

HP OpenVMS

PERFDAT V4.5

Release Notes

August 2011

Revision/Update Information
Software Version
Operating System Version

New manual.
HP PERFDAT V4.5
OpenVMS AXP V7.3-2 & higher
OpenVMS IA64 V8.2 & higher



August 2011

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Preface

Audience

This manual is intended for all system managers who have installed HP OpenVMS PERFDAT on their systems. Read this manual before you install, upgrade or use version V4.5 of HP PERFDAT.

Document Structure

- Chapter 1 contains installation information
- Chapter 2 contains support information
- Chapter 3 New Features
- Chapter 4 Bug Fixes
- Chapter 5 contains OpenVMS patch advisories

Related Documents

The manuals listed below are available in support of this version:

- HP PERFDAT V4.5 – Upgrade and Installation Manual
- HP PERFDAT V4.5 – Architecture and Technical Description
- HP PERFDAT V4.5 – DQL\$ Reference Manual
- HP PERFDAT V4.5 – PERFDAT_MGR Reference Manual

All manuals are in *Portable Document Format* (PDF) and are included in the PERFDAT045.A installation kit.

Extract the *PERFDAT_OPENVMS_DOCU_V45.ZIP* file using the OpenVMS BACKUP utility. Then transfer this file to a system such as a PC and UNZIP this file in order to access the individual manuals.

Conventions Used in this Manual

- | | |
|------------------|---|
| <i>Special</i> | in examples indicates text that the system displays or user type input. |
| UPCASE | in a command represents text that you have to enter as shown. |
| <i>Lowercase</i> | indicates variable information that a user supplies. |

Italics
[] in a command definition, enclose parts of the command that a user can omit.

Key indicates a named key on the keyboard; for example, RETURN

CTRL/x is the symbol used to represent the pressing of a control key. It indicates that the user holds down the key marked Ctrl and simultaneously pressing the appropriate key.

PERFDAT Installation Release Notes

This chapter contains information you need to know before installing or upgrading to HP PERFDAT V4.5.

HP recommends that you read the following manuals before installing or upgrading to HP PERFDAT V4.5:

- HP PERFDAT V4.5 – Release Notes (this manual)
- HP PERFDAT V4.5 – Upgrade and Installation Manual

1.1 Upgrade Path

You can upgrade directly to HP PERFDAT V4.5 from any HP PERFDAT V4.x release or any ECO level of HP PERFDAT V3.3. Use the command

```
$ MCR PERFDAT_MGR SHOW VERSION
```

to display the actual version of HP PERFDAT in use.

If you are still using HP PERFDAT V3.2 or an earlier version, it is recommended that you upgrade first to HP OpenVMS PERFDAT V3.3 and then to version V4.5. If you do not have version V3.3 please contact PERFDAT support

PERFDAT@HP.COM

to obtain the necessary kit.

1.2 Kit Content

In order to reduce the size of the installation kit the ZIP file containing the NET-SNMP V5.1.2 packages (NET-SNMP_512.ZIP) for Solaris 2.6, 7, 8 and 9 has been removed from installation kit PERFDAT045.A.

We recommend that these packages are installed on a Solaris system if you want to collect performance data from a Solaris system running one of

the operating system versions listed above with the HP PERFDAT SNMP extension.

The NET-SNMP V5.1.2 packages ZIP file can be downloaded from:

<http://www.perfdat.com/>

or

<http://www.hpperfdat.com/>

Supported Versions

2.1 Supported OpenVMS versions

HP PERFDAT V4.5 supports the following OpenVMS versions:

- OpenVMS V7.3-2 AXP
- OpenVMS V8.2 AXP
- OpenVMS V8.3 AXP
- OpenVMS V8.4 AXP
- OpenVMS V8.2 IA64
- OpenVMS V8.2-1 IA64
- OpenVMS V8.3 IA64
- OpenVMS V8.3-1H1 IA64
- OpenVMS V8.4 IA64

2.2 Discontinued OpenVMS support

The following OpenVMS versions are not supported by HP PERFDAT V4.5:

- OpenVMS V7.2-2 AXP
- OpenVMS V7.3 AXP
- OpenVMS V7.3-1 AXP

If you are still running HP PERFDAT on one of these OpenVMS versions and you need some of the new features provided by HP PERFDAT V4.5 please contact HP PERFDAT support (<mailto:PERFDAT@HP.COM>). We will check if the required features can be back-ported to HP PERFDAT V3.3.

New Features

This chapter contains information about new features of HP PERFDAT V4.5.

3.1 *HP PERFDAT installation*

3.1.1 DQL\$SRV account update

Prior to HP PERFDAT V4.5 the account default device, account default directory as well as the default and authorized privileges of the DQL\$SRV account (default account for all HP PERFDAT components) were reset to default values during the upgrade process.

The HP PERFDAT V4.5 installation now leaves the DQL\$SRV account settings unchanged.

3.2 *HP PERFDAT startup*

3.2.1 PERFDAT\$STARTUP_BATCH startup script

The PERFDAT\$STARTUP_BATCH.COM script submits the startup scripts of the HP PERFDAT components into a batch queue for execution. In order to avoid that the job log files are submitted into the default print queue when the batch job has completed, the /NOPRINTER qualifier has been added to the SUBMIT command used.

3.3 *HP PERFDAT OpenVMS data collector*

3.3.1 New SYSTEM alignment fault statistics

HP PERFDAT V4.5 provides new alignment fault statistics in the SYSTEM metric as listed in table 3.1:

Tab. 3.1: New alignment statistics of the SYSTEM metric

Statistics	Description	Unit
iAlignFltKrnL	EXE Alignment faults kernel kernel	[1/s]
iAlignFltExec	EXE Alignment faults exec mode	[1/s]
iAlignFltSuper	EXE Alignment faults supervisor mode	[1/s]
iAlignFltUser	EXE Alignment faults user mode	[1/s]

Note

These alignment fault statistics are only available on IA64 systems running OpenVMS V8.3 or higher. HP PERFDAT V4.5 does not provide these statistics if it is installed on Alpha systems or on OpenVMS IA64 V8.2 or OpenVMS IA64 V8.2-1.

3.4 **HP PERFDAT EVA extension**

3.4.1 XCS 10.0 firmware support

If, prior to HP PERFDAT V4.5, one runs the EVA extension to collect data from an EVA having the XCS 10.0 firmware installed, the collection did not start and the EVA extension reported the following error message in the log file:

FMTREV, Expected page 0x23 to be format rev 5 but got rev 6

The reason for the problem is that in the firmware release XCS 10.0 the log page format for requesting the port statistics (page number 0x23) has been modified.

The HP PERFDAT V4.5 EVA extension now supports this new log page format in the XCS 10.0 firmware release.

Bug Fixes

This chapter contains information about bug fixes available in HP PERFDAT V4.5.

4.1 *OpenVMS data collector*

4.1.1 Memory leaks

If, prior to HP PERFDAT V4.5, one of the metrics:

- DEVICE.FILE
- DEVICE.PROCESS
- DEVICE.PROCESS.FILE
- DEVICE.IOSIZE

is enabled for a data collection the data collector may stall after several weeks or months because the HP PERFDAT OpenVMS data collector exceeds its page file quota. This problem is caused by a memory leak that occurs whenever the HP PERFDAT OpenVMS data collector detected I/O activity on a disk device not included in the device selection list (defines the devices to monitor). Although only a few bytes per device are not freed at the end of a sample interval the page file is filled up regularly until the page file quota is exceeded.

This bug has been fixed with HP PERFDAT V4.5.

4.2 *PERFDAT_MGR utility*

4.2.1 Application data collection status display

The SHOW COLLECTION command can be used to display the status of a particular application data collection (for more detailed information about application data collections please refer to the manual – HP PERFDAT – Application Programming Interface User's Guide).

The application data collection status contains the content of the collection profile used to run the application data collection and the process names of all the processes that run programs associated with the same application.

Prior to HP PERFDAT V4.5 all the processes that are associated (= processes that may potentially run the data collection) with the application were displayed regardless of whether or not the data collection is active for the processes or not. Thus, this status display did not reflect the actual status of the application data collection.

With HP PERFDAT V4.5 only those processes are included in the status display that are actually running the data collection

4.3 *DQL\$ utility*

4.3.1 CREATE GRAPH command fails with SYSTEM-F-FLTDIV

If, prior to HP PERFDAT V4.5, one wanted to create a graph from a data collection with a sample interval smaller than 60 seconds, the CREATE GRAPH command failed with SYSTEM-F-FLTDIV due to an invalid data type cast and error code handling in the image PERFDAT_CSV2PNG.EXE

This bug has been fixed with HP PERFDAT V4.5.

4.3.2 SELECT statement does not display the content of BOOLEAN columns

The record descriptor of a metric may contain columns with BOOLEAN data type. If, prior to HP PERFDAT V4.5, BOOLEAN columns were addressed in a SELECT statement, the content of these columns was not displayed on screen.

This bug has been fixed with HP PERFDAT V4.5.

4.3.3 SHOW ELEMENT parsing error

The SHOW ELEMENT command is used to display the elements of a particular metric. One can apply an element item list as a comma separated list to filter for dedicated metric elements. If, prior to HP PERFDAT V4.5 such an element filter list exceeds 64 characters the command failed with a parsing error.

This bug has been fixed with HP PERFDAT V4.5.

4.3.3 SHOW PROCEDURE parsing error

The SHOW PROCEDURE command is used to display the user defined (stored) procedures. The NODE clause can be applied to display the user defined procedures valid for a particular node only.

If, prior to HP PERFDAT V4.5, the NODE clause was applied the value of the OSTYPE filter clause was ignored. Thus, not only the stored procedures defined for a particular node and operating system (OpenVMS, Brocade etc.) but all the node specific user defined procedures for all operating systems valid for the metric specified by the METRIX clause were displayed.

4.3.4 Online data is not accessible via cluster views

The DEFINE VIEW command can be used to create cluster views. A cluster view maps performance data of different nodes for cluster wide performance analysis.

Prior to HP PERFDAT V4.5 online data (= data stored in the files currently open by any of the HP PERFDAT data collectors) was not accessible via a cluster view.

4.4 *PDBC\$SRV data connectivity server*

4.4.1 SHOW ELEMENT parsing error

The PDBC\$SRV data connectivity server services data and statistics queries sent by the GUI.

If, prior to HP PERFDAT V4.5, the PDBC\$SRV data connectivity server receives a SHOW ELEMENT command from the GUI with an element item list exceeding 64 characters the command failed with a parsing error which caused the GUI to hang.

This bug has been fixed with HP PERFDAT V4.5.

4.5 *Auto trend engine*

4.5.1 Auto trend engine crashes if the element filters in a report profile are empty

The auto trend engine of HP PERFDAT automatically extracts trend and capacity reports from the data collections based on pre-defined report

profiles. One of the control parameters are the metric element item lists which specify these elements of a metric that shall be included in the trend or capacity report.

If, prior to V4.5, one of the metric element item lists were empty (zero length string) the auto trend engine crashed with %SYSTEM-E-ACCVIO instead of assuming an asterisk (*) wildcard character.

This bug has been fixed with HP PERFDAT V4.5.

4.6 *Programming Interface*

4.6.1 Process may crash with %SYSTEM-F-INTDIV

The HP PERFDAT API can be used to collect process specific data.

If, prior to HP PERFDAT API V4.5, the API was initialized to call the program specific data collection routine asynchronously (for detailed description please refer to the manual – HP PERFDAT – Application Programming Interface User’s Guide), and the data insert API routine **PerfDatAPIInsertRecord()**, which has to be called from this program specific data collection routine, fails for any reason (i.e. disk full state) the process crashes with %SYSTEM-F-INTDIV.

This bug has been fixed with HP PERFDAT V4.5.

Note

In order to get rid of this bug in the programs using the HP PERFDAT API to collect process specific data, these programs have to be re-linked after HP PERFDAT has been upgraded to V4.5.

Important OpenVMS patch advisory

If one of the OpenVMS releases listed below is installed on your system:

- OpenVMS V8.3 AXP
- OpenVMS V8.3 IA64
- OpenVMS V8.3-1H1 IA64

please ensure that the following OpenVMS patches are also installed:

- OpenVMS V8.3 AXP VMS83A_SYS-V1000
- OpenVMS V8.3 IA64 VMS83I_SYS-V0800
- OpenVMS V8.3-1H1 IA64 VMS831H1I_SYS-V0300

These patches fix a bug in the OpenVMS PMS sub-system that may crash the system if the PMS sub-system is released by HP PERDAT.

The HP PERFDAT OpenVMS data collector allocates the PMS sub-system in order to provide the statistics for the following metrics:

- DEVICE
- DEVICE.IOTIMEHIST
- DEVICE.FILE
- DEVICE.PROCESS
- DEVCE.PROCESS.FILE

Note

If you do not have these patches installed do NOT stop the HP PERFDAT OpenVMS data collector and do NOT upgrade HP PERFDAT (a HP PERFDAT upgrade implicitly stops the OpenVMS data collector) to V4.5 until you have installed these patches and you have rebooted your system.
