

ABOUT THIS UPDATE

This update contains information about the features of your MacX25 upgrade product. The update refers to version 1.0.1 of MacX25. Use this update with your MacX25 User's Guide or MacX25 Administrator's Guide for complete information on the MacX25 application program and its upgrade release. You only need to read the sections that apply to you. If you're a general user of MacX25, you do not have to read information addressed to the MacX25 administrator or the special note to developers.

Memory requirements

Before you get started, confirm that the memory of your client and server meet the requirements of the MacX25 program as described in the following table:

	System 6.0.7	System 7.0
Server Memory	2.0 Megabytes	4.0 Megabytes
Client Memory	1.0 Megabytes	2.0 Megabytes

The MacX25 minimum-memory configurations specified in this update are defined for systems that use only MacX25 software. Adding desk accessories or INITs can cause the MacX25 program to run out of memory, leading to a system error. The program displays warning messages for many, but not all, low-memory conditions.

What's new in MacX25

With this upgrade, MacX25 gives you the means to install MacX25 software on Apple Macintosh Operating System software version 6.0.7 and version 7.0. You open the same installer regardless of the system software version you're using. In this update package, you also receive the new AppleTalk Phase 2 (also called AppleTalk v56.0) file. This file contains the latest version of the AppleTalk Data Stream Protocol (ADSP).

The PAD for MacX25 always runs in 8-bits, instead of the earlier 7-bits.

With MacX25, you can also use the Macintosh IIsi computer as a server. The Macintosh LC, Macintosh Classic, and Macintosh IIsi computers can be used as clients.

This update includes a correction to Table C-4: France Transpac (in the MacX25 User's Guide). It also includes a change in how you put the MacPAD program into command mode (Chapter 4 of the MacX25 User's Guide).

Working with AppleTalk Phase 2

Your MacX25 software uses AppleTalk Phase 2 found on your Installer disk in the System Folder.

*!! Warning

EtherTalk 1.0 services and TokenTalk 1.0 services are not available under AppleTalk Phase 2. AppleTalk Phase 2 and TokenTalk 2.0 are installed automatically with your MacX25 upgrade. If you're using EtherTalk 1.0 or TokenTalk 1.0 for services such as an AppleShare file server and you upgrade to AppleTalk Phase 2, you will no longer be able to access your 1.0 services. Contact your network administrator if you're unsure about whether you should still upgrade to AppleTalk Phase 2 *!!

By running the Installer, you automatically copy AppleTalk Phase 2 into your System Folder for system software version 6.0.7. If you're using version 7.0, AppleTalk Phase 2 is already built into the System file.

- Hidden ADSP The MacX25 program has always used ADSP. Once you install AppleTalk Phase 2, however, the ADSP file no longer appears in your System Folder. ADSP is "hidden" or

built into AppleTalk Phase 2.u

About new files on the distribution disks

Figures 1 and 2 show the contents of your new distribution disks:

- an Installer version 3.2 for server installations on system software version 6.0.7 and version 7.0
- an Installer version 3.2 for user installations on version 6.0.7 and version 7.0
- Figure 1. The contents of your MacX25 Server Installer disk
- Figure 2. The contents of your MacX25 User Installer disk

Installation

This section describes how to use the Easy Install option of the Installer program to install the MacX25 Server and User software on your Macintosh computer.

Your new installation scripts recognize and update the MacX25 program for your particular version of system software. For example, if you're using system software version 6.0.7, the installation script upgrades your MacX25 software for version 6.0.7. Similarly, if you're using version 7.0, the installation script upgrades your MacX25 software for that system. (You launch the same Installer application regardless of the system version you're using.)

Server installation

When you are ready to begin upgrading your MacX25 server, follow these steps:

1. If your Macintosh computer is on, save your work and quit all applications.
2. Open the MacX25 Server Installer.

To start the program, select the Installer icon and choose Open from the File menu, or double-click the icon.

*!! Important

Don't open the icon called Server Install Script. If you open the server or user installation scripts instead of the Installer application, the Finder system software searches the internal hard disk first for the Installer. If the Installer exists on the hard disk, it is launched and you are prevented from installing any software on that hard disk, which is most likely to be the System disk. As a rule, always open the Installer application not the Server Install Script. *!!

The program displays an Installer dialog box that contains general information about installing MacX25 Server software.

3. Click the OK button.

You must use system software version 6.0.7 or later. You're given the following special reminder if you're using an earlier, incompatible version.

If you're using a compatible version, click the Install button. The program displays the Easy Install dialog box.

4. Make sure that the disk indicated in the Easy Install dialog box is the one on which you want to install the MacX25 Server software.

If the disk named in the dialog box is not the one on which you want to install the

software, click the Switch Disk button until the correct disk name appears.

***!! Important**

You cannot install the MacX25 Server software on the disk that contains the Installer program or on an AppleShare volume (file server). The disk on which you install MacX25 must be a hard disk that contains a System Folder. ***!!**

5. Click the Install button.

The Installer displays a status dialog box that keeps you informed on the progress of the installation.

When the Installer begins the installation process, the status box displays a Cancel button in its lower-right corner. You can halt the installation by clicking the Cancel button.

***!! Warning**

When you use the Cancel button to interrupt the installation, no files are installed. ***!!**

In a few seconds, the Installer ejects the MacX25 Server Installer disk and displays a dialog box asking you to insert the MacX25 User Installer disk.

6. Remove the MacX25 Server Installer disk from the disk drive and insert the MacX25 User Installer disk into the disk drive.

In a few more seconds, the Installer completes the installation. It then ejects the MacX25 User Installer disk and displays another dialog box asking you to insert the MacX25 Server Installer disk again.

7. Remove the MacX25 User Installer disk from the disk drive and insert the MacX25 Server Installer disk into the disk drive.

The Installer completes the installation and then displays a dialog box that tells you to restart your computer.

8. Click the Restart button.

Your Macintosh computer restarts.

At this point, the MacX25 Server services are available on your computer.

Customizing a server installation

This section contains instructions for using the Customize option of the Installer program. You may want to customize your installation when you know that you will use only a subset of the files and programs included with the MacX25 Server software. For example, you might want to customize to test a particular file. The Easy Install option, however, is sufficient in most cases.

When you are ready to begin, follow these steps:

1. If your Macintosh computer is on, save your work and quit all applications.
2. Open the MacX25 Server Installer disk.

Select the disk icon and choose Open from the File menu, or double-click the icon.

3. Start the Installer program.

To start the program, select the Installer icon and choose Open from the File menu, or double-click the icon.

***!! Important**

Don't open the icon called Server Install Script. If you open the server or user installation scripts instead of the Installer application, the Finder searches the internal hard disk first for the Installer. If the Installer exists on the hard disk, it is launched and you are prevented from installing any software on that hard disk, which is most likely to be the System disk. As a rule, always open the Installer application not the Server Install Script. ***!!**

The program displays an Installer dialog box that contains general information about installing MacX25 Server software.

4. Click the OK button.

The program displays the Easy Install dialog box.

5. Make sure that the disk indicated in the Easy Install dialog box is the one on which you want to install the MacX25 Server software.

If the disk named in the dialog box is not the one on which you want to install the software, click the Switch Disk button until the correct disk name appears.

s Important

You cannot install the MacX25 Server software on the disk that contains the Installer program or on an AppleShare volume (file server). ***!!**

6. Click the Customize button.

The Installer displays the Customize dialog box. The top portion of the box shows programs in system software version 6.0.7. In the following illustration, a default server configuration for version 6.0.7 has been selected. To select multiple files and programs, press and hold down the Shift key as you click an additional name.

%% Note: If you select one item, as shown in the illustration, a descriptive box for that item appears in the lower portion of the dialog box. %%

Use the scroll bar to scroll down and view the options for version 7.0. In the next illustration, several items are selected.

***!! Important**

When you customize, make sure that you select items from either system software version 6.0.7 or version 7.0, not from both versions. If you try to install programs from both versions, the customization process might not work. You will then have to reinstall the software. If you customize the server software and you selected any of the Preferences, AppleTalk, A/ROSE, or Open Book files, you will be prompted to insert the MacX25 User Installer disk. ***!!**

7. Select the files and programs that you want to install.

Remember, you can select more than one item in the list by pressing and holding down the Shift key as you click another name. To remove previously installed items, press the Option key to change the Install button to a Remove button, then click the Remove button.

***!! Important**

You cannot install the MacX25 Server software on the disk that contains the Installer program or on an AppleShare volume (file server). ***!!**

8. Click the Install button.

The Installer displays a status box that keeps you informed on the progress of the installation. When the Installer begins the installation process, the status box displays a Cancel button in its lower-right corner. You can halt the installation by clicking the Cancel button.

***!! Warning**

When you use the Cancel button to interrupt the installation, no files are installed.
***!!**

Remember, if you selected any of the Preferences, AppleTalk, A/ROSE, or Open Book files, the program ejects the MacX25 Server Installer disk and displays a dialog box asking you to insert the MacX25 User Installer disk.

9. Remove the MacX25 Server Installer disk from the disk drive and insert the MacX25 User Installer disk into the disk drive.

In a few seconds, the program ejects the MacX25 User Installer disk and displays another dialog box asking you to insert the original MacX25 Server Installer disk again.

10. Remove the MacX25 User Installer disk from the disk drive and insert the MacX25 Server Installer disk into the disk drive.

The Installer completes the installation and then displays the following dialog box with a Restart button.

11. Click the Restart button.

Your Macintosh computer restarts.

At this point, the items that you selected in step 7 are available on your computer.

User installation

This section tells you how to install MacX25 User software on Macintosh computers for individual users. Remember, your new Installation script recognizes and updates MacX25 User for your particular version of the system software.

1. If your Macintosh is on, save your work and quit all applications.
2. Open the MacX25 User Installer disk.

Select the disk icon and choose Open from the File menu, or double-click the icon.

3. Start the Installer program.

To start the program, select the Installer icon and choose Open from the File menu, or double-click the icon.

***!! Important**

Don't open the icon called User Install Script. If you open the server or user installation scripts instead of the Installer application, the Finder searches the internal hard disk first for the Installer. If the Installer exists on the hard disk, it is launched and you are prevented from installing any software on that hard disk, which is most likely to be the System disk. As a rule, always open the Installer application not the User Install Script. ***!!**

The program displays an Installer dialog box that contains general information about

installing MacX25 User software.

4. Click the OK button.

The program displays the Easy Install dialog box.

5. Make sure that the disk indicated in the Easy Install dialog box is the one on which you want to install the MacX25 User software.

If the disk named in the dialog box is not the one on which you want to install the software, click the Switch Disk button until the correct disk name appears.

***** Important**

You cannot install the MacX25 User software on the disk that contains the Installer program or on an AppleShare volume (file server). *******

6. Click the Install button.

The Installer displays a status box that keeps you informed about the progress of the installation.

The status box displays a Cancel button in its lower-right corner. You can halt the installation by clicking the Cancel button.

***** Warning**

When you use the Cancel button to interrupt the installation, no new files are installed. *******

When the installation is complete, you see the following dialog box:

7. Click the Restart button.

Your Macintosh computer restarts.

At this point, the MacX25 User services are available on your computer.

You can now use the Chooser to copy connection information for the X.25 services to your MacX25 Addresses document. See Chapter 2 of the MacX25 User's Guide, "Getting MacX25 Addresses," for instructions.

Customizing a user installation

This section contains instructions for using the Customize option of the Installer program. You may want to customize your installation when you know that you will use only a subset of the files and programs included with the MacX25 User software. For example, you might want to customize to test a particular file. The Easy Install option, however, is sufficient in most cases.

When you are ready to begin, follow these steps:

1. If your Macintosh computer is on, save your work and quit all applications.
2. Open the MacX25 User Installer disk.

Select the disk icon and choose Open from the File menu, or double-click the icon.

3. Start the Installer program.

To start the program, select the Installer icon and choose Open from the File menu, or double-click the icon.

***!! Important**

Don't open the icon called User Install Script. If you open the server or user installation scripts instead of the Installer application, the Finder searches the internal hard disk first for the Installer. If the Installer exists on the hard disk, it is launched and you are prevented from installing any software on that hard disk, which is most likely to be the System disk. As a rule, always open the Installer application not the User Install Script. ***!!**

The program displays an Installer dialog box that contains general information about installing MacX25 User software.

4. Click the OK button.

The program displays the Easy Install dialog box.

5. Make sure that the disk indicated in the Easy Install dialog box is the one on which you want to install the MacX25 User software.

If the disk named in the dialog box is not the one on which you want to install the software, click the Switch Disk button until the correct disk name appears.

***!! Important**

You cannot install the MacX25 User software on the disk that contains the Installer program or on an AppleShare volume (file server). ***!!**

6. Click the Customize button.

The Installer displays the Customize dialog box. The top portion of the box shows programs in system software version 6.0.7. In this illustration, a Chooser package for version 6.0.7 has been selected. To select multiple programs, press and hold down the Shift key as you click an additional program name.

%% Note: If you select one item, as shown in the following illustration, a descriptive box for that item appears in the lower portion of the dialog box.

Use the scroll bar to scroll down and see the options for version 7.0. In the next illustration, the MacX25 Chooser Package and MacX25 Open Book are selected.

***!! Important**

When you customize, make sure that you select items from either system software version 6.0.7 or version 7.0, not from both versions. If you try to install files from version 6.0.7 and version 7.0, the customization process might not work. You will then have to reinstall the software. ***!!**

7. Select the files and programs that you want to install.

Remember, you can select more than one item in the list by pressing and holding down the Shift key as you click the next name. To remove previously installed user services, press the Option key to change the Install button to a Remove button, then click the Remove button.

***!! Important**

You cannot install the MacX25 User software on the disk that contains the Installer program or on an AppleShare volume (file server). ***!!**

8. Click the Install button.

The Installer displays a status box that keeps you informed about the progress of the installation. When the Installer begins the installation process, the status box displays a Cancel button in its lower-right corner. You can halt the installation by clicking the Cancel button.

*!! Warning

When you use the Cancel button to interrupt the installation, no files are installed.
*!!

The Installer completes the installation and then displays the following dialog box with a Restart button.

9. Click the Restart button.

Your Macintosh computer restarts.

At this point, the items that you selected in step 7 are available on your computer.

Ignoring command-key equivalents

The command-key equivalents in the MacX25 Open Book program in MacX25 have been removed. Always choose commands for the Open Book program from the menus.

Working with the 8-bit PAD

With MacX25, MacPAD uses 8-bit characters as the default. This means that you can now display the 8-bit character sets used in Europe. If you want MacPAD to work in 7-bit ASCII mode, set the terminal emulator to use 7 bits.

In this new version of MacX25, MacPAD additionally supports throughput class negotiation and window size.

Putting MacPAD into command mode

An inconsistency between the ability to put MacPAD into command mode and the Enable PAD-command mode in the Connection Settings dialog box has been corrected. Previously, you might have disabled PAD-command mode in the Connection Settings dialog box; if you then sent a PAD recall character (such as Control-P), the connection would appear to "hang." Putting MacPAD into command mode is documented in Chapter 3 of the MacX25 User's Guide.

The MacPAD software now solves this problem by always following the current settings in the PAD profile.

If you want to pass the PAD recall data as data itself, choose the data transparent profile by entering the prof91 PAD profile, as described in Appendix A of the MacX25 User's Guide.

Administrator's update

The following sections provide new information for administrators.

Using a Macintosh IIsi computer as a server

With this upgrade of MacX25, any Macintosh II computer with a serial NuBus card can function as a server. However, if you use the new Macintosh IIsi as a server, you need a NuBus adapter for the serial NuBus card. All other Macintosh computers, as early as the Macintosh Plus, can function as a client. See the MacX25 Administrator's Guide for more information on system requirements for client and server.

External Packet-Level Parameters (France Transpac)

In Table C-4, Appendix C of the MacX25 Administrator's Guide, the following settings for the external packet-level parameters changed from 60 seconds to 0 seconds. Here are the correct settings:

T24 Timer (Window Status) 0 seconds
T25 Timer (Window Rotate) 0 seconds
T26 Timer (Interrupt Response) 0 seconds
T28 Timer (Registration Response)##T##0 seconds

New default values for throughput class negotiation

Appendix C of the MacX25 Administrator's Guide shows the source for the parameter files that are shipped with MacX25. In all cases, the values of "RX Default Throughput" and "TX Default Throughput" have been changed to 48000 bps.

Saving passwords with the Macintosh Communications Toolbox or MacPAD

If your application uses CMGetConfig, passwords are returned as CLEARTXT. If the application you're developing is concerned with security, you must have the application supply its own encryption. Remember, the CMSetConfig will require the password in CLEARTXT.

In previous versions of MacX25, the password field was not returned in CMGetConfig to preserve the integrity of the password; in this upgrade of MacX25, the password is returned in CLEARTXT.

Troubleshooting hints

This section supplements Appendix E of the MacX25 Administrator's Guide. It provides hints for resolving difficulties you might have with MacX25 clients and the gateway.

Troubleshooting the client

Here are solutions to problems with the client based on the message displayed on the client screen.

Message: Cannot find the Server ServerName

Solution: Confirm that your server is functioning. You frequently see this status message when your server is not visible on the AppleTalk network for the following reasons:

- AppleTalk cables are not properly connected.
- MacX25 Admin software is not launched on the server.
- MacX25 Admin software is launched but the server is not in "Ready to Start" state.

If you're in a computer environment that uses an internet router, choose the Chooser from the Apple menu. Can you see AppleTalk Zones? If you're unable to see zones, make sure the AppleTalk network is properly connected. If the cables are properly connected and you're still unable to see AppleTalk Zones, you may have a network problem.

Message: The Address Book is empty

Solution: When you select MacPAD under Connection Settings in your terminal emulation program, you have the option to select a host service. If you click Select Host Name, a pop-up menu displays the X.25 host addresses. If you do not see host addresses or a

specific address displayed, you need to either download these addresses from the Master Address Book or create your own address book as described in the MacX25 User's Guide.

Message: Connection Request Failed. X.25 Link is down

This message means that the link from the MacX25 Server to the X.25 packet-switched data network (PSDN) is down.

Solution: Report the problem to the gateway administrator.

Message: Connection Request Failed

This message means that a connection request to the PSDN has been rejected. For example, you may have an incorrect or invalid address.

Solution: Report the problem to the gateway administrator.

Troubleshooting the gateway

Here are solutions to problems that may occur on the gateway.

Problem: Trouble on the client. If you had trouble on the client, check the server list window for one of these states. Your solution depends on the state in your server list window.

State: Ready to start

Meaning: The server software has not been downloaded to the card, and the server is ready to be started.

Solution: Start the server

State: Started, no level 1

Meaning: The modem control signals have not been established.

Solution: Check the cable and make sure that it is properly connected to the Macintosh computer. If the server is connected to a modem, make sure that the modem is working correctly (see your modem owner's guide), and make sure that the cable from the computer to the modem is properly connected. If the problem persists after checking all connections, the problem may be with the line going to the X.25 switch.

State: Started, no level 2

Meaning: The physical connection is in place but the protocol has not been established.

Solution: Contact the person responsible for maintaining your local switch and ask for assistance, or call your PSDN provider to request assistance.

State: Started, no virtual circuits

Meaning: The server has been started but no virtual circuits are in use.

State: Busy, n virtual circuits

Meaning: The server has been started and n virtual circuits have been opened, where n stands for a number.

Problem: Mismatched parameter settings

A "Parameter Settings" message will not appear on your screen. However, you can detect specific symptoms that indicate a problem with these settings. Once you've isolated the

symptom, you can apply a solution.

The parameter settings on the server and local X.25 switch have to match. Mismatched parameter settings can cause unpredictable results at connection time or cause a connection to fail altogether. For example, a mismatched packet size parameter can cause the connection to be reset when the client attempts to exchange data. To solve this kind of problem, simply make sure that the parameter settings on your local X.25 switch match the parameter settings on the server.

Here are some symptoms of mismatched parameters and the corresponding solutions:

Symptom: A Reset occurs when the client attempts to exchange data.

Solution: This symptom could be the result of a mismatched packet size parameter. Make sure that the packet size parameter setting matches the setting on the local X.25 switch.

Symptom: The client attempts to connect to the server but the connection is unsuccessful.

Solution: Make sure that the number of virtual circuits that you allocate on the server is not greater than the number of virtual circuits on the local X.25 switch. The connection was reset because the number of allocated virtual circuits conflicts with the number of virtual circuits on the local X.25 switch