Warranty Information Reporting
WIR v3.5

Introduction to Warranty Information Reporting

Warranty Information Reporting (WIR) works with Microsoft® System Center Configuration Manager Current Branch (CMCB), Microsoft® System Center 2012 R2 Configuration Manager (CM12 R2), Microsoft® System Center 2012 Configuration Manager (CM12), Microsoft® System Center Configuration Manager 2007 R3 (CM07 R3), Microsoft® System Center Configuration Manager 2007 R2 (CM07 R2), and all of their related service packs. **Unless specifically mentioned within this document, the following information relates to all versions of Configuration Manager.**

Configuration Manager collects significant amounts of information; however, it does not provide you with reports about your PC (desktop, laptop, notebook and server) warranties. Besides WIR, there are no other tools available in the current marketplace to easily and accurately determine the warranty expiry date for multiple PC manufacturers on the network.

WIR provides you with the tools to run useful, easy-to-read SQL Server Reporting Services (SSRS) reports. There is even a handy Power BI dashboard which displays much of the information found in the other SSRS reports all in one place.

If you need quick answers to the following questions:

- What is the age of our PCs?
- How many PCs are out of warranty?
- How many of a certain type of PC do we have?
- How many PC warranties are within a particular range?

WIR will provide you with this necessary information all at the click of a mouse.

Our Power BI dashboard and SSRS reports use the data collected by WIR and Configuration Manager which is stored in the Configuration Manager database. Many of WIR's "Count" SSRS reports will also give you the ability to drill through to secondary reports for additional detailed information.

WIR produced reports are interactive, and our SSRS reports can be exported to CSV, Excel, PDF, TIFF, Web Archive, and XML file formats. They are also pre-sized, so they can be printed easily on standard-sized paper.

Take control of your IT asset inventory.

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Using Warranty Information Reporting - WIR

Install Overview

The following sections provide an overview of the minimum requirements and special details that are required in order to install WIR. If you have any questions, please contact our support team, Support@Enhansoft.com.

Site Server - Minimum Requirements

- WIR requires .NET 4.0 or higher.
- System Center Configuration Manager Current Branch.
- System Center 2012 R2/2012 Configuration Manager.
- System Center Configuration Manager 2007 R3/R2.

Client - Minimum Software Requirements

- Internet connection.
- WIR requires a supported Windows-based operating system (OS) with .Net 4.5 or higher for client applications in order to determine the warranty information for each computer. Supported OS are determined by the Microsoft Windows Lifecycle fact sheet. If you have questions, please contact Support@Enhansoft.com.

Client - Minimum Hardware Requirements

- The minimum hardware requirements are identical to those defined by Microsoft® System Center Configuration Manager. Apart from this minimum hardware requirement, there are no other additional requirements for WIR. If you have questions, please contact Support@Enhansoft.com.

Permissions - Minimum Requirements

In order to install WIR, the following permissions are required:

- Ability to create client device setting rights within System Center Configuration Manager Current Branch.
- Ability to create client device setting rights within System Center 2012 R2/2012 Configuration Manager.
- Ability to create report rights within SQL Server Reporting Services (SSRS).
- Ability to create stored procedures and functions within SQL.
- Ability to edit the sms_def.mof in System Center Configuration Manager 2007.

System Center Configuration Manager Current Branch with a CAS

When installing WIR on System Center Configuration Manager Current Branch (CMCB) with a Central Administration Server (CAS), please install WIR first on the CAS. If you have a requirement to install WIR on any of your primary sites, please install WIR with both the Hardware Inventory settings and the Create Reports option.

System Center 2012 R2/2012 Configuration Manager with a CAS

When installing WIR on System Center 2012 R2/2012 Configuration Manager (CM12 R2/CM12) with a Central Administration Server (CAS), please install WIR first on the CAS. If you have a requirement to install WIR on any of your primary sites, please install WIR with both the Hardware Inventory settings and the Create Reports option.

System Center Configuration Manager Current Branch Standalone Primary

There are no special instructions for CMCB as a standalone primary site, except for the minimum requirements previously mentioned.

System Center 2012 R2/2012 Configuration Manager Standalone Primary

There are no special instructions for CM12 R2/CM12 as a standalone primary site, except for the minimum requirements previously mentioned.

System Center Configuration Manager 2007

The installation is a two-step process with System Center Configuration Manager 2007 (CM07). For complete details, please reference the Install Procedure for System Center Configuration Manager 2007 section.

In summary, with the first step you will need to install WIR by only selecting the import Hardware Inventory settings option. Allow at least one client to inventory each report category before continuing. Once the inventory is returned to CM07, re-run the setup (C:\Program Files\Enhansoft\Warranty_Information_Reporting_v3.5\Setup\) and this time select, Create Reports. If you have any questions, please contact our support team, Support@Enhansoft.com.

Install Procedure – Configuration Manager CMCB/CM12 R2/CM12 Site Server

1) Ensure that the WIR Installer MSI is not blocked.

   a) Right click on the WIR setup file and choose **Properties**.

   b) Click **Unblock** (the unblock button will become greyed out). Click **OK**.

2) Place the setup file on the Configuration Manager **Site Server** or **CAS**. To install WIR, double-click on the **WIR Installer MSI**.

3) Click **Next**.

4) At the **License Agreement** screen select, **I accept the terms in the License Agreement**, and then click **Next**.

5) Specify the installation location. Click **Next**.

6) Click **Install**.

7) Click **Browse** to import your license key file and then click **Next**.

8) Click **Yes** to importing the license key.

9) Click **Next**.

10) Ensure that **Configure Hardware Inventory to Import WIR Settings**, **Create Package and Programs**, **Create SQL Stored Procedures**, and **Create Reports (SQL Server Reporting Services – SSRS)** are all selected. Proxy is optional. Click **Next**.

Note: The WIR setup has a checkbox to install non-RBA reports instead of the RBA versions for CM12 R2 and CMCB.

11) Ensure the reporting strings and SQL port are correct. Click **Next**.

12) Enter in the proxy details and click **Next**.

Note: This form will only be shown if the **Proxy Required** checkbox is selected in **Step #10**.

13) Once the setup is complete, you can optionally review the setup log file. **Note the log file's location** for future reference. Click **Finish**.

14) Lastly, click **Finish** to exit the Warranty Information Reporting v3.5 setup wizard.

Install Procedure – Configuration Manager 2007 Site Server

1) Ensure that the WIR Installer MSI is not blocked.

   a) Right click on the WIR setup file and choose **Properties**.

   b) Click **Unblock** (the unblock button will become greyed out). Click **OK**.

2) Place the setup file on the Configuration Manager **Site Server**. To install WIR, double-click on the **WIR Installer MSI**.

3) Click **Next**.

4) At the **License Agreement** screen select, **I accept the terms in the License Agreement**, and then click **Next**.

5) Specify the install location. Click **Next**.

6) Click **Install**.

7) Click **Browse** to import your license key file, then click **Next**.

8) Click **Yes** to importing the license key.

9) Click **Next**.

10) Ensure that **Update sms_def.mof** and **Create Package and Programs** are selected. Only select **Proxy Required** if a proxy server is in the environment. Click **Next**. Do **NOT** select Create SQL Stored Procedures or Create Reports (SQL Server Reporting Services – SSRS) at this time.

11) Enter in the proxy details and click **Next**.
Note: This form will only be shown if the **Proxy Required** checkbox is selected in the previous step.

12) Once the setup is complete, you can optionally review the setup log file. **Note the log file's location** for future reference. Click **Finish**.

13) Click **Finish** to exit the Warranty Information Reporting v3.5 setup wizard. **Next, you will need to deploy the WIR program to a computer**.

14) Once WIR is deployed to a computer (it normally takes a few minutes) open the Configuration Manager applet. Run a **Machine Policy Retrieval & Evaluation Cycle**. Leave the applet open.

15) Wait another 1-2 minutes and then run a **Hardware Inventory Cycle**. Click **OK** to close the applet.

16) Wait another 2-5 minutes for the inventoried data to populate the database. Within the CM07 console, open **Resource Explorer** in order to verify that the Enhansoft Warranty3 Summary class populated the database. If you are having doubts about this step, contact Support@Enhansoft.com for help.

17) Now that all of the inventory classes are populated, start the setup again.

Navigate to the installation folder (default location is: *C:\Program Files(x86)\Enhansoft\Warranty_Information_Reporting_v3.5\Setup)*.

Run the WIRv3Setup.exe with elevated rights. This time when you get to Step #10 make sure to select **Create Reports** (see the screenshot above) and deselect **Create Package and Programs.** Keep everything else as is. If you selected Proxy Required in Step #10, you do not have to select it again. Then, click **Next** and continue with Step #18.

18) Ensure the reporting string and SQL port are correct. Click **Next**.

19) Once the setup is complete, you can optionally review the setup log file. **Note the log file's location** for future reference. Click **Finish t**o exit the Warranty Information Reporting v3.5 setup wizard.

Initial Rollout

During the site server setup a Warranty Information Reporting (WIR) package, which includes two programs, is created. Before warranty data can be collected from your clients, this package must be deployed/advertised out through Configuration Manager. We recommend staggering the rollout to ensure that WIR does not overload any part of your network (routers, switch, firewall, internet, etc.), your ISP, or the manufacturer's website.

On-going Rollout

Once the major rollout is completed, we recommend setting-up a daily recurring deployment to inventory all new PCs as they are deployed within your environment without WIR data. Since the number of PCs joining the network on any given day is relatively small compared to the overall number of PCs, this advertisement should not overload the network or manufacturer's website. To help facilitate this task, use the WIR query (WIR_Query) that is created during the setup. For more details, please review the WIR Query section.

Network Issues

Occasionally, there may be network issues where no data is returned to WIR in a timely fashion. If this occurs, WIR will try up to 5 times and each retry will be logged before finally failing. If this occurs, WIR will return the default warranty detection method (BIOS date) and set the Data Source Check as 100 or greater. This will allow the computer to fall within the WIR query and therefore allow WIR to check its warranty details at a later date.

Supported Manufacturers

The following is a list of major manufacturers supported by WIR to collect warranty details. For a complete list of supported manufacturers contact Support@Enhansoft.com.

Acer	www.Acer.com
Alienware	www.Alienware.com
Apple[1]	www.Apple.com
Compaq[2]	www.Compaq.com
Dell	www.Dell.com
Gateway	www.Gateway.com
Fujitsu[3]	www.Fujitsu.com
Hewlett-Packard (HP)	www.HP.com
Hewlett-Packard Enterprise (HPE)	www.HPE.com
IBM	www.IBM.com
Lenovo	www.Lenovo.com
Microsoft	www.Microsoft.com/Surface
Panasonic	www.Panasonic.com
Toshiba	www.Toshiba.com

[1] Apple warranty data is only supported on Apple computers with Windows-based operating systems.
[2] Compaq desktops and laptops are part of HP. Compaq servers are part of HPE.
[3] Currently only Fujitsu servers and workstations are supported if a global warranty is attached to the computer.

WIR will also recognize virtual machines and label their data as the following:

Manufacturer	Hyper-v innotek GmbH – Virtualbox Parallels Software International Inc. VMWare Xen - HVM domU
Description	Not a Physical PC / Server

White Box

In general, white box is a term used to describe custom-built computer systems. These systems are usually built by a local computer store or by small computer manufacturers. In most cases there isn't a way to lookup PC warranty information for white boxes via the internet.

For white boxes and other small computer manufacturers, WIR will calculate the most likely hardware warranty start date for a computer by using a variety of methods.

Based on this data, WIR will then set a 1-year hardware warranty end date. Additionally, WIR will set the Data Source Check to 21 in order to signify that this is a calculated value.

Knowing the hardware warranty start date is useful for identifying the age of your computers when WIR is unable to obtain the warranty information directly from the hardware manufacturer.

Default Detection Method (BIOS Date)

The Default Detection Method allows Enhansoft to identify Apple, Microsoft and unknown computer manufacturers.

Eventually unknown manufactures may either become fully supported manufacturers or they may be identified as new White Box manufacturers.

The Default Detection Method is similar to the White Box method as described in the previous section. WIR calculates the most likely hardware warranty start date for a computer by using a variety of methods. Based on this data, WIR will then set a 1-year hardware warranty end date.

The Data Source Check will be temporarily set to 100 or greater. This will allow the computer to fall within the WIR query (WIR_Query) and therefore WIR will check its warranty details at a later date.

This method is also used in the case of network issues.

Warranty Collection Process for Apple, Microsoft and Unknown Manufacturers

Due to changes made by Microsoft and Apple, Surface and Mac computers must be registered first before Warranty Information Reporting (WIR) can collect their warranty details. Additionally, unknown manufacturers to WIR will also be registered first; this allows Enhansoft to proactively search for warranty details for these manufacturers before either adding them to the list of fully supported manufacturers or defining them as white box computers.

There are two different phases to this warranty collection process. In the first phase, the computer is registered and a request is made to collect the warranty details. During the first phase, WIR returns warranty results using the Default Detection Method. This allows the registration process to start. In this instance WIR returns a data source check of 100+ to indicate that the warranty details need to be checked again. This allows the computer to fall within the WIR query's (WIR_Query) results.

In the second phase, which can take a week to complete, WIR returns to the web service in order to collect warranty details. In order to automate the second phase of this process, please use the WIR query (WIR_Query) which is listed later in this documentation. By using the query, WIR is automatically deployed to collect warranty data. After a maximum of 5 business days, warranty details will be collected by WIR.

If the second phase is not completed, the warranty details for a computer will remain as described in the Default Detection Method section.

Command Lines

Command lines are not case sensitive.

Setup

/XML "*xml path*"	The user can manually set the name and path of the xml file that contains these reports.
/VERBOSE	Enables verbose logging of WIR.

WIR Command Line Switches

/AUTO	Silent mode.
/DELETEWIRCLASS	Deletes the existing ES_Warranty3 WMI class.
/FORCEOVERWRITE	Ensures that all dates collected overwrite what is in WMI even if WIR decides it is better to keep the existing dates.

/XML	Writes all WIR results to an xml file named after the serial number.
/VERBOSE	Enables verbose logging of WIR.
/KEY"*license key*"	Manually sets the license key "xxxxx-xxxxx-xxxxx-xxxxx-xxxxx"
/CO"*company*"	Manually sets the company name.
/BBSN"*baseboard serial number*"	Sets the baseboard serial number.
/BIOSSN"*serial number*"	Sets the BIOS serial number.
/ESN"*serial number*"	Sets the enclosure serial number.
/MODEL"*model*"	Sets the model.
/MAN"*manufacturer*"	Sets the manufacturer.
/REMOTEPC"*PCname*"	Connects to the desired remote PC.

Proxy Details

This feature allows enterprises to define a user account that will be leveraged to access the various websites needed for gathering warranty details. These settings can be configured on the **Proxy Details** page within the setup or afterwards by using the **WIR Interface** to update WIR's configuration file.

How to Change Proxy Details by Using the WIR Interface

You can change proxy details by opening the WIR interface. Click on the options menu and select proxy details.

Note: This will update the local Warranty3.exe.Config file. Please ensure that you deploy this updated configuration file to your clients in order to use the updated proxy details.

WIR URLs

In some cases, network teams like to white-list the URLs used by WIR. If this is the case in your organization, these are the current URLs used by WIR:

- https://wirservice.com/secure/WIRE_Service.svc
- http://wirservice.com/WIRE_Service.svc
- https://wiroworld.com/Secure/WIRE_Service.svc (Backup and test URL)
- http://wiroworld.com/WIRE_Service.svc (Backup and test URL)

An HTTPS connection is preferred over HTTP. Please contact Support@Enhansoft.com if an HTTP connection is needed.

Remote Access

To access warranty information on a remote computer, run the WIR interface (Warranty3.exe). The default location is: *C:\Program Files\Enhansoft\Warranty_Information_Reporting_v3.5\bin* on your ConfigMgr Site server.

From here you can easily connect to the local PC's WIR data or a remote PC's WIR data by entering the PC's name. Next, click on the **Connect** button to populate the program output fields. This action will retrieve the warranty data stored in WMI for that PC. If there is no warranty data available within WMI for WIR on the PC, WIR will collect the warranty data using the local PC as a proxy.

To confirm or update the warranty data from the manufacturer, click the **Update** button. This will perform a lookup of the PC's warranty data.

Finally click **Save** to save the warranty data to the remote PC.

Extra Fields

This optional feature gives you the ability to record additional data into WMI through the **WIR Interface**. For instance, you can add fields concerning departments, purchase orders, locations, etc., by either manually recording this data, or by using the script at the end of this section to pre-populate the fields with your data.

The first method is to edit the fields directly in the interface and click **Save** in the main tab to populate WMI.

From the **WIR Interface**, connect to a PC by using the **Connect** button.

Next, click on the **Extra Fields** tab.

Edit the fields in the interface, then return to the **Main** tab and click on the **Save** button. The newly added data will be stored within WMI. Empty **Extra Fields** are shown in the above screenshot.

In the example below, 7 of the 10 **Extra Fields** are populated.

The second method that you can use to populate WMI through the **WIR Interface** is to edit the configuration file. This method can also be used to pre-populate headings, so that the information being added to the interface is consistent.

When WIR is executed the **Extra Fields** information is read from the configuration file and populates the interface.

Note: Since WIR is installed under program files by default, you might need to execute the text editor with elevated permissions in order to save the configuration file.

Extra Fields section from the configuration file:

```
<appSettings>
   <add key="LicenseKey" value=" "/>
   <add key="CompanyName" value=" "/>
   <add key ="ProxyUser" value =""/>
   <add key ="ProxyPassword" value =""/>
   <add key ="ProxyURL" value =""/>
   <add key ="Heading1" value =" PO #"/>
   <add key ="Heading2" value ="Department"/>
   <add key ="Heading3" value ="Manager"/>
   <add key ="Heading4" value ="Telephone"/>
   <add key ="Heading5" value =" Asset Tag"/>
   <add key ="Heading6" value =""/>
   <add key ="Heading7" value =""/>
   <add key ="Heading8" value =""/>
   <add key ="Heading9" value =""/>
   <add key ="Heading10" value =""/>
   <add key ="Field1" value ="ES_100217"/>
   <add key ="Field2" value ="Finance"/>
   <add key ="Field3" value ="n/a"/>
   <add key ="Field4" value ="613-627-4801"/>
   <add key ="Field5" value ="ES100267"/>
   <add key ="Field6" value =""/>
   <add key ="Field7" value =""/>
   <add key ="Field8" value =""/>
   <add key ="Field9" value =""/>
   <add key ="Field10" value =""/>
 </appSettings>
```

WIR Query

The WIR query (WIR_Query) is designed to show all computers that need to have their warranty details checked or re-checked. There are several reasons why a computer will fall into this query, including:

- WIR was never run on this computer.
- This is the first-step (registration phase) of a two-step process to have warranty details collected.
- There are network connection issues between the WIR client and the web service.

A collection should be created using this query. Additionally, either a weekly or daily deployment should be configured in order to deploy the **WIR (auto)** ConfigMgr program to this collection. This is recommended for a variety of reasons, including collecting warranty details for new computers and/or completing the second phase process for Microsoft and Apple computers.

Creating a Collection with the WIR Query

1) Start by creating a device collection.

2) Give the collection a name (in this example it is WIR-Automated) and limit the collection to **All Desktop and Server Clients**.

3) Click **Add Rule**. Select **Query Rule**.

4) Enter the query's name. Then click on **Import Query Statement…**

5) Select **WIR_Query** from the list. Click **OK**.

6) Click **OK**.

7) Select **Schedule…**

8) Set a start time and set the schedule to **Daily or Weekly**. Click **OK**.

9) Click **Next**.

10) Click **Next**.

11) Click **Close**.

The collection will populate with any computer that has no warranty details, or has a Data Source Check value of 100 or greater. Over the next few days, computers will be automatically removed from the collection once warranty data and hardware inventory information is updated within Configuration Manager.

Automated WIR Deployment

To automate the deployment of WIR to computers without WIR details or a Data Source Check value of 100 or greater, the following steps will need to be performed. It is recommended that a mandatory weekly/daily deployment be used.

Within the **Configuration Manager** console locate the **Warranty Information Reporting** package. On the **Programs** tab select the **WIR Auto** program.

1) Right-click on **WIR Auto** to reveal the menu and click on **Deploy**.

2) Click on the **Browse** button.

3) Select the **WIR-Automated** collection. Click **OK**.

4) Click **Next**.

5) Ensure that the WIR content is distributed to the appropriate distribution points. Click **Next**.

6) Click **Next** to keep the **Required** deployment type.

7) Click **New...**

8) Click **Schedule…**

9) Select the **Custom interval** radio button and click **OK**.

10) Click **OK** to close the **Assignment Schedule** window.

11) **Important**: Ensure that the **Rerun behavior** is set to **Always rerun program** before clicking on **Summary**.

12) Click **Next**.

13) Click **Close** to complete the wizard.

With that last step completed, any computer without WIR details or a Data Source Check value of 100 or greater, will automatically rerun the **WIR Auto** program on a daily basis until warranty information is returned.

WIR Power BI Report Description

The WIR setup now includes a Power BI dashboard. This report takes many of the key items you'd find in several of the WIR SSRS reports and makes them all available in one incredibly handy dashboard.

Enhansoft's WIR Power BI Dashboard includes details about each listed computer's age, manufacturer, model type, and warranty. The interactive nature of Power BI allows you to select items from any of the donuts and then see the data automatically updated in the other segments of this report.

For more information on how you can access the Power BI report file, please see the [Using Enhansoft's WIR Power BI Dashboard] section.

WIR SSRS Report Descriptions

The "Count" reports in WIR will drill through to "List" reports for more detailed information. From these "List" reports there is an option to drill through to yet another report for individual computer details.

Where appropriate, report features include:

- Alternating Line Colors
- Collection-Based Filtering*
- Color Coding
- Interactive Sorting
- Role-Based Administration (RBA)

*It is now possible to distinguish between user and device collections in CMCB and CM12 R2/CM12, so all WIR reports will only show device collections. There is no change for CM07; all prompts will display all collections regardless of type.

Role-Based Administration (RBA)

RBA was introduced in System Center 2012 Configuration Manager (CM12) however, reporting did not use the RBA feature until System Center 2012 R2 Configuration Manager (CM12 R2).

Starting with CM12 R2, all Enhansoft reports leverage the RBA feature that is included within CMCB/CM12 R2. No longer do you need to create special reports for various business units within your organization. By using RBA with your Enhansoft product a CMCB/CM12 R2 Administrator can now enable RBA roles, so that one business unit cannot see the PCs/users from another business unit in both the ConfigMgr console and SSRS reports.

If you have CM12 R2 or above, and do not wish to install the reports that leverage RBA, please see Force Install of Non-RBA Reports.

Count of PCs by Age

This report will help you to quickly identify the age of your PC inventory. Simply click on a specific PC age in order to see more information about all of the PCs in that year group. A list of color codes used in this report follows the screenshot. This report will drill through to *List of PCs by Age*, which in turn will drill through to a further report, *PC Warranty Information*.

Count of PCs by Age

Collection: Oxford Regional Office

PC Age		Total PCs
Virtual Machine		14
1 Year		2
2 Years		1
3 Years		2
4 Years		7
5 Years		2
6 Years		3
8 Years		1
9 Years		1
WIR not executed		1

Total number of PCs: 34

The following chart tells you what color represents each range:

Virtual Machine	Blue
Error	Red
WIR not executed	Gray
0 Year	Aquamarine
1 Year	Light Green
2 Years	Dark Green
3 Years	Gold
4 Years	Goldenrod
5 Years	Dark Orange
6 Years	Medium Orchid
7 Years	Indigo
8 Years	Maroon
8+ Years	Black

List of PCs by Age will provide you with a list of all PCs within a specific age group.

In this screenshot, we see a report listing all of the 4-year-old PCs in the Oxford Regional Office. This report also provides the name of the manufacturer, the model description, and the serial number for each PC. If you need more details about a specific PC, simply click on the PC name as this report drills through to *PC Warranty Information*.

For added convenience, three additional prompt options are available if you want to see a complete list of all computers that are **3 Years or Older**, **4 Years or Older**, or **5 Years or Older**.

List of PCs by Age

Collection: Oxford Regional Office

PC Age: 4 Years

Total number of PCs: 7

PC Name	User Name	Manufacturer	Model	Line	Serial Number	Warranty Start Date	Warranty End Date	Date Checked
SURFACE	GARTEK\garth	Microsoft Corporation	Surface with Windows 8 Pro	Customer	033191431353	9/26/2013	9/26/2014	12/3/2016 1:29:06 PM
GARTEK-DC9	GARTEK\garth	Gateway	E1-510P	n/a	NXY2ZAA0113420250666 00	12/23/2013	12/23/2014	9/5/2016 5:27:57 PM
ES-002	gartek\asmiley	Dell	Latitude E6430s	Latitude	G2S94X1	5/16/2013	5/16/2016	3/2/2017 9:09:36 AM
LE2	gartek\leaston	Dell Inc.	E6430s	n/a	GLSHJX1	5/23/2013	5/23/2016	6/29/2016 11:17:31 AM
ST3	gartek\stighe	Dell	Latitude E6430s	Latitude	C2YCMX1	7/21/2013	7/21/2016	4/7/2017 6:45:59 AM
ES-21	gartek\asmiley	Dell	PowerEdge R720xd	PowerEdge	GV7Y9Y1	10/3/2013	10/3/2016	2/14/2017 7:47:03 PM
WIN7-CM4	gartek\garth	Toshiba	PT330C-08S039	n/a	7D125074H	10/31/2013	10/31/2016	9/8/2016 2:53:45 AM

Count of PCs by Manufacturer

This report provides you with the total number of PCs for each manufacturer in your environment. This report will drill through to *List of PCs by Manufacturer,* which in turn will drill through to a further report, *PC Warranty Information*.

Count of PCs by Manufacturer

Collection: Oxford Regional Office

Manufacturer	Total PCs
WIR not executed	1
Dell	4
Dell Inc.	2
Gateway	1
Gigabyte Technology Co., Ltd.	1
Hewlett-Packard	3
LENOVO	1
Microsoft	11
Microsoft Corporation	4
Toshiba	2
Virtual Machine	3
ZOTAC	1

Total number of PCs: 34

List of PCs by Manufacturer will provide you with a list of all PCs by a specific manufacturer. In this screenshot, we see a report about all of the Hewlett-Packard PCs in the Oxford Regional Office along with their model description, serial number, and warranty end date. If you need more information about a specific PC, simply click on the PC name as this report will drill through to *PC Warranty Information.*

List of PCs by Manufacturer

Collection: Oxford Regional Office
Manufacturer: Hewlett-Packard

Total number of PCs: 3

PC Name	User Name	Model	Line	Serial Number	Warranty End Date	Date Checked
AAD	n/a	719064-B21	SY	USE446EEDX	12/11/2017	9/21/2016 1:35:33 PM
ELLEN-PC	gartek\ellen	HP Pavilion dv7 Notebook PC	n/a	CND8261CKC	7/10/2009	6/29/2016 2:01:48 PM
ES-08	gartek\asmiley	490432-001	n/a	MXQ929048X	4/23/2015	6/29/2016 11:18:58 AM

Count of PCs by Warranty Range

This report gives you different ranges of when PC warranties are about to expire. You can then quickly see how many PCs are in, out, or soon to be coming out of warranty. This report will drill through to *List of PCs by Warranty Range,* which in turn will drill through to a further report, *PC Warranty Information*. A list of color codes used in *Count of PCs by Warranty Range* follows this screenshot.

Count of PCs by Warranty Range

Collection: Oxford Regional Office

Warranty Range		Total PCs
WIR not executed		1
Expired > 2 Years		8
Expired 1 - 2 Years		2
Expired < 1 Year		6
0 - 30 Days		1
181 - 365 Days		2
Virtual Machine		14

Total number of PCs: 34

The following chart tells you what color represents each range:

Range	Color
Virtual Machine	Blue
WIR not executed	Red
Error	Orange
Expired > 2 Years	Black
Expired 1 - 2 Years	Dim Gray
Expired < 1 Year	Light Gray
0 - 30 Days	Dark Khaki
31 - 60 Days	Yellow Green
61 - 90 Days	Green Yellow
91- 180 Days	Light Green
181 – 365	Pale Green
1 - 2 Years	Lime Green
2 - 3 Years	Medium Spring Green
3 - 4 Years	Aquamarine
4 - 5 Years	Lime
5+ Years	Spring Green

List of PCs by Warranty Range will provide you with a list of all PCs within a specific warranty range. In this screenshot, we see a report about PCs whose warranties expired over 2 years ago. We can also tell from this report the name of the manufacturer, the model description, and serial number for each PC. This report will drill through to *PC Warranty Information*.

For added convenience, if you want to see a complete list of all computers that are out of warranty, you can use the **All Expired Computers** date range.

List of PCs by Warranty Range

Collection: Oxford Regional Office

Range: Expired > 2 Years

Total number of PCs: 8

PC Name	User Name	Manufacturer	Model	Line	Serial Number	Warranty End Date	Date Checked
ELLEN-PC	gartek\ellen	Hewlett-Packard	HP Pavilion dv7 Notebook PC	n/a	CND8261CKC	7/10/2009	6/29/2016 2:01:48 PM
FRAME	GARTEK\frame	Toshiba	TOSHIBA DX735	n/a	9B018791Y	10/16/2012	8/3/2016 7:01:42 PM
ES-06	gartek\asmiley	Dell Inc.	R610	n/a	JCHPVH1	12/21/2012	6/29/2016 10:38:42 AM
win81-cm4	gartek\garth	Microsoft Corporation	Virtual Machine	n/a	7632-1256-1074-3523-7993-8509-37	5/22/2013	1/21/2017 12:48:33 PM
MEDIAPC	gartek\garth	Gigabyte Technology Co., Ltd.	To be filled by O.E.M.	n/a	To be filled by O.E.M.	10/4/2013	6/29/2016 10:44:52 AM
SURFACE	GARTEK\garth	Microsoft Corporation	Surface with Windows 8 Pro	Customer	033191431353	9/26/2014	12/3/2016 1:29:06 PM
CAOTTANT-GJL	gartek\garth	Dell	Precision M4600	Precision Mobile WorkStation	GK0DMQ1	10/21/2014	4/7/2017 11:32:37 AM
GARTEK-DC9	GARTEK\garth	Gateway	E1-510P	n/a	NXY2ZAA0113420250 66600	12/23/2014	9/5/2016 5:27:57 PM

List of PCs by Collection

With this report you will be able to see a list of all of the PCs within a specific collection, in this case it is the Oxford Regional Office. This report will drill-through to *PC Warranty Information*.

List of PCs by Collection

Collection: Oxford Regional Office

Total number of PCs: 34

PC Name	User Name	Manufacturer	Model	Line	Serial Number	Warranty End Date	Date Checked
AAD	n/a	Hewlett-Packard	719064-B21	SY	USE446EEDX	12/11/2017	9/21/2016 1:35:33 PM
ACERASPIRE	gartek\ellen	n/a	n/a	n/a	n/a	WIR not executed	
CAOTTANT-GJL	gartek\garth	Dell	Precision M4600	Precision Mobile WorkStation	GK0DMQ1	10/21/2014	4/7/2017 11:32:37 AM
CAOTTCTOSURFACE	gartek\garth	Microsoft Corporation	Surface Pro 4	Customer	042291360253	4/7/2017	6/29/2016 3:32:20 PM
CERTSVR	n/a	Virtual Machine	Virtual Machine	n/a	2668-8123-0447-9034-8204-9865-22	11/25/2013	10/4/2016 3:26:03 PM
CM-CAS-CB1	gartek\garth	Microsoft	Virtual Machine	n/a	1874-2505-1139-2159-7552-2862-22	11/25/2013	2/3/2017 7:54:03 PM
CM-PRI-CB2	gartek\garth	Microsoft	Virtual Machine	n/a	4766-7520-7233-5094-0166-2741-39	11/25/2013	2/14/2017 7:47:40 PM
CM-SQL-CB2	n/a	Microsoft	Virtual Machine	n/a	1791-0997-2744-8103-0265-2909-04	11/25/2013	2/14/2017 7:47:06 PM
CM-SSRS-CB1	gartek\cm16ssrs	Microsoft	Virtual Machine	n/a	5601-6949-3042-7646-3217-1313-21	11/25/2013	2/14/2017 7:47:30 PM
CM-SSRS-CB2	n/a	Microsoft	Virtual Machine	n/a	7827-3890-2399-7798-0420-2586-21	11/25/2013	2/14/2017 7:47:06 PM
CM-WSUS-CB2	n/a	Microsoft	Virtual Machine	n/a	1677-3936-5911-4411-8170-9721-97	11/25/2013	2/13/2017 7:47:06 PM
ELLEN-PC	gartek\ellen	Hewlett-Packard	HP Pavilion dv7 Notebook PC	n/a	CND8261CKC	7/10/2009	6/29/2016 2:01:48 PM
ES-002	gartek\asmiley	Dell	Latitude E6430s	Latitude	G2S94X1	5/16/2016	3/2/2017 9:09:36 AM
ES-06	gartek\asmiley	Dell Inc.	R610	n/a	JCHPVH1	12/21/2012	6/29/2016 10:38:42 AM
ES-08	gartek\asmiley	Hewlett-Packard	490432-001	n/a	MXQ929048X	4/23/2015	6/29/2016 11:18:58 AM
ES-20	gartek\asmiley	LENOVO	70AY	n/a	MJ01T9HG	1/18/2018	3/22/2017 5:32:45 PM
ES-21	gartek\asmiley	Dell	PowerEdge R720xd	PowerEdge	GV7Y9Y1	10/3/2016	2/14/2017 7:47:03 PM

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List of PCs by Partial Serial Number provides you with a list of all PCs with a specific partial serial number. This report will drill through to *PC Warranty Information*.

List of PCs by Partial Serial Number:

x1

Collection: Oxford Regional Office

Total number of PCs: 3

PC Name	User Name	Manufacturer	Model	Line	Serial Number	Warranty End Date	Date Checked
ES-002	gartek\asmiley	Dell	Latitude E6430s	Latitude	G2S94X1	5/16/2016	3/2/2017 9:09:36 AM
LE2	gartek\leaston	Dell Inc.	E6430s	n/a	GLSHJX1	5/23/2016	6/29/2016 11:17:31 AM
ST3	gartek\stighe	Dell	Latitude E6430s	Latitude	C2YCMX1	7/21/2016	4/7/2017 6:45:59 AM

List of PCs by User Name

With this report you will be able to see a list of all of the PCs for a specific user name. This report will drill-through to *PC Warranty Information*.

List of PCs by User Name

User Name: gartek\garth

Total number of PCs: 14

PC Name	Manufacturer	Model	Line	Serial Number	Warranty End Date	Date Checked
CAOTTANT-GJL	Dell	Precision M4600	Precision Mobile WorkStation	GK0DMQ1	10/21/2014	4/7/2017 11:32:37 AM
CAOTTCTOSURFACE	Microsoft Corporation	Surface Pro 4	Customer	042291360253	4/7/2017	6/29/2016 3:32:20 PM
CM-CAS-CB1	Microsoft	Virtual Machine	n/a	1874-2505-1139-2159-7552-2862-22	11/25/2013	2/3/2017 7:54:03 PM
CM-PRI-CB2	Microsoft	Virtual Machine	n/a	4766-7520-7233-5094-0166-2741-39	11/25/2013	2/14/2017 7:47:40 PM
GARTEK-DC11	Microsoft Corporation	Virtual Machine	n/a	1316-7747-6510-2532-4773-8264-16	3/18/2011	10/7/2016 9:32:37 AM
GARTEK-DC9	Gateway	E1-510P	n/a	NXY2ZAA011342025066600	12/23/2014	9/5/2016 5:27:57 PM
MEDIAPC	Gigabyte Technology Co., Ltd.	To be filled by O.E.M.	n/a	To be filled by O.E.M.	10/4/2013	6/29/2016 10:44:52 AM
SURFACE	Microsoft Corporation	Surface with Windows 8 Pro	Customer	033191431353	9/26/2014	12/3/2016 1:29:06 PM
VISTA-RS1	Microsoft	Virtual Machine	n/a	1280-4990-1227-3423-2621-8697-44	5/22/2013	2/14/2017 7:47:16 PM
WHEELER.DP	Microsoft	Virtual Machine	n/a	5518-6896-5628-3893-8452-3558-44	5/22/2013	8/7/2016 1:20:01 PM
WIN10-CM	Microsoft	Surface Pro 3	Customer	057632542753	8/5/2015	7/4/2016 5:05:13 PM
WIN7-CM4	Toshiba	PT330C-08S039	n/a	7D125074H	10/31/2016	9/8/2016 2:53:45 AM
win81-cm4	Microsoft Corporation	Virtual Machine	n/a	7632-1256-1074-3523-7993-8509-37	5/22/2013	1/21/2017 12:48:33 PM
ZOTAC	ZOTAC	ZBOX-MI522NANO/MI542NANO	n/a	GXXXX246XXXXX	5/20/2016	2/23/2017 7:47:02 PM

PC Warranty Information is the final drill through report from *List of PCs by Age, List of PCs by Collection, List of PCs by Manufacturer*, *List of PCs by Partial Serial Number, List of PCs by User Name,* and *List of PCs by Warranty Range*.

This report is designed to mimic the WIR interface, and it will provide you with general information about a specific PC including its manufacturer, model, and serial number. As well, you can clearly see when the PC's warranty will end, and any service details associated with its warranty in the *Hardware Warranty Details* section.

If there is any software-related warranty information associated with the manufacturer's warranty, this will be displayed in the *Software Warranty Details* section.

PC Warranty Information

PC Name:	CAOTTANT-GJL			**User Name**	gartek\garth
Manufacturer	Dell			Serial Number	GK0DMQ1
Model	Precision M4600	Line	Precision Mobile WorkStation	Date Checked	4/7/2017 11:32:37 AM
Description	Precision M4600				

Hardware Warranty Details

Service	Gold Technical Support or ProSupport for End Users	Start Date	10/21/2011	End Date	10/21/2014
Status	Expired	Service Levels	ProSupport		
Deliverables	EXTENDED				

Software Warranty Details

Service	n/a	Start Date	1/7/1980	End Date	1/8/1980
Status	Expired	Service Levels	n/a		
Deliverables	n/a				

Virtual Machine: No Data Source Check: 1 **Licensed To:** Enhansoft Inc.

PC Warranty Information [Extra Fields]

The **Extra Fields** optional feature gives you the ability to record additional data into WMI through the WIR interface. Read more about this feature. This report is designed to mimic the WIR interface.

PC Warranty Information

PC Name:	CAOTTANT-GJL	**User Name**	gartek\garth

Manufacturer	Dell			Serial Number	GK0DMQ1
Model	Precision M4600	Line	Precision Mobile WorkStation	Date Checked	4/10/2017 2:38:12 PM
Description	Precision M4600				

Hardware Warranty Details

Service	Gold Technical Support or ProSupport for End Users	Start Date	10/21/2011	End Date	10/21/2014
Status	Expired	Service Levels	ProSupport		
Deliverables	EXTENDED				

Software Warranty Details

Service	n/a	Start Date	1/7/1980	End Date	1/8/1980
Status	Expired	Service Levels	n/a		
Deliverables	n/a				

Department	Software Dev.	State	Ontario
Branch	CTO Office	Country	Canada
Office	22 Anteres	Office #	Room 201
Manager	CEO	Type	Laptop
Budget Office	CEO Office	PO #	100386

Virtual Machine: No Data Source Check: 1 **Licensed To:** Enhansoft Inc.

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Find all PCs with Invalid Serial Numbers

This report provides you with a list of PCs with serial numbers that are invalid and therefore can't be used to help track warranty information for a PC.

Find All PCs With Invalid Serial Numbers

Collection: Oxford Regional Office

Total number of PCs: 1

PC Name	User Name	Manufacturer	System Enclosure Serial Number	BIOS Serial Number
MEDIAPC	gartek\garth	Gigabyte Technology Co., Ltd.	To Be Filled By O.E.M.	To be filled by O.E.M.

Sample Output

Please note: not all supported manufactures' sample outputs are displayed in this section. If you would like to see a sample output for a manufacturer not shown here, please contact Support@Enhansoft.com.

Acer

Alienware

Warranty Information Reporting v3.5
Options
Help
Updated
Main
Extra Fields
Client:
localhost
Connect
Update
Manufacturer
Alienware
Serial Number
3XNYL02
Model
Alienware Aurora R4
Line
Alienware Desktop
Date
2017-02-03
Description
Alienware Aurora R4
Hardware
Service
Premium Support / Premium
Start Date
2014-05-10
End Date
2018-05-10
Status
Active
Service Level
LS
Deliverables
EXTENDED
Software
Service
n/a
Start Date
1980-01-07
End Date
1980-01-08
Status
n/a
Service Level
n/a
Deliverables
n/a
Virtual Machine
Data Source Check:
1
Save
Close

Dell

Warranty Information Reporting v3.5
Options
Help
Updated
Main
Extra Fields
Client:
localhost
Connect
Update
Manufacturer
Dell
Serial Number
51ZHRF2
Model
Latitude E6540
Line
Latitude
Date
2017-02-03
Description
Latitude E6540
Hardware
Service
Next Business Day Onsite Si
Start Date
2016-12-30
End Date
2019-12-30
Status
Active
Service Level
Next Business Day Support
Deliverables
INITIAL
Software
Service
n/a
Start Date
1980-01-07
End Date
1980-01-08
Status
n/a
Service Level
n/a
Deliverables
n/a
Virtual Machine
Data Source Check:
1
Save
Close

Hewlett-Packard (HP)

Hewlett-Packard Enterprise (HPE)

IBM

Warranty Information Reporting v3.5
Options
Help
Updated
Main
Extra Fields
Client:
localhost
Connect
Update
Manufacturer
IBM
Serial Number
R9ZXYVL
Model
T530 Laptop (ThinkPad)
Line
2359CTO
Date
2017-02-03
Description
n/a
Hardware
Service
Factory Warranty
Start Date
2013-07-13
End Date
2016-07-12
Status
Expired
Service Level
This product has a three year limited warranty which includes a
Deliverables
TP1
Software
Service
n/a
Start Date
1980-01-07
End Date
1980-01-08
Status
n/a
Service Level
n/a
Deliverables
n/a
Virtual Machine
Data Source Check:
1
Save
Close

Lenovo

Warranty Information Reporting v3.5
Options
Help
Updated
Main
Extra Fields
Client:
localhost
Connect
Update
Manufacturer
Lenovo
Serial Number
R90M3WTB
Model
P40 Yoga Laptop (ThinkPac
Line
20GQ000BUS
Date
2017-02-03
Description
n/a
Hardware
Service
Purchased Warranty
Start Date
2017-01-30
End Date
2020-01-29
Status
Active
Service Level
This product has a three year limited warranty which includes a
Deliverables
TPQ
Software
Service
n/a
Start Date
1980-01-07
End Date
1980-01-08
Status
n/a
Service Level
n/a
Deliverables
n/a
Virtual Machine
Data Source Check:
1
Save
Close

Microsoft Surface

Panasonic

Warranty Information Reporting v3.5
Options
Help
Updated
Main
Extra Fields
Client:
localhost
Connect
Update
Manufacturer
Panasonic
Serial Number
4GTWA84848
Model
FZG1-2
Line
n/a
Date
2017-02-03
Description
n/a
Hardware
Service
n/a
Start Date
2014-07-01
End Date
2017-07-01
Status
Active
Service Level
n/a
Deliverables
n/a
Software
Service
n/a
Start Date
1980-01-07
End Date
1980-01-08
Status
n/a
Service Level
n/a
Deliverables
n/a
Virtual Machine
Data Source Check:
3
Save
Close

Toshiba

Warranty Information Reporting v3.5
Options
Help
Updated
Main
Extra Fields
Client:
localhost
Connect
Update
Manufacturer
Toshiba
Serial Number
3G102796H
Model
TECRA A50-C
Line
PS56DC
Date
2017-02-03
Description
PS56DC-00G001
Hardware
Service
International Limited Warrant
Start Date
2016-03-19
End Date
2019-05-19
Status
Active
Service Level
Carry-in Service by a Toshiba Authorized Service Provider
Deliverables
Carry-in Service by a Toshiba Authorized Service Provider
Software
Service
n/a
Start Date
1980-01-07
End Date
1980-01-08
Status
n/a
Service Level
n/a
Deliverables
n/a
Virtual Machine
Data Source Check:
1
Save
Close

White Box

Warranty Information Reporting v3.5
Options
Help
Updated
Main
Extra Fields
Client:
localhost
Connect
Update
Manufacturer
ZOTAC
Serial Number
GXXXX246XXXXX
Model
ZBOX-MI522NANO/MI542N
Line
n/a
Date
2017-02-04
Description
n/a
Hardware
Service
Warranty Date calculated ba
Start Date
2015-05-20
End Date
2016-05-20
Status
Expired
Service Level
n/a
Deliverables
n/a
Software
Service
n/a
Start Date
1980-01-07
End Date
1980-01-08
Status
n/a
Service Level
n/a
Deliverables
n/a
Virtual Machine
Data Source Check:
20
Save
Close

Virtual Machine

Reference

Purchasing Policy

In order to gain the full benefits of using Warranty Information Reporting (WIR), a PC purchasing policy should be created. At a minimum your purchasing policy should ensure that only PCs from your company's recommended list are purchased. A good starting point is the list of WIR supported manufacturers.

Virtual Machines

The following is a list of supported virtual machines. For more information, please visit their product sites.

Hyper-V	product site
Parallels Software International Inc.	product site
Virtualbox - innotek GmbH/Oracle	product site
VMWare	product site
Xen - HVM domU	product site

Using Enhansoft's WIR Power BI Dashboard

What is Power BI?

Power BI is a Microsoft data visualization tool which allows you to create reports in a modern interface.

Power BI Licensing

Enhansoft's Warranty Information Reporting (WIR) does NOT include a Power BI license to use this dashboard. Enhansoft has a Power BI Pro license, so we are providing this WIR Power BI Dashboard to you at no cost; however, you will be responsible to ensure that each user of this report is licensed correctly. As of this writing, a Power BI Pro license is $9.99 USD/month, but for up-to-date pricing, please see Microsoft's website.

Using the WIR Dashboard PBIX File

The WIR Power BI Dashboard is automatically installed on the site server as part of the WIR setup. The dashboard file is found under the Enhansoft installed directory: c:\Program Files (x86)\Enhansoft\Warranty Information Reporting v3.5\Setup\Power BI.
Simply copy the Power BI file (PBIX) to your computer and open it within Power BI. Don't forget to reset the data source to point to the SCCM SQL Server.
See below for more detailed instructions.

Installing Power BI

If you don't have Power BI desktop installed yet, please follow the instructions found within our blog post: https://www.enhansoft.com/blog/how-to-install-power-bi-desktop.

Getting Started

Copy the WIR Dashboard.pbix file to your desktop.

Next, double-click on the file.

In the ribbon, select **Edit Queries**; then, select **Data source settings**.

Click on the **Change Source…** button.

In the **Server** field enter your SCCM SQL Server's name. Next, enter your SCCM database's name. Once this information is entered, click on the **OK** button.

Click **Close**.

When you return back to the report, you will see a note that reads: **There are pending changes in your queries that haven't been applied.** Click on the **Apply changes** button.

Click **Connect**.

Click **OK** in the pop-up message.

Depending on your environment, these updates may take several minutes to apply.

At this point it is best to restart Power BI, but don't forget to save these changes first! Once the report is saved, click on the close (x) button located in the top-right corner.

In case you are asked to save the report again, simply click on the **Save** button.

Once Power BI closes, double-click on the WIR Dashboard.pbix file again. Now the WIR Power BI Dashboard will open with all of your data. At this point, you can click on each item in order to see the corresponding data for the item selected.

Uninstall Procedures

For various reasons WIR does NOT have a fully automated uninstall feature. The process to uninstall WIR is outlined in this section, but if you have any questions, or need clarification about the process, please contact our support team, Support@Enhansoft.com.

Configuration Manager Site Server

Navigate to *C:\Program Files (x86)\Enhansoft\Warranty_Information_Reporting_v3.5\Setup.* Run *Enhansoft_Uninstall.exe* with elevated permissions.

Select all options and click **Uninstall**.

All stored procedures, reports, the hardware inventory class, package and programs will be removed.

Remove the Windows Program

1) Open Add Remove Programs (Windows 2003) or Programs and Features (Windows 2008 and later).

Find Warranty Information Reporting v3.5 and click **Uninstall**.

2) Select **Yes** to the UAC message when prompted.

System Center Configuration Manager 2007

In addition to the above steps, for Configuration Manager 2007:

Find and remove the following in the sms_def.mof.

```
// Enhansoft - Warranty Information
//--------------------------------------------------
#pragma namespace ("\\\\.\\root\\cimv2\\sms")
#pragma deleteclass("ES_Warranty3",NOFAIL)

[SMS_Report(TRUE), SMS_Group_Name("Warranty3 Summary"),
SMS_Class_ID("Enhansoft|Warranty3|1.0")]
```

```
class ES_Warranty3: SMS_Class_Template
{
        [SMS_Report(TRUE),key]    string ES_Warranty3_Key;
        [SMS_Report(TRUE)]        string Line;
        [SMS_Report(TRUE)]        string Manufacture;
        [SMS_Report(TRUE)]        string Model;
        [SMS_Report(TRUE)]        string Serial_Number;
        [SMS_Report(TRUE)]        string Description;
        [SMS_Report(TRUE)]        datetime CheckedDate;
        [SMS_Report(TRUE)]        boolean VPC;

        [SMS_Report(TRUE)]        string HWServiceType;
        [SMS_Report(TRUE)]        string HWStatus;
        [SMS_Report(TRUE)]        string HWServiceLevel;
        [SMS_Report(TRUE)]        string HWDeliverables;
        [SMS_Report(TRUE)]        datetime HWStartDateTime;
        [SMS_Report(TRUE)]        datetime HWEndDateTime;

        [SMS_Report(TRUE)]        string SWServiceType;
        [SMS_Report(TRUE)]        string SWStatus;
        [SMS_Report(TRUE)]        string SWServiceLevel;
        [SMS_Report(TRUE)]        string SWDeliverables;
        [SMS_Report(TRUE)]        datetime SWStartDateTime;
        [SMS_Report(TRUE)]        datetime SWEndDateTime;

        [SMS_Report(TRUE)]        string Version;
        [SMS_Report(TRUE)]        string Lic_to;
        [SMS_Report(TRUE)]        uint32 DataSourceCheck;
        [SMS_Report(TRUE)]        uint32 ErrorCode;
        [SMS_Report(TRUE)]        string Heading1;
        [SMS_Report(TRUE)]        string Heading2;
        [SMS_Report(TRUE)]        string Heading3;
        [SMS_Report(TRUE)]        string Heading4;
        [SMS_Report(TRUE)]        string Heading5;
        [SMS_Report(TRUE)]        string Heading6;
        [SMS_Report(TRUE)]        string Heading7;
        [SMS_Report(TRUE)]        string Heading8;
        [SMS_Report(TRUE)]        string Heading9;
        [SMS_Report(TRUE)]        string Heading10;
        [SMS_Report(TRUE)]        string Field1;
        [SMS_Report(TRUE)]        string Field2;
        [SMS_Report(TRUE)]        string Field3;
        [SMS_Report(TRUE)]        string Field4;
        [SMS_Report(TRUE)]        string Field5;
        [SMS_Report(TRUE)]        string Field6;
```

```
        [SMS_Report(TRUE)]      string Field7;
        [SMS_Report(TRUE)]      string Field8;
        [SMS_Report(TRUE)]      string Field9;
        [SMS_Report(TRUE)]      string Field10;
};
```

Configuration Manager Clients

The WMI class can be removed on Configuration Manager's client workstations either by running **Warranty3.exe /DeleteWIRClass** or by manually deleting the WMI class ES_Warranty3 found under the cimv2 name space.

Data Source Check

In the Configuration Manager database, under the ES_Warranty3 view, you can confirm what source WIR is using to collect a PC's warranty information. Optimally, you will want to see that most of your data is coming from **Code 1** which indicates that the warranty end date is from the manufacturer's website.

Data source codes:

Code	Definition
1	Indicates a manufacturer's website date.
2	Indicates Cisco detection method used.
3	Indicates Panasonic detection method used.
4	Reserved.
5	Indicates that only a shipping date is provided; it is assumed that only a 1-year warranty applies.
6	Indicates that the manufactured start date, as collected from the manufacturer's web service, was used to calculate the warranty end date; it is assumed that a 15-month warranty applies.
7	Indicates that the retrieved warranty end date was used to calculate the warranty start date and that the warranty end date is currently expired.
8	Indicates that the retrieved warranty end date was used to calculate the warranty start date and the warranty end date is NOT currently expired.
9	Indicates Acer / Gateway detection method used.
10	Indicates that an invalid serial number was provided.
11	Indicates that this is a virtual machine.
20	Indicates that the Microsoft Surface or Apple product warranty end date was retrieved successfully.

21	Indicates that the BIOS date was used as the warranty end date for a known manufacturer.
22	Indicates that the BIOS date was used as the warranty end date for an unknown manufacturer.
100	Indicates that the registration (first phase) for Microsoft Surfaces and Apple products was successful.
101+	101 or more indicates that there is a need to re-check the warranty details for this computer.

Report Reader AD Security Group for Configuration Manager CMCB/CM12 R2/CM12

By setting up an AD security group you can grant non-Configuration Manager Administrators the ability to read SQL Server Reporting Services (SSRS) reports without having them leverage the bulky Configuration Manager console. This may be useful to you if many people in your organization need to read Warranty Information Reporting's (WIR's) SSRS reports.

In order to make this set-up easier, Enhansoft created a new **Report Reader** tool which will save you time because you won't need to keep adjusting permissions.

This section will guide you through the step-by-step process.

1) In **Active Directory Users and Computers (ADUC)**, right-click on the appropriate **Organization Unit (OU)** (**Users** in this example), point to **New** and then click **Group**.

2) Enter the **Group name** and click **OK**.

3) Double click on the **Group name** that was created, next click on the **Members** tab, and then click **Add...**.

4) Add the appropriate users, then click **OK** twice.

5) Download the Report Reader permissions tool zip file.
https://www.enhansoftdownloads.com/CM/CMSecRoles.zip

6) After un-zipping and extracting the XML file, open the **Configuration Manager** console. Browse to **Administration | Overview | Security | Security Roles** then right-click and select **Import Security Role**.

7) Browse to the XML file's location. Select it and click **Open**.

8) Once imported, browse to **Administration | Overview | Security | Administrative Users** then right-click and select **Add User or Group**.

9) Click **Browse**…

10) Add the **Group name** and click **OK**.

11) Click **Add…**

12) Select **Enhansoft Report Readers** and click **OK**.

13) Click **OK** to continue.

Note: If you want to restrict which computers or users this security group can see, you can do that within the **Assigned security scopes and collections section**.

With that last step you have now created a security group which has permission to see all of the computers and users within Configuration Manager, and they can access all reports via the web interface to SSRS. The web URL is generally http://<server name>/reports. In the Enhansoft lab environment it is http://cm12-cm4/reports.

Troubleshooting

Enable Remote Errors

Oftentimes if remote error messages are not enabled, SQL Server Reporting Services (SSRS) will not display the actual reason behind an error message for security reasons. An example of this type of messaging can be found below and also in the SQL Server Replication and SSRS troubleshooting section.

```
An error has occurred during report processing. (rsProcessingAborted)
    Query execution failed for dataset 'SCCMR2'. (rsErrorExecutingCommand)
        For more information about this error navigate to the report server on the local server machine, or enable remote errors
```

In order to see the true error, you will need to enable remote errors. This can be done by taking the following steps.

1) Run the **SQL Server Management Studio** with elevated privileges.

2) Logon to **Reporting Services**.

3) Right-click on your server's name and select the **Properties** node.

4) Once the **Server Properties** page is open, click on **Advanced**. In the **Advanced** page look for **EnableRemoteErrors**. Change the value to **True** and click **OK**.

Now that remote errors are enabled you will be able to see the actual reason behind any error message. This will allow you to be more efficient troubleshooting errors.

.Net 3.5 Framework Is Missing

If .Net 3.5 framework is missing you will receive the following message:

If you receive this message then you will need to install .Net 3.5 or higher in order to run WIR.

SQL Server Replication and SSRS

If you are using SQL Server database replica for reporting, please allow time for the SQL Server database replication to occur. Depending on your environment, this task will generally be completed within 24 hours.

If you are unsure whether or not SQL Server database replica is being used, a general indication of it being in place can be determined if the following conditions are met:

- The setup log file shows no issues creating the stored procedures.
- You receive a similar error message to the ones below.

Error Message 1
• An error has occurred during report processing. (rsProcessingAborted)   ○ Query execution failed for dataset 'PC'. (rsErrorExecutingCommand) Could not find stored procedure 'ES_RBA_PCNameFilter_RV'.
Error Message 2
An error has occurred during report processing. ---> Microsoft.ReportingServices.ReportProcessing.ProcessingAbortedException: An error has occurred during report processing. ---> Microsoft.ReportingServices.ReportProcessing.ReportProcessingException: Query execution failed for dataset 'Coll'. ---> System.Exception: For more information about this error navigate to the report server on the local server machine, or enable remote errors

Error Message 2 indicates that remote errors have not been enabled in your environment. In this instance you will need to enable remote errors in order to see the actual reason behind this error message. The steps to enable remote errors can be found within the Enable Remote Errors troubleshooting section.

Unable to Connect to SSRS. REPORTS WILL NOT BE CREATED.

If the **Unable to connect to SSRS** error message is displayed, the error is likely to be related to a name resolution or firewall issue. Please confirm that both items are working correctly from the site server.

You can quickly test to confirm access by using Internet Explorer and browsing to http://<the FQDN of your SSRS server>/reportserver, for example: http://ssrs.enhansoft.com/reportserver.

Workstation Validation

Since Warranty Information Reporting (WIR) does not install software on workstations, you may want to validate whether WIR was executed on a particular PC. The easiest way to do this is to look at the data within the WMI class.

Follow these steps to validate that WIR collected information for a particular PC.

1) Right click **wbemtest** and select **Run as administrator**.

2) Click **Connect…**

3) Ensure the namespace is set to **root\cimv2** and click **Connect**.
   Tip: You can remotely connect to a PC using **\\<PC Name>\root\cimv2**.

4) Select **Enum Classes…**

5) Choose **Recursive** and click **OK**.

6) Wait until the full list populates. Once the list is fully populated, the word "Done" (see red arrow) will appear in the top bar next to the number of objects.
Now, find **ES_Warranty3** and double click on **ES_Warranty3**.

7) Click **Instances**.

8) Double click on the instance **ES_Warranty3.ES_Warranty3_Key="ES_Warranty3_Key"**

9) Select the **Local Only** check box (see red arrow) and review the data.

Data Results

If you find consistency issues with the data being displayed in any of the reports, this generally occurs when incorrect data is inventoried from the PC itself. This can be a sign of WMI corruption and should be corrected on the PC. Once the WMI is fixed, update the inventory with Configuration Manager and this will update the data within the reports.

Contact our support team at Support@Enhansoft.com if you still have questions about the data being displayed within any WIR report. They can work with you to help solve the problem.

Force Install of Non-RBA Reports

When running SSRS reports on CM12 R2 or later, Role-Based Administration (RBA) is used to limit a user's collection access. With RBA, reports will take longer to run and in some cases it could be much longer than expected. It should be noted that this will happen with **both** the built-in Microsoft Configuration Manager reports and with WIR's reports. Given these performance issues, WIR allows you to install a non-RBA version of its SSRS reports. The non-RBA reports will perform exactly the same, however, without the RBA access restrictions.

If you wish to install non-RBA reports on a system with CM12 R2 or above:

- Start by installing WIR.
- At **Step #10**, select the **Do not create RBA Reports (CM12R2/CMCB)** checkbox, as seen in the screenshot below.
- Continue the setup normally.

Contact Support

Apart from the above-noted items, there are no other known issues with Warranty Information Reporting (WIR), however, if you come across any, please contact Support@Enhansoft.com. Please ensure to send your log files.