

FileMaker

Running FileMaker Pro 7 on Citrix MetaFrame XP



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Chapter 1

Introduction to Citrix MetaFrame XP

About Citrix MetaFrame XP

Citrix® MetaFrame XP™ for Windows 2000 is a server-based application server that runs with Microsoft Windows 2000 Server Terminal Services. MetaFrame XP extends the reach of Windows 2000 Server Terminal Services by providing application access by a wider variety of platforms and clients and supporting a wider range of features such as application transparency, better bandwidth performance, enhanced security, load balancing, and much more. MetaFrame XP has three components similar to Terminal Services in Windows 2000: the server, the client, and the Citrix Independent Computing Architecture (ICA) protocol by which the server communicates with the client.

MetaFrame XP application server

Similar to Terminal Services, when you are running MetaFrame XP application server, all applications are run on the server. Also like Terminal Services, the server sends only screen information to the client and receives input only from the client mouse and keyboard. MetaFrame XP allows administrators to take server-based application services to a new level by creating seamless applications for clients to access rather than providing an entire Windows 2000 desktop environment.

Independent Computing Architecture (ICA) protocol

The Independent Computing Architecture (ICA) protocol is automatically installed when you install Citrix MetaFrame XP. The ICA protocol transmits data between the Citrix ICA client and the MetaFrame XP server and is designed for transparent support of Windows applications, low-bandwidth requirements, data compression and encryption. Unlike Windows 2000 Terminal Services Remote Desktop Protocol (RDP), ICA also allows for client drive mapping, printer mapping, client port mapping, client clipboard support, audio support, as well as bitmap and disk caching.

ICA connections have been tested and are supported with the TCP/IP protocol when FileMaker® Pro 7 runs on a MetaFrame XP server.

Note If you have any Terminal Services clients accessing the MetaFrame XP server via RDP, you must enable the TCP/IP protocol on the MetaFrame XP server.

Citrix ICA client

The Citrix ICA client uses thin-client technology to provide a Windows 2000 desktop or a seamless application to users. Unlike with Terminal Services clients, when a seamless application is published for Citrix ICA clients, the application appears as if it is running locally on the client desktop. For both Windows 2000 desktops and seamless applications, the client only needs to make a connection to the server, and the server displays any needed visual information to the client, while the client sends back keyboard and mouse information to the server. All of the application processing is done on the server; the application is not actually loaded onto the client.

Benefits of using MetaFrame XP

- Organizations can deploy Windows 2000 applications in heterogeneous computing environments regardless of client hardware, operating system, or network connections.
- Users can continue to use their current operating system and applications.
- IT professionals can support specific Windows 2000 applications from a single location and manage application deployment, access, performance, security, and reliability.

- Administrators only need to install and update one copy of an application on a server machine and can create a variety of application environments, from complete Windows 2000 desktops to seamless application windows.
- NFuse Classic 1.7 application portal software working with MetaFrame XP is supported in the FileMaker Pro 7 configuration model and allows organizations to integrate applications into any standard Web browser.

System requirements

The hardware requirements for Citrix MetaFrame XP application server depend on how many clients will be connecting at a time and the usage requirements of the clients.

Citrix MetaFrame XP (Feature Release 2/ Service Pack 2) server minimum requirements

- 166 MHz or faster Pentium processor
- 256 MB RAM
- 2 GB hard disk with a minimum of 1 GB free space
- Additional 10 to 20 MB RAM per client connection

Citrix ICA client minimum requirements

Note Only the following clients are supported by FileMaker, Inc. at this time. Other clients may work as expected but have not been tested for use with FileMaker Pro 7 and are not currently supported.

- Citrix ICA Client 6.31 for 32-bit Windows: Windows 2000 and Windows XP
- Citrix ICA Web Client 6.31 for Windows XP
- Citrix ICA Client 6.2 for Mac OS 9.2
- Citrix ICA Client 6.3 for Mac OS X 10.2

Clients are available from the %SystemRoot%\System32\Clients\ICA directory on the Citrix MetaFrame XP server machine or from the Citrix web site at www.citrix.com/download.

Windows 2000 Terminal Services and Citrix MetaFrame XP both share executable resources among users, so memory requirements for additional users running the same application are less than the requirements for the first user to load the application.

For improved performance use:

- High-performance bus architecture such as EISA, MCA, or PCI. The ISA (AT) bus cannot move enough data to support the kind of traffic that is generated by a typical Terminal Services installation.
- A SCSI disk drive, preferably one that is compatible with Fast SCSI or SCSI-2. To improve disk-access time, use a SCSI disk drive with RAID.
- A high-performance network adapter. Consider having two network adapters in the server machine and designate one for ICA traffic only.

Before installing Citrix MetaFrame XP

Before installing MetaFrame XP, Windows 2000 Terminal Services should be set to run in application server mode. For a step-by-step procedure to enable Terminal Services, see the Terminal Services help on the Microsoft web site at:

- www.microsoft.com/windows2000/en/server/help/ts_set_h_020.htm

Other online resources are available on the Microsoft Windows 2000 Terminal Services web site:

- www.microsoft.com/windows2000/technologies/terminal/default.asp

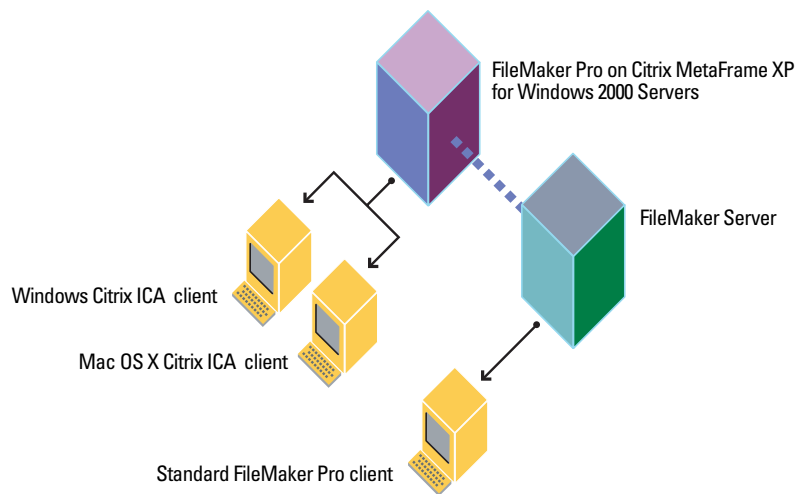
MetaFrame XP requires approximately 30 MB of hard disk space on the server to store its support files, help files and online documentation. Before installing MetaFrame XP, consider carefully the number of users/clients that will be connecting, the types of applications you will be serving to clients, and how your users will be connecting to the MetaFrame XP server.

Installing Citrix ICA client software

Citrix ICA client software should be installed on every machine that needs to use the Citrix MetaFrame XP server. Terminal Services clients will be able to access the server, but will not have the full feature set that Citrix ICA clients get. See your *Citrix MetaFrame Administrator's Guide* for information on installing Citrix ICA clients.

Chapter 2

Using FileMaker Pro 7 with Citrix MetaFrame XP



Installing FileMaker Pro 7 on Citrix MetaFrame XP

Note This installation requires FileMaker Pro 7 Worldwide English (Volume License or Box Set license is required).

To install FileMaker Pro 7 on a Windows 2000 Terminal Services server running Citrix MetaFrame XP:

1. Make sure that Terminal Services has already been installed and configured on your Windows 2000 Server machine, that Citrix MetaFrame XP has been installed, and that you are logged on as administrator.
2. In the Control Panel, double-click Add/Remove Programs.

Note Do not directly access the Setup icon on your FileMaker Pro Volume License or Box Set CD.

3. Click Add New Programs.
4. Click CD or Floppy, then click Next. The FileMaker Pro InstallShield Wizard appears.
5. When the License Agreement panel appears, read the Software License Agreement. If you accept the terms of the license agreement, click **I Accept**.
6. Install FileMaker Pro by following the on-screen instructions.

For details about installation issues, see "Installation notes" on page 9 of the *Installation and New Features Guide for FileMaker Pro and FileMaker Developer*.

7. Click Finish when Add/Remove Programs has finished the installation.

Deployment recommendations

- Terminal Services requires a minimum of 128 MB RAM (256 MB RAM recommended by Microsoft). An additional 10-20 MB RAM is required for each subsequent Terminal Services client running FileMaker Pro.
- Citrix MetaFrame XP requires 1MB RAM per idle session.
- Estimate more RAM per client if your solution is memory-intensive or if you are serving multiple applications in addition to FileMaker Pro.
- Use a fast Pentium processor, preferably a Pentium III or Pentium 4.

FileMaker supports deployment and development of FileMaker Pro 7 solutions running on Citrix MetaFrame XP clients. Some aspects of development may not function as expected when developing on Citrix MetaFrame XP clients. For more information on known technical issues when developing FileMaker Pro 7 solutions on Citrix MetaFrame XP clients, see www.filemaker.com/support.

Environments for deploying FileMaker Pro 7 files

Non-shared files

Citrix MetaFrame XP clients can access FileMaker Pro files that are not shared over a network. Non-shared files can be developed and deployed by Citrix MetaFrame XP clients just like any non-shared FileMaker Pro file. Shared files and peer-to-peer hosting are not supported on Citrix MetaFrame XP clients.

Note To turn off sharing for a specific file, choose Edit menu > Sharing > FileMaker Network (Windows) or FileMaker Pro menu > Sharing > FileMaker Network (Mac OS), select the file, then select No users.

Connecting to FileMaker Server 7

You can use FileMaker Server 7 to host files to the Citrix MetaFrame XP server. FileMaker Server 7 will host FileMaker Pro 7 files to ICA clients via the Citrix MetaFrame XP server deploying FileMaker Pro and will continue to host files to standalone FileMaker Pro clients. When a user opens FileMaker Pro running on Citrix MetaFrame XP server, accessing FileMaker Pro files hosted by FileMaker Server is done in the same way as accessing FileMaker Server under normal networking conditions. For more information, see “Opening shared files as a client” in chapter 4 of the *FileMaker Pro User’s Guide*.

Note FileMaker Server should not be installed on the same machine with Windows 2000 Terminal Services/Citrix MetaFrame XP.

Mac OS ICA clients

When a Mac OS ICA client accesses FileMaker Pro 7 through Citrix MetaFrame XP, remember that the client will be accessing a Windows application. The shortcut keys used on the Mac OS client will be Windows shortcut keys, and the look and feel of the application will be that of a Windows application.

FileMaker Pro 7 feature issues

Features not supported for Citrix MetaFrame XP clients:

- Peer-to-peer hosting
- Web hosting
- JDBC drivers
- xDBC plug-in
- Third party plug-ins. Plug-in developers must test and certify their support for the plug-ins they supply to run under Citrix MetaFrame XP.

Note Only the Win32, Mac OS, and web ICA clients listed in “System requirements” on page 6 are supported at this time. Other clients may work as expected but have not been tested by FileMaker and are not currently supported.

TechInfo database articles

Check the TechInfo database for articles regarding running FileMaker Pro 7 on Citrix MetaFrame XP. You can access the TechInfo database from www.filemaker.com/support.

Appendix A

Standard requirements

FileMaker, Inc. standard requirements

In order to use FileMaker Pro via Citrix MetaFrame XP application server, you must purchase a Volume License Agreement (VLA) or a Box Set license. Retail packages of FileMaker Pro cannot be used with Citrix MetaFrame XP.

Volume License Agreement (VLA)

The FileMaker VLA is a transactional agreement that grants you the right to install the software on as many computers as are listed on your custom license certificate. To download a PDF file containing information about the VLA see:

- www.filemaker.com/products/choose_license.html

then scroll to mid-page and click **Corporate & Government Data Sheet** or **Education Data Sheet**.

Box Set license

The Box Set license allows for any combination of FileMaker Pro, FileMaker Server, FileMaker Developer, and FileMaker Mobile to be installed anywhere in your organization of 50 or more employees or computers. To download a PDF file containing information about the box set license see:

- www.filemaker.com/products/choose_license.html

then scroll to the end of the page and click **Box Set Data Sheet**, **Box Set Data Sheet for K-12**, or **Box Set Data Sheet for Higher Education**.

For more information on licenses, please call 1-800-725-2747 (holidays excluded). See www.filemaker.com for details.

Windows 2000 Server license requirements

Each client computer, regardless of the operating system running on that computer, must have a Windows 2000 Server Client Access License (CAL) if the client accesses the server for file, print, and other network services, regardless of whether they are using Terminal Services. For more information see:

- www.microsoft.com/windows2000/server/howtobuy/pricing/model.asp
- www.microsoft.com/windows2000/server/howtobuy/pricing/faq.asp

Terminal Services license requirements

In addition to the Windows 2000 Server CAL, you must have a Windows 2000 Terminal Services CAL to run Windows-based desktop and applications from a Windows 2000 Server, regardless of the protocol or software used to interact with applications running on the server. For more information see:

- www.microsoft.com/windows2000/server/howtobuy/pricing/terminal.asp

Citrix license requirements

Citrix MetaFrame XP must be licensed to activate its features and to allow clients to connect to the server. For more information see:

- www.citrix.com

