

# Extending Client Management Suite to Manage HP® Desktops, Notebooks, and Workstations

Date: June 29, 2012



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## About Client Management Suite

Client Management Suite 7.1 from Symantec manages, secures and troubleshoots systems with greater efficiency on more platforms, including Windows, Mac, Linux and virtual desktop environments. The suite automates time-consuming and redundant tasks to minimize efforts and costs associated with deploying, patching, supporting client systems and software.

## Key Features

- Heterogeneous PC lifecycle management across Windows, Mac, Linux and virtual desktops.
- Accurate identification and inventory of authorized and unauthorized devices helps forecast current and future hardware and software needs.
- Zero-touch imaging and migration to automate new system rollouts and technology refresh cycles.
- Comprehensive software management simplifies ongoing software maintenance by combining software packaging, software delivery, application virtualization, patch management and application usage.
- Integrated troubleshooting tools, such as remote control and out-of-band management, reduce the time and cost associated with help desk activities.

## Key Benefits

- Implement a single management framework for distributed, heterogeneous client environments
- Manage change with confidence by driving predictable and repeatable day-to-day operations
- Make smarter, faster decisions based on real-time, data-driven conclusions
- Drive innovation by automating common IT processes and adopting new technologies without adding new tools, people or methodologies

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## About HP Client Manager Requirements

### HP System Software Manager

The HP System Software Manager (SSM) is a utility that automatically detects and updates BIOS, device drivers, and management agent versions on your networked PCs.

- Streamline mass deployment of HP System Software updates
- Simplify the complexity of PC HP System Software management
- Optimize PC performance
- Reduce total ownership costs
- Provide a stable and consistent PC environment key features
- Automatic detection of hardware and out-of date BIOS & HP System Software
- Automatic installation of latest HP System Software to multiple PCs simultaneously
- Updates can take place remotely and in silent, unattended mode so you don't have to leave your chair
- Summary report is created for tracking and management purposes

### HP SoftPaq

HP SoftPaq Download Manager provides a simple, powerful way to download software updates for the HP client PC models in your environment. HP SDM can significantly reduce the amount of time it takes to locate and download updates. SoftPaqs can be downloaded in as few as three easy steps from a single user interface after initial setup.

### HP CMI Administrators Toolkit

HP CMI Administrators toolkit contains example scripts and documentation used in this article.

### Objectives of this White Paper

The purpose of this white paper is for an administrator, with basic scripting knowledge, to be able to install the SoftPaq Manager, SSM, and HP sample scripts on to the Symantec Management Platform. This will allow an admin to perform hardware setting changes and hardware monitoring using the sample scripts. It will also enable an administrator to perform HP driver updates, and BIOS updates using the SoftPaq download manager with SSM.

Another objective of this white paper is to teach an administrator how to create custom data classes and custom WMI scripts through the sample provided. This sample will enable an administrator to gather data in the Symantec Management Platform through custom inventory. This sample provided can easily be customized for other HP WMI classes for more custom data classes and inventory in the Symantec Management Platform.

### Note:

The following instructions apply to the management of HP clients running Windows 7 and earlier. This documentation is intended for use with HP System Software Manager version 2.15 Rev A. Future versions of System Software Manager, in addition to the release of Windows 8, may require additional configuration as noted in the Appendix.

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## Installing Softpaq Downloader on SMP

### Setup and Usage Process Overview

The latest versions of Softpaq download manager are available from HP at <http://www.hp.com/go/sdm>.

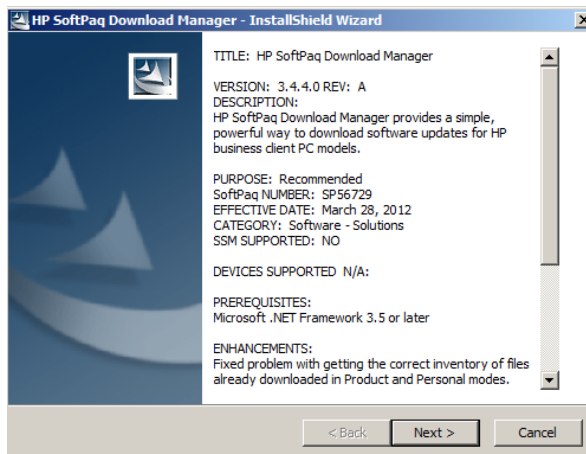
Installation and Configuration reference documentation can be found at: [http://h20331.www2.hp.com/Hpsub/downloads/SDM\\_SSM.pdf](http://h20331.www2.hp.com/Hpsub/downloads/SDM_SSM.pdf)

**Note: The SoftPaq Manager should be installed on the Symantec Notification Server.**

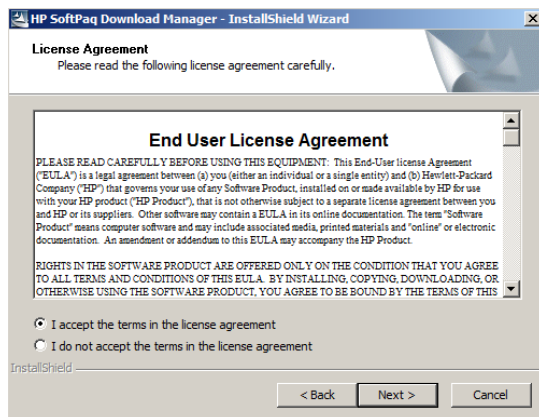
### General Requirements and Setup

- .Net Framework 3.5 or later
- Broadband Internet Connection (Proxies that require authentication are currently not supported)
- 512MB RAM minimum, 1GB recommended
- Windows XP or Vista

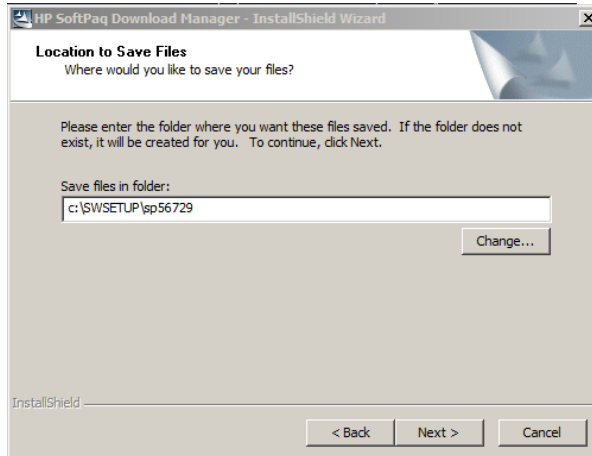
1. Download HP SDM to the server running the Symantec Management Platform.
2. Run the installer file and Click Next.



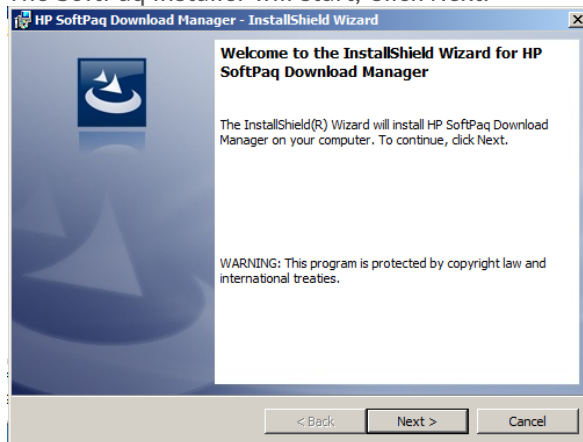
3. Accept the License Agreement and Click Next.



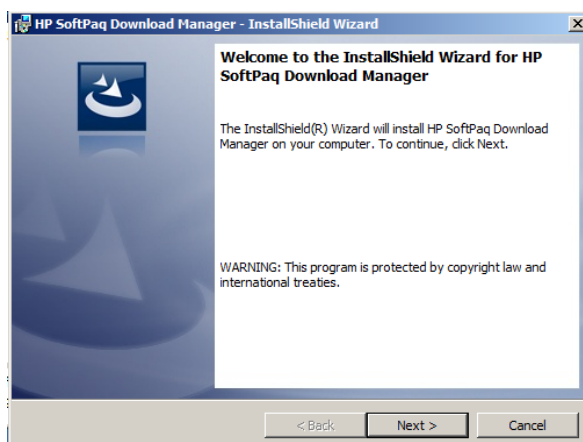
- 
4. Choose an extraction location on the SMP for the SoftPaq install files.



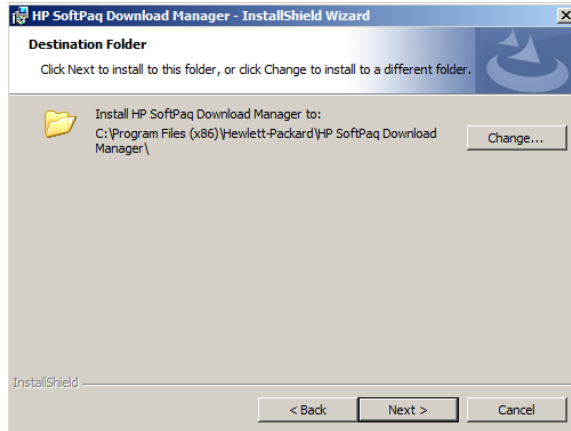
5. The SoftPaq installer will start, Click Next.



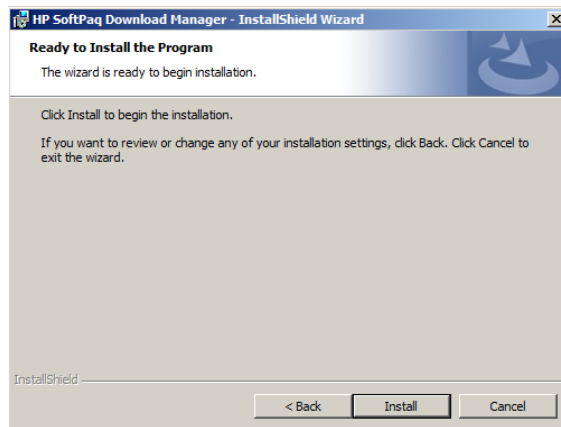
6. Click Next to Start the Installer.



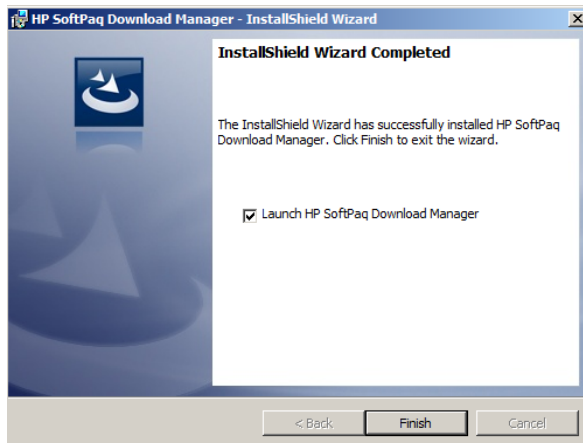
- 
7. Browse to install location on the SMP to install the SoftPaq files and Click Next.



8. Click Install.



9. Check the box to launch the SoftPaq Download Manager and then Click Finish.



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## Configuration Options for Softpaq

Configuration information can be found in the following PDF:  
[http://h20331.www2.hp.com/Hpsub/downloads/SDM\\_SSM.pdf](http://h20331.www2.hp.com/Hpsub/downloads/SDM_SSM.pdf)

When HP SDM is run for the first time, a window is displayed that asks if you want to show only software for the computer it is running on. Select the second option to display all supported models.

Once loaded, the Configuration window should automatically display. Optionally, you can go to Tools > Configuration Options to bring up the Configuration window. If you do not see the menu option, you are running in "This Computer" mode. Switch SDM to show all products by clicking on the Show All Products button.

For each of the tabs, set the following options:

(See figure below)

### Download

#### Download Directory

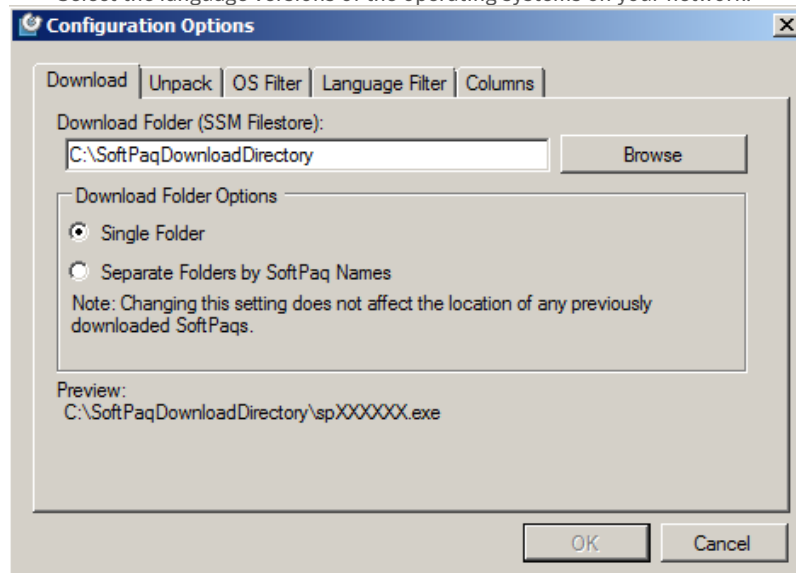
- Set to a folder that you can share. This can be either a local folder or a mapped network drive/folder. This will be the location of your SSM File Store.
- Download Structure – Set to Separate Folders by SoftPaq Names. This helps with the management of SoftPaqs.

### OS Filter

- Select from the list the operating systems that are running on the network. Note that not all operating systems listed are supported by SSM1

### Language Filter

- Select the language versions of the operating systems on your network.



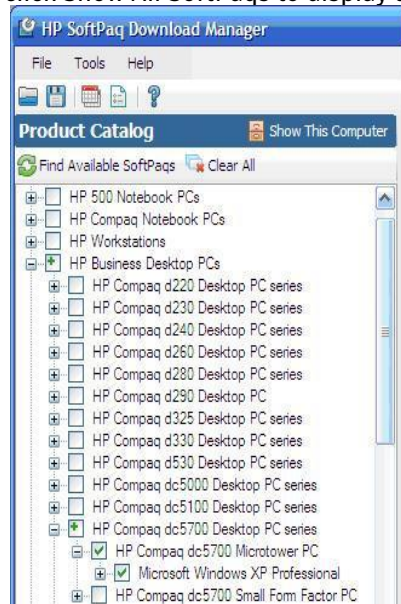
Once the options are set, you can select the model(s) of the products you want to update. Note Once all of the selections have been made, you can save the configuration file for future use and backup purposes. This preserves the download directory, download structure, OS and language settings, and the products you selected. To save, go to File > Save Product Configuration.



---

## Downloading Softpaqs

Click Find Available SoftPaqs to download a list of available SoftPaqs for selected systems. Only SoftPaqs marked as SSM-compliant are added to the SSM database. To help with the selection process, you can configure SDM to select all SSM-compliant SoftPaqs by clicking Select Softpaqs > Auto-Installable (SSM-Compliant). Click Show Latest SoftPaqs to set SDM to display only the latest version of each SoftPaq if multiple versions are available. When only the latest SoftPaqs are displayed, you can click Show All SoftPaqs to display all SoftPaqs.



Once the SoftPaqs are selected, click Download. Make sure the download option is set to Download Only. Softpaq selection and internet connection speed determine how long the download process may take, but please note that the process may take some time.

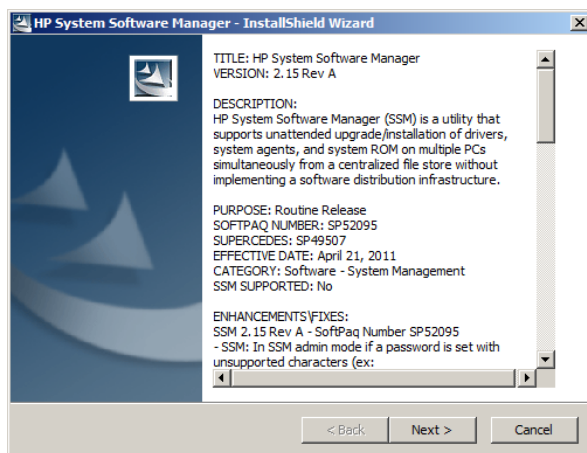
## Installing SSM on SMP

Download SSM from HP at <http://www.hp.com/go/ssm>

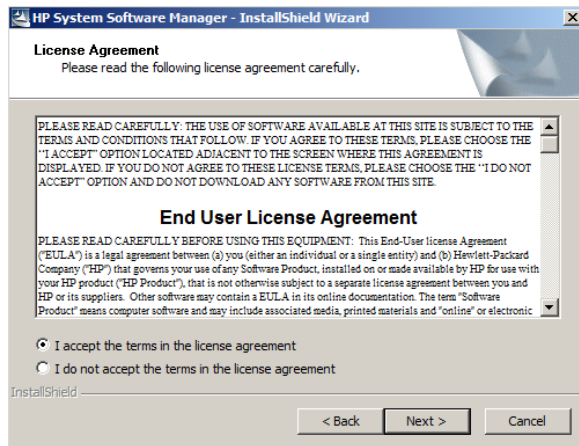
SSM information can be found at the following:

[http://h20331.www2.hp.com/Hpsub/downloads/SDM\\_SSM.pdf](http://h20331.www2.hp.com/Hpsub/downloads/SDM_SSM.pdf)

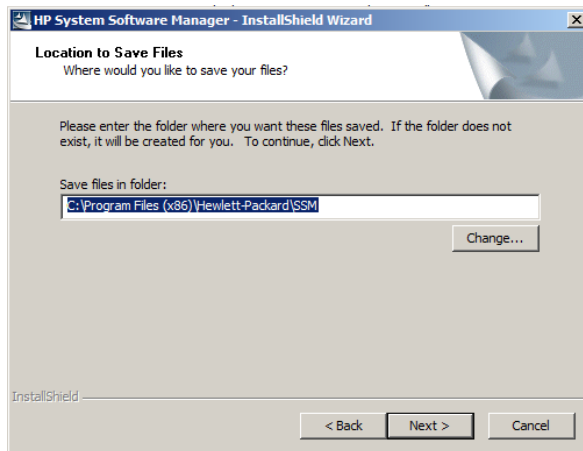
1. Run the SSM install file from the download location on the SMP and Click Next.



2. Accept the License Agreement and Click Next.



3. Choose and install location and Click Next.



4. Click Finish.

SSM.exe will not be in the Start Menu or Desktop. SSM.exe is located by default in the following location:  
C:\Program Files (x86)\Hewlett-Packard\SSM

### Setting up HP SSM (Admin)

This setup process should be run after the SoftPaqs have been downloaded. To run and setup SSM in admin mode, perform the following steps:

1. Navigate to Hewlett-Packard\SSM in the Program Files directory (or Program Files (x86) if running 64-bit Windows), and then run SSM.exe
2. When prompted for the location of the file share, navigate to the SDM download directory. Type the name you want to use for the file share, and then click Next.
3. If you are presented with a message about SSM.CAB being missing, double-click on the specified text to copy the file to the file store, and then click Next until you reach client options.
4. Select Reboot client upon completion of upgrades, and then click Next.
5. Click Next until you reach the Build Database window.
6. Select Check ftp.hp.com for CVA file updates first. This causes SSM to update the specification file for each SoftPaq, which may include bug fixes and expanded coverage.
7. Click Build Database, and wait for the build process to finish.
8. Click Finish to complete the process.

- 
- Copy ssm.exe to the root of the SDM download directory. This allows easier execution of SSM from the network.

**The client PCs will need access to the file share containing the SoftPaqs for SSM to run properly on those computers. SSM will try to create the share automatically; however, this may not work (domain settings, share is located on another computer, etc.), so you may need to manually share and/or change the settings of the target folder.**

### Setting up HP SSM (Clients)

To run SSM in client mode, you only need to specify the location of the file share and any other desired command line switches as parameters. SSM.exe should be run from the root of the file share. The command recommended to run SSM is: <file store path>\SSM.EXE . /INSTALL

To prevent network authentication issues HP recommends that you map the network share to a drive letter, and then use that mapped network drive as the file store path. There are multiple options for getting SSM to run:

- Manual Execution
- Scheduled Tasks
- 3rd party management tool

#### Note:

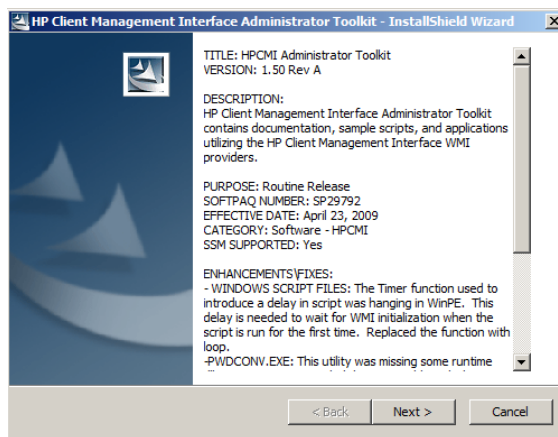
Running SSM on the client will be performed through task on the Symantec Management Platform.

### Installing HPCM Administrative Tool Kit on the SMP

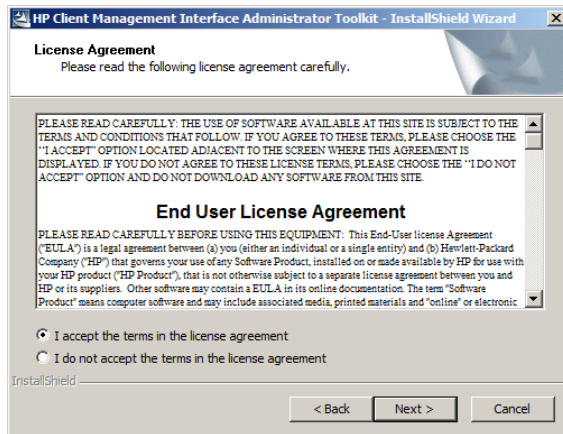
The HPCMI Tool Kit can be downloaded from the following link:

<http://h20331.www2.hp.com/hpsub/cache/284014-0-0-225-121.html>

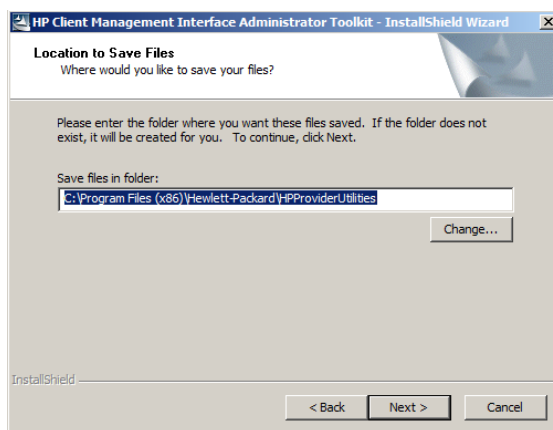
- Execute the HPCMI Tool Kit installer. Click Next.



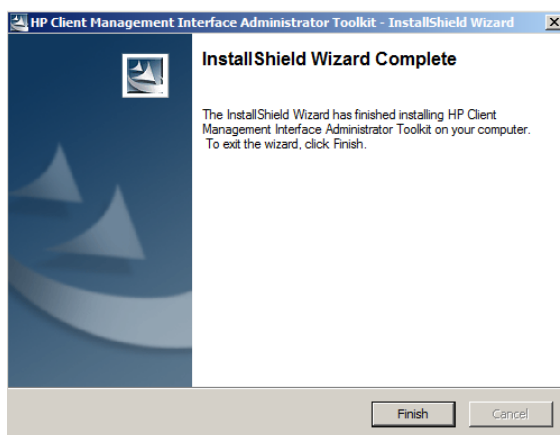
- Accept the License Agreement and Click Next.



3. Browse to the location on the SMP to install the Administrative Tools.



4. Click Finish.



After installation navigate to HMPKI installation folder. The default location is:

“C:\Program Files (x86)\Hewlett-Packard\HPProviderUtilities”

Click Finish.

Browse to “C:\Program Files (x86)\Hewlett-Packard\HPProviderUtilities” or the folder specified and run “HPCMIUtilities.exe”

Specify location for installation and finish installation.

Sample scripts and documentation are now stored in the specified location.

## Integration Examples with Symantec Management Platform and HPCM

### Creating a task to run SSM updates on a client Machine.

This task will run SSM.exe on a client machine to install applicable driver and BIOS updates.

1. Log into Symantec Management Platform.
2. Click on “Manage” and click “Jobs and Tasks”.
3. Right click on a task folder and click “New” and then “Task”.
4. From the task list, click “Run Script”.
5. In the script Run Script dialog box type the following:
6. In the Script Type dropdown select “Command Script”
7. Name the script and click OK.

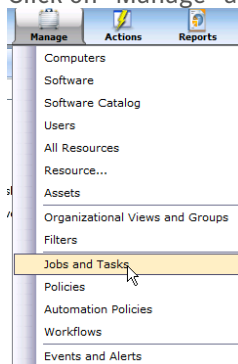
```
<UNC path to SSM Share>\SSM.exe /INSTALL
```

### Create a Task for Setting the Default Boot Order:

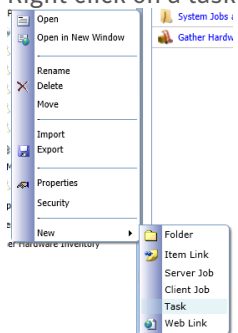
This script will change the default boot of a HP System.

Script Found at [http://h20331.www2.hp.com/Hpsub/downloads/cmi\\_whitepaper.pdf](http://h20331.www2.hp.com/Hpsub/downloads/cmi_whitepaper.pdf)

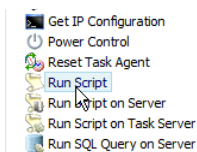
1. Log into Symantec Management Platform.
2. Click on “Manage” and click “Jobs and Tasks”.



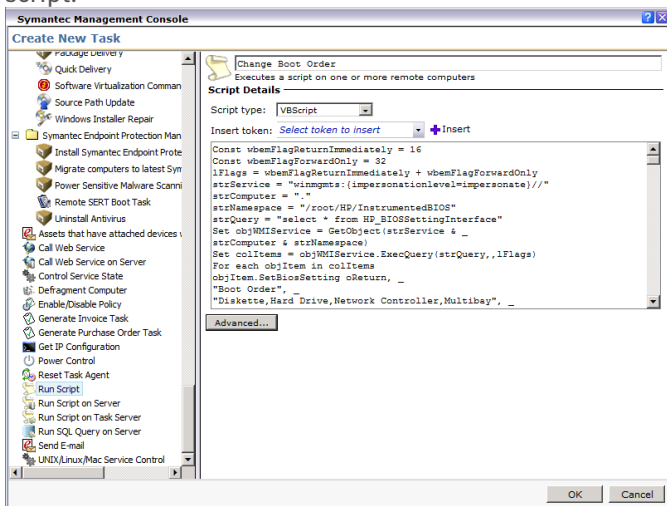
3. Right click on a task folder and click “New” and then “Task”.



4. From the task list, click “Run Script”.



- Go to [http://h20331.www2.hp.com/Hpsub/downloads/cmi\\_whitepaper.pdf](http://h20331.www2.hp.com/Hpsub/downloads/cmi_whitepaper.pdf) and copy the change boot order script from page 18, or the appendix of this document.
- Paste the contents of this file into the “Run Script” dialogue box that open after creating the new script.



- To change the boot order edit the following set of lines
- In the Script Type dropdown select “VBScript”
- Name the script and click OK.

- “Boot Order”, \_
- “Diskette,Hard Drive,Network Controller,Multibay”, \_
- “<kbd>1E302E020304”

### Creating a Task for Calling WMI Sensor Info:

This script will capture all sensor info available unless modified for specific sensors.

- Log into Symantec Management Platform.
- Click on “Manage” and click “Jobs and Tasks”.
- Right click on a task folder and click “New” and then “Task”.
- From the task list, click “Run Script”.
- In the “Sample Scripts\Windows Scripts” folder created by the HPCMI Tool Kit installer, open and copy the contents of the “EnumSensorSettings” script file.
- In the Script Type dropdown select “VBScript”
- Name the script and click OK.

### Creating a Task for Calling WMI Bios Settings:

This task will output all BIOS info unless modified for a specific setting.

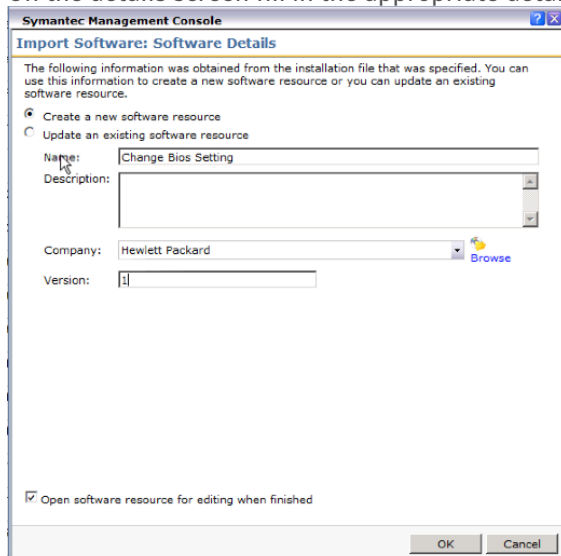
- Log into Symantec Management Platform.
- Click on “Manage” and click “Jobs and Tasks”.
- Right click on a task folder and click “New” and then “Task”.
- From the task list, click “Run Script”.
- In the “Sample Scripts\Windows Scripts” folder created by the HPCMI Tool Kit installer, open and copy the contents of the “EnumSettings” script file.
- In the Script Type dropdown select “VBScript”
- Name the script and click OK.

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## Creating a Task to change BIOS Settings:

This task will change a specified BIOS setting.

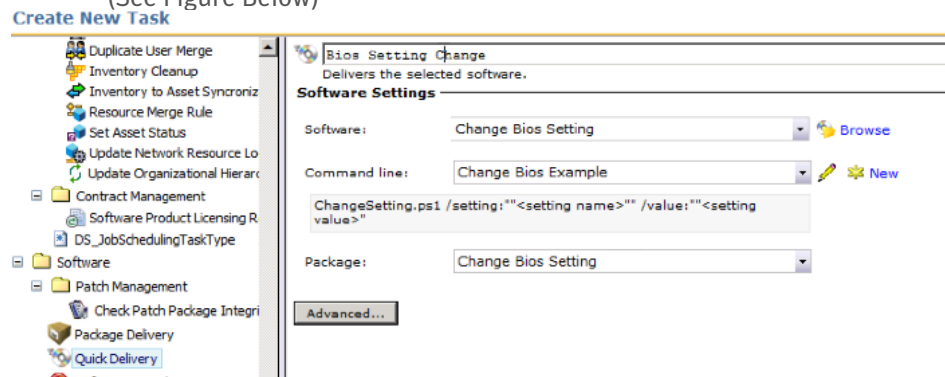
1. Log into Symantec Management Platform.
2. Click on “Manage” and click “Software Catalog”.
3. The software catalog window will open; click the “Import” button.
4. Copy the “ChangeSetting” script file to the Notification Server Package source location.
5. Select the appropriate package source from the source drop down.
6. Browse to the “ChangeSetting” script and select it as the Installation file. Click OK.
7. On the details screen fill in the appropriate details. Click OK.



8. The software resource screen will open click the Package Tab.
9. Click the add Command line Button and Fill in the Fields. For the command line enter the following: (This example will need to have a setting and setting value added to function.)

```
changeSetting.ps1 /setting:""<setting name>" /value:""<setting value>"
```

10. Click OK, and OK again.
11. Click on “Manage” and click “Jobs and Tasks”.
12. Right click on a task folder and click “New” and then “Task”.
13. From the Task list, click “Quick Delivery”. Enter the appropriate Name and Select the Software Resource for changing Bios Settings. In the Command line dropdown select the appropriate command line and select the appropriate package from the package dropdown. Click OK. (See Figure Below)



## Creating a Task to reset all BIOS Settings:

This task will reset all BIOS Settings

- 
1. Log into Symantec Management Platform.
  2. Click on “Manage” and click “Jobs and Tasks”.
  3. Right click on a task folder and click “New” and then “Task”.
  4. From the task list, click “Run Script”.
  5. Paste the following script into the run script dialog box text area:

```
Const wbemFlagReturnImmediately = 16
Const wbemFlagForwardOnly = 32
lFlags = wbemFlagReturnImmediately + wbemFlagForwardOnly
strService = "winmgmts:{impersonationlevel=impersonate}://"
strComputer = "."
strNamespace = "/root/HP/InstrumentedBIOS"
strQuery = "select * from HP_BIOSSettingInterface"
Set objWMIService = GetObject(strService & _
strComputer & strNamespace)
Set colItems = objWMIService.ExecQuery(strQuery,,lFlags)
For each objItem in colItems
objItem.SetSystemDefaults oReturn, "<kbd/>1E302E020304"
Next
Dim strReturn
Select Case oReturn
Case 0 strReturn = "Success"
Case 1 strReturn = "Not Supported"
Case 2 strReturn = "Unspecified Error"
Case 3 strReturn = "Timeout"
Case 4 strReturn = "Failed"
Case 5 strReturn = "Invalid Parameter"
Case 6 strReturn = "Access Denied"
Case Else strReturn = "...
End Select
WScript.Echo "SetSystemDefaults() returned: (" & oReturn _
& ") " & strReturn
```

6. In the Script Type dropdown select “VBScript”
7. Name the script and click OK.

Script Found at:

[http://h20331.www2.hp.com/Hpsub/downloads/cmi\\_whitepaper.pdf](http://h20331.www2.hp.com/Hpsub/downloads/cmi_whitepaper.pdf)

### **Creating a task to Monitor System Health Events with WMI:**

This task will Monitor System Events on a client machine.

This script can be found in the Appendix of this document or at  
[http://h20331.www2.hp.com/Hpsub/downloads/cmi\\_whitepaper.pdf](http://h20331.www2.hp.com/Hpsub/downloads/cmi_whitepaper.pdf)

1. Log into Symantec Management Platform.
2. Click on “Manage” and click “Jobs and Tasks”.
3. Right click on a task folder and click “New” and then “Task”.
4. From the task list, click “Run Script”.
5. Copy the Monitor System Health Events script from the Appendix of this document and paste it into the Run Script Dialog Box.
6. In the script dropdown select “Command Script”.
7. Name the script and click OK.



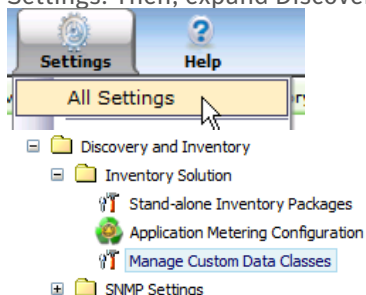
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## Altering Sample Scripts for Use with Symantec Management Platform Custom Inventory

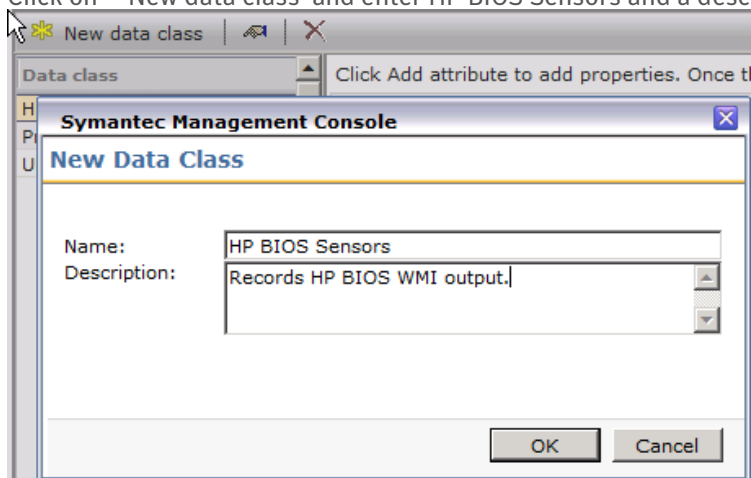
This section will describe how to take one of the sample scripts (Capturing Sensor Info) and edit to send the captured WMI information as a NSE to the SMP. One the SMP a custom data class will capture the information and add it to custom inventory records for a computer.

Source: <http://www.symantec.com/business/support/index?page=content&id=HOWTO10487>

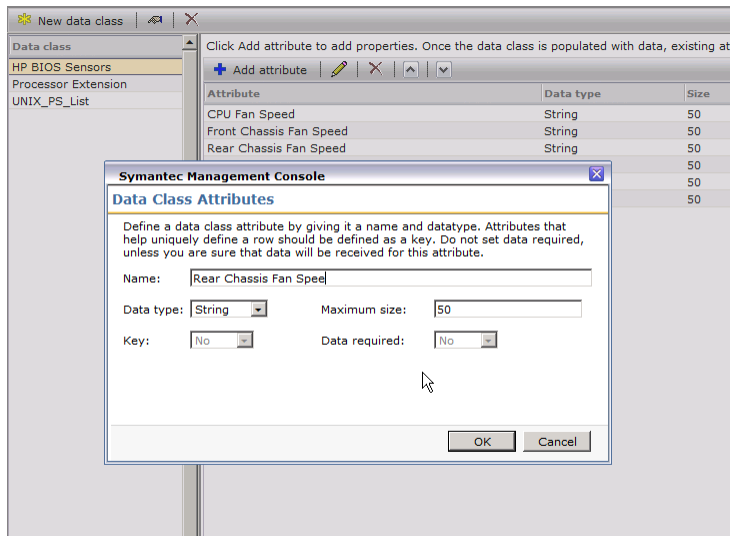
1. Begin this process by logging into the Symantec Management Platform and going to Settings, All Settings. Then, expand Discovery and Inventory, Inventory Solution, Manage Custom Data classes.



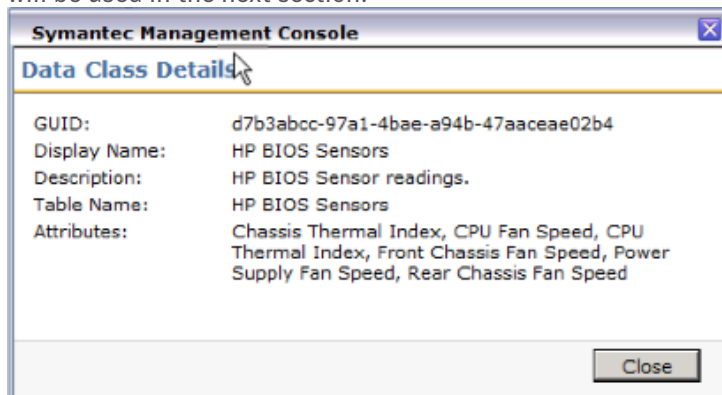
2. Click on '\* New data class' and enter HP BIOS Sensors and a description.



3. Highlight the new data class and click 'Add attribute'. Enter Rear Chassis Fan Speed for the name, and select String for the Data Type, Maximum size of 50, Key option and Data required option set to No.
4. Follow these Steps for, CPU Fan Speed, Front Chassis Fan Speed, Power Supply Fan Speed, CPU Thermal Index, Chassis Thermal Index. These are WMI classes that are called during the Capturing Sensor Info script.



5. After all objects have been added, save the data class.
6. Copy the data class GUID by clicking on the new data class and clicking the info Hand. This GUID will be used in the next section.



### Create a Custom Script to Report Sensor Info to Data Class

The following script has been copied from the following Symantec Connect article (URL) and edited to function with the WMI calls from the example Get Sensor Info script.

This script can be modified to work with most WMI calls in other example scripts by replacing the WMI classes. In the case that this script was edited with different HP WMI calls, a new custom data class would need to be created in the SMP similar to the previous steps in this section.

This script can be copied into a SMP task job to monitor BIOS sensor information similar to the tasks in the example script section of this paper.

**Important: Replace the Data Class GUID (highlighted below) in the script below with the GUID from the data class created in the last section (Step 6).**

<http://www.symantec.com/business/support/index?page=content&id=HOWTO10487>

```
'Create instance of Altiris NSE component
dim nse
set nse = WScript.CreateObject ("Altiris.AeXNSEvent")

' Set the header data of the NSE
' Please don't modify this GUID
nse.To = "{1592B913-72F3-4C36-91D2-D4EDA21D2F96}"
nse.Priority = 1
```

---

```

'Create Inventory data block. Here assumption is that the data class with
below GUID is already configured on server, this GUID will need to be
modified with the correct GUID from the created data class.
dim objDCInstance
set objDCInstance = nse.AddDataClass ("{d7b3abcc-97a1-4bae-a94b-
47aaceae02b4}")

dim objDataClass
set objDataClass = nse.AddDataBlock (objDCInstance)

'Add a new row
dim objDataRow
set objDataRow = objDataClass.AddRow

' Set the WMI connection strings.
strService = "winmgmts:{impersonationlevel=impersonate}//"
strNamespace = "/root/HP/InstrumentedBIOS"
strComputerName = "."

Dim StartTime, EndTime, LoopCount

' Connect to our namespace.
Set objWMIService = GetObject(strService & _
                             strComputerName & _
                             strNamespace)

If Err.Number <> 0 Then
    WScript.Echo "Error connecting to WMI"
    WScript.Quit
End If

lFlags = wbemFlagForwardOnly + wbemFlagReturnImmediately
'objLogFile.WriteLine vbCr & "======"
'objLogFile.WriteLine "Computer: " & strComputerName
'objLogFile.WriteLine "======"

Set colItems = objWMIService.ExecQuery("SELECT * FROM
HP_BIOSNumericSensor",,lFlags)
Dim s
For Each objItem In colItems

    If Trim(objItem.Name) <> "" Then
        Select Case objItem.BaseUnits
            Case 1 s = "(Other)"
            Case 2 s = "(Degrees C)"
            Case 19 s = "(RPM)"
            Case Else s = "(!undefined!)"
        End Select
        'objLogFile.WriteLine objItem.Name & " = " & objItem.CurrentState & "
= " & objItem.CurrentReading & s
        Select Case objItem.Name
            Case "CPU Fan Speed" objDataRow.SetField 0, objItem.CurrentState
& " = " & objItem.CurrentReading & s
            Case "Front Chassis Fan Speed" objDataRow.SetField 1,
objItem.CurrentState & " = " & objItem.CurrentReading & s

```

```

        Case "Rear Chassis Fan Speed" objDataRow.SetField 2,
objItem.CurrentState & " = " & objItem.CurrentReading & s
        Case "Power Supply Fan Speed" objDataRow.SetField 3,
objItem.CurrentState & " = " & objItem.CurrentReading & s
        Case "CPU Thermal Index" objDataRow.SetField 4,
objItem.CurrentState & " = " & objItem.CurrentReading & s
        Case "Chassis Thermal Index" objDataRow.SetField 5,
objItem.CurrentState & " = " & objItem.CurrentReading & s
    End Select
End If
Next
nse.SendQueued

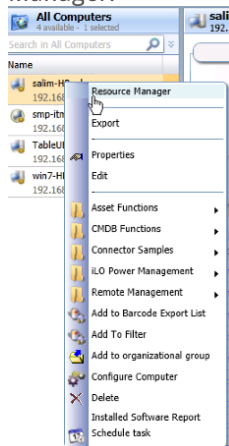
```

To view WMI Classes in other sample scripts use a WMI explorer tool like the tool available at the following link: <http://www.ks-soft.net/hostmon.eng/wmi/index.htm>

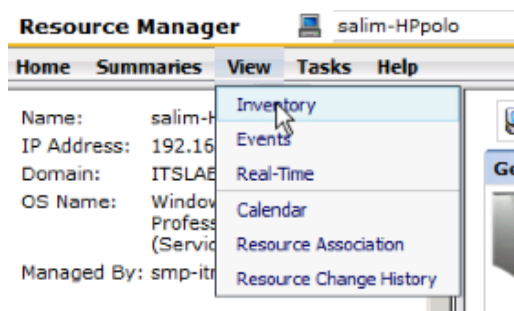
Connect to the “/root/hp/instrumentedBIOS” directory to view the available WMI Classes.

### Viewing Custom Data Class Results

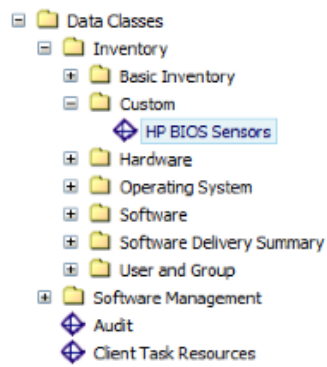
1. In the Symantec Management Console, click Manage > Computers.
2. Right Click on a computer that has run the above script as a Task or Policy and select Resource Manager.



3. In the Resource Manager Click View and select Inventory.



4. In the inventory menu expand Data Classes, Inventory, Custom. In the custom folder the Sensor data class will appear.



### HP BIOS Sensors

HP BIOS Sensor readings.

Current

Status

Search

Property	Value
CPU Fan Speed	Normal = 1232(RPM)
Front Chassis Fan Speed	Not Present = 0(RPM)
Rear Chassis Fan Speed	Normal = 1121(RPM)
Power Supply Fan Speed	Normal = 1046(RPM)
CPU Thermal Index	Normal = 30(Other)
Chassis Thermal Index	Normal = 25(Other)

## Appendix

### Reference:

#### Literature:

[http://h20331.www2.hp.com/Hpsub/downloads/SDM\\_SSM.pdf](http://h20331.www2.hp.com/Hpsub/downloads/SDM_SSM.pdf)

[http://h20331.www2.hp.com/Hpsub/downloads/cmi\\_whitepaper.pdf](http://h20331.www2.hp.com/Hpsub/downloads/cmi_whitepaper.pdf)

<http://www.symantec.com/client-management-suite>

<http://www.symantec.com/business/support/index?page=content&id=HOWTO10487>

### Download Locations:

#### SSM

<http://www.hp.com/go/ssm>

#### SDM

<http://www.hp.com/go/sdm>

#### Administrative Tool Kit:

<http://h20331.www2.hp.com/hpsub/cache/284014-0-0-225-121.html>

## Windows 8 and Future SSM Releases

With the upcoming release of a new version of SSM, in addition to the upcoming release of Windows 8, further configuration will be necessary, as the code for BIOS configuration compiling will be removed. To overcome this, an additional component called BIOS Configuration Utility (BCU) will be required to be installed on the SMP and will be leveraged for making modifications to the BIOS. For BIOS Updates, the BIOS SoftPaqs will leverage a built-in HPQFlash utility.

## Script Examples:

### Setting BIOS Settings:

```
<package>
<job id="main">
<comment>
```

```
-----
ChangeSetting.wsf
Last modified: 10-06-2005
```

A Windows Scripting Host example to modify BIOS setting information from the HP Client Management Interface.

This script relies on the HP CMI Password Control to retrieve the appropriate BIOS password from user input. Be sure to register this control on any system where the script will be executed with the command:

---

```

    hppwdctl /install

Copyright (c) 2005, Hewlett-Packard Development Company
-----
</comment>
<runtime>
    <description>
Description:

    This script example is designed to modify BIOS setting values
    from the HP Client Management Interface.
    </description>
    <named
        name = "setting"
        helpstring = "A specific setting to modify.  If a particular
setting
            contains spaces, be sure to enclose the entire argument in
            quotation marks."
        type = "string"
        required = "true"
    />
    <named
        name = "value"
        helpstring = "The new setting value.  If a particular value
contains
            spaces, be sure to enclose the entire argument in quotation
            marks."
        type = "string"
        required = "true"
    />
    <unnamed
        name = "computers"
        helpstring = "An optional list of computers to query specified by
name
            or IP address, otherwise the local system is used.  The dot
            nomenclature can also be used to include the local computer
in
            the computer list."
        many = "true"
        required = "false"
    />
    <example>
Example:

    ChangeSetting.wsf /setting:"Removable Media Boot" /value:Disable .
    remotel remote2
    </example>
</runtime>
<reference object="hpPwdCtl.PasswordEdit" />
<script language="VBScript">

On Error Resume Next

'Write version string
strScriptName = "ChangeSetting.wsf"
strVersion = "1.0.0.1"

```

---

```

strCopyright = "Copyright (c) 2007, 2008 Hewlett-Packard Development
Company"
WScript.Echo strScriptName & " Version " & strVersion & vbNewLine &
strCopyright & vbNewLine

' The following flags values useful in changing the behavior
' of WMI functions, such as instance enumeration.
Const wbemFlagReturnImmediately = 16
Const wbemFlagForwardOnly = 32

' Check to ensure we have our parameters.
' If not, show the usage message.
If Not (WScript.Arguments.Named.Exists("setting") And _
        WScript.Arguments.Named.Exists("value")) Then _
    WScript.Arguments.ShowUsage
    WScript.Quit
End If

' Determine the list of computers to process
Dim argsUnnamed, strComputer
Set argsUnnamed = WScript.Arguments.Unnamed

If argsUnnamed.Count > 0 Then
    Set arrComputers = argsUnnamed

    For Each strComputer In argsUnnamed

        Call ChangeSetting(strComputer, _
                           WScript.Arguments.Named("setting"), _
                           WScript.Arguments.Named("value"))

    Next

Else

    Call ChangeSetting(".", _
                       WScript.Arguments.Named("setting"), _
                       WScript.Arguments.Named("value"))

End If

' -----
' This subroutine attempts to change the particular
' BIOS setting pointed to by strSettingName to the
' value specified by strSetting value for the given
' computer.
Sub ChangeSetting(ByVal strComputerName, _
                  ByVal strSettingName, _
                  ByVal strSettingValue)

    On Error Resume Next

    lFlags = 0

```



---

```

bPasswordSet = 0
strPassword = ""

' Set the WMI connection strings.
strService = "winmgmts:{impersonationlevel=impersonate}//"
strNamespace = "/root/HP/InstrumentedBIOS"

Dim StartTime, EndTime, LoopCount

LoopCount = 0
Do
    ' Connect to our namespace.
    Set objWMIService = GetObject(strService & _
                                strComputerName & _
                                strNamespace)

    If Err.Number = 0 Then
        Exit Do
    End If

    ' If we did not connect to WMI, the service could
    ' still be initializing. Wait five seconds and
    ' reattempt the connection.
    ' This issue happens under Windows PE.
    ' In WinPE, WMI takes about 30 secs to initialize, the first time
it runs.
    ' Also Timer function is not supported in WinPE
    ' Tried other delay methods, but found below to be best though lame

    StartTime = 1000000 ' About 1 sec delay
    Do
        StartTime = StartTime - 1
    Loop Until StartTime = 0

    LoopCount = LoopCount + 1

Loop Until LoopCount = 50 ' Enough time for WMI to get initialized

Call CheckWMI()

' Create our query string for determining the current
' BIOS password state of the system.
strPwdQuery = "SELECT * FROM HP_BIOSPassword WHERE " & _
              "Name=""Setup Password""

' Determine if we need to get a password for
' this machine.
Set colItems = objWMIService.ExecQuery(strPwdQuery,,1Flags)
Call CheckWMI()

' Note that colItems.Count cannot be referenced if 1Flags is set to
' wbemFlagReturnImmediately + wbemFlagForwardOnly
If ( colItems.Count <> 1 ) Then
    WScript.Echo "ERROR:No BIOS administration objects found."
    WScript.Quit
End If

```

---

```

'PwdSetFrom is a new field in EFI notebooks to indicate if pwd was
set in F10 or in OS.  PwdSetFrom=0 for F10 and =1 for OS
bPwdSetFrom = 1          'default is OS
For Each objItem In colItems
    bPasswordSet = objItem.IsSet
    bPwdSetFrom = objItem.PwdSetFrom
    arrPwdEncoding = objItem.SupportedEncoding
Next

'Does the bios support unicode passwords?
bUnicodeSupported= 0
If (arrPwdEncoding.Count > 0) Then
    For Each strEnc In arrPwdEncoding
        strEnc = LTrim(strEnc)
        strEnc = RTrim(strEnc)
        if(Len(strEnc) > 0) Then
            if(strEnc = "utf-16") Then
                bUnicodeSupported = 1
            End If
        End If
    Next
End If

'decide if the current password needs to be sent in kbd or unicode
if (bUnicodeSupported = 1) Then
    if (bPasswordSet > 0 AND bPwdSetFrom = 0 ) Then
        PwdType = "kbd"
    else
        PwdType = "unicode"
    End If
else
    PwdType = "kbd"
End If

'WScript.Echo "bUnicodeSupported (" & bUnicodeSupported & ") "
'WScript.Echo "PwdType (" & PwdType & ") "

' If there is a password set, try to invoke the
' password control to collect the password string.
' If this fails, the HP CMI Password control has
' not been installed.  Run "hppwdctl /install"

If (bPasswordSet > 0) Then

    Set oPwdCtl = CreateObject("hpPwdCtl.PasswordEdit")

    ' Get the password string.
    strPrompt = "Provide the BIOS Administrator password for computer
'" & strComputerName & "'"
    if (PwdType = "kbd") Then
        oPwdCtl.GetPassword strPrompt, strPassword
    else
        oPwdCtl.GetPasswordAsUnicode "us", strPrompt, strPassword
    End If
End If
if (strPassword = "") Then
    if (PwdType = "kbd") Then

```

---

```

        strPassword = "<kbd />"
    else
        strPassword = "<utf-16 />"
    End If

End If
'WScript.Echo "strPassword (" & strPassword & ") "

' Cretae the query string to access the HP CMI
' method interface.
strMethodQuery = "SELECT * FROM HP_BIOSSettingInterface"

' Obtain an instance of our method interface.
Set colItems = objWMIService.ExecQuery(strMethodQuery,,lFlags)
Call CheckWMI()

' Note that colItems.Count cannot be referenced if lFlags is set to
' wbemFlagReturnImmediately + wbemFlagForwardOnly
If ( colItems.Count <> 1 ) Then
    WScript.Echo "ERROR: HP CMI method interface not found."
    WScript.Quit
End If

For Each objItem In colItems
    objItem.SetBiosSetting retVal, _
                                strSettingName, _
                                strSettingValue, _
                                strPassword

    Call CheckWMI()
Next

Select Case retVal
    Case 0 strReturn = "Success"
    Case 1 strReturn = "Not Supported"
    Case 2 strReturn = "Unspecified Error"
    Case 3 strReturn = "Timeout"
    Case 4 strReturn = "Failed"
    Case 5 strReturn = "Invalid Parameter"
    Case 6 strReturn = "Access Denied"
    Case 32768 strReturn = "Security Policy is violated"
    Case 32769 strReturn = "Dependency Condition is not met"
    Case 32770 strReturn = "Unsupported Configuration"
    Case Else strReturn = "..."
End Select

WScript.Echo "SetBiosSetting() returned (" & retVal _
    & ") " & strReturn

End Sub

' -----
' This subroutine will display detailed information
' in the event WMI generates an error.
Sub CheckWMI()

```

---

```

Dim errWMI
Dim n

If Err.Number <> 0 then

    errWMI = CreateObject("WbemScripting.SWbemLastError")

    If errWMI <> Nothing then

        n=MsgBox("An error has occurred while attempting to access WMI." &
-         vbCr & vbCr & "Provider Name: " & vbTab & errWMI.ProviderName &
-         vbCr & "Error:          " & vbTab & "0x" & Hex(Err.Number) & _
        vbCr & "Description:    " & vbTab & errWMI.Description & _
        vbCr & "Operation:      " & vbTab & errWMI.Operation & _
        vbCr & "Parameters:     " & vbTab & errWMI.ParameterInfo, _
        vbExclamation, "HP Client Management Interface Example")
    Else

        n=MsgBox("An error has occurred while attempting to access WMI." &
-         vbCr & "Error:          " & vbTab & "0x" & Hex(Err.Number) & _
        vbCr & "Description:    " & vbTab & err.Description & _
        vbExclamation, "HP Client Management Interface Example")

    End if

    Err.Clear
    WScript.Quit
End if

End sub

</script>
</job>

<signature>
** SIG ** MIIWJAYJKoZIhvcNAQcCoIIWFTCCFhECAQExCzAJBgUr
** SIG ** DgMCGGgUAMGcGCisGAQQBgjcCAQSGWTBXMdIGCisGAQQB
** SIG ** gjcCAR4wJAIBAQQQcAVhGs441BGiowAQS9NQkAIBAAIB
** SIG ** AAIBAAIBAAIBADAhMAkGBSsOAwIaBQAeFL1K0poVm59j
** SIG ** 71h7rjg0tN0DAd2JoIIRqjCCA3owggJioAMCAQICEDgl
** SIG ** 1/r4Ya+e9JDnJrXWWtUwDQYJKoZIhvcNAQEFBQAwUzEL
** SIG ** MAkGA1UEBhMCVVMxMzFzAVBgNVBAoTDlZlcmlTaWduLCBJ
** SIG ** bmMuMSswKQYDVQQDEYJWZXJpU2lnbiBUaW1lIFN0YW1w
** SIG ** aW5nIFNlcnZpY2VzIENBMB4XDTA3MDYxNTAwMDAwMFOX
** SIG ** DTEyMDYxNDIzNTk1OVowXDELMakGA1UEBhMCVVMxMzFzAV
** SIG ** BgNVBAoTDlZlcmlTaWduLCBJbmMuMTQwMgYDVQQDEytW
** SIG ** ZXJpU2lnbiBUaW1lIFN0YW1waW5nIFNlcnZpY2VzIFNp
** SIG ** Z25lcjAtIEcyMIGfMA0GCSqGSIb3DQEBAQUAA4GNADCB
** SIG ** iQKBgQDEtfJSFbyIhmApFkpbL0uRa4eR8zVUWDXq0TZe
** SIG ** Yk1SUTRxwntmHYnI3SrEagr2N9mYdJH2kq6wtXaW8a1K
** SIG ** Y0VHLmsLkk5LK4zuWEqL1AfGiz4gqPY2c1C8y3Add6N
** SIG ** q8eOHZpsTAiVHt7b72fhcsJJwp5gPOHivhajY3hpFHut
** SIG ** LQIDAQABo4HEMIHBMDQGccsGAQUFBwEBBCgwJjAkBggr
** SIG ** BgEFBQcwAYYYaHR0cDovL29jc3AudmVyaXNpZ24uY29t

```

---

\*\* SIG \*\* MAwGA1UdEwEB/wQCMAAwMwYDVR0fBCwwKjAooCagJIYi  
\*\* SIG \*\* aHR0cDovL2Nybc52ZXJpc2lnbi5jb20vdHNzLWNhLmNy  
\*\* SIG \*\* bDAwBgNVHsUBAf8EDDAKBggrBgEFBQcDCDAOBgNVHQ8B  
\*\* SIG \*\* Af8EBAMCBsAwHgYDVR0RBBCwFaQTMbExDzANBgNVBAMT  
\*\* SIG \*\* BlRTQTETMjANBgkqhkiG9w0BAQUFAAOCAQEAUMVLYCSA  
\*\* SIG \*\* 3+QNJMLeGrGhAqGmgi0MgxWBNwqCDiywWhdhtdgF/ojb  
\*\* SIG \*\* 8ZGRs1YaQKbrkr44ObB1NnQ6mE/kN7qZicqVQh2wuceg  
\*\* SIG \*\* jVfg+tVkBEI1TgHRM6IXyE2qJ8fy4YZMAjhNg3jG/FPg  
\*\* SIG \*\* 6+AGh92klp5eDJjipb6/goXDYOHfrSjYx6VLZNRHGlu9  
\*\* SIG \*\* rDkI1TgioTOLL4qa67wHIT9EQQkHtWUcJLxI00SA66HP  
\*\* SIG \*\* yQK0FM9UxxajgFz5eT5dcn2IF54sQ6LKU859PfYqOrhP  
\*\* SIG \*\* lAC1bQqDXfleU/QYs1cPcMP79a2VoA4X3sQWgGDJDytu  
\*\* SIG \*\* hgTx6/R4J9EFxe40W165STLyMzCCA8QwggMtoAMCAQIC  
\*\* SIG \*\* EEe/GZXfjVJGQ/fbbUgNMaQwDQYJKoZIhvcNAQEFBQAw  
\*\* SIG \*\* gYsxCzAJBgNVBAYTAlpBMRUwEwYDVQQLIEwXZXN0ZXJu  
\*\* SIG \*\* IENhcGUxFDASBgNVBAcTC0R1cmJhbnZpbGxlMQ8wDQYD  
\*\* SIG \*\* VQKKEwZUaGF3dGUxHTAbBgNVBAsTFFRoYXN0ZSBZDZXJ0  
\*\* SIG \*\* aWZpY2F0aW9uMR8wHQYDVQDExZUaGF3dGUgVGltZXN0  
\*\* SIG \*\* YW1waW5nIENBMB4XDTAzMTIwNDAwMDAwMfoXDTEzMTIw  
\*\* SIG \*\* MzIzNTk1OVowUzELMAkGA1UEBhMCVVMxZzAVBgNVBAoT  
\*\* SIG \*\* DlZlcm1TaWduLCBjbmuMSswKQYDVQDEyJWZlJpU2ln  
\*\* SIG \*\* biBUaW1lIFN0YW1waW5nIFN1cnZpY2VzIENBMTIIBiJAN  
\*\* SIG \*\* BgkqhkiG9w0BAQEFAAOCAQ8AMIIBCgKCAQEAqcqypMzN  
\*\* SIG \*\* IK8KfYmsh3Xwte7x38EPv2dhvaNkHNq7+cozq4QwiVh+  
\*\* SIG \*\* jNtr3Taed7/R7Hjyd6Z+bzy/k68Numj0bJTKvVItq0g9  
\*\* SIG \*\* 9bbVXV8bAp/6L2sepPejmqYayALhf0xS4w5g7EAcfkrN  
\*\* SIG \*\* 3j/HtN+HvV96ajEuA5mBE6hHIM4xcw1XLc14NDOVEpkS  
\*\* SIG \*\* ud5oL6rm48KKjCrDiyGHZr2DWFdvdb88qiaHXcoQFTyf  
\*\* SIG \*\* hOpUwQpuxP7FSt25BxGXInzbPifRHnjsnzHJ8eYiGdve  
\*\* SIG \*\* s0dDmhpfoB6Q5F717nzxfatiAY/1TQve0CJWqJXNroh2  
\*\* SIG \*\* ru66DfPkTdmg+2igrhQ7s4fBuWIDAQABo4HbMIHYMDQG  
\*\* SIG \*\* CCsGAQUFBwEBBCCgwJjAkBggrBgEFBQcwAYYYaHR0cDov  
\*\* SIG \*\* L29jc3AudmVyaXNpZ24uY29tMBIGA1UdEwEB/wQIMAYB  
\*\* SIG \*\* Af8CAQAwQQYDVR0fBDowODA2oDSgMoYwaHR0cDovL2Ny  
\*\* SIG \*\* bc52ZXJpc2lnbi5jb20vVGhhd3RlVGltZXN0YW1waW5n  
\*\* SIG \*\* Q0EuY3JsMBMGA1UdJQQMMAoGCCsGAQUFBwMIMA4GA1Ud  
\*\* SIG \*\* DwEB/wQEAwIBBjAkBgNVHREHTAbpBkwFzEVMBMGA1UE  
\*\* SIG \*\* AxMMVFNBmJA0OC0xLTUzMA0GCSqGSIb3DQEBBQUAA4GB  
\*\* SIG \*\* AEpr+epYwkQcMY15mSuWv4KsAdYcTM2wilhu3wgp017I  
\*\* SIG \*\* ypMT5wRSDe9HJy8AOLdkyZNomtQiYhX3PzchT3AxpPGL  
\*\* SIG \*\* OIez60iXAP7PVZzOJNKpJ056rrdhQfMqzufJ2V7duyuF  
\*\* SIG \*\* PrWdtdnhV/++tMV+9c8MnvCX/ivT01IbGzgn9z9KMIIE  
\*\* SIG \*\* vzCCBCigAwIBAgIQQZGhWjl4389JZWY4HUx1wjANBgkq  
\*\* SIG \*\* hkiG9w0BAQUFADbfMQswCQYDVQQGEwJVUzEXMBUGA1UE  
\*\* SIG \*\* ChMOVmVyaVNpZ24sIEluYy4xNzA1BgNVBAsTLkNsYXNz  
\*\* SIG \*\* IDMgUHVibGljIFByaW1hcncgQ2VydgLmaWNhdGlviBB  
\*\* SIG \*\* dXRob3JpdHkwHhcNMDQwNzE2MDAwMDAwWhcNMTQwNzE1  
\*\* SIG \*\* MjM1OTU5WjCBtDELMAkGA1UEBhMCVVMxZzAVBgNVBAoT  
\*\* SIG \*\* DlZlcm1TaWduLCBjbmuMR8wHQYDVQQLExZWZlJpU2ln  
\*\* SIG \*\* biBUcnVzZCBOZXRX3b3JrMTswOQYDVQQLExJUZlJtcyBv  
\*\* SIG \*\* ZiB1c2UgYXQgaHR0cHM6Ly93d3cudmVyaXNpZ24uY29t  
\*\* SIG \*\* L3JwYSAoYykwNDEuMCwGA1UEAxMlVmVyaVNpZ24gQ2xh  
\*\* SIG \*\* c3MgMyBDb2RlIFNpZ25pbmcgMjAwNCBDDQTCASIdQYJ  
\*\* SIG \*\* KoZIhvcNAQEBBQADggEPADCCAQoCggEBAL687rx+74Pr  
\*\* SIG \*\* 4DdP+wMQOL4I0ox9nfqSfxkMwmvuQ1KM3tMcSBM16sFj  
\*\* SIG \*\* evlRZe7Tqjv18JSCK/vyZtQk2vf1n24ZOTa80KN2CB4i  
\*\* SIG \*\* JyRsOJEn4oRjrhuKof0lgiwQMOhxqyjod0pr8ezN+PBU

---

30

---

```

** SIG ** AQABAF8wDQYJKoZIhvcNAQEFBQADggEBAJFwRj9lIVT8
** SIG ** 5Ka9tBcSz1xqGMtzqJ1TGRofEzILs2KTAwnBb8/L9Fe
** SIG ** 7fdBZ0UghKTLmQAIC84497xNec8TguQV5+uRrGFc9mJN
** SIG ** 5EMg+EONrTNCsbk4N1bX9XO7XbUSGA09fSs5x7lClAph
** SIG ** rG+NYNoRdGNwvKmoStCl9M5+rG/lbOEHBnSwebCK6Bui
** SIG ** nH14p7ye8lrUEGP79eL1WhTI9wtJZ8CGtN2/bapDzMvQ
** SIG ** 2nkJ0ls7Yp6LKCoqcPpymxZTJYB4ITx50hX59JRyuu4n
** SIG ** FsamlIhFMpWOGECvJ0gAK339fiRyzJR5IISo/ooLVizN
** SIG ** hevWSFRDOvybbj6SCAiOqqkxggPmMIID4gIBATCBYTCB
** SIG ** tDELMaKGA1UEBhMCVVMxZzFzAVBgNVBAoTDlZlcmlTaWdu
** SIG ** LCBjbmMuMR8wHQYDVQQLExZWZlZjU2lnbiBUcnVzdCB0
** SIG ** ZXR3b3JrMTswOQYDVQQLExJUZlZjU2lnbiBUcnVzdCB0
** SIG ** aHR0cHM6Ly93d3cudmVyaXNpZ24uY29tL3JwYSAoYykw
** SIG ** NDEuMCwGA1UEAxiVjVyaXNpZ24uY29tL3JwYSAoYykw
** SIG ** IFNpZ25pbmcgMjAwNCBBDQIQClFMf3xsuu4x4Ib9lD9
** SIG ** zzAJBgUrDgMCGGUAAHAwEAYKKwYBBAGCNwIBDDECAAw
** SIG ** GQYJKoZIhvcNAQkDMQwGCisGAQQBgjcCAQQUHAYKKwYB
** SIG ** BAGCNwIBCzEOMAwGCisGAQQBgjcCARUwIwYJKoZIhvcN
** SIG ** AQkEMRYEFF8SX3Z513OhrZZxuuxc9hA+Uxb2MA0GCSqG
** SIG ** SiB3DQEBAQUABIIBAFsh0RwA+XuUx7lQZbllxc67yrxY
** SIG ** Kgd1EYqb1Qvz7wyT8dB1cGYavpQbc0QHSE5UC5e52wVw
** SIG ** WnL3B62bm8Oh66ov3ILLlwhK03dZ+k+MXBoMfONBB+31
** SIG ** 4AqZ6kARq8525QggzYkkg4OkPV2mW+RtA4f5c0yU1Wtv
** SIG ** 7zkZ0NWJn0+f2u+POn38t2/daFK19MDx1DB64aQ1pALO
** SIG ** d95iRpn3tePSa7S0bEibQYpqsWuvZvSFL/3Xpebqq4PK
** SIG ** 2fo0D4ZVV1X/G+WkgTpZ7vQ6PhYaUtDU3x89S77HpsxB
** SIG ** Faw5dhkg1YCR4HY8egF6yY0rSSf+R4RO/NSd5aXTPwzP
** SIG ** pRipNzChggF/MIIBewYJKoZIhvcNAQkGMYYIBbDCCAWGc
** SIG ** AQEwZzBTMQswCQYDVQGEwJVUzEXMBUGA1UEChMOVjVyaXNp
** SIG ** Z24uY29tL3JwYSAoYykwYzU2lnbiBUcnVzdCB0
** SIG ** bWUgU3RhbXBpbmcgU2VydmljZXMGQ0EEDG1/r4Ya+e
** SIG ** 9JDnJrXWWtUwCQYFKw4DAhOFAKBdMBGCSqGSIB3DQEJ
** SIG ** AzELBgkqhkiG9w0BBwEwHAYJKoZIhvcNAQkFMQ8XDTA5
** SIG ** MDQxNDE5MTMyNVowIwYJKoZIhvcNAQkEMRYEFFLYOOiG
** SIG ** CEEI0DJvEa4tIgxP8I/cMA0GCSqGSIB3DQEBAQUABIGA
** SIG ** j/R0FZR6/P9SH0KbB1AQBrb4soPLIyXgXvq3XbGgZjxx
** SIG ** oRk69xvnit09JcHpOXHLYqxlPvVcwKW/qbdL6ZKUs10C
** SIG ** nGtKta+Fd/v95+C8iPORobjaB1LKLyfUcbbwA9LrVEfJ
** SIG ** qIGy9FArrMPvDeDC4U5iqM2Sp2bsB3R38ZqTWiE=
</signature>
</package>

```

## Change Boot Order:

```

Const wbemFlagReturnImmediately = 16
Const wbemFlagForwardOnly = 32
lFlags = wbemFlagReturnImmediately + wbemFlagForwardOnly
strService = "winmgmts:{impersonationlevel=impersonate}://"
strComputer = "."
strNamespace = "/root/HP/InstrumentedBIOS"
strQuery = "select * from HP_BIOSSettingInterface"
Set objWMIService = GetObject(strService & _
strComputer & strNamespace)
Set colItems = objWMIService.ExecQuery(strQuery,,lFlags)
For each objItem in colItems
objItem.SetBiosSetting oReturn, _

```

---

```
"Boot Order", _
"Diskette,Hard Drive,Network Controller,Multibay", _
"<kbd/>1E302E020304"
Next
Dim strReturn
Select Case oReturn
Case 0 strReturn = "Success"
Case 1 strReturn = "Not Supported"
Case 2 strReturn = "Unspecified Error"
Case 3 strReturn = "Timeout"
Case 4 strReturn = "Failed"
Case 5 strReturn = "Invalid Parameter"
Case 6 strReturn = "Access Denied"
Case Else strReturn = "..."
End Select
WScript.Echo "SetBiosSetting() returned: (" & oReturn _
& ") " & strReturn
```

### Capture Sensor Info:

```
<package>
<job id="main">
<comment>
-----
EnumSensors.wsf
Last modified: 11-30-2006
```

A Windows Scripting Host example to read BIOS setting information from the HP Client Management Interface.

Copyright (c) 2006, Hewlett-Packard Development Company

```
-----
</comment>
<runtime>
  <description>
Description:

  This script example is designed to retrieve BIOS sensor detail
  from the HP Client Management Interface.
</description>
<unnamed
  name = "computers"
  helpstring = "An optional list of computers to query specified by name
               or IP address, otherwise the local system is used. The dot
               nomenclature can also be used to include the local computer in
               the computer list."
  many = "true"
  required = "false"
/>
<example>
Example:

  cscript EnumSensors.wsf . remotel remote2
</example>
```



---

```

</runtime>
<script language="VBScript">

On Error Resume Next

'Write version string
strScriptName = "EnumSensors.wsf"
strVersion = "1.0.0.1"
strCopyright = "Copyright (c) 2007, 2008 Hewlett-Packard Development Company"
WScript.Echo strScriptName & " Version " & strVersion & vbNewLine &
strCopyright & vbNewLine

' The following flags values useful in changing the behavior
' of WMI functions, such as instance enumeration.
Const wbemFlagReturnImmediately = 16
Const wbemFlagForwardOnly = 32

' Determine the type of query we will be performing. This will
' either be a query for all settings, or for a setting specified
' via the command line.
Dim strQuery

' Determine the list of computers to process
Dim argsUnnamed, strComputer
Set argsUnnamed = WScript.Arguments.Unnamed

If argsUnnamed.Count > 0 Then
    Set arrComputers = argsUnnamed

    ' Once we have identified our query string
    ' and list of computer systems, we can iterate
    ' through that list and display setting
    ' information.
    For Each strComputer In arrComputers

        Call EnumSettings(strComputer)

    Next

Else

    Call EnumSensors(".")

End If

' -----
' This subroutine does all the work
' of enumerating the sensors for a
' given computer.
Sub EnumSensors(ByVal strComputerName)

    On Error Resume Next

    ' Set the WMI connection strings.
    strService = "winmgmts:{impersonationlevel=impersonate}//"
    strNamespace = "/root/HP/InstrumentedBIOS"

```

---

```

Dim StartTime, EndTime, LoopCount

LoopCount = 0
Do
    ' Connect to our namespace.
    Set objWMIService = GetObject(strService & _
                                   strComputerName & _
                                   strNamespace)

    If Err.Number = 0 Then
        Exit Do
    End If

    ' If we did not connect to WMI, the service could
    ' still be initializing. Wait five seconds and
    ' reattempt the connection.
    ' This issue happens under Windows PE.
    ' In WinPE, WMI takes about 30 secs to initialize, the first time it
runs.
    ' Also Timer function is not supported in WinPE
    ' Tried other delay methods, but found below to be best though lame

    StartTime = 1000000 ' About 1 sec delay
    Do
        StartTime = StartTime - 1
    Loop Until StartTime = 0

    LoopCount = LoopCount + 1

Loop Until LoopCount = 50 ' Enough time for WMI to get initialized

Call CheckWMI()

lFlags = wbemFlagForwardOnly + wbemFlagReturnImmediately

WScript.Echo vbCr & "======"
WScript.Echo "Computer: " & strComputerName
WScript.Echo "======"

Set colItems = objWMIService.ExecQuery("SELECT * FROM
HP_BIOSStateSensor",,lFlags)
Call CheckWMI()

For Each objItem In colItems

    If Trim(objItem.Name) <> "" Then
        WScript.Echo objItem.Name & " = " & objItem.CurrentState
    End If

Next

Set colItems = objWMIService.ExecQuery("SELECT * FROM
HP_BIOSNumericSensor",,lFlags)
Call CheckWMI()

Dim s

```

---

---

```

For Each objItem In colItems

    If Trim(objItem.Name) <> "" Then

        Select Case objItem.BaseUnits
            Case 1 s = "(Other)"
            Case 2 s = "(Degrees C)"
            Case 19 s = "(RPM)"
            Case Else s = "(!undefined!)"
        End Select

        WScript.Echo objItem.Name & " = " & objItem.CurrentState & " = " &
objItem.CurrentReading & s

    End If

Next

End Sub

' -----
' This subroutine will display detailed information
' in the event WMI generates an error.
Sub CheckWMI()

    Dim errWMI
    Dim n

    If Err.Number <> 0 then

        errWMI = CreateObject("WbemScripting.SWbemLastError")

        If errWMI <> Nothing then

            n=MsgBox("An error has occurred while attempting to access WMI." & _
                vbCr & vbCr & "Provider Name: " & vbTab & errWMI.ProviderName & _
                vbCr & "Error:          " & vbTab & "0x" & Hex(Err.Number) & _
                vbCr & "Description:    " & vbTab & errWMI.Description & _
                vbCr & "Operation:      " & vbTab & errWMI.Operation & _
                vbCr & "Parameters:    " & vbTab & errWMI.ParameterInfo, _
                vbExclamation, "HP Client Management Interface Example")
            Else

            n=MsgBox("An error has occurred while attempting to access WMI." & _
                vbCr & "Error:          " & vbTab & "0x" & Hex(Err.Number) & _
                vbCr & "Description:    " & vbTab & err.Description & _
                vbExclamation, "HP Client Management Interface Example")

            End if

            Err.Clear
            WScript.Quit
        End if

    End sub

```

---

</script>  
</job>

<signature>

\*\* SIG \*\* MIIWJAYJKoZIhvcNAQcCoIIWFTCCFhECAQExCzAJBgUr  
\*\* SIG \*\* DgMCGGUAMGcGCisGAQQBgjcCAQSGWTBXMdIGCisGAQQB  
\*\* SIG \*\* gjcCAR4wJAIBAQQQcAVhGs441BGiowAQS9NQkAIBAAIB  
\*\* SIG \*\* AAIBAAIBAAIBADAhMAkGBSsOAwIaBQAefG1IrSoq/q9b  
\*\* SIG \*\* jQQC9VjBzvr8lZA8oIIRqjCCA3owggJioAMCAQICEDgl  
\*\* SIG \*\* 1/r4Ya+e9JDnJrXWWtUwDQYJKoZIhvcNAQEFBQAwUzEL  
\*\* SIG \*\* MAkGA1UEBhMCVVMxMzFzAVBgNVBAoTDlZlcmlTaWduLCBJ  
\*\* SIG \*\* bmMuMSswKQYDVQDEYJWZlbnBiBUAw1lIFN0YW1w  
\*\* SIG \*\* aW5nIFNlcnZpY2VzIENBMB4XDTA3MDYxNTAwMDAwMFOx  
\*\* SIG \*\* DTEyMDYxNDIzNTk1OVowXDELMAkGA1UEBhMCVVMxMzFzAV  
\*\* SIG \*\* BgNVBAoTDlZlcmlTaWduLCBJbmMuMTQwMgYDVQDEYtW  
\*\* SIG \*\* ZXJpU2lnbiBUAw1lIFN0YW1wW5nIFNlcnZpY2VzIFNp  
\*\* SIG \*\* Z25lcicAtIEcyMIGfMA0GCSqGSIb3DQEBAQUAA4GNADCB  
\*\* SIG \*\* iQKBgQDEtFJSFbyIhmApFkpbL0uRa4eR8zVUWDXq0TZe  
\*\* SIG \*\* Yk1SUTRxnwtmHYnI3SrEagr2N9mYdJH2kq6wtXaW8a1K  
\*\* SIG \*\* Y0VHLmsLkk5LK4zuWEqL1AfkGiz4gqPY2c1C8y3Add6N  
\*\* SIG \*\* q8eOHZpsTAiVHt7b72fhcsJJwp5gPOHivhajY3hpFHut  
\*\* SIG \*\* LQIDAQABO4HEMIHBMdQGccsGAQUFBwEBBCCgwJjAkBggr  
\*\* SIG \*\* BgEFBQcwAYYYaHR0cDovL29jc3AudmVyaXNpZ24uY29t  
\*\* SIG \*\* MAwGA1UdEwEB/wQCMAAwMwYDVR0fBCwwKjAooCagJIYi  
\*\* SIG \*\* aHR0cDovL2Nybc52ZXJpc2lnbi5jb20vdHNzLWNhLmNy  
\*\* SIG \*\* bDAwBgNVHSUBAf8EDDAKBggrBgEFBQcDCDAOBgNVHQ8B  
\*\* SIG \*\* Af8EBAMCBsAwHgYDVR0RBBCwFaQTMBExDzANBgNVBAMT  
\*\* SIG \*\* BlRTQTEtMjANBgkqhkiG9w0BAQUFAAOCAQEAUMVLYCSA  
\*\* SIG \*\* 3+QNJMLEGrGhAqGmgi0MgxWBNwqCDiywWhdhtdgF/ojb  
\*\* SIG \*\* 8ZGRs1YaQKbrkr44ObB1NnQ6mE/kN7qZicqVQh2wuceg  
\*\* SIG \*\* jVfg+ttVkBEI1TgHRM6IXyE2qJ8fy4YZMAjhNg3jG/FPg  
\*\* SIG \*\* 6+AGh92klp5eDjJipb6/goXDYOHfrSjYx6VLZNRHGlu9  
\*\* SIG \*\* rDkI1TgioTOLL4qa67wHIT9EQQkHtWUcJLxI00SA66HP  
\*\* SIG \*\* yQK0FM9UxxajgFz5eT5dcn2IF54sQ6LKU859PfYqOrhP  
\*\* SIG \*\* lAC1bQqDXfleU/QYs1cPcMP79a2VoA4X3sQWgGDJDytu  
\*\* SIG \*\* hgTx6/R4J9EFxe40W165STLyMzCCA8QwggMtoAMCAQIC  
\*\* SIG \*\* EEe/GZXfjVJGQ/fbbUgNMaQwDQYJKoZIhvcNAQEFBQAw  
\*\* SIG \*\* gYsxCzAJBgNVBAYTA1pBMRUwEwYDVQQIEwxxZXN0ZXJu  
\*\* SIG \*\* IENhcGUxYDASBgNVBAcTC0R1cmJhbnZpbGxlMQ8wDQYD  
\*\* SIG \*\* VQKKEwZUaGF3dGUxHTAbBgNVBAsTFFRoYX0ZSBDZXXJ0  
\*\* SIG \*\* aWZpY2F0aW9uMR8wHQYDVQDEwZUaGF3dGUgVGl0ZXN0  
\*\* SIG \*\* YW1wW5nIENBMB4XDTA3MTIwNDAwMDAwMFOxMDTEzMTIw  
\*\* SIG \*\* MzIzNTk1OVowUzELMAkGA1UEBhMCVVMxMzFzAVBgNVBAoT  
\*\* SIG \*\* DlZlcmlTaWduLCBJbmMuMSswKQYDVQDEYJWZlbnBiBUAw1lIFN0YW1wW5nIFNlcnZpY2VzIENBMIIIBIjAN  
\*\* SIG \*\* biBUAw1lIFN0YW1wW5nIFNlcnZpY2VzIENBMIIIBIjAN  
\*\* SIG \*\* BgkqhkiG9w0BAQEFAAOCAQ8AMIIBCgKCAQEAqcqypMzN  
\*\* SIG \*\* IK8KfYmsh3Xwte7x38EPv2dhvaNkHNq7+cozq4QwiVh+  
\*\* SIG \*\* jNtr3TaeD7/R7Hjyd6Z+bzy/k68Numj0bJTKvVItq0g9  
\*\* SIG \*\* 9bbVXV8bAp/6L2sepPejmqYayALhf0xS4w5g7EAcfrkN  
\*\* SIG \*\* 3j/HtN+HvV96ajEuA5mBE6hHIM4xcw1XLc14NDOVEpkS  
\*\* SIG \*\* ud5oL6rm48KKjCrDiyGHZr2DWFdvdb88qiaHXcoQFTyf  
\*\* SIG \*\* s0dDmhpfoB6Q5F717nzzxfatiAY/1TQve0CJWqJXNroh2  
\*\* SIG \*\* ru66DfPkTdmg+2igrhQ7s4fBuWIDAQABO4HbMIHYMDQG  
\*\* SIG \*\* CCsGAQUFBwEBBCCgwJjAkBggrBgEFBQcwAYYYaHR0cDov  
\*\* SIG \*\* L29jc3AudmVyaXNpZ24uY29tMBIGA1UdEwEB/wQIMAYB

```

** SIG ** Af8CAQAwQQYDVR0fBDowODA2oDSgMoYwaHR0cDovL2Ny
** SIG ** bC52ZXJpc2lnbi5jb20vVGhhd3RlVGltZXN0YWlwaW5n
** SIG ** Q0EuY3JsbG9wL2ludG9wL2ludG9wL2ludG9wL2ludG9w
** SIG ** DwEB/wQEAwIBBjAkBgNVHREEHTAbpBkwFzEVMBMGA1UE
** SIG ** AxMMVFNBmJA0OC0xLTUzMA0GCSqGSIb3DQEBBQUAA4GB
** SIG ** AEpr+epYwkQcMYl5mSuWv4KsAdYcTM2wilhu3wgp0l7I
** SIG ** ypMT5wRSDe9HJy8AOLDKyZN0mtQiYhX3PzchT3AxpGGL
** SIG ** OIez6OiXAP7PVZzOJNKpJ056rrdhQfMqzufJ2V7duyUF
** SIG ** PrWdtdnhV/++tMV+9c8MnvCX/ivTO1IbGzgn9z9KMIIE
** SIG ** vzCCBCigAwIBAgIQQZGhWjl4389JZWY4HUx1wjANBgk
** SIG ** hkiG9w0BAQUFADBhMQswCQYDVQGEwJVUzEXMBUGA1UE
** SIG ** CHMOVmVyaVNP224sIEluY4xNzAlBgNVBAsTLkNsYXNz
** SIG ** IDMoUHVibGljIFB5aWlnbG9wL2ludG9wL2ludG9wL2ludG9w
** SIG ** dXR0b3JpdHkwHhcNMDDQwNzE2MDAwMDAwHhcNMTQwNzE1
** SIG ** MjM1OTU5WjCBtDELMakGA1UEBhMCVVMxXzFzAVBgNVBAOt
** SIG ** DLZlcm1TaWduLCBjb20vVGhhd3RlVGltZXN0YWlwaW5n
** SIG ** biBUcnVzdCBOZXR3b3JrMTswOQYDVQQLZXJ1ZDZlcm1TaWdu
** SIG ** ZiBlc2UgYXQgaHR0cHM6Ly93d3cudmVyaXNpZ24uY29t
** SIG ** L3JwYSAoYykwNDEuMCwGA1UEAxMlVmVyaVNP224gQ2xh
** SIG ** c3MgMyBDb2RlIFNpZ25pbmcgMjAwNCBBDQTCASiWdQYJ
** SIG ** KoZlHvcNAQEBAQADggEPADCCAQoCggEBAL687rx+74Pr
** SIG ** 4DdP+wMQOL4I0ox9nfqSfxkMwmvuQlKM3tMcSBMl6sFj
** SIG ** evlRZe7Tqjv18JScK/vyZtQk2vfln24ZOTa80KN2CB4i
** SIG ** JyRsOJEn4oRJRhuKof0lgiwQMOhxqyjod0pR8ezN+PBU
** SIG ** lG/A420Kj9nYZI1jsilOJ/aFDv5t4ymZ4oVhFC2Gf+hX
** SIG ** j6lnwJMykRMG/KkjFJptwoRLdmgE1XESXSH6iA0m/R8t
** SIG ** kSvnANvYrn8m01KlLf2WctctbZtqoH9X82Dum0d0CL8tqtC
** SIG ** abK0OrW8tJ4PxStfLTKLKP1TcJbdtQEg0fmlGOfA7lFw
** SIG ** N+G2BUhSSG846sPobHtEhLsCAwEAaAOCaAAwggGcMBIG
** SIG ** AlUdEwEB/wQIMAYBAf8CAQAwRAYDVR0gBD0wOzA5Bgtg
** SIG ** hkgBhvhFAQcXAzAqMCgGCCsGAQUFBwIBFhxodHRwczov
** SIG ** L3d3dy52ZXJpc2lnbi5jb20vcnBhMDEGA1UdHwQqMCgw
** SIG ** JqAkoCKGIGh0dHA6Ly9jcmwudmVyaXNpZ24uY29tL3Bj
** SIG ** YTMuY3JsbG9wL2ludG9wL2ludG9wL2ludG9wL2ludG9w
** SIG ** BQcDazA0BgNVHQ8BAf8EBAMCAQYwEQYJYIZIAIYb4QgEB
** SIG ** BAQDAgABMCKGA1UdEQQIMCCkHjAcMR0wGAYDVQQDExFD
** SIG ** bGFzc2NDQTIwNDgtMMS0MzAdBgNVHQ4EFgQUUCPVR6Pv+
** SIG ** PT1kNnxoz1t4qN+5xTcwGAYGA1UdIwR5MHehY6RhMF8x
** SIG ** CzAJBgNVBAYTA1VTMRcwFQYDVQKEw5WZXJpU2lnbiwg
** SIG ** SW5jLjE3MDUGA1UECXM0Z2xhc3MgMgYhQcWJsaWJwUHUJp
** SIG ** bWfYeSBDZSJ0aWZpY2F0aW9wIEF1dGhvcml0eEYlQcLrk
** SIG ** HRDZKTS20Mp7A8y6vzANBgkqhkiG9w0BAQUFAAOBgQC
** SIG ** Ohe4SntV+mRV7Eck7U1BkJmcibyvLh3KeCP5HBkPf+to
** SIG ** vDLZidje3D/TibQ/sYKW8aRauu0uJtPefAFuAAoApAAs
** SIG ** EUgJQPkcGHlnIyTgu9XhUK4b9Q7d4C6BzYCjbFJPkXV
** SIG ** iroi8tLqQXWIL2NVfR5UWpVZytK0gcBfXvZ6tCCBZ0w
** SIG ** ggSFOAMCAQICEAiZRT89bLruMeCG/ZQ/c8wDQYJKoZI
** SIG ** hvCNAQEFBQAwgbQxChZAJBgNVBAYTA1VTMRcwFQYDVQQQ
** SIG ** Ew5WZXJpU2lnbiwgSW5jLjE3MDUGA1UECXMWVmVyaVNP
** SIG ** Z24gVHJ1c3QgTmV0d29yazE7MDkGA1UECXM5VG9yYXNp
** SIG ** b2YgdXNlIGF0IGh0dHBzOi8vd3d3LnZlcm1zaWduLmNv
** SIG ** bS9ycGEgKGMpMDQxLjAsBgNVBAMTJVZlcm1TaWduIENs
** SIG ** YXNzIDMgQ29kZSBTAWduW5nIDIwMDQgQ0EwHhcNMDDgx
** SIG ** MjE4MDAwMDAwHhcNMTE4MjE4MDAwMDAwMDAwMDAwMDAw
** SIG ** AlUEBhMCVVMxXzFzAVBgNVBAsTCkNhbmG1b3JuaW5lXjAQ
** SIG ** BgNVBACTCvBhbG8gQWx0bzEgMB4GA1UEChQXSGV3bGV0
** SIG ** dClQYWNrYXJkIENvbnBhbnkxPjA8BgNVBAsTNURpZ2l

```

\*\* SIG \*\* YWwgSUQgQ2xhc3MgMyAtIE1pY3Jvc29mdCBTb2Z0d2Fy  
\*\* SIG \*\* ZSBWYWxpZGF0aW9uIHYYMSAwHgYDVQQLFBdIZXdsZXR0  
\*\* SIG \*\* LVBhY2thcmQgQ29tcGFueTEgMB4GA1UEAxQXSGV3bGV0  
\*\* SIG \*\* dClQYWNrYXJkIENvbXBhbnkwggEiMA0GCSqGSIB3DQEB  
\*\* SIG \*\* AQUAA4IBDwAwggEKAoIBAQC8nUFYV0fo9fehxaW7Q93J  
\*\* SIG \*\* 19ElwSVdtGsJvNjttMMNjyIMMOAZyJPoc+oboHp46t1N  
\*\* SIG \*\* 7RkspHYUnxCHWA8AM52Ex5rZqLW9p0dRJB3TjfsJK0R/  
\*\* SIG \*\* pT3j+oPLiGNQSL1YMzEDJKRnBcrfJr0dLe8Uv9NJcJPB  
\*\* SIG \*\* 2XLVXI15NZ3Jq/skeTlp6APiMFQe2KYQlbdmxCP2jMQw  
\*\* SIG \*\* Y/EF10aX+alm4GY4JC5TpxDRg4LrCLX72KUs66DN2shE  
\*\* SIG \*\* kTiXoDyA7/1ISVBS7xjfkWqANrLQGrS9du/T7k74dUq3  
\*\* SIG \*\* iPQgsa7KQ086/TXHITpiqwff9BTmc4B45/8mts6VEOLr  
\*\* SIG \*\* DaeX0lUY5jwTAgMBAAGjggF/MIIBezAJBgNVHRMEAjAA  
\*\* SIG \*\* MA4GA1UdDWEB/wQEAwIHgDBABgNVHR8EOTA3MDWgM6Ax  
\*\* SIG \*\* hi9odHRwOi8vQ1NDMy0yMDA0LWNybc52ZXJpc2lnbi5j  
\*\* SIG \*\* b20vQ1NDMy0yMDA0LmNybdBEBgNVHSAEPTA7MDkGC2CG  
\*\* SIG \*\* SAGG+EUBBxcDMCowKAYIKwYBBQUHAgEWHGh0dHBzOi8v  
\*\* SIG \*\* d3d3LnZlcmlzaWduLmNvbS9ycGEwEwYDVR0lBAwwCgYI  
\*\* SIG \*\* KwYBBQUHAWMwdQYIKwYBBQUHAQEETBnMCQGCCsGAQUF  
\*\* SIG \*\* BzABhhhodHRwOi8vb2Nzc52ZXJpc2lnbi5jb20wPwYI  
\*\* SIG \*\* KwYBBQUHMAKGM2h0dHA6Ly9DU0MzLTlwMDQtYWlhLnZl  
\*\* SIG \*\* cmlzaWduLmNvbS9DU0MzLTlwMDQtYWlhLmNlcjAfBgNV  
\*\* SIG \*\* HSMEGDAWgBQI9VHo+/49PWQ2fGjPW3io37nFNzARBglg  
\*\* SIG \*\* hkgBhvhCAQEEBAMCBBAwFgYKKwYBBAGCNwIBGwQIMAYB  
\*\* SIG \*\* AQABAf8wDQYJKoZIhvcNAQEFBQADggEBAJFwRj9lIVT8  
\*\* SIG \*\* 5Ka9tBcSz1xqGMtzqJ1TGRofEzILs2KTAwnBb8/L9Fe  
\*\* SIG \*\* 7fdBZ0UghKTLmQAIC84497xNec8TguQV5+uRrGFc9mJN  
\*\* SIG \*\* 5EMg+EONrTNCsbk4N1bX9XO7XbUSGA09fSs5x7lClAph  
\*\* SIG \*\* rG+NYNoRdGNwvKmoStCl9M5+rG/lbOEhbNswbCK6Bui  
\*\* SIG \*\* nH14p7ye8lrUEGP79eL1WhTI9wtJZ8CGtN2/bapDzMvQ  
\*\* SIG \*\* 2nkJ0ls7Yp6LKCoqcPpymxZTJYB4ITx50hX59JRYuu4n  
\*\* SIG \*\* FsamlIhFMPwOgECvJ0gAK339fiRyzJR5IISo/ooLVizN  
\*\* SIG \*\* hevWSFRDOvybbj6SCAiOqqkxggPmMIID4gIBATCBYTCB  
\*\* SIG \*\* tDELMaKGA1UEBhMCVVMxZzFzAVBgNVBAoTDlZlcmlTaWdu  
\*\* SIG \*\* LCBJbmMuMR8wHQYDVQQLExZWZXXJpU2lnbiBUcnVzdCBO  
\*\* SIG \*\* ZXR3b3JrMTswOQYDVQQLExJUZXXJtcyBvZiB1c2UgYXQg  
\*\* SIG \*\* aHR0cHM6Ly93d3cudmVyaXNpZ24uY29tL3JwYSAoYykw  
\*\* SIG \*\* NDEuMCwGA1UEAxMlVmVyaVNpZ24gQ2xhc3MgMyBD2Rl  
\*\* SIG \*\* IFNpZ25pbmcgMjAwNCBDAQIQCJlFMf3xsuu4x4Ib9lD9  
\*\* SIG \*\* zzAJBgUrDgMCGGUAAoHAAwEAYKKwYBBAGCNwIBDDECMAAw  
\*\* SIG \*\* GQYJKoZIhvcNAQkDMQwGCisGAQQBgjcCAQQwHAYKKwYB  
\*\* SIG \*\* BAGCNwIBCzEOMAwGCisGAQQBgjcCARUwIwYJKoZIhvcN  
\*\* SIG \*\* AQkEMRYEFD5Ick4G6xGGzY6yCL03SeZmuqpXMA0GCSqG  
\*\* SIG \*\* SIb3DQEBAQUABIIBALIDbQGrb6PMo37YUO8kEBjua+gK  
\*\* SIG \*\* qA0PyY1xHFpmbOAJXHWaoHO6vwFgCt9d6NcBRIr7BJ  
\*\* SIG \*\* 7LaEt4Gj8xocbvUqkLLDD7kxA+xPxM0Iyx9XfjFcjlS4  
\*\* SIG \*\* Wv83d/fHFVXIiKbsyWQ74RiizEeVwSpBa+tjGa8YWN/R  
\*\* SIG \*\* JqrmN7WMpmYPxVLOmMPPrRng8IrsnaVXQNdb3Uxx1fSUS  
\*\* SIG \*\* FvFVBsk6oPsjE9XugPlsi4c17xX/gXA0iS3kcsrlczJF  
\*\* SIG \*\* WeKzZCD+d3pc3dpePYiIB37EYmtIySMer5Q5fWK4Jvfg  
\*\* SIG \*\* lQer6t9GN6kvnGOH6lOZ+9sXU79m15htXIFW0BPa6DZF  
\*\* SIG \*\* uhWM8+WhggF/MIIBewYJKoZIhvcNAQkGMYIBbDCCAWgC  
\*\* SIG \*\* AQEWZzBTMQswCQYDVQGEwJVUzEXMBUGA1UEChMOVmVy  
\*\* SIG \*\* aVNpZ24sIEluYy4xKzApBgNVBAMTIlZlcmlTaWduIFRp  
\*\* SIG \*\* bWUGU3RhbXBpbmcgU2Vydm1jZXMGQ0ECEDgl1/r4Ya+e  
\*\* SIG \*\* 9JDnJrXWWtUwCQYFKw4DAhOFAKBdMBgGCSqGSIB3DQEJ  
\*\* SIG \*\* AzELBgkqhkiG9w0BBwEwHAYJKoZIhvcNAQkFMQ8XDTA5

---

```
** SIG ** MDQxNDE5MjQwMlowIwYJKoZIhvcNAQkEMRYEFCOG2dNT
** SIG ** Aa310tLNkxv16uG975SzMA0GCSqGSib3DQEBAQUABIGA
** SIG ** JECIEIx47wDMxVM+UFte7jXGQRr5G18+5MK7bUZ/biFI
** SIG ** 7MViDLrZfmb4sTtloVhh4QQJRkYLGn+z4IgFRDp4Q6u3
** SIG ** FIuNDPWVgB1BprAjwztJaWeqklN+j301Guavu4rzt2g4
** SIG ** tmDvS2NSaVmdGmgYUUVz8hLNHIpio/hICub3RXA=
</signature>
</package>
```

#### Capture BIOS Settings:

```
<package>
<job id="main">
<comment>
```

```
-----
EnumSettings.wsf
Last modified: 10-06-2005
```

A Windows Scripting Host example to read BIOS setting information from the HP Client Management Interface.

Copyright (c) 2005, Hewlett-Packard Development Company

```
-----
</comment>
<runtime>
  <description>
Description:

    This script example is designed to retrieve BIOS setting detail
    from the HP Client Management Interface.
  </description>
  <named
    name = "setting"
    helpstring = "A specific setting to query for, otherwise all settings
                  are returned. If a particular setting contains spaces, be sure
                  to enclose the entire argument in quotation marks."
    type = "string"
    required = "false"
  />
  <unnamed
    name = "computers"
    helpstring = "An optional list of computers to query specified by name
                  or IP address, otherwise the local system is used. The dot
                  nomenclature can also be used to include the local computer in
                  the computer list."
    many = "true"
    required = "false"
  />
  <example>
Example:

    cscript EnumSettings.wsf "/setting:Boot Order" . remotel remote2
  </example>
</runtime>
```

---

```

<script language="VBScript">

On Error Resume Next

'Write version string
strScriptName = "EnumSettings.wsf"
strVersion = "1.0.0.1"
strCopyright = "Copyright (c) 2007, 2008 Hewlett-Packard Development Company"
WScript.Echo strScriptName & " Version " & strVersion & vbNewLine &
strCopyright & vbNewLine

' The following flags values useful in changing the behavior
' of WMI functions, such as instance enumeration.
Const wbemFlagReturnImmediately = 16
Const wbemFlagForwardOnly = 32

' Determine the type of query we will be performing. This will
' either be a query for all settings, or for a setting specified
' via the command line.
Dim strQuery

If WScript.Arguments.Named.Exists("setting") Then
    strQuery = "SELECT * FROM HP_BIOSSetting WHERE Name=""" & _
        WScript.Arguments.Named("setting") & """"
Else
    strQuery = "SELECT * FROM HP_BIOSSetting"
End If

' Determine the list of computers to process
Dim argsUnnamed, strComputer
Set argsUnnamed = WScript.Arguments.Unnamed

If argsUnnamed.Count > 0 Then
    Set arrComputers = argsUnnamed

    ' Once we have identified our query string
    ' and list of computer systems, we can iterate
    ' through that list and display setting
    ' information.
    For Each strComputer In argsUnnamed

        Call EnumSettings(strComputer, strQuery)

    Next
Else
    Call EnumSettings(".", strQuery)
End If

' -----
' This subroutine does all the work
' of enumerating the settings for
' a given computer and WQL query.
Sub EnumSettings(ByVal strComputerName, _

```



---

```

        ByVal strQueryString)

On Error Resume Next

' Set the WMI connection strings.
strService = "winmgmts:{impersonationlevel=impersonate}//"
strNamespace = "/root/HP/InstrumentedBIOS"

Dim StartTime, EndTime, LoopCount

LoopCount = 0
Do
    ' Connect to our namespace.
    Set objWMIService = GetObject(strService & _
                                   strComputerName & _
                                   strNamespace)

    If Err.Number = 0 Then
        Exit Do
    End If

    ' If we did not connect to WMI, the service could
    ' still be initializing. Wait five seconds and
    ' reattempt the connection.
    ' This issue happens under Windows PE.
    ' In WinPE, WMI takes about 30 secs to initialize, the first time it
runs.
    ' Also Timer function is not supported in WinPE
    ' Tried other delay methods, but found below to be best though lame

    StartTime = 1000000 ' About 1 sec delay
    Do
        StartTime = StartTime - 1
    Loop Until StartTime = 0

    LoopCount = LoopCount + 1
    WScript.Echo "Waiting... " & LoopCount
Loop Until LoopCount = 5 ' Enough time for WMI to get initialized

Call CheckWMI()

lFlags = wbemFlagForwardOnly + wbemFlagReturnImmediately

WScript.Echo vbCr & "====="
WScript.Echo "Computer: " & strComputerName
WScript.Echo "====="

Set colItems = objWMIService.ExecQuery(strQueryString,,lFlags)
Call CheckWMI()

For Each objItem In colItems
    WScript.Echo objItem.Name & " = " & objItem.Value
Next

End Sub

```

---

---

```

' -----
' This subroutine will display detailed information
' in the event WMI generates an error.
Sub CheckWMI()

    Dim errWMI
    Dim n
    If Err.Number <> 0 then
        errWMI = CreateObject("WbemScripting.SWbemLastError")

        If errWMI <> Nothing then

            n=MsgBox("An error has occurred while attempting to access WMI." & _
                vbCr & vbCr & "Provider Name: " & vbTab & errWMI.ProviderName & _
                vbCr & "Error: " & vbTab & "0x" & Hex(Err.Number) & _
                vbCr & "Description: " & vbTab & errWMI.Description & _
                vbCr & "Operation: " & vbTab & errWMI.Operation & _
                vbCr & "Parameters: " & vbTab & errWMI.ParameterInfo, _
                vbExclamation, "HP Client Management Interface Example")
        Else

            n=MsgBox("An error has occurred while attempting to access WMI." & _
                vbCr & "Error: " & vbTab & "0x" & Hex(Err.Number) & _
                vbCr & "Description: " & vbTab & err.Description & _
                vbExclamation, "HP Client Management Interface Example")

        End if

        Err.Clear
        WScript.Quit
    End if

End sub
</script>
</job>
<signature>
** SIG ** MIIWJAYJKoZIhvcNAQcCoIIWFTCCFhECAQExCzAJBgUr
** SIG ** DgMCGgUAMGcGCisGAQQBgjcCAQSGWTBXMDIGCisGAQQB
** SIG ** gjcCAR4wJAIBAQQQcAVhGs441BGiowAQS9NQkAIBAAIB
** SIG ** AAIBAAIBAAIBADAhMAkGBSsOAwIaBQAQEFB3BuuVOxzvo
** SIG ** kkdPd7dTJKJywf1ooIIRqjCCA3owggJioAMCAQICEDgl
** SIG ** 1/r4Ya+e9JDnJrXWWtUwDQYJKoZIhvcNAQEFBQAuUzEL
** SIG ** MAkGA1UEBhMCVVMxZzFzAVBgNVBAoTDlZlcmlTaWduLCBJ
** SIG ** bmMuMSswKQYDVQQDEyJWZXJpU2lnbiBUaW1lIFN0YW1w
** SIG ** aW5nIFNlcnZpY2VzIENBMB4XDTA3MDYxNTAwMDAwMFoX
** SIG ** DTEyMDYxNDIzNTk1OVowXDELMAkGA1UEBhMCVVMxZzFzAV
** SIG ** BgNVBAoTDlZlcmlTaWduLCBJbmMuMTQwMgYDVQQDEytW
** SIG ** ZXJpU2lnbiBUaW1lIFN0YW1wZW5nIFNlcnZpY2VzIFNp
** SIG ** Z25lcjAtIEcyMIGfMA0GCSqGSIb3DQEBAQUAA4GNADCB
** SIG ** iQKBgQDEtJfJSFbyIhmApFkpbL0uRa4eR8zVUWDXq0TZe
** SIG ** Yk1SUTRxnwtmHYnI3SrEagr2N9mYdJH2kq6wtXaW8a1K
** SIG ** Y0VHlmsLkk5LK4zuWEqL1AfkGiz4gqPY2c1C8y3Add6N
** SIG ** q8eOHZpsTAiVHt7b72fhcsJJwp5gPOHivhajY3hpFHut
** SIG ** LQIDAQABo4HEMIHBMdQGCCsGAQUFBwEBBCgwJjAkBggr
** SIG ** BgEFBQcwAYYYaHR0cDovL29jc3AudmVyaXNpZ24uY29t
** SIG ** MAwGA1UdEwEB/wQCMAAwMwYDVR0fBCwwKjAooCagJIYi
** SIG ** aHR0cDovL2Nybc52ZXJpc2lnbi5jb20vdHNzLWNhLmNy

```

\*\* SIG \*\* bDAWBgNVHSubAf8EDDAKBggrBgEFBQcDCDAOBgNVHQ8B  
 \*\* SIG \*\* Af8EBAMCBsAwHgYDVR0RBBCwFaQTMbExDzANBgNVBAMT  
 \*\* SIG \*\* BlRTQTETmJANBgkqhkiG9w0BAQUFAAOCAQEAUMVLYCSA  
 \*\* SIG \*\* 3+QNJMLGrGhAqGmgi0MgxWBNwqCDiyWWhdhtdgF/ojb  
 \*\* SIG \*\* 8ZGRs1YaQKbrkr44ObB1NnQ6mE/kN7qZicqVQh2wuceg  
 \*\* SIG \*\* jVfg+tVkBEI1TgHRM6IXyE2qJ8fy4YZMAjhNg3jG/FPg  
 \*\* SIG \*\* 6+AGh92klp5eDJjipb6/goXDYOHfrSjYx6VLZNRHGlu9  
 \*\* SIG \*\* rDkI1TgioTOLL4qa67WHIT9EQQkHtWUcJLxI00SA66HP  
 \*\* SIG \*\* yQK0FM9UxxajgFz5eT5dcn2IF54sQ6LKU859PfYqOrhP  
 \*\* SIG \*\* lAC1bQqDXfleU/QYs1cPcMP79a2VoA4X3sQWgGDJDYtu  
 \*\* SIG \*\* hgTx6/R4J9EFxe40W165STLyMzCCA8QwggMtoAMCAQIC  
 \*\* SIG \*\* EEe/GZXfjVJGQ/fbbUgNMaQwDQYJKoZIhvcNAQEFBQAw  
 \*\* SIG \*\* gYsxCzAJBgNVBAYTAlpBMRUwEwYDVQQIEwxXZXN0ZXJu  
 \*\* SIG \*\* IENhcGUxWDASBgNVBACTC0R1cmJhbnZpbGxlMQ8wDQYD  
 \*\* SIG \*\* VQKKEwZUaGF3dGUxHTAbBgNVBAsTFFRoYXN0ZSBZDZXJ0  
 \*\* SIG \*\* aWZpY2F0aW9uMR8wHQYDVQDExZUaGF3dGUgVGltZXN0  
 \*\* SIG \*\* YW1waW5nIENBMB4XDTAzMTIwNDAwMDAwMFOXDTEzMTIw  
 \*\* SIG \*\* MzIzNTk1OVowUzELMAkGA1UEBhMCVVMxZzAVBgNVBAoT  
 \*\* SIG \*\* DlZlcm1TaWduLCBjbmuMSswKQYDVQDEyJWZlcnVU2ln  
 \*\* SIG \*\* biBUaW1lIFN0YW1waW5nIFNlcnZpY2VzIENBMTIIBIjAN  
 \*\* SIG \*\* BgkqhkiG9w0BAQEFAAOCAQ8AMIIBCgKCAQEAqcqypMzN  
 \*\* SIG \*\* IK8KfYmsh3XwtE7x38EPv2dhvAnkHNq7+cozq4QwiVh+  
 \*\* SIG \*\* jNtr3Taed7/R7Hjyd6Z+bzy/k68Numj0bJTKvVItq0g9  
 \*\* SIG \*\* 9bbVXV8bAp/6L2sepPejmqYayALhf0xS4w5g7EAcfrkN  
 \*\* SIG \*\* 3j/HtN+HvV96ajEuA5mBE6hHIM4xcw1XLc14NDOVEpkS  
 \*\* SIG \*\* ud5oL6rm48KKjCrDiyGHZr2DWFdvdb88qiaHXcoQFTyf  
 \*\* SIG \*\* hOpUwQpuxP7Fst25BxGXInzbPifRHnjsnzHJ8eYiGdvE  
 \*\* SIG \*\* s0dDmhpfoB6Q5F717nzzxfatiAY/1TQve0CJWqJXNroh2  
 \*\* SIG \*\* ru66DfPkTdmg+2igrhQ7s4fBuWIDAQABo4HbMIHYMDQG  
 \*\* SIG \*\* CCsGAQUFBwEBBCgwJjAkBggrBgEFBQcwAYYYaHR0cDov  
 \*\* SIG \*\* L29jc3AudmVyaXNpZ24uY29tMBIGA1UdEwEB/wQIMAYB  
 \*\* SIG \*\* Af8CAQAwQQYDVDR0fBDowODA2oDSgMoYwaHR0cDovL2Ny  
 \*\* SIG \*\* bc52ZXJpc2lnbi5jb20vVGhhd3RlVGltZXN0YW1waW5n  
 \*\* SIG \*\* Q0EuY3JsMBMGA1UdJQOMMAoGCCsGAQUFBwMIMA4GA1Ud  
 \*\* SIG \*\* DwEB/wQEAwIBBjAkBgNVHREHTAbPbkwFzEVMBMGA1UE  
 \*\* SIG \*\* AxMMVFNBmJA0OC0xLTUzMA0GCSqGSIb3DQEBBQUAA4GB  
 \*\* SIG \*\* AEpr+epYwkQcMYl5mSuWv4KsAdYcTM2wilhu3wgp017I  
 \*\* SIG \*\* ypMT5wRSDe9HJy8AOLDkyZNomtQiYhX3PzchT3AxpPGL  
 \*\* SIG \*\* OIez6OiXAP7PVZZOJNKpJ056rrdhQfMqzufJ2V7duyuF  
 \*\* SIG \*\* PrWdtDnhV/++tMV+9c8MnvCX/ivTO1IbGzgn9z9KMIIE  
 \*\* SIG \*\* vzCCBCigAwIBAgIQQZGhWjl4389JZWY4HUx1wjANBgkq  
 \*\* SIG \*\* hkiG9w0BAQUFAADBFMQswCQYDVQQGEwJVUzEXMBUGA1UE  
 \*\* SIG \*\* ChMOVmVyaVNpZ24sIEluYy4xNzA1BgNVBAsTLkNsYXNz  
 \*\* SIG \*\* IDMgUHVibGljIFByaW1hcnkgQ2VydGlmaWNhdGlvbBiBB  
 \*\* SIG \*\* dXRob3JpdHkwHhcNMDQwNzE2MDAwMDAwWhcNMTQwNzE1  
 \*\* SIG \*\* MjM1OTU5WjCBtDELMAkGA1UEBhMCVVMxZzAVBgNVBAoT  
 \*\* SIG \*\* DlZlcm1TaWduLCBjbmuMR8wHQYDVQQLExZWZlcnVU2ln  
 \*\* SIG \*\* biBUcnVzdCB0ZXN0Z3R1MTswOQYDVQQLExJUZlcnVU2ln  
 \*\* SIG \*\* ZiB1c2UgYXQgaHR0cHM6Ly93d3cudmVyaXNpZ24uY29t  
 \*\* SIG \*\* L3JwYSAoYykwNDEuMCwGA1UEAxMlVmVyaVNpZ24gQ2xh  
 \*\* SIG \*\* c3MgMyBDb2RlIFNpZ25pbmcgMjAwNCBDQTCCASiWdQYJ  
 \*\* SIG \*\* KoZIhvcNAQEBBQADggEPADCCAQoCggEBAL687rx+74Pr  
 \*\* SIG \*\* 4DdP+wMQOL4I0ox9nfqSfxkMwmvuQlKM3tMcSBM16sFj  
 \*\* SIG \*\* evlRZe7Tqjv18JScK/vyZtQk2vf1n24ZOTa80KN2CB4i  
 \*\* SIG \*\* JyRsOJEn4oRJrhuKof0lgiwQMOhxqyjod0pR8ezN+PBU  
 \*\* SIG \*\* 1G/A420Kj9nYZI1jsi10J/aFDv5t4ymZ4oVHfC2Gf+hX  
 \*\* SIG \*\* j61nwjMykRMg/KkjFJptwoRLdmgE1XESXSH6ia0m/R8t

```
** SIG ** kSvnAVVN8m0lKILf2WtcttbZqoH9X82DumOd0CL8qtTc
** SIG ** abKOOrW8tJ4PXstQlIKLKP1TCjBdtQEg0fmlGOFA7lFw
** SIG ** N+G2BUhSSG846sPobHtEhLsCAWEAAaOCAAwggGcMBIG
** SIG ** A1UdEWEB/wQIMAYBAf8CAQAwwRAYDVR0gBD0wOzA5Bgtg
** SIG ** hkgBhvHFAQCxAZAqMCgGCCsGAQUFBwIBFhxodHRwcZov
** SIG ** L3d3dy52ZXJpc2lnbi5jb20vcnBhMDEGA1UdHwQqMCgw
** SIG ** JqAKoCKGIgh0dHA6Ly9jcmlwdudmVyaXNpZ24uY29tL3Bj
** SIG ** YTMuY3JsMB0GA1UdJQQWMBQGCCCsGAQUFBwMCBggrBgEF
** SIG ** BQcDAzaOBgNVHQ8BAf8EBAMCAQYWEEYJYIZIAYb4QgEB
** SIG ** BAQDAgABMcKGA1UdEQQiMCCkHjAcMR0wGAYDVQQDExF
** SIG ** bGFzc2NDQTiWNdgTMS00MzAdBgNVHQ4EFgQUCPVR6Pv
** SIG ** Pt1kNnxoz1t4qn+5xTCwgYAGA1UdIWR5MHEHY6RhMF8x
** SIG ** CzAJBgNVBAYTA1VTMRcwFQYDVQKEw5WZSJpU2lnbiw
** SIG ** SW5jLjE3MDUGA1UECxCmuQ2xhc3MgMyQwZDQwJSawWMGUHJp
** SIG ** bWFYeSBdZXJ0aWZpY2F0aW9uIEFlldGhvcml0eYlQcLrk
** SIG ** HRDZKTS2OMP7A8y6vzANBgkqhkiG9w0BAQUFAAOBGQCu
** SIG ** Ohe4SntV+mRV7EcK7UlBkJmcibyvLh3KeCP5HBkPf+to
** SIG ** vDLZidje3D/TibQ/sYKW8aRauu0uJtPefAFuAAoApAaS
** SIG ** EUgJQPkcGHlnIyTgu9XhUK4b9Q7d4C6BzYCjbfJPkXVV
** SIG ** iroi8tLqQXWIL2NVfr5UWPvZYtk0gcBfxvZ6tTCCBZ0w
** SIG ** ggSFoAMCAQICEAiZRTH98bLruMeCG/ZQ/c8wdQYJKoZI
** SIG ** hvCNAQEFBQAwwgbQxCzAJBgNVBAYTA1VTMRcwFQYDVQQK
** SIG ** Ew5WZXSjpU2lnbiwgSW5jLjEfMB0GA1UECxMMWVmVyaVNp
** SIG ** Z24gVHJlc3QgTmV0d29yazE7MDkGA1UECxMyVGVybmXMg
** SIG ** b2YgdXNlIGF0IGH0dHBzOi8vd3d3LnZlcmlzaWduLmNv
** SIG ** bs9ycGEgKGPMdQ9kLSBTAwduaVNBANIDImWDQgQ0EWHcnMDgx
** SIG ** YXNzIDMGQ29kZSBTAwduaVNBANIDImWDQgQ0EWHcnMDgx
** SIG ** MjE4MDAwMDAwWhcnMTExMjE4MjMOTU5WjCB3DELMAKg
** SIG ** A1UEBHMCVVMxEzARBgNVBAgTCkNhbgGlb3JuaWEExejAQ
** SIG ** BgNVBAcTCVBhbG8gQWx0bzEgMB4GA1UEChQXSGV3bGV0
** SIG ** dClQYWNrYXJkIENvbXBhbnkxPjA8BgNVBAS TNURpZ2l0
** SIG ** YWwgSUQgQ2xhc3MgMyAtIElpY3Jvc29mdCBTb2Z0d2Fy
** SIG ** ZSBWYXxpZGF0aW9uIHYYMSAwHgYDVQQFLBdIXXdsZXRO
** SIG ** LVbhY2thcmQgQ29tcGFueTEgMB4GA1UEAxQXSGV3bGV0
** SIG ** dClQYWNrYXJkIENvbXBhbnkwggEiMA0GCsqsGSIB3DQEB
** SIG ** AQUAAAIBDWAwwgEKAoIBAQC8nUFYV0fo9fehxaW7Q93J
** SIG ** 19ElwSVDTGsJvNjtMMNjyIMMoAZyJPoc+oboHp46tlN
** SIG ** 7RksPHYUnxCHWA8AM52Ex5rZqLW9p0dRJBT3TjfsJKOR/
** SIG ** pT3j+oPLiGNQSL1YMzedJKRNbcrfJr0dLe8Uv9NJcJPB
** SIG ** 2XLVXI15NZ3Jg/sketlp6APiMFQe2KYQlbdmxcp2jmQw
** SIG ** y/Ef10ax+alm4GY4JC5TpxDRg4LrCLX72KUs66DN2she
** SIG ** KtiXoDaYA7/lISVB7xjfkwQAnRLGRS9du/T7k74dUq3
** SIG ** iPQgsa7KQ086/TXHITpiqwff9BTmc4B45/8mts6VEOLr
** SIG ** DaeX0lUY5jwTAGMBAAGjggF/MIIBezAJBgNVHRMEAjAA
** SIG ** MA4GA1UdDwEB/wQEAwIHGDABAgNVHR8EOTA3MDWGm6AX
** SIG ** hi9odHRWOi8vQ1NDMy0ymDA0LWNybC52ZXJpc2lnbi5j
** SIG ** b20vQ1NDMy0ymDA0LmNybdBEbGnvHSAEPTA7MDkGC2CG
** SIG ** SAGG+EUBBxcDMCowKAIKwYBBQUHAgEWHGH0dHBzOi8v
** SIG ** d3d3LnZlcmlzaWduLmNvbS9ycGEwEwYDVROlBAwwCgYI
** SIG ** KwYBBQUHAwwMdwQYIKwYBBQUHAQEEdTBnMCQGCCsGAQUF
** SIG ** BzABhhhodHRWOi8vb2Nzc52ZXJpc2lnbi5jb20wPwYI
** SIG ** KwYBBQUHMAKGM2h0dHA6Ly9DU0MzLTiWMDQtYWIhLnZl
** SIG ** cmlzaWduLmNvbS9DU0MzLTiWMDQtYWIhLmNlcjAfBgNV
** SIG ** HSMEDGAWQBQI9VHo+/49PWQ2fgjPW3io37nfNzARBgly
** SIG ** hkgBhvHFAQEABAMCBBAQFYKKwYBBAGCNiBwGQIMAYB
** SIG ** AQABAf8wDQYJKoZIhvcNAQEFBQADggEBAJfRWj9lIVT8
** SIG ** 5Ka9tBcSz1xqGMTzqJ1TGrofeZiLS2KTAvwnBb8/L9F
```

---

```

** SIG ** 7fdBZ0UghKTLmQaIC84497xNec8TguQV5+uRrGFc9mJN
** SIG ** 5EMg+EONrTNCsbk4N1bX9XO7XbUSGA09fSs5x7lClAph
** SIG ** rG+NYNoRdGNwvKmoStCl9M5+rG/lbOEHBnSwebCK6Bui
** SIG ** nH14p7ye8lrUEGP79eLlWhTI9wtJZ8CGtN2/bapDzMvQ
** SIG ** 2nkJ0ls7Yp6LKCoqcPpymxZTJYB4ITx50hX59JRyuu4n
** SIG ** FsamlIhFMpWOGECvJ0gAK339fiRyzJR5IISo/ooLVizN
** SIG ** hevWSFRDOvybbj6SCAiOqqkxggPmMIID4gIBATCBYTCB
** SIG ** tDELMaKGA1UEBhMCVVMxVzAVBgNVBAoTDlZlcm1TaWdu
** SIG ** LCBJbmMuMR8wHQYDVQQLExZWZXXJpU2lnbiBUcnVzdCBO
** SIG ** ZXR3b3JrMTswOQYDVQQLExJUZXXJtcyBvZiB1c2UgYXQg
** SIG ** aHR0cHM6Ly93d3cudmVyaXNpZ24uY29tL3JwYSAoYykw
** SIG ** NDEuMCwGA1UEAxMlVmVyaVNpZ24gQ2xhc3MgMyBDb2Rl
** SIG ** IFNpZ25pbmcgMjAwNCBDQCIQCIJFMf3xsuu4x4Ib9lD9
** SIG ** zzAJBgUrDgMCGGUAAoHAAEAYKKwYBBAGCNwIBDDECMAAw
** SIG ** GQYJKoZIhvcNAQkDMQwGCisGAQQBgjcCAQQwHAYKKwYB
** SIG ** BAGCNwIBCzEOMAwGCisGAQQBgjcCARUwIwYJKoZIhvcN
** SIG ** AQkEMRYEFC04JeHoCg+u07mILanYPHdpt8q1MA0GCSqG
** SIG ** SIb3DQEBAQUABIIBACJdSmwqBspDohwME7D5uTvJhGC
** SIG ** yNXopFGx4rtmFOsgx9Dcf9/uhCz33m4bJCY1EUQy3MDT
** SIG ** w99gshpb+qEYO2oCCLstIJYKTh4wb+tbOZfxot6KJBot
** SIG ** 74mMH3oYAOSjz8a5n6We2b2iwnj0VyXv21LajTGe4YM2
** SIG ** bBxGcx7st8uabJNkTBec17umQazV+EIEeJvx76bfzcVS
** SIG ** itrQuyNmVmBMoAlInnhTw2vyvr59aALl/7Wh3sUrn/Xs
** SIG ** 3Ctr/IF82WygrrSmsLxFKLt+X/niTUBGF7GO+LEt/rsB
** SIG ** v7GCP3eKT3u4It22JqyTTHFTpvnddmrkb3Rhvf3/19eL
** SIG ** oMH7v1ehggF/MIIBewYJKoZIhvcNAQkGMYIBbDCCAWGc
** SIG ** AQEwZzBTMQswCQYDVQGEwJVUzEXMBUGA1UEChMOVmVy
** SIG ** aVNpZ24sIEluYy4xKzApBgNVBAMTIlZlcm1TaWduIFRp
** SIG ** bWUgU3RhbnBpYmMgU2VydmljZXMGQ0ECEDgl1/r4Ya+e
** SIG ** 9JdnJrXWWtUwCQYFKw4DAhoFAKBdMBGCSqGSIB3DQEJ
** SIG ** AzELBgkqhkiG9w0BBwEwHAYJKoZIhvcNAQkFMQ8XDTA5
** SIG ** MDQxNDE5MjYxNFowIwYJKoZIhvcNAQkEMRYEFE5OsZNQ
** SIG ** RgVHrwTIOFPL8y3RhqPYMA0GCSqGSIB3DQEBAQUABIGA
** SIG ** dIAcuRAPqwCk6/iSUEJ8mSsnvpcoq0lrkGRxRrWCCwa
** SIG ** WUZKBPdViq4EDZCgs8uEmRZBz2+F6NewTiHoMKgWs1M
** SIG ** nZMk101+llyXDTKBfQbvqOe8MPsiP4WDr/fP/9KPFove
** SIG ** yIm2v/PDrhg4G5oZRviEBCri/IyKWnr0dm+2BgY=
</signature>
</package>

```

### Reset All BIOS Settings to Default:

```

Const wbemFlagReturnImmediately = 16
Const wbemFlagForwardOnly = 32
lFlags = wbemFlagReturnImmediately + wbemFlagForwardOnly
strService = "winmgmts:{impersonationlevel=impersonate}://"
strComputer = "."
strNamespace = "/root/HP/InstrumentedBIOS"
strQuery = "select * from HP_BIOSSettingInterface"
Set objWMIService = GetObject(strService & _
strComputer & strNamespace)
Set colItems = objWMIService.ExecQuery(strQuery,,lFlags)
For each objItem in colItems
objItem.SetSystemDefaults oReturn, "<kbd/>1E302E020304"
Next
Dim strReturn
Select Case oReturn
Case 0 strReturn = "Success"

```

---

```

Case 1 strReturn = "Not Supported"
Case 2 strReturn = "Unspecified Error"
Case 3 strReturn = "Timeout"
Case 4 strReturn = "Failed"
Case 5 strReturn = "Invalid Parameter"
Case 6 strReturn = "Access Denied"
Case Else strReturn = "..."
End Select
WScript.Echo "SetSystemDefaults() returned: (" & oReturn _
    & ") " & strReturn

```

#### **Monitor System Health Events:**

```

on error resume next
strService = "winmgmts:\""
strComputer = "."
strNamespace = "\root\WMI"
strQuery = "select * from HPBIOS_BIOSEvent"
set objWMIService = GetObject( strService & strComputer _
    & strNamespace )
set events = objWMIService.ExecNotificationQuery( strQuery )
if err <> 0 then
WScript.Echo Err.Description, Err.Number, Err.Source
end if
WScript.Echo "Waiting for CMI Events..."
WScript.Echo "Press Ctrl-C to exit."
WScript.Echo ""
Dim strCategory
Dim strSeverity
Dim strStatus
Counter = 1
do
' Note this next call will wait indefinitely.
set CMIEvent = events.nextevent
if err <> 0 then
WScript.Echo Err.Number, Err.Description, Err.Source
Exit Do
else
Select Case CMIEvent.category
Case 0 strCategory = "Unknown"
Case 1 strCategory = "Configuration Change"
Case 2 strCategory = "Button Pressed"
Case 3 strCategory = "Sensor"
Case 4 strCategory = "BIOS Settings"
Case Else strCategory = "..."
End Select
Select Case CMIEvent.severity
Case 0 strSeverity = "Unknown"
Case 5 strSeverity = "OK"
Case 10 strSeverity = "Degraded/Warning"
Case 15 strSeverity = "Minor Failure"
Case 20 strSeverity = "Major Failure"
Case 25 strSeverity = "Critical Failure"
Case 30 strSeverity = "Non-recoverable Error"
Case Else strSeverity = "..."
End Select
Select Case CMIEvent.status

```

---

```

Case 0 strStatus = "Unknown"
Case 1 strStatus = "Other"
Case 2 strStatus = "OK"
Case 3 strStatus = "Degraded"
Case 4 strStatus = "Stressed"
Case 5 strStatus = "Predictive Failure"
Case 6 strStatus = "Error"
Case 7 strStatus = "Non-Recoverable Error"
Case 8 strStatus = "Starting"
Case 9 strStatus = "Stopping"
Case 10 strStatus = "Stopped"
Case 11 strStatus = "In Service"
Case 12 strStatus = "No Contact"
Case 13 strStatus = "Lost Communication"
Case 14 strStatus = "Aborted"
Case 15 strStatus = "Dormant"
Case 16 strStatus = "Supporting Entity in Error"
Case 17 strStatus = "Completed"
Case 18 strStatus = "Power Mode"
Case Else strStatus = "..."
End Select
Wscript.Echo "Event received... Count: " & Counter
Wscript.Echo vbTab & "Name:" & vbTab & vbTab _
& CMIEvent.name
Wscript.Echo vbTab & "Description:" & vbTab _
& CMIEvent.description
Wscript.Echo vbTab & "Category:" & vbTab & strCategory
Wscript.Echo vbTab & "Severity:" & vbTab & strSeverity
Wscript.Echo vbTab & "Status:" & vbTab & vbTab _
& strStatus
Counter = Counter + 1
end if

    loop

```

#### Custom BIOS Sensor Setting Script for reporting to Symantec Management Platform:

```

'Create instance of Altiris NSE component
dim nse
set nse = WScript.CreateObject ("Altiris.AeXNSEvent")

' Set the header data of the NSE
' Please don't modify this GUID
nse.To = "{1592B913-72F3-4C36-91D2-D4EDA21D2F96}"
nse.Priority = 1

'Create Inventory data block. Here assumption is that the data class with
below guid is already configured on server
dim objDCInstance
set objDCInstance = nse.AddDataClass ("{d7b3abcc-97a1-4bae-a94b-
47aaceae02b4}")

dim objDataClass
set objDataClass = nse.AddDataBlock (objDCInstance)

'Add a new row
dim objDataRow

```

---

```

set objDataRow = objDataClass.AddRow

' Set the WMI connection strings.
strService = "winmgmts:{impersonationlevel=impersonate}//"
strNamespace = "/root/HP/InstrumentedBIOS"
strComputerName = "."

Dim StartTime, EndTime, LoopCount

' Connect to our namespace.
Set objWMIService = GetObject(strService & _
                              strComputerName & _
                              strNamespace)

If Err.Number <> 0 Then
    WScript.Echo "Error connecting to WMI"
    WScript.Quit
End If

lFlags = wbemFlagForwardOnly + wbemFlagReturnImmediately

'objLogFile.WriteLine vbCr & "=====
'objLogFile.WriteLine "Computer: " & strComputerName
'objLogFile.WriteLine "=====
Set colItems = objWMIService.ExecQuery("SELECT * FROM
HP_BIOSNumericSensor",,lFlags)

Dim s
For Each objItem In colItems

    If Trim(objItem.Name) <> "" Then

        Select Case objItem.BaseUnits
            Case 1 s = "(Other)"
            Case 2 s = "(Degrees C)"
            Case 19 s = "(RPM)"
            Case Else s = "(!undefined!)"
        End Select

        'objLogFile.WriteLine objItem.Name & " = " & objItem.CurrentState & "
        = " & objItem.CurrentReading & s

        Select Case objItem.Name
            Case "CPU Fan Speed" objDataRow.SetField 0, objItem.CurrentState
            & " = " & objItem.CurrentReading & s
            Case "Front Chassis Fan Speed" objDataRow.SetField 1,
            objItem.CurrentState & " = " & objItem.CurrentReading & s
            Case "Rear Chassis Fan Speed" objDataRow.SetField 2,
            objItem.CurrentState & " = " & objItem.CurrentReading & s
            Case "Power Supply Fan Speed" objDataRow.SetField 3,
            objItem.CurrentState & " = " & objItem.CurrentReading & s
            Case "CPU Thermal Index" objDataRow.SetField 4,
            objItem.CurrentState & " = " & objItem.CurrentReading & s

```



---

```
        Case "Chassis Thermal Index" objDataRow.SetField 5,  
objItem.CurrentState & " = " & objItem.CurrentReading & s  
        End Select  
    End If  
Next  
  
nse.SendQueued
```