

# HP Performance Agent

for the AIX operating system

## Release Notes

Software version: 4.72/July 2008

This document provides an overview of the changes made to HP Performance Agent for the 4.72. It contains important information not included in the manuals or in online help.

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## In This Version

HP Performance Agent was previously called the MeasureWare Agent (MWA). In some places, the name MeasureWare Agent or MWA might still appear.

This 4.72 release of HP Performance Agent has the following features:

- Performance Agent supports only http data communication on AIX 6.1 and above versions for 64-bit platforms. The DCE and NCS data communication are not supported.
- The following metrics are not supported on 64-bit platforms

GBL\_HYP\_UTIL

GBL\_NET\_DEFERRED

GBL\_NET\_DEFERRED\_CUM

GBL\_NET\_DEFERRED\_PCT


GBL\_NET\_DEFERRED\_PCT\_CUM


GBL\_NET\_DEFERRED\_RATE

GBL\_NET\_DEFERRED\_RATE\_CUM

- For java based applications on 64 bit operating system, GlancePlus supports ARM data collection/logging only if the application is running in 64 bit java virtual machine.

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

	<ul style="list-style-type: none"><li>• 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;/AIX/README</code>, where <code>&lt;directory&gt;</code> is your DVD-ROM.</li><li>• The new product name change is applicable to version 4.70 and later. Any references to earlier versions of HP Performance Agent will still have the name as HP OpenView Performance Agent.</li></ul>
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	<p>- HP Performance Agent will not support HP Self-Healing Services (SHS) from 4.70 release onwards.</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 IBM AIX Systems Installation and Configuration Guide", provided as part of the product in Adobe Acrobat (.pdf) format as `ovpainst.pdf` in `/usr/lpp/perf/paperdocs/ovpa/C/`.

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


- Hardware
  - IBM POWER5, POWER6 systems
- Operating system version and compatibility
  - AIX 6.1 TL1

- Software
  - The libC.a library is required for the HP Performance Agent to function correctly. The library is bundled within the xlC.rte package, available from your AIX OS DVD-ROM media.
  - The libSpmi.a library is a prerequisite on AIX 5L V5.1 and later for the memory metrics to be calculated correctly. The library is bundled within the perfagent.tools fileset from your AIX OS DVD-ROM disk media and is installed in the /usr/lib/ directory.
  - To collect and log cross-partition metrics, either xmservd/xmtopas should be available. xmtopas is a part of perfagent.tools fileset and xmservd is a bundled software of the Performance Toolbox for AIX component.
- Disk space

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

- recommended 140 MB in the /opt/perf/ and /opt/OV/ directories for first-time installation of HP Performance Agent.
- recommended 60 MB in the /var/opt/perf/ and /var/opt/OV/ directories 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 should always be the same.

	<p>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.</p> <p>You must install the production software for HP Performance Agent from the media. If you already have trial software installed, you need to un-install the trial software and install the production software.</p>
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The install.ovpa script:

In the install.ovpa script the following command line options are modified for the 4.72 release.

- install.ovpa -p can have value http only in 64 bit platform
- install.ovpa -b dce | ncs is not supported

## Special Installation Problems

- If you are installing HP Performance Agent 4.72 on a system where HP Operations agent is also installed, it is recommended that you restart HP Operations agent after HP Performance Agent 4.72 installation.

## Enhancements and Fixes

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

QXCR1000736631:

**PROBLEM:** Alarming in Performance Agent is severely delayed for non process metric data.

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**FIX:** Perfalarm's delay in delivering the alarms has been fixed.

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QXCR1000472644:

**PROBLEM:** Corruption in Performance Agent log files logproc and logdev after filesystem was full.

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**FIX:** scopeux will continue to collect but will not log anything when it recognizes the available disk space is low for /var filesystem. It will continue to log when the available space reaches the threshold set - default 5 MB.

**NOTE:**

Scope checks for the disk space when it comes up with the fixed size configurable through environment variable DISK\_RESERVE.

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QXCR1000467028:

**PROBLEM:** scopeux/glance aborts with libSpmi errors.

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**FIX:** LibSpmi dependency has been removed for lan metric (deferred metric only) and the metric is made -1(na). Successive failure of libSpmi call will not abort scopeux and glance process.

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QXCR1000467065:

**PROBLEM:** Incorrect BY\_CPU metrics on AIX 5.2 standalone system

---

**FIX:** This issue is fixed and now BYCPU system ,user mode utilizations are shown correctly.

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QXCR1000797116:

**PROBLEM:** The coda processes uses 100% CPU utilization after updating to Performance Agent 4.72.

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**FIX:** This problem of coda taking high cpu is fixed now.

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QXCR1000713989:

**PROBLEM:** GBL\_CPU\_TOTAL\_UTIL not matching sar when SMT=on on a Power5 system.

---

**FIX:** Measurement/AIX: GBL\_CPU\_PHYS\_TOTAL\_UTIL (and other CPU metrics) are now comparable with native tools on a dedicated or shared LPAR, and standalone system when SMT is enabled.

---

On AIX systems with SMT turned on, GBL\_CPU\_\*\_UTIL metrics show logical utilization and GBL\_CPU\_PHYS\_\*\_UTIL set will provide physical utilization of the system. sar output on these environments will always show physical utilization. To match sar output, PA/glance user has to compare it with GBL\_CPU\_PHYS\_TOTAL\_UTIL metric.

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.

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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..

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QXCR1000347643:

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

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**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.

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QXCR1000286135:

**PROBLEM:** Please add new metrics for Global Runnable processes (RUN QUEUE).

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**FIX:** GBL\_RUN\_QUEUE metric was already present but it was wrongly showing load average. This has been fixed and RUN QUEUE will be available through the metric GBL\_RUN\_QUEUE.

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QXCR1000383025:

**PROBLEM:** Glance fails with "kmem64: -1 instead of 304 bytes read" error on AIX 5.3 system.

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**FIX:** All kmem errors for disk metrics are fixed.

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QXCR1000418915:

**PROBLEM:** ovpa start command fails with the following error:  
'kmem64: -1 instead of 376 bytes read @ 200000000 for symbol "ifnet64-2" on AIX 5.3 MLP5.

---

**FIX:** The issue is fixed by reading metrics from libperfstat.

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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.

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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.

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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'.

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QXCR1000419708:

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

---

FIX: Now the problem is fixed.

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QXCR1000420544:

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

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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.

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QXCR1000423390:

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

---

FIX: Now the problem is fixed.

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QXCR1000438220:

PROBLEM: Under certain conditions rep\_server fails to start when Performance Agent is configured in DCE data comm because of fstat() error.

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FIX: The problem has been fixed now and rep\_server no longer aborts during start up.

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QXCR1000401800:

**PROBLEM:** lsdaemon dies soon after OVPA is started with an shared memory error.

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**FIX:** lsdaemon was dying because of communication differences from its parent. It has been fixed now.

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QXCR1000424031:

**PROBLEM:** lsdaemon taking over 90% of CPU in some environment.

---

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

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QXCR1000467028:

**PROBLEM:** Successive failure of libSpmi call aborts binary (scopeux,glance)

---

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

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## Daemons Required For Virtualization Metric

To collect and log cross-partition metrics xmservd daemon should be available. xmservd is a bundled software of the Performance Toolbox for AIX, which is licensed software.

## Known Problems, Limitations, and Workarounds

The known problems and workarounds for this release of HP Performance Agent are listed below:

Note: AIX kernel architecture performs disk I/O through the VMM (Virtual Memory Management) subsystems using memory mapped files. This affects the GBL\_MEM\_FREE and GBL\_MEM\_UTIL metrics. And the size of the freelist is not an indication of the free memory that is available on the system. As a workaround, the GBL\_MEM\_PG\_SCAN\_RATE metric can be used to monitor the memory pressure. The metric value gives an indication, if a system is running low on memory.

QXCR1000831711:

**PROBLEM:** DSI logfiles created by 32 bit PA agent are not compatible with 64 bit PA agent and vice-versa. Commands like extract, utility and sdlutil will not work with these DSI logfiles and CODA fails to recognize these DSI logfiles.

---



**WORKAROUND:** Migrate DSI logfile to destination agent type format.  
Steps for moving the DSI logfiles from 32 bit agent system to 64 bit agent system or vice-versa,

1. Export all the metrics on the source system to ASCII format (say mydsi.asc) and make sure that datetime is in UNIX format (using `extract -xp -ut`).
2. Move the ASCII file to destination system.
3. Create new DSI logfile set (using `sdlcomp`) on destination system.
4. Import the data into new DSI logfiles using command `dsilog` with `-timestamp` option ( `cat mydsi.asc | dsilog -timestamp`)

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QXCR1000820321:

**PROBLEM:** GBL\_NUM\_NETWORK value shown as zero when exported as a configuration class metric.

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**WORKAROUND:** Export GBL\_NUM\_NETWORK as a global class metric.

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QXCR1000818299:

**PROBLEM:** This is a tracking CR to raise a case ID against IBM so as to get an interface to provide Hypervisor metric through perfstat API.

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**WORKAROUND:** NONE.

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QXCR1000821985:

**PROBLEM:** When you are installing Performance Agent on a same system for the second time, the components `ovcd`, `ovbbccb`, and `coda` are not started automatically.

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**WORKAROUND:** Manually restart the components by using the command "`ovpa restart`" in the command prompt.

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QXCR1000394423:

**PROBLEM:** On multi-path environments, the virtual disk counters are counted twice as the underlying Operating System considers them as individual disks.

---

**WORKAROUND:** NONE.

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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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QXCR1000344795:

**PROBLEM:** It is possible that there can be a .5% difference in APP\_CPU\_TOTAL\_UTIL and GBL\_CPU\_PHYS\_TOTAL\_UTIL on AIX shared partitions. This is because the AIX kernel instrumentation provides those values.

---

**WORKAROUND:** NONE.

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QXCR1000366771:

**PROBLEM:** BYLS\_HYP\_UTIL logged as "0" for each LPAR for each interval. For collecting logical systems (BYLS\_) data, we use RSi library from IBM. The equivalent Spmi metric for BYLS\_HYP\_UTIL is %hyppct and is not being calculated. Since RSi also depends on Spmi, our GBL\_HYP\_UTIL will also be zero always. We are working with IBM to correct the issue. The defect number against IBM is:IY88986.

---

**WORKAROUND:** Install APAR IY88986 on your system.

---

QXCR1000366443:

**PROBLEM:** User mode and kernel mode utilizations for BYLS class of metrics are zeros even when the total utilization is non-zero for some intervals. This is because the underlying libraries we use are providing us wrong values. We are working with IBM to correct the issue. The defect number against IBM is:IY88986.

---

**WORKAROUND:** Install APAR IY88986 on your system.

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QXCR1000366404:

**PROBLEM:** The values reported by metric GBL\_NUM\_DISK and BYLS\_NUM\_DISK for the same LPAR on a physical system (when collected) will not match because we collect vscsiN also as disk in our product. In BYLS class this virtual SCSI device is not considered.

---

**WORKAROUND:** NONE.

---

**PROBLEM:** HP Performance Agent may not log accurate values for the interval when mode of SMT is changed for a LPAR. This is because the underlying libraries we use are providing us wrong values when this configuration change occurs. However, next interval will have correct values.

---

**WORKAROUND:** NONE.

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QXCR1000188488:

**PROBLEM:** The metrics GBL\_NFS\_CALL and GBL\_NFS\_CALL\_RATE may not reflect the activity of NFS version 4 (NFSv4) operations, because AIX instrumentation in that area for AIX 5L 5.3 is lacking.

---

**WORKAROUND:** NONE.

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QXCR1000187723:

**PROBLEM:** The values reported for swapping metrics (GBL\_MEM\_SWAP\_\*) are same as the corresponding paging metrics values (GBL\_MEM\_PAGE\_\*). The swapping metrics do not reflect swapping.

---

**WORKAROUND:** NONE.

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QXCR1000053950:

**PROBLEM:** In a cluster environment, after a cluster is switched on or off, HP Performance Agent servers cannot be restarted by issuing the ovpa restart command.

---

**WORKAROUND:** The DCE daemon must be started only after the cluster software is started and must be terminated before stopping the cluster software. If this is not done, the steps to be followed are:

If DCE was started prior to starting the cluster:

- 1 Stop the cluster software.
- 2 Stop the DCE daemon.
- 3 Start the cluster software.
- 4 Start the DCE daemon.
- 5 Stop HP Performance Agent, if it is running.
- 6 Start HP Performance Agent.

If DCE was started prior to stopping the cluster:

- 1 Start the cluster software.
- 2 Stop the DCE daemon.
- 3 Stop the cluster software.
- 4 Start the DCE daemon.
- 5 Stop HP Performance Agent, if it is running.
- 6 Start HP Performance Agent.

---

QXCR1000366417:

**PROBLEM:** HP Performance Agent logs N/A for some of BYLS metrics intermittently. This will affect summarization as HP Performance Agent substitutes N/A with 0 while summarizing the numeric data.

---

**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.

Note: AIX kernel architecture performs disk I/O through the VMM (Virtual Memory Management) subsystems using memory mapped files. This affects the GBL\_MEM\_FREE and GBL\_MEM\_UTIL metrics. And the size of the freelist is not an indication of the free memory that is available on the system. As a workaround, the GBL\_MEM\_PG\_SCAN\_RATE metric can be used to monitor the memory pressure. The metric value gives an indication, if a system is running low on memory.

---

**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.

---

QXCR1000426422:

**PROBLEM:** PROC\_CPU\_TOTAL\_UTIL/APP\_CPU\_TOTAL\_UTIL Don't Reflect AIX Logical CPU.

---

**WORKAROUND:** Metric help text is now modified to indicate that , on AIX SPLPAR PROC\_CPU\_TOTAL\_UTIL/APP\_CPU\_TOTAL\_UTIL are physical CPU consumptions and hence should be compared with GBL\_CPU\_PHYS\_TOTAL\_UTIL.

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## 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 for AIX systems, enter the command:

```
/usr/lpp/perf/bin/perfstat -v
```

## File Placements:

- **Release Notes**  
`/usr/lpp/perf/ReleaseNotes/`
- **Printable documents:**  
`/usr/lpp/perf/paperdocs/ovpa/C/`
- **Executables and scripts:**  
`/usr/lpp/perf/bin/`  
`/usr/lpp/OV/`
- **Java ARM Wrappers:**  
`/usr/lpp/perf/examples/arm`
- **Examples of ARM instrumented applications:**  
`/usr/lpp/perf/examples/arm/`
- **Online help files:**  
`/usr/lpp/perf/help/ovpa/C/`  
`/usr/lpp/perf/help/arm/C/`
- **Messages and catalog files**  
`/usr/lpp/perf/lib/nls/msg/C/`
- **Installation files and holding area:**  
`/usr/lpp/perf/newconfig/`
- **Program libraries:**  
`/usr/lpp/perf/lib/`
- **Include files for program development:**  
`/usr/lpp/perf/include/`
- **Man pages:**  
`/usr/lpp/perf/man/`
- **Product configuration and status files:**  
`/var/opt/perf/`  
`/var/opt/OV/conf/perf/`
- **startup and shutdown scripts:**  
`/etc/`  
`/etc/rc.ovpa`
- **Log files and other data files:**  
`/var/opt/perf/datafiles`  
`/var/opt/OV`

## Local Language Support

Localized HP Performance Agent is not currently available for AIX systems.

## 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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