Running FileMaker® Pro 5.5 on Windows 2000 Terminal Services

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Chapter 1
Introduction to Windows 2000 Terminal Services

About Windows 2000 Terminal Services

Terminal Services is a Windows 2000 component that lets you remotely access applications installed on a Windows 2000 server from a wide range of machines over most types of network connections.

Terminal Services has three components: the server, the client, and the protocol by which the server communicates with the client.

Terminal Services server

When you are running Terminal Services in application server mode, all applications are run on the server. The Terminal Services server sends only screen information to the client and receives input only from the mouse and keyboard.

Terminal Services client

The Terminal Services client uses thin-client technology to provide the Windows 2000 Desktop to users. The client only needs to make a connection with the server and display the visual information that the server sends.

Remote Desktop Protocol (RDP)

The Remote Desktop Protocol (RDP) is automatically installed when you install Terminal Services. RDP is the only connection you need to configure in order for clients to connect to the Terminal Services server. You can configure only one RDP connection per network adapter.

Benefits of using Windows 2000 Terminal Services

- Organizations can deploy Windows 2000 on older systems that may not have hardware supported by Windows 2000.

- Users can continue to use their current operating system and applications.

- Organizations can deliver Windows-based applications to a variety of desktop environments and over LANs and WANs.

- Administrators only need to install and update one copy of an application on a server machine instead of on all the computers in their network.

- Networked applications will perform better over slow network connections.

System requirements

The hardware requirements for Windows 2000 Terminal Services depend mainly on how many clients will be connecting at a time and the usage requirements of the clients.

Terminal Services server minimum requirements

- 133 MHz or higher Pentium processor

- 128 MB RAM; 256 MB RAM recommended

- 2 GB hard disk with a minimum of 1 GB free space

- Additional 10 to 20 MB RAM per client connection

Terminal Services client minimum requirements

- Intel Pentium computers running Windows 95, Windows 98, Windows ME, Windows NT 4, and Windows 2000

Windows 2000 Terminal Services shares 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 RDP traffic only.

Enabling Windows 2000 Terminal Services

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

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

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

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

Installing Windows 2000 Terminal Services client software

Windows 2000 Terminal Services client software should be installed on every machine that needs to use Terminal Services. There are two versions of the client:16-bit for older machines and 32-bit for newer machines. For a set-by-step procedure to enable Terminal Services, see the Terminal Services help on the Microsoft website at:
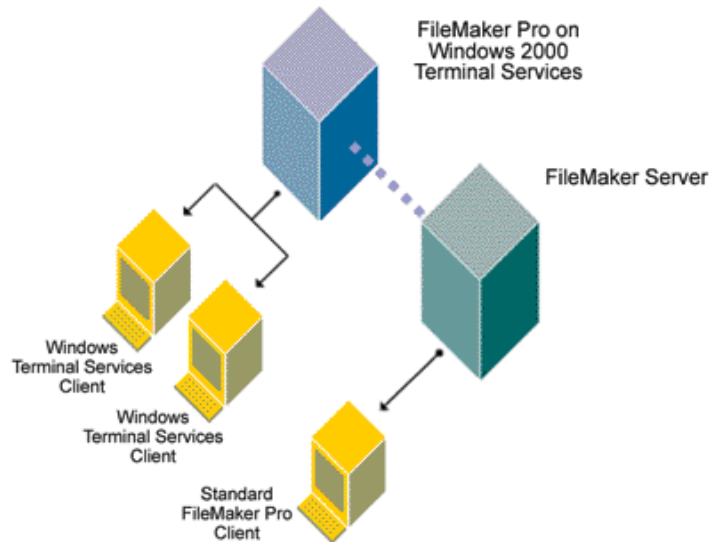
- http://www.microsoft.com/windows2000/en/server/help/ts_cli_h_010.htm

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

- http://www.microsoft.com/windows2000/technologies/terminal/default.as

Chapter 2
Using FileMaker Pro 5.5 with Windows 2000 Terminal Services

Installing FileMaker Pro 5.5 on a Terminal Services server

Note This installation requires FileMaker Pro 5.5 Worldwide English (Volume License or Box Set installation codes are required).

To install FileMaker Pro on a Windows 2000 Terminal Services server:

1. Make sure Terminal Services has already been installed and configured on your Windows 2000 Server machine and 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.

5. Click Next.

6. Click Yes if you accept the terms of the license agreement.

7. Click Next.

8. Choose Typical.

If you want to install FileMaker Pro in another directory or drive on the Terminal Services server, click the Browse button and select the desired directory.

9. Click Next.

10. Choose TCP/IP and click Next.

11. In the Personalization dialog box, enter your name, company information, and installation code. A Volume License Agreement or Box Set license installation code is required.

12. Click Next.

13. Click Yes if the registration information is correct.

14. Click Finish.

15. If prompted to restart, click No, then Finish.

16. Click Next.

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

18. Restart the Terminal Services server.

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.

- 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 II or Pentium III.

FileMaker, Inc. supports deployment and development of FileMaker Pro solutions running on Windows 2000 Terminal Services. Some aspects of development may not function as expected when using Terminal Services clients as a FileMaker development environment. For more information on known technical issues when using Terminal Services clients as a FileMaker development environment access the support area of the FileMaker, Inc. web site: http://www.filemaker.com/support.

Environments for deploying FileMaker Pro 5.5 files

Single User Files

FileMaker Pro files designated as Single User files can be accessed by Terminal Services clients. Single User files can be developed and deployed by Terminal Services clients just like any Single User FileMaker Pro file. Multi User files and peer-to-peer hosting are not supported on Terminal Services clients.

Connecting to FileMaker Server 5

FileMaker Server 5.0v2 Worldwide English or FileMaker Server 5.5 should be used to host files to the Terminal Services server. The Terminal Services server deploying FileMaker Pro will access FileMaker Server to host FileMaker Pro files to Terminal Services clients as well as local FileMaker Pro clients. When a client opens FileMaker Pro running on Terminal Services, accessing FileMaker Pro files hosted by FileMaker Server is done in the same way as accessing the FileMaker Server under normal networking conditions. To review how to open files as a guest, see "Opening files as a guest" in the *FileMaker Pro User's Guide*. FileMaker Server and Windows 2000 Terminal Services should not be installed on the same machine.

FileMaker 5.5 feature issues

Features not supported for Terminal Services clients:

- Peer-to-peer hosting

- Web hosting

- JDBC drivers

- Remote Data Access Companion (RDAC)

- Local Data Access Companion (LDAC)

- Companions and plug-ins

Note Only Windows 95, Windows 98, Windows ME, Windows NT 4, and Windows 2000 clients are supported at this time. Other clients may work as expected but have not been tested by FileMaker, Inc. and are not currently supported.

TechInfo database articles

Check the TechInfo database for articles regarding running FileMaker Pro 5.5 on Windows 2000 Terminal Services. You can access the TechInfo database in the support area of the FileMaker, Inc. web site (http://www.filemaker.com/support).

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Appendix A
Standard requirements

FileMaker, Inc. standard requirements

In order to use FileMaker Pro via Windows 2000 Terminal Services, you must purchase a Volume License Agreement (VLA) or a Box Set license. Retail packages of FileMaker Pro cannot be used with Terminal Services.

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. The first VLA discount tier starts with 10 units and currently offers a 25% savings off retail package prices of FileMaker Pro. To download a PDF file containing information about the VLA see:

• http://www.filemaker.com/products/choose_license.html

then scroll to mid-page and click VLA Datasheet.

Box Set license

The Box Set license allows for any combination of FileMaker Pro 5, FileMaker Server 5, and FileMaker Pro 5 Unlimited 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:

• http://www.filemaker.com/products/choose_license.html

then scroll to the end of the page and click Box Set Data Sheet. For more information on licenses, please call 1-800-725-2747 (FileMaker, Inc. holidays excluded).

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:

• http://www.microsoft.com/windows2000/server/howtobuy/pricing/model.asp

• http://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:

• http://www.microsoft.com/windows2000/server/howtobuy/pricing/terminal.asp

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