

HP GlancePlus

For HP-UX Operating System

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Installation Guide

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Contents

1	Installing, Upgrading and Running HP GlancePlus	7
	System Requirements	9
	Hardware	9
	Operating System	9
	Software	9
	Disk Space	10
	Terminals	11
	Runtime Memory	11
	GlancePlus and perfd Licenses	12
	Installing or Upgrading GlancePlus	13
	Verifying the Installation	14
	GlancePlus in a Virtualized Environment	16
	GlancePlus on the Host Operating System	16
	GlancePlus on the Guest Operating System	16
	Running GlancePlus	17
	Data Communication Across a Firewall	18
	perfd.ini File	19
	Modify the perfd.ini File	19
	Configure perfd Using CLI Parameters	20
	Removing GlancePlus	21
2	Documentation	23
	Release Notes	23
	Online Help	23
	Viewing and Printing Documents	24
	Viewing Documents on the Web	24
	Adobe Acrobat Files	25
	ASCII Text Files	25

Glossary..... 27

1 Installing, Upgrading and Running HP GlancePlus

HP GlancePlus is a powerful online real-time system performance monitoring and diagnostic tool that displays data directly to a user terminal or a workstation.

The components are:

- `xglance`: A Motif® interface
- `glance`: A character mode interface
- `perfd`: A remote monitoring capability using remote CLIs `cpsh`, `padv` and `mpadv`

GlancePlus supports monitoring of HP Integrity Virtual Machines 2.0, for more information, refer to the section, [GlancePlus in a Virtualized Environment](#) on page 16.



Before using HP GlancePlus you must review and accept the license terms and conditions detailed in the readme file available in `/<directory>/<os>/README`, where `<directory>` is your optical media directory.

HP GlancePlus Components

`xglance`

Use `xglance`, the Motif interface, to:

- View performance through a graphical user interface with multiple window capability
- Use powerful help subsystems including graphics, hyperlinks and On Window and On Item capabilities
- Alert you to potential problems with alarm capabilities
- Monitor your system while you are busy with other applications

glance

Use `glance`, the character mode interface, to:

- Monitor performance over slow data communications links
- Monitor the system remotely
- Monitor the system when an X-display is not available
- Alert you to potential problems with alarm capabilities

perfd

Connect to `perfd` system metric server to:

- Monitor real time system performance data remotely for one or more systems with CLI clients
- Configure alerts on potential problems in a single remote node or multiple remote nodes, with alarm capabilities
- Share data collection between multiple clients.

System Requirements

Before installing GlancePlus, make sure that your system meets these system requirements. These requirements apply to both `xglance` and `glance`, unless otherwise noted.

Hardware

HP 9000, Integrity Servers, and HP Workstations supported on HP-UX 11i v1 and HP-UX 11i v2 December 2004 release.

Operating System

- HP-UX 11i v1 release for the PA-RISC architecture.
- HP-UX 11i v2 release for both the Itanium (TM) and PA-RISC architectures.
- HP-UX 11i v3 release for both the Itanium (TM) and PA-RISC architectures.



GlancePlus is supported on standard operating system kernels. Modifications to certain critical kernel parameters might affect the proper running of the product.

Software

- The following patches must be installed on the system to get the support MemFS by `glance/xglance`:
 - PHKL_36853 (or superseding patch)
- To use the correct version of `libnm.1` on HP-UX 11i v1, install the following patch. This patch is a Cumulative ARPA Transport patch.
 - PHNE_27063 (or superseding patch)

- HP-UX 11i v1 and above systems running EMC PowerPath v2.1.2 or v3.0.0 must have the latest EMC patches installed to avoid conflicts with the HP Performance Agent/GlancePlus products. Without these EMC patches, problems ranging from HP Performance Agent/GlancePlus product core dumps to invalid disk queue metrics can occur.
- For the EMC PowerPath v2.1.2 release, use the following patch:
 - EMCpower_patch213 HP.2.1.3_b002 (or superseding patch)
- For the EMC PowerPath v3.0.0 release, use the following patch:
 - EMCpower_patch301 HP.3.0.1_b002 (or superseding patch)

For more details about these EMC patches or to check whether a superseding patch is available, contact EMC Support.

- HP-UX 11i v1 requires the following patches for the performance tools to function properly with VERITAS Volume Manager 3.2:
 - PHKL_26419 for HP-UX B.11.11 (11.11) (or superseding patch)
 - PHCO_26420 for HP-UX B.11.11 (11.11) (or superseding patch)
- If multiple processor sets are configured on an HP-UX 11i v1 system and you are using the log application=prm switch in the parm file to log APP_metrics by PRM Group, you must install the log application=prm switch to function properly:
 - PHKL_28052 (or superseding patch)
- On HP-UX 11i v1 and later, the performance tools are verified to work with Instant Capacity on Demand (iCOD). The following kernel pstat patch should be installed to correctly report iCOD data.
 - PHKL_22987 for HP-UX B.11.11 (11.11) (or superseding patch)
- If iCOD is not installed on your system, do not install the kernel patch.
- This version of HP GlancePlus is verified to work with Process Resource Manager (PRM) version C.03.02.

Disk Space

- The GlancePlus product uses approximately 40 MB in the /opt/perf directory path for first-time installation as well as minimal space (for log files) in the /var/opt/perf/ directory. The Japanese version requires an additional 10 MB.

- The GlancePlus product requires 5MB of space in `/tmp` directory for installation logs.

Terminals

- `xglance`: HP X-terminal or X-workstation display
- `glance`: Any terminal supported by the curses library

Runtime Memory

- `gpm`: Approximately 20 MB of virtual memory
- `glance`: Approximately 10 MB of virtual memory
- `perfd`: approximately 10 MB of virtual memory

GlancePlus and perfd Licenses

To enable a client to use perfd CLI clients such as **cpsh**, **padv**, and **mpadv**, the target node must have a perfd licence. The perfd license is included with the GlancePlus license. The GlancePlus license (gkey) and perfd license (pkey) are installed in the `/var/opt/perf` directory.

On trial versions of GlancePlus, the trial period for the GlancePlus license starts the first time GlancePlus is used. However, the trial period for the perfd license starts at the instance when the first connect request is made by a client node.

Installing or Upgrading GlancePlus

To install GlancePlus and update all files from the GlancePlus source media, follow these steps:



To run GlancePlus with HP Performance Agent, you must upgrade both products to the same release version.

- 1 Log in as **root**.
- 2 If you have previously installed GlancePlus or HP Performance Agent, run `perfstat` to check for active performance tools:

```
/opt/perf/bin/perfstat
```

Make sure that you stop `glance` or `xglance`, running on this system.

- 3 If HP Performance Agent is running, stop it and all performance tool daemons by entering:

```
/opt/perf/bin/ovpa stop
```

- 4 Make sure the `perfd` daemon is not active by typing:

```
ps -ef | grep perfd
```

If the `perfd` is still active, type:

```
/opt/perf/bin/pctl stop
```

- 5 Make sure the `midaemon` is *not* active by typing:

```
/opt/perf/bin/midaemon -T
```

- 6 Make sure the `ttd` is *not* active by typing:

```
/opt/perf/bin/ttd -k
```



If you stop `ttd`, any ARM-instrumented applications that are running must also be stopped before you restart `ttd` and GlancePlus processes.

- 7 Make sure all the performance tools have been stopped by running `perfstat` again:

```
/opt/perf/bin/perfstat
```

- 8 If this is your first GlancePlus installation and you do not have a minimum of 40 MB of disk space in `/opt`, create a new `<path>/perf` directory in a location where you do have the space. Symbolically link it to `/opt/perf`. (Look at the `ln` man page if you need more information about creating symbolic links.)
- 9 Run `swinstall` to install GlancePlus, just as you install any other software package on HP-UX.

```
swinstall -s <hostname>:<depot_path> <product_bundle_ID>
```
- 10 Change the source to point to your installation media and select the GlancePlus Pak bundle (or the GlancePlus bundle if you did not purchase GlancePlus Pak).

▶ If installation fails in the analysis phase, other performance tools (for example, Performance Agent) may still be running. The `swinstall` log file will contain instructions for stopping the software. Refer to [Step 2](#) above for instructions.

- 11 To start the `perfd` daemon, type:

```
/opt/perf/bin/pctl start
```

Verifying the Installation

Installation of GlancePlus automatically updates files used by `/etc/profile` and lets you access the product and its man pages without explicitly updating their shell environment variables. This takes effect from the next time you log in. The following are the file locations:

- GlancePlus executable files: `/opt/perf/bin`
- man pages: `/opt/perf/man`
- parm file: `/var/opt/perf`

Applications are defined in the `parm` file, you can customize your `parm` file to match your system usage. See “Defining Applications” in online help for more information.

The `/opt/perf/examples/` directory contains examples of configuration files, syntax files, and sample program files that you can use to customize your HP Performance Tools. For example, the `/opt/perf/examples/arm/` directory contains Application Response Measurement sample files. For more information, see the `/opt/perf/examples/README` file.

The `adviser.syntax` file contains rules for generating bottleneck alarms when GlancePlus is used in adviser mode. You can edit the rules present in these files to suit your environment.

- examples of adviser syntax - `/opt/perf/examples/adviser`
- adviser.syntax file: `/var/opt/perf`
- adviser file for perf: `/var/opt/perf/perfd/os/HP-UX/adv`

GlancePlus in a Virtualized Environment

This version of GlancePlus supports monitoring of HP Integrity Virtual Machines 2.0 and later. GlancePlus can be installed both on the guest and host operating systems. For installation procedures refer to the section, [Installing or Upgrading GlancePlus](#) on page 13.

▶ *HPVM 1.0 is not supported by Performance Agent and HP GlancePlus (GlancePlus).*

GlancePlus on the Host Operating System

Host operating system is the system on which HPVM is installed. When installed on the host machine, GlancePlus captures the following:

- System wide performance, application, transaction and resource usage data.
- Individual virtual machine's performance and resource usage data.

A new class of metrics, BYLS, is introduced to record performance and resource data for individual guest operating systems.

GlancePlus on the Guest Operating System

Guest operating systems are the systems that run on HPVM. When installed on the guest operating system, GlancePlus captures system wide performance, resource, and transaction data. All the resource utilization values captured represent the logical utilizations.

▶ For complete list of metrics and descriptions, refer to the *Dictionary of Performance Metrics*.

Running GlancePlus

- To start GlancePlus in the character mode interface, type:
glance
- To run the GlancePlus Motif interface, export the display to your workstation using one of the following commands:

Korn shell: **export DISPLAY=<workstationid>:0.0**

C-shell: **setenv DISPLAY <workstationid>:0.0**

Bourne shell: **DISPLAY=<workstationid>:0.0**
export DISPLAY

In these instances, *<workstationid>* is the name of the workstation where you want to display GlancePlus. Run `xglance` by typing:

xglance

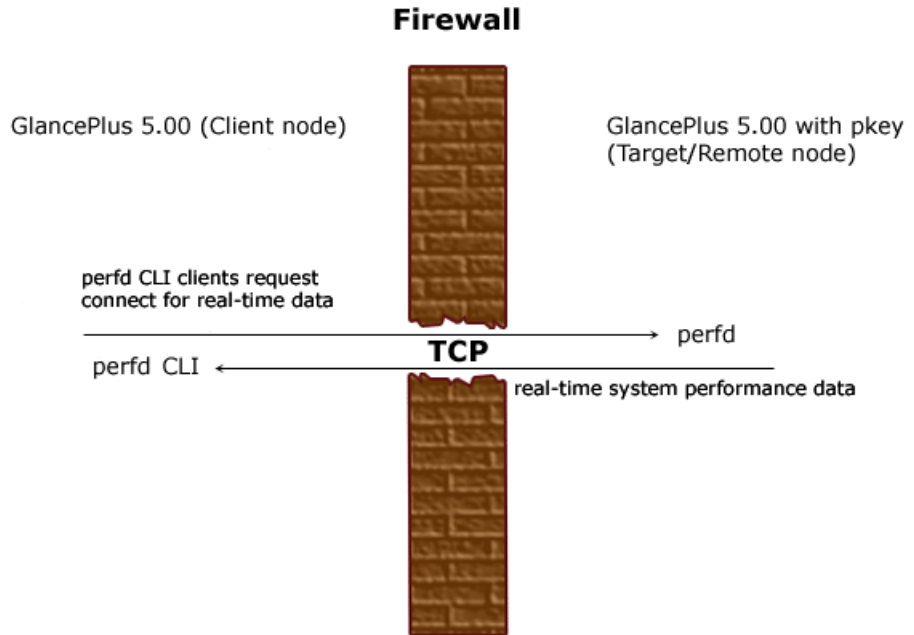
- By default, `perfd` is configured to run at boot-time. Start `perfd` CLIs by typing:

cpsb -n<remote node>

See man pages for more information.

Data Communication Across a Firewall

A firewall is a method for securing the flow of data between networks. GlancePlus supports TCP/IP based communications interface for data access between clients and remote nodes using `perfd`.



perfd Configuration

You can configure `perfd` through either of the two modes described in the sections [Modify the `perfd.ini` File](#) on page 19 and [Configure `perfd` Using CLI Parameters](#) on page 20.

perfd.ini File

The default configuration parameters for `perfd` are present in `perfd.ini` file under the `var/opt/perf` directory. You can update the values for these parameters to suit your requirement. The values you specify in this file are persistent and override the default values. The following table lists the configurable parameters present in this file:

Parameter	Value/Description
<code>interval</code>	Data collection interval in seconds
<code>port</code>	Port number
<code>depth</code>	Number of intervals for which global metric values are kept
<code>maxrps</code>	Maximum number of requests per second
<code>maxtpc</code>	Maximum number of threads per client
<code>maxinvals</code>	Maximum number of invalid requests before disconnect
<code>lightweight</code>	true false If true, <code>perfd</code> does not collect data for processes, applications, NFS operations, logical systems and transaction data (ARM)
<code>localonly</code>	true false If true, disallows remote connections

Modify the perfd.ini File

You can modify the `perfd.ini` file using any word processor or editor that can save a file in ASCII format. See the `perfd.ini` file for default values. The configured values are initialized after reboot. To modify the `perfd.ini` file, perform the following steps:

- 1 If `perfd` is running, type the following command to stop `perfd`:

```
/opt/perf/bin/pctl stop
```

- 2 Modify the `perfd.ini` file by entering the values for the parameters. For example, to set port number type:

```
port=<port>
```

- 3 To start `perfd` by typing the following:

```
/opt/perf/bin/pctl start
```

Configure `perfd` Using CLI Parameters

To run `perfd` with customized options, you can use the **`perfd`** command:

- 1 To stop `perfd`, type:

```
# /opt/perf/bin/pctl stop
```

- 2 To start `perfd` with customized options such as interval and port number, type:

```
# /opt/perf/bin/perfd -i 20 -p 5228
```

For other parameters that can be configured with the **`perfd`** command, see `perfd` man page.

Removing GlancePlus

If you need to remove GlancePlus from a system, run the `swremove` script that is in the `/usr/sbin/` directory. Before removing GlancePlus, this script will check to see if you wish to remove log and data files that were created.

Remove GlancePlus by entering:

```
swremove <file_ProductID>
```

<file_ProductID> is the ID you used to install GlancePlus with the `swinstall` script, either as a separate bundle or as part of the GlancePlus Pak bundle.

2 Documentation

Release Notes

For additional information about this release of GlancePlus, refer to the GlancePlus Release Notes located in the HP Software Product Manuals web site at

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

Online Help

For `gpm` users

- To learn about the features available in the Motif interface version of GlancePlus, click on the **Help** menu in any `gpm` window.
- To get help on a particular `gpm` window, display the window, then select **On This Window** from the Help menu.
- To get help on a particular item in an `gpm` window, click the **?** button in the top right corner of the window, then click the item you want to know about. Note that `gpm` will stay in the **On Item Help** mode until you click the **?** button again.

You can also get help on an item by pointing to the item, then clicking the right mouse button.

For `glance` users:

To learn about all of the features available in the character mode version of GlancePlus, enter the **h** command or select the **Help** softkey. Type **?** to display the `glance` command menu.

Viewing and Printing Documents

The GlancePlus software includes the standard GlancePlus documentation set in viewable and printable file formats. You can view the Adobe Acrobat format (*.pdf) documents online and print as needed. ASCII text (*.txt) documents are also printable. However, you can view a text file on your screen using any UNIX text editor such as vi.

The documents are listed in the following table along with their file names and online locations.

Table 1 GlancePlus Documentation Set

Document	File Name	Location
<i>HP GlancePlus software Installation Guide</i>	gpinst.pdf	/opt/perf/ paperdocs/gp/C/
<i>GlancePlus for HP-UX Metrics Dictionary</i>	gp-metrics.txt	/opt/perf/ paperdocs/gp/C/
<i>HP Performance Agent and GlancePlus Tracking Your Transactions Manual</i>	tyt.pdf	/opt/perf/ paperdocs/arm/C/
<i>Application Response Measurement (ARM) API Guide</i>	arm2api.pdf	/opt/perf/ paperdocs/arm/C/

Viewing Documents on the Web

The listed documents can also be viewed on the HP Software Products Manuals web site at:

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

Select **glanceplus** from the product list box, select the **release version** (which automatically selects the appropriate OS), and click **[Open]** to view the document online, or click **[Download]** to place the file on your computer.

Adobe Acrobat Files

The Adobe Acrobat files were created with Acrobat 7.0 and can also be viewed with the Adobe Acrobat Reader versions 4.0 and higher. If the Acrobat Reader is *not* in your Web browser, you can download it from Adobe's web site:

`http://www.adobe.com`

While viewing a document in the Acrobat Reader, you can print a single page, a group of pages, or the entire document.

From HP-UX, you can read a PDF document using the `acroread` command, if you have installed the Adobe Acrobat Reader on your system. Enter the following command where `<path>` is the location of the `acroread` command.

`<path>/acroread filename.pdf`

ASCII Text Files

To print a text file, type:

`lp -dprintername filename`

For example,

`lp -dros1234 metsun.txt`

Glossary

perfd

Perfd is a system performance daemon that provides real-time access to system performance metrics. For all but the global metric class, perfd only provides data for the last interval only. For global data, perfd can provide average, minimum, maximum values as well as standard deviation based on a configurable collection depth (5 minutes by default).

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