



# HP training white paper Remote Graphics Software (RGS) versions 6.0.1 and 6.0.2

## New features

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# Introduction

This whitepaper introduces and explains the changes in Remote Graphics Software (RGS) versions 6.0.1 and 6.02. Before reading this whitepaper, you should have a basic understanding of existing HP RGS functionality and features. This document covers only the changes added with versions 6.0.1 and 6.0.2.

## Audience

This whitepaper is intended for:

- Service engineers
- Support engineers
- Field service engineers
- Solution architects
- Sales professionals

## Objectives

After completing this whitepaper, you should be able to describe the changes implemented for RGS versions 6.0.1 and 6.0.2.

## Additional RGS training

Fundamental knowledge of RGS can be gained by completing these recommended courses:

- Supporting HP Remote Graphics Software WBT (01713984)
- HP Remote Graphics Software (RGS) v6.0 Technical Overview (01703516)

# Overview

With version 6.0.2, HP adds Operating System (OS) support for the Sender and Receiver as well as new functionality, as requested by our customers.

The additional OS support includes:

- Sender
  - Red Hat Enterprise Linux 6.4 (Sender)
  - Citrix XenServer v6 (restricted conditions)
  - VMWare vSphere ESX v 5.0 (restricted conditions)
- Receiver
  - ThinPro 3.3 (Receiver)
  - ThinPro 4.1 thru 4.3 (Receiver)

The new functionality includes a system tray applet for HP Velocity and support for Advanced Video Compression in directory mode. There are also several defect and bug fixes in versions 6.0.1 and 6.0.2. Refer to the Release notes for each version to see a complete listing of defect fixes.

RGS version 6.0.1 provides defect bug fixes only and no new functionality.

## New OS support

In Remote Graphics Software (RGS) version 6.0.2, HP adds Red Hat Enterprise Linux (RHEL) 6.4 support for the RGS Sender. The Sender installation procedures for Linux remain the same.

The RGS 6.0.2 Receiver provides support for ThinPro, versions 3.3 and 4.1 through 4.3. There is no change to the installation procedures.

RGS 6.0.2 also supports the Sender running Citrix XenServer v6 under the following conditions:

- On WS460c G6 workstation blades with Microsoft Win7 64-bit SP1
- On WS460c Gen8 workstation blades with the following one of the following:
  - Microsoft Win7 64-bit SP1,
  - Microsoft WinXP 32 and 64-bit SP2
  - SLES v11
  - HP version of RHEL v5 & v6 (Workstation and Server).
- On SL250 Gen8 server blades with an NVIDIA M2070Q-equivalent GPU compute cards with one of the following
  - Microsoft Win7 64-bit SP1,
  - Microsoft WinXP 32 and 64-bit SP2
  - SLES v11
  - HP version of RHEL v5 and v6, Workstation and Server

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### Note

Any issues discovered must be reproduced under the Citrix environment mentioned above.

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The RGS 6.0.2 Sender is also supported on VMWare vSphere ESX v 5 under the following conditions:

- On WS460c Gen8 Workstation Blades with one of the following:
  - Microsoft Win7 64-bit SP1
  - Microsoft WinXP 32 and 64-bit SP2
  - SLES v11
  - HP version of RHEL v5 & v6 (Workstation and Server).
- SL250 Gen8 Server Blades with an NVIDIA M2070Q or equivalent GPU compute card with one of the following:
  - Microsoft Win7 64-bit SP1
  - Microsoft WinXP 32 & 64-bit SP2
  - SLES v11
  - HP version of RHEL v5 & v6 (Workstation and Server).

**Figure 1.** SL250 Gen8 server blade and WS460c Gen8 workstation blade.



SL250 Gen8 server blade



WS460c Gen8 workstation blade

## HP Velocity System Tray app for Windows

Beginning with version 6.0.2, RGS now ships with a convenient system tray applet for Windows that provides network:

- Statistics
- Monitoring

This applet also provides local and remote:

- System information
- CPU and memory usage information

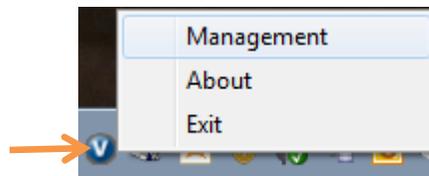
The software to run this applet installs automatically when you install either the RGS Sender or the RGS Receiver. Run the applet from:

- C:\Program Files (x86)\Hewlett-Packard\Remote Graphics Sender\drivers\HPVelocity\TrayApp\SysTrayApp.exe on the Sender
- C:\Program Files (x86)\Hewlett-Packard\Remote Graphics Receiver\drivers\HPVelocity\TrayApp\SysTrayApp.exe on the Receiver

When you run SysTrayApp.exe, an HP Velocity icon displays in the system tray. This icon is blue on the Sender and grey on the Receiver.

Right-click that icon and select Management to access the network statistics and monitoring information (see figure 2).

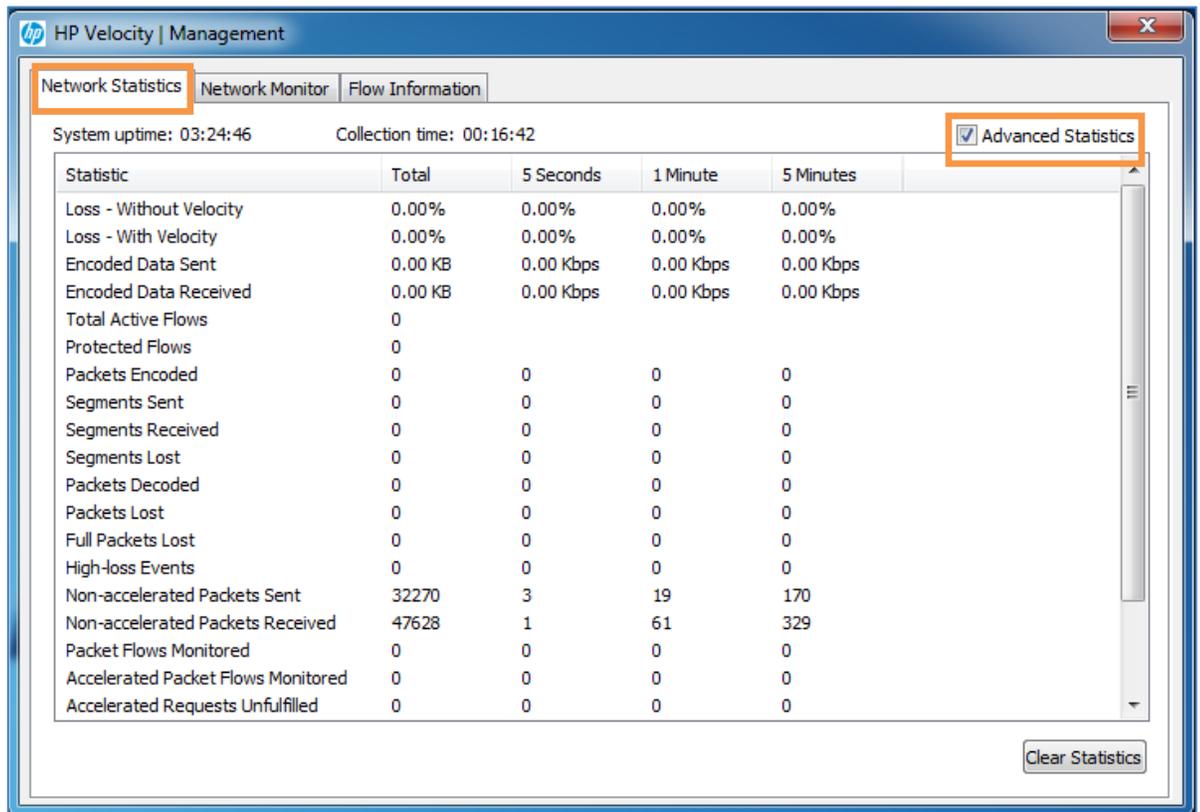
**Figure 2.** The HP Velocity icon with the right-click menu displayed.



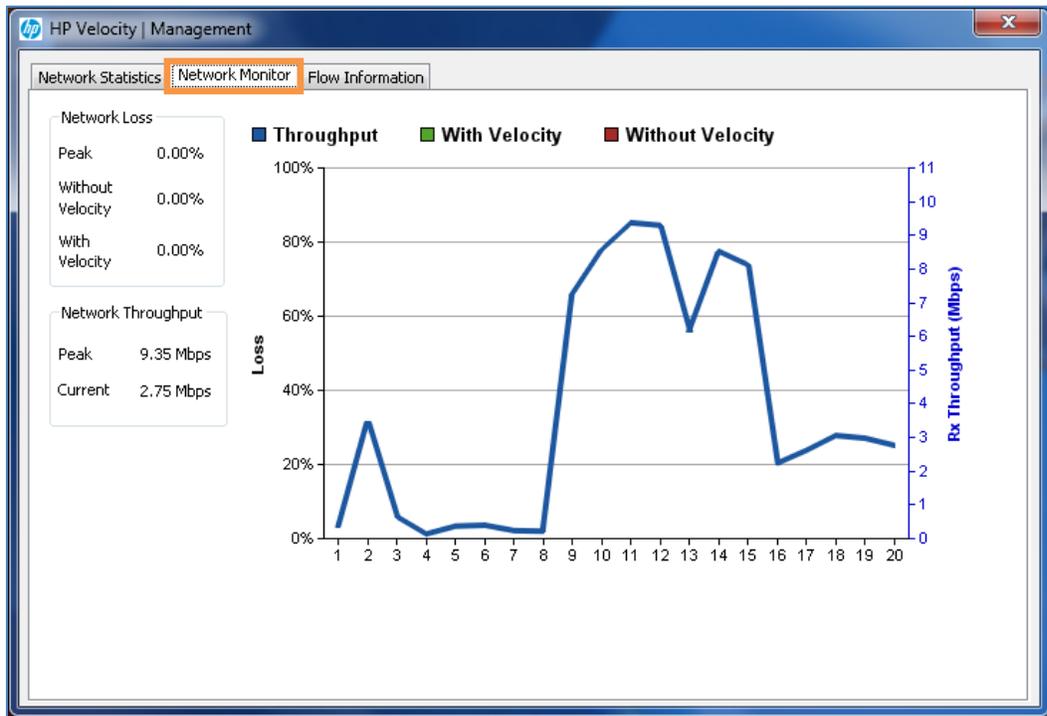
The Management menu provides three tabs (see figure 3).

- Network Statistics – provides packet information; provides an *Advanced Statistics* option (see figure 3)
- Network Monitor – provides network throughput information in graphical format (see figure 4)
- Flow Information provides local and remote system information and usage information (see figure 5)

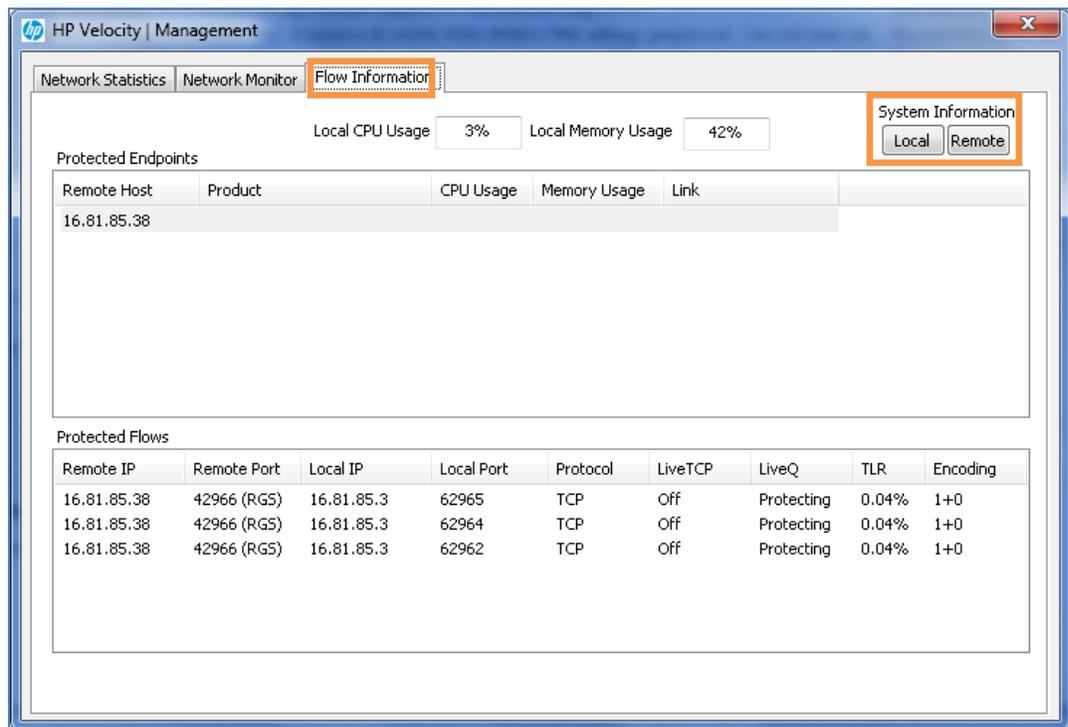
**Figure 3.** HP Velocity Management menu showing Network Statistics tab with Advanced Statistics selected.



**Figure 4.** HP Velocity Management menu showing Network Monitor tab with throughput data.



**Figure 5.** HP Velocity Management menu Flow Information tab with Local and Remote buttons for System Information highlighted.



## Advanced Video Compression in Directory Mode

Beginning with RGS 6.0.2, Advanced Video Compression is supported when connection using Directory Mode.

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### Note

CPU consumption will be much higher on both the Sender and Receiver systems when using Advanced Video Compression. This feature is not recommended for customers who do not require reduced network bandwidth consumption. Advanced Video Compression is not supported on multi-monitor configurations.

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### Advanced Video Compression

Advanced Video Compression is the RGS option that uses a modern video codec to greatly reduce the bandwidth needed for high-quality video streams. It further allows the user to choose whether the compression is done by either the graphics card (called GPU encoding) or the CPU (called CPU encoding).

Beginning with RGS version 6.0.2, if the Senders and Receivers started in Directory Mode will use Advanced Video Compression if they:

- Meet the requirements for Advanced Video Compression
- Are configured for Advanced Video Compression

#### Requirements for Advanced Video Compression

To use Advanced Video Compression:

- An RGS Receiver requires a processor with 2 or more cores running at 2 GHz for CPU encoding.
- An RGS Sender requires a processor with 4 or more cores running at 2 GHz for CPU encoding. HP recommends 8 cores or more running a 2 GHz.
- For an RGS Sender using GPU encoding, an NVIDIA Quadro 2000 or better graphics card using driver version 305.29 or greater is required.

Advanced Video Compression also requires activation.

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### Important

Internet access on the Receiver side is required for a one-time Advanced Features activation. If a proxy is required, the system must be set up with manual proxy configuration. Activation will not work with PAC or WAPD (automatic configuration script and automatic proxy detection).

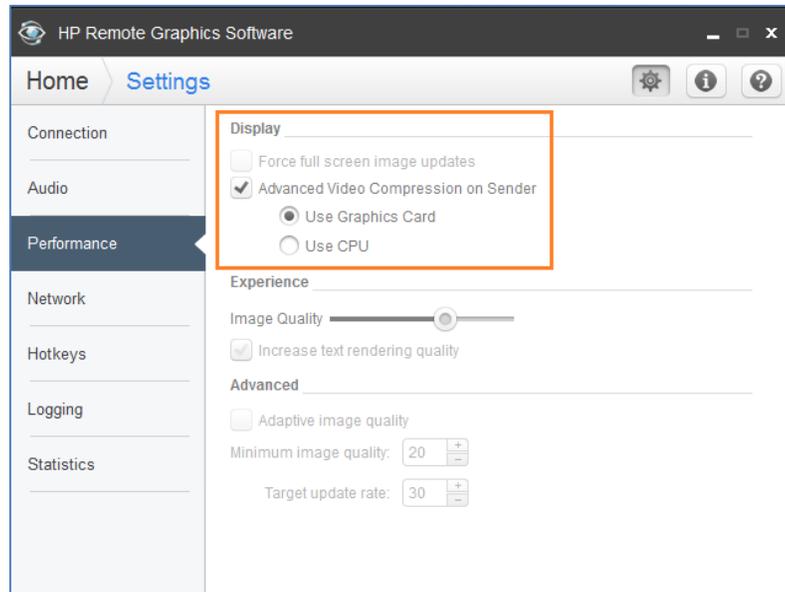
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### Advanced Video Compression configuration

Configure RGS to use Advanced Video Compression from:

- The RGS Receiver control panel, **Performance** tab (Figure 6)
  - Select Use Graphics Card for GPU encoding (default)
  - Select Use CPU for CPU encoding
- The Rgreceiverconfig file (Rgreceiver.ImageCodec.IsH264Enable=1) (Figure 7)

**Figure 6.** RGS Receiver control panel with the Performance tab highlighted.



**Figure 7.** Rgreceiverconfig file with Rgreceiver.ImageCodec.IsH264Enable default configuration highlighted.

```
##### Remote Display window properties:
# Rgreceiver.IsBordersEnabled=1
# Rgreceiver.IsSnapEnabled=1
# Rgreceiver.ImageCodec.IsMutable=1
## Codec Quality: 0 <= quality <= 100
# Rgreceiver.ImageCodec.Quality=65
## Codec Quality Boost: The encoder analyzes the complexity of
# the image and increases the quality above the base quality setting
# in areas of high complexity. Disabling the quality boost can
# reduce both network bandwidth and CPU utilization at the expense
# of image quality.
# Rgreceiver.ImageCodec.IsBoostEnabled=1
# Is H264 Enabled: Reduce network bandwidth using the H264 Codec
# Rgreceiver.ImageCodec.IsH264Enable=0
##### General properties:
```

The Sender defaults to Advanced Video Compression when both the Sender and Receiver meet the requirements.

## Directory Mode

Directory Mode enables the local user to automatically open connections to multiple remote computers based on the computers assigned to each user. When the user starts the Receiver in Directory Mode, the Receiver looks for a directory file containing user names and their assigned remote computers. The Receiver reads this file to identify the remote computers assigned to the current user, and then attempts to automatically connect to each specified remote computer. The directory file may contain multiple users with a list of remote computers assigned to each user.

The default directory file used by the Receiver is *C:\Program Files\Hewlett-Packard\Remote Graphics Receiver\directory.txt*. After the directory file name is determined, the Receiver automatically connects to the remote computers specified in this file for the named user.

### File format

Often, the directory file is a common file for a group, department, organization, or an entire company. The directory file can manage and administer the remote computer assignments for any number of users. HP recommends that you save the directory file on a readily-accessible network file share or mapped drive so that each RGS Receiver can read the file at start-up. The directory file is a text file with the following format for each local user:

*domainName localuser remotecomputer1 remotecomputer2 ... remotecomputerN*

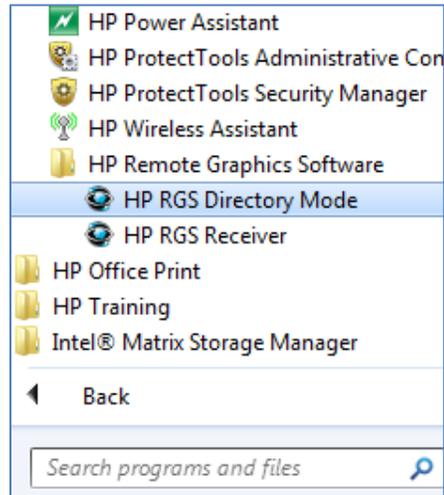
where:

- The *domainName* on a Windows computer depends upon the environment the currently logged in user is operating within. If the user is logged onto their domain account, this means they have logging onto an account specified by Microsoft Active Directory directory services. If the domain account is *worldwide\sally*, the name of the Windows domain is “worldwide” and will be used as the *domainName* for directory mode. If the user is logged onto the computer with a “local” account, *sally\_computer\sally* for instance, the *domainName* used for directory mode is “sally\_computer.” This typically will be a computer that is either standalone or part of a WORKGROUP not using Active Directory directory services. The computer name such as *sally\_computer* can be found by executing the command *hostname* in a “command window.” For Linux users, use “UNIX” as the *domainName*.
- *localuser* is the name of the local user
- *remotecomputer1, remotecomputer2,...remotecomputerN* are the remote computers assigned to the local user, as specified by either a hostname or an IP address.

### Starting in Directory Mode

To start the Receiver in Directory Mode in Windows, go to **Start > HP > HP Remote Graphics Software > HP RGS Directory Mode** (see figure 8).

**Figure 8.** HP RGS Directory Mode option from the HP Remote Graphics Software menu



The Receiver can also be started in Directory Mode from a command line, using either of the following commands:

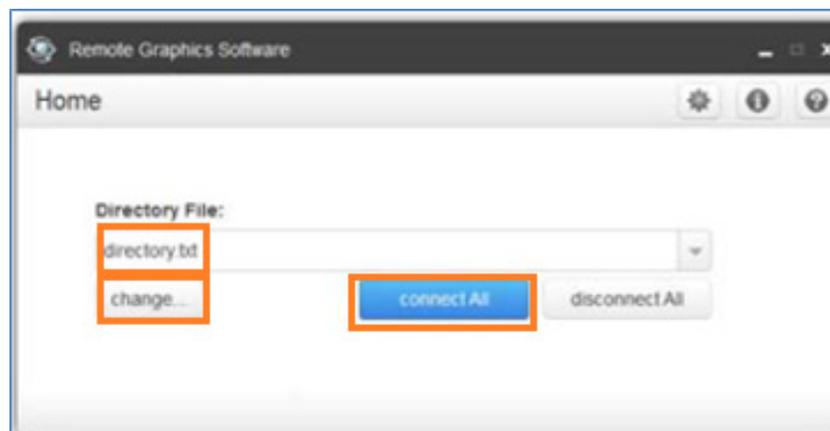
```
C:\Program Files\Hewlett-Packard\Remote Graphics Receiver\rgreceiver.exe -directory "file"
```

```
C:\Program Files\Hewlett-Packard\Remote Graphics Receiver\rgreceiver.exe -directory
```

If a file name is specified after *-directory*, the Receiver will use that file as the directory file. If no file name is specified, the user is prompted by RGS to specify the path and name of the directory file.

In Directory Mode, the Receiver Control Panel displays the name of the directory file (see figure 9). The **Change** button enables you to specify a different directory file. The **Connect All** button is used to establish a connection to the remote computers listed in the directory file.

**Figure 9.** The Receiver Control Panel displaying the name of the directory file (directory.txt), the Change button, and the Connect All button.



**Additional resources**

*HP Remote Graphics Software 6.0.2 User Guide*

[hp.com/go/rgs](http://hp.com/go/rgs)

RGS online help

**Learn more at**

[hp.com/go/rgs](http://hp.com/go/rgs)

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