



## **ViewNow X Server 9.6.4**

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A large, decorative graphic consisting of multiple overlapping, wavy blue lines that create a sense of motion and depth. The lines are in various shades of blue, from light to dark, and are set against a light blue gradient background.

**Setup Guide**

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# Introduction

ViewNow X Server Version 9.6.4 Windows Edition delivers complete PC and UNIX connectivity for:

- Windows XP SP2
- Windows Server 2003
- Windows Server 2012
- Windows Vista
- Windows 7
- Windows 8 and 8.1
- All Citrix platforms

ViewNow X Server combines multiple X Servers and X Clients with connectivity tools that help you to troubleshoot and diagnose various network problems.

This product supports upgrade compatibility from all previous versions of ViewNow X Server starting from version 9.3 and can coexist with the Rumba family of products.

# About ViewNow X Server

ViewNow X Server software allows you to run network-based UNIX programs (known as X Client programs) side-by-side with Windows applications on your machine. You can share programs and computing resources with the host computers connected to your machine over a network.

X Server consists of the following program groups:

## **X Windows**

Tools within the X Windows program group allow you to manage X Windows fonts, X Windows keyboards, run remote commands and work in the X Control Panel to manipulate X Clients and X Servers.

## **X Control Panel**

The X Control Panel provides a central location for performing the following tasks:

- Setting up unique workspaces that contain X Clients to run on your machine
- Starting X Clients and X Servers
- Importing X Workspaces from a centrally managed network location
- Customizing an X Server or X Client by modifying configuration options
- Launching X Windows utilities
- Adding new utilities or applications to the launch menu
- Accessing online resources

To open the X Control Panel, from the Windows **Start** menu, select:

**All Programs > Micro Focus ViewNow > X Windows > Micro Focus ViewNow X Server 9.6.4 Control Panel**

## **Diagnostic tools**

ViewNow X Server also includes X Log File Browser, X Performance Tuner, and X Protocol Trace. These diagnostic tools help you diagnose problems and monitor, audit, and report user access and network performance.

Most of the product programs are accessible from the **Micro Focus ViewNow** folder on the Windows **Start** menu.

For an introduction to the product and how to get started using product features, open the online Help after you install this product.

# About Setup

The installation program is a wizard that guides you through the installation process. The recommended options are selected for you. If necessary, you can modify these default settings to meet the needs of your site.

The product installation is in two parts. During the first part, the Setup Wizard prompts you to enter required information and make installation selections. As part of this process you can set the parameters required for Central X Configuration Management.

During the second part, the Setup Wizard:

- Checks that there is sufficient disk space on your destination drive.
- Checks that the license number is valid.
- Copies the files to the specified destination.
- Modifies the registry.
- Prompts you to restart your system (if required).



## Notes:

- Before installing, view the Readme for known installation and product component issues.
- The Setup Wizard is driven by the Microsoft Installer. You can customize the installation process by using `Msiexec.exe` command line options. [Click here](#) for more information on the Msiexec command.
- The Help buttons in the Setup Wizard dialog boxes provide you with additional details about installation options.
- The Setup Wizard automatically creates entries on the Windows **Start** menu, removes duplicate entries, and detects and migrates user settings from some Micro Focus predecessor products and previous versions.
- After the Setup Wizard has successfully completed the installation process, you might need to restart your machine before ViewNow X Server can run. This depends on the operating system.

# Installing ViewNow X Server

## System requirements

ViewNow X Server has the following minimum system requirements:

<b>Processor:</b>	64 MB.
<b>Memory (RAM):</b>	Pentium.
<b>Available disk space:</b>	53 MB. This is the disk space required after the installation is complete. Additional temporary space is required during the installation.
<b>Operating system:</b>	The following operating systems are supported: <ul style="list-style-type: none"><li>• Windows XP</li><li>• Windows Server 2003</li><li>• Windows Server 2012</li><li>• Windows Vista</li><li>• Windows 7</li><li>• Windows 8 and 8.1</li></ul>
<b>Network adapter:</b>	LAN card or ISDN card.

When you install the product, the Setup Wizard displays the actual disk space required based on the product components you choose to install.

ViewNow X Server does not run on Alpha processor systems.

## Preparing for installation

Before installing:

- Backup your local machine.
- Make sure that your Windows operating system DVD is easily accessible.

For a summary of known issues in this release, refer to the Readme.

Installing this product version over previous Beta releases of this product is not supported. Before installing this product, you must uninstall any Beta releases.

## Starting the installation

We recommend that you close all programs (including anti-virus programs) that are running on your system before starting the ViewNow X Server installation.

To insure that all ViewNow files are updated properly when you reinstall the same version of this software, you must first close all running ViewNow X Server product programs.

 **Note:** To install ViewNow X Server, you must be logged on to your system as administrator.

## Installing from a local directory

1. Copy the distribution to a local directory. For example, `C:\VNX964`.
2. Navigate to the `C:\VNX964\Micro Focus ViewNow X Server 9.6.4` folder.
3. Double-click the `ViewNow X Server.exe` file, then follow the Setup Wizard instructions.

## Installing from a server

To install ViewNow X Server from a server, you must map the folder where the distribution files exist to a network drive. You can then run the Setup Wizard by using the `Run` command.

To place the files on a network server, do one of the following:

- Copy the ViewNow X Server distribution to the server.
- Run the `Msixec /a` command.



**Note:** If you install this product from a server, the system must be able to automatically reestablish the connection after a system restart. To ensure that the connection is reestablished:

- If you are installing from a mapped network drive, select the **Reconnect At Logon** option when you first map the drive.
- If you are installing from a Universal Naming Convention (UNC) connection, after the system restart you must log on to the system using the same user name used to perform the installation.

## Choosing the type of installation

The ViewNow X Server Setup wizard lets you select the type of installation procedure to use:

- **Typical** - The Setup wizard automatically installs ViewNow X Server using the most commonly used settings. If necessary, you can change these later using the Setup wizard or Windows **Programs and Features** in Control Panel.
- **Complete** - Installs all the optional components of ViewNow X Server using the default installation settings. You need to configure options for some of these.
- **Custom** - Allows you to choose which components to install and change the ViewNow X Server installation settings.

## Performing a complete installation

If you select a complete installation, you are asked to configure the following features:

### Central X Workspace Management

Allows administrators to manage user workspaces remotely. See ...

### Admin Security

Increases user security. See ...

## Performing a custom installation

If you select a custom installation, you are asked to configure the following options:

### User Data Handling

Where multiple users will be using ViewNow X Server on a single computer, this specifies how session files and settings are handled across user accounts:

- **Private** - Each user has their own session files and program settings.
- **Shared** - All users share the same session files and program settings.

### Modify Imported Configurations

Specifies whether users can change any workspace configurations that they import.

### Installation Location

The location where ViewNow X Server is to be installed. The default is:

C:\Program Files\Micro Focus\XServer

### Custom Setup

Allows you to select which ViewNow X Server features to install.

Depending on which features you install, you may be asked to configure options for the following features:

### Central X Workspace Management

Allows administrators to manage user workspaces remotely. See ...

### Admin Security

Increases user security. See ...

## Using the Windows Installer

You can use the Windows Installer, `Msiexec.exe`, to install ViewNow X Server instead of using the Setup Wizard. `Msiexec.exe` is included in the ViewNow X Server distribution.

You can run the `Msiexec` command using:

- A command prompt window
- A custom batch file

## Msiexec options

Option	Parameter	Description
/a	Package	Uses the Administrative option to install a product to a network for use by a workgroup. An administrative installation installs a source image of a program to a location on a network. This is useful for sites that customize the installation program. Users in a workgroup who have access to this administrative source image can then install the product from this source.
/i	Package/ProductCode	Installs or configures a product.
/m		Generates an SMS status <code>.mif</code> file. Must be used with either the install (-i), remove (-x), administrative installation (-a), or reinstall (-f) options. The ISMIF32.DLL is installed as part of SMS and must be on the path.
/q	n b r f	Sets user interface level. <ul style="list-style-type: none"> <li>• q, qn – No UI. Use this option to specify an unattended installation.</li> <li>• qb – Basic UI level (simple progress and error handling boxes only).</li> <li>• qr – Reduced UI level (authored modeless dialog boxes only) with a modal dialog box at the end of the installation.</li> <li>• qf – Full UI level (dialog boxes, progress bars, and error messages) with a modal dialog box at the end of the installation.</li> </ul>

Option	Parameter	Description
		<ul style="list-style-type: none"> <li>qn+ – No UI except for a modal dialog box at the end of the installation.</li> <li>qb+ – Basic UI with a modal dialog box displayed at the end. The modal box is not displayed if the user cancels the installation. This is the recommended option.</li> <li>qb- – Basic UI (simple progress and error handling boxes only) with no modal dialog boxes.</li> </ul>
/x	Package/ProductCode	Uninstalls a product. Use the <code>msiexec /x /qn</code> command to uninstall the product in unattended mode. Error or warning messages that require a user response are not suppressed when you use this option.



#### Notes:

- Only public properties can be modified using the command line.
- Msiexec command line options are case-sensitive.
- All property names on the command line are interpreted as uppercase but the value retains case sensitivity. If you enter MyProperty at a command line, the installer overrides the value of MYPROPERTY and not the value of MyProperty in the Property table.
- To install a product with PROPERTY set to VALUE use the following syntax on the command line. You can put the property anywhere except between an option and its argument.

**Correct syntax:** `msiexec /i A:\example.msi PROPERTY=VALUE`

**Incorrect syntax:** `msiexec /i PROPERTY=VALUE A:\Example.msi`

- To customize the installation, apply a transform by setting the property TRANSFORM. For example:

```
TRANSFORM="sales.mst"
```

- To create a Web distribution of this product, first perform an Administrator installation to a document directory on the Web server using this command:

```
msiexec /a features.msi SHORTFILENAME=yes
```

When specifying folders and file names, it is best to use short file names.

- To install the product from the Web server, use this command:

```
msiexec /I http://server/features.msi
```

## Performing an unattended installation

You can use the Windows Installer to run an unattended (silent) installation and enter a Kerberos license as part of the installation process.

## Performing the installation

Use one of the following Msiexec commands:

- `Msiexec /qn`

Runs the installation with no user interface. This means the program runs in the background with no message (success or failure) displayed at the end of the installation.

- `Msiexec /qb+`

Runs the installation with a limited user interface. Using this option displays a simple process bar as the installation progresses. When installation finishes, you receive a message indicating success or failure of the installation. It is recommended that you use this method.

If you want to use Kerberos authentication with ViewNow X Server, you must enter the Kerberos license during the installation process. This can also be done in an unattended installation. Entering this option is optional.

## Entering a Kerberos license

Use the LICENSEKEY option. This option must be entered in uppercase and in the following format:

```
msiexec /i location_of_msi_file LICENSEKEY="key" /qb+
```

where `key` is the license key. Be sure to enter the numbers separated with a hyphen (-) (for example, ab123-c4d5e-678fg) as you do when entering the license key through the user interface.

For example, to run an unattended installation from D: and install a Kerberos license, you might enter:

```
msiexec /i d:\ViewNowX\X9.msi LICENSEKEY="00C0-ADCDE-D123" /qb+
```

## Changing an installation

After you have installed this product, you can modify the installation using either the executable (.exe) file or by selecting an option from Windows Programs and Features. Select one of the following options to make the changes.

- Uninstall** Completely uninstall ViewNow X Server. If you install this product over a previous version, and you later uninstall ViewNow X Server, the uninstall program does not revert to the earlier version. ViewNow X Server is completely removed from your system.
- Change** Change the current installation. You can install additional ViewNow X Server features, remove unwanted features, or change whether users are permitted to modify imported workspace configurations.
- Repair** If you are having problems with your installation of ViewNow X Server, select this option to fix missing or corrupt files, shortcuts, and registry entries.

## Upgrading from a previous version

Upgrading to the current version of ViewNow X Server silently uninstalls the previous version, then installs the current version of ViewNow X. All user data is preserved, but installation features must be reselected. For example, if Central X Workspace Management was selected in the previous version and you want it implemented in this version, you must select it again during the installation process.

Had there been any items - X Workspaces (.xws files), X Servers (.srv files), or X Clients (.clt files) exported prior to upgrading, they should be re-exported upon finishing the upgrade.

## Adding product features on a system with multiple users

If, after initial installation, you install new ViewNow X Server features on systems where multiple users have accounts (user profiles), these features are added for every user of the system.

Following the ViewNow X Server update, when each user logs on, the system displays several Microsoft Installer messages. This behavior is expected while the installation program updates the user's profile. However, only one window (as opposed to several) should display.

## Installing an evaluation version

The license key you enter when you install this product allows you to use the product features that you purchased according to the terms of the license agreement.

If you installed this product for evaluation, you are automatically notified before your evaluation period expires, so that you can contact Micro Focus to purchase the product. After you purchase the product, you can use the License Upgrade Wizard to enable the product without reinstalling it.

For information about additional Micro Focus products that you can install and evaluate for 30 days, visit the Micro Focus Web site at [www.microfocus.com](http://www.microfocus.com).

## Uninstalling

To uninstall ViewNow X Server, open the Windows Control Panel and select Programs and Features.



### Notes:

- You can safely ignore (or delete) any obsolete user data and registry entries that might remain after you uninstall ViewNow X Server. This includes any user data remaining in `C:\Program Files\Micro Focus\Xserver\Data` and any reference counters remaining in `HKLM\Software\Windows\CurrentVersion\SharedDLLs`.
- If you choose to uninstall this product after you upgraded from an earlier version of ViewNow, the uninstall program does not revert programs that are common to both products to the earlier version. All programs that you select are removed from your system.
- If a Private installation is uninstalled, you must clean the registry before installing it again. To do this, each user on the machine must delete the value `XSERV9NMCPDATA` from `HKEY_CURRENT_USER\Software\Micro Focus\CurrentVersion`.

## ViewNow X Server performance

ViewNow X Server is tuned for optimal reliability. For optimal performance on an isolated or low-traffic network, you can tune performance settings.

By default, ViewNow X Server automatically makes adjustments to performance settings based on network activity, server response, and other factors. However if you are using X Server on an isolated or low-traffic network, you may want to enable manual tuning and configure your own performance settings. For more information, see the ViewNow X Server Help.

You should not modify ViewNow X Server performance settings unless you are experienced in the administration of your network.

## Publishing an X Client on Citrix systems

This procedure will assist you in determining the command line and working directory to use when delivering an X Client as a published application.

1. In X Control Panel, create an X Client configuration. To do this, select **File > New X Client**.

An X Client icon appears in the right pane of the X Control Panel.

2. Right-click the X Client icon and select **Create Desktop Shortcut(s)** from the pop-up menu.

A shortcut icon appears on the Windows desktop.

3. Right-click the desktop shortcut and select **Properties** from the pop-up menu. The client property sheet opens. Use the values listed for **Command Line** and **Working Directory** in your published application configuration.

# Setting up Central X Workspace Management

## About Central X Workspace Management

Central X Workspace Management lets administrators manage users' workspaces remotely. Administrators can make changes to files used by the entire department once, then automatically deploy them to all users from a central network location. Using Central X Workspace Management, administrators can export workspaces into workspace configuration files residing on the network. These workspaces are imported from the network files automatically onto the user's machine. Central X Workspace Management is turned on automatically on the user's machine after each log on and turned off after log off.

The options for Central X Workspace Management are set during the installation process as part of the Setup wizard. The administrator enters the network location and polling time interval, and indicates whether users can modify any imported item using their X Control Panel. Setup starts the Central Management Service, which runs on the user's account, and polls the specified network location once during the specified polling time interval. The first polling takes place immediately during Setup. Each time this service detects changes in the files residing on the network, it imports the data from those files to the user's machine.

## Setting Central X Workspace Management options

The options for Central X Workspace Management are set during a Custom or Complete installation, or from the command line during an unattended installation. A Typical installation does not include Central X Workspace Management.

### Setting options from the Setup Wizard

When the Central X Workspace Management dialog opens enter the following information:

<b>Configuration files directory</b>	The path to a shared network location that should contain the exported configuration files. This information is entered by browsing to the location. Using the Setup Wizard you can only select a single path. To enter multiple paths, set the Central X Management options from the command line.
<b>Polling time interval</b>	A period of time, in hours, after which the Central Management Service checks for updated configuration files in the <code>Configuration files</code> directory. If there are updated files after the specified interval, they are automatically imported to the user's machine.
<b>Allow modifying imported configuration via X Control Panel</b>	Indicates whether or not the user can make changes to the items in the imported workspaces using the X Control Panel.

### Setting options from the command line

Enter Central X Management options from the command line when you want to use multiple configuration file directories. Use the `NETWORKPATH` option separating the paths with a semi-colon (`;`).

On the Windows Start menu, click **Run** and enter the `msiexec` command in the following format:

```
msiexec /i msi_full_file_name ADDLOCAL=ALL NMSPINCOUNTER=number_in_hours  
NMCHECKIMPORTEDITEMSMUTABLE=0 | 1 NETWORKPATH=path1;path2 /qb+
```

where:

<code>ADDLOCAL=ALL</code>	Adds the Central Management Service.
<code>NETWORKPATH=&lt;path1&gt;;&lt;path2&gt;</code>	Are the paths (separated by a semicolon) to a shared network location that should contain the exported configuration files.
<code>NMSPINCOUNTER=&lt;number_in_hours&gt;</code>	Is the polling time interval. A period of time, in hours, after which Central Management Service checks for updated configuration files in the <code>Configuration files</code> directory. If there are updated files after the specified interval, they are automatically imported to the user's machine.
<code>NMCHECKIMPORTEDITEMSMUTABLE=0   1</code>	Allows modifying imported configuration via X Control Panel.  1 indicates the user can make changes to the items in the imported workspaces using the X Control Panel. 0 indicates the user cannot make changes.
<code>/qb+</code>	Runs the installation with a limited user interface. Using this option displays a simple process bar as the installation progresses. On completion, a message is displayed indicating success or failure of the installation.

## Guaranteeing automatic workspace updates

Once configured in the Setup Wizard, the Central Management Service starts automatically on the user's machine after logon. The service then polls the specified network location once during the time interval indicated during Setup.

To guarantee automatic updates of all workspaces required by a particular department in your enterprise, the administrator should perform the following procedure.

1. Open X Control Panel.
2. Create a new workspace.
3. Add all department-related X clients and X servers into this workspace.
4. Export this workspace into a configuration file (with the default extension `.xws`).
5. Place the configuration file onto the shared network location specified in the **Central Workspaces Management** dialog box of the Setup program.
6. Repeat steps 2-5 for each workspace required by that department in your enterprise.

To guarantee automatic updates of all workspaces in several departments, the administrator can perform one of the following:

- Provide a separate installation for each department and specify a different shared network location in the **Central Workspaces Management** dialog box of the Setup program. Then repeat steps 1-6 described above for each department.
- Repeat steps 1-6 for each workspace in each department putting all `.xws` files into the same shared network location. Then change the access rights to each `.xws` file such that only members of the appropriate department have access to their dedicated workspaces.

## Changing Central Management options

Administrators can change the network location and polling time interval at any time after Setup. To do this, by create a batch file with the following commands, then distribute the new location and polling time to the user's machine.

```
<ProductInstallDir>\Micro Focus\Xserver\apps\X\WsMgtSrv.exe -u  
<ProductInstallDir>\Micro Focus\Xserver\apps\X\WsMgtSrv.exe -i -p  
<new_network_location> -t <new_polling_time_interval_in_hours>
```

The first command stops the Central Management Service and removes the existing parameters from the registry. The second command registers the new parameters and restarts the Central Management Service.

For example:

```
C:\Program Files\ Micro Focus\Xserver\apps\X\WsMgtSrv.exe -i -p \\MyCompany\X  
\Workspaces -t 48
```

tells the Central Management Service to begin polling the new single network location once every 48 hours.

```
C:\Program Files\ Micro Focus\Xserver\apps\X\WsMgtSrv.exe -i -p \\MyCompany\X  
\Workspaces1;MyCompany\X\Workspaces2 -t 48
```

tells the Central Management Service to begin polling the new multiple network locations once every 48 hours.

When the update process completes, the Central Management Service reports the following message after running the first command:

```
XConfigurationService stopped  
XConfigurationService removed
```

It reports two messages after running the first command:

```
XConfigurationService started
```

If the batch file could not be run successfully, the Central Management Service reports an error. The method of reporting error messages depends on the operating system. The Central Management Service reports to the Windows Application Log and can be viewed in the Microsoft Event Viewer.

# Increasing User Security

You can increase user security by protecting against the threat of unauthorized clients accessing the X Server.

In the **Custom Setup** dialog box, select **Admin Security**, click **Next**. In the **AdminSecurity** dialog that appears, create password protection and provide the location of the files with the general security settings for X Server host access (by default, this option is not selected).

Enter the following data:

<b>Enable password protection</b>	Select this option if you want password protection. By default, there is no password protection. This means that the user can change the security settings. If you enable password protection, the user is asked to enter a password when changing security settings.  If you select this option, you must enter a password and a file containing the password.
<b>Password</b>	Enter the password to protect host access
<b>Confirm</b>	Enter the same password you entered in the password field.
<b>Password file</b>	Enter (or browse for) the full path of the file where the password should be stored. The password file must be in a shared folder accessible to all users.
<b>Use host access control file for default server</b>	Select this option if you want to display the default server property sheet with <b>Use host access control file</b> selected. In the box below the option, enter the path for the host access file you want to be listed in X Control Panel. After you select this option, the two protection options become available.
<b>Protect browsing for host access control file</b>	Select this option to enable password protection when browsing for the host access control file. If you enable password protection, the user is asked to enter a password after clicking <b>Browse</b> .
<b>Protect editing of host access control file</b>	Select this option to enable password protection when editing the host access control file. If you enable password protection, the user is asked to enter a password after clicking <b>Edit</b> .

# Contacting Micro Focus

Micro Focus is committed to providing world-class technical support and consulting services. Micro Focus provides worldwide support, delivering timely, reliable service to ensure every customer's business success.

All customers who are under a maintenance and support contract, as well as prospective customers who are evaluating products are eligible for customer support. Our highly trained staff respond to your requests as quickly and professionally as possible.

Visit <http://supportline.microfocus.com/assistedservices.asp> to communicate directly with Micro Focus SupportLine to resolve your issues or e-mail [supportline@microfocus.com](mailto:supportline@microfocus.com)

Visit Micro Focus SupportLine at <http://supportline.microfocus.com> for up-to-date support news and access to other support information. First time users may be required to register.

## Information needed by Micro Focus SupportLine

When contacting Micro Focus SupportLine, please include the following information, if possible. The more information you can give, the better Micro Focus SupportLine can help you.

- The name and version number of all products that you think might be causing an issue.
- Your computer make and model.
- System information such as operating system name and version, processors, and memory details.
- Any detailed description of the issue, including steps to reproduce the issue.
- Exact wording of any error messages involved.
- Your serial number. To find this number, look in the subject line and body of your Electronic Product Delivery Notice e-mail that you received from Micro Focus.

## Additional information needed by Micro Focus SupportLine

If reporting a protection violation, you might be asked to provide a dump (.dmp) file. To produce a dump file, use the **Unexpected Error** dialog box that is displayed when a protection violation occurs.

Unless requested by Micro Focus SupportLine, leave the dump setting as `Normal` (recommended), click **Dump**, then specify a location and name for the dump file. Once the dump file has been written, you can e-mail it to Micro Focus SupportLine.

You may also be asked to provide a log file created by the Consolidated Tracing Facility (CTF) - a tracing infrastructure that enables you to quickly and easily produce diagnostic information detailing the operation of a number of Micro Focus software components.

# Tell Us What You Think

We welcome your feedback regarding Micro Focus documentation.

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