

HP Operations Agent

For the Windows ®, Linux, HP-UX, Solaris, and AIX operating systems

Software Version: 11.02

Release Notes

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The title page of this document contains the following identifying information:

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To find more information about access levels, go to:

http://h20230.www2.hp.com/new_access_levels.jsp

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HP Operations Agent Release Notes

for the Windows®, Linux, HP-UX, Solaris, and AIX operating systems.

Software version: 11.02

Publication date: November 2011

This document is an overview of the changes made to HP Operations Agent (HP Operations agent). It contains important information that is not included in books or Help. You can find information about the following in this document:

- [What's New in This Release](#)
- [Support Matrix](#)
- [Installation Requirements](#)
- [Defects](#)
- [Requested Enhancements](#)
- [Fixed Defects](#)
- [Documentation Updates](#)

What's New in This Release?

- **Enhancements in the parm file**
 - **New parm file parameter to include or exclude file system types**

The `fstypes` parameter in the `parm` file enables you to choose file system types that can be excluded or included during the data logging process.
 - **New parm file parameter to include the cache memory for logging the memory utilization data (value of the GBL_MEM_UTIL metric)**

The `cachemem` parameter in the `parm` file enables you to configure the agent to include the cache memory size while logging the total memory utilization for a node (value of the `GBL_MEM_UTIL` metric).
 - **New parm file parameters for monitoring Solaris global zones**

The `parm` file parameters—`proclist` and `appproc`—enable you to exclude the processes and applications that belong to non-global zones while logging performance metrics for the global zone.

For more information about using new `parm` file parameters, see the *Managing Data Collection* section in the *HP Operations Agent (11.02) User Guide*.
 - **Application grouping based on Solaris projects**

The `project_app` parameter in the `parm` file enables you to group applications based on Solaris projects.
- **Enhanced data access from the log file-based data store**

This version of the HP Operations agent introduces two new configuration variables (`DATAMATRIX_VERSION` and `DATAMATRIX_ROWCOUNT`) to help you access data from the log file-based data store (data that is logged by the `scope` collector) more efficiently. These variables enable different reporting tools (HP Service Health Reporter, HP Performance Manager, HP Reporter) to query data from the agent's data store in chunks and help you avoid connection failure when the data store holds a large volume of data. Use these variables for troubleshooting purposes only (that is, only when reporting tools show the error: `Error occurred while retrieving data from the data source`). For more information, see the *Troubleshooting* section in the *HP Operations Agent (11.02) User Guide*.

- **Ability to configure proxy servers from an external configuration file**

In a secure environment, where you want to configure proxy servers for agent's communication with other managed nodes and management server, you can use an external configuration file to specify the details of proxy servers instead of using the variable `PROXY`. This version of the agent introduces the configuration variable `PROXY_CFG_FILE`, which enables you to specify the location of the proxy configuration file that contains all the details of proxy servers that you want to use for secure communication.

For more information on using this variable, see the *Configuring Proxies* section in the *HP Operations Agent (11.02) Deployment Guide*.

- **Metrics enhancements**

This version of the HP Operations agent provides the following enhancements to performance metrics:

- This version of the HP Operations agent introduces the `BYDSK_BUSY_TIME` metric (for both Performance Collection Component and GlancePlus). The `BYDSK_BUSY_TIME` metric indicates the duration for which the disk device was busy transferring data.
- The `GBL_SWAP_SPACE_USED` metric is now available on Windows. This metric indicates the total swap space that is in use. For more information, see the *Dictionary of Operating System Performance Metrics*.
- The following metrics (which were previously available only with HP GlancePlus) can now be logged by the scope collector:

Metric	Description
<code>GBL_CPU_QUEUE</code>	This metric is an indicator of CPU demands among the active processes or kernel threads.
<code>GBL_MEM_CACHE_UTIL</code>	The percentage of physical memory used by the buffer cache.
<code>GBL_MEM_FILE_PAGE_CACHE</code>	The amount of physical memory used by the file cache.
<code>GBL_MEM_FILE_PAGE_CACHE_UTIL</code>	The percentage of physical memory used by the file cache.

Metric	Description
GBL_MEM_PAGEIN_BYTE	The number of kilobytes of page-ins.
GBL_MEM_PAGEIN_BYTE_RATE	The number of kilobytes of page-ins per second.
GBL_MEM_PAGE_FAULT	The number of page faults.
GBL_MEM_PAGE_FAULT_RATE	The number of page faults per second.
GBL_SWAP_SPACE_RESERVED	The amount of swap space reserved for the swapping and paging of programs that are currently running.
GBL_SWAP_SPACE_USED_UTIL	The percentage of swap space used.
BYDSK_ID	The ID of the current disk device.
BYDSK_BUSY_TIME	The duration for which the disk device was busy transferring data.

For more information on these metrics, see the *Dictionary of Operating System Performance Metrics*.

- **Support for new platforms**

With the release of the version 11.02, the HP Operations agent extends support for the following platforms:

Operating System	Architecture
Windows 7 SP1	x86
Windows 7 SP1	x64
Windows Server 2008 R2 SP1 on Hyper-V	x64
Red Hat Enterprise Linux 6, 6.1	x86
Red Hat Enterprise Linux 6, 6.1	x64
Red Hat Enterprise Linux 6, 6.1	power
Red Hat Enterprise Linux 4.9	x86
Red Hat Enterprise Linux 4.9	x64
CentOS 5.6 and 5.5	x86
CentOS 5.6 and 5.5	x64
CentOS 6	x86
CentOS 6	x64

Operating System	Architecture
b Oracle Linux 6	x86
b Oracle Linux 6	x64
b AIX 7.1	power

^aBetween the version 11.01 and version 11.02 releases, this platform was certified as a supported platform for the HP Operations agent 11.0x.

^bWith the version 11.02 release, this platform is certified as a supported platform for the HP Operations agent 11.0x. To install the HP Operations agent 11.00 and 11.02 together on this platform by using the command line, you must use the `-minprecheck` option.

New cluster software support: This version of the HP Operations agent supports HP Serviceguard 11.20. In addition, modular packages are now supported for all versions of HP Serviceguard that are supported by the HP Operations agent 11.02.

Changes

Installation of the HP Operations agent 11.02 affects the `OPC_MON_SAVE_STATE` variable in the following way:

- If you did not set the variable to any values prior to installing the HP Operations agent 11.02, the `OPC_MON_SAVE_STATE` variable assumes the value `FALSE`.
- If you used the `ovconfchg` command to set a value (`TRUE` or `FALSE`) for the variable prior to installing the HP Operations agent 11.02, the configured value remains in effect after the installation process is complete.

For example, if you used the command `ovconfchg -ns eaagt -set OPC_MON_SAVE_STATE TRUE` before installing the version 11.02, the same value (`TRUE`) is retained after the installation of the HP Operations agent 11.02.

For more information, see the *HP Operations Agent (11.02) User Guide*.

HP Operations Agent Support Matrix

You can find the Support Matrix for this product that lists all software and hardware requirements at this location: [HP Support matrices](#).

Note: Most of the support areas require that you register as an HP Passport user and sign in. Many also require an active support contract. To find more information about support access levels, go to [Access levels](#).

To register for an HP Passport ID, go to [HP Passport Registration](#).

Installation Requirements

You can find requirements and steps to install the HP Operations Agent in the HP Operations Agent Installation Guide at this location:

<http://h20230.www2.hp.com/selfsolve/manuals>

After you log on to the manuals web site, follow these steps:

1. In the Product list, select Operations Agent.
2. In the Version list, select 11.02.
3. Click **Search**.

Installation Notes

- Upgrading the HP Operations agent from a *prerelease evaluation* version is not supported. Before installation, you must completely remove the prerelease evaluation version of the HP Operations agent 11.02 from the system.

On Linux, you cannot remove the prerelease evaluation version of the HP Operations agent 11.02 alone. Remove the prerelease evaluation version of the agent 11.02 along with the agent 11.00 from Linux nodes by running the following command:

`/opt/OV/bin/OpC/install/oainstall.sh -r -a`

- After installing the HP Operations agent 11.02, if you accidentally install the agent 11.01, the system becomes corrupt. To restore the system to its normal state, go to the `scripts` directory in the directory where you extracted or mounted the *HP Operations Agent 11.02* ISO file, and then run the `oacleanall` script.

The scripts directory includes a set of `oacleanall` scripts—one script for each platform. You must choose the appropriate script to bring the system back to its original state. The following table lists the commands for all supported platforms.

Operating System	Architecture	Command
Windows	Itanium	<code>cscript oacleanall_Windows_IA64.vbs</code>
	x86	<code>cscript oacleanall_Windows_X86.vbs</code>
	x64	<code>cscript oacleanall_Windows_X64.vbs</code>
Linux	Itanium	<code>./oacleanall_Linux2.6_IA64.sh</code>
	x86	<code>./oacleanall_Linux2.6_X86.sh</code>
	x64	<code>./oacleanall_Linux2.6_X64.sh</code>
	power (64-bit)	<code>./oacleanall_Linux2.6_PPC64.sh</code>

Operating System	Architecture	Command
HP-UX	PA-RISC	./oacleanall_HP-UX_PA32.sh
	Itanium	./oacleanall_HP-UX_IA32.sh
Solaris	SPARC	./oacleanall_Solaris_SPARC32.sh
	x86	./oacleanall_Solaris_X86.sh
AIX	power (32-bit)	./oacleanall_AIX_powerpc32.sh
	power (64-bit)	./oacleanall_AIX_powerpc64.sh

Note: This script removes the agent (11.00 and 11.02) from the system completely and irrecoverably. Use this script only to reverse the effect of an incomplete, unsuccessful, or incorrect installation of the agent.

Defects

See the patch text file for more information on known problems and workarounds.

The reference number for each defect is the Quality Center Change Request (QCCR) number. For more information about open defects, visit [HP Software Support Online](#), or contact your HP Support representative directly.

Title: On HP-UX 11.23 and 11.31, the `swverify` command shows error on filesets and the `swlist` command shows components version is 11.00.000 (QCCR1A130144)

Description:

On the HP-UX 11.23 and 11.31 nodes, if you run the `swverify` command on the agent software (for example, if you run `swverify HPOv*`), the following error message appears:

```
ERROR: "<system_name>:/": 94 files had errors during this operation.
```

Also, the `swlist` command shows the version of the HP Operations agent as 11.00.000.

Workaround: None

Title: The `OPC_INSTALLED_VERSION` variable does not show the version information when you install the HP Operations agent 11.02 remotely from the HPOM on UNIX/Linux server (QCCR1A131032)

Description:

The `OPC_INSTALLED_VERSION` variable (under the `eaagt` namespace) does not show any version details after you install the HP Operations agent 11.02.

Workaround:

Use the following command to see the version of the HP Operations agent:

On Windows:

%ovinstall\dir%\bin\opcagt -version

On HP-UX, Linux, and Solaris:

/opt/OV/bin/opcagt -version

On AIX:

/usr/lpp/OV/bin/opcagt -version

Title: When you reconfigure a managed node, which also acts as a management server, to work with a different set of management and certificate servers, all certificates are deleted from the node (QCCR1A131189)

Description:

On a node, you can run the following command to reconfigure the node with a different set of management and certificate servers:

On Windows

cscript oainstall.vbs -configure -srv <server_name> [-cert_srv <server_name>]

On UNIX/Linux

./oainstall.sh -configure -srv <server_name> [-cert_srv <server_name>]

If the node also acts as a management server, all certificates are deleted automatically from the node after you run the command.

Workaround: None

Enhancement Requests

See the patch text file for more information on enhancements.

The reference number for each defect is the Quality Center Change Request (QCCR) number. For more information about pending enhancement requests, visit [HP Software Support Online](#), or contact your HP Support representative directly.

Fixed Defects

Reintroduction of Embedded Performance Component (coda) Metrics

A group of metrics, which used to be exclusively collected by the Embedded Performance Component of the agent 8.x and not by the `scope` collector of the HP Performance Agent, was not available with the HP Operations agent 11.00. This version of the HP Operations agent provides an enhanced `scope` collector that is capable of collecting those metrics (see [Table: Metrics Reintroduced by the HP Operations Agent 11.02](#) for the list of metrics).

Metrics Reintroduced by the HP Operations Agent 11.02

Metric Name	Description
BYCPU_INTERRUPT	The number of device interrupts for a CPU.

Metric Name	Description
BYCPU_INTERRUPT_RATE	The average number of device interrupts per second for a CPU.
BYDSK_BUSY_TIME	The duration for which a disk device was busy transferring data.
BYDSK_ID	The ID of a disk device.
FS_DEVNO	On UNIX systems, this metric indicates the major and minor device numbers of a file system that you are monitoring. On Windows, this is the unit number of the disk device on which a logical disk resides.
FS_FRAG_SIZE	Block size of a file system.
GBL_ACTIVE_CPU	The number of active CPUs on the system.
GBL_CPU_CLOCK	The clock frequency of CPUs. This metric indicates NA if different CPUs run with different clock frequencies.
GBL_MACHINE_MODEL	The model of the CPU.
GBL_MEM_PG_SCAN	The total number of pages scanned by the <code>pageout</code> daemon.
GBL_MEM_PG_SCAN_RATE	The number of pages scanned per second by the <code>pageout</code> daemon.
GBL_NET_COLLISION	The number of collisions that occurred on all network interfaces.
GBL_NET_ERROR	The number of errors that occurred on all network interfaces.
GBL_SWAP_SPACE_USED	The amount of swap space used (in MB).
GBL_SYSCALL	The number of system calls.
GBL_SYSCALL_RATE	The average number of system calls per second.
TBL_FILE_TABLE_USED	The number of entries in the file table that are currently in use by file descriptors.
TBL_PROC_TABLE_USED	The number of entries in the <code>proc</code> table that are currently in use by processes.

For more information on these metrics, see the *Dictionary of Operating System Performance Metrics*.

See the patch text file for information on other fixes.

Limitations

- If you want to use one of the following components of the HP Operations agent, you must run the agent with a user with the root/administrative privileges.
 - Performance Collection Component
 - Real-Time Measurement Component
 - Real-Time Metric Access Component
- If you install the agent 11.02 by mounting the ISO file, the following messages appear in the `oapatch.log` file after installation:

```
Installation of the component package HPOvXpl returned exception.  
Installer received non-zero code  
The requested operation is successful.  
Changes will not be effective until the system is rebooted.  
Installation of the component package HPOvSecCo returned exception.  
Installation of the component package HPOvBbc returned exception.
```

If you run the following commands (from the bin directory) on the node before installing from the mounted ISO file, these messages do not appear:

- a. **opcagt -kill**
 - b. **midaemon -T**
 - c. **ttd -k**
- On an HP-UX system, if you open the character-mode interface of glance during the installation of the agent 11.02, the following error message appears in the glance console:

```
Glance fatal error. == Fatal Nums Error == 11.00.044 10/13/10 ==
```

Ignore this error.
 - You can use only the Operations Monitoring Component with a non-root/non-privileged user. If you use measurement threshold policies that use the performance metrics from the agent's data store, you must run the Operations Monitoring Component too with a root/administrative user.
 - If the `SNMP_SESSION_MODE` variable is set to the value `NO_TRAPD`, the event interceptor component of the HP Operations agent 11.02 connects to Microsoft's SNMP service on a Windows node.
 - The `scope` collector logs the value of the `FS_DEVNO` metric in the decimal format. The real-time metric access (RTMA) and real-time measurement (RTM) components and HP GlancePlus show the value of `FS_DEVNO` in the hexadecimal format.
 - On Solaris non-global zones and AIX WPARs, the following metric classes are not supported by the Performance Collection Component, GlancePlus, and RTMA:
 - CPU class (BYCPU)
 - Disk class (BYDSK)
 - Swap class (BYSWP)
 - Logical volume (LVM)

- Logical system (BYLS)

Note: In addition, the Performance Collection Component does not support metrics of the NFS metric class in AIX WPARs.

- The following metrics are not supported by the Performance Collection Component in Solaris non-global zones:
 - GBL_DISK_TIME_PEAK
 - GBL_DISK_REQUEST_QUEUE
 - GBL_CPU_WAIT_UTIL
 - GBL_DISK_PHYS_IO_RATE
 - GBL_DISK_PHYS_READ_RATE
 - GBL_DISK_PHYS_WRITE_RATE
 - GBL_DISK_PHYS_BYTE_RATE
 - GBL_DISK_PHYS_WRITE_BYTE_RATE
 - GBL_DISK_VM_IO_RATE
 - GBL_MEM_SYS_AND_CACHE_UTIL
 - GBL_SWAP_SPACE_AVAIL
 - GBL_SWAP_SPACE_RESERVED
 - GBL_SWAP_SPACE_AVAIL_KB
 - GBL_SWAP_SPACE_MEM_AVAIL
 - GBL_CPU_CYCLE_ENTL_MIN
 - GBL_DISK_UTIL_PEAK
 - GBL_DISK_PHYS_READ_PCT
 - GBL_CPU_WAIT_TIME
 - GBL_DISK_PHYS_IO
 - GBL_DISK_PHYS_READ
 - GBL_DISK_PHYS_WRITE
 - GBL_DISK_PHYS_READ_BYTE_RATE
 - GBL_DISK_PHYS_BYTE
 - GBL_DISK_VM_IO
 - GBL_MEM_CACHE_HIT_PCT
 - GBL_SWAP_SPACE_USED
 - GBL_SWAP_SPACE_UTIL
 - GBL_CPU_MT_ENABLED
 - GBL_SWAP_SPACE_DEVICE_AVAIL

- GBL_CPU_CYCLE_ENTL_MAX
- TBL_PROC_TABLE_UTIL
- TBL_FILE_LOCK_USED
- GBL_ZONE_APP
- For the following metrics, the Performance Collection Component shows global zone values in non-global zones:
 - GBL_MEM_DNLC_HIT_PCT
 - GBL_FS_SPACE_UTIL_PEAK
 - GBL_NET_PACKET_RATE
 - GBL_NET_IN_PACKET
 - GBL_NET_IN_PACKET_RATE
 - GBL_NET_OUT_PACKET
 - GBL_NET_OUT_PACKET_RATE
 - GBL_NET_COLLISION_RATE
 - GBL_NET_COLLISION_PCT
 - GBL_NET_DEFERRED_PCT
 - GBL_NET_ERROR_RATE
 - GBL_NET_IN_ERROR_PCT
 - GBL_NET_IN_ERROR_RATE
 - GBL_NET_OUT_ERROR_PCT
 - GBL_NET_OUT_ERROR_RATE
 - GBL_NET_COLLISION_1_MIN_RATE
 - GBL_NET_ERROR_1_MIN_RATE
 - GBL_RUN_QUEUE
 - GBL_LOADAVG
 - GBL_LOADAVG5
 - GBL_BLOCKED_IO_QUEUE
- The Performance Collection Component always reports zero for the following metrics in non-global zones:
 - GBL_NUM_DISK
 - GBL_NUM_LS
 - GBL_NUM_ACTIVE_LS
 - GBL_NUM_DISK
- On Linux, the following metrics are logged only for SUSE Linux Enterprise Server 11 and Red Hat Enterprise Linux 5.4 or higher:

- APP_DISK_PHYS_IO_RATE
- APP_DISK_PHYS_READ
- APP_DISK_PHYS_READ_RATE
- APP_DISK_PHYS_WRITE
- APP_DISK_PHYS_WRITE_RATE
- APP_IO_BYTE
- APP_IO_BYTE_RATE
- To view the man pages on UNIX/Linux platforms, you must manually set the `MANPATH` variable to the following locations:
 - On AIX: `/usr/lpp/OV/man, /usr/lpp/perf/man`
 - On HP-UX, Solaris, and Linux: `/opt/OV/man, /opt/perf/man`
- You cannot enable or disable a policy with the `ovpolicy` command if the policy name includes the `:` character.
- You cannot use the `PROCESS` object with the `SCOPE` data source in Measurement Threshold policies where the source is set to `Embedded Performance Component`. Such Measurement Threshold policies fail to perform monitoring and send the following message to the HPOM console:


```
CODA: GetDataMatrix returned 76='Method  
ScopeDataView::CreateViewEntity failed
```
- After installation, the evaluation license for the `HP Ops OS Inst to Realtime Inst LTU` is not automatically activated on AIX WPARs or in Solaris non-global zones. You can run the following commands to activate the evaluation license for this LTU:

AIX WPARs

- a. `/usr/lpp/OV/bin/oalicense -set -type EVALUATION "HP Ops OS Inst to Realtime Inst LTU"`
- b. `/usr/lpp/OV/bin/ovcreg -add /usr/lpp/OV/newconfig/DataDir/conf/perf/rtmd.xml`
- c. `/usr/lpp/OV/bin/ovc -start rtmd`

Solaris non-global zones

- a. `/opt/OV/bin/oalicense -set -type EVALUATION "HP Ops OS Inst to Realtime Inst LTU"`
- b. `/opt/OV/bin/ovcreg -add /opt/OV/newconfig/DataDir/conf/perf/rtmd.xml`
- c. `/opt/OV/bin/ovc -start rtmd`

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