BREAKING THROUGH I.T. CHALLENGES

THE COMPUTER IS PERSONAL AGAIN

HP REMOTE GRAPHICS SOFTWARE
High performance remote access software with "just like local" feel

HP Remote Graphics Software

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 workstation resources and have the desktop video, keyboard, and mouse follow you to the new access location. Connect a local USB device and have it virtually attach to a remote workstation. Now you can with HP Remote Graphics Software.

How it works

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 keyboard and mouse input from the user 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 second[1] over a standard network to create a high-performance interactive experience for remote users.

On-demand access to workstation resources

HP RGS 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.

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-interaction access. This allows geographically dispersed professionals to work collaboratively using content-rich 2D and 3D applications and video. 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.

New to HP RGS version 5, 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, and workstations—expanding collaborative capabilities to users who do not have the full install of HP RGS in their own environments.

A variety of uses

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

- 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—enables 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

- Desktop virtualization—consolidate and provision compute resources to knowledge workers while maintaining a highly productive, media-rich workstation experience for the users

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 helps improve worker productivity and communication effectiveness

- 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 supports a new mobile and collaborative work model which helps eliminate the distance barriers that can impede global organizations. With HP RGS, professionals can work together and make decisions in real-time with more secure access to workstation resources, applications, and data. For more information on HP RGS, please visit www.hp.com/go/rgs.

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		HP RGS Workstation v 5.1	HP RGS PC v 5.1
Software version	HP Remote Graphics Software Version 5.0	✓	✓
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	✓	Remote admin. only
Cross-platform visualization	Desktop access to multiple Microsoft® Windows® and Linux® platforms with single glass virtual KVM capability	✓	Microsoft® Windows®
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® XP 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	✓	Max 2 (1920 x 1200) displays
Multi-session	Multiple, simultaneous receiver sessions are supported on the same system. Both sender and receiver sessions may operate on the same system enabling multi-system, multi-platform collaboration capability.	✓	Max 2 sessions
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 USB[2]	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 and storage devices, scanners, HIL and two-factor authentication devices. Contact HP for a list of tested and supported USB devices.	✓	✓
Remote audio[3]	Provides smooth, continuous, low-latency, high-quality audio streams from remote workstations	✓	✓
Audio follows focus[3]	Enables remote desktop audio stream for the session with active window focus while muting all other remote audio streams	✓	✓
Sender resolution auto-adjust[3]	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)[2] • Real-time logging of sender connect and dis-connect 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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		HP RGS Workstation v 5.1	HP RGS PC v 5.1
Session Allocation Management	PC Session Allocation Manager (SAM Version 2.1): • 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	• HP Blade Workstations, HP Personal Workstations (xw series), and HP Mobile Workstations with Genuine Microsoft® Windows® XP Professional operating system	✓	
	• HP Blade Workstations, HP Personal Workstations (xw series), and HP Mobile Workstations with Genuine Microsoft® Windows® XP Professional x64 edition	✓	
	• HP Blade Workstations and HP Personal Workstations (xw series) with Red Hat Enterprise Linux® WS 4 64-bit operating system	✓	
	• HP Blade Workstations with SLES version 9 operating system	✓	
	• HP Blade PC with Genuine Microsoft® Windows® XP Professional operating system	✓	✓
	• HP Virtual Desktop Infrastructure solutions with VMware ESX 3.0.1 and ESX 3.1.0 environments with Microsoft Windows XP Professional edition	✓	✓
Supported RGS receiver platforms	• Genuine Microsoft® Windows® XP Professional or Microsoft® Windows® XP Professional x64 edition systems with a 1.5 GHz or greater processor with SSE2 multimedia instruction extension and a 32-bit color display adapter	✓	
	• HP Compaq Blade Workstation Client	✓	✓
	• HP Compaq t5720 Thin Client with Microsoft® Windows® XP Embedded SP2	✓	✓
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 32-bit sender support only (except for standard keyboard and mouse).
[3] Microsoft®Windows® XP support only.

For more information, visit www.hp.com/go/workstations

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