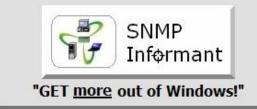
# **Informant systems**, inc.

# SNMP Informant<sup>™</sup>

**Release Notes** 

Release 2014.1



Windows SNMP support for industry standard Network Management Systems

www.snmp-informant.com

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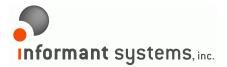
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# Introduction

This document includes release notes for SNMP Informant<sup>™</sup>.

# **New Features**

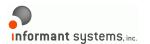
This section lists features added since the last release of this product.

# Release 2014.1

ID	Product	Summary
	SI-CUSTOM SI-CMDLET_EXCHANGE	Modified to support .NET Framework 3.5 and 4.0. In the previous release we only support .NET Framework 2.0.
2	SI-CMDLET-EXCHANGE	Added data points to the Exchange Cmdlet agent in support of DAG and other features.
5	SI-ALL	Various minor performance improvements

# Release 2013.1

ID	Product	Summary
1	SI-CUSTOM	Updated custom agent to support the following new query types: FixedQuery, PerformanceTable, WMITable, and CmdletTable.
2	SI-CMDLET-EXCHANGE	Added new agent to support Microsoft Exchange 2007 and Exchange 2010 Cmdlet queries.
3	SI-PDH-EXCHANGE	Added performance counter support for Exchange 2010.
4	SI-PDH-ADV	Added additional MIB entries which are available in Microsoft Windows Server 2008 R2 and Windows 7.
5	SI-PDH-SQLServer V2	Added additional MIB entries which are available in Microsoft SQL Server 2012.
6	SI-PDH-HYPERV	Added additional MIB entries which are available in Microsoft Windows Server 2012.
7	INSTALLER	Added "Install Guide" button to the installer.



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# **Release 2010.1**

ID	Product	Summary
1	SI-CUSTOM	Added new custom agent which is available with Premium Licenses that allow the user to define their own performance, registry, and process queries.
2	SI-PDH-FOREFRONT	Added new agent to support Microsoft Forefront performance counters.
3	SI-PDH-HYPERV	Added new agent to support Microsoft Hyper-V performance counters.
4	SI-PDH-WSUS	Added new agent to support Microsoft WSUS performance counters.
5	SI-ALL-ALL	Added new OID (999.0) to all agents that allows the user to retrieve the version of that agent installed through SNMP.

ID	Product	Summary
1	SI-ALL-ALL	Created new Release Notes document to replace the previous ChangeLog.txt files
2	SI-ALL-ALL	Consolidated all the SNMP Informant products into a single installation package.
3	SI-ALL-ALL	A consolidated mib.bin files is provided from all the Microsoft and SNMP Informant MIB files.
4	SI-PDH-ADV	Added additional MIB entries which are available in Microsoft Windows Server 2008.
5	SI-PDH-ADV	Updated the MIB file description fields based on the descriptions provided in Microsoft Windows Server 2008.
6	SI-PDH-Citrix	Added new agent to support monitoring Citrix Presentation Server performance counters.
7	SI-WMI-Citrix	Added new agent to support monitoring Citrix Presentation Server WMI classes
8	SI-PDH-Exchange V2	Added new agent to support monitoring Exchange 2007 performance counters.
9	SI-PDH-SQLServer V2	Added new agent to support monitoring SQL Server 2005 and SQL Server 2008 performance counters.
10	SI-WMI-HyperV	Added new agent to support monitoring Microsoft Windows Server 2008 Hyper- V virtualization product
11	SI-WMI-Exchange	Added new MIB entries which are available the Microsoft Exchange 2003 WMI classes.
12	SI-WMI-ALL	Added fault-tolerant features to all WMI agents. Previously, if the WMI subsystem did not return from a function call, then the SNMP Service itself would stop responding to any SNMP requests. Now the agent will abort a query if the WMI function does not return within 4.25 seconds. See references to the WMIFunctionTimeout registry setting in the Installation and Configuration guide for more information.



14	SI-WMI-ALL	Redesigned various parts of the WMI agents to greatly reduce response times.
		As a result on the average, SNMP requests should respond 10 to 20 times faster than in the previous version.

ID	Product	Summary
1	SI-PDH-ADV	Added memoryCommitLimitKBytes and memoryCommitLimitMBytes to support greater than 32-bit memoryCommitLimits.
2	SI-PDH-ADV	Added performance counters which are available in Windows Vista.
3	SI-PDH-BIZTALK	Updated agent with performance counters available in Microsoft BizTalk Server 2006.
4	SI-PDH-ISASERVER	Updated agent with performance counters available in Microsoft ISA Server 2006.
5	SI-WMI-OS SI-WMI-Exchange	Added fault-tolerant features to agents that have a "Helper Service". If the helper service does not respond to a SNMP request within 4.5 seconds, then the query will be aborted. See references to the HelperResponseTimeout registry setting in the Installation and Configuration guide for more information.
6	SI-WMI-HW	Added Win32_Processor entries for L3CacheSize, L3CacheSpeed, NumberOfCores, and NumberOfLogicalProcessors which are new for Windows Vista.
7	SI-WMI-OS	Added oscsAutomaticManagedPagefile, oscsNumberOfLogicalProcessors, oscsPCSystemType, and win32WinSATTable which are new to Windows Vista.



# **Deprecated Features**

This section describes deprecated features and lists equivalent features that accomplish the same result, if relevant. Any use of a deprecated feature should be discontinued as it may be removed in a future release. You should avoid becoming dependent on deprecated features and become familiar with the equivalent feature.

#### Release 2014.1

ID	Product	Summary
1	SI-ALL	Support for the Itanium architecture has been removed.

#### Release 2010.1

ID	Product	Summary
1	SI-PDH-SQLSERVER	Removed OIDs from the original SNMP Informant SQLServer agent that apply only to SQL Server 2005/2008. The original agent should only support SQL Server 2000 and the second agent (V2) is used to support SQL Server 2005/2008.

#### Release 2008.2

ID	Product	Summary
1	SI-ALL-ALL	Prior to this release, the installer program would check and disable agents which have no related product installed (e.g., SNMP Informant SQLServer agent would be disabled if Microsoft SQLServer is not installed). Starting with this release the installer program will no longer check and disable agents during the installation.
2	SI-PDH-SQLServer	The SQLServer PDH agent is now deprecated. It will be provided to support Microsoft SQLServer 2000. The SNMP Informant SQLServer V2 PDH agent should be used for Microsoft SQLServer 2005 and SQLServer 2008 database servers.
3	SI-PDH-ADV	The application based PDH agents (e.g., SQL Server, Exchange Server, BizTalk, etc) no longer depend on purchasing or installing the advanced agent to install the other SNMP Informant PDH agents.

ID	Product	Summary
1	SI-PDH-EXCHANGE	Marked databaseTable and databaseInstancesTable obsolete since these are really operating systems performance counters and have been moved to the advanced agent.



# **Closed Issues**

The table in this section list issues that were closed in the named releases.

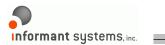
# Release 2014.1

ID	Product	Summary
1	SI-WMI-EXCHANGE	Fixed a bug where the Operating System would report a RPC memory leak in the
	SI-WMI-OS	Windows Event Log.
	SI-CUSTOM	
2	SI-PDH-ALL	Fixed a bug where some operating systems would give a INVALID_PARAMETER error
3	SI-CUSTOM	Fixed a bug where the custom agent would leak memory by not properly closing a Powershell object
4	SI-CUSTOM	Fixed a bug where complex data types could not be returned as an SNMP ASN.1 value. Complex data types are now converted to strings prior to returning.
5	SI-WMI-HYPERV	The root OID for WMI and PDH Hyper-V agents where the same. The root OID for the WMI Hyper-V agent was moved to 1.3.6.1.4.1.9600.1.29.

# Release 2013.1

ID	Product	Summary
1	SI-PDH-BIZTALK	Fixed a bug where the biztalk agent would not recognize an App-Server key

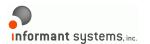
ID	Product	Summary
1	SI-PDH-ALL	Fixed a bug that prevented retrievals of performance counters on non-English operating systems or products.
2	SI-WMI-EXCHANGE	Modified the installer to check the domain, username, and password are correct prior to installing the Informant software.
3	INSTALLER	Suppressed various error dialog boxes if the /SUPPRESSMSGBOXES command line option is used.
4	SI-WMI-EXCHANGE SI-WMI-OS	Fixed a bug where a SNMP Informant Helper service would not start if a file was named "C:\Program".



# Release 2008.2.3

ID	Product	Summary
1	SI-PDH-ALL	Fixed a handle and memory leak that was caused by PDH queries not being closed by SNMP Informant.
2	SI-MSCS	Fixed an issue where the SNMP Informant MSCS agent would sometimes fail during initialization due to the Microsoft Windows Cluster service not running.

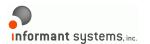
ID	Product	Summary
1	SI-PDH-ALL	Fixed a issue where any PDH based agent would hang during a reboot or fresh start of the operating system when using the NuDesign Multiprotocol Master Agent Service.
2	SI-WMI-ALL	Fixed an bug where WMI based agents would not return any values for a MIB branch if the initial GETNEXT query contained an instance greater than the number of instances available.
3	SI-PDH-EXCHANGE	Fixed a typo in the SMIv2 MIB definition which contained an entry of INFORMANT-STD instead of INFORMANT-EXCHANGE.



# Release 2008.2.1

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ID	Product	Summary
1	SI-PDH-ALL	The SNMP Informant PDH agents would exhibit a memory leak whenever the user would query the agent in a few Microsoft Windows configurations. The memory leak actually occurs within one of the Microsoft Performance DLLs, but is mitigated by using an alternative Windows PDH interface. This alternative interface is slower than the original direct interface, but eliminates the memory leak problem. The user can change back to the original direct interface by modifying the SNMP Informant PdhInterface registry setting. Please refer to the SNMP Informant Installation and Configuration PDH file for more information on this registry setting.
2	SI-WMI-ALL	The WMI Agents would return a General Error an place an entry in the event log any time a SNMP GET operation is performed on an invalid OID. The problem was fixed by returning a No Such Name whenever this condition occurred.
3	SI-WMI-ALL	Fixed a problem where if multiple queries occur within the GetInstanceTimeSpan registry setting time period, then the WMI agent would return the very first queried value instead of the last retrieved queried value.
4	SI-ALL-ALL	Upgrade the compiler for all the agents to using Visual C++ 2008 and SDK 6.1, which provides further compiler optimizations and stack checks.
5	SI-ALL-ALL	Various minor installer improvements.
6	SI-PDH-Exchange	Modified the installer so that a Windows Exchange 2003 SNMP Informant key purchased within the last year could be used to install the Exchange 2007 SNMP Informant agent.

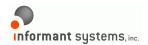


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# **Release 2008.2**

ID	Product	Summary
1	SI-PDH-ALL	SNMP Informant PDH agents will no longer generate an error in the Windows Event Log if a PDH negative value calculation occurs; However, a general error will be reported back to the SNMP Managing Station and the PDH object will be removed from the cache. The next query will regenerate a new PDH object for future calculations.
2	SI-ALL-ALL	Set the version number of all agents to 2008.2. Previously each agent had a separate version number and did not correlate with the bundled version number.
3	SI-PDH-ADV	Fixed a problem where a value of "0" would always be returned for a handful of OIDs (e.g., IDiskAvgDiskSecPerRead, IDiskAvgDiskSecPerTransfer, IDiskAvgDiskSecPerWrite).
4	SI-PDH-ADV	Multiplied IDiskAvgDiskSecPerRead, IDiskAvgDiskSecPerTransfer, IDiskAvgDiskSecPerWrite, pDiskAvgDiskSecPerRead, pDiskAvgDiskSecPerTransfer, and pDiskAvgDiskSecPerWrite by 1000000 to provide useful gauge value since these values are commonly fractional (less than 1).

ID	Product	Summary
1	SI-PDH-ALL	Fixed a bug where the SNMP Service would hang while uninstalling the SNMP Informant agent or stopping the Microsoft SNMP service.
2	SI-PDH-ALL	Fixed a problem that occurs only in 64-bit compilations and multiple instances with the same name. On the 64-bit agents, instance name would show up as svchost351 instead of svchost#1.
3	SI-PDH-ADV	Multiplied IDiskAvgDiskQueueLength, IDiskAvgDiskReadQueueLength, IDiskAvgDiskWriteQueueLength, IDiskAvgDiskSecPerRead, IDiskAvgDiskSecPerTransfer, IDiskAvgDiskSecPerWrite, pDiskAvgDiskQueueLength, pDiskAvgDiskReadQueueLength, pDiskAvgDiskWriteQueueLength, pDiskAvgDiskSecPerRead, pDiskAvgDiskSecPerTransfer, and pDiskAvgDiskSecPerWrite by 1000 to provide useful gauge value since these values are commonly fractional (less than 1).
4	SI-PDH-ALL	Performance values above 100 (for example, values measuring the Processor load on multiprocessor computers) were capped to 100. This did not match the Windows Performance Monitor which allowed values over 100 if a cumulative load was more than one CPU (for example, a 4-way CPU system having 100% of a load on all CPUs would be 400). Modified the code so that SNMP Informant would match the Windows Performance Monitor and will not cap the performance values to 100.
5	SI-PDH-ALL	Fixed a bug where the Windows SNMP Service would not continue onto the next agent when the end of the MIB was reached.



6	SI-WMI-Exchnage	Fixed a bug where the SNMP Informant Exchange Helper agent would get into an infinite loop upon hitting Microsoft error condition.
7	SI-WMI-OS	Modified ospsKernelModeTime, ospsOtherOperationCount, ospsOtherTransferCount, ospsReadOperationCount, ospsReadTransferCount, ospsUserModeTime, ospsWriteOperationCount, ospsWriteTransferCount, ostdElapsedTime, ostdKernelModeTime, ostdUserModeTime to be Counter64 rather than WtcsDisplayString.

# **Known Issues**

The table in this section lists known issues in this release.

ID	Product	Summary
1	SI-PDH-ALL	Some of the OIDs are marked Gauge32 even though the value only increases. These OIDs should be properly marked Counter32.

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