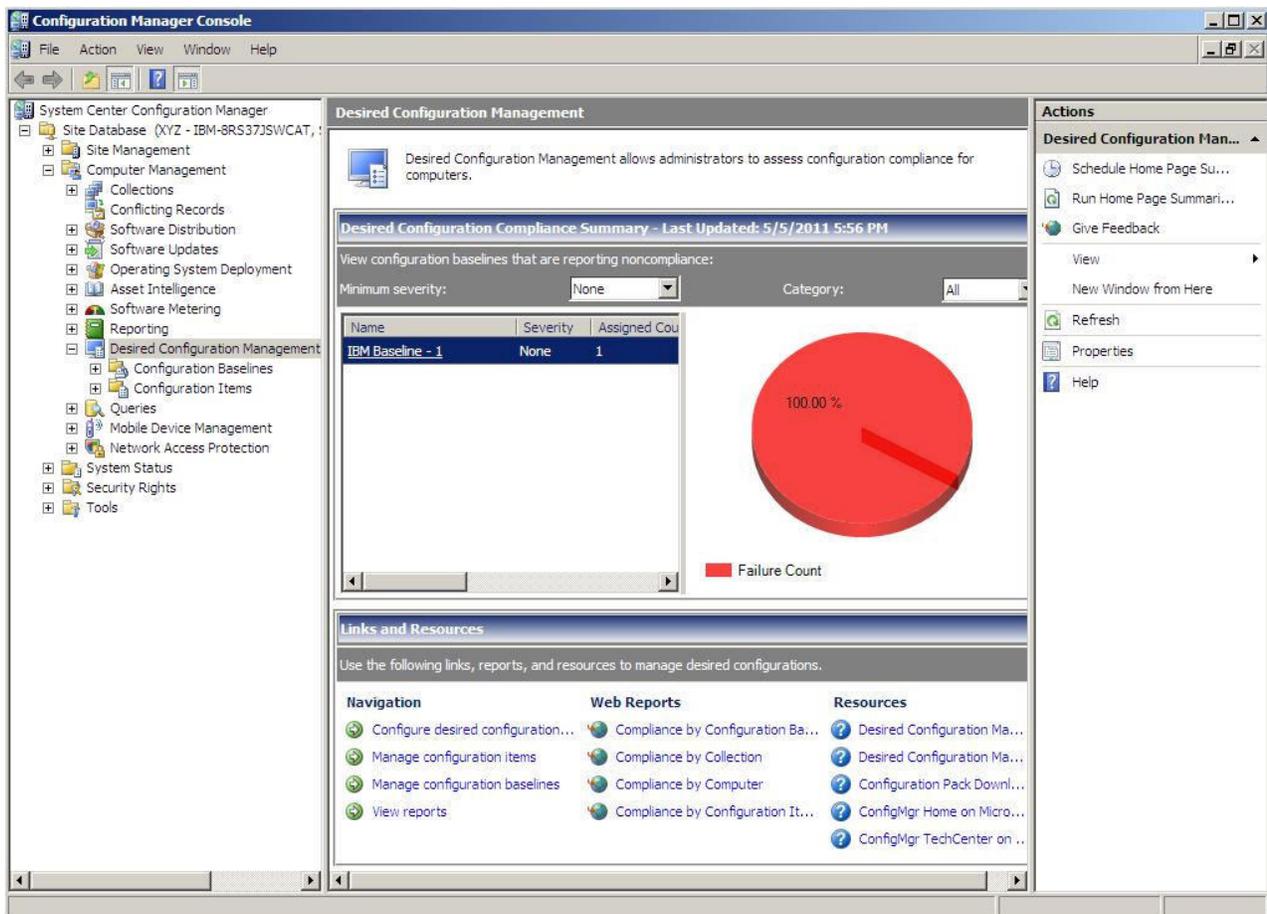


Figure 73. Baseline report

3. You can click the Baseline name link label to open the report view. For more details about reports for DCM, see <http://technet.microsoft.com/en-us/library/bb680430.aspx>.

Note: The SCCM Console must have Report access enabled; otherwise you cannot open the report view in SCCM Console.

Running IBM Configuration Capture

About this task

IBM Configuration Capture can capture IMM/uEFI settings from an IBM server, and export those captured settings into a Configuration Description XML file. To start IBM Configuration Capture, click the IBM Configuration Capture shortcut from the Start Menu. IBM Configuration Capture can also be launched on computers that do not have IBM Configuration Pack installed by copying the IBM Configuration Capture .exe file onto those computers.

Note: IBM Configuration Capture can be launched without activating the License Entitlement.

1. Launch the IBM Configuration Capture Wizard by clicking on the .exe file. The Welcome page appears.

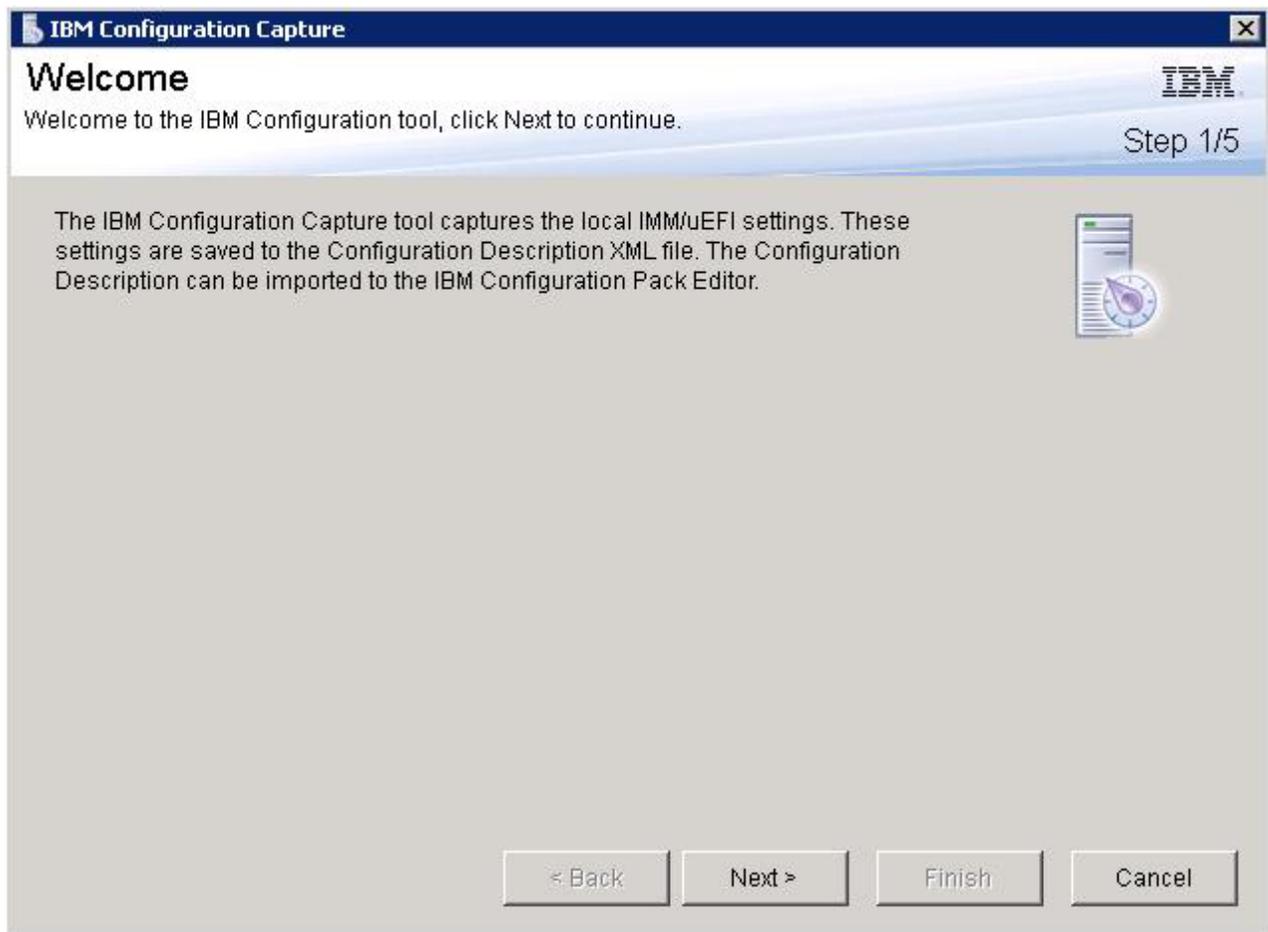


Figure 74. Welcome page

2. Click the **Next** button to display the General Information page. The General Information page auto collects information from the local computer.

IBM Configuration Capture

General Information

Enter a name and description for this capture. Click Next to continue. IBM
Step 2/5

Product Name is 08, and Machine Type/Model is IBM System x3100 M4 -[258242Z]-.

Name:

Description:

IMM Account (Optional)

User ID: Password:

< Back Next > Finish Cancel

Figure 75. General page

Note: If the IMM account is different than the default account, the user needs to type the correct account to access IMM/uEFI module. For example, the default IMM account is id:USERID, pwd:PASSWORD; however, if a user has changed the IMM account, they need to type the changed account in the IMM Account text box.

3. Click the **Next** button in the General page. IBM Configuration Capture starts collecting the local computer's IMM/uEFI settings.

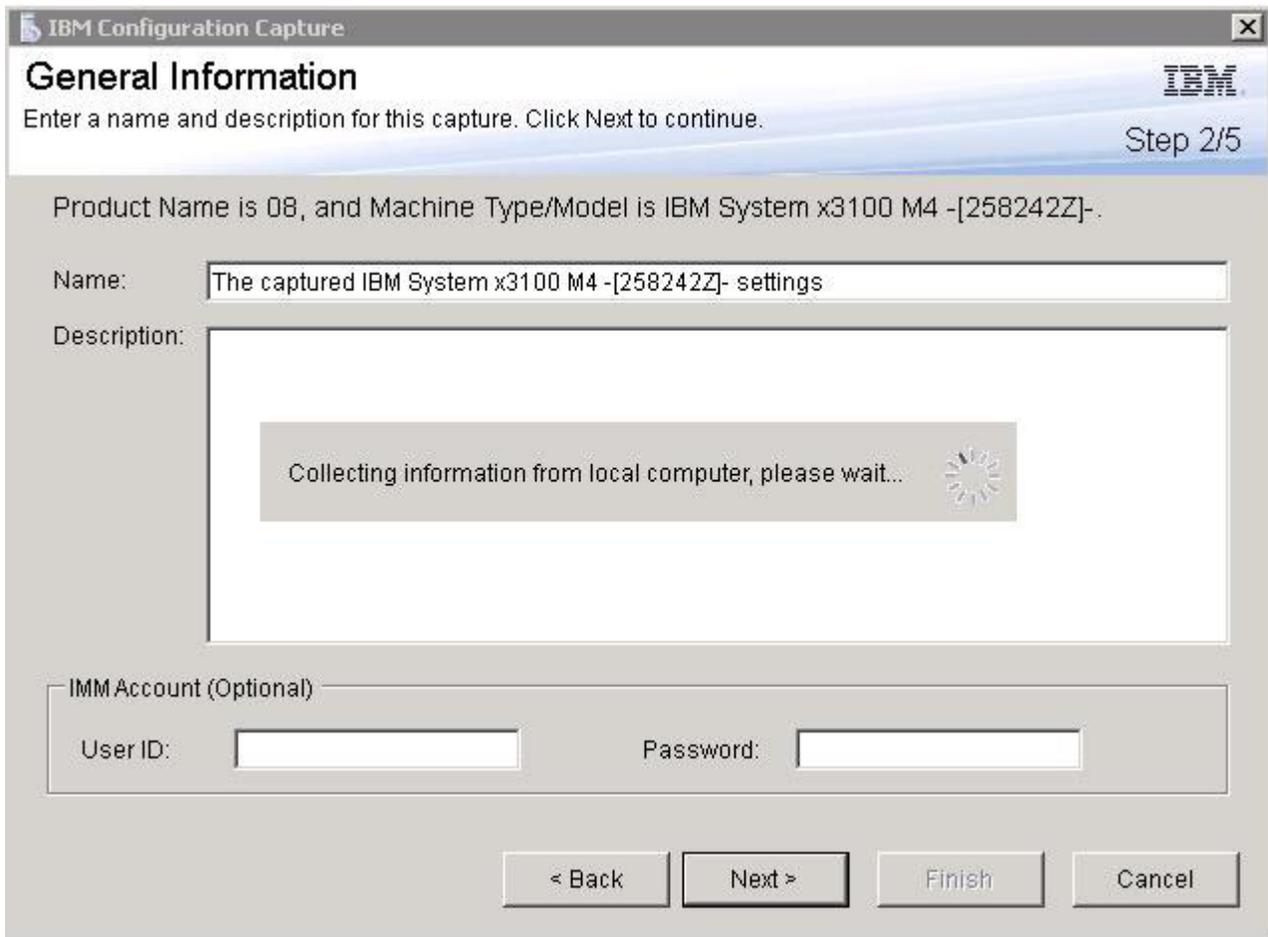


Figure 76. Collecting information

4. After a few minutes, IBM Configuration Capture completes collecting the settings. The Select Settings page displays, which lists the captured settings. Users can select settings they want to export.

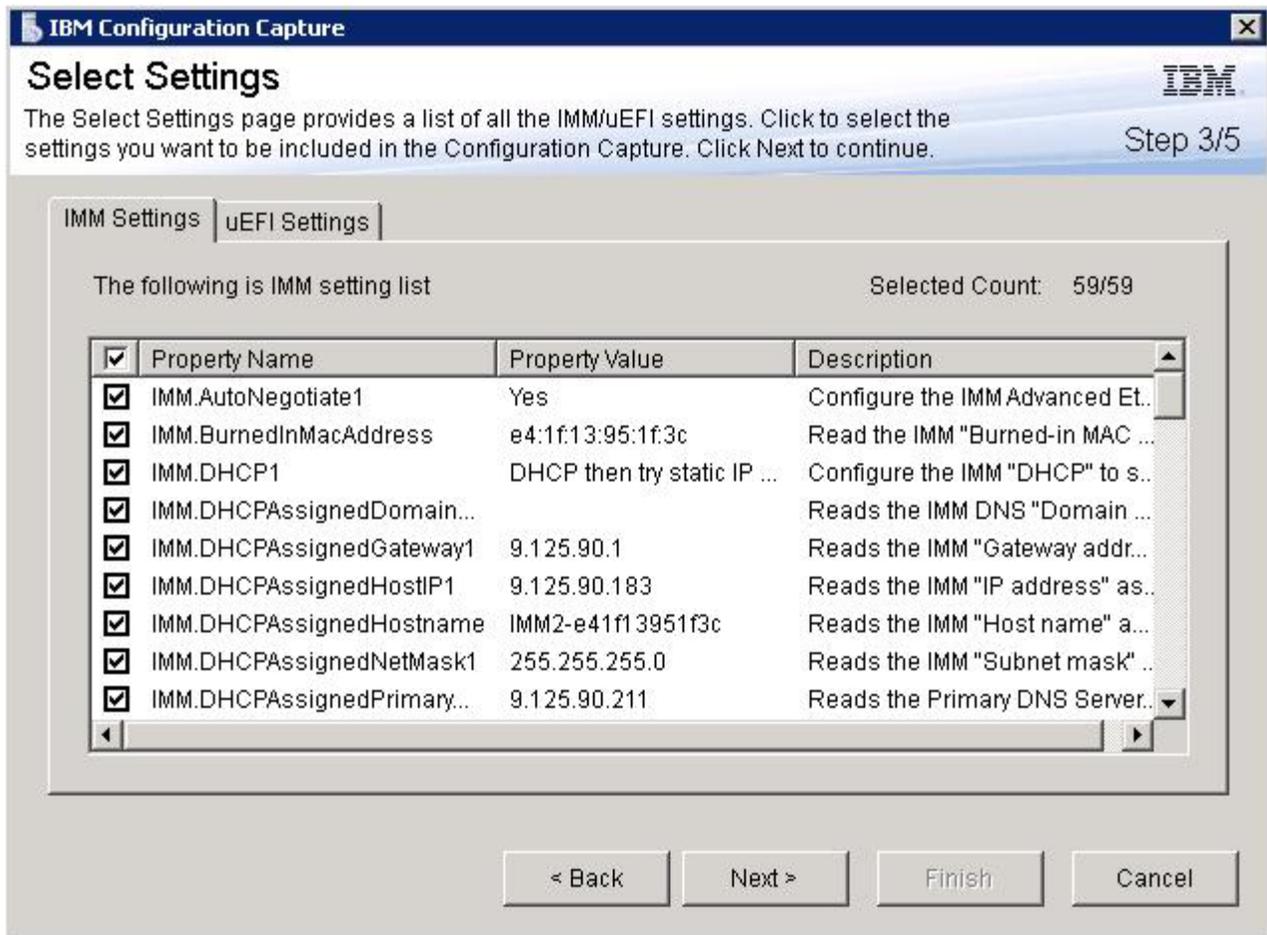


Figure 77. IMM settings

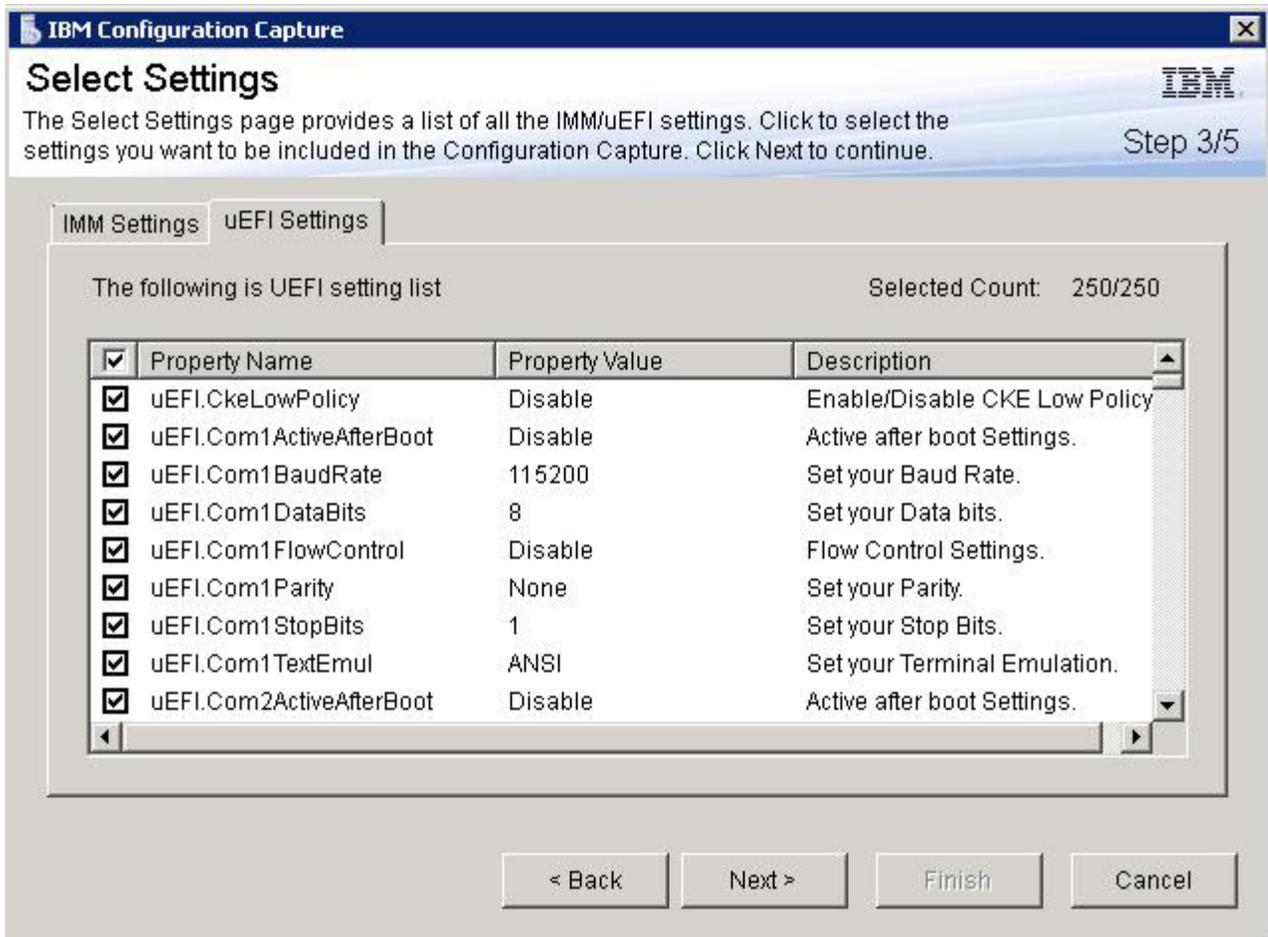


Figure 78. uEFI settings

Note: The capture can fail when the local computer does not have an IMM or uEFI module, or the IMM Account is incorrect. When the capture fails, you can click the **Information link** button for details.

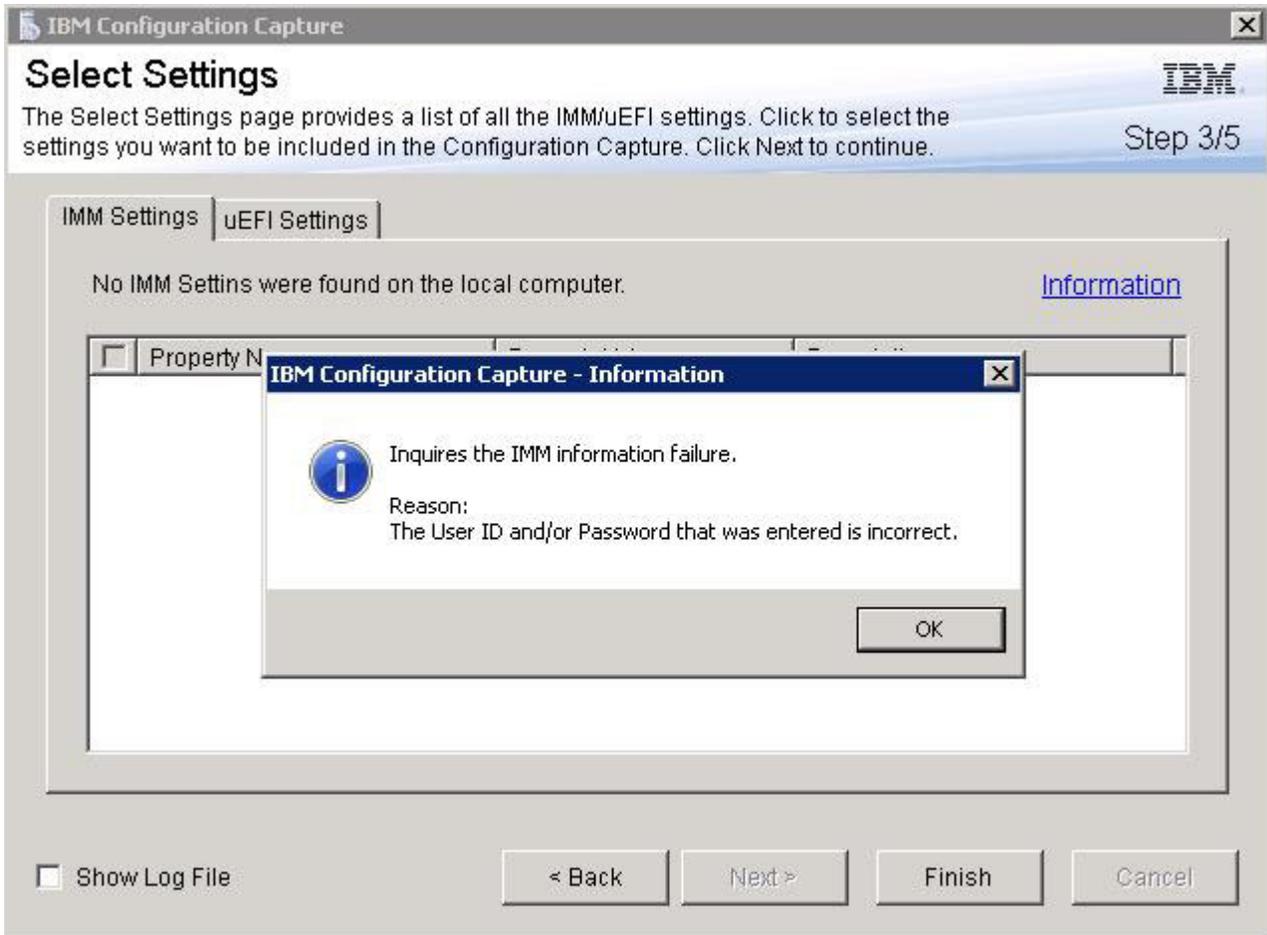


Figure 79. Incorrect IMM account is incorrect

5. Select the settings that you want from the Select Settings page, and click the **Next** button. The Export page lists settings you can export to a Configuration Description XML file.

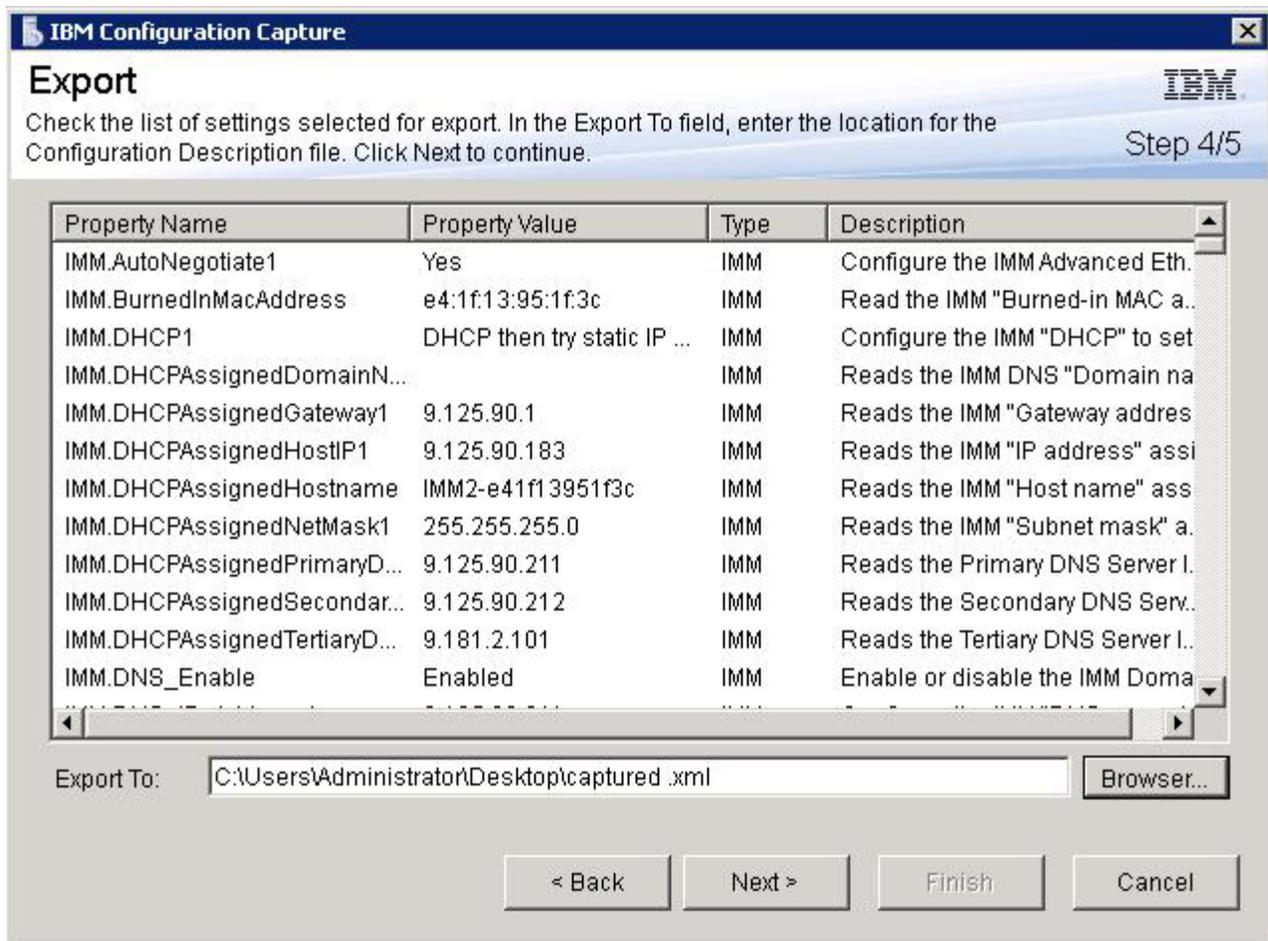


Figure 80. Export Page

- The Export successfully completed page appears.

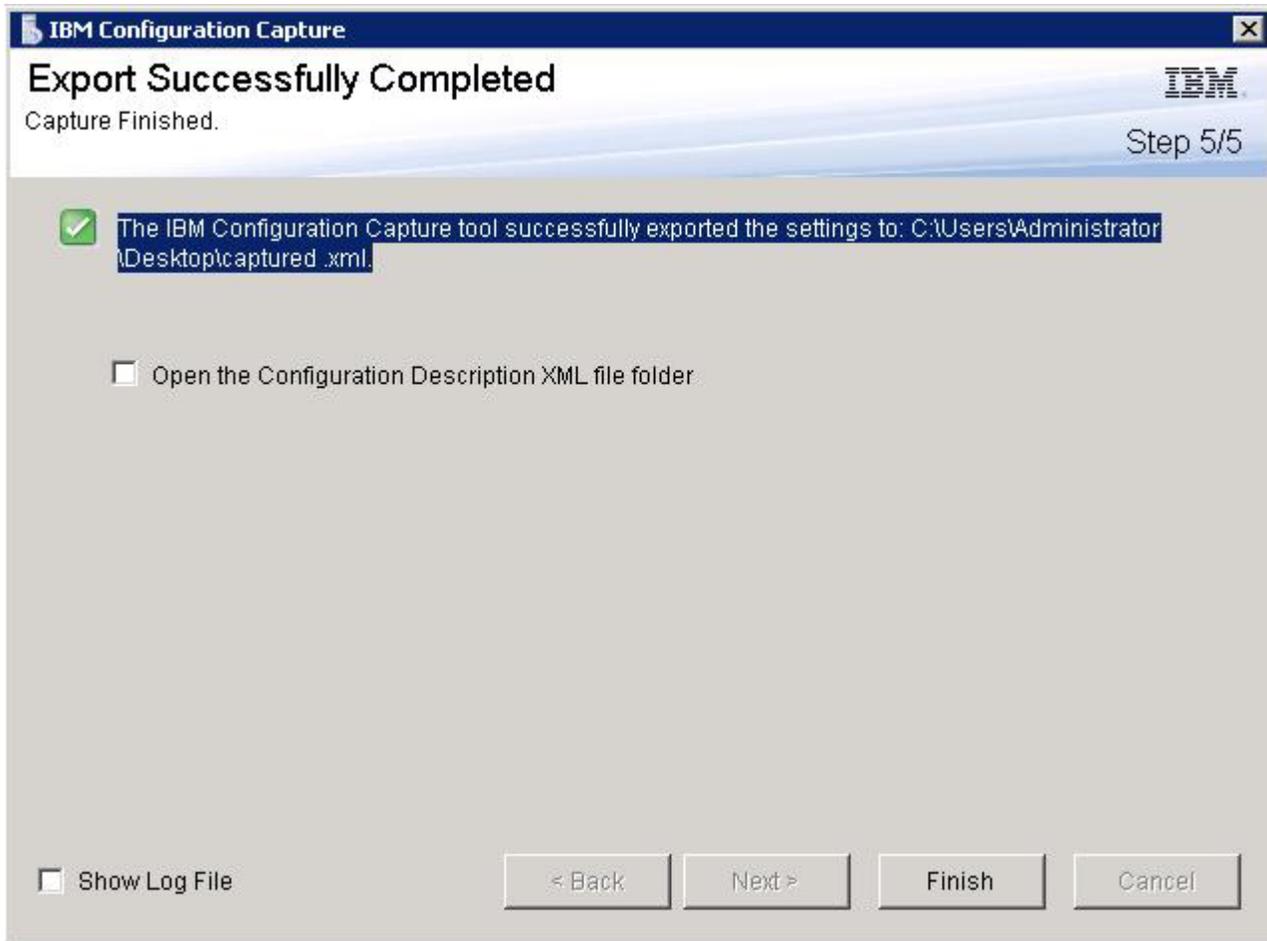


Figure 81. Export Successfully Completed

Note: You can export the captured Configuration Description file into any IBM Configuration Pack Editor to manage. For details see “Creating a **configuration item**” on page 24.

Chapter 4. Troubleshooting

- If you experience any issues when using IBM Configuration Pack Editor, you can check the log info under `InstallationFolder\logs`. The logs folder will be auto deleted after the product is uninstalled.
- If you want to export the logs of evaluation for IBM Configuration Pack on the endpoint, follow these steps:
 1. After the evaluation, launch Event Viewer.
 2. Expand the Windows Logs tree view.
 3. Right click the Application node, and click **Save Events as**.

You can also use the following methods to check whether the property exists and the IMM account is correct:

- Get the specific IMM/uEFI property:
`asu.exe show propertyname`
e.g. `asu.exe show IMM.HTTPPort`
- Get the specific IMM/uEFI property with the account:
`asu.exe show propertyname --user UserID --password Password`
e.g. `asu.exe show IMM.HTTPPort --user admin --password esW2Ad`
- In the Evaluation Report View section, if the Script cannot get the evaluated setting, it will not return a value, and the SCCM Client agent will deem this evaluated setting is non-compliant. You can get the details about this evaluated setting from application logs in Windows. The following are terms used in the application log and their explanations:
 - [Not Found ASU] – Not found ASU.exe in the specific location
 - [TargetOS] – The bit of the current OS: 64-bit / 32-bit
 - [Found ASU] – The location of ASU.exe
 - [Property] – The evaluated property's name
 - [Set ACCOUNT] – Whether users set IMM account in IBM Configuration Pack Editor
 - [TimeOut] – Whether the evaluated setting is time out
 - [Return Code] – This is the return code of ASU.exe. If the evaluated setting can be found, the return code is 0. Otherwise, the return code is larger than 0. For more details on ASU return code refer to the following web link:
<http://www-947.ibm.com/support/entry/portal/docdisplay?lnocid=TOOL-ASU>
 - [Error Output] – If the evaluated setting cannot be found, the [Error Output] records the failure reason.
 - [Output] – If the evaluated setting can be found, the [Output] recodes the ASU.exe search result.
- IBM Configuration Capture recodes a log file in the `IBM_Support\DCM\logs` folder of the System Driver during the launching process. For example, if your System Driver is C:, then the log file will be recorded under the `C:\IBM_Support\DCM\logs\` folder.
- IBM Configuration Capture can capture all IMM/uEFI settings from the IBM Server, but some captured settings may not be included in the common setting list of the IBM Configuration Pack Editor. The IBM Configuration Pack Editor cannot list the values of those settings after imported; the Editor assumes the type for those settings is String type.

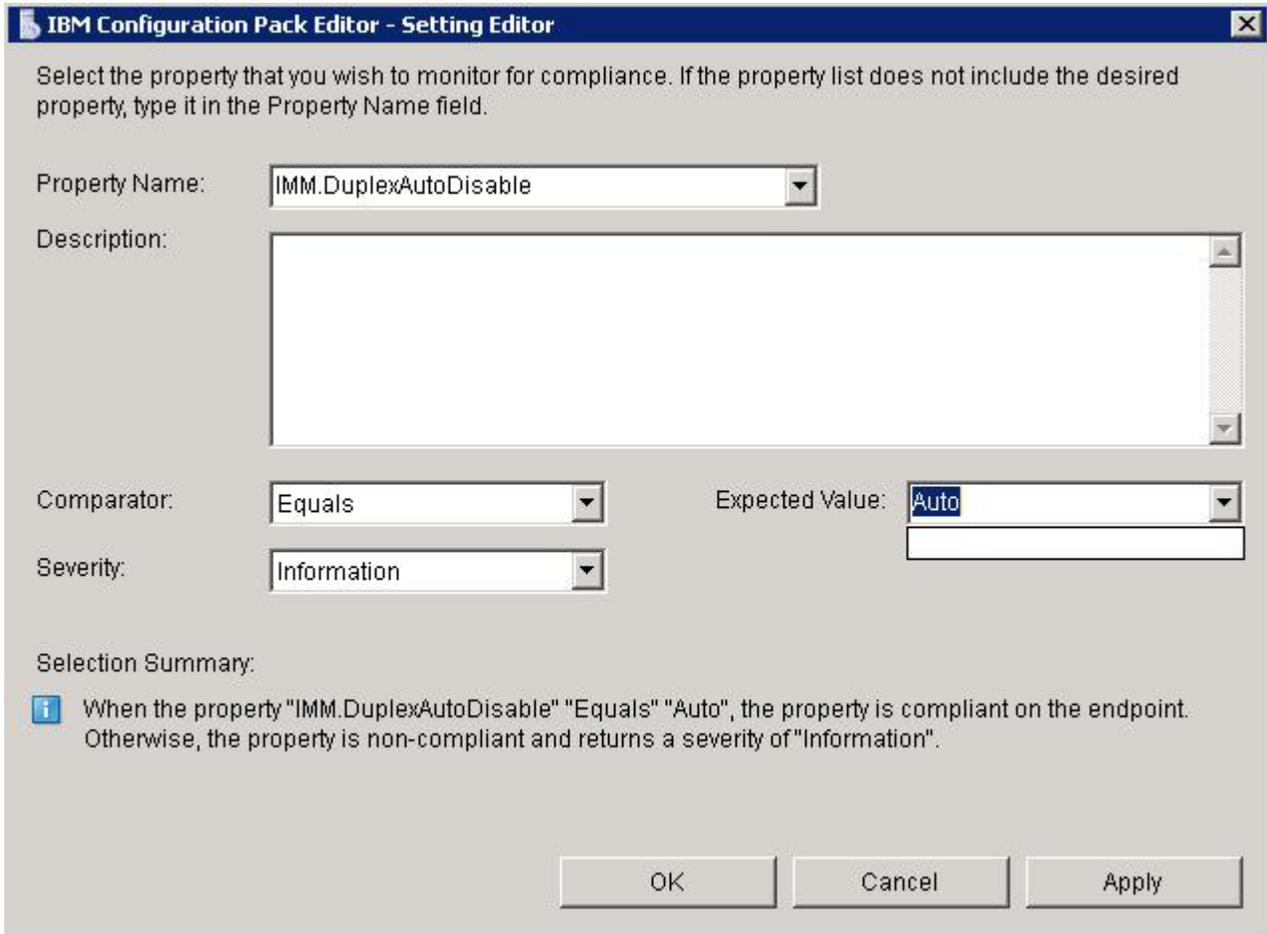


Figure 82. IBM Configuration Pack Editor - Setting Editor page

In figure 1, IMM.DuplexAutoDisable does not be included in the common setting list of the IBM Configuration Pack Editor, so the Description and Expected Value combobox field are empty. The IBM Configuration Pack Editor assumes the type of IMM.DuplexAutoDisable is String type. For details of the different types, please see Table 2.

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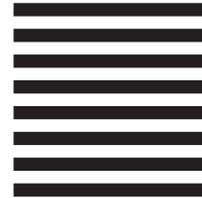
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