

HP GlancePlus

For the IBM AIX Operating System

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Installation Guide

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1 Installing or Upgrading HP GlancePlus

HP GlancePlus software 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 of HP GlancePlus 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 virtualized environments like LPARs. A new class of metrics BYLS is introduced to capture performance and resource data for the LPARs.



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 the `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

If you are installing or upgrading HP GlancePlus on a system where HP Performance Agent is already installed, you must upgrade HP Performance Agent to the same release version.

Before installing GlancePlus, be sure your system meets these system requirements.

Hardware

- IBM RS/6000 and pSeries systems
- IBM POWER5, POWER6 systems

Operating System

- AIX 5L V5.2
- AIX 5L V5.3 ML3 and later
- AIX 6.1 TL2

Software

- xglance: Additional Software: X11 Revision 6 (X11R6), Motif (TM) Version 2.1
- The libC.a library is required for the HP GlancePlus to function correctly. The library is bundled within the xlC.rte package, which is available from your AIX Operating System optical 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 optical media and is installed in the /usr/lib/ directory.

Daemons required for Virtualization metrics

To collect and log cross-partition metrics, either `xmservd` or `xmtopas` daemon should be available. `xmtopas` is a part of `perfagent.tools` fileset and `xmservd` is a bundled software of the Performance Toolbox for AIX component which is a licensed software.

Supported Versions of Virtual I/O (VIO) Server

- Supports VIO Server 1.3, 1.4, 1.5, and 2.1 versions

Disk Space

HP GlancePlus installs in the `/usr/lpp/perf/` directory and creates its log and status files in the `/var/opt/perf/` directory.

- HP GlancePlus requires 5MB of space in `/var/opt/perf` and 5 MB in `/tmp` directory for installation logs.
- HP GlancePlus and `perfd` requires 35 MB space in the `/usr/lpp/perf/` directory for first-time installation.
- `xglance`: for first time installation, at least 20 MB in the `/usr/lpp` directory

Runtime Requirements

Terminals

- `xglance`: X-workstation display or emulator (not all mouse functions are supported by every X server emulator)
- `glance`: any terminal that is supported by the `curses` library

Runtime Memory

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



GlancePlus supports only http data communication on AIX 6.1 TL2 version for 64-bit platforms.

GlancePlus and perfd Licenses



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

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:

GlancePlus is on DVD-ROM installation media. If you have previously installed GlancePlus or HP Performance Agent on the system, stop performance tool processes that may be running.



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

- 1 Login as user **root**.
- 2 If you have previously installed GlancePlus or HP Performance Agent on the system, stop performance tool processes that may be running. Run `perfstat` to check for active performance tools by typing:

```
/usr/lpp/perf/bin/perfstat
```

- 3 If `perfstat` reports any active `glance` or `xglance` processes, they must be stopped.



`lsdaemon` should be stopped prior to installation. Run `ps -ef | grep lsdaemon`, to make sure that no `lsdaemon` process is running.

- 4 If a previously installed version of Performance Agent is running, stop it by typing:

```
/usr/lpp/perf/bin/ovpa stop
```

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

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

If the `perfd` is still active, type:

```
/usr/lpp/perf/bin/pctl stop
```

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

```
ps -ef | grep midaemon
```

If the `midaemon` is still active, type:

```
/usr/lpp/perf/bin/midaemon -T
```

- 7 Make sure the `tttd` is *not* active by typing:

```
ps -ef | grep ttd
```

If the `ttd` is still active, stop it by typing:

```
/usr/lpp/perf/bin/ttd -k
```

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

```
/usr/lpp/perf/bin/perfstat
```

- 9 Mount the DVD-ROM to a file system using `SMIT` or the `mount` command. Change directory to `/<dvdrom_dir>/glance`, where `<dvdrom_dir>` is your DVD-ROM directory. Enter `ls` to verify that you are in the correct directory. The `install.gp` script and the tarfile are present here.
- 10 Type the following command:

```
./install.gp
```

Running the above GlancePlus installation script by default starts the `perfd` daemon to run. To install GlancePlus without running `perfd`, type:

```
./install.gp -n
```

- 11 Change directory from the DVD-ROM. Unmount the disk using `SMIT` or the `umount` command. Remove the DVD.
- 12 Start Performance Agent with the following command:

```
/usr/lpp/perf/bin/ovpa start
```



Make sure that Performance Agent is also updated to the same version as the GlancePlus version you just installed. You should complete updating both GlancePlus and Performance Agent before running either tool.

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

```
/usr/lpp/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: `/usr/lpp/bin`

- **man pages:** `/usr/lpp/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 `/usr/lpp/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 `usr/lpp/perf/examples/arm/` directory contains Application Response Measurement sample files. For more information, see the `/usr/lpp/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 -** `/usr/lpp/perf/examples/adviser`
- **adviser.syntax file:** `/var/opt/perf`
- **adviser file for perfcd:** `/var/opt/perf/perfcd/os/AIX/adv`

Running GlancePlus

To run GlancePlus, you must be logged into the system where it was installed.

- 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 **DISPLAY=<workstationid>:0.0**

shell: **export DISPLAY**

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

xglance

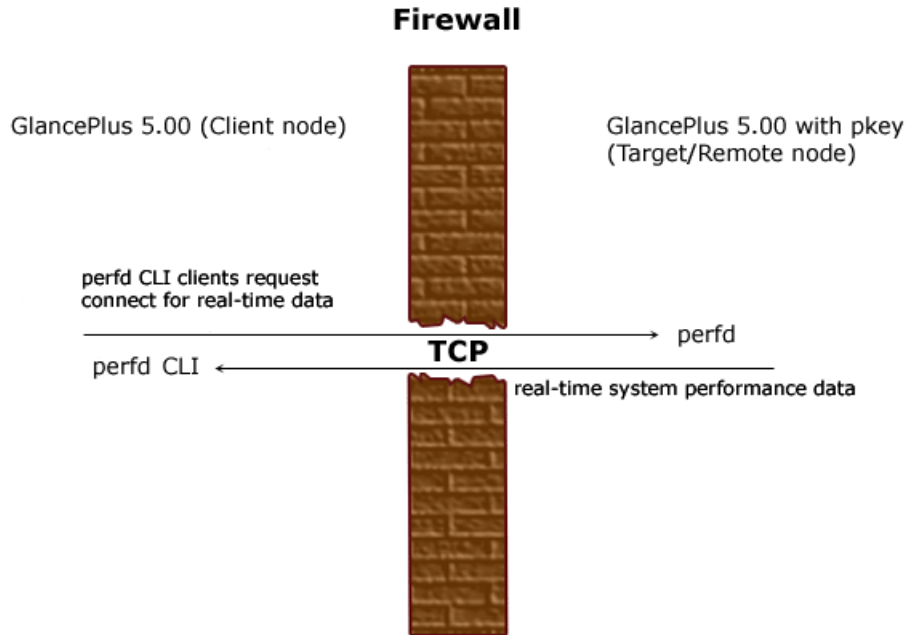
- By default, `perfd` is configured to run at boot-time. Start `perfd` CLIs by typing:

cpsh, padv, mpadv

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 17 and [Configuring `perfd` Using CLI Parameters](#) on page 18.

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, application, NFS operations, logical systems or 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` running, type the following command to stop `perfd`:

```
/usr/lpp/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:**`/usr/lpp/perf/bin/pctl start`**

Configuring perfd Using CLI Parameters

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

- 1 To stop `perfd`, type:

```
# /usr/lpp/perf/bin/pctl stop
```

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

```
# /usr/lpp/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, use the script `gp.remove` in the `/usr/lpp/perf/bin/` directory. The script examines system information and determines which packages need to be removed.

To remove GlancePlus:

- 1 Log in as user **root**.
- 2 Run `perfstat` to check for active performance tools:
`/usr/lpp/perf/bin/perfstat`
- 3 If anyone is currently running `glance` or `xglance`, ask them to exit these programs.
- 4 Run the `gp.remove` script in `/usr/lpp/perf/bin` directory:
`gp.remove`
- 5 Type **y** when asked for a confirmation to remove GlancePlus.

A message displays, as follows:

```
"Do you want to remove your glance data files and directories?  
[n]"
```

You need to confirm if you want to remove the GlancePlus data files and directories. Answer N (no) if you want to keep the data files and directories.

Removal Script Options

The syntax of the command is as follows:

```
./gp.remove [-f] [-h] [-r]
```

<code>-f</code>	Force removal. Do not prompt for confirmation before removing the product (non-interactive mode).
<code>-h</code>	Help: Displays this usage message.
<code>-r</code>	Remove GlancePlus configuration and data files as well as the product files.

GlancePlus on a Virtualized Environment

GlancePlus installed on the LPARs provides a CEC (Central Electronics Complex) wide view. GlancePlus uses the RSI interface to discover all the LPARs configured on a CEC and to collect performance (the BYLS class of metrics) data from the LPARs. The list of LPARs discovered using RSI interface is controlled through configuration file `Rsi.hosts`. The RSI interface searches for the configuration file in following directories (in the listed order): `$HOME`, `/etc/perf` and `/usr/lpp/perfmgr`.

If any of the LPARs is restricted from responding through the configuration file `Rsi.hosts` then information about those LPARs will not be available. For information on `Rsi.hosts`, refer to the latest IBM documentation on Remote Statistics Interface Programming.



GlancePlus might not always discover all the LPARs configured on the current CEC.

If the configuration file `Rsi.hosts` is not available, then the RSI interface sends invitational broadcast messages to all the systems within the network. From the list of systems which respond to the message, GlancePlus discovers LPARs configured on the current CEC.



Some LPARs may not be reported by GlancePlus if they are not responding to RSI calls within the timeout period. This timeout period cannot be configured from GlancePlus.

Daemons Required For Virtualization Metric

To collect and log cross-partition metrics, you require the `xmservd` daemon or `xmtopas` daemon.

`xmservd` is bundled with the Performance Toolbox for AIX, which is a licensed software application, and `xmtopas` is shipped with the base Operating System from AIX 5.3.

Release Notes

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

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

Online Help

For `gpm` users:

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

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. Use **?** for key commands.

Printable Documents

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 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	Format
<i>HP GlancePlus software Installation Guide</i>	gpinst.pdf	/usr/lpp/perf/paperdocs/gp/C/
<i>HP Performance Agent & GlancePlus for UNIX: Tracking Your Transactions</i>	tyt.pdf	/usr/lpp/perf/paperdocs/arm/C/
<i>Application Response Measurement (ARM) API Guide</i>	arm2api.pdf	/usr/lpp/perf/paperdocs/arm/C/
<i>HP GlancePlus software AIX Metric Dictionary</i>	gp-metrics.txt	/usr/lpp/perf/paperdocs/gp/C/

Viewing Documents on the Web

The listed documents can also be viewed on the HP Software 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 AIX, you can read a .PDF 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 .txt file, type:

`lp -dprintername filename`

For example,

`lp -dros1234 metrix.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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