

SNMP Data Available with Kofax VRS 5.x (Elite)

Application Note

Date	December 05, 2012
Applies To	Kofax VRS 5.0 (Elite) Kofax VRS 5.1 (Elite)
Summary	This application note provides information regarding SNMP data available with Kofax VRS 5.x (Elite).
Revision	1.1

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The Kofax VRS 5.0 (Elite) and VRS 5.1 (Elite) products allow the use of the Simple Network Management Protocol (SNMP) to monitor certain Kofax VRS 5.x (Elite) parameters. These parameters include indicators of potential scanner problems as well as basic information regarding the scan station. The specific parameters are discussed later in this document.

This document will discuss the installation of required components for use with SNMP, configuration information, as well as additional details of the SNMP data available for Kofax VRS 5.x (Elite). All steps discussed in this document should be completed only after Kofax VRS 5.x (Elite) is installed.

Installation

The below installation information is regarding components needed for the SNMP functionality of Kofax VRS 5.x (Elite). This SNMP functionality is an optional component and is not needed for the core functionality of Kofax VRS 5.x (Elite) to operate.

This document will not discuss any specific Network Management System (NMS) or SNMP monitoring tool, including the configuration steps required to use any NMS or monitoring tool with Kofax VRS 5.x (Elite).

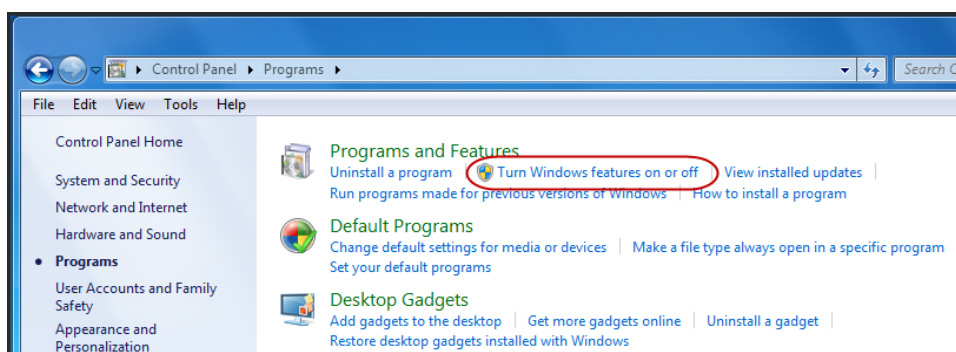
Windows SNMP Service

A SNMP service for Windows must be installed on the PC in question prior to sending data via SNMP. The [Install_Device_Health.cmd file](#), discussed later in this section, can be used to install the Windows SNMP Service. However, the Windows SNMP Service can also be installed by following these steps:

1. Open the Control Panel.
2. Access Windows features to enable SNMP using the instructions for your operating system.

- **Windows 7**

Select Programs, then Turn Windows features on or off.

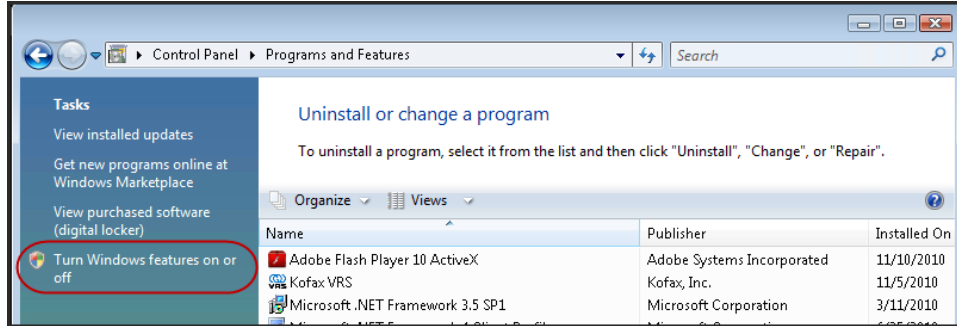


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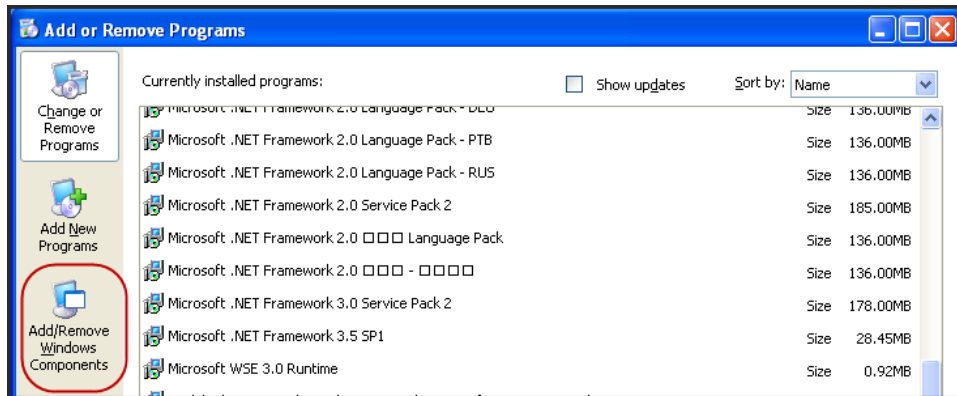
- **Windows Vista**

Select Programs and Features, then Turn Windows features on or off.



- **Windows XP**

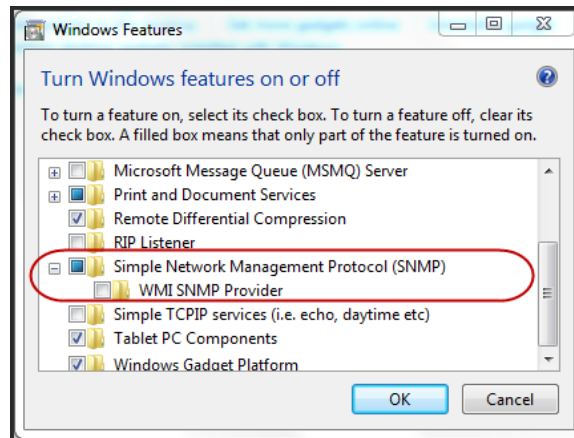
Select Add or Remove Programs, then Add/Remove Windows Components.



3. Enable SNMP using the instructions for your operating system.

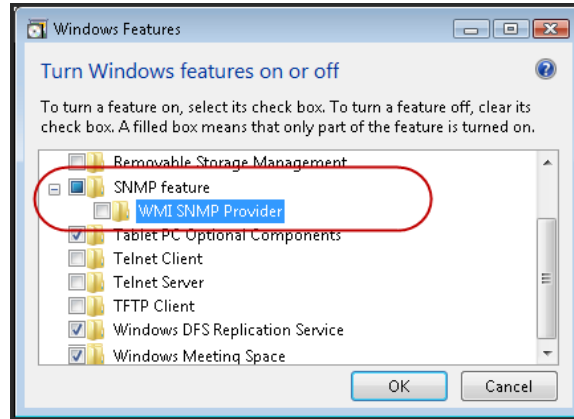
- **Windows 7**

Check the Simple Network Management Protocol checkbox (the WMI SNMP Provider option is not required).



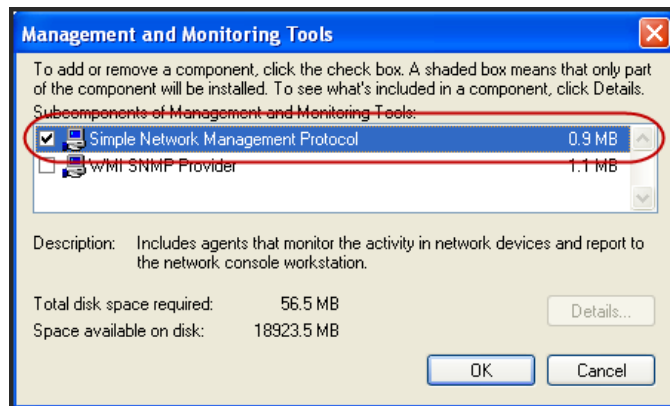
- **Windows Vista**

Check the SNMP feature checkbox (the WMI SNMP Provider option is not required).



- **Windows XP**

Select the Management and Monitoring Tools listing and click the Details button. Check the Simple Network Management Protocol checkbox (the WMI SNMP Provider option is not required).



4. Click OK

NOTE: The installation may require the Windows installation disk in order to complete.

KOFAX VRS Device Health SNMP Agent

The Kofax VRS Device Health SNMP Agent (will be referred to as Agent in the remainder of the document) needs to be installed before any Kofax VRS 5.x (Elite) SNMP data can be sent from the PC in question. The command to install the Agent should be performed at a command prompt. The command is located inside the bin directory of where Kofax VRS 5.x (Elite) is installed.

For 32-bit Operating Systems the default location of this directory is:

```
C:\Program Files\Kofax\ImgCts\bin\
```

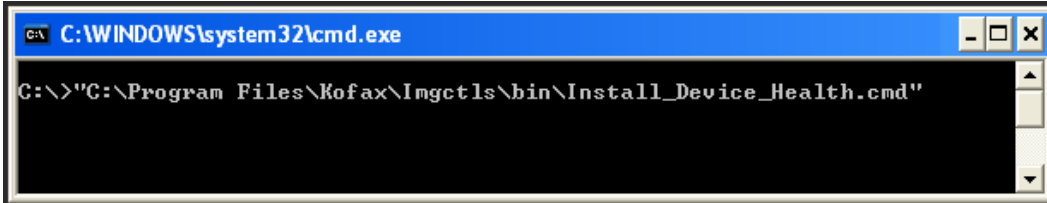
The command to install the Agent is Install_Device_Health.cmd.

To install the Agent, follow these steps:

1. Open a command prompt.
2. Enter the following command.

"<location of VRS bin directory>\Install_Device_Health.cmd"

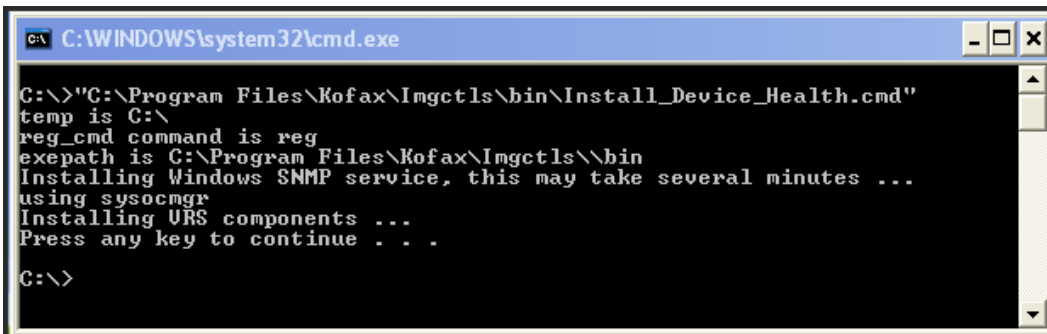
The example below uses the default location of this file for a 32-bit Operating System.



```
C:\WINDOWS\system32\cmd.exe
C:\>"C:\Program Files\Kofax\Imgctls\bin\Install_Device_Health.cmd"
```

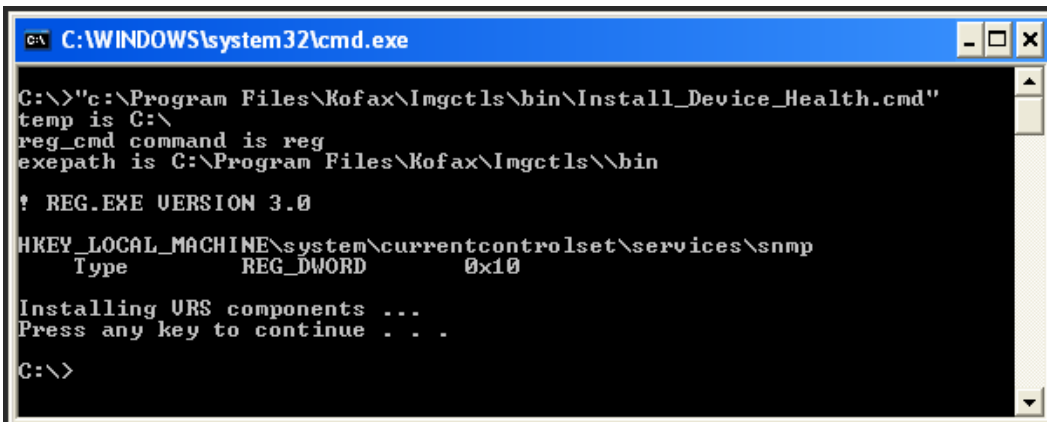
As mentioned in the [Windows SNMP Service](#) section, if the SNMP service for Windows is not already installed, the Install_Device_Health.cmd will first install this service. The installation will then install the Agent.

The following example shows the output if the command installs the Windows SNMP service and the Agent.



```
C:\WINDOWS\system32\cmd.exe
C:\>"C:\Program Files\Kofax\Imgctls\bin\Install_Device_Health.cmd"
temp is C:\
reg_cmd command is reg
exepath is C:\Program Files\Kofax\Imgctls\bin
Installing Windows SNMP service, this may take several minutes ...
using sysocmgr
Installing VRS components ...
Press any key to continue . . .
C:\>
```

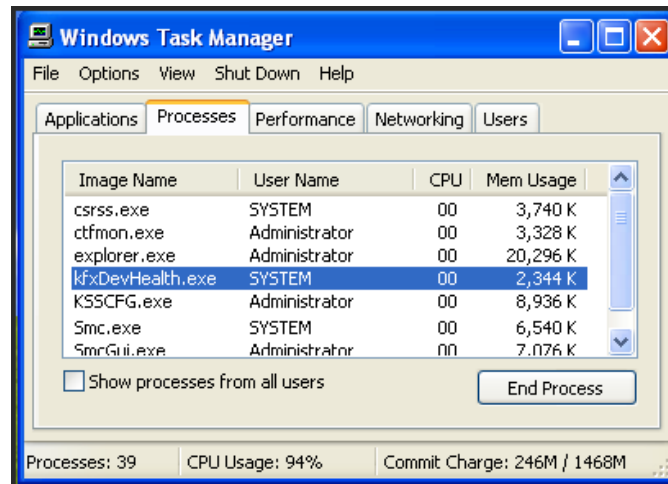
If the SNMP service for Windows is already installed, the Install_Device_Health.cmd command will just install the Agent. If this occurs, the output of the command will be as shown below.



```
C:\WINDOWS\system32\cmd.exe
C:\>"c:\Program Files\Kofax\Imgctls\bin\Install_Device_Health.cmd"
temp is C:\
reg_cmd command is reg
exepath is C:\Program Files\Kofax\Imgctls\bin
! REG.EXE VERSION 3.0
HKEY_LOCAL_MACHINE\system\currentcontrolset\services\snmp
Type REG_DWORD 0x10
Installing VRS components ...
Press any key to continue . . .
C:\>
```

Please note that the previous two screenshots were taken from a Windows XP Operating System. Windows Vista and Windows 7 systems may produce slightly different command prompt results. However, the instructions remain the same.

- Verify that the Agent is operational by opening Task Manager and checking that the kfxDevHealth process is running. If the process is running, no further installation steps are required. If the process is not running, go to the next step.



- If the kfxDeviceHealth process is not running, the Install_Device_Health.cmd will need to be run again.

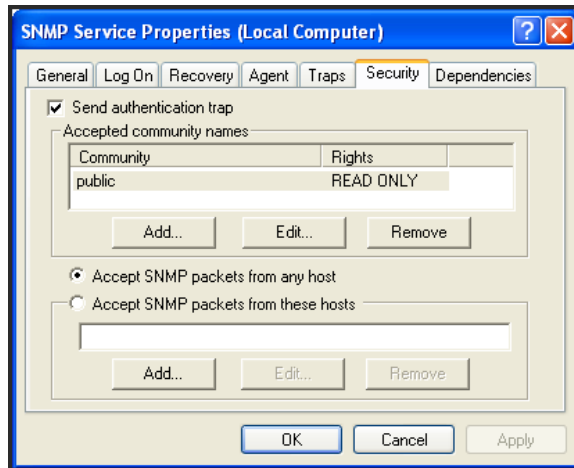
Configuration

After the components involved with the SNMP feature of Kofax VRS 5.x (Elite) are installed, configuration steps are required to view and use the data. This section will cover the information needed in order to use this SNMP data with a NMS or SNMP tool.

SNMP Service

The only configuration needed in the Windows SNMP Service, as far as the SNMP feature of Kofax VRS 5.x (Elite) is concerned, can be found on the Security tab of the SNMP Service properties dialog. In particular, the following is needed:

- Community name
- Rights: Read access is required. There is no need for Write or Create access. Therefore, READ ONLY access is sufficient.
- Accept SNMP packets from any host or Accept SNMP packets from these hosts.



All settings regarding the SNMP service are to be designated by the user. This includes the settings found on the Security tab as well as any other SNMP settings. The above is to demonstrate, at a minimum, what configuration is needed.

Management Information Base (MIB)

The Kofax VRS 5.x (Elite) media contains two MIBs that correspond to the SNMP data available with Kofax VRS 5.x (Elite). The location of the MIBs is:

<VRS 5.x (Elite) Installation Media>\Configuration

The two MIBs found here are named:

- KofaxDevHealth.mib
- kofaxGlobalReg.mib

The KofaxDevHealth.mib contains information on the data which can be accessed via SNMP regarding VRS 5.x (Elite). The kofaxGlobalReg.mib contains global name space and other Kofax product branches information.

Object Identifier (OID)

The below table lists information on all values that can be obtained via SNMP for Kofax VRS 5.x (Elite). All of the values listed below are referenced in the KofaxDevHealth.mib.

Object Name	OID	Type	Description
softwareVersionStr	.1.3.6.1.4.1.21812.3.4.1.2.1.0	String	Version of VRS installed (version number)
scannerMfgNameStr	.1.3.6.1.4.1.21812.3.4.1.3.1.0	String	Name of the scanner manufacturer
scannerModelNameStr	.1.3.6.1.4.1.21812.3.4.1.3.2.0	String	Name of the scanner model
scannerFWRevStr	.1.3.6.1.4.1.21812.3.4.1.3.3.0	String	Firmware revision of the scanner. Note: Not all scanners will have this information available
exceptionSheetsScanned	.1.3.6.1.4.1.21812.3.4.1.4.1.1.0	Count	Total number of sheets scanned
exceptionFeederErrors	.1.3.6.1.4.1.21812.3.4.1.4.1.2.0	Count	Total number of feeder errors detected
exceptionMultiFeedErrors	.1.3.6.1.4.1.21812.3.4.1.4.1.3.0	Count	Total number of multifeed errors detected
exceptionPaperJamErrors	.1.3.6.1.4.1.21812.3.4.1.4.1.4.0	Count	Total number of paper jam errors detected
cameraAnalysisCount	.1.3.6.1.4.1.21812.3.4.1.4.2.1.0	Count	Total number of times a health target sheet has been detected
cameraRollerHealth	.1.3.6.1.4.1.21812.3.4.1.4.2.2.0	Count	Last roller health value. Range is 0 – 100, with 100 being best
cameraUniformityHealth	.1.3.6.1.4.1.21812.3.4.1.4.2.3.0	Count	Last image uniformity health value. Range is 0 – 100, with 100 being best
cameraClarityHealth	.1.3.6.1.4.1.21812.3.4.1.4.2.4.0	Count	Last clarity health value. Range is 0 – 100 with 100 being best

SNMP Data Details

This section will cover some of the additional details regarding the SNMP data available for Kofax VRS 5.x (Elite).

Default Values

Each SNMP Object has a default value associated with it. If the Agent has not received an update since the last time the SNMP data was reset, the default value will be used. The default value for each object is shown in the table below.

Object Name	Default Value
softwareVersionStr	5.00.0000
scannerMfgNameStr	Kofax
scannerModelNameStr	Default
scannerFWRevStr	1.00.00
exceptionSheetsScanned	0
exceptionFeederErrors	0
exceptionMultiFeedErrors	0
exceptionPaperJamErrors	0
cameraAnalysisCount	0
cameraRollerHealth	100
cameraUniformityHealth	100
cameraClarityHealth	100

The default values for cameraAnalysisCount, cameraRollerHealth, cameraUniformityHealth, and cameraClarityHealth will persist until a [health target sheet](#) is recognized by VRS 5.x (Elite).

The softwareVersionStr, scannerMfgNameStr, scannerModelNameStr, and scannerFWRevStr objects will update when Kofax VRS 5.x (Elite) reserves a scanner.

The exceptionFeederErrors, exceptionMultiFeedErrors, and exceptionPaperJamErrors objects will update when the referenced error occurs.

SNMP Data Persistence

The SNMP data for VRS 5.x (Elite) will persist until one of the following events occur:

1. A different scanner is connected to the PC and is used with VRS 5.x (Elite).

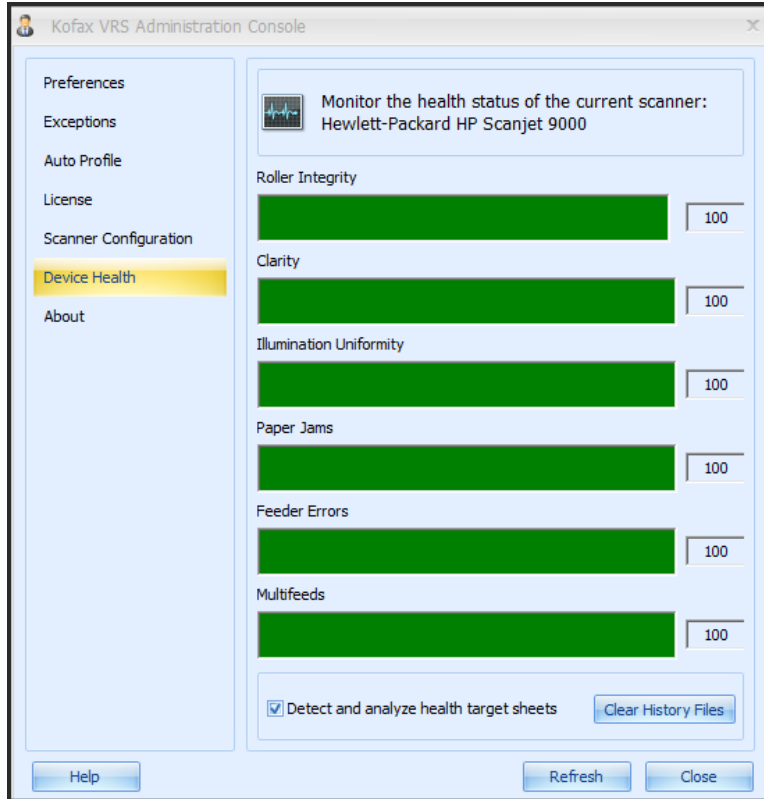
When this occurs, all SNMP data will revert back to default values. The default values are discussed in the previous section, [Default Values](#).

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- The Clear History Files button is clicked. This button is found on the Device Health category of the Kofax VRS Administration Console.

When this occurs, all SNMP data will revert back to default values. The default values are discussed in the previous section, [Default Values](#).



Health Target Sheet

The cameraAnalysisCount, cameraRollerHealth, cameraUniformityHealth, and cameraClarityHealth objects will not update their corresponding data until a health target sheet is detected. To have a health target sheet detected, the "Detect and analyze health target sheets" option must be enabled. This option can be found on the Device Health category of the Kofax VRS Administration Console. For more information on health target sheets, select the Help button found on the Device Health category of the Kofax VRS Administration Console and select the Device Health link.

