

Deep Freeze and Microsoft System Center Configuration Manager 2012 Integration

Introduction

This white paper explains how to integrate Microsoft System Center Configuration Manager with Deep Freeze.

Requirements

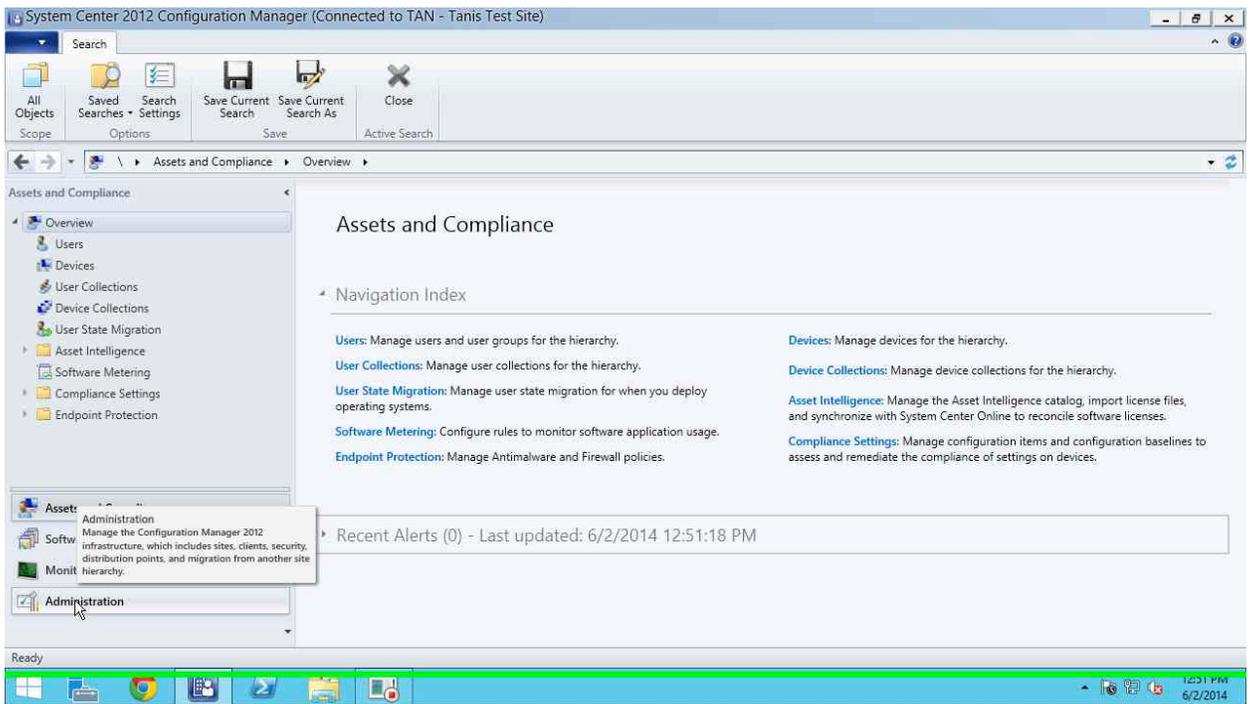
Integration of Deep Freeze with Configuration Manager requires a fully configured site server for software distribution and that the Configuration Manager client is installed on the client workstations.

Configuring the Configuration Manager Client to Collect Faronics Product Data

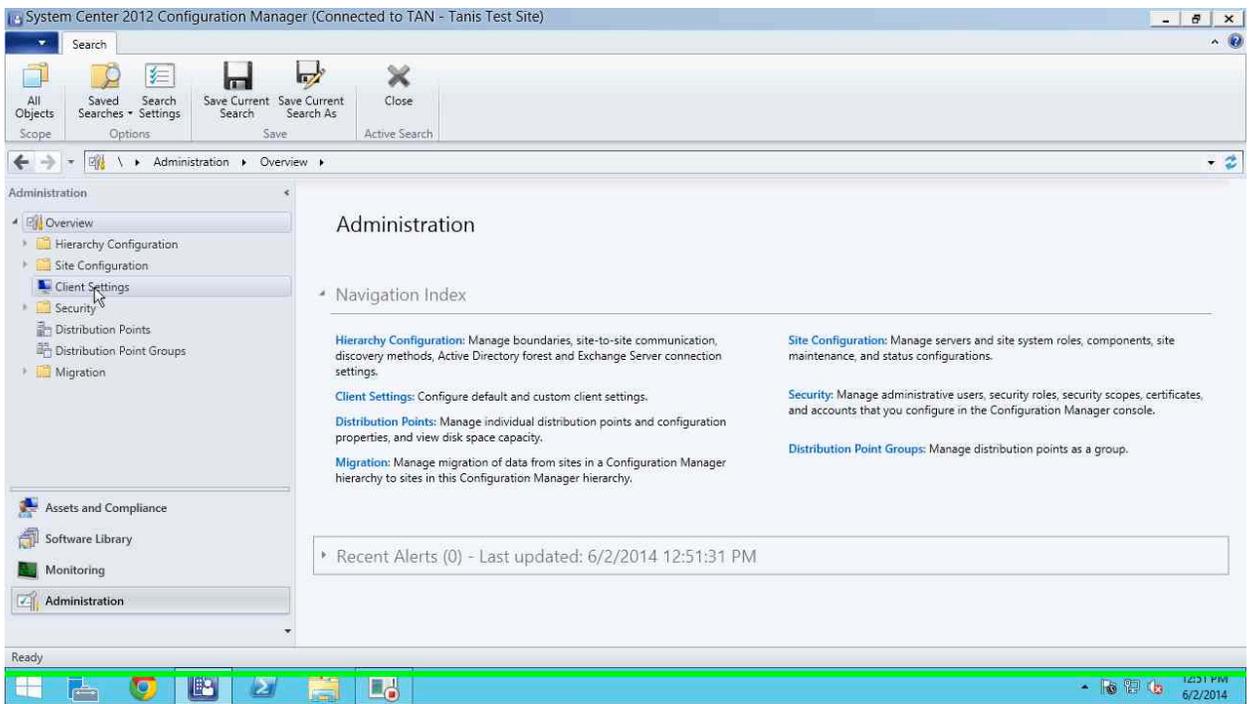
The Configuration Manager clients can be configured to collect information on the configuration of the various Faronics products installed on a managed workstation. Faronics publishes many pieces of information regarding our installed products in the workstations WMI Repository. This information can be used by the Configuration Manager to build collections of workstations based on the presence and configuration of Faronics products.

To start we will first need to configure the Configuration Manager client to include this information in the list of data that is collected as part of the hardware inventory. Before proceeding please ensure that the Faronics products that you are looking to gather information on are installed on a workstation running the Configuration Manager Client.

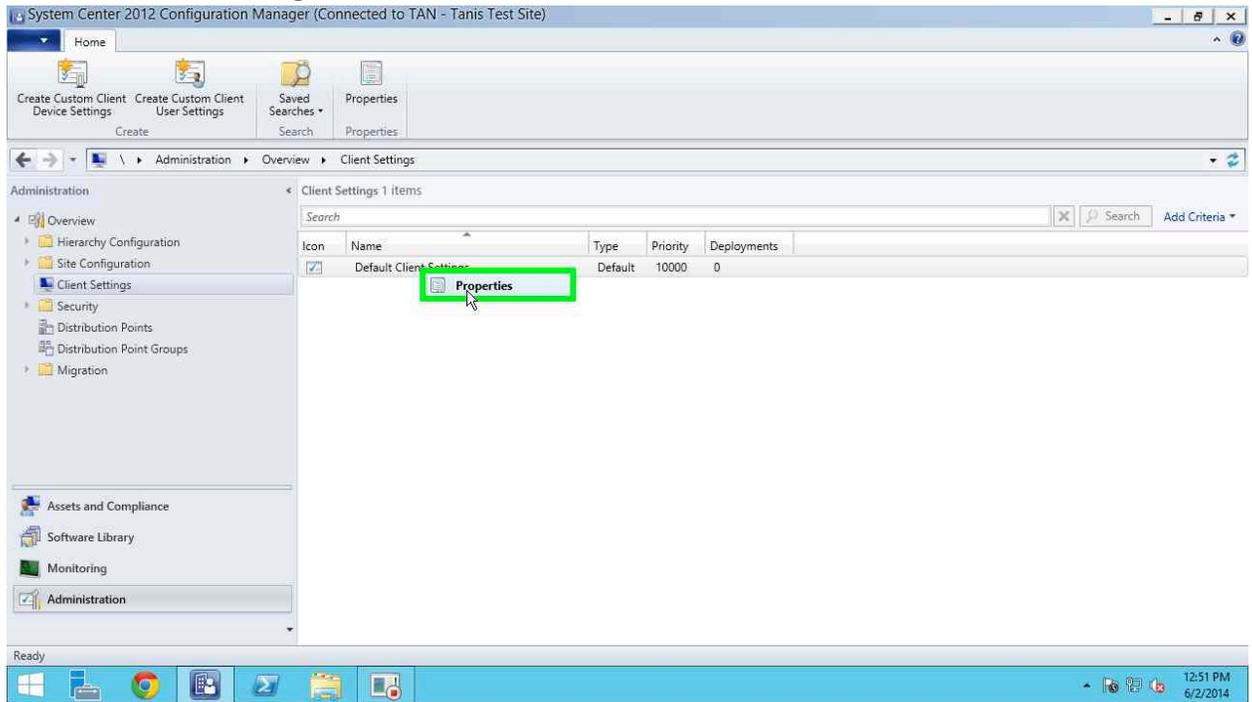
1. Open the Configuration Manager Console and click on the Administration Node.



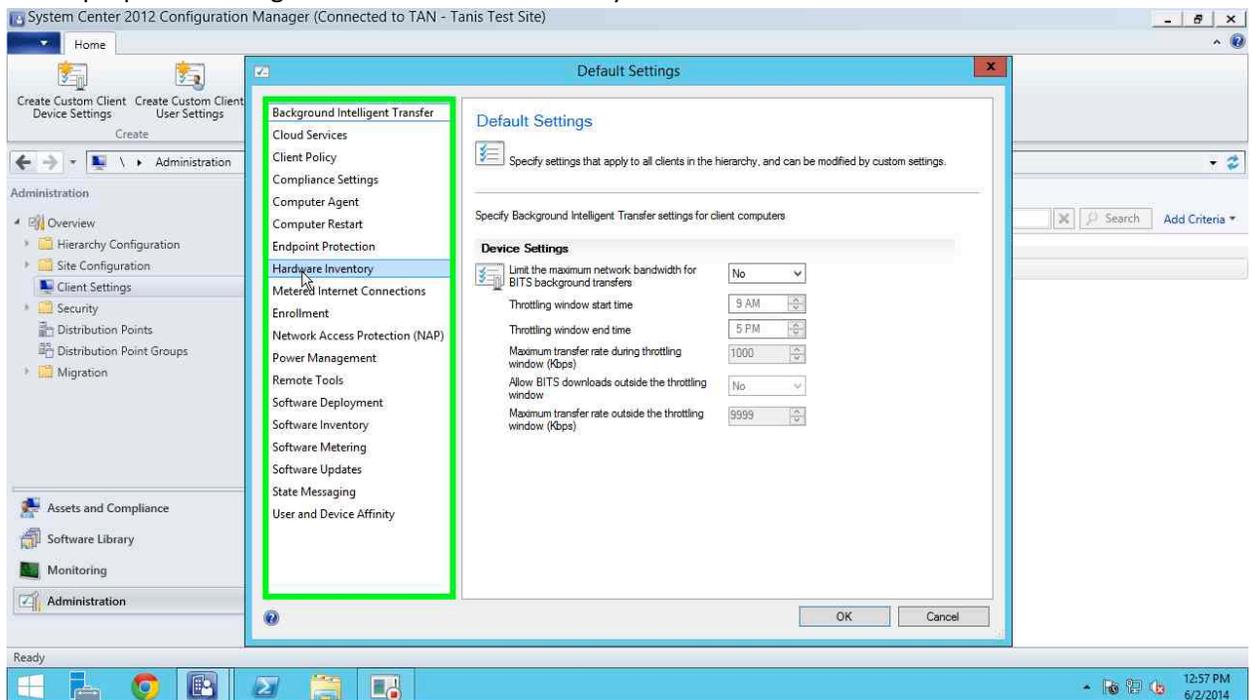
2. Click on the Client Settings node shown in the navigation pane on the left.



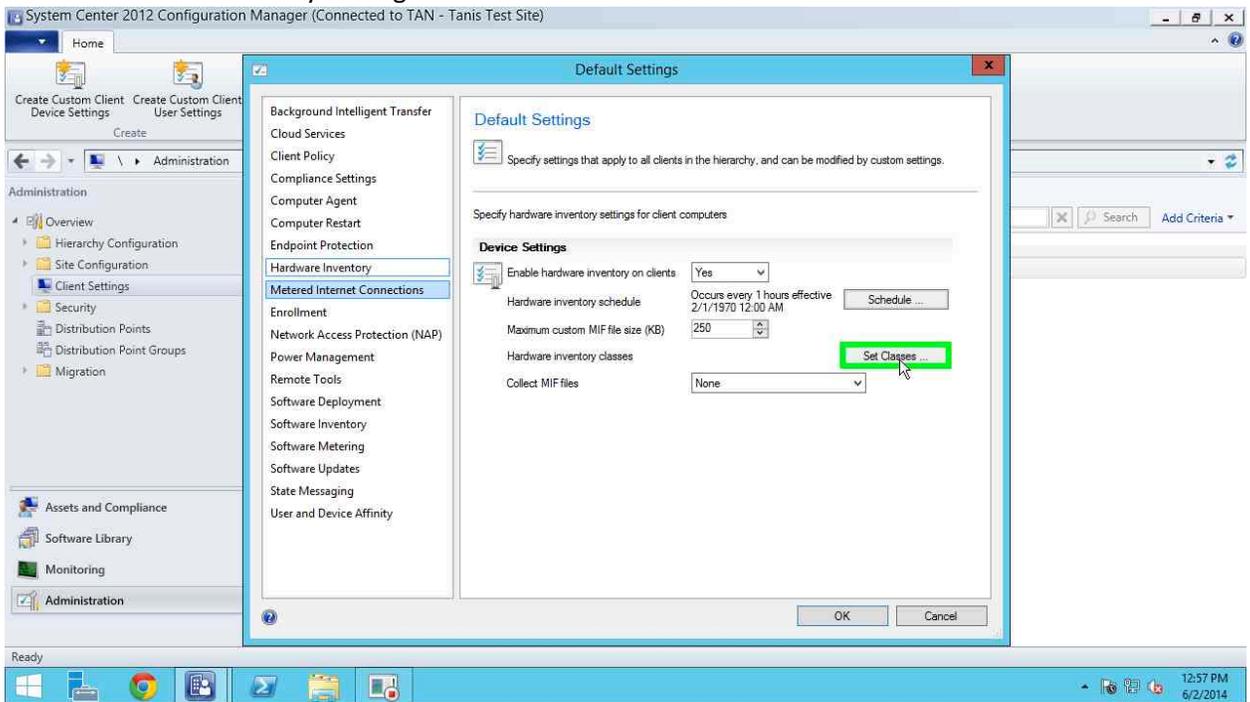
- Right-click on the Client Settings that you wish to modify and select Properties. In our case this is the Default Client Settings.



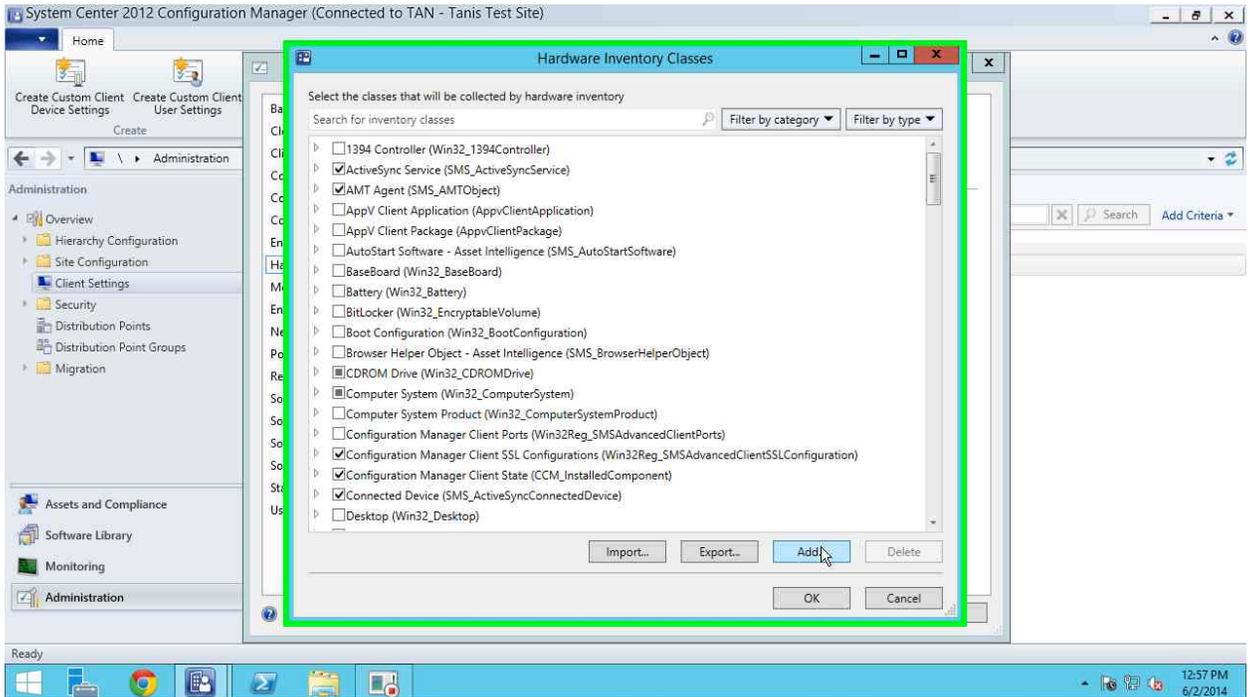
- In the properties dialog click on Hardware Inventory.



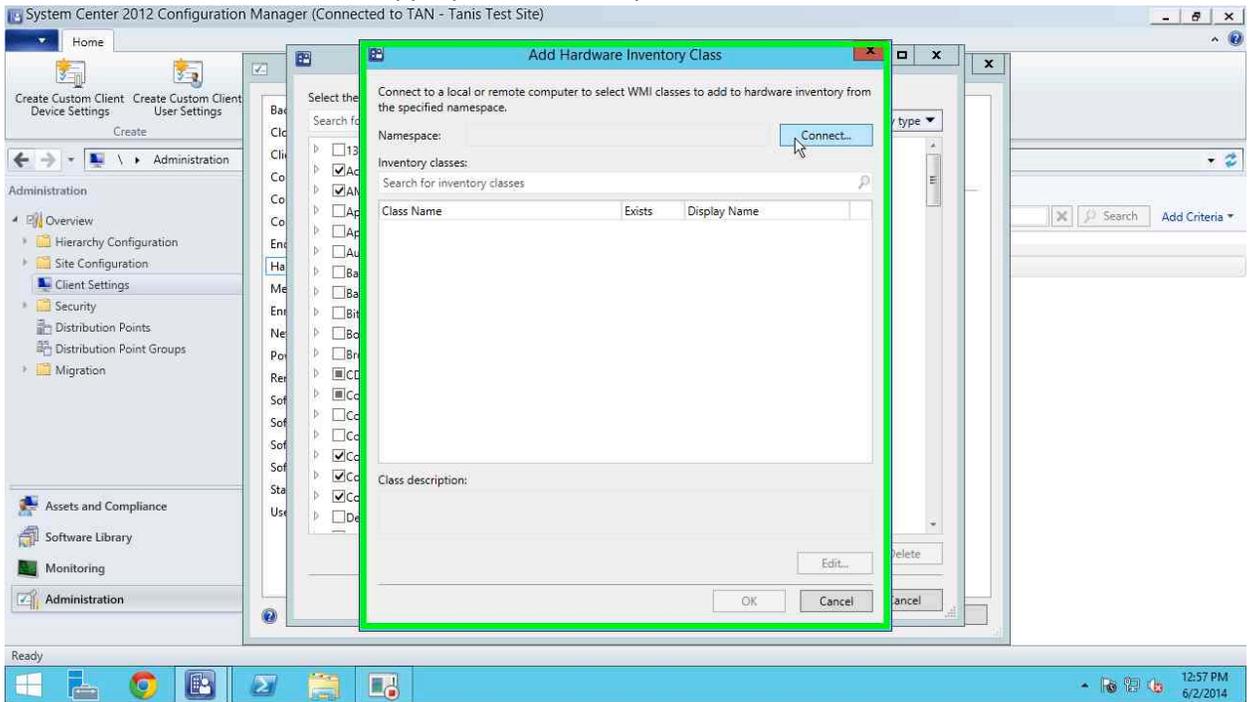
5. In the Hardware Inventory settings click on the Set Classes button.



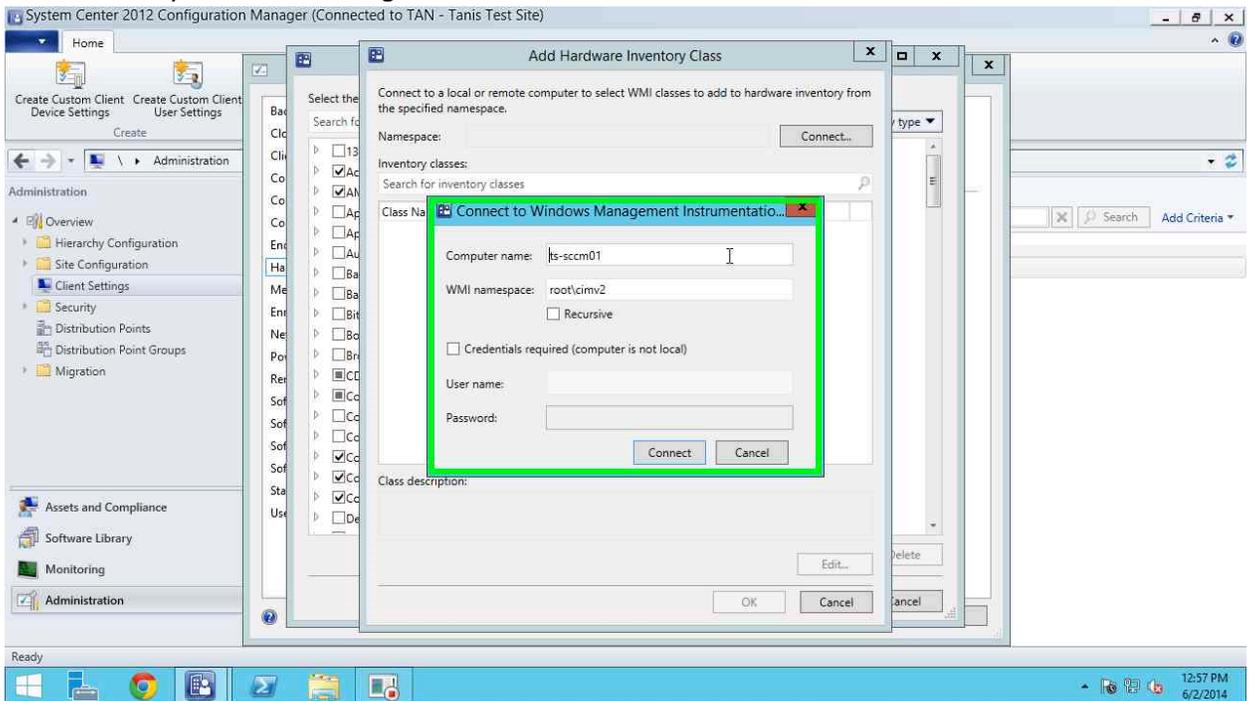
6. A dialog showing the Hardware Inventory Classes is shown. Click on the Add button.



7. A dialog titled Add Hardware Inventory Class is shown. Click on the Connect button to connect to the workstation that has the appropriate Faronics products installed.

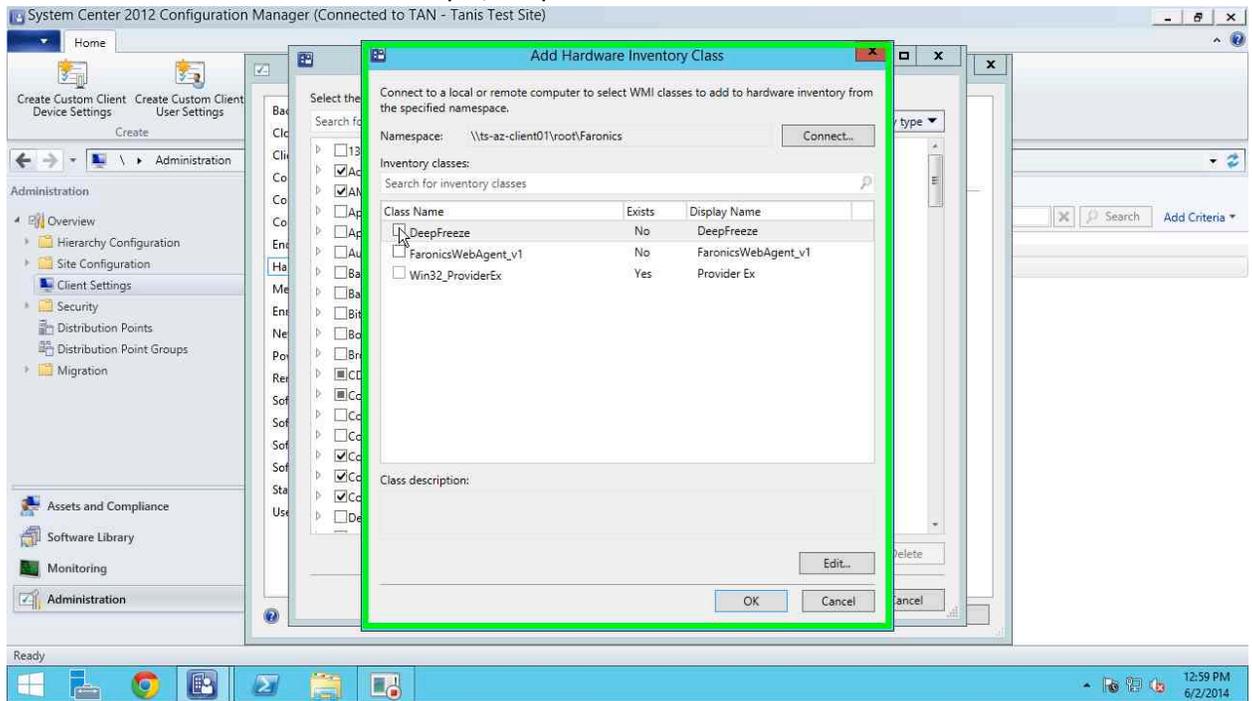


8. In the connection window that is shown enter the computer name in the specified field, and enter *root/Faronics* in the field called WMI namespace. Check the Recursive and the Credentials Required check boxes. Supply the credentials of a user with administrative rights on the client machine that you are connecting to.



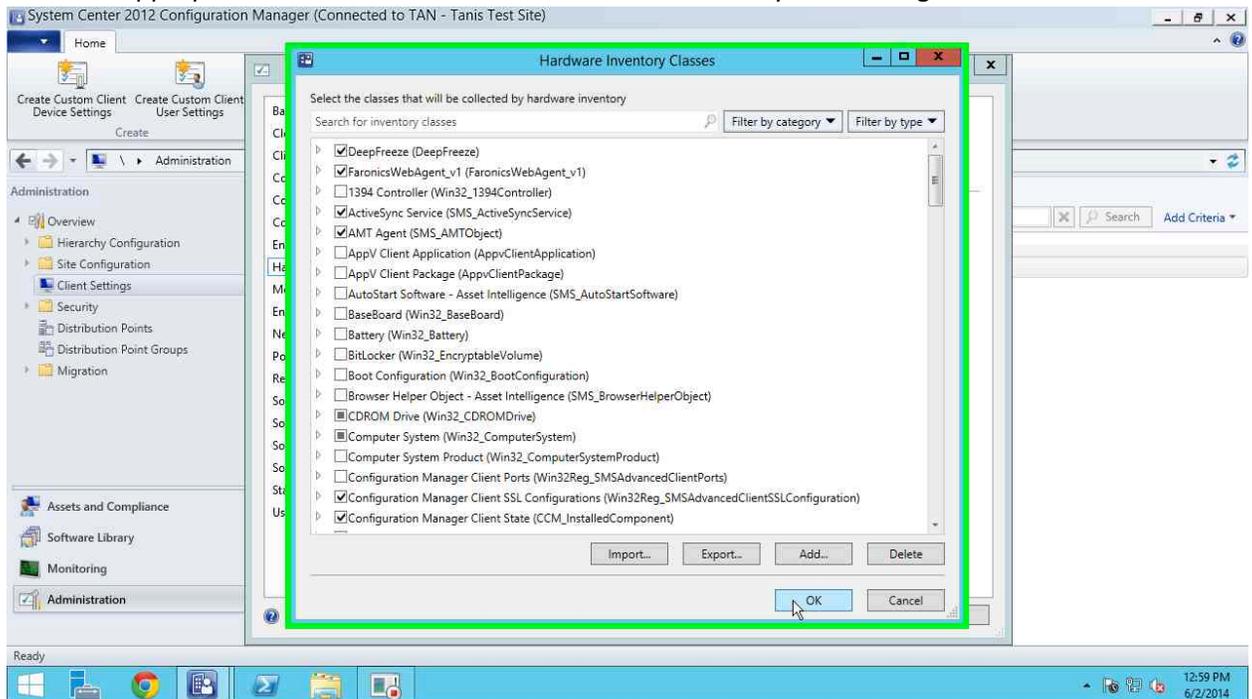
9. Click Connect.

10. Once the WMI classes have been pulled from the workstation they will be listed as shown in the screen shot below. Check the check box beside each class that you want to import into the SCCM console as shown. In our example, *DeepFreeze* is shown as selected.



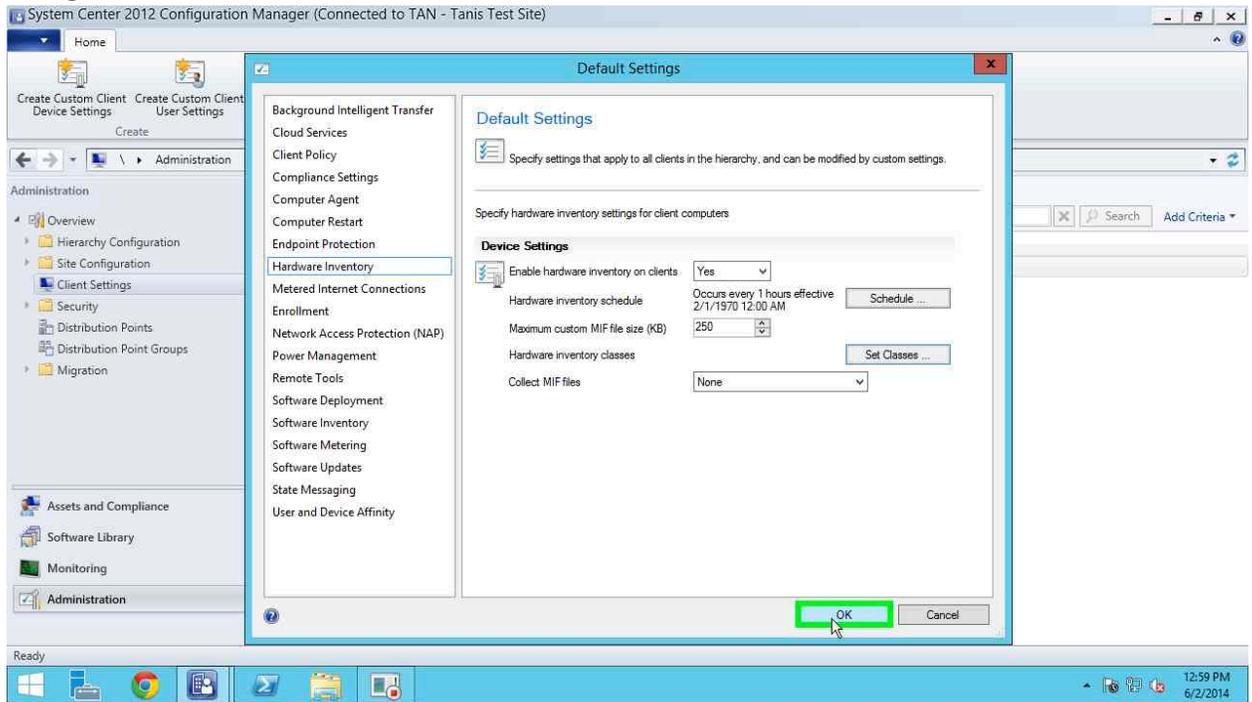
11. Click OK.

12. Once the appropriate classes are listed in the Hardware Inventory Class dialog and are checked



- click OK.

13. Click OK on the default settings properties to accept the changes to the client configuration.



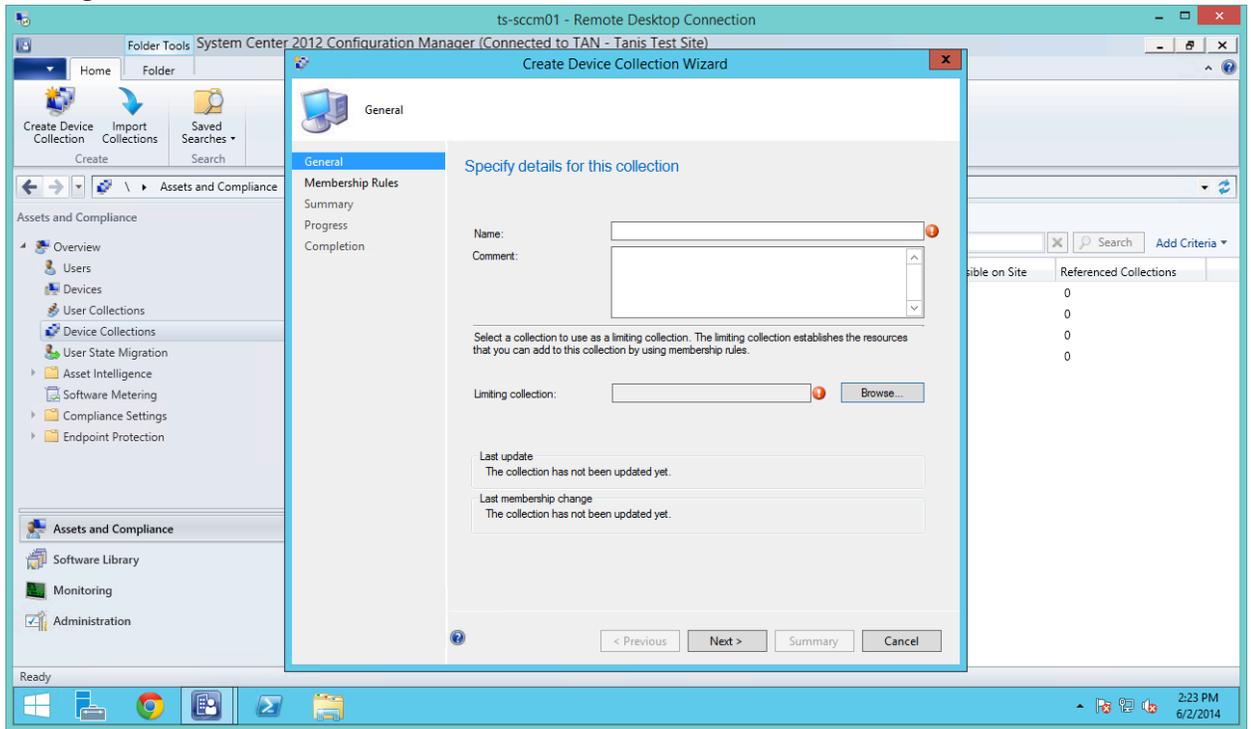
Once the client workstations next update the inventory the information that pertains to the Faronics products selected will be retrieved and copied into the Configuration Managers information on that specific system. This information can then be used to build queries in collections and reports to identify machines running Deep Freeze and other Faronics products.

Building Collections for Faronics Products

Once the Hardware inventory is configured to gather information on Faronics products you can now build a collection that will represent workstations that meet specific criteria. In our example below we will show how to configure a collection that will represent all workstations with Deep Freeze installed.

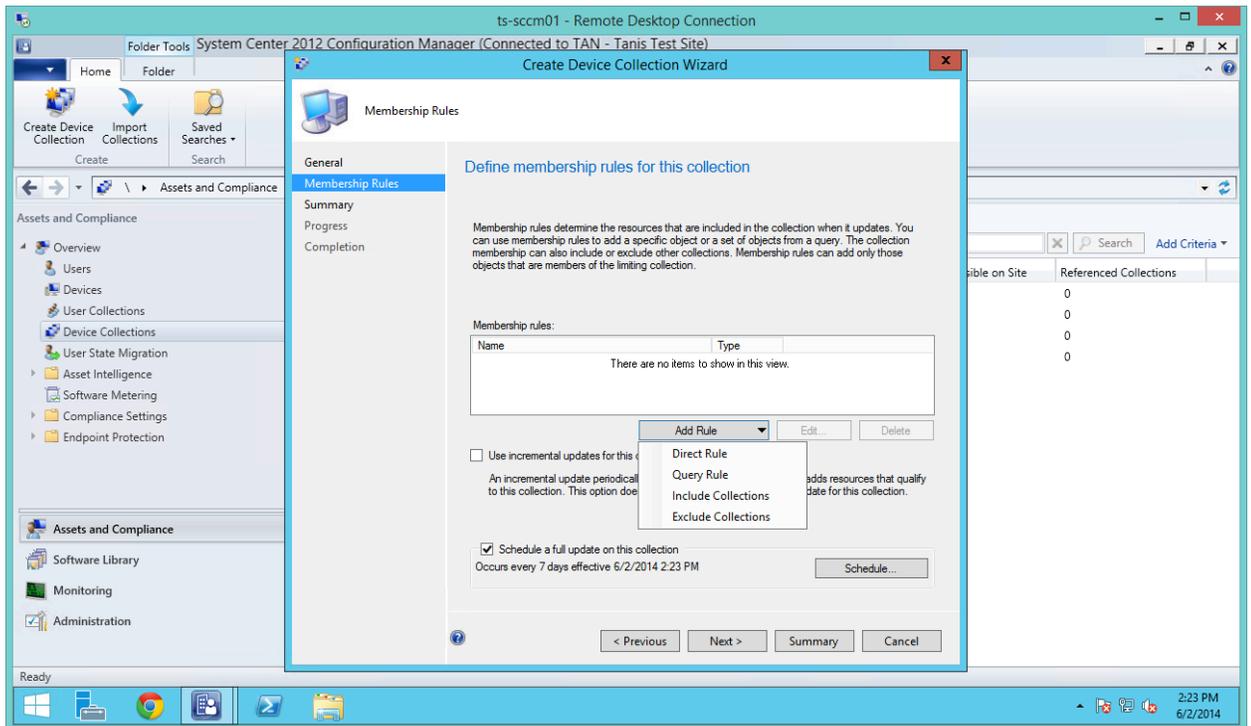
1. Open the Configuration Manager Console and click on the Assets and Compliance node.
2. In the Assets and Compliance node click on the Device Collections node.
3. Right click on the left hand side of the screen where collections are listed and select Create Device Collection.
4. In the Create Device Collection Wizard provide a name for your collection, a description, and select the limiting Collection. In our example we select *All Desktop and Server Clients* as the

limiting collection.

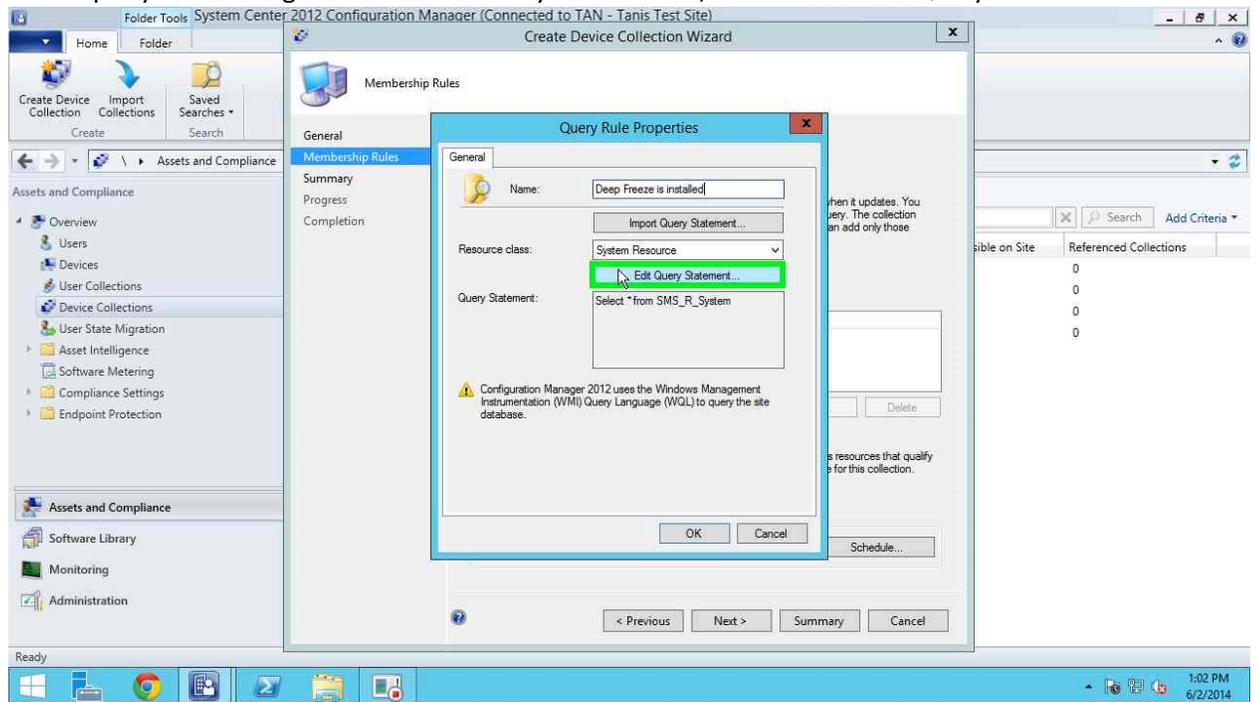


5. Click Next.

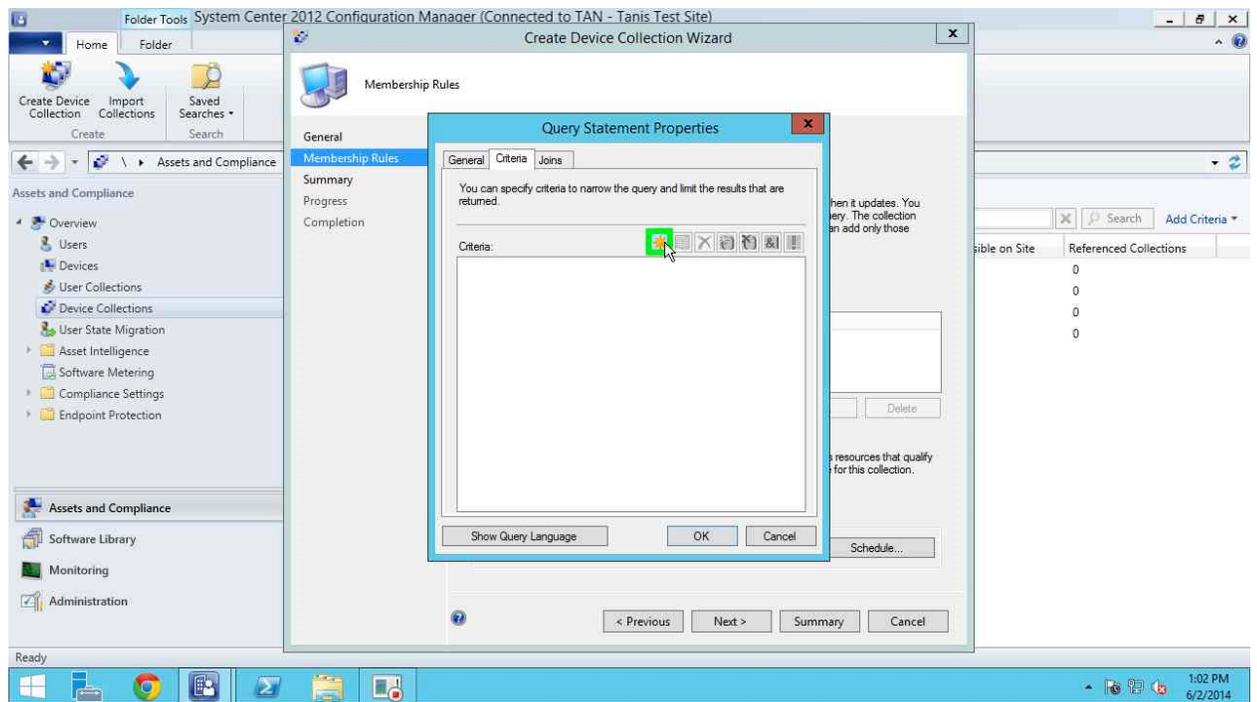
6. In the next screen we define the membership rules for the collection, click on the Add Rule button and select *Query Rule* from the drop down menu.



7. In the query rules dialog enter the name for your new rule, and click on Edit Query.

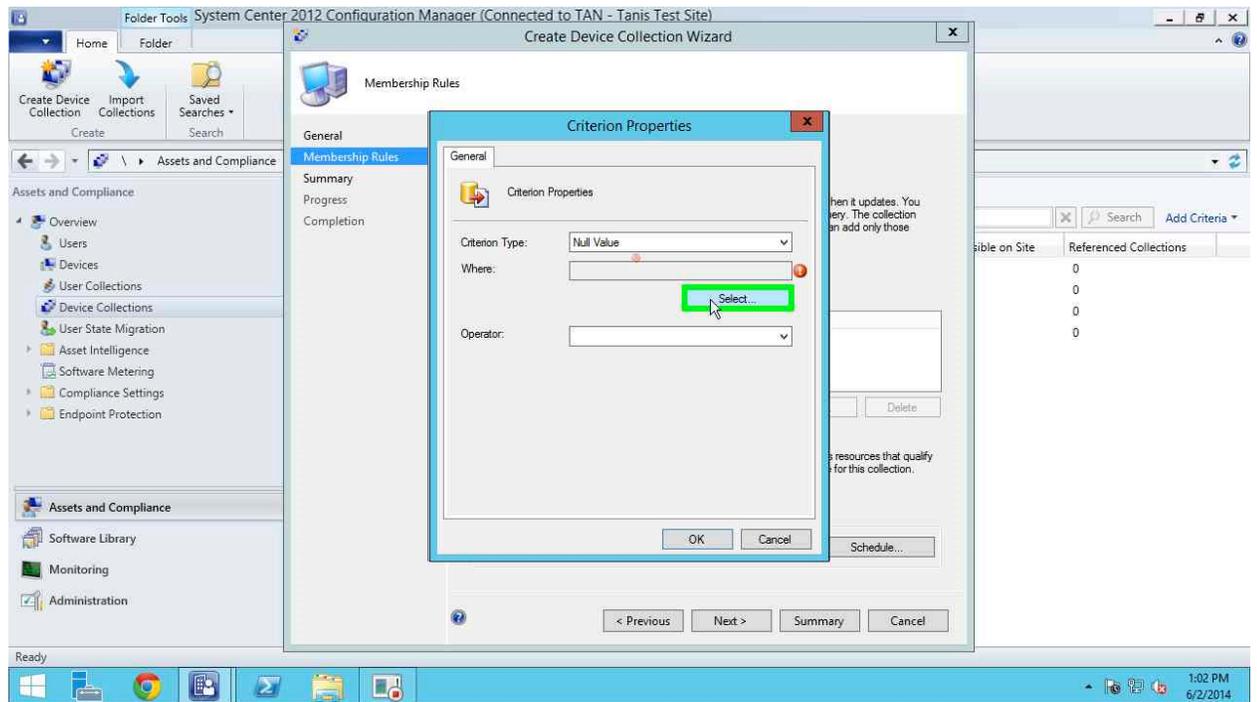


8. In the Query Statement Properties window click on *Criteria*, and then on the star icon to create a new criteria.

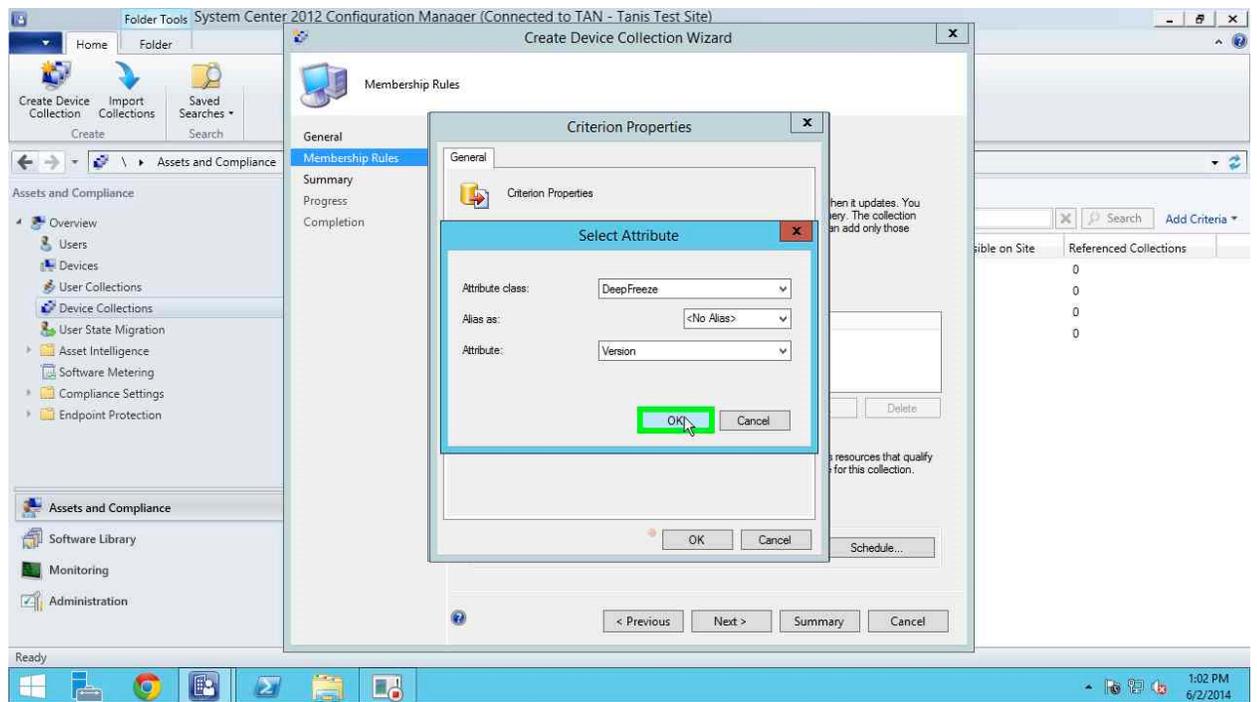


9. In the Criterion Properties dialog select the Criterion Type of *Null Value*, and click on the Select

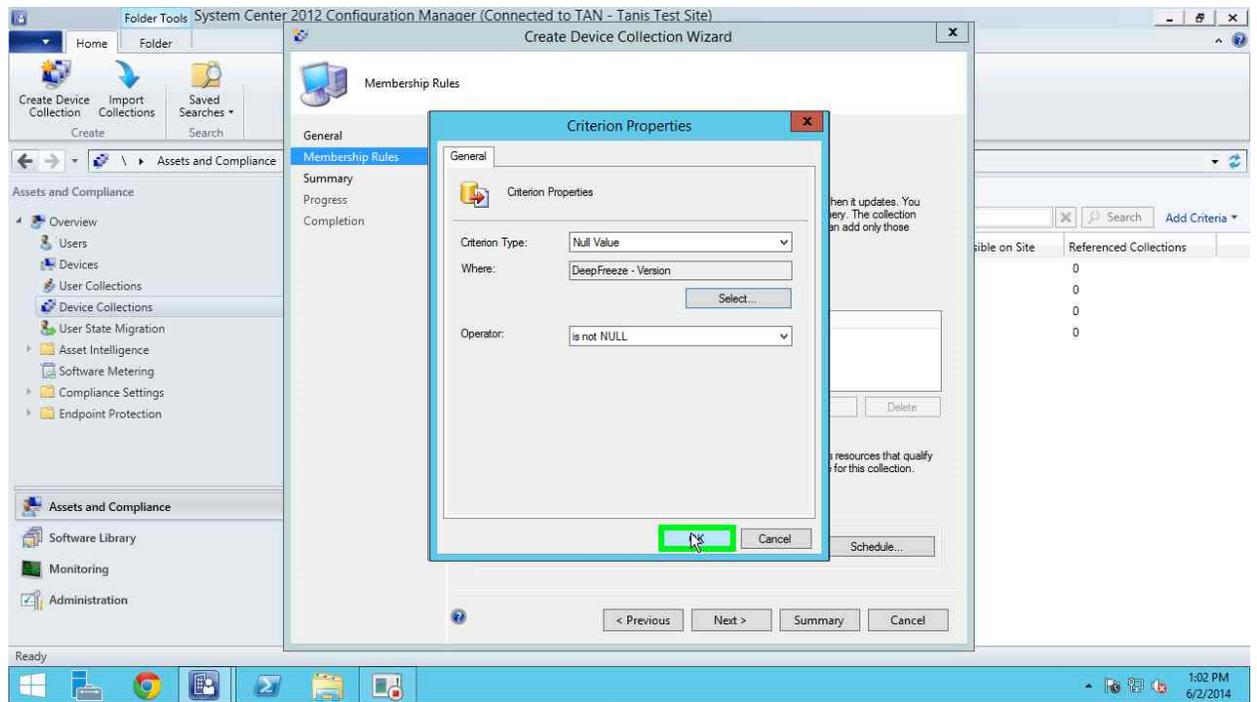
Button.



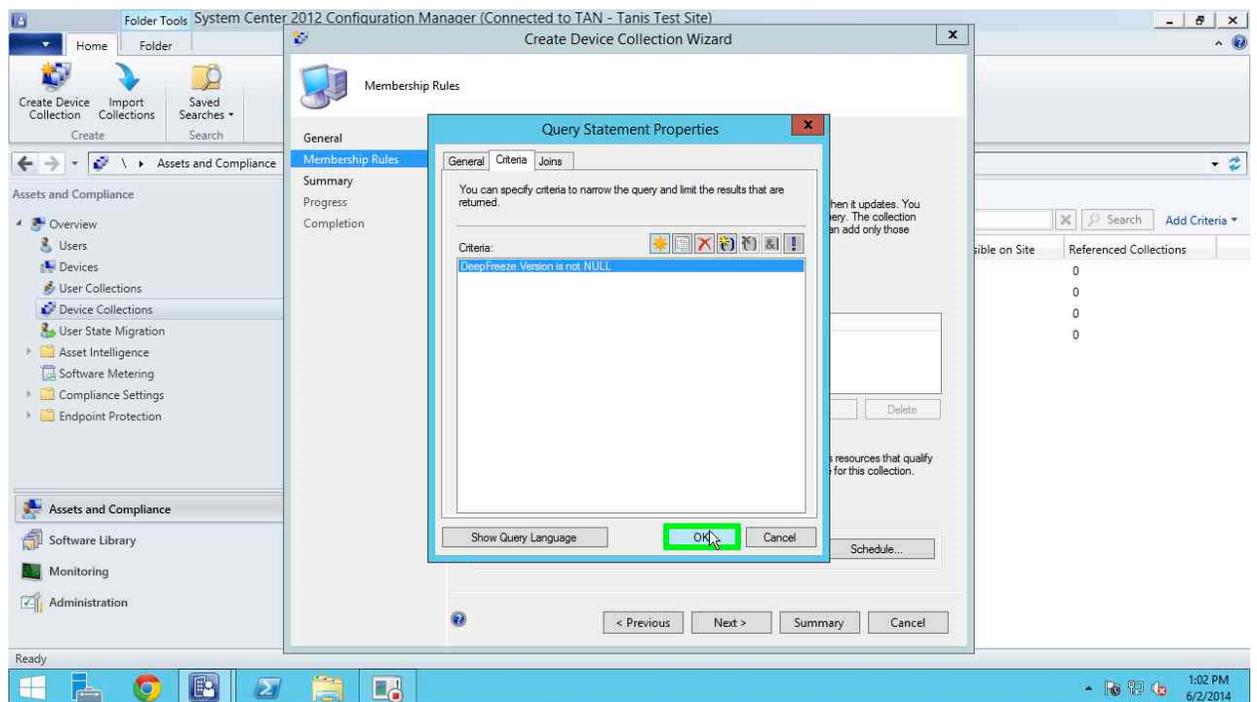
10. The Select Attribute dialog will be shown, select *DeepFreeze* from the Attribute Class drop-down and the select *Version* from the Attribute drop-down. Click OK.



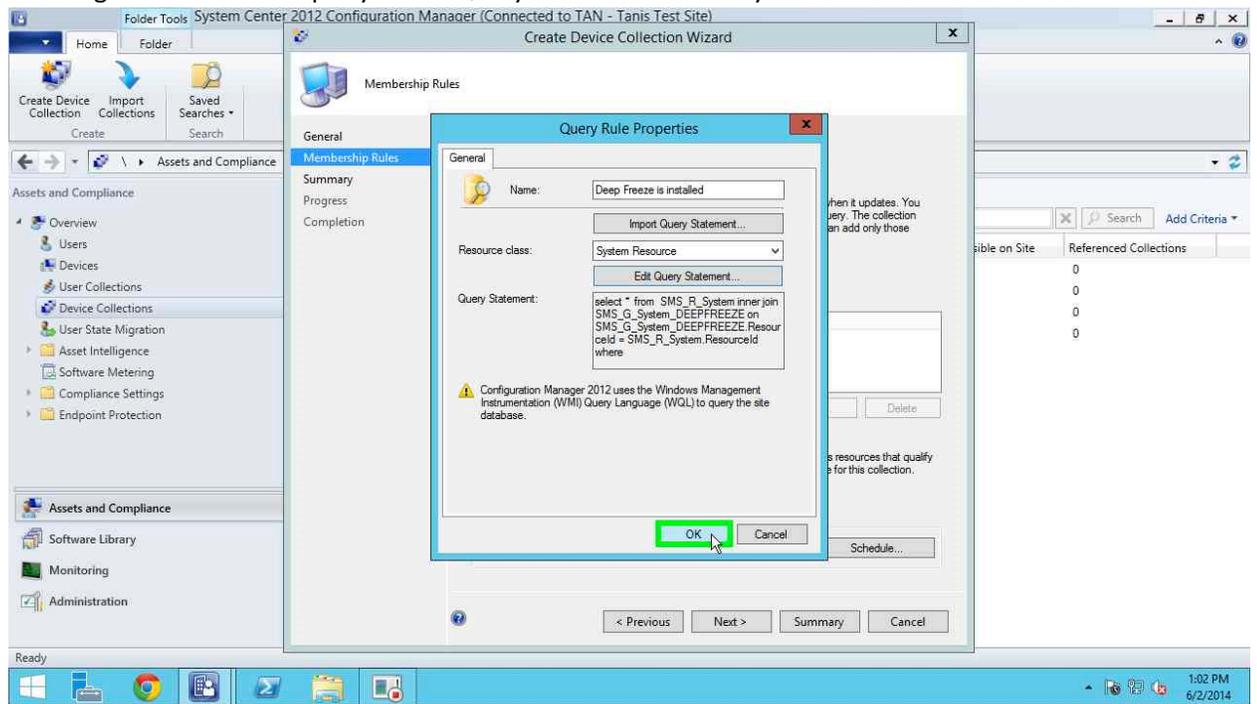
11. In the Criterion Properties window ensure that the Operator dropdown is set to *is not NULL* and Click OK.



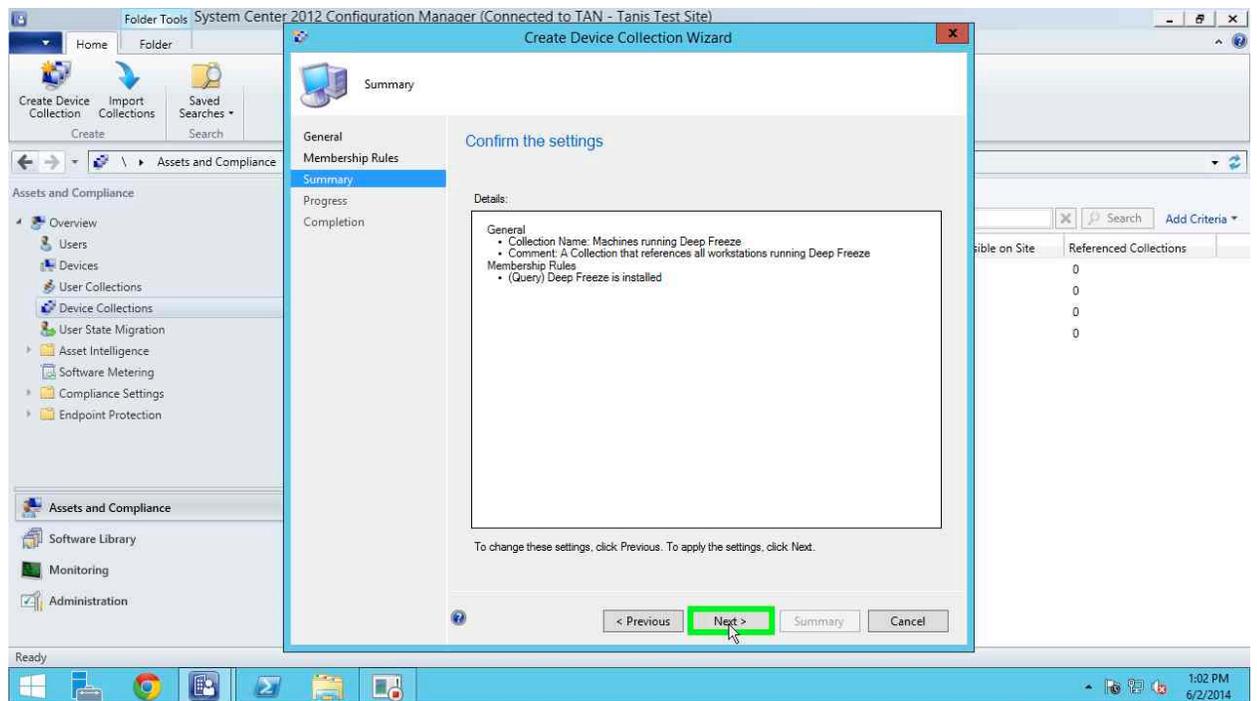
12. In the Query Statement Properties dialog ensure that the criteria is listed in the window, and click OK.



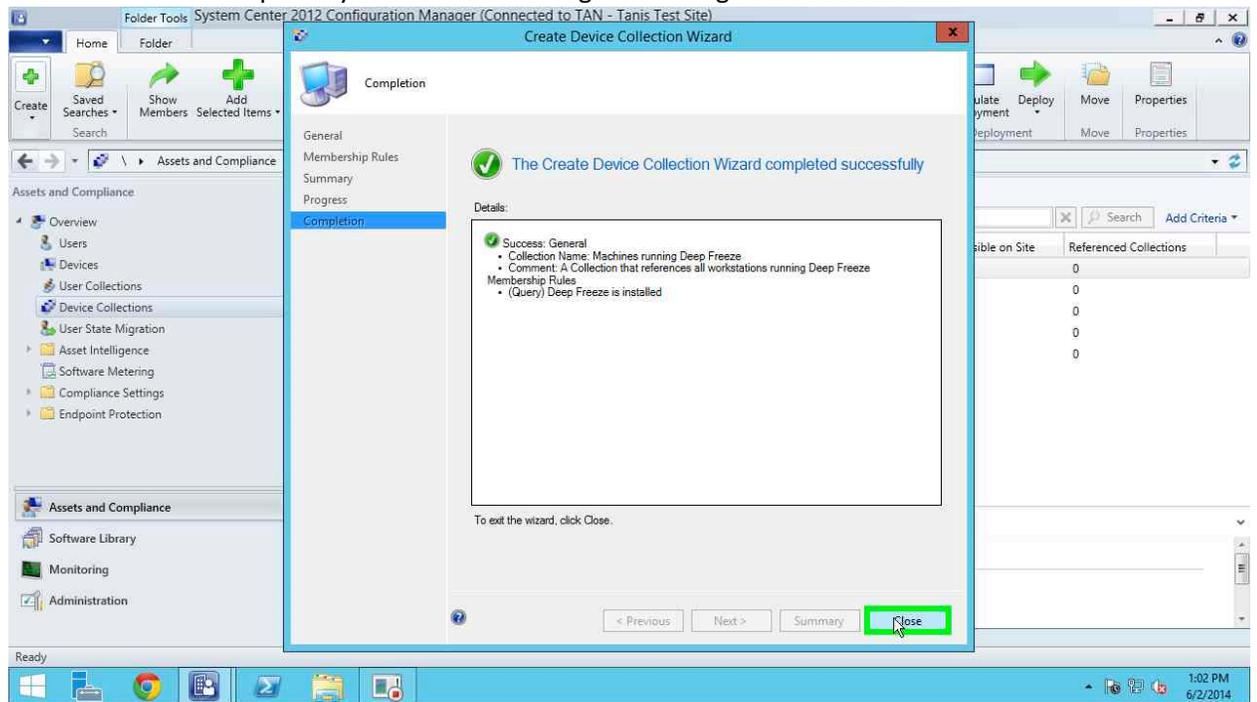
13. In the Query Rule Properties dialog you should see something similar to the screen below showing the entire WMI query in the Query Statement field. If you do click OK to continue.



14. Click Next in the Create Device Collection Wizard. In the next screen confirm your settings and click Next.



15. Once the wizard completes you will see a message indicating success as shown. Click Close.



Please note that workstations may not show in the collection immediately if they have not had the appropriate inventory data collected from them or if the changes to the system have occurred after the systems last reported inventory report.

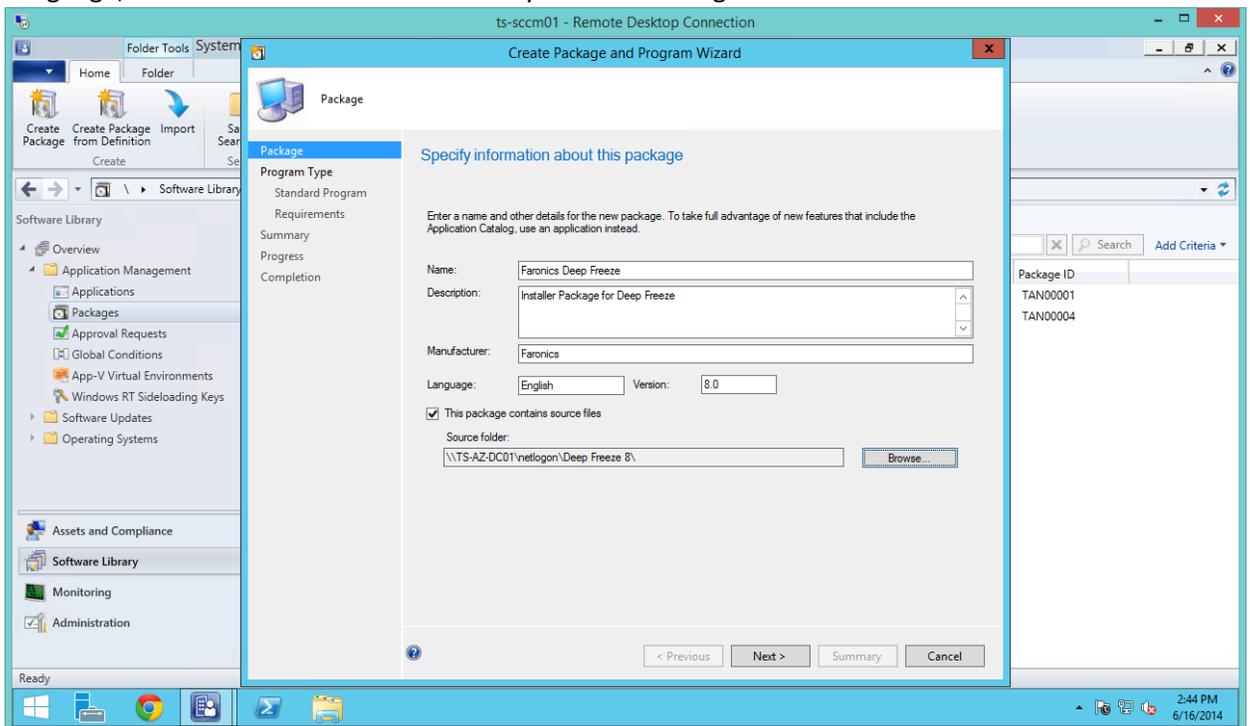
Other Collections can be created by changing the values that are specified in the Criterion Properties Window. To create a collection of all machines based on if they are Frozen or Thawed follow the steps below:

1. Follow the steps for creating a collection of machines running Deep Freeze until you hit step 9
2. In the Criterion Properties dialog select the Criterion Type *Simple Value* and click on the Select button.
3. In the Select attribute dialog select *DeepFreeze* as the attribute class, and select *DFStatus* as the Attribute, and click OK.
4. In the Criterion Properties dialog select the Operator as *is equal to* and enter "1" in the Value field to build a collection of frozen machines, and a "2" for thawed machines.
5. In the Query Statement Properties dialog ensure that the criteria is listed in the window, and click OK.
6. In the Query Rule Properties dialog you should see the entire WMI query in the Query Statement field. If you do click OK to continue.
7. Click Next in the Create Device Collection Wizard. In the next screen confirm your settings and click Next.
8. Once the wizard completes you will see a message indicating success as shown, click Close.

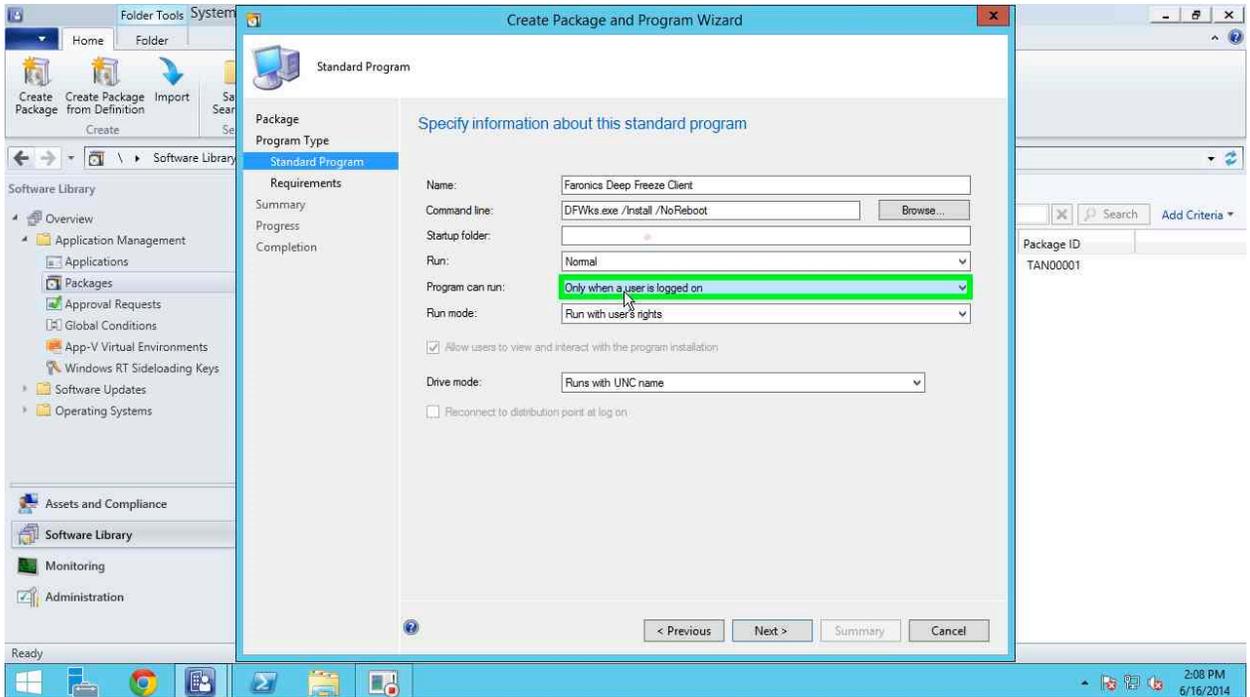
Deploying Deep Freeze

To deploy Deep Freeze to client workstations a package must be created, to create the package follow the steps below:

1. Open the Configuration Manager console and select the Software Library option.
2. Expand the Application Management node on the left hand side and select Packages.
3. Right click and select Create Package.
4. In the Create Package and Program Wizard Enter the Name, Description, Manufacturer, Language, and Version of the software that you are installing.

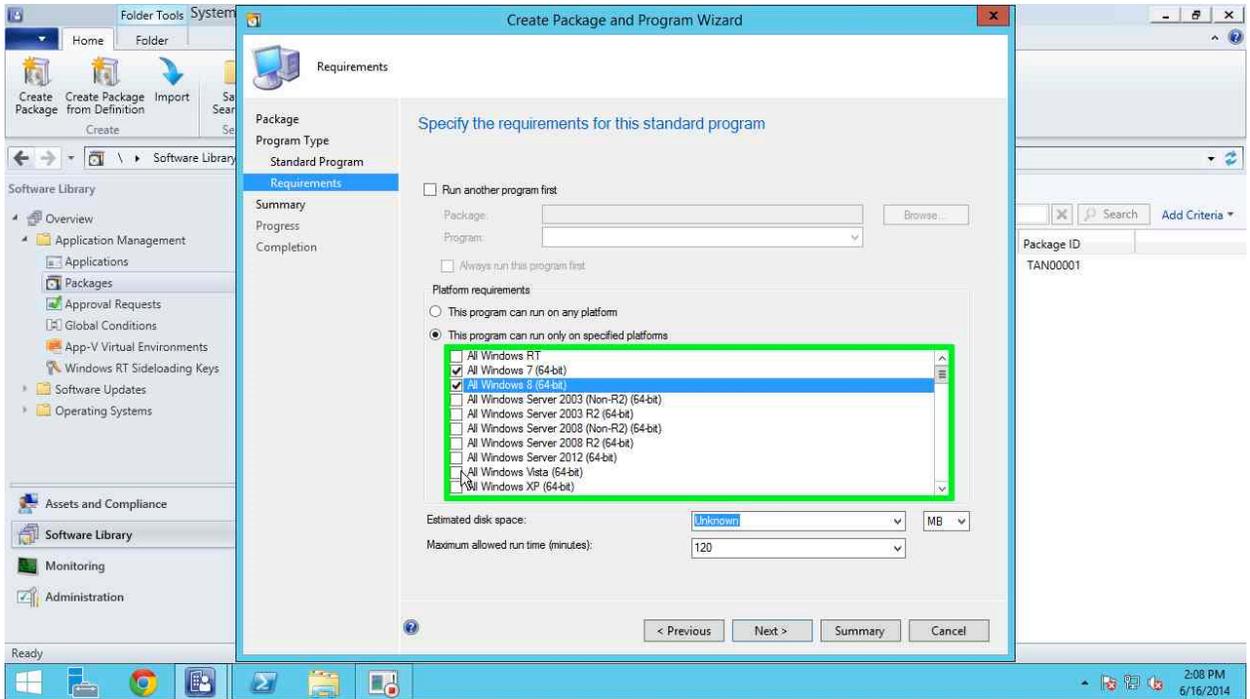


5. Check the option, *This package contains source files* and browse to the location where the Deep Freeze installation files are located and select the location. Click Next
6. In the next screen supply the name of the program that this package will be installing in the Name field.



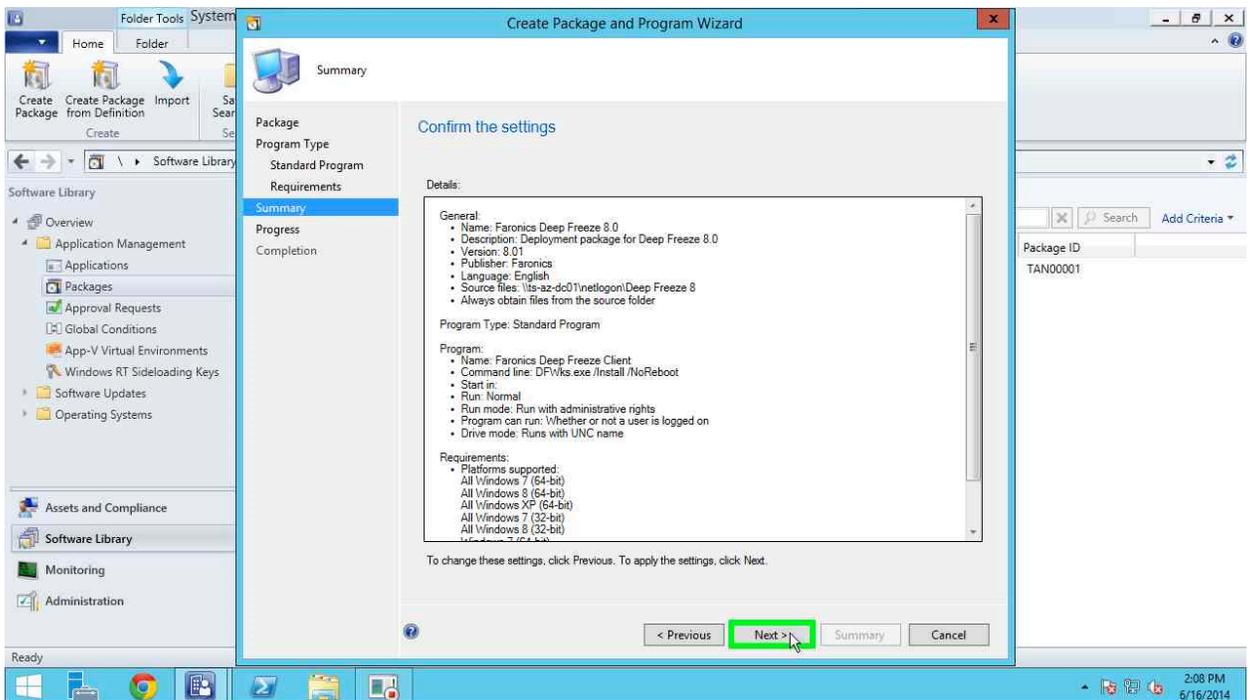
7. Enter the command line for the install of the software by clicking browse and selecting the install package that you are going to be installing. In the command line field add the command line options /INSTALL and /NoReboot to the command line. The command line should read;

<filename>.exe /Install /NoReboot
8. Under the Run Mode option select *whether or not a user is logged on* as the run mode.
9. Remove the check box under Allow users to view and interact with the program installation.
10. Click Next.
11. In the Requirements section select This Program can run only on specified platforms and select the operating systems that you wish to protect, selecting operating systems that your version of Deep Freeze does not support will result in the installation failing on the client workstations.

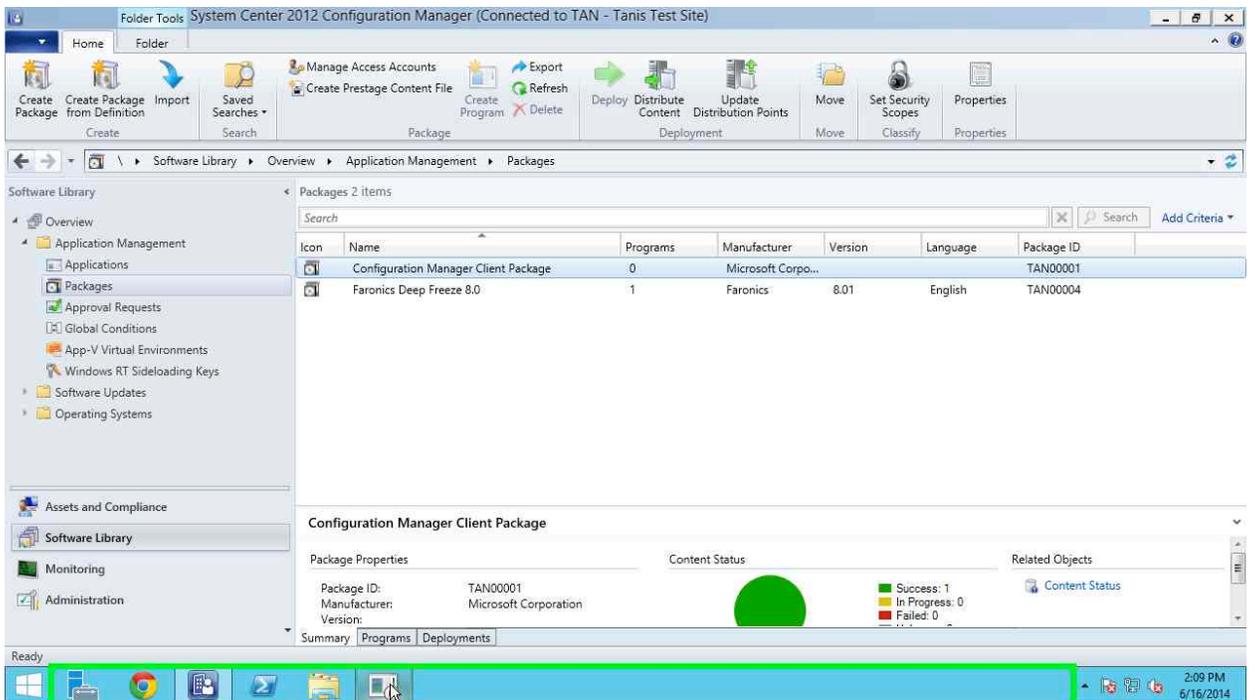


12. Click Next.

13. Review the settings listed on the summary screen, if everything is correct click Next.



14. Once the Create Package and Program Wizard completes click Close. You will now see your package listed in the packages list ready to be deployed to workstations.



Thawing Deep Freeze through SCCM

Administrators can configure SCCM so that it can Thaw and Freeze workstations by configuring a package that will run the appropriate command line controls on the workstations that need to be thawed or frozen.

Configuring Deep Freeze with a Command Line Password

The first step of getting a Thaw task configured is to configure the Deep Freeze install on the client workstation with a command line password. The command line passwords are configured in the Deep Freeze Configuration Administrator on the password tab. Administrators will need to build a new installation package to install, or a new configuration file to push to the client workstations to make the appropriate changes on the client systems.

1. Open the Deep Freeze Configuration Administrator.
2. If you are editing an existing configuration file click on the Open icon and select the appropriate file to edit, if working on a new configuration file skip this step.
3. Check the enable check box next to a new password and select Command Line in the Type drop-down dialog.
4. Enter your command line password in the password field. Passwords should be long enough to be secure, and should only contain alpha numeric characters as some characters are interpreted differently on the command line and may interfere with using the command line controls.
5. Make any other configuration changes that you need.
6. Click on the Save As button to save the configuration file as a RDX file for configuration updates, or Click on the Create button to create a new installation file for deployment to workstations.

After saving the configuration file or workstation installer either update the configuration of the workstation through the Enterprise Console or reinstall Deep Freeze on the client workstation.

After changing the configuration it is strongly recommended to test the configuration by running the command line control manually from the command line to ensure that it properly controls the workstation. Command line syntax for the software can be found at the end of this document.

Creating the Thaw/Freeze Task

1. Open the Configuration Manager console and select the Software Library option.
2. Expand the Application Management node on the left hand side and select Packages.
3. Right click and select Create Package.
4. In the Create Package and Program Wizard Enter the Name, Description, Manufacturer, Language, and Version of the software that you are installing.
5. In the next screen supply the name of the program that this package will be installing in the Name field.
6. Enter the command line for the command line control that you want to run on the client workstation. For Example:

32 bit Windows

```
C:\Windows\System32\dfc.exe password /THAWNEXTBOOT1
```

```
C:\Windows\System32\dfc.exe password /FREEZENETXBOOT
```

64 bit Windows

```
C:\Windows\SysWOW64\dfc.exe password /THAWNEXTBOOT
```

```
C:\Windows\SysWOW64\dfc.exe password /THAWNEXTBOOT
```

Full paths may not be required provided that the folder that DFC is located in is included in the system path.

7. Under the Run Mode option select *whether or not a user is logged on* as the run mode.
8. Remove the check box under Allow users to view and interact with the program installation.
9. Click Next.
10. In the Requirements section select This Program can run only on specified platforms and select the operating systems that you wish to protect, selecting operating systems that your version of Deep Freeze does not support will result in the installation failing on the client workstations.

¹ Please note that we do not recommend running /BOOTTHAWED or /BOOTFROZEN as these commands will cause a workstation to reboot immediately and may interfere with the execution of tasks that use these tasks as pre-requisites.

11. Click Next.
12. Review the settings listed on the summary screen, if everything is correct click Next.
13. Once the Create Package and Program Wizard completes click Close. You will now see your package listed in the packages list and can now be included as a pre-requisite for thawing workstations before running other tasks.