HP OpenView Performance Agent

for the AIX operating system

Release Notes

Software version: 4.60 / February 2007

This document provides an overview of the changes made to HP OpenView Performance Agent (OVPA) for the 4.60. It contains important information not included in the manuals or in online help.

In This Version

OVPA was formerly called the MeasureWare Agent (MWA). In some places, the name MeasureWare Agent or MWA might still appear.

This release of OVPA has the following features:

Support for Virtualization

Ability to monitor LPARs. A new class of metrics, BYLS, is introduced for the host, to record the configuration and resource utilization metrics for the LPARs.

- Global Class:
  - GBL_LS_TYPE
  - GBL_LS_ROLE
  - GBL_NUM_ACTIVE_LS
  - GBL_POOL_CPU_ENTL
  - GBL_POOL_UNUSED_CPU
  - GBL_LS_ID
  - GBL_LS_MODE
  - GBL_LS_SHARED
  - GBL_POOL_ID
  - GBL_CPU_ENTL
  - GBL_CPU_ENTL_MIN
  - GBL_CPU_ENTL_MAX
  - GBL_CPU_SHARES_PRIO
  - GBL_CPU_ENTL_UTIL
  - GBL_CPU_PHYS_USER_MODE_UTIL
  - GBL_CPU_PHYS_SYS_MODE_UTIL
  - GBL_CPU_PHYS_TOTAL_UTIL
  - GBL_CPU_PHYSC
  - GBL_MEM_ENTL_MIN
  - GBL_MEM_ENTL_MAX
  - GBL_VCSWITCH_RATE
  - GBL_HYP_UTIL
- BYLS Class:
  - BYLS_LS_NAME
  - BYLS_LS_ID
  - BYLS_NUM_NETIF
  - BYLS_NUM_DISK
  - BYLS_LS_MODE
  - BYLS_LS_SHARED
  - BYLS_NUM_CPU

- BYLS_RUN_QUEUE
- BYLS_CPU_ENTL
- BYLS_CPU_ENTL_MIN
- BYLS_CPU_ENTL_MAX
- BYLS_CPU_CYCLE_ENTL_MAX
- BYLS_CPU_SHARES_PRIO
- BYLS_CPU_ENTL_UTIL
- BYLS_CPU_TOTAL_UTIL
- BYLS_CPU_PHYS_USER_MODE_UTIL
- BYLS_CPU_PHYS_SYS_MODE_UTIL
- BYLS_CPU_PHYS_TOTAL_UTIL
- BYLS_CPU_PHYSC
- BYLS_MEM_ENTL
- BYLS_MEM_ENTL_UTIL
- BYLS_VCSWITCH_RATE
- BYLS_CPU_MT_ENABLED
- BYLS_HYPCALL
- BYLS_HYP_UTIL
- BYLS_IP_ADDRESS

The OVPM and OVReporter templates for virtualized environment can be downloaded from: **ftp://ftp.hp.com/pub/ovreporter/VirtualizationTemplates/**

Configurable Logging Intervals

- Ability to configure the process interval between ranges of 5-60 seconds.
- Ability to configure interval for other intervalized classes to 15, 30, 60, or 300 seconds.
- The intervals are configurable in the `parm` file. The global interval value must be a multiple of the process interval value.

  Example: To set the process collection interval to 15 seconds, global and all other intervalized data classes to 30 seconds, make the following entry in the `parm` file:

  `collectioninterval process=15, global=30`

  The default values for process is 60 seconds, and global is 300 seconds.
- If there is no value specified for the collection interval line in the `parm` file or if `scopeux` detects illegal values while starting, the defaults will be used.
- It is recommended that `scopeux -c` be run after modifying the `parm` file, so that any warnings which might occur due to incorrect values will be displayed.

Additional logging thresholds

- Logging thresholds for process data. The default `parm` file contains the following:

```
procthreshold cpu = 5.0, memory = 900, disk = 5.0, nonew, nokilled
```

- To request that all process data be logged each interval,

  ```
  procthreshold all
  ```

  The procthreshold is equivalent to threshold, which was available with earlier releases.

  Logging thresholds for additional data classes (such as, application and device data).

- Logging thresholds for application data, appthreshold.

  Example, the following entry in the `parm` file will log only those application instances, for which cpu utilization exceeds 10.0% during the interval,

  ```
  appthreshold cpu = 10.0
  ```

  To request that all application data be logged each interval,

  ```
  appthreshold all
  ```

- Thresholds for disk data, diskthreshold.

  Example, the following entry in the `parm` file will log only those disk instances for which disk utilization time exceeds 10.0% during the interval,

  ```
  diskthreshold util = 10.0
  ```

  To request that all disk data be logged each interval,

  ```
  diskthreshold all
  ```

- Logging threshold for netif data, bynetifthreshold.

  Example, the following entry in the `parm` file will log only those netif instances, for which the IO rate exceeds 60.0 packets during the interval,

  ```
  bynetifthreshold iorate = 60.0
  ```

  To request that all netif data be logged each interval,

  ```
  bynetifthreshold all
  ```

- Logging threshold for file system data, fsthreshold.

  Example, the following entry in the `parm` file will log only those file system instances for which the space used exceeds 70.0% during the interval,

  ```
  fsthreshold util = 70.0
  ```

  To request that all file system data be logged each interval,

  ```
  fsthreshold all
  ```

- Logging thresholds for cpu data, bycputhreshold.

  Example, the following entry in the `parm` file will log only those cpu instance for which the percentage utilization of the cpu exceeds 90.0% during the interval,

  ```
  bycputhreshold cpu = 90.0
  ```

  To request that all cpu data be logged each interval,

  ```
  bycputhreshold all
  ```

Flush Interval

- Ability to request a data flush interval for application and device data classes.

- Ability to record/log ALL instances of application and device data periodically, including instances which are considered "uninteresting" based on the threshold criteria specified.

  Example, the following entry in the parm file will cause all instances of application and device data to be written to the logs once per hour (3600 seconds).

  `flush = 3600`

  The flush seconds must be in the range 300-32700 and be an even multiple of 300.

Other

The following new metrics are included:

- Global Class:
  - GBL_CPU_MT_ENABLED
  - GBL_CPU_NUM_THREAD
  - GBL_SWAP_SPACE_USED
  - GBL_MEM_PAGEIN
  - GBL_MEM_SWAPIN_BYTE
  - GBL_MEM_SWAPOUT_BYTE
  - GBL_MEM_FILE_PAGEIN_RATE
  - GBL_MEM_PAGE_FAULT_RATE
  - GBL_SYSCALL_READ_BYTE_RATE
  - GBL_SYSCALL_WRITE_BYTE_RATE
  - GBL_SWAP_SPACE_USED
  - GBL_MEM_FREE
- Process Class:
  - PROC_STARTTIME

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

Before using OVPA software, you must review and accept the license terms and conditions spelled out in the readme file available in /<*directory*>/`readme.ovpa`, where <*directory*> is your CD-ROM directory.

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, visit the following URL:

http://ovweb.external.hp.com/lpe/doc_serv/

1. In the Product list, click the product name.
2. In the Version list, click the version number.
3. In the OS list, click the OS type.
4. In the document list, click the document title.
5. To retrieve the document, click **Open** or **Download**.

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 URL:

http://www.adobe.com.

Installation Notes

For installation requirements and instructions, refer to "*HP OpenView 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 OVPA, make sure that your system meets the following minimum hardware and software requirements:

Hardware Requirements

IBM RS/6000 and pSeries systems.

Operating system version and compatibility

- AIX 5L V5.1
- AIX 5L V5.2
- AIX 5L V5.3 ML3 and later

Software Requirements

- The `libC.a` library is required for the OVPA to function correctly. The library is bundled within the `xlC.rte` package, available from your AIX OS CD-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 CD-ROM disk media and is installed in the `/usr/lib/` *`directory`*.
- NCS 1.5.1

  `llbd` is the location broker for OVPA NCS mode. If you are installing OVPA in NCS mode, it is recommended you use native `llbd` provided by the OS.
- IBM DCE V3.2

  DCE is not a standard product on AIX, whereas NCS is available with the AIX OS CD-ROM media. Hence, the DCE Base Services for AIX Package must be purchased separately. The package is necessary and has to be installed only if you want to install the OVPA binary set with the `-b dce` option and run it in DCE mode or to emulate the NCS mode using DCE.

  Note that DCE must be running on your system before installing or starting OVPA in DCE mode. To set up DCE to run automatically at system startup, edit the `/etc/inittab` file. Insert the following line before the line that begins with ovpa in the `/etc/inittab` file:

  `rcdce:2:wait:/etc/rc.dce core > /dev/console 2 > &1`

DCE datacomm on OVPA is supported as long as it is supported by IBM.

Disk Space Requirements

OVPA 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 100 MB in the `/opt/perf/` and `/opt/OV/` directories for first-time installation of OVPA.
- recommended 60 MB in the `/var/opt/perf/` and `/var/opt/OV/` directories for log and status files.

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

There is no web fulfillment mechanism to convert the OVPA images to a non-trial licensed product. To obtain the production (non-trial) version of OVPA, you must purchase a License-to-Use product for each system on which OVPA images are installed, and at least one copy of the OVPA media product for your overall environment.

You must install the production software for OVPA from the media. You can install the production software directly over the trial software (you need not remove the trial software).

Special Installation Instruction

- If you are installing OVPA 4.6 and OVO 7.x agent on the same system, you must install OVO 7.x agent first and then OVPA 4.6.
- If you are installing OVPA 4.6 on a system where OVO Agent is also installed, it is recommended that you restart OVO Agent after OVPA 4.6 installation.
- If you have OV SMART Plug-Ins installed, install the following patches for SMART Plug-Ins, to work successfully with OVPA 4.6. These patches are needed to update a tool that is used to integrate OV SMART Plug-Ins and OVPA.

  HPUX: `OVO/U 7.1X on HPUX-PA PHSS_33921`

  `OVO/U 8.1X on HPUX-IA PHSS_33922`

  Solaris: `OVO/U on 7.1X Sun ITOSOL_00474`

  `OVO/U on 8.1X Sun ITOSOL_00475`

  Windows: `OVOW on 7.2X OVOW_00201`

  `OVOW on 7.5X OVOW_00202`

Enhancements and Fixes

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

QXCR1000354577

PROBLEM: Enhance OVPA/GlancePlus to report resource utilization for all `LPARs` configured on the same server.

FIX: OVPA and GlancePlus have been enhanced to provide server wide view. They report resource entitlement and utilization for each of `LPARs` configured on the same server.

QXCR1000370552

PROBLEM: "`mwa restart alarm`" exposes file descriptor leak in `rep_server`.

FIX: This problem is fixed.

QXCR1000368751

PROBLEM: OVPA alarms received by OVO show the alarm start time to be later than the end time.

FIX: Henceforth, the alarm start time will not be greater than the end time.

QXCR1000362775

PROBLEM: `perfalarm` while restarting, is unable to connect to coda if `bbc` port is being changed dynamically.

FIX: Now, restarting `perfalarm` can connect to coda after the `bbc` port is changed dynamically.

QXCR1000366448

PROBLEM: coda process crashes while destroying ScopeAccess object

FIX: The problem is fixed.

QXCR1000332045

PROBLEM: `parm` file on different platforms shows different value of mainttime and does not match the text statement written regarding mainttime value

FIX: The value of mainttime is consistent on all the platforms.

QXCR1000378175

PROBLEM: As OVPA is configurable in seconds' granularity, TIME metric should also give seconds too.

FIX: Now, TIME metric will be displayed in HH: MM: SS format.

To see the data with seconds granularity with OVPM, version of OVPM6 should be 06.01.042 (patch) and version of OVPM5 should be X.05.00.036 (hotfix).

QXCR1000318628

PROBLEM: Scope log files and OVPA status files have global write permission after upgrade to C.04.X.

FIX: The check for inconsistency in file permissions for 'others' and 'group' users, has been added.

QXCR1000241467

PROBLEM: OVPA and glance do not report both inactive iCoD CPU's as well as active CPUs.

FIX: This problem is fixed. The iCOD CPUs are correctly reported now.

QXCR1000354599

PROBLEM: Global CPU total util is not the same as the normalized value of summation of individual processors on an 8 way AIX system.

FIX: Now, BYCPU utilization is shown correctly on LPAR systems.

QXCR1000298401

PROBLEM: `perfstat` has to be enhanced to show the active datasources.

FIX: `perfstat` should show active datasources if coda is running.

QXCR1000356803

PROBLEM: perfstat output needs to be enhanced to show port configuration and status of EPC.

FIX: To provide the required data, the option "`-d`" has been added, and "`-p`" has been enhanced to `perfstat`.

QXCR1000356310

PROBLEM: Scope Access API's consume very high CPU, causing the coda process to show a very high value for `PROC_CPU_TOTAL_UTIL`.

FIX: The issue of coda consuming high CPU utilization for huge `log` files, without any client request is fixed.

QXCR1000336978

PROBLEM: Need a mechanism to verify if installations of OVPA contain permanent licenses.

FIX: OVPA software license status can now be obtained using '**`-licheck`**' option of extract or utility.

QXCR1000380984

PROBLEM: OVPA install changes permission & owner of `/opt` and `/var`.

FIX: This problem is fixed.

QXCR1000215773

PROBLEM: OVPA needs to be enhanced to use an alternate temporary directory for utility resize operation.

FIX: OVPA will now use the alternate temporary directory set by `TMPDIR` environment variable, as temporary location to resize log file.

QXCR1000350192

PROBLEM: OVPA doesn't recognize new CPUs added in a virtually partitioned environment until

scopeux is restarted.

FIX: On virtually partitioned systems, if CPUs are added/removed dynamically, the same is updated in the subsequent interval.

QXCR1000195155

PROBLEM: On systems with dynamic CPU addition/deletion (such as AIX 5.3 on Power5 architecture), average (cumulative) global CPU metrics are calculated based on the maximum number of CPUs (GBL_NUM_CPU) instead of GBL_ACTIVE_CPU. Metrics affected include GBL_CPU_TOTAL_UTIL_CUM.

FIX: GBL_CPU_TOTAL_UTIL_CUM metrics are calculated properly and display correct values.

QXCR1000327694

PROBLEM: coda dumps core while starting when it tries to access a corrupted DSI log files.

FIX: This problem is fixed and now coda ignores a datasource, if corresponding DSI log file is corrupted and an error message is logged to coda.txt.

QXCR1000319426

PROBLEM: PROC_CPU_SYS_MODE_UTIL, PROC_CPU_USER_MODE_UTIL and PROC_CPU_TOTAL_UTIL metrics will overflow for a multithreaded application in a multi CPU environment if the value exceeds 327.67%.

FIX: The upper limit for these metrics is increased to 3270%.

QXCR1000315985

PROBLEM: On some Windows systems, "UNAUTHORIZED CONNECTION ATTEMPT" message is logged to status.rep_server file even though the machine name is included in `authip' file.

FIX: This problem is fixed.

QXCR1000323517

PROBLEM: alarmgen terminates abnormally when CONFIGURATION metrics are included in alarmdef file.

FIX: This problem is fixed.

QXCR1000244444

PROBLEM: scopeux stops running after one year limit is reached for any of scope log files.

FIX: Now, `scopeux` continues to run after performing roll over for the data in the scope log file for which one year limit is reached.

QXCR1000288917

PROBLEM: mwa restart fails, if `LC_ALL` is set to any locale other than "C".

FIX: This problem is fixed.

QXCR1000240635

PROBLEM: `scopeux` terminates when `/var` file system is full.

FIX: Now, `scopeux` is modified to log a WARNING message in `status.scope` file. Itstops logging, if less than 1 MB space is found in the `/var` file systems and `perfalarm/alarmgen` generates an alarm to indicate the situation. `Scopeux` will resume logging once free space `/var` file system is greater than 1MB.

QXCR1000343417

PROBLEM: Alarms are not generated when alarms are defined using alias for any multi-instance class.

FIX: This problem is fixed.

QXCR1000217399

PROBLEM: Service name is missing in alarm message on message browser.

FIX: This problem is fixed.

QXCR1000335471

PROBLEM: ovpa script starts all common components as root when installed on a system with OVOA 8.x is installed and configured to run as non-root.

FIX: Now, OVPA script starts common components as non-root, if OVOA is configured to run as non-root.

QXCR1000334202

PROBLEM: Change in GMT offset values is not logged for `GBL_GMTOFFSET` due to day light saving (from ST to DST or vice versa).

FIX: Now, scope logs a new configuration record whenever there is change in value of `GBL_GMTOFFSET`.

QXCR1000349063

PROBLEM: Performance of ARMed applications may degrade if large number of calls are made to `arm_init()`, `arm_getid()` and `arm_end()` from ARMed application.

FIX: This problem is fixed.

QXCR1000316706

PROBLEM: coda performance degrade and memory growth is observed if a datasource is configured for a large scope `log` file.

FIX: The performance of coda has been improved.

QXCR1000328434

PROBLEM: OVPA C.04.X AIX install script adds a bad entry in `/etc/rc.shutdown`.

FIX: The `/etc/rc.shutdown` has been modified to remove the bad entry.

QXCR1000285577

PROBLEM: When OVPA is running on a micro-partitioned environment

a. Number of CPUs are reported incorrectly,
b. Sum of Application CPU Utilizations will not match Global CPU Utilization,
c. Process CPU Utilization will not match with both Application CPU Utilization and Global CPU Utilization.

FIX: Now, OVPA/HP OpenView GlancePlus (GlancePlus) is LPAR aware and the values for CPU, Application and Process metrics are correct. These changes are for AIX 5.3 with micro- partitions.

QXCR1000308434

PROBLEM: `perflbd`, `rep_server`, `extract` and `sdlutil` are dumping core due to mis-handling of errors returned in case of DSI `log` file corruption.

FIX: Now `perflbd`, `rep_server`, `extract` and `sdlutil` are modified to handle the errors properly for the corrupted DSI log file.

QXCR1000309395

PROBLEM: The keys to access the shared memory of two DSI datasources being same results in data corruption. The corrupted data causes the `rep_server` to dump core.

FIX: Now, the implementation uses memory mapped files and works as expected.

QXCR1000310128

PROBLEM: `perfalarm` fails to treat "SCOPE" as default datasource.

FIX: Now `perfalarm` by default recognizes the "SCOPE" datasource and doesn't expect the "use SCOPE" statement in `alarmdef` file.

QXCR1000313261

PROBLEM: `BYNETIF_*_BYTE_RATE` metrics overflow when the network traffic is high.

FIX: The overflow has been handled and the maximum value for the `BYNETIF_*_BYTE_RATE` metrics is enhanced to 3276700.0.

QXCR1000313783

PROBLEM: A mis-calculation of address causes dsilog to dump.

FIX: dsilog is fixed to correctly calculate the memory address.

QXCR1000237216

PROBLEM: Coda memory leak is observed because of not freeing the allocated memory.

FIX: The memory leak in coda is fixed.

QXCR1000288391

PROBLEM: OVPA is not logging the header information for the newly added filesystem into `log` files. This causes the summarization not to show FS metrics.

FIX: Now OVPA logs header information if there is a change in number of instances of FILE SYSTEMS.

QXCR1000312752

PROBLEM: The display size of `FS_DIRNAME` was limited to 40 characters.

FIX: The display size of the field `FS_DIRNAME` is increased from 40 to 60 characters.

Known Problems, Limitations, and Workarounds

The known problems and workarounds for this release of OVPA are listed below:

QXCR1000346247

PROBLEM: OVPA 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:

a. 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.

b. 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.

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.

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.

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: OVPA 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.

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.

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.

QXCR1000053950

PROBLEM: In a cluster environment, after a cluster is switched on or off, OVPA 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:

a Stop the cluster software.

b Stop the DCE daemon.

c Start the cluster software.

d Start the DCE daemon.

e Stop OVPA, if it is running.

f Start OVPA.

If DCE was started prior to stopping the cluster:

a Start the cluster software.

b Stop the DCE daemon.

c Stop the cluster software.

d Start the DCE daemon.

e Stop OVPA, if it is running.

f Start OVPA

QXCR1000377061

PROBLEM: On systems that has OVPA 4.6 installed, by default, the DCE based alarm generator, `alarmgen`, is not running.

WORKAROUND: To enable the DCE based alarm generator, `alarmgen`, stop OVPA, rename the `perfalarm` executable to `perfalarm.old`, and restart OVPA using the mwa script.

QXCR1000366417

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

WORKAROUND: NONE.

PROBLEM: Extract of logical data (extract `-xt` with `-i/-I` option), is not supported in this release.

WORKAROUND: NONE.

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.

Documentation Errata

None

Software Version Information and File Placement Plan

Version Information

For a summary of version strings for the major executable components of OVPA 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 OVPA is not currently available for AIX systems.

Support

Please visit the HP OpenView support web site at:

http://www.hp.com/managementsoftware/support

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

HP OpenView 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 being able to:

- Search for knowledge documents of interest
- Submit and track progress on support cases
- Submit enhancement requests online
- Download software patches
- Manage a support contract
- Look up HP support contacts
- Review information about available services
- Enter 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://www.hp.com/managementsoftware/access_level

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

http://www.managementsoftware.hp.com/passport-registration.html

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