

The All-in-One Emulator

Designed to help meet all of your host access needs, Attachmate® Reflection® Professional Suite 2011 delivers three powerful terminal emulation products in one package. Our next-generation emulators for IBM, UNIX, and OpenVMS hosts offer enhanced security capabilities to protect sensitive data, and include new IT tools for finely-tuned customization control—all within a modern, user-friendly interface. And our classic HP emulator helps you extend the reach of your host connectivity, so that you can get the most out of your critical applications.

With Reflection Professional Suite 2011, you can:

- Connect Windows users to applications on IBM Mainframe, IBM AS/400, UNIX, OpenVMS, HP e3000, and HP 9000 hosts.
- Support modern operating environments, including Windows 7, Windows Vista, Windows Server 2008, Microsoft App-V, VMware, and Citrix XenApp.
- Enhance data security by masking customer information on live host screens, assigning specific levels of data access to different user groups, and logging credit card data access by employees.
- Use the Reflection PCI/DSS mode to prevent users from connecting to host systems via non-secure protocols and configurations.
- Protect your networks with support for the latest security standards and protocols, including SSH encryption, PKI, and IPv6.
- Use Browser UI mode for a familiar, streamlined browser interface.
- Enhance user productivity with customizable tabs, faster-running VBA macros, and support for key Windows 7 features.
- Automate routine tasks using the familiar VBA platform.
- Create custom applications that integrate Reflection sessions using a .NET embeddable terminal control.

What's New in Reflection Professional Suite 2011?

- *Citrix Ready* and *VMware Ready* logos.
- Support for modern operating environments, including Windows 7, Windows Vista, Windows Server 2008, Microsoft App-V, VMware, and Citrix XenApp.
- Microsoft Windows 64-bit platform support.
- Enhanced security features designed to help you meet evolving PCI DSS requirements.
- Adheres to the United States Government Configuration Baseline (USGCB) security policy requirement.
- Microsoft Ribbon and browser-like user interface modes.
- Support for the SFTP 4.0 standard.
- .NET control for creating custom applications that embed Reflection terminal sessions.
- Integration with Microsoft Office 2010.
- Enhanced support for certificates.



Product Highlights

Get Ready for Windows 7 and Office 2010

Reflection Professional Suite 2011 leverages key Windows 7 and Office 2010 security and productivity features. With support for Trusted Locations, User Account Control (UAC), the Microsoft Ribbon user interface, VBA, .NET, and Windows Error Reporting (WER), Reflection makes it easy for you to maximize your Microsoft investment.

Satisfy the Latest Security Requirements

Reflection Professional Suite 2011 helps you thwart threats to the network and meet important external security requirements. With the Reflection Secure FTP Client, you can safeguard your data in motion using SSL/TLS, SSH, and Kerberos.

Reflection's SSH cryptography is validated for FIPS 140-2—plus, it's been updated to provide even stronger security. You can even use the FIPS-mode group policy setting to safeguard users' mission-critical data as it travels across the network.

What's more, Reflection Professional Suite 2011 is designed to help you meet the latest PCI DSS requirements. New security features allow you to mask data on live host screens, redact data as it is entered, prevent users from connecting to host systems via wireless networks and other non-secured configurations and protocols, log credit card data access by employees, and define specific levels of data access for different user groups.

Boost User Productivity with Quick, Streamlined Functions

Reflection Professional Suite 2011 makes it easier for users to work seamlessly. Customizable tabs make multiple host applications easy to distinguish, and a new browser-like user interface mode provides a familiar, easy-to-navigate interface that maximizes screen real estate.

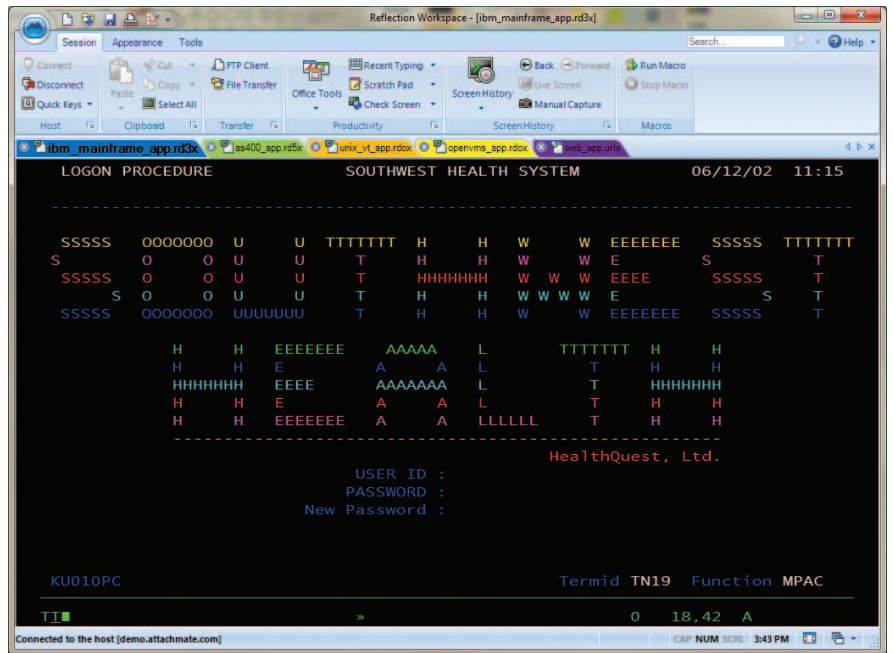
Integration with Office 2010 allows users to copy host data into a Word doc, e-mail message, or PowerPoint slides with the click of a button. Also, Reflection Professional Suite 2011 incorporates features such as Auto Complete, Auto Expand, Spell Check, Scratch Pad, Recent Typing, and Screen History—making host applications as easy to use as Office applications.

Keep IT Complexity Under Control

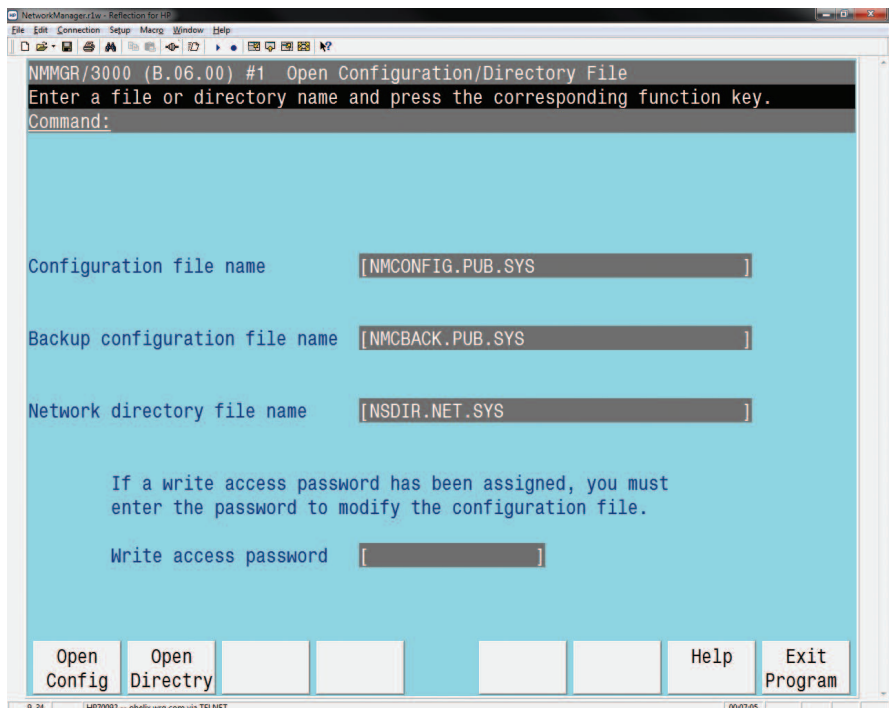
Reflection Professional Suite 2011 gives you the flexibility you need to control IT complexity. With updates to the customization tool, you get more flexible configuration options prior to deployment; and you can now perform granular feature installs to reduce desktop footprint and lock down desktops. Also, a new .NET embeddable control allows you to develop custom applications using Reflection 2011 terminal sessions as components.

Integrate Critical Technologies

Reflection Professional Suite 2011 supports a mix of existing and emerging IT technologies, including Windows 7, Active Directory, and Group Policy; Microsoft App-V, VMware, and Citrix XenApp; and IPv6 and 64-bit computing.



Reflection for IBM® 2011 in tabbed Multiple Document Interface (MDI) mode.



With Reflection for HP, you can access mission-critical applications on HP e3000 systems.

TECHNICAL SPECIFICATIONS

Product Components

- Reflection for IBM 2011
- Reflection for UNIX and OpenVMS 2011
- Reflection for HP 14.1
- Reflection Secure FTP Client

REFLECTION FOR IBM 2011

Emulation Types

- IBM System z (Mainframe):
 - 3270 text and graphics terminals and printers
- IBM System i (AS/400):
 - 5250 terminals and printers

Network Protocols

- IBM System z (Mainframe):
 - TN3270E and SSL/TLS
- IBM System i (AS/400):
 - TN5250E and SSL/TLS
- IPv4 and IPv6 support
- SOCKS client support

Security

- Support for SSL/TLS and SOCKS
- FIPS 140-2-validated cryptographic module (Certificate #1027)
- Adheres to Federal Desktop Core Configuration (FDCC) and United States Government Configuration Baseline (USGCB) security policy requirements
- NEW** • Data masking on 3270 and 5250 host screens
- NEW** • Ability to prevent non-secure host connections
- PKI support built to meet DoD standards:
 - PKCS #11 support
 - U.S. DoD Common Access Card (CAC) support
 - Online Certificate Status Protocol (OCSP) support
 - Certificate Revocation Lists (CRL)
 - Intermediate certificate storage through LDAP
 - Reflection Certificate Manager
- Privacy filters
- Trusted locations
- Automatic Kerberos sign-on (System i)
- Express Logon Feature (System z)

Productivity

- Integration with Microsoft Office
- NEW** • Micro Focus Rumba and IBM PComm session file, keyboard, and macro support
- Application, desktop, and Internet search support
- Screen History
- Spell Check and Auto Correct
- Scratch Pad
- Recent Typing
- Auto Expand and Auto Complete
- Advanced cut/copy/paste
- Keyboard and mouse mapping or remapping
- NEW** • Triple-mouse-click support

Printing

- IBM System z (Mainframe):
 - 3287 (LU1 and LU3)
- IBM System i (AS/400):
 - 3812, 3912, and 5553 printer emulation
 - Host Print Transform

Programming and Automation

- NEW** • Embeddable .NET control
- Native .NET API
- Integration between Reflection .NET API and Microsoft Visual Studio IDE
- VBA support
- Macro recorder for VBA
- Programmatic access to over 400 properties and methods via Reflection API
- Microsoft OLE Automation
- HLLAPI, eHLLAPI, and WinHLLAPI
- EXTRA! Basic and Reflection Basic macro runtime and editing
- NEW** • Support for encrypted EXTRA! Basic macros

User Interface

- NEW** • Browser UI mode
- Attachmate implementation of the Microsoft Ribbon user interface
- Classic mode interface for EXTRA! and Reflection
- Ribbon customization utility
- Tabbed or windowed Multiple Document Interface (MDI)
- Configurable tabs, including colors, renaming, and more
- Local and online HTML Help
- Segoe for Attachmate font (for a consistent user experience with Windows 7)
- Customizable screen sizes for 3270 host applications
- Word wrap
- Customizable hotspots
- Graphical keyboard mapping
- Full-color editing

International Support

- English, French, German, Spanish, Italian, Japanese, and Brazilian Portuguese languages
- Support for Chinese Simplified/Traditional, Korean, and Japanese code pages
- Localized keyboards, displays, and printers
- Support for standard input-method editors

REFLECTION FOR UNIX AND OPENVMS 2011

Emulation Types

- VT terminals (including Japanese)
- Support for numerous host character sets, including UTF-8 (Unicode)
- Wyse 50+, Wyse 60, SCO-ANSI, and BBS-ANSI
- Linux console, AT386, IBM 3151, xterm, and VT-UTF8
- ReGIS (VT340, VT330, VT241, and VT240) and Tektronix graphics terminal emulation

Network Protocols

- IPv4 and IPv6 support
- SOCKS client support
- Extensive Telnet options with support for threaded I/O; Line mode; NAWS (option 31); and Local Echo, including Telnet option 45 (Suppress Local Echo)
- Support for serial connections

Security

- Support for SSL/TLS, Kerberos, and SOCKS
- FIPS 140-2-validated cryptographic module (Certificate #1027)
- Adheres to Federal Desktop Core Configuration (FDCC) and United States Government Configuration Baseline (USGCB) security policy requirements
- PKI support built to meet DoD standards:
 - PKCS #11 support
 - U.S. DoD Common Access Card (CAC) support
 - Online Certificate Status Protocol (OCSP) support
 - Certificate Revocation Lists (CRL)
 - Intermediate certificate storage through LDAP
 - Reflection Certificate Manager
- Reflection Key Agent accepts SSH keys and certificates for single sign-on authentication
- SSH encryption:
 - SSH X client launching
 - X11 forwarding
 - Command line SSH utilities (ssh, scp, and sftp)
 - Port forwarding (tunneling) for TCP/IP ports through secure channel

TECHNICAL SPECIFICATIONS (continued)

- Integrated multihop SSH configuration support
- Password, keyboard interactive, public key (user key and X.509 certificates), and Kerberos authentication
- Smart card support through PKCS #11 interface
- SSH key agent
- Key generation and conversion (RSA-1, RSA, and DSA) utility
- Easy uploading of users' public keys to SSH servers
- SSH connection reuse
- Standard SSH configurations
- Reflection Kerberos Client:
 - Secure authentication
 - Datastream encryption (DES and 3DES) for Telnet and FTP
 - Support for ticket forwarding and renewal
 - Compatible with Microsoft and Leash32 credentials caches
 - Standard Kerberos configurations
 - Support for Kerberos KDCs using TCP or UDP

Productivity

- Integration with Microsoft Office
- Application, desktop, and Internet search support
- Screen History
- Scratch Pad
- Advanced cut/copy/paste
- Keyboard and mouse mapping or remapping
- NEW • Triple-mouse-click support

Printing

- Windows or host control
- Network, local, or print-to-disk
- ReGIS color graphics support
- Print logging
- Fixed pitch TrueType and printer font
- Serial device to host communications
- Line-drawing characters

Programming and Automation

- NEW • Embeddable .NET control
- Native .NET API
- Integration between Reflection .NET API and Microsoft Visual Studio IDE
- VBA support
- Macro recorder for VBA
- Programmatic access to over 400 properties and methods via Reflection API
- Microsoft OLE Automation
- EXTRA! Basic and Reflection Basic macro runtime and editing
- Reflection Command Language (RCL)
- NEW • Support for encrypted EXTRA! Basic macros

User Interface

- NEW • Browser UI mode
- Attachmate implementation of the Microsoft Ribbon user interface
- Classic mode interface for EXTRA! and Reflection
- Ribbon customization utility
- Tabbed or windowed Multiple Document Interface (MDI)
- Configurable tabs, including colors, renaming, and more
- Local and online HTML Help
- Customizable hotspots
- Full-screen terminal mode
- Graphical keyboard mapping
- Full-color editing

International Support

- English, French, German, Spanish, Italian, Japanese, and Brazilian Portuguese languages
- Localized keyboards, displays, and printers
- Support for standard input-method editors

REFLECTION FOR HP 14.1

Emulation Types

- HP e3000:
 - HP 700/98, 700/96, 700/94, 700/92, and 2392A
- HP 9000:
 - VT220, VT102, and VT52
 - UTF-8 (Unicode) host character set support

Network Protocols

- IPv6 (Telnet, Secure Shell, and SSL/TLS) support
- SOCKS client support
- Extensive Telnet options with support for threaded I/O; Line mode; NAWs (option 31); Local Echo, including Telnet option 45 (Suppress Local Echo)
- NS/VT, Rlogin, TCP/IP, and network based modems
- Full support for serial connections, including automatic serial-port detection and USB

Security

- FIPS 140-2-validated cryptographic module (Certificate #1027)
- Adheres to Federal Desktop Core Configuration (FDCC) and United States Government Configuration Baseline (USGCB) security policy requirements
- PKI support built to meet DoD standards:
 - PKCS #11 support
 - U.S. DoD Common Access Card (CAC) support

- Online Certificate Status Protocol (OCSP) support
- Certificate Revocation Lists (CRL)
- Intermediate certificate storage through LDAP
- Reflection Certificate Manager
- Reflection Key Agent accepts SSH keys and certificates for single sign-on authentication
- SSH encryption:
 - SSH X client launching
 - X11 forwarding
 - Command line SSH utilities (ssh, scp, and sftp)
 - Port forwarding (tunneling) for TCP/IP ports through secure channel
 - Integrated multihop SSH configuration support
 - Password, keyboard interactive, public key (user key and X.509 certificates), and Kerberos authentication
 - Smart card support through PKCS #11 interface
 - SSH key agent
 - Key generation and conversion (RSA-1, RSA, and DSA) utility
 - Easy uploading of users' public keys to SSH servers
 - SSH connection reuse
 - Standard SSH configurations
- Reflection Kerberos Client:
 - Secure authentication
 - Datastream encryption (DES and 3DES) for Telnet and FTP
 - Support for ticket forwarding and renewal
 - Compatible with Microsoft and Leash32 credentials caches
 - Standard Kerberos configurations
 - Support for Kerberos KDCs using TCP or UDP
- SSL/TLS Telnet encryption:
 - Integrated SSL/TLS Telnet encryption
 - Secure NS/VT or Telnet sessions

Printing

- Windows or host control
- Network, local, or print-to-disk
- Print logging
- Fixed-pitch TrueType and printer font
- Serial device to host communications
- Line-drawing characters

Programming and Automation

- VBA support
- Reflection Basic and Reflection Command Language
- VBA-macro output available in VB.NET and C# (.NET)



TECHNICAL SPECIFICATIONS (continued)

- VBA-macro sharing
- Macro recorder for VBA and Reflection Basic
- Programmatic access to over 400 properties and methods via Reflection API
- Microsoft OLE Automation Controller and server capability
- Run Reflection as an ActiveX control within a VB or VB.NET application
- Programmable events

User Interface

- X11 mouse-style support
- Connection wizard
- Customizable toolbars and menus
- HTML Help in the customization tools
- Dynamic hotspots
- Full-screen terminal mode
- Graphical keyboard mapping
- Mouse mapping (2- and 3-button)
- Resizable terminal keyboard
- Full color editing

Browser Support


- Run Reflection as an ActiveX control in supported browsers

International Support

- English, French, German, and Japanese languages
- Localized keyboards, displays, and printers
- Japanese PC-9800 series
- Support for standard and Asian input-method editors

COMMON SPECIFICATIONS

File Transfer

- Reflection Secure FTP Client:
 -  - Support for SFTP 4.0 to ensure proper translation of international characters
 - SSH, SSL/TLS, SOCKS, and Kerberos security protocols
 - Extensive firewall support
 - File browsing on z/OS hosts with TSO data sets
 - Save FTP client sessions in Layouts
 - Management of FTP settings via Reflection Administrator*
 - IPv4 and IPv6 support

- Change UNIX file permissions with FTP client
- SFTP downloads resume after interruption
- Support for a wide variety of FTP servers, including IBM System z, IBM System i, UNIX, NetWare, Unisys, HP 3000, and OpenVMS
- FTP site wizard
- Site-to-site transfer between FTP servers
- Export/import settings in XML format
- Wildcard filters
- Automation tools (script recorder and Microsoft OLE Automation)
- Drag and drop file transfers directly to the desktop
- IND\$FILE, APVUFILE, DISOSS, SQL data query, LIPI, and batch file transfer (IBM System z and IBM System i only)
- WRQ Reflection proprietary protocol, FTP, Kermit, Xmodem, and Zmodem (except IBM System z and IBM System i)
 - ASCII, binary, and labels/image support

Administrative Tools

- Granular UAC support (except HP platforms)
- Integration with Reflection Administrator:*
 - Web console for centralized administration of settings files
 - Web-based deployment of settings files and updates
- Windows Error Reporting (WER) support (except HP platforms)
- Centralized management of settings files using Group Policy
- Application customization tool for settings and installation files (including MSI)
- Support for Windows administration features:
 - Windows Installer (MSI)
 - Active Directory
 - Roaming user and multiple user profiles
 - Group Policy
 - Application self-repair

Operating System Support

- Microsoft Windows 7**
- Microsoft Windows Vista**
- Microsoft Windows XP
- Microsoft Windows Server 2003 Terminal Services
- Microsoft Windows Server 2008 Terminal Services
- Citrix XenApp
- Microsoft App-V
- VMware

* Reflection Administrator is an optional component.

** 32- and 64-bit editions.

About Attachmate

Attachmate delivers advanced software for terminal emulation, legacy modernization, managed file transfer, and enterprise fraud management. With our technologies, more than 65,000 businesses worldwide are putting their IT assets to work in new and meaningful ways. www.attachmate.com



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