

HIGH-PERFORMANCE
REMOTE DESKTOP
ACCESS.
“JUST LIKE LOCAL”
FEEL



HP REMOTE GRAPHICS SOFTWARE

Secure, high-performance, collaborative access to remote desktop resources, rich multimedia applications and data plus broad USB device redirection

Get high-performance remote desktop access to your 2D, 3D, video, and media-rich applications—when and where you need them, on-site or from a remote location through a standard Internet connection. Collaborate with colleagues across geographies, in real-time, using content-rich interactive applications.

Sign-in to your remote desktop and have the video, keyboard, and mouse follow you to the new access location. Connect a local USB device and have it virtually attach to your remote desktop session located in the data center. Now you can with HP Remote Graphics Software.

How it works

A core element of the HP Virtual Client Essentials software portfolio, HP Remote Graphics Software (RGS) is an advanced utility that allows a user to access and share the desktop of a remote computer over a standard network. All applications run natively on the remote computer and take full advantage of the compute and graphics resources of the sending system. RGS Sender software captures the desktop of the remote system and transmits it over a standard network to a window on a local client using advanced image compression technology, specifically designed for text, digital imagery, and high frame-rate video applications. The RGS Receiver then captures input from the user's keyboard, mouse, and USB devices (including bi-directional audio and cameras) and transmits it back to the sending desktop for processing. This creates a very tight display and input loop that executes up to 60 times a second¹ over a standard network to create a high-performance interactive experience for remote users.

Real-time, more secure collaboration

HP RGS allows the desktop of a computer to be shared with multiple simultaneous users with either view-only or full-interactive access. This allows geographically dispersed professionals to work collaboratively using content-rich 2D and 3D applications and video. The RGS codec and protocol-independent architecture automatically support and accelerate all current and future multimedia codecs and applications, including Adobe Flash and Apple QuickTime.

HP RGS image-based collaboration keeps all application data more securely on the sending system—only encrypted, compressed video is sent to end users on receiving systems. This allows users to communicate and collaborate with partners while keeping sensitive data secure in the data center.

The HP RGS Receiver software is now available as a free download from www.hp.com/go/rgs and is supported on Microsoft® Windows® XP-based desktop PCs, mobile PCs, workstations, and thin clients—expanding collaborative capabilities to users who do not have the full install of HP RGS in their own environments.

On-demand access to workstation resources

HP RGS also allows users to access one or many multi-display workstations from a network attached client using a single sign-on. The user enters their log-in credentials and HP RGS automatically authenticates the user, logs the user in to all assigned remote systems, unlocks the desktops, redirects the video, keyboard, and mouse to the new access location and disconnects the HP RGS sessions from the previous location. This allows the user's high-performance resources to be always-on and accessible through a standard Internet connection.

HP RGS supports both Microsoft Windows and Linux® desktop operating environments so users can enjoy cross-platform access to compute and visualization applications with a single-glass, virtual KVM capability. You can work in an application-transparent manner, driving Linux from a Windows-based local computer or driving Windows from a Linux-based client.

A variety of uses

HP Remote Graphics Software can be deployed across a variety of environments, including:

- **Client virtualization**—consolidate and provision compute resources to knowledge workers while maintaining a highly productive, media-rich workstation experience for the users
- **Design review and collaboration**—allow geographically dispersed design teams to see and interact with large digital prototypes in real time
- **Financial trading**—stream video, market data, and financial trading applications from multiple workstations to a multi-display trading desk, remote office or disaster recovery site
- **Classified research and defense**—enable secure, high-performance access to sensitive data and applications
- **Command and control centers**—enable a secure continuous-operation environment by providing multi-location access to Blade Workstation resources located in redundant data centers
- **Mobile professionals**—allow professionals to efficiently work locally or remotely so they can live where they choose and work conveniently through an Internet connection
- **Remote design centers and manufacturing floors**—dramatically reduce the load time for engineering assemblies by directly connecting the workstation resources to the PDM server in the data center

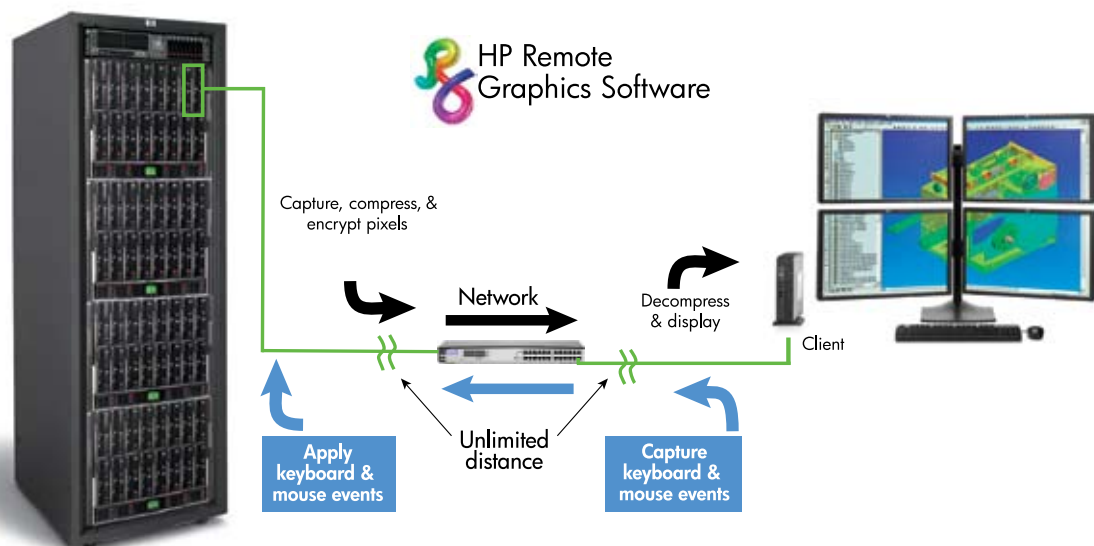
- **Scientific research and visualization**—interact with high-performance compute and visualization simulations from an office and collaborate with colleagues in real-time
- **Support**—provide application support to end users by connecting to existing user sessions with system administrator rights to troubleshoot and resolve issues
- **Classroom/training**—share live training sessions to one or many students at local or remote campuses

HP RGS benefits

HP RGS offers a variety of benefits to institutions and end users, including:

- **Increased business efficiency**—real-time access and collaboration regardless of physical location management
- **Increased data security**—mobile professionals can access resources without proprietary data being transferred to the remote computer
- **Increased business continuity**—end user uptime is increased by enabling users to fail-over to a spare pool of preconfigured resources
- **Reduced management costs**—centralization consolidates workstation resources to a single point-of-management
- **Increased training effectiveness**—enable multiple users to follow application procedures alongside an instructor in real-time.

HP Remote Graphics Software enables professionals to work together in real-time with more secure access to rich multimedia resources, applications, and data—helping to eliminate the distance barriers that can impede global organizations. For more information on HP RGS, please visit www.hp.com/go/rgs.



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Software version	HP Remote Graphics Software Version 5.2
Remote workstation access	High-performance remote desktop access to 2D, 3D, video, and media-rich applications with full support for sending system compute and graphics hardware acceleration
Real-time collaboration	• 1-to-1 or 1-to-many real-time desktop sharing • Multi-user keyboard, mouse input with collaboration control indicator • Collaboration connection management and status • View only or full access collaboration connections • Persistent collaboration mode warning • Receiver hardware cursor to enable real-time application interaction
Cross-platform visualization	Desktop access to multiple Microsoft® Windows® and Linux® platforms with single glass virtual KVM capability
Application transparent	Non-intrusive, application-transparent architecture requires no modifications to applications
Broad access device support	HP RGS receiver software is available as a free download and is supported on thin client, desktop PC, mobile PC, and workstation platforms with Microsoft Windows and Linux operating environments
Image compression and decompression (CODEC)	HP3 high-performance image compression and decompression enables real-time remote visualization • Visually loss-less compression • Variable rate, image delta compression algorithm • 2X faster compress and decompress performance over previous generation
Desktop session access	Entire desktop of remote sender system is transmitted to a desktop window on the receiver system with input window session focus for keyboard and mouse (virtual KVM)
Multi-display	Supports multi-display configurations on the sender and receiver systems
Multi-session cut, copy, and paste²	Multiple simultaneous sender sessions can be accessed from a single receiver with cut, copy, and paste capability between the desktops and applications of multiple systems
Follow-me roaming	• RGS remote session access from any network connected RGS receiver device • Multi-session and multi-display support • Single sign-on and session unlock • Auto redirect of keyboard, mouse and video to new access location • Auto disconnect from previous access device
Remote USB³	Enables USB devices to be virtually attached to a remote system with local control and access. USB device class support includes: keyboards, keypads, PDAs, printers, media, cameras, audio and storage devices, scanners, Human Interface Loop (HIL), and two-factor authentication devices. Contact HP for a list of tested and supported USB devices.
Remote audio²	Provides smooth, continuous, low-latency, high-quality audio streams from remote workstations
Audio follows focus²	Enables remote desktop audio stream for the session with active window focus while muting all other remote audio streams
Sender resolution auto-adjust²	Automatically scales sending system resolution to match the receiving system for full desktop interaction
Network connection warning	Alerts user when RGS network update rate falls below user defined response time to indicate possible stale display information
Security	• Connections authenticated by Microsoft password authentication protocol NTLM and Kerberos • Linux-to-Microsoft Windows connection authentication via PAM • AES 256-bit communication encryption using Open SSL implementation of anonymous Diffie-Hellman (ADH) cipher suite • All application data remains on sender system; only encrypted, compressed video sent to receiving system(s) • Single primary user enforcement • USB Access Control enables administrators to securely control USB access privileges at the group, user level and location (IP address range)³ • Real-time logging of sender connect and disconnect events • Auto-screen-lock or auto-logout on session disconnect • Sender side display blanking for blade PCs, blade workstations, and personal workstations (requires NVIDIA graphics card) • System Administrator privilege to unlock existing user session or log-in to support existing user session • System Administrator control for RGS user connections and properties

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Session Allocation Management

- HP Session Allocation Manager (SAM) Version 2.3:
- Multi-session single sign-on
 - Multiple personal or dynamic pool resource assignments
 - Resource assignment to display layouts and access locations
 - Multi-client resource assignment support
 - RGS policy setting (global, group and user level)
 - Resource follow-me roaming
 - Automated fail-over (fixed or dynamic pool)
 - Connection event logging
 - Database update logging

Supported RGS sender platforms

- Virtual Desktop Infrastructure solutions with VMware ESX 3.0.2 Update 1 and ESX 3.5 Update 1 with Microsoft Windows XP Professional 32-bit operating system
- HP Blade Workstations, HP Blade PCs, HP Personal Workstations (xw series), and HP Mobile Workstations with Microsoft Windows XP Professional 32-bit or x64 operating system
- HP Blade Workstations and HP Personal Workstations (xw series) with Red Hat Enterprise Linux WS 64-bit Version 4 and 5 operating system

Supported RGS receiver platforms

- Any personal or mobile workstation, desktop PC, or notebook PC with Windows Vista Business or Microsoft Windows XP Professional 32-bit or x64 operating systems with a 1.5 GHz or greater processor with SSE2 multimedia instruction extension and a 32-bit color display adapter
- HP Personal Workstations (xw series) with Red Hat Enterprise Linux WS Version 4 and 5 operating system
- HP dc73 Blade Workstation Client
- HP gt7725 Thin Client (ThinPro GT), HP Compaq t5730 Thin Client (Windows XPe), HP t5630 Thin Client (Windows XPe), HP 2533t Mobile Thin Client (Windows XPe), and HP Compaq 6720t Mobile Thin Client (Windows XPe)

Required system memory

Sender: 512 MB minimum/1 GB recommended; Receiver: 512 MB minimum

Required disk space

50 MB

Removable media

CD-ROM drive when installing from CD-ROM media

Network

Standard TCP/IP with a single bi-directional port for communication between sender and receiver

3D graphics API support

OpenGL and Microsoft Direct 3D version 8.0 and 9.0; excludes video overlay and full screen modes

¹ Performance dependent on network latency and image frame content.

² Microsoft Windows XP support only.

³ Microsoft Windows XP 32-bit sender support only (except for standard keyboard and mouse).

