

# HP Performance Agent

for the Linux operating system

## Release Notes

Software version: 4.70/September 2007

This document provides an overview of the changes made to HP Performance Agent for the 4.70. It contains important information not included in the manuals or in online help.

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## In This Version

This release of HP Performance Agent has the following features:

This release of HP Performance Agent is supported on RedHat, SuSE, Debian, Asianux and Turbo distributions of Linux. See the "Installation Notes" section for details.

### Other

The following new metrics are included:

All Classes (except Configuration Class):

STATDATE  
STATTIME


Global Class:


GBL\_CSWITCH\_RATE  
GBL\_CPU\_WAIT\_UTIL  
GBL\_LOADAVG5  
GBL\_DISK\_PHYS\_READ\_PCT  
GBL\_DISK\_REQUEST\_QUEUE  
GBL\_CPU\_CLOCK

Configuration Class:

GBL\_NUM\_CPU\_CORE

This release also includes enhancements and defect fixes. See the "Enhancements and Fixes" section for details.

	<p>Before using HP Performance Agent, you must review and accept the license terms and conditions spelled out in the readme file available in <code>&lt;directory&gt;/Linux/README</code>, where <code>&lt;directory&gt;</code> is your DVD-ROM.</p> <p>In this version the names HP OpenView Performance Agent is changed to HP Performance Agent and HP OpenView Operations is changed to HP Operations Manager.</p>
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	<p>The new product name change is applicable to version 4.70 and later. Any references to earlier versions of HP Performance Manager will still have the name as HP OpenView Performance Manager.</p>
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## Documentation Updates

The first page of this release notes document contains the following identifying information:

- Version number, which indicates the software version.
- Publish date, which changes each time the document is updated.

To check for recent updates or to verify that you are using the most recent edition, go to the following web site:

[http://ovweb.external.hp.com/lpe/doc\\_serv/](http://ovweb.external.hp.com/lpe/doc_serv/)

	<p>To view files in PDF format (*.pdf), Adobe Acrobat Reader must be installed on your system. To download Adobe Acrobat Reader, go to the following web site: <b><a href="http://www.adobe.com/">http://www.adobe.com/</a></b></p>
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## Installation Notes

For installation requirements and instructions, refer to "HP Performance Agent for Linux Installation and Configuration Guide" provided as part of the product in Adobe Acrobat (.pdf) format and found as `ovpainst.pdf` in `/opt/perf/paperdocs/ovpa/C/`.


Before installing HP Performance Agent, make sure that your system meets the following minimum hardware and software requirements:

- Hardware
  - System with Intel Pentium equivalent architecture (x86)
  - System with x86\_64 architecture (AMD64 or EM64T)
  - System with Itanium architecture (IA64)
- Software Requirements
  - Linux Distribution Compatibility:
    - On 32-bit Intel Pentium (x86):

- RedHat Enterprise Linux (ES/AS/WS) 3, 4 and 5
- SuSE Enterprise Server 9.x and 10.x
- Debian 3.0 r2/r3/r4, 3.1
- Asianux 2.0 and 3.0
- TurboLinux Server 8 and
- VMware ESX server 2.5.x and 3.0.x
- On 64-bit systems (x86\_64):
  - RedHat Enterprise Linux (ES/AS/WS) 3, 4 and 5
  - SuSE Enterprise Server 9.x and 10.x
  - Asianux 2.0 and 3.0
  - VMware ESX server 2.5.x and 3.0.x

	On RHEL5 and above, SLES10 and above and Asianux 3.0 and above HP Performance Agent 4.7 runs in 64bit mode.
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- On 64-bit systems (IA64):
  - RedHat Enterprise Linux (ES/AS/WS) 4 Update 4
  - RedHat Enterprise Linux (ES/AS/WS) 5
  - SuSE Enterprise Server 10.x

	On RHEL5 and above, SLES10 and above HP Performance Agent 4.7 runs in 64bit mode.
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- **NOTE FOR DEBIAN LINUX INSTALLATIONS:**

If RPM is not installed on the system, follow the instructions to load RPM packages given below:

If the directory `/usr/bin/rpm` do not exist on your system, you need to obtain a copy of RedHat Package Manager (RPM) that works on your Debian Linux system. Once you have RPM installed, the following commands can be used to install HP Performance Agent:

```
mkdir /var/lib/rpm

rpm --initdb --dbpath /var/lib/rpm

cd <Your-DVD-ROM-Directory>

./ovpa.install
```

- **Requirements - Linux Packages:**

The following non-HP Software runtime libraries are required for HP Performance Agent to be installed successfully:

C++ runtime needed by multiple HP Performance Agent binaries.

For systems with kernel version 2.4:

/usr/lib/libstdc++-libc6.1-1.so.2

For systems with kernel version 2.6:

/usr/lib/libstdc++.so.5

For systems with kernel version 2.6 on IA64 :

/usr/lib/libstdc++.so.6

For RHEL4 U4 and above on IA64, you need following

- 1) Install complete "Extra CD" supplied with OS. This provides Emulation Layer required for PA.
- 2) Install complete "Portability Layer CD" supplied with OS.

To find out if these libraries are installed on your system, run the following command:

```
rpm --query --whatprovides <library-name>
```

```
dpkg -S <library-name> ( for Debian systems)
```

These libraries can exist in one or more RPM packages available with the OS media or can be downloaded from the Internet.

- Disk space:

HP Performance Agent installs in the /opt/perf/ and /opt/OV directory and creates its log and status files in the /var/opt/perf/ and /var/opt/OV directory.

- 50 MB in the /opt/perf/ and /opt/OV directory for first-time installation of HP Performance Agent
- 70 MB in the /var/opt/perf/ and /var/opt/OV directory for log and status files



If you are installing or upgrading HP Performance Agent on a system, on which GlancePlus is already installed, you must upgrade GlancePlus to the same release version. The GlancePlus and HP Performance Agent versions must always be the same.



There is no web fulfillment mechanism to convert the HP Performance Agent images to a non-trial licensed product. To obtain the production (non-trial) version of HP Performance Agent, you must purchase a License-to-Use product for each system on which HP Performance Agent images are installed, and at least one copy of the HP Performance Agent media product for your overall environment. The production software for HP Performance Agent must be installed from the media. It can be installed directly over the trial software (You need not remove the trial software).

## Special Installation instructions

If you are installing HP Performance Agent 4.7 on a system on which if one or more of the following HP Software products are installed, it is recommended to restart them after HP Performance Agent 4.7 installation:

- 1 HP Operations Agent

2 OV Internet Service

3 HP Performance Manager

- Co-existence of 64bit HP Performance Agent 4.7 with 7.x DCE Operations Agent is not supported.

## Enhancements and Fixes

The following issues (identified by error tracking number) are fixed in this release:

QXCR1000347704:

**PROBLEM:** Support logging of PROC\_PROC\_CMD in HP Performance Agent logs.

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**FIX:** An option is provided in parm file to enable or disable logging of PROC\_PROC\_CMD in HP Performance Agent logfiles.

---

QXCR1000383942:

**PROBLEM:** Provide an option to disable flush option.

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**FIX:** The flush interval can be disabled by setting flush at zero (i.e. flush = 0). If the flush is set to zero, the scopeux never logs the application and device data which are not meeting threshold values.

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QXCR1000216935:

**PROBLEM:** RECORDS PER HOUR are limited to one record per second for logging DSI data.

---

**FIX:** RECORDS PER HOUR limit is increased to allow logging of more unsummarized data records per hour. To support this a new option "-u" is introduced with sdlcomp and need to use this option if more than one unsummarized data record per second need to be logged.

---

QXCR1000347643:

**PROBLEM:** Provide an option to Manage log file by days in addition to size.

---

**FIX:** Two new parameters "days" and "maintweekday" are introduced in parm file. The "days" parameter controls how large the scopeux logfiles can grow in terms of number of days of data logged. The "maintweekday" parameter specifies the day of the week log file maintenance is done once the limit for days parameter is met. The log file continues to grow even though the limit for days parameter is met until maintweekday when log file roll back is done removing the exceeded number of days of data from start of log file at mainttime.

---

QXCR1000408578:

PROBLEM: Request for new metric...(GBL\_NUM\_LOGICAL\_CPU or GBL\_NUM\_PHYSICAL\_CPU)

---

FIX: A new metric GBL\_NUM\_CPU\_CORE has been added with this release. This metric is available only with Linux 2.6 Kernel.

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QXCR1000026539:

PROBLEM: The metric GBL\_MEM\_PAGE\_REQUEST\_RATE is capped at 3276.7.

---

FIX: This issue associated with capping of metric GBL\_MEM\_PAGE\_REQUEST\_RATE has been resolved.

---

QXCR1000041926:

PROBLEM: Customer would like permissions of the status files to be changed.

---

FIX: Now the status files and the SCOPE log files have "644" permission.

---

QXCR1000372676:

PROBLEM: GBL\_STATDATE, GBL\_STATTIME, GBL\_INTERVAL have to be included in all extracts.

---

FIX: New metrics STATDATE and STATTIME have been added to provide the ending time stamp for each interval in Performance Agent. The above metrics have been added to all the classes except for 'Configuration'.

---

QXCR1000419708:

PROBLEM: CODA aborts intermittently while serving DSI data sources containing a large number of classes.

---

FIX: Now the problem is fixed.

---

QXCR1000420544:

PROBLEM: When lvm class is enabled in parm file, CODA fails to run after some time.

---

FIX: The problem has been resolved now and the coda no longer aborts with too many open files error.

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QXCR1000423212:

**PROBLEM:** OVPA communication daemon is not started automatically in the following scenarios:

- 1 After a reboot
- 2 If "ovc -kill" is issued before "ovpa start"

---

**FIX:** Now OVPA communication daemon starts fine in all scenarios.

---

QXCR1000423390:

**PROBLEM:** Alarming based on process loop syntax in alarmdef file does not work consistently.

---

**FIX:** Now the problem is fixed.

---

QXCR1000408578:

**PROBLEM:** Request for a new metric that would allow for the differentiation between logical and physical CPUs in an environment where hyperthreading may be enabled.

---

**FIX:** A new metric GBL\_NUM\_CPU\_CORE has been added.

---

QXCR1000417955:

**PROBLEM:** PA installation generates error messages when '-n -v' option is used.

---

**FIX:** PA installation succeeds without any error message when '-n -v' option is used.

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QXCR1000415638:

**PROBLEM:** OVPA cannot be reached by any clients.

---

**FIX:** In the Linux Install Guide, a note is provided that on ESX host ports are disabled by default. The 'Configure Performance agent Ports' section describes in detail how to enable the required ports on ESX host and for CODA single and dual port communication.

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## Known Problems, Limitations, and Workarounds

QXCR1000346247:

**PROBLEM:** HP Performance Agent alarming module (alarmgen/perfalarm) processes the logged records every 15 seconds. Even if the logging interval is configured to less than 15 seconds (in case of PROCESS class), alarmgen/perfalarm processes all the logged records at the next 15 seconds boundary. Alarms generated on these records will have the timestamp of the last record processed.

For example:

If an alarm condition is met at 00:02:10, the alarmgen/ perfalarm will process that record at 00:02:15, and reports alarm start time as 00:02:00.

If an alarm condition is ended at 00:02:10, the alarmgen/perfalarm will process that record at 00:02:15, and reports alarm end time as 00:02:15..

---

**WORKAROUND:** NONE.

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QXCR1000353884:

**PROBLEM:** After one of the VM restarts, GLOBAL metrics GBL\_MEM\_SWAPIN\_BYTE and GBL\_MEM\_SWAPOUT\_BYTE are zero and these metric values are huge for first interval after restart of VM. This is a problem with the VMWare command which provides us the wrong values. We are working with VMWare to correct the issue.

---

**WORKAROUND:** NONE.

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**PROBLEM:** On Debian systems, that has OVOA 8.x and HP Performance Agent 4.7 installed, Un-installation of OVO 8.x agent removes all the Lcore components, although HP Performance Agent 4.7 is dependent on them.

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**WORKAROUND:** Hotfix is available through HP Support.

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QXCR1000315893:

**PROBLEM:**

- Performance agent does not support continuity across online hardware configuration change. In some cases, software change influences HP Performance Agent. Stop HP Performance Agent and then change HW configuration,
- HP Performance Agent does not recognize Hot-plug or on-line replacement facility supplied by hardware and/or operation system. HP recommends evaluation to meet within replacement.

---



WORKAROUND: NONE

---

PROBLEM: On some systems, when GatherCoda is scheduled from Reporter Scheduler, though Reporter collects data successfully from the host, the following message appears on the Reporter GUI:  
"006/12/05 12:42:40 ERROR: Gather <hostname>, GatherCODA Method ScopeDataView::SetPosition failed"

---

WORKAROUND: NONE

---

QXCR1000349933:

PROBLEM: On SLES9 upto kernel version 2.6.9 it is observed that for processes started after HP Performance Agent/GlancePlus is started, process starttime is ahead of current system time during first interval. This will affect calculation of metrics PROC\_CPU\_TOTAL\_UTIL, PROC\_CPU\_USER\_MODE\_UTIL and PROC\_CPU\_SYS\_MODE\_UTIL.

---

WORKAROUND: Install kernel version 2.6.10 or above on SLES9.

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QXCR1000046025 (Legacy ID R555019786):

PROBLEM: Some Linux kernels (some 2.4 versions), disk util and queue metrics will be zero or large value. Some Linux kernels do not support the instrumentation needed to create good values for the following metrics:

- GBL\_DISK\_UTIL\_PEAK
- GBL\_DISK\_REQUEST\_QUEUE
- BYDSK\_UTIL
- BYDSK\_REQUEST\_QUEUE
- BYDSK\_CURR\_QUEUE\_LENGTH
- BYDSK\_AVG\_REQUEST\_QUEUE
- BYDSK\_QUEUE\_\*\_UTIL
- BYDSK\_AVG\_SERVICE\_TIME

These metrics may be zero or incorrect.

---

WORKAROUND: NONE.

---

PROBLEM:	Extract of logical data in combination with other classes of metrics are not supported. Example, extract -xt -ip / -id /-it / -idy ( not supported ).
WORKAROUND:	Logical class of metrics can be extracted independently. Example, extract -xt -i is supported.
PROBLEM:	Extract with WK1/SPREADSHEET format has cell width limit of 255 characters. This limit truncates PROC_PROC_CMD metric length to 255 when extracted with WK1/SPREADSHEET format.
WORKAROUND:	NONE
QXCR1000447472:	
PROBLEM:	Control Agent does not get started with Performance Agent 4.7 installed on top of 7.33 agent on IA64 platforms only.
WORKAROUND:	Hotfix is available through HP Support.
PROBLEM:	On IA64 system, you see "unaligned access" meassages.
WORKAROUND:	Execute the following command, sysctl -w kernel.ignore-unaligned-usertrap=1
PROBLEM:	Upgrade from PA 4.6 to PA 4.7 fails on SLES10 x64.
WORKAROUND:	Use "ovpa.install -f" during upgrade.

## Documentation Errata

None.

# Software Version Information and File Placement Plan

## Version Information

For a summary of version strings for the major executable components of HP Performance Agent Software for Linux systems, enter the command:

```
/opt/perf/bin/perfstat -v
```

## File Placement

The following is a list of directory locations for product files:

- **Release Notes:**  
`/opt/perf/ReleaseNotes/`
- **Executables including UI programs, daemons and scripts:**  
`/opt/perf/bin/`
- **Examples (refer to the README file in the directory for more information):**  
`/opt/perf/examples/`
- **Shared component files:**  
`/opt/OV/bin/`  
`/opt/OV/lbin/`
- **Shared component libraries:**  
`/opt/OV/lib/`
- **Product configuration files:**  
`/var/opt/perf/`  
`/var/opt/OV/conf/perf/`
- **Man pages:**  
`/opt/perf/man/man1/`  
`/opt/perf/man/man3/`  
`/opt/perf/man/man4/`
- **Printable documents:**  
`/opt/perf/paperdocs/ovpa/C/`  
`/opt/perf/paperdocs/arm/C/`
- **Default configuration and template files:**  
`/opt/perf/newconfig/`
- **Product configuration and status files:**  
`/var/opt/perf/`  
`/var/opt/OV/conf/perf/`  
`/var/opt/OV/log/`
- **Status and data files:**  
Product binary data and internal-use files (created during and after installation):

/var/opt/perf/datafiles/

- Development include files:

/opt/perf/include/

- Library files:

/opt/perf/lib/

/opt/perf/lib64/ (for x86\_64 and ipf64)

- Online help files:

/opt/perf/help/ovpa/C/

- Message catalogs:

/opt/perf/lib/nls/msg/C/

## Local Language Support

Localized HP Performance Agent Software is not available for this release.

## Support

You can visit the HP Software support web site at:

**[www.hp.com/go/hpsoftwaresupport](http://www.hp.com/go/hpsoftwaresupport)**

This web site provides contact information and details about the products, services, and support that HP Software offers.

HP Software online software support provides customer self-solve capabilities. It provides a fast and efficient way to access interactive technical support tools needed to manage your business. As a valued support customer, you can benefit by using the support site to:

- Search for knowledge documents of interest
- Submit and track support cases and enhancement requests
- Download software patches
- Manage support contracts
- Look up HP support contacts
- Review information about available services
- Enter into discussions with other software customers
- Research and register for software training

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 the following URL:

**[http://h20230.www2.hp.com/new\\_access\\_levels.jsp](http://h20230.www2.hp.com/new_access_levels.jsp)**

To register for an HP Passport ID, go to the following URL:

**<http://h20229.www2.hp.com/passport-registration.html>**

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