

# HP GlancePlus

For the Sun Solaris Operating System

Software Version: 5.00

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## Installation Guide

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# 1 Installing or Upgrading HP GlancePlus

HP GlancePlus is a powerful online real-time 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

Before installing GlancePlus, make sure that your system meets the following requirements.

## Hardware

The supported hardware platforms are listed below:

- Sun SPARC
- x86
- x86\_64

## Supported Architecture and Operating Systems

The following table lists the supported architecture and operating system versions:

<b>Architecture</b>	<b>Operating System</b>
On 32-bit systems (x86)	<ul style="list-style-type: none"><li>• Solaris 10.x Update-5, Solaris 10.x Update-6</li></ul>
On 64-bit systems (x86_64)	<ul style="list-style-type: none"><li>• Solaris 10.x Update-5, Solaris 10.x Update-6</li></ul>
On SPARC	<ul style="list-style-type: none"><li>• Solaris 9.x</li><li>• Solaris 10.x Update-5, Solaris 10.x Update-6</li></ul>

GlancePlus supports LDOMS and Zones (Global) virtual technologies.



- GlancePlus installed on Solaris OS (Update 5) on Logical Domains (LDMs) will not be able to collect disk metrics (BYDSK class of metrics). This problem was resolved in Solaris 10 Update-6 (October 2008) release.
- The minimum support for BYLS class on Solaris 10 is provided in the Update-5 (March 2008) release.

## Software

It is recommended to have at least the “End User System Support” level of operating system installed on your Sun system. If the “Core System Support” level of operating system is installed on your system, you have to additionally install the following operating system packages.

For character-mode GlancePlus (glance), install the following packages:

- SUNWlibC
- SUNWlibms

For Motif-based GlancePlus (xglance), install the following packages:

- SUNWlibC
- SUNWlibms
- SUNWmfrun
- SUNWxwplt

You can determine which packages are installed by using the `pkginfo` command, for example:

```
pkginfo SUNWlibC SUNWlibms
```

If the command returns:

```
ERROR: information for "SUNWlibC" was not found
system      SUNWlibms      Sun Workshop Bundled shared libm
```

You have to install the appropriate package (SUNWlibC). The packages can be found on the Sun Solaris distribution media.

## Solaris Patch and Kernel Setting Requirements

Make sure the following Solaris patches (or higher) are available before you install HP GlancePlus:

<b>Solaris Version</b>	<b>Architecture</b>	<b>Patch</b>
9	x86/x64	<ul style="list-style-type: none"><li>• 111711 SunOS 5.9 32-bit shared library patch for C++</li><li>• 112963 Linker Patch (32-bit)</li><li>• 111722 SunOS 5.9 Math Library libm patch</li></ul>
	SPARC	<ul style="list-style-type: none"><li>• 111712 SunOS 5.9 64-bit shared library patch for C++</li><li>• 112963 Linker Patch (32-bit)</li><li>• 111722 SunOS 5.9 Math Library libm patch</li></ul>
10	x86/x64	<ul style="list-style-type: none"><li>• 118345 SunOS 5.10_x86: ld &amp; libc.so.</li><li>• 1 119964 SunOS 5.10_x86 Shared library patch for C++_x86</li><li>• 120754 SunOS 5.10_x86 libmtsk</li></ul>
	SPARC	<ul style="list-style-type: none"><li>• 117461 Linker</li><li>• 120753 libmtsk</li><li>• 119963 SunOS 5.10: Shared library patch for C++</li></ul>

Set the following minimum kernel parameter values for Solaris 9:

- `semsys:seminfo_semmni=30`
- `semsys:seminfo_semmns=200`
- `semsys:seminfo_semmsl=100`

## Disk Space

- `xglance`: for first time installation, at least 22 MB in the `/opt/perf` directory.
- `glance` and `perfd`: at least 6 MB in the `/opt/perf` directory.
- HP GlancePlus requires 5MB in the `/var/opt/perf` and 5 MB in `/tmp` directory.

## Runtime Requirements

### Terminals

- `xglance`: X-workstation display
- `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.



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

## 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:

- 1 Login as user **root**.
- 2 If you have previously installed GlancePlus or 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 Performance Agent is running, stop it and stop all performance tool daemons by typing:

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

- 4 To make sure the `perfd` daemon is not active, type:

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

If the `perfd` is still active, type:

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

- 5 To make sure the `midaemon` is *not* active, type:

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

If the `midaemon` is still active, type:

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

- 6 To make sure the `ttd` is *not* active, type:

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

If the `ttd` is still active, type:

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

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

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

- 8 If this is the first GlancePlus installation and you do *not* have a minimum of 22 MB of disk space in `/opt` directory, create a new `<path>/perf` directory in a location where space is available. Symbolically link it to `/opt/perf`. See the `ln` man page for more information on creating symbolic links.
- 9 Mount the DVD-ROM to a filesystem using the `mount` command. Change directory to `<dvdrom_dir>/glance`, where `<dvdrom_dir>` is your DVD-ROM directory. Enter `ls` to see a list of files present in the directory. The list of files includes the `install.gp` script file.
- 10 To install GlancePlus, type:

```
./install.gp
```

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

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

For all command line options of `install.gp`, see [Installation Script Options](#) on page 15.

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

```
/opt/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:

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

## Installation Script Options

The installation script `install.gp` includes the following command line options for more advanced installations:

**install.gp** [-chn] [-a admin]

-a admin      Defines an installation administration file `admin`, to be used by the `pkgadd` utility. By default the script creates and uses its own `admin` file.

-c             Installs only `glance`, the character mode of GlancePlus; does *not* install `xglance`, the Motif mode graphical user interface of GlancePlus.

-h             Displays the usage message and exits.

-n             Installs GlancePlus; does not start `perfd` after installation.

pkg            List of packages you want to install.  
By default all required product packages are installed.  
Note that the list of packages option overwrites the `-c` option.



The installation script does *not* evaluate inter-dependencies between packages.

## 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 advisor mode. You can edit the rules present in these files to suit your Solaris environment.

- examples of adviser syntax - `/opt/perf/examples/adviser`
- adviser .syntax file: `/var/opt/perf`
- adviser file for perfd: `/var/opt/perf/perfd/os/SunOS/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 shell:           **DISPLAY=<workstationid>:0.0**  
                         **export DISPLAY**

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

**xglance**

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

**cpsh -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 21 and [Configure `perfd` Using CLI Parameters](#) on page 21.

## 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:

<b>Parameter</b>	<b>Value/Description</b>
<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`:  

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

The `gp.remove` script is included *only* in the `HPgpm` module package. If the `HPgpm` module package has not been installed to your current system, you will have to *manually* remove `HPhh`, `HParm` and/or `HPglance` module packages.

To remove GlancePlus perform the following steps:

- 1 Log in as user **root**.
- 2 Run `perfstat` to check for active performance tools:

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

If anyone is currently running `glance` or `xglance`, ask them to exit these programs.

- 3 Run the `gp.remove` script:

```
/opt/perf/bin/gp.remove
```
- 4 Type **y** when asked for a confirmation to remove GlancePlus.

## Removal Script Options

For a more flexible product removal the script supports several command line options described below.

The syntax of the command is as follows:

```
gp.remove [-fhn] [-a admin]
```

- a `admin` Define an installation administration file, `admin`, to be used by the `pkgrm` utility. By default the script uses and uses its own `admin` file. See *admin(4)* for more details.
- f Force removal. Do *not* ask for confirmation.
- h Displays the usage message and exit.
- n Do *not* remove. Only display the removal parameters and exit.



The removal script does *not* evaluate inter-dependencies between packages.

## Release Notes

For additional information about this release of GlancePlus, refer to the GlancePlus Release Notes located in the HP Software Product Manuals website <http://h20230.www2.hp.com/selfsolve/manuals>.

## Online Help

For `xglance` users:

- To learn about the features available in `xglance`, 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

Excerpts from the GlancePlus online help are provided for you to view online or print as needed. They are located in `/opt/perf/paperdocs/gp/C/`. The *Tracking Your Transactions manual* and *Application Response Measurement API 2.0 Guide*, are also included. They are located in the `/opt/perf/paperdocs/arm/` directory.

Each of the printable documents is provided in Adobe Acrobat® (\*.pdf) format. The GlancePlus Metrics Dictionary is also provided in ASCII text format (\*.txt).

**Table 1 GlancePlus Printables**

<b>File Name</b>	<b>Document</b>
<code>gpinst.pdf</code>	<i>HP GlancePlus Installation Guide</i> , Adobe Acrobat file
<code>gp-metrics.txt</code>	<i>HP GlancePlus Metrics Dictionary</i> , ASCII text file
<code>tyt.pdf</code>	<i>Tracking Your Transactions manual</i> , Adobe Acrobat file
<code>arm2api.pdf</code>	<i>Applications Response Measurement API 2.0 Guide</i> , Adobe Acrobat file
<code>gpconcepts.pdf</code>	<i>HP GlancePlus Concepts Guide</i>

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. You can download the Acrobat Reader from Adobe's website:

**<http://www.adobe.com>**



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# 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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