Introduction

What are reference chapters

The electronic manual is meant as a reference to the "How To" manual that came with your MacLinkPlus product or upgrade. It contains information on using the MacLinkPlus Interface, XTND, Cable and Modem connections, etc. There is also information on each menu item in the MacLinkPlus Interface.

Chapter 1

Translating Macintosh Files into PC Files on the Mac Desktop Using the MacLinkPlus Interface

- **Step by Step instructions for translating Macintosh files into PC files using the MacLinkPlus Interface**

Translating Mac files into PC files

There are several different ways to translate a Mac file into a PC file (follow these directions to translate between different Mac files as well). The way that we recommend that you do this is by following the instructions in the written manual or the QuickStart card. If, however, you are using System 6, that is not possible. Below are instructions on how to use MacLinkPlus through its own interface. This will work whether you are using System 6, 7 or higher.

Note: The "methods" below are written in a "how to" form. If you need more information, please refer to the appropriate reference chapters.

MacLinkPlus Interface

1. **Double-click on the MacLinkPlus icon.**
2. **a) If you are using MacLinkPlus/PC Connect, click on "Desktop Translations". This will take you to the Select Files screen. Go to step 3.**
   b) If you are using MacLinkPlus/Translators Pro, you will automatically start at the Select Files screen. Go to step 3.
3. **Select the file that you want to translate in the window labeled "Auto Recognize". Then select the folder where you want to store the translated file in the window labeled "Preference". You can save it to your hard drive or directly onto a DOS disk.**
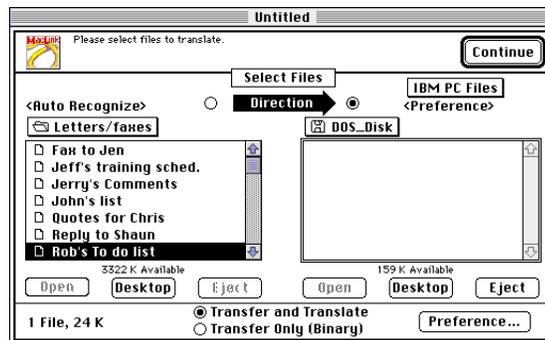
4. **Click continue. One of two things will happen.**
   a) If this is the first time you are using MacLinkPlus, you will be presented with the "Set Translators" screen. The application type or

file format of the file that you are translating will appear in the "Source file" window. Choose the file format that you want to translate your file into, in the "Result" window.

b) Or, if you have used the MacLinkPlus interface before, you may have preferences set to automatically translate the file into a certain file format. To learn how to set these preferences, *see Chapter 8: MacLinkPlus Interface on the Mac*

Note: If the file is not recognized, most likely it is a file format that MacLinkPlus does not translate.

5. **Once the file is translated, you will be brought back to the "Select Files" screen where you can choose another file to translate.**
    Follow the same instructions as were given in steps 3-4.
6. **If you haven't already saved the file onto a DOS disk, you can drag it there or onto a network file server now.**

Chapter 2

Translating PC Files into Macintosh Files on the Mac Desktop Using the MacLinkPlus Interface

- **Step by Step instructions on translating PC files into Mac files using the MacLinkPlus Interface (follow the same instructions for Mac to Mac translations)**

Translating a PC file into a Mac file

There are several different ways to translate a PC file into a Mac file (follow these directions to translate between different Mac files as well) once the file is on the Mac desktop. The way that we recommend that you do this is by following the instructions in the written manual or the QuickStart card. If, however, you are using System 6, that is not possible. Below are instructions on how to use MacLinkPlus through its own interface. This will work whether you are using System 6, 7 or higher.

Double-Click to Translate

This method involves the use of the MacLinkPlus interface.

1. **Double-click on the PC file that you want to translate.**
   System 7 users must drag the file onto the MacLinkPlus icon.
2. **The MacLinkPlus interface will launch and attempt to recognize the file.**
3. **If MacLinkPlus recognizes the file, one of two things will happen.**
   a) If you have never used the MacLinkPlus interface, the "Set Translators" screen will appear and you must choose what file format you want to translate into. Click the format you want and click "continue". MacLinkPlus will remember this choice for future translations.
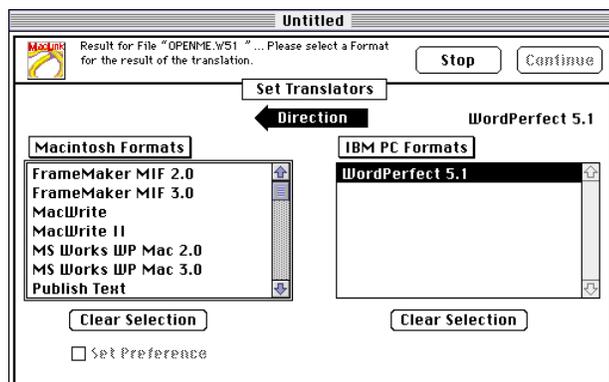
b) Or, if you have used the MacLinkPlus interface before, you may have set preferences to automatically translate the file into a certain

file format. To learn how to set these preferences, *see Chapter 8: MacLinkPlus Interface on the Mac.*

Note: If the file is not recognized, most likely it is a file format that MacLinkPlus does not currently have a translator for.

4. Once you choose a file format (or one is chosen automatically from your "Preferences"), MacLinkPlus will translate the file into your chosen file format.

Note: If you wish to open the translated file immediately in the Mac application, make sure that the "After Translation Launch {application name}" box is checked, as it is below:
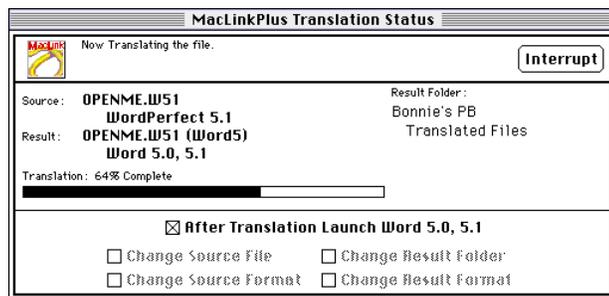
5. If you chose not to have the application launch, you will be presented with the "Select Files" screen where you can choose

another file to translate.
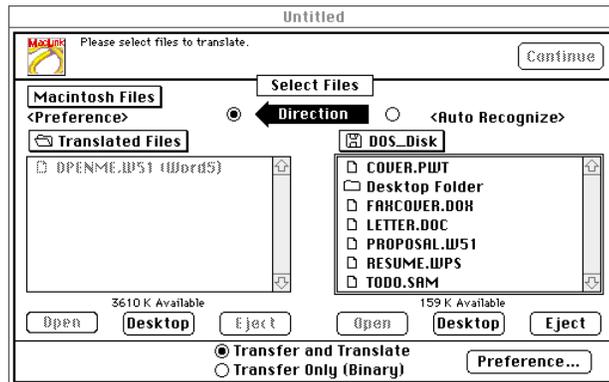
Choose the file that you want to translate in the "Auto Recognize" window, and the folder you want to store the translated file in, in the "Preference" window. To translate more than one file, click a file, then hold the shift key down and click each additional file that you wish to translate. You can also select an entire folder to translate.

Chapter 3

Transferring and Translating Files via Cable or Modem

- **This chapter only applies to MacLinkPlus/PC Connect users.**

To transfer and translate files between a Mac and a PC via cable or modem, PC Connect must be running on both the Mac and the PC. You can control the process from either the Mac or the PC, whichever you are more comfortable with. We will provide step-by-step instructions for each method. PC Connect uses the same Graphical User Interface for both DOS and Windows. The following steps use Windows illustrations, but the discussion applies to both DOS and Windows.

Note: Regardless of which computer is controlling the process, you can transfer files in either direction.

For a cable connection, connect the included MacLinkPlus cable to the Mac's Phone or Printer port and the PC's serial port.

For a modem connection, you must be using an Apple, Hayes or Hayes compatible modem and they must be set to factory settings. Do NOT use the MacLinkPlus cable to connect your modem to your computer.

Controlling from the Macintosh

On the PC

1. **Start MacLinkPlus/PC Connect on the PC.**
   To run under DOS, type MLP at the DOS prompt.
   To run under Windows, double-click on the PC Connect icon in the MacLinkPlus/PC Connect Program Group window.
   You will see the following:


```
┌──────────────────────────────────────────────────────────────┐
│ ═            MacLinkPlus/PC for Windows                       │
├──────────────────────────────────────────────────────────────┤
│      MacLinkPlus/PC      ┊      Communications Settings       │
│       for Windows        ┊  Remote:   Macintosh               │
│       MLPWIN 7.00        ┊     Via:   Direct (Cable)          │
│                          ┊   Using:   COM1 at 19200 baud      │
│    (c) DataViz, Inc. 1993┊    Dial:   Answer                  │
│                                                               │
│  ┌─────────────────────┐  ┌──────────┐     ┌──────────────┐  │
│  │  Set Communications │  │ Answer   │     │    Answer     │  │
│  └─────────────────────┘  │ Control  │     └──────────────┘  │
│                           └──────────┘                       │
│                          ┌──────────┐                        │
│                          │   Exit   │                        │
│                          └──────────┘                        │
│                                                               │
│  Tab Moves around screens, Space Bar Selects, Alt-F6 toggles Menus │
└──────────────────────────────────────────────────────────────┘
```
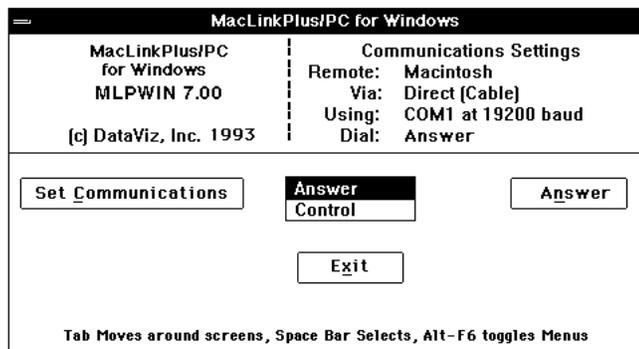
2. **Select Answer.**
3. **Select Set Communications to review and change the**

communications settings.

```
┌──────────────────────────────────────────────────────┐
│                  Set Communications                   │
│                                                        │
│  Remote        Transfer Via        Port      Speed     │
│ ┌──────────┐ ┌──────────────┐   ┌──────┐  ┌────────┐  │
│ │Macintosh │ │Direct (Cable)│   │COM1  │  │ 19200  │  │
│ └──────────┘ │Phone (Modem) │   │COM2  │  │  9600  │  │
│              │Meridian SL-1 │   │COM3  │  │  4800  │  │
│              │PBX (Generic) │   │COM4  │  │  2400  │  │
│              └──────────────┘   └──────┘  │  1200  │  │
│                                           │   300  │  │
│  Dial                                     └────────┘  │
│ ┌──────────┐                                          │
│ │ Answer   │   Phone: ┌──────────────────────────┐    │
│ │          │          └──────────────────────────┘    │
│ │          │   PassWord: ┌──────────┐                 │
│ │          │             │ MACLINK  │                 │
│ └──────────┘             └──────────┘                 │
│            ┌──────────────┐  ┌──────┐   ┌────────┐     │
│            │ Modem Setup  │  │  OK  │   │ Cancel │     │
│            └──────────────┘  └──────┘   └────────┘     │
└──────────────────────────────────────────────────────┘
```

For a cable connection, the settings should normally be set as shown. Change the port setting if the cable is not connected to COM1 Verify that the Speed is 57,600 if you are running the DOS version of PC Connect, or 19,200 for the Windows version.

For a modem connection, change the Transfer Via setting to Phone (Modem), the Port setting if the modem is not on COM1 and the Speed setting to the highest speed common to both modems.

4. **Click OK.**
5. **Click the Answer button.**
   The PC will wait for connection from the Macintosh.

On the Mac

1. **Double-click on the MacLinkPlus icon (in the MacLinkPlus folder)**
2. **Click on Connect to Remote.**

3. Review the Set Communication settings.
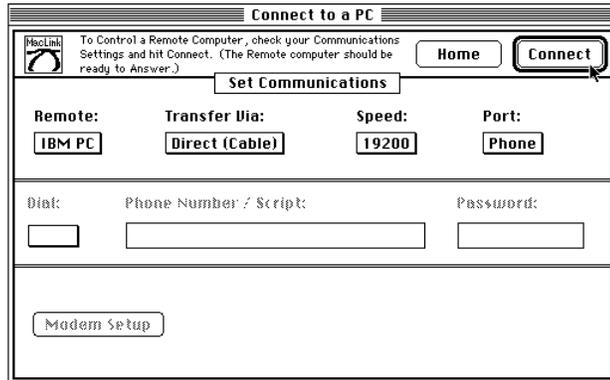
The communications settings should match on both computers. For a cable connection, all settings, with the exception of Speed, should normally be as shown above. The Speed setting should be 19,200 when connecting to PC Connect on a PC that's running under Windows, and 57,600 if PC Connect is running under DOS.

For a modem connection, change the Transfer Via setting to Phone (Modem) and the Speed setting to the speed set on the PC. Enter the complete phone number of the answering computer.

4. Click Connect.

A connection should now be established. You will see the "Select

Files" window.
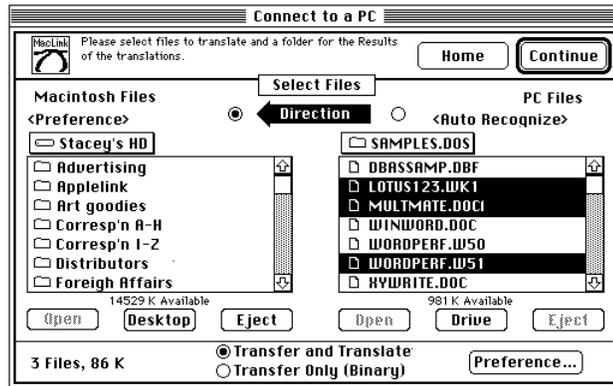
5. **Set the file transfer direction. The Controlling Mac is on the left and the Answering PC is on the right.**
6. **Select the file or files that you want to transfer in the "From" window that you want to transfer into the "To" window.**
7. **Select the folder or disk for the resulting file in the "To" window.**
8. **Set the Transfer/Translate option.**
   To copy files from one computer to the other unchanged, set the option to Transfer Only. To translate files from one format to another while they are being transferred, set the option to Transfer and Translate.
9. **Click "Continue". One of two things will happen.**
   a) If this is the first time you are using MacLinkPlus, you will be presented with another two-window screen. The application type or file format of the file that you are translating will appear in the Auto Recognize window. Choose the file format that you want to

translate your file into, in the right window.
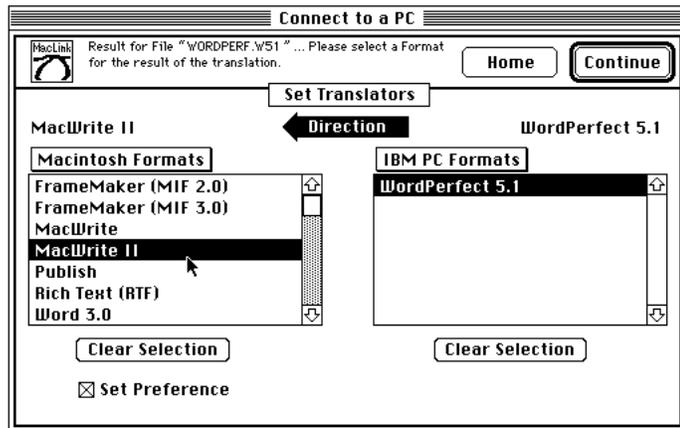
```
═══════════════ Connect to a PC ═══════════════
┌────────────────────────────────────────────────────────────┐
│ ┌──────┐ Result for File "WORDPERF.W51"... Please select a Format  ┌──────┐ ┌──────────┐│
│ │MacLink│ for the result of the translation.                       │ Home │ │ Continue ││
│ │  ⌒   │                                                          └──────┘ └──────────┘│
│ └──────┘          ┌──────────────────┐                                               │
│                   │  Set Translators │                                               │
│ MacWrite II       └─────┤ Direction ├─────        WordPerfect 5.1                     │
│  ┌──────────────────┐                      ┌──────────────────┐                      │
│  │ Macintosh Formats│                      │  IBM PC Formats  │                      │
│  ├──────────────────────────┬──┐           ├──────────────────────────┬──┐           │
│  │ FrameMaker (MIF 2.0)     │⇧ │           │ WordPerfect 5.1          │⇧ │           │
│  │ FrameMaker (MIF 3.0)     │  │           │                          │  │           │
│  │ MacWrite                 │  │           │                          │  │           │
│  │ MacWrite II              │  │           │                          │  │           │
│  │ Publish              ▶   │  │           │                          │  │           │
│  │ Rich Text (RTF)          │  │           │                          │  │           │
│  │ Word 3.0                 │⇩ │           │                          │⇩ │           │
│  └──────────────────────────┴──┘           └──────────────────────────┴──┘           │
│    ┌──────────────────┐                      ┌──────────────────┐                    │
│    │ Clear Selection  │                      │ Clear Selection  │                    │
│    └──────────────────┘                      └──────────────────┘                    │
│  ☒ Set Preference                                                                    │
└────────────────────────────────────────────────────────────┘
```

b) Or, if you have used the MacLinkPlus interface before, you may have preferences set to automatically translate the file into a certain file format. To learn how to set these preferences, *see Chapter 8: MacLinkPlus Interface on the Mac.*

MacLinkPlus will most likely recognize the file type of the file you are translating. If the file is not recognized, it is most likely a file format that MacLinkPlus does not translate.

10. **Once the file is translated, you will be presented with another two-window screen where you can choose another file to translate.**

Controlling from the PC

On the Mac

1. **Double-click on the MacLinkPlus icon (in the MacLinkPlus folder)**
2. **Click on "Answer a Remote".**

3. Review the Communications settings.

For a cable connection, all settings, with the exception of Speed, should normally be as shown above. The Speed setting should be 19,200 when connecting to MacLinkPlus on a PC that's running under Windows, and 57,600 if PC Connect is running under DOS.

For a modem connection, change the Transfer Via setting to Phone (Modem) and the Speed setting to the highest speed common to both modems.
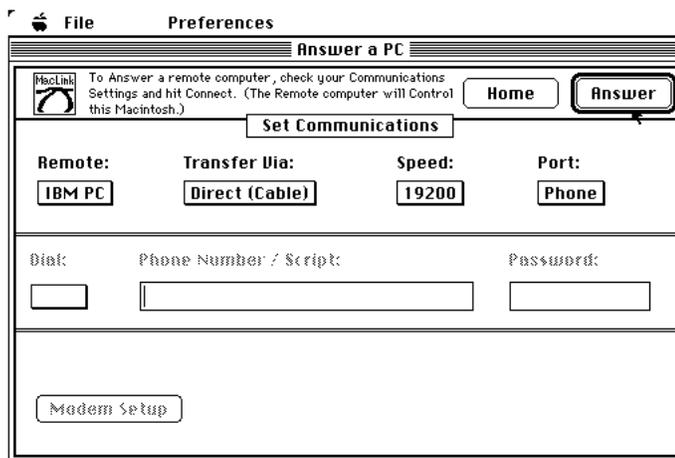
4. Click Answer.
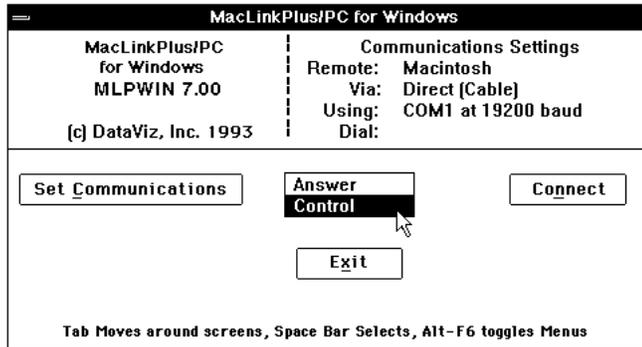The Mac is now waiting of connection from a PC.

On the PC

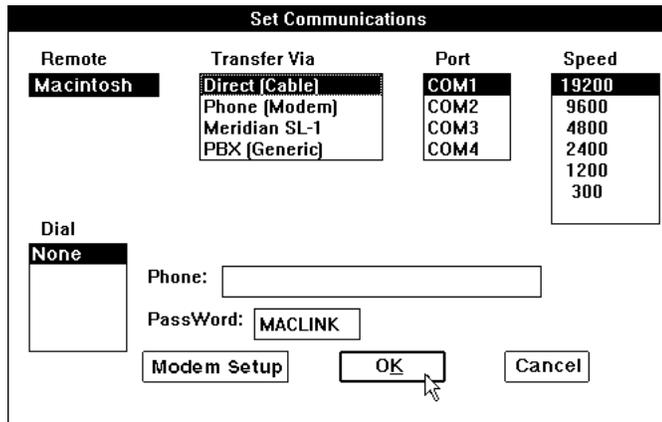**1. Start MacLinkPlus/PC Connect on the PC.**
To run under DOS, type MLP at the DOS prompt.
To run under Windows, double-click on the PC Connect icon in the

MacLinkPlus/PC Connect Program Group window.

```
┌─────────────────────────────────────────────────────────┐
│ ═          MacLinkPlus/PC for Windows                     │
├─────────────────────────────────────────────────────────┤
│        MacLinkPlus/PC     │      Communications Settings  │
│          for Windows      │  Remote:   Macintosh          │
│          MLPWIN 7.00      │     Via:   Direct (Cable)     │
│                           │   Using:   COM1 at 19200 baud │
│        (c) DataViz, Inc. 1993  │  Dial:                   │
├─────────────────────────────────────────────────────────┤
│                            ┌──────────┐                   │
│  ┌──────────────────┐      │ Answer   │      ┌──────────┐ │
│  │ Set Communications│     │ Control  │      │ Connect  │ │
│  └──────────────────┘      └──────────┘  ▷   └──────────┘ │
│                            ┌──────────┐                   │
│                            │  Exit    │                   │
│                            └──────────┘                   │
│                                                           │
│  Tab Moves around screens, Space Bar Selects, Alt-F6 toggles Menus │
└─────────────────────────────────────────────────────────┘
```

2. Select "Control".
3. Select "Set Communications" to review and change the communication settings.

```
┌─────────────────────────────────────────────────────────┐
│                  Set Communications                       │
├─────────────────────────────────────────────────────────┤
│  Remote        Transfer Via        Port        Speed      │
│ ┌──────────┐  ┌──────────────┐  ┌──────┐    ┌───────┐     │
│ │Macintosh │  │Direct (Cable)│  │COM1  │    │19200  │     │
│ └──────────┘  │Phone (Modem) │  │COM2  │    │ 9600  │     │
│               │Meridian SL-1 │  │COM3  │    │ 4800  │     │
│               │PBX (Generic) │  │COM4  │    │ 2400  │     │
│               └──────────────┘  └──────┘    │ 1200  │     │
│                                             │  300  │     │
│  Dial                                       └───────┘     │
│ ┌──────────┐                                              │
│ │None      │    Phone:   ┌──────────────────────┐         │
│ │          │             └──────────────────────┘         │
│ │          │    PassWord: ┌─────────┐                      │
│ │          │              │MACLINK  │                      │
│ │          │  ┌────────────┐ ┌──────┐  ┌────────┐          │
│ └──────────┘  │Modem Setup │ │  OK  │  │ Cancel │          │
│               └────────────┘ └──────┘  └────────┘          │
└─────────────────────────────────────────────────────────┘
```

For a cable connection, the settings should be normally be as shown.
Change the port setting if the cable is not connected to COM1
Verify that the Speed is 57,600 if you are running the DOS version
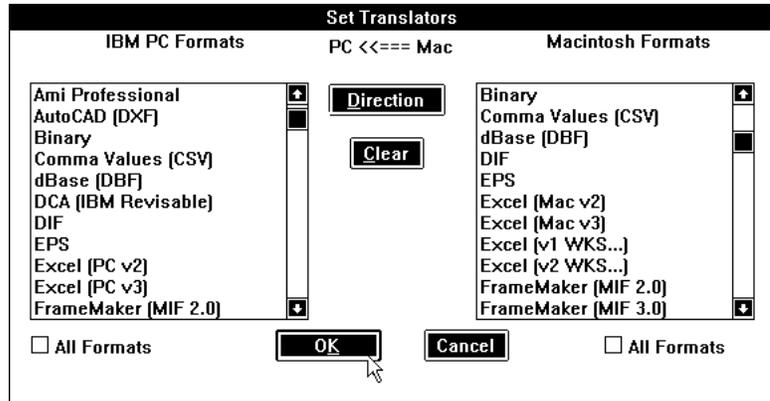of PC Connect, or19,200 for the Windows version.

For a modem connection, change the Transfer Via setting to Phone
(Modem), the Port setting if the modem is not on COM1 and the

Speed setting to the highest speed common to both modems.
4. **Click OK.**
5. **Click "Connect".**
   A connection should now be established.

Set Translators		
IBM PC Formats	PC <<=== Mac	**Macintosh Formats**

IBM PC Formats		Macintosh Formats
Ami Professional	[Direction]	Binary
AutoCAD (DXF)		Comma Values (CSV)
Binary	[Clear]	dBase (DBF)
Comma Values (CSV)		DIF
dBase (DBF)		EPS
DCA (IBM Revisable)		Excel (Mac v2)
DIF		Excel (Mac v3)
EPS		Excel (v1 WKS...)
Excel (PC v2)		Excel (v2 WKS...)
Excel (PC v3)		FrameMaker (MIF 2.0)
FrameMaker (MIF 2.0)		FrameMaker (MIF 3.0)

☐ All Formats   [OK] [Cancel]   ☐ All Formats

6. **Use the Direction button to set the direction in which files are to be transferred, either PC to Mac or Mac to PC.**
   Use the "Clear" button to clear any previous translator selections.
7. **Select the file format in the Source, or "From", window.**
   The choices in the Result, or "To", window reduce to only the allowable ones.

Note: To transfer a file without translating it, select Binary.
8. **Select the file format in the Target, or "To", window. Click**

"OK". The Select Files window will open.

```
                     Select Files:  PC <<=== Mac
        IBM PC Files                              Macintosh Files
       WordPerfect 5.1      [ Set Translators ]       Word 5.0
     C:\MACLINK6\RESULTS                      Stacey's HD:\...\Macintosh Sam
  ┌──────────────────────────┐        ┌──────────────────────────┐
  │ / Root Directory         │        │ / Remote Root Directory  │
  │ .. Parent Directory      │        │ .. Remote Parent Directory│
  │ MSWORD4.DOC              │        │ MS Word Sample           │
  │ MSWORD4.W51             │        │                          │
  │ WORDPERF.DDD            │        │                          │
  │ WORDPERF.DOC            │        │                          │
  │ WP51W40.DOC            │        │                          │
  │ WPTOWINW.DOC           │        │                          │
  │ WWPCMAG.DOC            │        │                          │
  │                          │        │                          │
  │                          │        │                          │
  └──────────────────────────┘        └──────────────────────────┘
  [ Open ] [ Drive ]      [ Convert + Transfer ]    [ Open ] [ Drive ]

      24714 K Available        [ DisConnect ]      Selected 1 Files, 6 K
```

9. **Select the file or files in the "From" window that you want to transfer and translate to the "To" window.**
    While navigating with the Drive button and the Directory selectors, you will only see files that match the Translator setting. To override this, choose File Control from the Options menu.

10. **In the "To" window, use the Drive button, and the Directory selectors to open the Directory that you want to store the Result files in.**

11. **Select the "Convert and Transfer" button.**

Chapter 4

Macintosh Easy Open and Document Converter

- **Background information on Macintosh Easy Open and Document Converter**

What is it?

Macintosh Easy Open is a system extension from Apple Computer and is a component of MacLinkPlus. Macintosh Easy Open works with MacLinkPlus to deliver file translation as transparently as possible. Together, they allow you to open a file when you don't have the application that created it.

The Macintosh Easy Open system extension also includes the Document Converter. This is a mini-application that can be set up to translate files into different application formats.

Installation

Macintosh Easy Open is automatically installed when you install MacLinkPlus. There are several components in Macintosh Easy Open and the Document Converters which are installed different places:

*Macintosh Easy Open...*Control Panels folder in the System folder
*MacLinkPlus for Easy Open...*Extensions folder in the System folder
Document Converter... MacLinkPlus folder

What does it do?

Macintosh Easy Open operates behind the scenes to provide three services.

1. Translation Management - Macintosh Easy Open intervenes in situations when no application takes responsibility for creating a file. For example, instead of this "dead-end" message that everyone has seen:

> ✋ The document "PROPOSAL.WP6" could not be opened, because the application program that created it could not be found.
>
> **OK**
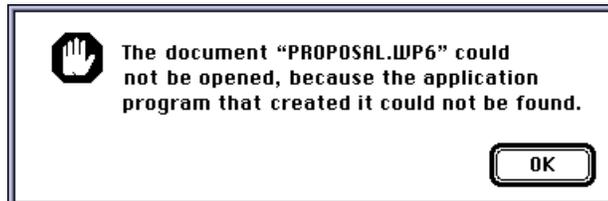
You will be presented with a much more user-friendly message like this:
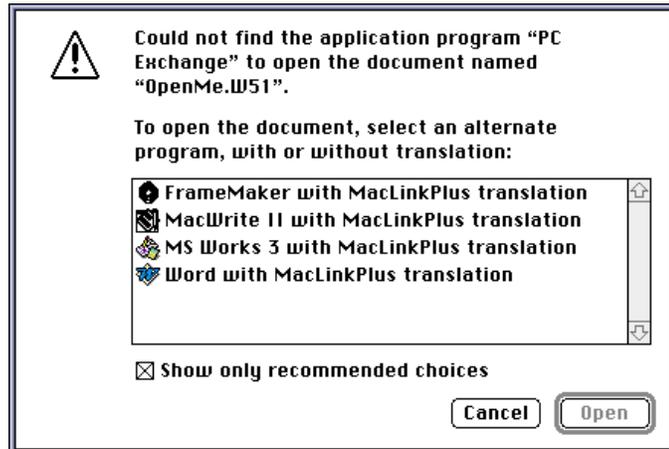
When you double-click on a file that doesn't have an "owner" (the application that created that file), Macintosh Easy Open will present you with all the applications on your hard drive that *can* open that file, either with their own internal translation capabilities, or with the help of an external translation system, such as MacLinkPlus. You simply need to select an application from the list, then click the "Open" button. If the application was listed "with MacLinkPlus translation", MacLinkPlus will convert the file into that application's format.

Once the file is translated, the application that was selected launches and opens the file. Macintosh Easy Open stores your "choice" as a preference. The next time you double-click on another file of the same format (for example, WordPerfect 7.0), your preference will be highlighted in the Macintosh Easy Open dialog.

Note: The dialog box (above) appears whether you double-click on a "foreign" file, drag the file on an application or choose "File:Open".

2. Descriptive "Kind" Information - Macintosh Easy Open adds new, more descriptive file information to your Macintosh. Rather than seeing every file described as "document", you will see more descriptive information - regardless of the applications that reside on your Mac.

You should see an improvement similar to this:

Without Macintosh Easy Open   With Macintosh Easy Open

3. Enhanced "Open" Dialog - Macintosh Easy Open lists all files or documents you can open when you are working in an application program. It also adds larger icons to files. When you choose Open from an application's file menu, you will see an improvement similar to this:

Without Macintosh Easy Open   With Macintosh Easy Open
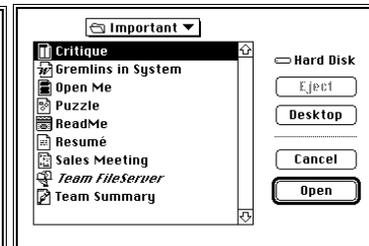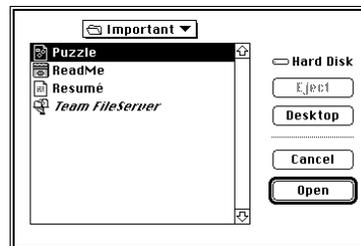
Document Converter

Macintosh Easy Open provides a capability through its Document Converter to drag-and-drop files onto pre-set mini-applications and have them translate automatically. This facility makes it easy to convert a file without opening it. Macintosh Easy Open must be installed for the Document Converter to work.

Each Document Converter translates to a specific format using the file translation capabilities available to your Mac. You can set up one or more Document Converters by making copies of the Document

Converter provided in the MacLinkPlus folder. Once the Document Converter is "set", it will always translate similar file formats into its appropriate format. Duplicate a document converter each time you need to translate a file type into a new format. Document Converters can be changed by double-clicking and re-setting them.

Note: Unlike most Macintosh applications, Document Converters behave differently when you double-click on them than they do when you drag a file onto them. Double-clicking on a Document Converter only sets the translation path. Dragging a file onto it actually activates the translation.

Control Panel Options

Macintosh Easy Open has four options that are controlled from the Macintosh Easy Open control panel in the system folder.

"On/Off": allows you to turn Macintosh Easy Open's file translation services on and off. This will not affect the enhanced file information available in the View menu or the ability to use the Document Converter.

"Always show dialog box": controls whether or not the Macintosh Easy Open dialog will appear. If this option is selected, the Macintosh Easy Open dialog will always appear with all available translation options. If it is deselected, Macintosh Easy Open will automatically choose the last translation option that you selected for a particular file format.

"Include applications from servers": extends Macintosh Easy Open's search for applications to file servers. If you want Macintosh Easy Open to limit its search for applications to disks directly connected to your Macintosh, uncheck this option.

"Auto pick if only one choice": Macintosh Easy Open will automatically pick a translation path if there is only one option - even if there is no preference set for opening that specific type of file. If you don't want Easy Open to automatically pick, deselect this checkbox.

"Translate 'TEXT' documents": Macintosh Easy Open examines all files with a type of 'TEXT', to see if they are actually plain text or some other file format (e.g., PC files brought to the Macintosh have a type of TEXT). If you deselect this option, files of type TEXT will be treated as plain text and the recommended translation options listed when you try to open the file will not be correct. We recommend that you check this option if you wish to translate any PC files.

"Delete Preferences": deletes your Macintosh Easy Open translation option preferences. It does not, however, remove the preferences that you have set in the actual Macintosh Easy Open preferences (i.e., those listed above). You can delete all your preferences by trashing the Macintosh Easy Open preference file in the Preferences folder in the System folder.

Chapter 5

Exchanging Files Via DOS Disk

- **Background information on Macintosh PC Exchange and its capabilities**

- **Notes on Apple File Exchange and Apple II translations**

Introduction...

In order to allow you to insert DOS or ProDOS (Apple II) disks in your Mac, MacLinkPlus includes Macintosh PC Exchange from Apple.

Installation

Macintosh PC Exchange is installed in your System folder by the MacLinkPlus installer if you indicated you intended to access DOS disks and you are running System 7. You can check to see if Macintosh PC Exchange is installed by inserting a formatted DOS disk in the SuperDrive. If the disk can be opened with a double-click, and its contents are visible, a disk mounting utility is installed. If it is not, and you want to install it, just run the MacLinkPlus installer, checking off the DOS disk mounting option.

How does it work?

Macintosh PC Exchange is a System 7 extension that operates behind the scenes to make DOS disks usable on the Mac. It makes a DOS disk placed in the 3.5" FDHD SuperDrive appear as a standard Macintosh disk on the Mac desktop and from within all Mac applications. The DOS directories and sub-directories will appear as folders. Macintosh PC Exchange also intervenes whenever something is added to or changed on the DOS disk, ensuring that its DOS integrity is maintained and that it remains usable in a PC.

You can drag PC files to and from DOS disks and your Mac hard drive. Remember that just because the PC file is on your Mac, it is not a Mac file. It needs to be translated into a Mac file, using the translators in MacLinkPlus.

Extension Assignment

Extension Assignment or Extension Mapping is a feature of Macintosh PC Exchange that enables a Macintosh application to be automatically assigned to a DOS file. This should only be done if the application has the ability to directly read the file's format.

Macintosh Type & Creator
On the Macintosh, two fields associated with each file, the File Type and File Creator, associate the file with a Macintosh application. It is the Type and Creator that cause the file to be opened in an application when you double-click on the file.

DOS Extensions
DOS files do not have Types or Creators, but often have a three digit file name extension that identifies the program that created the file. Macintosh PC Exchange's Extension Assignment feature enables you to assign a Mac application to a DOS extension. For example, you could

assign PageMaker Mac to DOS files with a .PM6 (PageMaker 6 PC document) extension. PageMaker will then start when you double-click on these files.

Extension assignments to MacLinkPlus
If you are using System 6, the MacLinkPlus Installer will assign any DOS file extensions that have not been assigned to a specific Macintosh application, to MacLinkPlus. Thus, when you double-click on one of these files, MacLinkPlus will launch. The assignment will also put "MacLinkPlus/Startup" in the "kind field" of these files. If you are using System 7, the MacLinkPlus Installer will not install this feature if you choose to let it install Macintosh Easy Open. Then, when you double-click on any file that does not belong to a Mac application, Macintosh Easy Open will call on MacLinkPlus to translate the file.

Macintosh PC Exchange Control Panel

The Macintosh PC Exchange control panel allows Extension Assignments to be added, changed and removed; contains an option to turn PC Exchange 'On' and 'Off'; and contains an Options button to install DOS formatted SCSI fixed and removable media.

To access the Macintosh PC Exchange control panel, select Control Panels from the Apple Menu, then double-click on the PC Exchange icon. The control panel already contains one assignment. It specifies that files ending with the letters ".TXT" are to be opened by the SimpleText application as TEXT files.
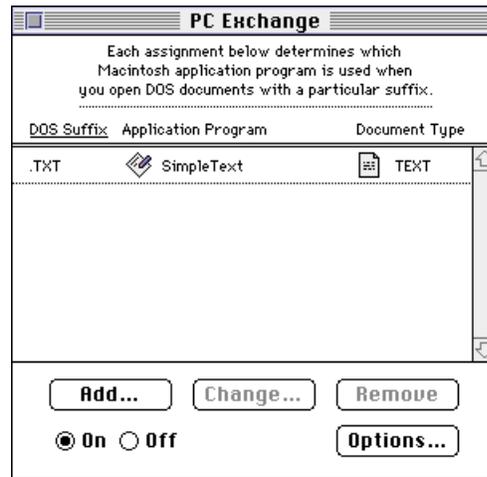
Adding Assignments

1. **Click the Add button in the left corner of the control panel.**
   A dialog appears in which you can specify a DOS extension and its corresponding Macintosh application program and file type.
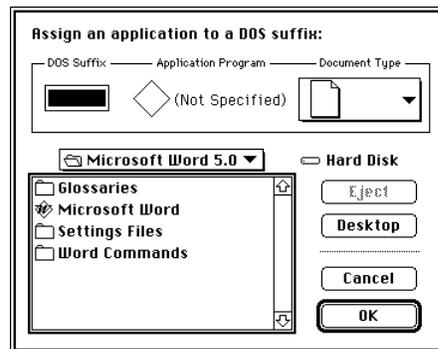
2. **Type a three letter DOS extension. .**
3. **Choose a Macintosh application program from the file window in the lower section of the dialog box.**
4. **Choose a file/document type from the Document Type pop-up menu.**
   If you don't know the type, try calling the technical support department

at the manufacturer of the Macintosh application.

Once you've specified a DOS extension, a Macintosh application program and a file Type, the assignment will be added to the list in the control panel.

Testing an Assignment

To test an assignment that is listed in the control panel, insert a DOS disk that has a DOS file with the appropriate extension and double-click on its icon. The Macintosh application should start and open the file.

Editing an Assignment

You can change or remove an assignment by selecting it in the list and then clicking the Change or Remove button.

Note: When you view the directory of a DOS disk on your DOS computer, you may notice additional directories named RESOURCE.FRK. These directories contain important resource information for Macintosh files and should not be deleted from the disk.

SCSI Devices

Macintosh PC Exchange (v. 2.0 and higher) includes support for DOS formatted SCSI fixed and removable storage devices, such as floptical, Syquest and Iomega Bernoulli drives. It contains built-in drivers for a variety of these devices.

Installation of Drivers

Before you can mount a DOS formatted fixed or removable storage device on the desktop, you must install PC Exchange's device driver.

1. **Turn on your SCSI storage device, eject any removable media then start your Mac.**
2. **Open the PC Exchange Control Panel.**
3. **Click Options.**
4. **Select your DOS formatted SCSI device from the list.**

Note: If your DOS SCSI device isn't listed or is unavailable, see Troubleshooting (Appendix A).

5. **Click OK.**

6. Restart your Macintosh.

The DOS formatted SCSI media should show up on your desktop.

Apple File Exchange

Apple File Exchange (AFE) is a DOS disk mounting utility provided by Apple on versions of the System software supplied after September 1987. It was originally designed to access external translators, such as MacLinkPlus. Unlike Macintosh PC Exchange, which is included in MacLinkPlus, AFE is not a system extension. It is an application that you must launch in order to read DOS or PRODOS (Apple II) disks on your Mac. Since this technology is outdated, we do not recommend that you use AFE to mount DOS disks. If you do need to use it, use its "default translator" to move your files to and from DOS disks, then translate them per Chapters 3 and 4. The "default translator" is not really a translator at all; it moves the files "as is" to and from disks.

Apple II Disks & Files

As mentioned earlier, PC Exchange allows you to put Apple II ProDOS disks in your Mac. If you plan to translate Apple II files, do NOT use Apple File Exchange to mount the disk - use Macintosh PC Exchange.

 To translate Apple files into Mac files, follow the instructions in Chapter 2. Replace "Apple II file" wherever it says "DOS or Windows file." When translating into Apple II format, follow the directions in Chapter 3.

Chapter 6

Translation Capabilities

- **Translation capabilities in different applications**

- **Control Panel for translation options**

Introduction

The MacLinkPlus translation library offers a broad range of file translators for word processing documents, spreadsheets, database files and graphics. There are thousands of file translation paths that provide data compatibility between most of the popular software products used on personal computers.

This provides information about translation capabilities, file formats, different features of MacLinkPlus and translation options.

Translation Features

MacLinkPlus strives to deliver completely "clean" translations whenever possible. Each formatting "feature" such as bold, italics, etc. is converted from the original document into the translated document where it is possible. Sometimes, however, there is not a "clean" translation available. For example, many times there are features that are supported in one application but don't exist in another. What happens to that feature? MacLinkPlus has to make a judgement call as to what should happen. Each time a judgement is made there is a possibility of "judging" incorrectly. In all cases we try to do what we feel the greatest number of users would want us to do. If there is a logical alternative to a feature, we will apply it to the word or paragraph. For example, take a document that has a word with the double underline feature applied to it. If you translate that document into a format where double underline doesn't exist, MacLinkPlus will apply a single underline to that word. This seems to be the most logical choice. In cases where there is no logical alternative that would fit most cases, MacLinkPlus will apply no feature, and have the word or paragraph stand as plain text.

Word Processors

The library of MacLinkPlus translators contains many word processing translators for Macintosh, DOS and Windows platforms. In terms of "richness" of translators, or word processing features supported, the word processing translators generally fall into two levels or groups of capabilities (see figure on next page). Each application has either a Level 1 feature set supported or a Level 2 feature set supported, with Level 2 being the more advanced feature set. As DataViz writes new translators, Level 2 features are always supported, and the range of Level 2 features is continually updated as MacLinkPlus evolves.

Level 2 Translator Capabilities contain all of these translation features listed below:

Level 1 Translators
MacWrite
MS Works WP Mac v. 2
*MultiMate Advantage v. 3
Office Writer
*SunWrite
Word Mac v. 3
WordPerfect Mac v. 1
WordPerfect PC v. 4.2
WordStar (below v. 5)
WriteNow Mac v. 2
WriteNow NeXT
XYWrite III

Level 1 Translator Capabilities contain these translation features:

Character Attributes	**Margins**
Bold	Left Margins
Underline	Right Margins
Subscript	Indent Margins
Superscript	
Italics	**Line Spacing**
Shadow	Single Spacing
Outline	1 1/2 Spacing
Strikeout	Double Spacing
All Caps	2 1/2 Spacing
Small Caps	Triple Spacing
Redline	
Font Size	**Tabs**
	Left Tab Right Tab
Justification	Center Tab
Left Justification	Decimal Tab
Right Justification	
Center Justification	Hard Page Break
Full Justification	

Level 2 Translators
Ami Professional
AppleWorks GS WP
AppleWorks WP
ClarisWorks (Mac)
ClarisWorks (Windows)
DCA-RFT
FrameMaker MIF
MacWrite II
MacWrite Pro
MS Works (Mac)
MS Works (DOS & Windows)
*MultiMate Advantage
Multimate
Nisus
Professional Write
RTF (Rich Text Format)
Word (Mac)
Word (DOS & Windows)
WordPerfect (Mac)
WordPerfect (DOS & Windows)
WordPerfect Works (Windows)
WordStar
WriteNow

		Tables
Colors	Date & Time	
Columns	Footnotes & Endnotes	Cell Borders
Double Underline	Headers & Footers	Column width
Fonts	Page Setup	Merged Cells
Hidden Text	Page numbers	Etc.
Style Definitions	Top & Bottom Margins	
Style Tags		

* SunWrite is destination only (can be translated *to*, not from). MultiMate is Level 1 when translating TO, and Level 2 when translating FROM.

When translating from a Level 2 format to a Level 2 format, the resulting document will contain the full set of Level 2 features.

When translating to or from a Level 1 format, the resulting document will be limited to Level 1 features, regardless of whether a Level 2 format was involved.

**Autobullets &
Numbering**

Autobullets and numbering are word processing features that are supported by many of the new versions of different word processors. MacLinkPlus supports this feature whenever possible. There are two options to select from, regarding autobullets and autonumbering. These options can be found in the MacLinkPlus Setup Control Panel and the MacLinkPlus Interface.

The first option lets you maintain the automatic bulleting and numbering. This is the best setting to use if you need to actually to use the document. It is the default setting in the MacLinkPlus Setup Control panel and Interface. This allows you to add items to bulletted or numbered lists with the bullets or numbering continuing to automatically appear.

The second option is to convert the autobullets and numbers to text. This is the best option if you simply need to read or print the document because it will look exactly like it did in the original. MacLinkPlus will insert a bullet character or number in place of the autobullet or autonumber. It will also add a hanging indent or tab so that the text appears the same as it did in the original.

Since all applications handle autobullets and autonumbers slightly different, if you are using a very customized bullet or number setting, sometimes it is best to select the "Convert to Text" option.

Graphics

MacLinkPlus supports embedded graphics in the following paths:

• All Mac to Mac Word Processing Translations (with the exception of Microsoft Works and ClarisWorks)
• All Mac Word Processing formats (with the exception of Microsoft Works 2 & 3 and ClarisWorks) to the following PC formats: WordPerfect 5.1, Works for Windows or Word for Windows
• The following PC formats: WordPerfect 5.1, Word for Windows, Works for Windows to all Mac Word Processors (with the exception of Microsoft Works 2 & 3 and ClarisWorks).

MacLinkPlus contains several translators for graphics formats. On the Macintosh, the most universal graphic format is PICT (or PICT2). MacLinkPlus provides a PICT (and PICT2) translator, in addition to several PC graphic formats. Most graphic applications on the Mac can "Save as" and "Open" a PICT file. For example, to translate a

MacDraw file into a Windows Metafile graphic, you must first save the MacDraw file as a PICT or PICT2. It can then be translated following the instructions in ***Chapter 3: Translating Macintosh Files into PC Files.*** To translate into MacDraw, follow the instructions in Chapter 2, and translate into a PICT format. That file can then be opened into MacDraw.

Object vs. Bitmap
Generally speaking, graphic images can be categorized as either Bitmap (Paint) or Object (Line Art) in nature. Translations from one graphic to another maintain their original nature, with the exception of PICT to WordPerfect Graphic (.WPG), which always results in a bitmap format. So, if the original graphic is in Bitmap form, such as Windows Bitmap, then the resulting PICT file will also be a Bitmap. If the original graphic is a in an object format, the translation will result in an object graphic. Keep in mind that you are limited to the capabilities of the graphic package you are using. For example, if you translate from Windows Metafile (object) into PICT, and then read the PICT into a Paint program (which normally result in bitmapped files), it will result in a bitmap.

Spreadsheets

MacLinkPlus supports several different spreadsheet formats. The MacLinkPlus spreadsheet translators support text, formatting, numbers and formulas. If we don't support a particular spreadsheet that you are using, there may be other alternatives for converting the file. Many spreadsheets "Save as" different file formats or intermediate file formats such as tab text or comma separated values. The intermediate formats can sometimes be read directly into other spreadsheets without any translation occurring. Check the manual for the specific spreadsheet you are using for details on import and export capabilities.

Databases

Databases are generally record oriented. They contain text and numeric values, formula specifications, and a Data Dictionary which defines the data fields in the records. MacLinkPlus contains translators for several popular databases on the Macintosh and the PC. These databases have "Dictionaries" and when they are translated from one to another, all of the data and field definitions are translated intact.

Databases, like spreadsheets, also make use of "intermediate" formats such as tab text and comma separated values. Keep this in mind if the particular database that you use is not supported by MacLinkPlus.

MacLinkPlus Setup

MacLinkPlus Setup can be found in the Control Panels folder in the System folder. It contains different translation options. For example, you can choose here if you want PICT images from graphics translations to go on the clipboard as well as into a file.

List of Applications Supported

Word Processors

Mac	**PC**
ClarisWorks	Ami Pro
Framemaker (MIF)	ClarisWorks for Windows
MacWrite	DCA-RFT
MacWrite II	Framemaker (MIF)
MacWrite Pro	MS Works (DOS & Windows)
Microsoft Works	Multimate
Nisus	OfficeWriter
Word	Professional Write
WordPerfect	RTF
WriteNow (Mac and NeXT)	Text
	Word (DOS & Windows)
	WordPerfect (DOS & Windows)
Other formats	WordPerfect Works
AppleWorks	WordStar
SunWrite	XYWrite

Graphics

Mac (PICT) to PC:	**PC to Mac (PICT):**
PC Paintbrush.PCX	AutoCad.DXF
TIFF	Harvard Graphics.CGM
Windows Bitmap.BMP	Lotus.PIC
Windows Metafile.WMF	Lotus Freelance.CGM
WordPerfect Graphic.WPG	PC Paintbrush.PCX
	TIFF
	Ventura Publisher.GEM & .IMG
	Windows.BMP
	Windows Metafile.WMF
	WordPerfect Graphic.WPG

Spreadsheets & Databases

ClarisWorks	Lotus Symphony
Comma Values	Quattro Pro
dBase	SYLK
DIF	Tab Text & Tab Values
Excel (PC & Mac)	WordPerfect Works
Foxbase	Works DB & SS (MS & Apple)
Lotus 123	

Chapter 6: Translation Capabilities

Chapter 7

XTND

In this chapter you will learn:

• **What XTND is**

• **Details on using the MacLinkPlus translation library within XTND compatible applications**

Introduction

XTND is a Claris supported architecture that allows Macintosh applications to transparently open and save files through external file translators. Applications that support the XTND architecture can generally open and save files in as many formats as there are translators available. So, even if MacLinkPlus doesn't provide "direct" support for a particular file format, a translation may be possible if one of the applications involved is XTND compatible. For example, MacLinkPlus does not currently provide a translator for Ragtime. You can, however, translate a file into Ragtime, by using the "Open" command, and translate a file out of Ragtime, by using the "Save As" command. The MacLinkPlus translation library is transparently invoked. Thus, you are provided access to many kinds of files from within their applications, without extra file translation steps.

Installing XTND

The MacLinkPlus Installer offers an option to use the MacLinkPlus file translation library with any XTND compatible application. If you do want to access the MaclinkPlus translator library through XTND compatible applications (listed below), check this option. The appropriate MacLinkPlus files will be installed to allow XTND applications to share the library with MacLinkPlus and other "plug-in" translator architectures. If you already installed MacLinkPlus but did not install XTND, simply run the installer again, checking only XTND.

How to use

In most cases, you can access the MacLinkPlus translator library through the "Open" and "Save as" dialogs of any XTND compatible application. Some applications have implemented XTND in additional file commands, such as "Insert File", to use the translators to import graphics.

Detailed instructions on how XTND works can be found in the XTND compatible application's manual.

Partial List of XTND Compatible Applications

4D Write
cc:Mail
ClarisWorks
FileMakerPro (to import graphics)
GreatWorks
In Control
LinksWare

MacDraw Pro
MacWrite II
MacWrite Pro
Nisus
On Location
Ragtime
Taste
WordPerfect Mac
WordPerfect Works

This list is not a complete list of XTND compatible applications.

A word on XTND: XTND is limited as to the types of formatting it can translate. We recommend that you only use the XTND "method" if MacLinkPlus does not offer a "direct" translation.

Chapter 7: XTND

Chapter 8   **MacLinkPlus Interface on the Mac**

• **Details on each window and menu item in the
 MacLinkPlus Interface on the Macintosh**

Introduction

This chapter provides a reference of the Menus, Commands, Windows and Dialogs that appear in the MacLinkPlus Interface.
First, the "typical" windows that you will see when using the MacLinkPlus Interface will be explained. Then, we will go through each menu item as it appears on the top menu bar (i.e., File menu and its contents first).

Whether you are using MacLinkPlus/PC Connect or MacLinkPlus/ Translators Pro, most of the windows are identical. Several, however, only apply to MacLinkPlus/PC Connect and are noted accordingly.

Home window (PC Connect only)

This **Home** window appears whenever MacLinkPlus is started by double-clicking its application icon.
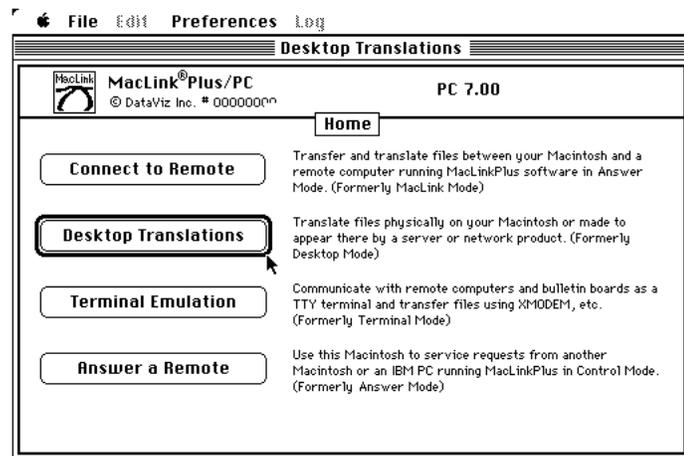

In general, this window will not appear if MacLinkPlus is started from a settings document or by dragging or clicking a file that needs to be translated.

Each of the four buttons sets MacLinkPlus to take you down a path that gets the selected job done. A description is provided next to each button.

Set Communications window (PC Connect only)

The Set Communications window is used to review and change

communications settings.
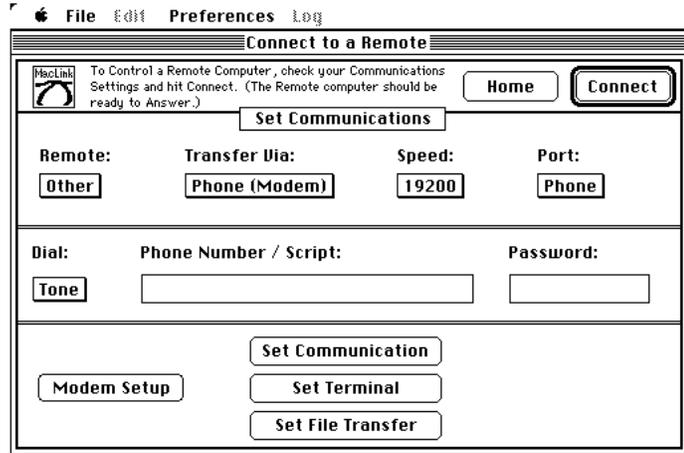
For details on each button, ***see Chapter 9: MacLinkPlus Interface on the PC.***

Select Files Window

The "Select Files" window is displayed when MacLinkPlus is ready to transfer and translate files. It is also the first window you see if you are

To transfer and translate the selected files

File formats pop-up

Result file format determined from preferences

Source file format determined by Automatic recognizer
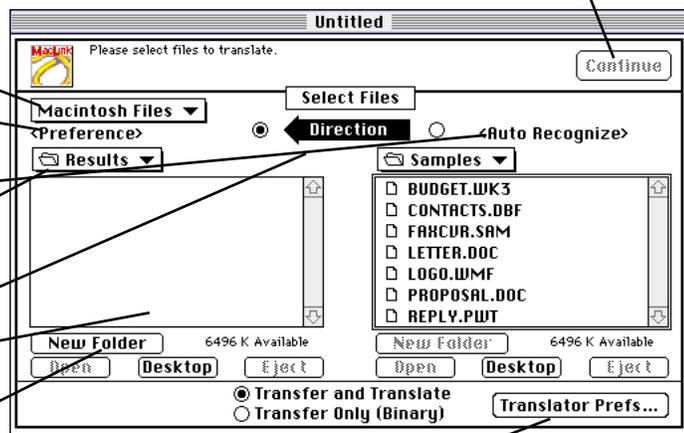
Disk & Folder reminder

Direction set & reminder

Scrollable window for Folders and Files

To set translator result preferences

To create a new folder for translated files

using MacLinkPlus/Translators Pro.

MacLinkPlus transfers and translates files between the two windows in the direction of the arrow. In doing so, it reads a file from one window and writes a copy to the other window. If the result file is needed in exactly the same format as the source file, (perhaps to go from PageMaker on one computer to PageMaker on the other computer), MacLinkPlus can be directed to simply copy the file by selecting the "Transfer Only" option. On the other hand, if the Result file is needed in a different format, MacLinkPlus can use one of its translators to translate the file as it is being transferred.

For each file being translated, MacLinkPlus determines the format of the Source file, and then the format of the copy to be placed in the "To" window.

To recognize the format of the Source file, MacLinkPlus studies the file's contents and consults the MacLinkPlus library of translators, hence the words <Auto Recognize> over the Source window. If it has difficulty recognizing the format of a file, it will present the Set Translators window from which you can select the type of file.

After determining the Source format, MacLinkPlus tries to determine the Result format from your MacLinkPlus Preferences, hence the word <Preference> over the "To" window. If no Preference has been established for the type of file being translated, or if you interrupt the translation and request a translator change, MacLinkPlus will present the Set Translators window. From the choices presented, you can select the type of file you would like.

For all Source files selected, regardless of whether they are just being transferred, or being transferred and translated, MacLinkPlus must determine the name to be used for the corresponding Result files. The names will be automatically assigned using the original name and the new format, or, if your MacLinkPlus Preferences indicate, you will be prompted for new names.

Set Translators
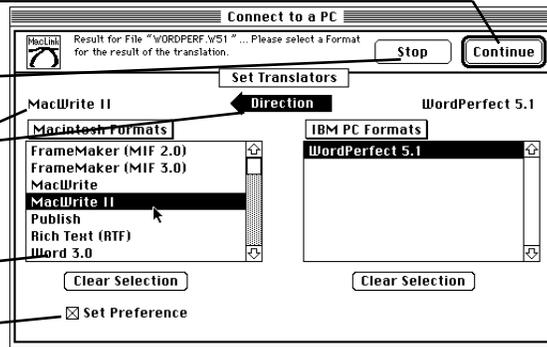
*Accepts the selections as
shown*

*Stops and returns to file
selection*

Direction reminder

Selection reminder

Scrollable format selections

*Changes the Translator
Preferences to the selections
shown when Continue is
clicked*

```
┌──────────────── Connect to a PC ────────────────┐
│ ┌──────┐ Result for File "WORDPERF.W51"... Please select a Format │
│ │MacLink│ for the result of the translation.    ┌────┐ ┌─────────┐ │
│ │  ◯   │                                        │Stop│ │Continue │ │
│ └──────┘              ┌─────────────┐           └────┘ └─────────┘ │
│                       │Set Translators│                            │
│ MacWrite II              ◀  Direction         WordPerfect 5.1      │
│ ┌─────────────────┐                   ┌─────────────┐              │
│ │Macintosh Formats│                   │IBM PC Formats│             │
│ ┌─────────────────────┐          ┌─────────────────────┐          │
│ │FrameMaker (MIF 2.0) │▲│        │WordPerfect 5.1      │▲│        │
│ │FrameMaker (MIF 3.0) │ │        │                     │ │        │
│ │MacWrite             │ │        │                     │ │        │
│ │MacWrite II          │ │        │                     │ │        │
│ │Publish              │ │        │                     │ │        │
│ │Rich Text (RTF)      │ │        │                     │ │        │
│ │Word 3.0             │▼│        │                     │▼│        │
│ └─────────────────────┘          └─────────────────────┘          │
│      ┌───────────────┐                ┌───────────────┐           │
│      │Clear Selection│                │Clear Selection│           │
│      └───────────────┘                └───────────────┘           │
│              ☒ Set Preference                                     │
└──────────────────────────────────────────────────────────────────┘
```

The "Set Translators" window is displayed whenever MacLinkPlus
needs help in selecting the proper translator.

Depending on your Automatic Recognize option settings, the condition
of your Translator preferences, and the kind of files you are translating,
this dialog may appear for every translation, for a few translations, or
for no translations.

The two scrollable windows provide the ability to review and change
the file translation settings. The arrow indicates the transfer direction.
The message at the top describes the actions needed.

The format selected in the "From" window indicates how MacLinkPlus
will read and interpret the Source file. The selection in the "To" window
indicates how MacLinkPlus will create the Result file.

Depending on the message at the top of the window, you may be asked
to select the Source file format, the Result file format, or both. If
MacLinkPlus has already done part of the selection job, the windows
will show formats that reflect the work it has done. If your preferences
inhibit MacLinkPlus from selecting or suggesting translators, the Set
Translators window will appear for every file translation.

A format selection in one window reduces the choices in the other
window to only those that make sense. Proper format selection in the
"From" window is critical since it indicates to MacLinkPlus the kind of
formatting and control codes to expect in the file.

The "Clear Selection" button beneath each window clears the selection from that window and sets the choices either to all available formats if nothing is selected in the other window, or to the "make sense" choices if a format is already selected in the other window.

"Set Preference" changes the Translator Preferences to reflect the selections in effect when Continue is clicked.
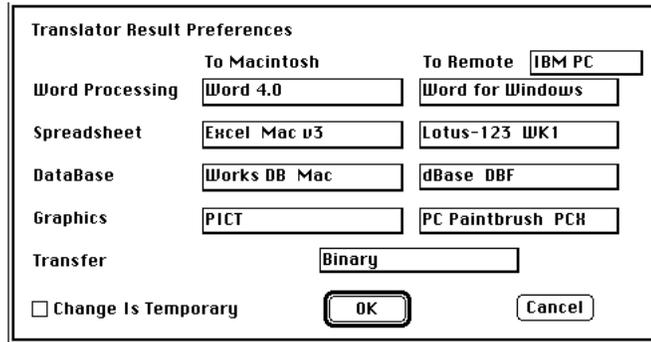
Translation Status window

The "Translation Status" window is displayed while MacLinkPlus is transferring and translating files. It provides the name, format and location of both the Source and Result files, and percent complete.

Interrupt can be clicked at any time to interrupt the transfer/translation. Once interrupted, five "X" boxes become available to change things and the Interrupt button becomes a Continue button.

❒ Requests to change files will open the "Select Files" window when Continue is pressed.

❒ Requests to change formats will open the "Set Translators" window when Continue is pressed.

❒ A change to the "Launch when Translated" option is noted when Continue is pressed, and the appropriate action is taken upon completion. For example, an "X" for a translation that's creating a Microsoft Word file will cause the Result file to be opened in Microsoft Word upon completion of the translation.

Once Interrupted, the Continue button becomes available to continue the transfer and translation, and the Stop becomes available to stop it and bring you back to where you started it.

Translator Prefs or Translators...

```
Translator Result Preferences
                        To Macintosh              To Remote   IBM PC
Word Processing        Word 4.0                  Word for Windows
Spreadsheet            Excel Mac v3              Lotus-123 WK1
DataBase               Works DB Mac             dBase DBF
Graphics               PICT                      PC Paintbrush PCX
Transfer                            Binary
☐ Change Is Temporary              OK                    Cancel
```

The Translator Preferences window is available by selecting
Translators… on the Preferences menu or by clicking on the "Translator
Prefs" button on the Select Files screen. It shows your present translator
result preferences and allows you to change them as needed. These
preferences apply only when translating "To" a format - not "From".

MacLinkPlus is installed with blank Translator Preferences. As you
translate files, MacLinkPlus takes note of the kind of file you translate
into for each application category, (i.e., word processing), and for each
computer environment (i.e., Macintosh or PC). It uses this preference
information when you select a file for translation which is in that
category and is being translated to that computer environment.

"To Macintosh" preferences indicate the kind of file you want to
translate into for each application category (i.e., word processing,
graphics, etc.) when translating a file in that same category, into a
Macintosh format.

"To IBM PC" preferences indicate the kind of file you want to translate
into for each application category (i.e., word processing, graphics, etc.)
when translating a file in that same category, into an IBM PC format.

"IBM PC" can be changed to "Macintosh" using the pop-up above the
right preference list. This permits you to review and change a second set
of "To Macintosh" preferences. This second set defines the Result file
formats for a Remote Mac when connected Mac-to-Mac, or for the Mac

files in the right file window, when doing Mac-to-Mac desktop translations.

"Transfer" controls the special actions to be taken by MacLinkPlus when the Transfer Only option is used to transfer files without translation.

❐ Binary indicates that files are to be transferred with no change to the file. The Result file is identical to the Source file, except when moving Mac files to other environments, in which case the Mac file's resource fork is ignored and its data fork becomes the binary file. This is usually not a problem as the resource fork in most Mac data files is empty.

❐ EPS, PageMaker, Postscript and TIFF indicate that files are to be transferred with no change to the contents, but Types & Creators are to be appropriately set for Mac files, and DOS extensions are to be appropriately set for PC files.

❐ MacBinary is used to transfer fully intact Mac files. Such files are transferred with all the Mac file's content, icon, and directory information organized into a standard format that is known as MacBinary. Files received by the Mac in this format will have the same content, icon and directory information as the file had on the originating system. Files sent from the Mac in MacBinary format are sent with all this information attached. MacBinary can be used to store Mac files on a remote system, or to receive files that were previously stored on a remote system in MacBinary format.

❐ Text indicates that files are to be transferred with no change to contents, except that MacLinkPlus is to make adjustments for the difference in the way text files are structured on the "From" computer versus the "To" computer. For example, when transferring a text file from a PC to a Mac, MacLinkPlus replaces the carriage return-line feed found at the end of each PC text line with a carriage return, which is the way text lines end in a Mac text file.

"Change is Temporary" should be "X"ed when the changes entered are not to affect the preferences stored in your settings document or defaults.

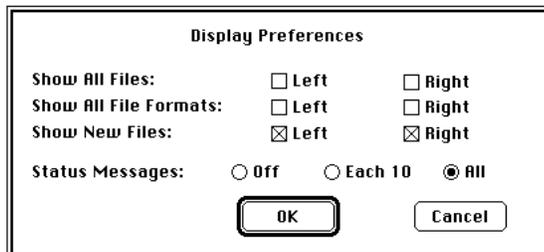**Each menu item in the MacLinkPlus interface is discussed below.**

About MacLinkPlus	The About MacLinkPlus box identifies the name, version number and serial number of MacLinkPlus/PC Connect. If MacLinkPlus was personalized prior to shipment, the licensee's name and company may be shown.

File Menu...

Settings...	At any point during a MacLinkPlus session, you can take a "snapshot" of the session using one of the Save commands on the File Menu. This saves the current transfer and translation options, preferences, etc.
Save Settings...	**Save** or **Save as** saves the session to a named settings document. "Automatically Save Settings" directs MacLinkPlus to automatically save the settings at the end of any session in which they have changed. Later, when you start MacLinkPlus by double-clicking on the settings document, it will start with the settings that were in effect when the document was saved.
New Settings...	**New Settings...**opens an Untitled settings document and clears the MacLinkPlus settings. It is only available when MacLinkPlus has been stopped as a result of using "Close Settings".
Open Settings...	**Open Settings...**opens a previously created settings document and initializes MacLinkPlus to the settings that were in effect when the document was saved. "Open Settings" is only available when MacLinkPlus has been stopped as result of using "Close Settings". Later when you start MacLinkPlus by double-clicking on the settings document, it will start with the settings that were in effect when the settings document was saved.
Settings Prompt	"Prompt user to Save Settings" directs MacLinkPlus to present a dialog with a Yes/No choice at the end of any session in which the settings have changed. **"User will save Settings**" from File Menu directs MacLinkPlus to ignore changes to settings. There will be no reminders. All settings actions are the responsibility of the user. It also can be found on the file menu.
Revert Settings	The "Revert Settings" dialog is also available on the File menu. It allows you to set MacLinkPlus to the settings that were in effect at the start of the session or to the Factory settings. Depending on how

MacLinkPlus was started, the upper button will show the name of a settings document or will indicate Default Settings.

Save Defaults...

"Save Defaults" saves the session's present settings as the new default settings for MacLinkPlus. The default settings are also saved at the end of each session by MacLinkPlus. To turn off this feature, use the "Settings Prompt..." selection on the file menu.

Edit...

Select all files

Choose this option to select all of the files in the "active" window.

Preferences Menu

Translators...

See Translators or Translators Prefs above.

File Recognition

This dialog controls the MacLinkPlus automatic file recognizer.

When set to **Automatic**, each file selected for translation is analyzed by the recognizer to determine its format. If the recognizer can determine the format, translation proceeds using the appropriate translator. If it does not recognize the file, a translator dialog will enlist the user's help.

When set to **Semi-Automatic**, each file selected for translation is analyzed by the recognizer to determine its format. Then the "Set Translators" window opens to show the recognized format for the Source file and the Preference format for the Result file. Either can be changed before the Continue button is selected.

When set to **Off**, the file recognizer does not operate. Manual selection from the Set Translators Window is needed

Process Folders

When this option is checked, transfer and translation of entire folders (including subfolders) is allowed. When unchecked, you can only transfer and translate files or groups of files (folders will not highlight).

Auto Connect

The Auto Connect dialog is opened from the Preferences menu. It can set MacLinkPlus to automatically connect to the remote computer when started from the Settings document in which this preference is saved.

Auto Launch

The "Automatic Launch" dialog is opened from the Preferences menu.

When the "Launch when translated" preference is set, the document that is being translated will automatically open in the appropriate application. When the "Quit after Translation" preference is set, MacLinkPlus will automatically quit when the translation is finished. The default for these preferences is "on" (the application will launch and MacLinkPlus will quit). Auto Launch can also be set on the Translation Status screen.

```
At the end of a translation to an application on this Macintosh, the
resulting file will be opened and (Optionally) this program will Quit
[unless connected to a Remote].

                         ☒ Launch when Translated

                         ☒ Quit after Translation

                         [   OK   ]        [ Cancel ]
```

Display...

```
                    Display Preferences

Show All Files:            ☐ Left        ☐ Right
Show All File Formats:     ☐ Left        ☐ Right
Show New Files:            ☒ Left        ☒ Right

Status Messages:     ○ Off     ○ Each 10   ◉ All

              [   OK   ]           [ Cancel ]
```

Show All Files...controls the files shown in the left and right scrollable windows in the Select File screen. An "X" indicates that all files are to be shown in the window, even if their Mac Type & Creator or their DOS Extension does not match the translator settings. This preference applies during manual operation only.

Show All File Formats...controls the file formats shown in the scrollable translator windows. An "X" indicates that all formats are to be shown, regardless of the computer type (Mac or PC) selected at the top of the window or the format selected in the opposite window.
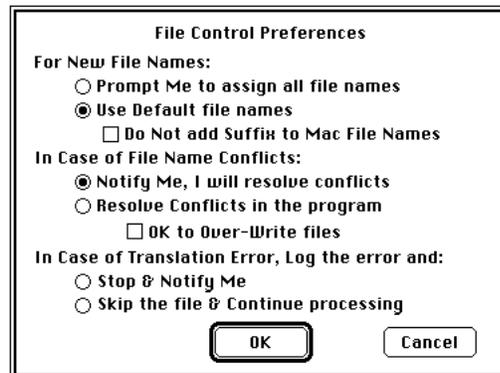
Show New Files...controls whether or not new files are shown in a file window immediately after they have been created by MacLinkPlus. An "X" indicates that the window is to be updated immediately.

Localize...

The **Localize** dialog controls the MacLinkPlus foreign character set feature.

The MacLinkPlus localizer feature handles the entire character set of many languages. Once localized for a language, internal character codes of that language translate between the IBM PC and the Macintosh.

To turn the localizer on or off, or to set it to a specific language, pull down the **Localize** command on the Preferences menu. This will open the **Localize** dialog which will provide all of the currently available options. If you do not select a specific country, MacLinkPlus will default to the character set for the country indicated by the Mac's operating system, provided the character set is supported.
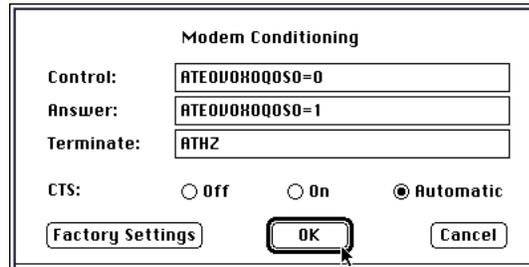
File Control

```
┌──────────────────────────────────────────────┐
│         File Control Preferences             │
│ For New File Names:                          │
│      ○ Prompt Me to assign all file names    │
│      ◉ Use Default file names                │
│         ☐ Do Not add Suffix to Mac File Names│
│ In Case of File Name Conflicts:              │
│      ◉ Notify Me, I will resolve conflicts   │
│      ○ Resolve Conflicts in the program      │
│         ☐ OK to Over-Write files             │
│ In Case of Translation Error, Log the error and:│
│      ○ Stop & Notify Me                      │
│      ○ Skip the file & Continue processing   │
│         ┌──────┐      ┌────────┐             │
│         │  OK  │      │ Cancel │             │
│         └──────┘      └────────┘             │
└──────────────────────────────────────────────┘
```

The File Control dialog is available from the Preferences menu. It controls how MacLinkPlus names new files.

New File Names...controls whether you or MacLinkPlus assigns names to files created during a file translation. The "suffix" added to Mac file names is the application name in parentheses.

File Name Conflicts...controls whether you or MacLinkPlus resolves conflicts when creating a file for which the name already exists. If you select **Resolve Conflicts in the Program**, MacLinkPlus is allowed to resolve name conflicts. It can do so by creating new names. Or, if you "X" the **OK to Over-Write**, it will over-write files that already exist.

In Case of Translation Error determines if MacLinkPlus should continue after it has noted a translation error in the Log. This preference applies during manual operation only.

PCX Colors

The "PCX" dialog is opened from the Preferences menu, under "Graphics." The PCX Colors dialog sets the PCX file translator to create monochrome, 16 color or 256 color PCX files.

Clipboard

The "Clipboard..." dialog is also opened from the Preferences menu, under "Graphics." It sets the graphics translators to place a copy of the translated graphic on the Macintosh Clipboard in PICT format. Once a copy of the graphic is on the clipboard, it can be pasted into any Macintosh application that accepts clipboard graphics. PICT graphics may be translated from the clipboard using MacLinkPlus by selecting the file named "PICT on Clipboard" in the "Select Files" window of the MacLinkPlus interface.

Log Menu

The Log menu contains commands for controlling the MacLinkPlus activity and error log. Entries are automatically entered in the log by the translators. They normally contain date, time, file name, translators used and a description of any errors or warnings. The log is cleared at the start of each session.

Modem Setup (PC Connect only)

The Modem Setup button opens the Modem Conditioning dialog. This dialog is used to review and set the commands that are sent to the modem while connecting and disconnecting. MacLinkPlus is initialized at the factory to the settings that work with most industry standard

modems

```
┌─────────────────────────────────────────────┐
│            Modem Conditioning                │
│                                              │
│  Control:     │ATEOVOHOQOSO=0            │   │
│                                              │
│  Answer:      │ATEOVOHOQOSO=1            │   │
│                                              │
│  Terminate:   │ATHZ                      │   │
│                                              │
│  CTS:         ○ Off    ○ On    ◉ Automatic   │
│                                              │
│  [ Factory Settings ]   [  OK  ]   [ Cancel ]│
└─────────────────────────────────────────────┘
```

Control contains the command string that is sent to the modem when connecting in Control mode.

Answer contains the command string that is sent to the modem when connecting in Answer mode.

Terminate contains the command string that is sent to the modem when disconnecting in Control or Answer mode.

Factory Settings is used to restore the values in this dialog to the values originally supplied with MacLinkPlus. These settings are correct for most situations.

CTS controls the modem's clear-to-send hardware handshaking. If left as Automatic, MacLinkPlus will set turn on CTS if the connection is via PBX or if it is via modem with a speed greater than 2400. There is normally no need to change this setting from Automatic.

Special Communications Settings (PC Connect only)

The Special Communications Settings dialog is used in Terminal Emulation mode. Prior to connecting to a remote computer, this dialog is available through a button in the Set Communications window.

While connected, it is available from the Terminal menu.

```
┌─────────────────────────────────────────────────┐
│           Special Communications Settings         │
│                                                   │
│   Speed:       ○   300    ● 1200    ○ 2400        │
│                ○ 4800     ○ 9600    ○ 19200       │
│                ○ 57600                             │
│                                                   │
│   Data Bits:   ○ 7        ● 8                      │
│                                                   │
│   Parity:      ● None     ○ Even    ○ Odd         │
│                                                   │
│   Stop Bits:   ● 1        ○ 1.5     ○ 2           │
│                                                   │
│                    ┌─────────┐      ┌─────────┐   │
│                    │   OK    │      │ Cancel  │   │
│                    └─────────┘      └─────────┘   │
└─────────────────────────────────────────────────┘
```
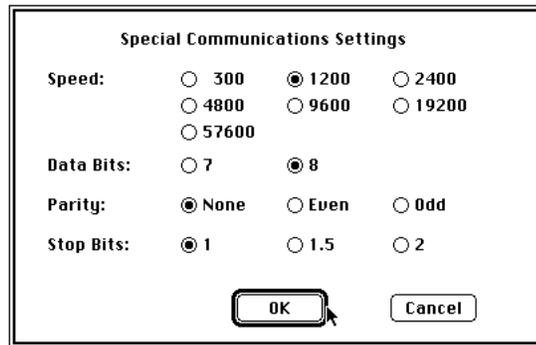
These settings must be reviewed and set to match the remote system. If they are incorrectly set prior to connection, they can be changed without disconnecting.

Speed is the communications speed or baud rate. It must be set to match the speed of the remote computer, and when used, the modem at each end of the connection.

Data Bits is the number of bits per character, normally 8 for micro systems and 7 for mainframes.

Parity identifies the system used for error checking characters. Most often parity is set to "None" for micros and "Even" for minis and mainframes.

Stop Bits identifies the extra bits between characters. The most common setting is 1.

Special Transfer Settings (PC Connect only)

The Special Transfer Settings dialog is used in Terminal Emulation mode. Prior to connecting to a remote computer, it is available through a button in the Set Communications window. While connected, it is

available from the Terminal menu.

```
┌─────────────────────────────────────────────┐
│         Special File Transfer Settings        │
│  Transfer Type:   ◉ XMODEM      ○ Text        │
│  XMODEM Type:     ○ Binary      ◉ MacBinary   │
│  Pacing:          ◉ None        ○ XOn/XOff    │
│                   ○ Prompt -> Char: [    ]     │
│  Wait for Echo:   ◉ None  ○ CR    ○ LF  ○ All  │
│                  [   OK   ]      [ Cancel ]    │
└─────────────────────────────────────────────┘
```
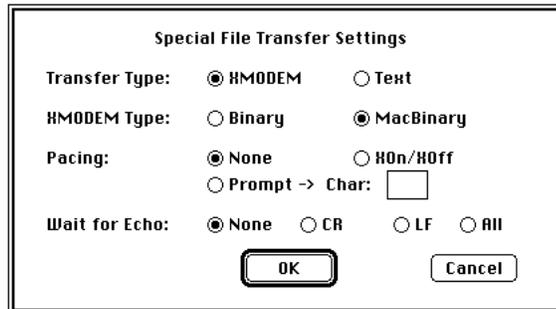
These settings should be changed to meet the remote computer's file transfer capabilities. When in doubt, don't change a value. It can always be changed from the Terminal Menu after you've connected to the remote computer.

Transfer Type indicates the method or protocol used by the software to exchange files with the remote computer.

❒ XMODEM protocol should be used whenever it is supported by the remote system. XMODEM can transfer all types of files (text files, binary files with control characters, spreadsheets, word processing documents, etc.), and it can detect and correct transmission errors while doing so.

❒ TEXT protocol should be used if the remote system does not support the XMODEM protocol or if it doesn't support file transfer at all. Text transfers are limited to transferring only text or ASCII data.

XMODEM Type identifies the type of file(s) to be transferred by the XMODEM protocol.

❒ For transferring non-Macintosh or "Foreign" files to or from the Macintosh, the setting should be Binary.

❒ **MacBinary** is used to send or receive fully intact Macintosh files. Such files are transmitted with all the Macintosh file's content, icon and directory information organized into a standard format

that is known as MacBinary. Files received by the Macintosh in this format will have the same content, icon and directory information as the files had on the originating system. Files sent from the Macintosh in MacBinary format are sent with all this information attached. MacBinary can be used to store Macintosh files on a remote system, or to receive files that were previously stored on a remote system in MacBinary format.

❏ **Pacing** identifies the method to be used by MacLinkPlus to control its exchange of information with the remote system during file transfer.

❏ **None** is the normal pacing setting for XMODEM, which has its own pacing.

❏ **XOn/XOff** is the normal pacing setting for TEXT transfers. Most software with a TEXT file transfer protocol supports XOn/XOff. In this pacing scheme each system uses an XOn, which means transmit (Xmits) on, and XOff, which means Xmit Off, to alternately take control of, and relinquish control of, the communications process. In this way, the two systems can maintain an organized exchange of data.

❏ The **Prompt Character** setting is used for TEXT transfers with remote systems that use a unique prompt character to control the TEXT file transfer.

Wait for Echo indicates that the software should wait for the remote computer to echo back the character it sends before sending another. This is often used for communicating with mainframes to ensure that messages are not sent too fast and possibly missed by the remote system.

Special Terminal Settings (PC Connect only)

The Special Terminal Settings dialog is used in Terminal Emulation mode. Prior to connecting to a remote computer, this dialog is available through a button in the Set Communications window. While connected, it is available from the Terminal menu.
These settings must be adjusted to meet the remote computer's requirements. When in doubt, don't change a value; it can be changed at any time during a session.

Add Line Feeds sets MacLinkPlus to advance a line on the screen after each line it receives from the remote computer. If extra blank lines are displayed when connected to the remote computer, change this setting to No.

Backspace Key sets the action MacLinkPlus will take with the remote system when the backspace key is pressed on the Macintosh.

Local Echo sets MacLinkPlus to display each character you type on the Mac keyboard on the Mac screen as it is being sent to the remote computer. The normal setting is "Yes" for micros and "No" otherwise. If double characters are being displayed, set this to "No".

Terminal menu (PC Connect only)

The **Terminal menu** is available when Terminal Emulation has been selected in the Home window and while connected to a remote computer. Prior to connection, the same functions are available through buttons in the Set Communications window. This menu contains commands for controlling the special communications settings that configure MacLinkPlus to match the characteristics of a remote computer.

Set Communications… provides a dialog to review and change the Special Communications Settings. These include speed, data bits, stop bits and parity. See Special Communications Settings.

Set Terminal… provides a dialog to review and change the Special Terminal Settings such as line feeds, backspace key and local echo. See Special Terminal Settings.

Set File Transfer… provides a dialog to review and change the Special File Transfer Settings such as transfer type, XMODEM type, pacing and echo wait. See Special Transfer Settings.

Unable to find Application…

This alert will appear if you've set the Automatic Launch preference to launch the appropriate application upon creation of a Result file, and the application can't be found. You must install the missing application on your Mac. If it is already installed, there is a possibility that you must rebuild your Macintosh desktop file. This can be done by holding the [option] and [Command] keys down while restarting your Macintosh.

Chapter 9   **MacLinkPlus Interface on the PC
(MacLinkPlus/PC Connect users only)**

- **Details on each window and menu item in the
MacLinkPlus Interface in Windows and DOS**

Introduction

This chapter provides a reference of the Menus, Commands, Windows and Dialogs that appear in the MacLinkPlus Interface under DOS and Windows. It is intended to provide easy to find reference material while using the MacLinkPlus interface.

First, the "typical" windows that you will see when using the MacLinkPlus Interface will be explained. Then, we will go through menu items as they appear on the top menu bar (i.e., File menu and its contents first).

Although the screen shots shown here are of the Windows interface, the DOS interface is identical.

MacLinkPlus window

The MacLinkPlus window opens when MacLinkPlus is started and becomes the active window at the end of each session with a Macintosh

Current communications settings

Sets the PC to be the Answering or Controlling computer for the session

Opens the Communications window to review or change the communications settings

Exits MacLinkPlus

Connects using the settings shown

```
┌─────────────────────────────────────────────────────────┐
│ ═       MacLinkPlus!PC for Windows                        │
│  MacLinkPlus/PC     │  Communications Settings            │
│   for Windows       │ Remote:   Macintosh                 │
│   MLPWIN 7.00       │    Via:   Direct (Cable)            │
│                     │  Using:   COM1 at 19200 baud        │
│  (c) DataViz, Inc. 1993 │ Dial:                           │
│ ──────────────────────────────────────────────────────── │
│                                                           │
│  ┌──────────────────┐   ┌──────────┐      ┌──────────┐    │
│  │ Set Communications│  │ Answer   │      │ Connect  │    │
│  └──────────────────┘   │ Control  │      └──────────┘    │
│                         └──────────┘                      │
│                    ┌──────────┐                           │
│                    │  Exit    │                           │
│                    └──────────┘                           │
└─────────────────────────────────────────────────────────┘
```
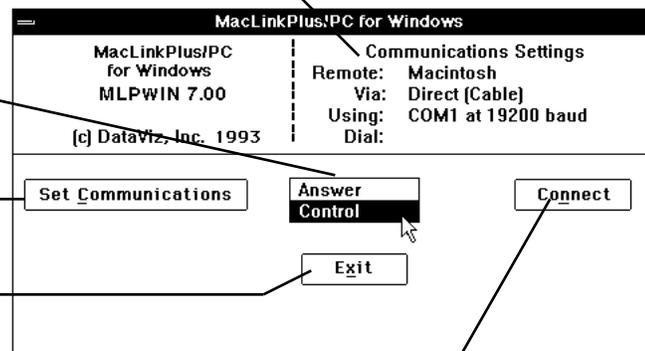
Set Communications opens the Set Communications Window which lists all the available communication settings and permits selection. (See Set Communications.)

Answer / Control determines if the PC, while connected to a Macintosh, will be the controlling computer or the answering computer. If it is the controlling computer, all file transfer and translation activities will be controlled from it. If it is the answering computer, all activities will be controlled from the Macintosh. This setting is saved when Set Defaults is used.

Connect (or Answer when in Answer mode) directs MacLinkPlus to

establish communications with the Macintosh using the present settings. If the PC is in Control mode, it will initiate communications and expect the Macintosh to be waiting for contact. If the PC is in Answer mode, it will wait for contact from the Macintosh.

Exit directs MacLinkPlus to terminate the session and return to Windows or DOS.

Set Communications window

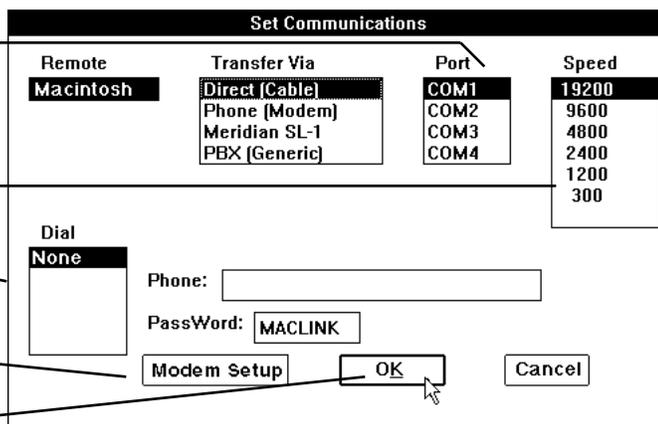The Set Communications window shows the present communications settings and their alternatives.

Serial port selected and the alternatives installed on the PC

Speed selected and the alternatives

These settings used for modem communication only

Displays and sets the commands sent to the modem at connect and disconnect

Accepts the settings as shown

Set Communications			
Remote	**Transfer Via**	**Port**	**Speed**
Macintosh	Direct (Cable)	COM1	19200
	Phone (Modem)	COM2	9600
	Meridian SL-1	COM3	4800
	PBX (Generic)	COM4	2400
			1200
			300

Dial
None

Phone:

PassWord: MACLINK

Modem Setup   OK   Cancel

The Set Communications Window provides the ability to review and change the communications settings. It is available from the Set Communications button.

The **Remote** setting identifies the remote system. It is used by MacLinkPlus to set its communications and translator values to make sense for the remote computer.

The **Transfer Via** Setting identifies the equipment connected to the communications port.

❒   **Direct (Cable)** indicates that the MacLinkPlus cable or a "pre-arranged circuit" is connected to the communications port.

❒ **Phone (Modem)** indicates that a modem is connected to the communications port or is being made available to the port by a modem sharing device.

❒ **Meridian SL-1** indicates that a Northern Telecom Meridian SL-1 PBX is connected to the port.

❒ **PBX (Generic)** indicates that a digital PBX is connected to the port.

The **Speed** Setting determines the communications speed (baud rate). Higher speeds provide faster file transfers. The speed must be the same on both the PC and the Macintosh. It is limited by the connection equipment in place and the speed setting on the remote computer.

❒ For a Direct (Cable) connection, the speed can be set to the highest rate attainable by both machines.   Normally, this is 57,600 under DOS and 19,200 under Windows.

❒ For a Phone (Modem) connection, the speed should be set to the highest rate permitted by the two modems.

❒ For Meridian, PBX, or other special network or special modem connections, the speed should be set to the highest speed allowed by the communications equipment and computers.

The **Port Setting** identifies the port to which the cable or modem is connected. The port being used by MacLinkPlus should not be in use by any other software. For example, if the modem or cable is connected to COM1, and there is serial mouse software set to COM1, MacLinkPlus may not be able to communicate.

The **Dial Setting** is used for Modem and PBX connections.

❒ **Tone** is used if you have touch tone telephone service and an Apple, Hayes or Hayes compatible modem. Since the Tone setting automatically sends Hayes commands along with the phone number, it can be used for tone dialing any modem, PBX or network that accepts standard Hayes command sequences.

❒ **Pulse** is used for traditional rotary dialing telephone service with an Apple, Hayes or Hayes compatible modem.

❒ **Mixed** is used if you wish to embed special dialing commands in the phone number and you are using an Apple modem, a Hayes modem, or any device that accepts Hayes commands. These commands can permit pauses (to wait for an outside line) and changes (from tone to rotary dialing, etc.). Use of these special commands is covered in the Phone Number/Script discussion that follows.

❒ **Manual** is used if you wish to skip all automatic dialing and modem control. Instead, when the Connect button is selected, it puts you in direct control of the modem and/or communications line. Characters entered on the keyboard are sent via the serial port. Information received is displayed in a Manual Dial window. This feature may be used to manually control a non-standard modem, a special PBX or network system, or any device that you wish to manually control by entering keyboard commands.

❒ **Script** is used if you wish to write a script of special commands and numbers, save them and have them sent to the communications device when you click connect. A script can control an "intelligent" modem or define and configure a connection through an "intelligent" network or PBX. In general, scripts can be used to "remember" the special sequences you would be entering in Manual Dial mode. Use of scripts is covered in the Phone Number/Script discussion that follows.

❒ **Answer** is the automatic setting when the PC is set to be the Answering computer.

Phone Number/Script Setting (for Modem, Meridian or PBX)

❒ **Phone numbers** are entered exactly as you would dial them. If you are using an area code and/or the leading 1 for out-of-area calling, you must include these digits in your entry.

For example, to call a modem that is in area code 123 at local number 456-7890, you would enter 123-456-7890. If you are calling from an area that requires a leading 1, enter 1-123-456-7890.

Phone numbers can be entered with or without separators such as

dashes. If you prefer to use them for clarity, they will be saved but will have no impact on the dialing.

The use of a PBX or a third party long distance service often complicates your dialing. These more complex sequences can be entered along with your phone number. To do so, just select Tone or Pulse as the Dial setting based on how the dialing should begin. Start the phone number with the digits that are to be dialed in that mode. Then, enter a P or T to switch the mode and enter the digits for the new mode.   To cause a delay during the dialing, put one comma in the appropriate spot for each two seconds of delay required.

For example, if you have a Dial setting of Tone, the sequence 9,P123-456-7890 dials a 9 in tone mode, waits 2 seconds (for an outside line), and then dials the remaining digits in pulse mode.

When connected to a PBX or digital switch, it is often necessary to issue a Break command to the communication system. In Manual Dial or during a Terminal session, the Option-Enter key combination issues a Break for as long as the keys remain depressed. Breaks may also be issued in Scripts as described in the following pages.

❒   Scripts are sequences of numbers and command codes that are used to automatically control an "intelligent modem", network or PBX. They may be used in conjunction with a Transfer Via setting of Phone (Modem), Meridian SL-1 or PBX (Generic). They are entered in the Phone Number/Script setting and may be saved along with the other settings. Scripts are used by MacLinkPlus during the connect sequence. Their progress is reported in the Script Dial window after the Connect button has been selected.

❒   Following are special characters you can include in a script to produce specific actions during the Connect sequence:

;   Directs the script to pause until no response has been received by the PC for two seconds. This should be sufficient to receive a multi-line response from the connecting device since the two second counter is restarted each time a character is received.

.   Directs the script to send a carriage return and then wait for a

response as with the ; command.

^   Is entered with a following character to represent the ASCII
     control characters from 0 to 31. The entry is determined as
     follows:

Control Character	Script Entry
Null(0)	^@
- 26	A - ^Z
27	^[
28	^\
29	^]
30	^^
31	^_ (underline)

For example, End of Text (ETX,3) becomes ^C, Escape (ESC, 27)
becomes ^[and Carriage Return (CR,13) becomes ^M.

%   Issues a Short Break (.3 seconds)

!   Issues a Long Break (2.3 seconds)

\   Is entered with a following character to submit that character to the
     communications device without any interpretation by the software.
     For example, \; submits a semicolon without performing the pause
     function described above.

The **Password** Setting is used by both the Controlling and Answering
computers. The entry is automatically sent by the Controlling computer
to the Answering computer for verification prior to access to that
system. All positions of the password are checked for an identical
match. This includes matching upper case, lower case, and special
characters. The Password is not verified when Cable is selected for the

Connect Via setting.

When MacLinkPlus is delivered, this setting is initialized to MACLINK. This is the same value used to initialize all MacLinkPlus disks for the PC and the Mac.

Modem Connection window

The Modem Connection window is displayed when an attempt is made to establish a connection via modem (Transfer Via setting is set to Modem). MacLinkPlus contacts the modem using Hayes commands and waits for a standard response. Upon receiving a standard Hayes response from the modem, MacLinkPlus will, if the PC is in Control mode, send the appropriate dialing information; otherwise it will send commands to activate the modem's Auto Answer feature.

The Modem Setup button opens the Modem Conditioning dialog which is used to review and set the commands that are sent to the modem while connecting and disconnecting. MacLinkPlus is initialized at the factory to the settings that work with most industry standard modems.

```
╔══════════════════════════════════════════════════╗
║              Modem Conditioning                  ║
╟──────────────────────────────────────────────────╢
║  Specify Modem Setup Strings:                    ║
║                                                  ║
║  Control:      ┌────────────────────────────┐    ║
║                │ ATE0V0X0Q0S0=0             │    ║
║                └────────────────────────────┘    ║
║  Answer:       ┌────────────────────────────┐    ║
║                │ ATE0V0X0Q0S0=1             │    ║
║                └────────────────────────────┘    ║
║  Terminate:    ┌────────────────────────────┐    ║
║                │ ATHZ                       │    ║
║                └────────────────────────────┘    ║
║                                                  ║
║  ┌──────────────────┐   ┌────────┐  ┌────────┐   ║
║  │ Factory Settings │   │   OK   │  │ Cancel │   ║
║  └──────────────────┘   └────────┘  └────────┘   ║
╚══════════════════════════════════════════════════╝
```

Control contains the command string that is sent to the modem when connecting in Control mode.

Answer contains the command string that is sent to the modem when connecting in Answer mode.

Terminate contains the command string that is sent to the modem when disconnecting in Control or Answer mode.

Factory Settings is used to restore the values in this dialog to the values originally supplied with MacLinkPlus. These settings are correct for most situations.

Set Translators window

The Set Translators window is used to review and change the file translation settings and the file transfer direction.

Two scrollable windows provide the ability to review and change the file translation settings. An arrow shows the file transfer direction and a Direction button controls it.

Indicates transfer direction

Changes transfer direction

Translator reminders

Clear translator selections

Scrollable PC translator window

Accept settings as shown

Cancels any changes made

Scrollable Mac translator window (or PC window for PC to PC file translations

Set Translators		
IBM PC Formats	PC <<=== Mac	Macintosh Formats

IBM PC Formats		Macintosh Formats
Ami Professional	Direction	Binary
AutoCAD (DXF)		Comma Values (CSV)
Binary		dBase (DBF)
Comma Values (CSV)	Clear	DIF
dBase (DBF)		EPS
DCA (IBM Revisable)		Excel (Mac v2)
DIF		Excel (Mac v3)
EPS		Excel (v1 WKS...)
Excel (PC v2)		Excel (v2 WKS...)
Excel (PC v3)		FrameMaker (MIF 2.0)
FrameMaker (MIF 2.0)		FrameMaker (MIF 3.0)

☐ All Formats   OK   Cancel   ☐ All Formats

When controlling MacLinkPlus from the PC, the translators must be set before a connection can be made to the Macintosh. Later in a session, this window may be viewed and changed at any time by clicking the Set Translators button or by selecting Set Translators on the Translators menu.

Prior to any selection being made, the scrollable windows show the applications and file formats that are relevant to each window. If the Remote Mac Files option is set, the left window shows PC applications/ formats and the right window shows Mac applications/formats. If the Local PC Files option is set, both windows show PC applications and formats.

When an application/format is selected in one window, the choices in the other window are reduced to only those that are supported for the

selected application/format and direction. For example, by selecting Word for Windows in the right window, the left window reduces to the available word processing choices.

An application/format selection in the "From" window tells MacLinkPlus how to read and interpret the file that is being transferred. The application selection for the "To" window indicates the format the resulting file is to be written in. A selection of Binary in both windows indicates that the file is to be transferred as is, without translation. A selection of MacBinary in both windows indicates that a Macintosh file is to be transferred with the contents as is and the Macintosh directory and icon information attached.

Proper selection of the "From" translator is critical since it indicates to MacLinkPlus the kind of formatting and control codes to expect in the file.

Select Files window

The Select Files window provides two scrolling windows, one showing the disks, directories and files available on the PC, and the other showing the disks, directories and files available on the Mac.

It is activated after the translators have been selected and a connection has been established to the Macintosh.

Multiple files may be selected for transfer and translation. When controlling from the PC, they must be in the same folder or sub-directory, and destined for the same folder or sub-directory. All must

undergo the same translation.

Select to set translators

Disk and directory reminder

Select for Root Directory

Select for next higher directory

Scrollable window for PC directories and files

Scrollable window for Mac directories and files

Displays the next disk or server volume on the PC

Transfers and translates the selected files

Displays the next disk or server volume on the Mac

Select Files: PC <<=== Mac

IBM PC Files
WordPerfect 5.1
C:\MACLINK6\RESULTS

Set Translators

Macintosh Files
Word 4.0
Stacey's HD:\...\Macintosh Sam

/ Root Directory
.. Parent Directory
MSWORD4.DOC
MSWORD4.W51
WORDPERF.DDD
WORDPERF.DOC
WP51W40.DOC
WPTOWINW.DOC
WWPCMAG.DOC

/ Remote Root Directory
.. Remote Parent Directory
MS Word Sample

Open   Drive   Convert + Transfer   Open   Drive

24714 K Available   DisConnect   Selected 1 Files, 6 K

To navigate within a window, use the Parent selection to move up one sub-directory or the Root selection to move to the top of the structure.

The drive button changes the position to the next available disk or file server on the computer being displayed.

MacLinkPlus normally shows only files that are relevant to the application/format selected for each window. For the PC it uses the three character suffix on the DOS file name and for the Mac it uses the Mac's directory information. Display… on the Options menu allows you to override this feature so all files will show.

Files are transferred and translated from one window to the other in the direction of the arrow by selecting the files in the "From" window, setting the "To" window to the desired directory, and then clicking the Convert & Transfer button.

Conversion Status

The Conversion Status window is displayed while files are being transferred and translated. It provides continuous status, a Stop button to stop the process, and upon completion of the process, a Done button

to return to the Select Files window.

```
┌─────────────────────────────────────────────────┐
│ ▬          Conversion Status                     │
│          Translating and Transferring            │
│                                                  │
│            MS Word Sample - Word 4.0             │
│                       To                         │
│           MSWordSa.W51 - WordPerfect 5.1         │
│                                                  │
│               Translating the File               │
│              Translation 22% Complete             │
│                                                  │
│                                                  │
│   File 1 of 3          ┌───────┐      ┌───────┐  │
│                        │ Wait  │      │ Stop  │  │
│                        └───────┘      └───────┘  │
│                                                  │
└─────────────────────────────────────────────────┘
```
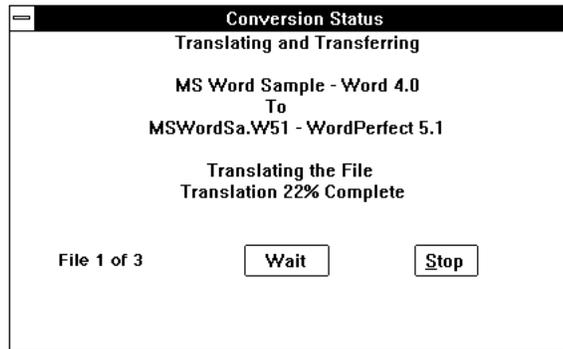
File Menu

Set Defaults

Set Defaults can be used at any point during a MacLinkPlus session to take a "snapshot" of the session. It saves the current communications settings, transfer and translation options, preferences, etc. Later, when MacLinkPlus is started, its initial settings will be those that were in effect when Set Defaults was last used.

Options Menu

File control options

The **File Control** Option controls the actions to be taken when creating

file names. This option is saved when Set Defaults is used.

```
┌─────────────────────────────────────────────────────┐
│                 File Control Options                 │
├─────────────────────────────────────────────────────┤
│ For New File Names:                                  │
│        ○ Prompt Me to assign all file names          │
│        ◉ Use Default file names                      │
│ In Case of File Name Conflicts:                      │
│        ○ Notify Me, I will resolve conflicts         │
│        ◉ Resolve Conflicts in the program            │
│          □ Overwrite files when necessary            │
│                                                      │
│            ┌─────────┐        ┌─────────┐            │
│            │   OK    │        │ Cancel  │            │
│            └─────────┘        └─────────┘            │
└─────────────────────────────────────────────────────┘
```
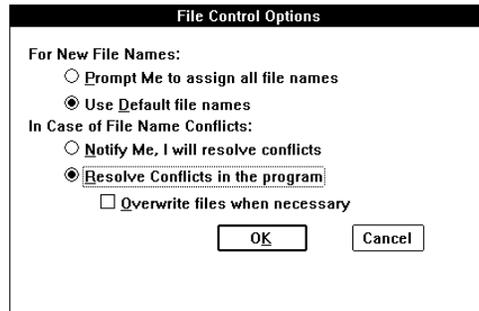
Use Default names lets MacLinkPlus automatically create appropriate file names.

Resolve conflicts in the program lets MacLinkPlus resolve name conflicts with existing files.

Overwrite file when necessary allows MacLinkPlus resolve file naming conflicts by overwriting existing file.

Fast Open

The Directory Fast Open option selects the mouse action to be used to open a directory in the file window. This option is saved when Set Defaults is used.

Skip File

The Skip File dialog appears if MacLinkPlus encounters a problem during a transfer/translation.

The Skip option allows the one file to be skipped but all other actions to continue.

The Done option terminates the transfer/translation an returns to the Select Files window.

Chapter 10

Internet Translation Kit

- **Step by Step instructions for translating HTML files into word processing documents**
- **Descriptions of different preferences related to HTML translator**

**Internet Translation
Kit**

This chapter contains background information about the World Wide
Web and the Internet as well as descriptions and definitions on many of
the terms used. We recommend that you read through all sections and
pay special attention to the specific concerns raised about Internet
graphics. If you're already very familiar with the Internet, you can skip
the background information and go directly to the sections dealing with
Special HTML Translation Issues and descriptions of the related HTML
Translation Preferences.

HTML

HyperText Markup Language is a special text based format adopted for
use as the standard for documents on the World Wide Web. HTML
contains special codes or "tokens" that are used to designate formatting
attributes. HTML can be read as plain text by a word processor or as a
formatted Web Page by special "browsing" applications that present the
HTML as formatted text and graphics. The tokens contained within the
HTML document tell the browsing application how to format the text.

Where do HTML documents come from?
Because HTML documents are text based, you can create one from
scratch in any text editing program. Often they are created with special
HTML publishing applications. However, most HTML documents will
come from saving documents out of World Wide Web browsers. The
most popular browsers available today are Netscape Navigator,
Microsoft Internet Explorer and Spry Mosaic. Like most word
processors, browsers let you "Save As..." certain formats. These
formats are usually limited to Text and HTML (browsers use the term
"Source" interchangeably with HTML).

URLs

Uniform Resource Locators (URLs) are the keys to navigating the
World Wide Web. They allow documents to be linked to other
documents and to graphics. Think of a URL the same way you think of
an alias on your Mac. If you click on an alias, your Mac finds the
application or the document that it references. Clicking on a URL in a
Web Page takes you wherever the URL is pointing. It can take you to
another part of the page, to a different page on that server, or to a page
stored on a different server. That server can be on your network, in a
different city, in a different state or even a different country - clicking
the URL takes you there instantly.

HTML documents are supposed to have a "base reference" - a URL that tells the browsing application where the document itself is located. A base reference might look something like this for Apple Computer:
http://www.apple.com
or like this for DataViz:
http://www.dataviz.com
You may see a pattern developing where www.COMPANY.com signifies a commercial Web site. As you browse the Internet, you will find that many companies' Web Sites are set up that way. Even if you're not sure of an exact URL, you can make educated guesses. However, URLs don't always follow that pattern.

Understanding and knowing correct URLs is important when translating HTML documents that contain graphics. See the HTML Embedded Graphics Preferences and Translation Issues for details.

GIF & JPEG Graphics

Almost all Web graphics are stored in GIF or JPEG graphic format, with GIF being the most common. Both are bitmap formats which use special compressions that make them well suited for rapid transfer over the Internet. Currently, GIF graphics have a maximum of 8 bit color depth, meaning they can have 256 different colors in each graphic. JPEG is a 24 bit format, which means each file can contain millions of colors and much better resolution.

Special HTML Translation Issues…

Internet Graphics
The graphics you see displayed in Web pages are not part of the document itself. Instead of including the actual graphic files, HTML documents use location references called URLs to tell browsers where on the server the graphics are stored. When the browser encounters a graphic reference, it seeks the graphic out on the server, downloads it and then presents it. URLs usually contain a full server path and a filename, but sometimes contain only partial URLs, assuming that the browsers know their current location and have a "base reference". Many documents do not contain base references and this will cause problems with URL validity during translation.
Importance of Valid URLs
Because the DataViz HTML translator tries to maintain the look of the document as it appeared in a browser, graphics are important. In many cases the translator will be able to find the actual graphic stored on your hard drive. Sometimes, the translator will need to go out on the Internet

to fetch graphics when translating into Word Processing formats. If it can find a valid URL (that is, one with a correct path reference) somewhere in the document, it will connect to the Internet automatically. If it can't, you will be prompted to enter the URL of the document so that the translator knows where to search. Therefore, it pays to try and keep track of URLs of documents you save if you intend to translate them. Most browsers have options that let you view the URL of the location you're browsing. Most browsers even insert the full URL in the Get Info comments of a saved web page.

Browser Cache Files
Some Web browsers save copies of graphic files locally on the hard drive so that when browsing, frequently accessed pages don't cause graphics to be downloaded from the Internet each time. Instead they are retrieved from a local cache folder and referenced by a cache log. The DataViz HTML translator is able to search locally on your hard drive for those cached graphic files when converting Web pages.

TIP: For best translation results, make sure that you first quit out of your browser before attempting to do translations. Quitting the application causes the cache log to be updated which is important for the translation to be successful. Also, increasing your cache size in the browser's preference will allow for more graphics to be stored locally. If you have the room, allocate at least 2 MB of disk space for cached graphics. Finally, make sure that any settings to automatically delete cache files or cache logs are disabled.

Graphic Color Depth
The Internet Translation Kit includes translators for GIF and JPEG. See the back of this manual for a full list of translation paths. The translators support 1, 4, 8 and 24 bit graphics. These different levels of support dictate the number of colors (color depth, sometimes referred to as the color palette) that can be displayed in the graphic. Those correspond to 2, 16, 256 and approximately 17 million colors respectively. When HTML is translated to a word processing format, the GIF and JPEG graphics that are referenced as links will be converted to embedded graphics: into PICT for Mac word processing formats and either Windows Metafile or WordPerfect Graphics for PC word processing formats.

Currently, the GIF graphic format is limited to 8 bits or 256 colors. Therefore, any translations to or from GIF will result in an 8 bit graphic.

Your Mac must be able to display colors in order to convert color graphics.

HTML Translation Preferences

Because HTML documents present special translation issues and can potentially cause the translator to access the Internet, preferences have been added to the MacLinkPlus Setup Control Panel in all MacLinkPlus products and to the MacLinkPlus application in MacLinkPlus/ Translators Pro and MacLinkPlus/PC Connect. This addendum manual will refer to the Control Panel since it is contained in all products. The preference choices are the same in the MacLinkPlus application.

HTML Embedded Graphics
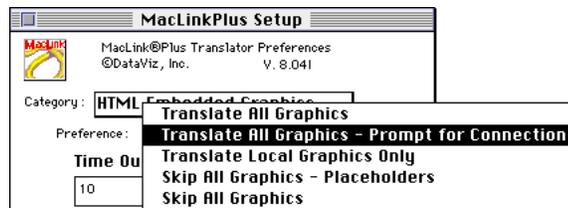
Why a Preference?
HTML documents contain links to graphics instead of the actual graphic files themselves. As such, many HTML documents translated to other word processing formats will require special actions to be taken in order to maintain graphics. The Internet Translation Kit can check in two places for graphics: in the cache files of browser applications if they are available and out on the Internet itself.

The HTML translator contains special communications software that can connect to and search the Internet for graphics. It uses a standard, pre-configured MacTCP or Open Transport connection, so make sure you have MacTCP or Open Transport and any PPP extensions properly configured and working. Connection is possible via modem or network Internet gateway. If you can connect to the Internet already, the HTML translator can connect as well.

Connecting to the Internet and searching for graphics can be time consuming. While most connections during translation last only a minute or less (usually less time than it takes to browse a page, but

dependant on connection speed), large graphic files or documents with many graphics can cause longer file transfer times. For this reason, preferences and smart dialogs have been added to give you control over the translations and over the Internet connection. For preferences that allow Internet connections, special connection parameters can be set to control how many times the translator should attempt to contact a server when trying to retrieve graphics (Retries), and how many seconds it should wait in between retries (Time Out).

Time Out:	Retries:	
10	3	Use Default

"Embedded Graphic" preferences dictate if the Internet should be searched at all, whether you want to be prompted before connecting to the Internet, or whether you should skip graphics altogether. In all cases where graphics are set to be retained, a default graphic (or placeholder) will be inserted if the actual file cannot be located on the Internet or on your hard drive.

1. Translate All Graphics
This preference setting is for fully automatic, smart HTML translations. The translator will look everywhere it possibly can for the graphic, including your browser's stored cache on the hard drive and the Internet. You will never be prompted before the translator attempts to make an Internet connection, yet it will never make the attempt unless it has an excellent chance of locating the graphic file. Generally, the complete URL is necessary. In cases where the graphic cannot be found or if the URL is incomplete, the default graphic will be inserted.

2. Translate All Graphics (Prompt for Connection)
This is the default graphic translation setting. Selecting this preference gives the most control over graphic conversions in HTML documents. The translator will look everywhere it possibly can for the graphic, including your browser's stored cache on the hard drive and out on the Internet. However, you will always be prompted before the translator attempts to make an actual connection. If a complete URL is present in the HTML document, the following dialog box will appear:

One or more embedded graphics in the document could not be found on your hard drive. Do you want to connect to the Internet and search for all embedded graphics not found?

| Cancel | Skip Graphics | Connect & Search |

Tip: For HTML Embedded Graphics Preferences, see the **MacLinkPlus Setup** Control Panel.
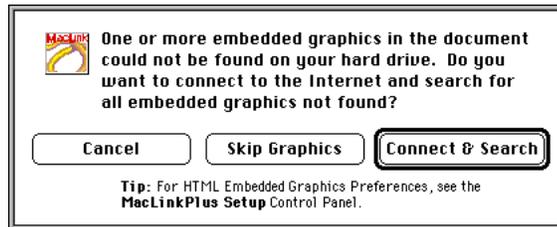
If you want the translator to establish an Internet connection and download all the graphics found in the HTML document, choose Connect & Search. If you don't want to connect to the Internet, choose Skip Graphics. No connection will be made and default graphics will be inserted as placeholders.

If the translator is unable to make a connection to the Internet, the following dialog will appear:

MacLinkPlus could not open a connection to the Internet. Please make sure that your Internet connection hardware and software are configured properly before trying to connect again.

| Cancel | Skip Graphics | Try Again |

Tip: For HTML Embedded Graphics Preferences, see the **MacLinkPlus Setup** Control Panel.
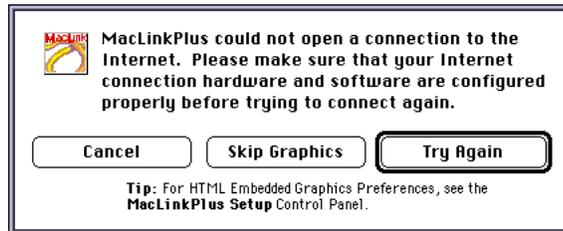
This may happen for a variety of reasons including an improperly configured MacTCP or Open Transport Control Panel, improperly installed modem software, no phone line connected to the modem or a busy Internet host server. Check all the normal hardware and software settings you would check for any other communication problem and consult your user manuals. If you're connecting to the Internet via a network gateway, contact your MIS manager.

In cases where graphics are not referenced by complete URLs, this preference setting will cause the translator to prompt for the correct URL, or Internet address.

One or more embedded graphics in the document "Welcome to DataViz" could not be found due to an incomplete Internet address (URL). If you know the address of this document, enter it below and click Connect & Search to search the Internet:

| Cancel | Skip Graphics | Connect & Search |

Example: If the HTML document you are translating is the DataViz Home Page, enter: **http://www.dataviz.com**

You must enter the exact location, or path, of the file in order for the graphic to be found. For example, if an HTML document called "testpage.html" is located at the following location:
http://www.dataviz.com/webpages/testpage.html
Entering http://www.dataviz.com alone would not find the graphics referenced in that Web page. You would need to enter the complete path location complete with sub directories (folders), or:
http://www.dataviz.com/webpages

If the translator is able to make a connection to the Internet, but unable to retrieve graphics for any reason, the following dialog will appear:

MacLinkPlus was able to open a connection to the Internet, but the host is not responding or could not be found. Please check that the URL entered is correct and click Try Again.

http://www.dataviz.com/webpages

| Cancel | Skip Graphics | Try Again |

Example: If the HTML document you are translating is the DataViz Home Page, enter: **http://www.dataviz.com**
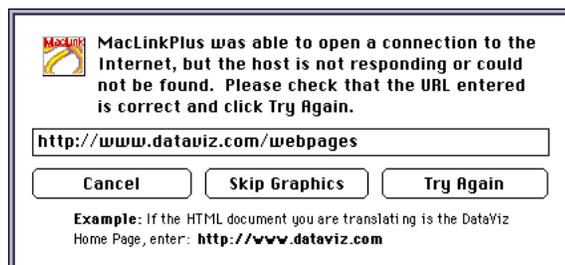
This situation usually occurs when the URL that was entered is incorrect or incomplete, or when the server with the graphics is too busy to respond to the request. This dialog allows you to review the URL, retry the connection (helpful if the problem is a busy server), or skip searching graphics on the Internet. If after retrying the connection the translator still cannot contact the proper server or find the graphics, a dialog will appear indicating that the Internet cannot be contacted. In that case, choose Skip Graphics and default graphics will be inserted as placeholders.

3. Translate Local Graphics Only

The translator will look only in your browser's stored cache on the hard drive for graphics. If a graphic referenced in the HTML document is not present as a saved file in your browser's cache, the default graphic will be used in its place. Selecting this option means that the translator will never attempt to search the Internet, but will maintain the look of the document as best as possible.

If you're using Netscape, Internet Explorer, Mosaic or America Online's Browser and doing translations on the same computer as you use to browse the Internet, this may be a good setting for you to use. All these browsers save graphics to cache and chances are the translator will be able to find them locally. See the Translation Issue… Browser Cache Files for more information.

4. Skip All Graphics (Placeholder)

The translator will look neither in the local cache folder nor on the Internet for graphics referenced in the HTML document. Instead, a default graphic, or placeholder, will be inserted where the graphics would have appeared. This setting is good if you're interested in fast translations with small resulting files, while still maintaining the look of the document. The result will be the same as if you tried to open a saved HTML document into a browser.

5. Skip All Graphics

This setting ignores all graphic references in the HTML document. Selecting this option means that the translator will never attempt to search the Internet or the local cache file and will never insert the default graphic. This setting is good if you're interested only in the text and character formatting of the Web page and you don't care about graphics. It will also result in the fastest translations.

HTML URL References

Why a Preference?

The value of HTML documents while browsing the Web is really in the active hypertext links contained within them. However, there is a vast amount of information on the Internet and literally thousands of documents posted on the Web that contain pertinent information even without hypertext links. Hypertext links (usually appearing blue and underlined in a browser) have underlying URLs that don't appear when viewing the document. Instead, they are called when clicked to send

you off to that address. When converting HTML documents to word processing formats, you can choose to either omit the URLs from the resulting file, or to maintain them as endnotes in the document. Maintaining URLs can be helpful if you're giving a copy of the document to someone who also has access to the Internet. They can, in their browser application, open a location they have interest in by entering the URL listed in the endnotes.

1. Reference URLs as Endnotes
Choose Reference URLs as Endnotes if you wish to have all URLs in the document maintained in the resulting translation as endnotes. In addition to hypertext, all graphics will be endnoted in translated documents. Below are examples of how the graphics and links will look in the body of the document, and how they will be referenced as endnotes:

Graphics and links as they appear in the translated document:
1 This is a Hypertext Link2

Graphics and links as endnotes in the translated document:

---

1. http://www.dataviz.com/internet_graphics/cyberbon.gif
2. http://www.other_server.com/test_documents/skivvy.html

2. Maintain URL's when possible
Choosing this option will maintain all endnotes from translated HTML documents as hypertext links in word processors that can handle that feature. This option will better maintain the "look" of the document and therefore is the default setting.

HTML Fonts & Headings

Why a Preference?
Character attribute information like font, font size and heading style settings for the resulting translated document is not part of HTML documents; it is usually applied and displayed by a Web browser application. You can choose to have resulting translated documents contain the styles that would have been applied by two of the most popular browsers: Netscape and Mosaic. This will ensure that the word processing document will look just like it did when it was being browsed.
1. Use Netscape Default Settings

Base Font (Times 12)

[URL References](Blue, Underlined)

Heading 6 **(Times 9, Bold)**

Heading 5 **(Times 10, Bold)**

Heading 4 **(Times 12, Bold)**

Heading 3 **(Times 14, Bold)**

Heading 2 (Times 18, Bold)

Heading 1   (Times 24, Bold)

2. Use Mosaic Default Settings

Base Font (Times 12)

[URL References](Blue, Underlined)

Heading 6 **(Helvetica 12, Bold)**

Heading 5 *(Helvetica 12, Italic)*

Heading 4 **(Helvetica 12, Bold)**

Heading 3 *(Helvetica 14, Italic)*

Heading 2 **(Helvetica 14, Bold)**

Heading 1 (Helvetica 18, Bold)

Chapter 11   **Connecting a Mac to a Smaller, Older or Palmtop PC**

The standard MacLinkPlus provided for DOS, called MLPDOS, and for Windows, called MLPWIN, operate in either control mode (the PC controlling the transfer/translation process) or answer mode (the Mac controlling the process) and require a hard disk on the PC, at least 512k bytes of memory, and DOS 3.3 or newer.

Alternate, "answer-only" versions of MacLinkPlus are also provided for DOS. These answer-only versions do not require a hard disk, will run in as little as 256k, and will work with older versions of DOS. The alternate versions are as follows:

MLPMIN

MLPMIN is the standard answer-only version of MacLinkPlus for DOS. It is restricted to communicate through the COM1 or COM2 ports, uses the PC's standard serial communications routines and communicates at speeds up to 57,600 baud. To run this version, type MLPMIN. If MLPMIN was installed by the MacLinkPlus Installer, you can also type MLP at the DOS prompt.

MLPMINA

MLPMINA is an alternate answer-only version of MacLinkPlus for DOS. Like MLPMIN, it runs without a hard disk in as little as 256k under older or newer versions of DOS. On the other hand, it uses the PC's ROM BIOS for communications, communicates at speeds up to 9600 baud and is also able to utilize other communication ports such as COM3 or COM4. In many cases, this will eliminate conflict problems with add-on software or device drivers. To run this version, Type MLPMINA.

Starting MacLinkPlus

You are ready to start MacLinkPlus on the PC if the direct cable connection or modems are in place.

1. **Type MLPMIN or MLPMINA.**
   Set the DOS default unit to the drive containing MacLinkPlus. For example, type "A:" if you are running off a diskette in the A drive. If you installed to the hard drive, type "C:" and change directories to the MACLINK sub-directory. Type "MLPMIN", "MLPMINA" or "MLPnnn", press [Return], and then Press [Return] again to proceed.
2. **Check your COMM settings.**

Set your communications settings to match your situation.

```
MacLink Plus (tm) Version (x.y) for the IBM PC
- - - - - - - - - - - - - - - - - - - - - - - - - - - -
Initial Settings on the PC are:
    P - Communications Serial Port:      COM1
    C - Communications Connection Via:   CABLE
    B - Communications Speed (baud):     57600
    R - Phone Rings before Answered:     0
    A - Security Password for Access:    MACLINK


Command Selection (Use after Settings are Correct):
    S - Save Settings to Batch File
    O - Go Online to Connect with Macintosh
- - - - - - - - - - - - - - - - - - - - - - - - - - - -



Select a menu letter >
```

To change any setting on this menu, type in the menu selection letter. A prompt for that setting will appear at the bottom of the display. Then type in the appropriate response and press [Return].

Settings:

Communications Serial Port
This setting refers to the serial port you are connecting your cable or modem to.
Communications Connection Via
Set to Cable or Modem, depending on your situation.
Communications Speed (baud)
Your speed settings must match on the PC and the Mac (i.e., if the Mac is set to 2400 baud, the PC must also be set to 2400). The Communications Speed is preset to 57,600 baud to coincide with the Communications Setting of CABLE. If you change the setting to MODEM, it will drop to 1200).
Phone Rings Before Answered
This tells MacLinkPlus how many rings it should wait before it tells the modems to answer the call. If you set Communications Connection to MODEM, MacLinkPlus presets the Phone Rings... to 1. This means the modem will take the call immediately.

Security Password
When connecting via modem, MacLinkPlus transfers files between a

Mac and PC only when its Security Password is the same on both machines. If you want to limit the possibility of unauthorized access, set a unique password. Then only a MacLinkPlus with the identical password will be able to exchange files.

Security Passwords may be 1 to 8 characters. All positions are checked to be identical. This includes a comparison of upper case versus lower case, embedded spaces and special characters. All Mac and PC MacLinkPlus disks are shipped with the password initialized to MACLINK.

Save Settings to Batch File
Once you have made any necessary changes, use the SAVE option to save your settings for future use. Once you save your own settings, future runs of MacLinkPlus using the saved settings can be started by typing "ML" at the DOS prompt.

3. **Type "O" to go on-line.**
   Typing O initializes the communications port and puts the PC and the modem on stand-by for a call or contact.
4. **Follow the directions in Chapter 1 for the Mac controlling the transfer/translation process.**

Options

MLPMIN or MLPMINA may be run in a batch job stream on the PC. When the Save Settings option is chosen, all of the communication settings are saved to a DOS batch file called ML.BAT. A typical batch settings file looks like this:

    MLPMIN -AMACLINK -B9600 -P1 -R0 -S

The MLPC Batch File Options are as follows:

-A   Sets the MacLinkPlus Password

-B   Sets the communications speed (Baud rate)

-P   Selects the COM port - COM 1 or COM 2

-R   Select the number of rings before the modem will answer

-C   Selects the connection (0-Cable; 1-Modem; 2-SL-1; 3-PBX)

Monitor mode

-S   Tells MacLinkPlus to go on-line immediately without stopping at the menu screen. If the -S option is followed by a number (as in -S1) then MacLinkPlus will only allow that number of connection(s) before automatically going off-line. If there is no number, MacLinkPlus will remain on-line indefinitely.

MacLinkPlus may be used to manually control the COM port by placing it in Monitor Mode. This may be useful to send special commands to a non-standard modem or PBX, to use one in a non-standard manner, or to test your COM port or modem.

To invoke Monitor Mode, type Alt-M before going on-line. Your PC screen will be cleared and anything typed will be sent directly to the COM port. Anything received from the COM port will be displayed on the PC screen.

To leave Monitor Mode and return to the MacLinkPlus (PC) menu, just type Alt-M again.

Chapter 12

Using your Mac as a Terminal (MacLinkPlus/ PC Connect only)

Introduction

This chapter provides step-by-step instructions for connecting your Macintosh to a micro, mini or mainframe that is operating an information service, a bulletin board system, a mail service or a typical file transfer program.

Once your Macintosh is connected, it will operate on the remote system as a Teletype (TTY) terminal. As such, you will be able to do whatever the remote system allows a TTY user to do.

The step-by-step instructions provided in this chapter are intended to show you the path to follow. They cover:

❐   Checking the Software Installation and Connections

❐   Starting the MacLinkPlus application on the Macintosh

❐   Reviewing the Communications Settings

❐   Connecting and Operating as a Terminal

❐   Transferring Files

If more information is needed about a specific topic, for example, communications settings or modems, you can refer to the more detailed materials provided in both the Appendices and the Reference Chapters.

Installation

Before beginning, you should check to see that the MacLinkPlus Installer has been run on the Macintosh. The installer ensures that you have the correct hardware and software configuration, and it installs the needed MacLinkPlus software. If the installer has not been run, do so now.

Cable or modem connection

For a cable connection, attach the included MacLinkPlus cable to the Macintosh. If the opposite end does not fit the computer you are connecting to, a cable or adapter must be prepared using the serial port information provided with the remote computer and the information provided in the *Appendix D: Cable Specifications*.

Connecting via modem requires that an Apple, Hayes or Hayes

compatible modem be used on the Mac and that it be set to the Hayes factory settings.

How to Use your Mac as a Terminal

1. **Start PC Connect on the Macintosh from the "Terminal Emulation" settings document or from the MacLinkPlus application icon.**
   When you start MacLinkPlus from the "Terminal Emulation" settings document, MacLinkPlus will start and you will be ready to review its Communications Settings.

   If you start MacLinkPlus from its application icon, it will start in its Home window and you will need to tell it you want to Connect to another computer as a terminal. Do so by clicking the Terminal Emulation button.

2. **Review the Communications Settings in the Communications window and change them as needed.**
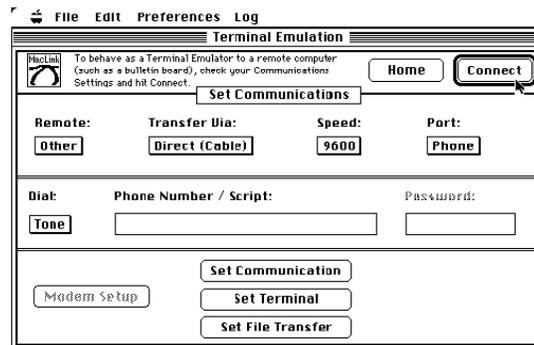
   For a cable connection, the settings, with the exception of the Speed, should be as shown above. The Speed setting should be set to match the speed of the remote computer.

   For a modem connection, change the Transfer Via setting to Phone (Modem), the Speed setting to the same speed as the modem on the remote computer, and enter the complete phone number of the remote computer.

3. **If you have full communications specifications for the remote**

computer, review the special communications settings. If not, wait and see if you have problems.

4. **Click Connect.**
    Once connected, the Macintosh keyboard and the MacLinkPlus Remote Computer window become active to the remote computer. All keyboard entries are sent to the remote computer, and all responses from the remote computer are displayed in the Remote Computer window. Also, if the Local Echo option in the Special Communication settings is being used, all keyboard entries will be displayed in the Remote Computer window as they are being sent to the remote computer.

    While you are operating on the remote computer as a terminal, MacLinkPlus is your messenger. It carries your messages to the remote without changing them, and likewise, it brings the remote's messages to you without change. If a logon or password is required by the remote, you should do the entry as required by its rules.

    In general, to use any of the capabilities of the remote computer, you must follow the remote computer's rules.

5. **You can send a file to or receive a file from a remote computer using the Send File and Receive File buttons.**
    In general, the method or communications protocol used by MacLinkPlus, and the sequence of steps you must follow, are determined by the remote computer's requirements and the kind of data being transferred. The MacLinkPlus Terminal menu allows you to select the file transfer settings. The reference chapter for the MacLinkPlus on the Macintosh provides complete details on using this menu and its Send/Receive features.

    The Save Session button saves the visible and the scrolled contents of the Remote Computer window to a Macintosh text file that is usable in any Macintosh application that accepts text.

6. **Logoff and Disconnect**
    In general, if a logoff is required by the remote computer at the end of a session, you should do so prior to using the Disconnect button. However, most computers will automatically log you off after they have determined that you've disconnected.

Chapter 13

Troubleshooting

File and Disk problems

Problem: When you insert a DOS disk in your Mac, you see this:

```
┌─────────────────────────────────────────┐
│  ___/   This is not a Macintosh disk:    │
│         Do you want to initialize it?    │
│                                          │
│ ( Eject )   [One-Sided]  [Two-Sided]     │
└─────────────────────────────────────────┘
```
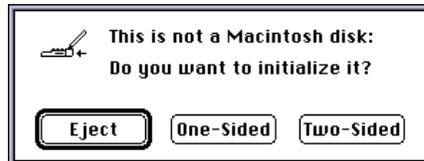
❐   Your computer may not have the proper disk drive if it is a Mac
    Plus, an SE or a Mac II without a high-density disk drive upgrade.
❐   You may not have a DOS disk mounting utility installed. Check to
    make sure one is installed in your Control Panels folder.

Problem: When you insert a DOS disk in your Mac, you see this:

```
┌──────────────────────────────────────────┐
│  ___/   Completely erase disk named       │
│         "DOS_Disk" (internal drive)?      │
│                                           │
│     Name:  [DOS_Disk          ]           │
│                                           │
│     Format: [ DOS 720K        ▼]          │
│                   ( Eject )  ( Erase )     │
└──────────────────────────────────────────┘
```
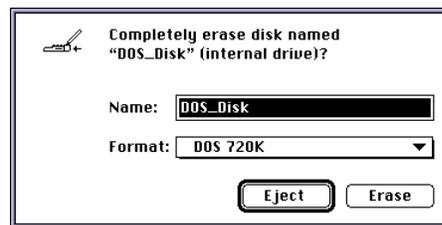
❐   The disk may have been formatted incorrectly on a DOS computer,
    where it's possible to format a standard double-density disk in a
    high-density (1440K) format, and vice versa. Disks formatted
    incorrectly cannot be read by a Mac. When formatting disks on a
    PC, format double-density disks in the 720K format and high-
    density disks in the 1440K format. Refer to your MS DOS manual
    for instructions on formatting disks.
❐   If you have sporadic problems with disks, your disk drive may need
    cleaning or alignment. Consult your Macintosh dealer.

**Problem: When you double-click on a PC file, an application
launches without translation taking place (i.e., you see "garbage"
characters).**

❐   You may have "extension mapping" or "extension assignments" set
    up in your DOS disk mounting utility. This feature "tricks"

applications into thinking that they "own" different documents. In order for Macintosh Easy Open to recognize the need for translation, there must be no extensions mapped to different applications.

Problem: A program takes several minutes to open.

❐ If you are on a network, you may have chosen to open the file with an application on a server. You may want to disable "Include Choices from Servers" in the Macintosh Easy Open Setup control panel.

Problem: When you double-click on a file, you see the following:

> ⚠️ The document "OpenMe.W51" could not be opened, because the application program that created it could not be found. Do you want to open it using "TeachText"?
>
> [Cancel] [OK]
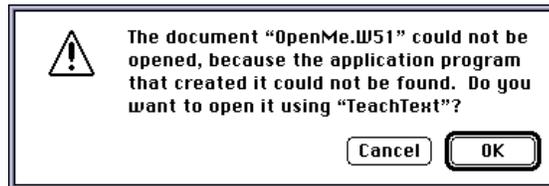
❐ Macintosh Easy Open must be in the Extensions folder in the System folder. If it isn't, re-install Easy Open Translators and check off the Macintosh Easy Open option in the installer.
❐ If you haven't restarted your Mac since adding Easy Open, do so.
❐ Make sure Easy Open is turned on in the Macintosh Easy Open Setup control panel.
❐ Rebuild your desktop (restart with Option and Command down).

Problem: When you double-click on a PC file, you get the following message:

> ✋ The document "Open Me" could not be opened, because the application "FrameMaker" could not be found.
>
> Could not find a translation extension with appropriate translators.
>
> [OK]
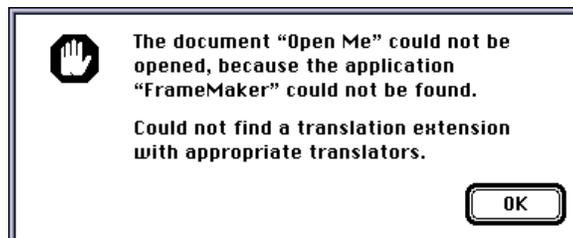
❐ There may not be a valid translation path for the file you double-

clicked on. Try saving the file as a different format.

Problem: Your translated file doesn't look like the original.

❒   Make sure that both applications support the feature that is not
     translating properly. Check the manuals for both applications.
❒   Make sure MacLinkPlus supports that feature.
❒   If you used the XTND method to translate your file, try another
     method, if possible.

Problem: You get an Error code "209" when translating a file.

Most likely, MacLinkPlus was unable to "auto-recognize" the file and
you then selected a different translator in the Set Translators window.
To prevent unpredictable results, the translator "validates" the file
before translation begins to make sure it's the right file type. If it's not,
an error 209 results.

If this error occurs, try to find out what kind of file you are translating
and whether the MacLinkPlus translator library supports that file type.
If MacLinkPlus does not support the file type, find out whether the
program that created it can "export" or "save as" any other format that
MacLinkPlus does support. If you are certain the file is of a type
MacLinkPlus supports, and the error 209 persists, call DataViz.

Other problems, such as hangs or crashes...

❒   Try to determine if the crash is occurring with all files of a certain
     type or just one file. If all files fail, including our sample document
     try re-installing MacLinkPlus. If it is just one file, there is a
     possibility that MacLinkPlus is encountering some control codes
     that the translators could not anticipate. In this case, call DataViz.

If all else fails...

   You may solve many problems by removing the "Macintosh Easy
   Open Preferences" file in the preferences folder within your system
   folder. After you've removed it, restart and rebuild your desktop by
   holding own the Option and Command keys during the restart.

   If you should re-install Macintosh Easy Open, restart your
   Macintosh after the installation and rebuild your desktop by

holding down the Option and Command keys during the restart.

Communications Problems (MacLinkPlus/PC Connect only)

Problem: You cannot establish a Cable or Modem connection.

❒   There are a number of potential problems that have the same cause, and the same solution, regardless of whether a cable or modem is being used. These problem areas should be checked before the specific problems relating to either cable or modem are researched.

❒   Are the setting correct and the same on both machines? Use the Set Communications screen on both machines to insure that the settings match the equipment setup and teat the baud rates are the same on both the Mac and the PC.

❒   Is the software on the "Answering" machine running and waiting to connect? To complete the connection, the software on the machine that is answering must be started and put on line to wait for contact from the machine that is controlling.

❒   Are you really connected to a serial port on the IBM PC? PC serial ports are usually 25 pin male connectors or 9 pin male connectors. If you are connected to something else, it is probably not a serial port.

❒   Try COM2. If there are multiple serial ports, try all combinations (different COM settings in the software with different ports).

❒   Try the alternate comm driver (MLPDOS only).

Problem: You cannot establish a cable connection.

These problem areas that relate specifically to a cable connection should be checked after the problems common to both cable and modem (described above) are researched.

❒   Is is really a MacLinkPlus cable or equivalent? The MacLinkPlus cable contains crossovers and jumpers that are absolutely necessary for communications. Check to make sure the original cable is being

used, or if it is a custom cable, that it corresponds to the specifications in the cable diagram (see Appendix).

❐ Has anything been added to the PC end of the cable? You should not require any adaptor other that the one included in PC Connect. If you have added one, such as a "gender changer", there is a strong possibility that you are not connecting to a serial port.

❐ Is the speed set too high on the PC? A few PC clones or add-on serial ports have problems connecting or sustaining communications at higher speeds. If all else fails, try lowering the speed setting on both machines and try the connection again. Start at the lowest speed and work your way up.

Problem: A 106 error occurs *during* a cable transfer.

It is probably caused by a faulty serial port or other hardware problem.

It can probably be solved temporarily by reducing the blocksize. If that doesn't work, try also reducing the speed. In both cases, go to extremes (smallest block size, slowest speed), then work back up to the maximum size that doesn't yield many retries. The speed will affect the overall transfer time more than the blocksize.

To set the block size:

The blocksize is controlled by the answering machine. The default is 4096 bytes for most situations, but PC Connect allows you to set the blocksize to a lower value if necessary.

For MLPDOS type: Control-Shift-B
For MLPWIN (Windows interface), click MLPWIN Title Bar, then
    Control-Shift-B
For MLPMIN, type: MLPMIN -Z128 (or desired size)
For the Answering Mac type: Option - Shift - B

Problem: You cannot establish a modem connection.
Follow these steps to isolate the problem.

First, Determine where the error is occurring.
What *should* happen:

1. The answering machine should successfully go on-line. If it gives

"Modem not responding" the problem is on that modem or machine. Check cables, try resetting the modem (turn off & on).

2. The calling modem dials again, if the "Modem not responding" message appears, the problem is here. Try "Manual Dial". To do this, choose "Manual" from the Dial pop-up menu in the Set Communications window. Click Connect. A small window will appear that says, "Please dial the remote system". From this window you can type in modem commands. Press return after the modem commands - do NOT click "OK". Normally, ATDT followed by the phone number will cause a modem to dial. When the modems have established a connection, a message to that effect will appear (it may say CONNECT 2400, etc.). Now click "OK". PC Connect will do the rest. If the modem does not respond, check your connections.

3. The phone rings once and the answering machine picks up. The two modems make a high-pitched sound followed by a "dirty" sound, similar to the noise on your TV when the cable goes out. This is know as a modem "handshake."

4. After the modems handshake, the software begins to communicate. On an external modem, you will see the SD (send data) and RD (receive data) lights flashing. When the software has connected properly, you will see the Select Files screen on the controlling machine and "Connected" on the answering machine.

If an error occurs at step 1 or 2, make sure that:
- all connections are correct and cables are good
- modem is Hayes compatible

If an error occurs at step 3, make sure that:
- speeds on modems are set to no higher than the maximum speed available to both modems
- Try 2400 baud (if the speed above is higher than that). Modem communications standards have not always been as clearly established at higher speeds as they are at slower speeds.

If the communication fails at step 4 (or any other step), turn off any of these items:
    flow control
    data compression
    error correction (MNP)

Why:
    Many of the modems available today have features designed to artificially speed up the transfer process through data

compression or to filter out what may be interpreted as line-noise by various "error correction" methods. Unlike many "terminal emulation" type communication programs, PC Connect communicates to its corresponding software in machine level language. It is imperative that this data be transferred between the controlling and answering machines exactly as is, without filtering, compression, or other alteration.

How:

Commands to turn off these features must be entered into the MacLinkPlus modem setup string. The commands to turn off these features vary from modem to modem, but here are a few common things you can try:

Type:
AT&FEOVOQOSO=[1/O]

&F: means "Reset to factory settings" on most modems

Try inserting strings after AT&F.

Common strings:
%C0   commonly turns off data compression
\K0 (or $K0)   commonly turns off flow control

If you only try these, you might get lucky and hit upon the right combination. If not, you will need to refer to your modem manual. Find the section called "AT Command Summary" (or something like that) and skim through the command set, looking for flow control, data compression and MNP error correction. Commands are frequently listed with a lower case "n" (such as S0=n).

Other modem issues...

Some older modems have settings switches to control how the modem will operate, what kind of commands it will accept, and how it will respond to commands. Many newer modems have similar settings features that are controlled through commands. In either case, PC Connect will be able to automatically operate the modem on the controlling computer and the answering computer if both modems are using the Hayes factory settings.

These factory settings are:

Setting number	Switch setting	Setting Meaning
1	Down	DTR Always ON
2	Up	Result Codes Sent as Words
3	Down	Result Codes Sent
4	Up	Local Commands Echoed
5	Down	Auto-Answer Disabled
6	Down	Carrier Detect Signal Always On
7	Up	Single Phone Line Connection
8	Down	Command Recognition Enabled

You can use a modem that does not accept Hayes AT commands if you select the Manual Dial option for the Dial Setting of MacLinkPlus. This will prevent PC Connect from sending Hayes AT commands to the modem and it will make a typing window available to you at connect time for entering the commands recommended in your modem manual.

Chapter 14

Cable Specifications and Connections

Cabling and adapters have been included in the MacLinkPlus package for making a cable connection between almost all configurations of Macs and PCs. This includes desktops, laptops, newer models, older models, etc. You can also connect your Mac to another Mac. This adaptor is not included in the package. If you need this Mac to Mac/ Mac to NeXT adaptor, call DataViz at (203) 268-0030. The cable or adapters should not be used to connect a modem to the computer. They are used as follows:

To connect a PC with a 25 pin serial port to a Macintosh, just use the supplied 8 foot MacLinkPlus cable without any adapters.

To connect a PC that has a 9 pin serial port, attach the included 25 to 9 pin adapter together with the MacLinkPlus cable.

Cable for connecting a Macintosh Phone or Printer Port to an IBM PC 25 Pin Serial Port

Macintosh End (8 Pin Mini DIN)		IBM PC End (DB 25 Female)	
4	(Signal Ground)	7	(Signal Ground)
3	(Transmit Data)	3	(Receive Data)
5	(Receive Data)	2	(Transmit Data)
1	(DTR)	6	(DSR) ——┐ Jumper
		8	(Carrier Detect) ──┘
		4	(RTS) ———┐ Jumper
		5	(CTS) ———┘
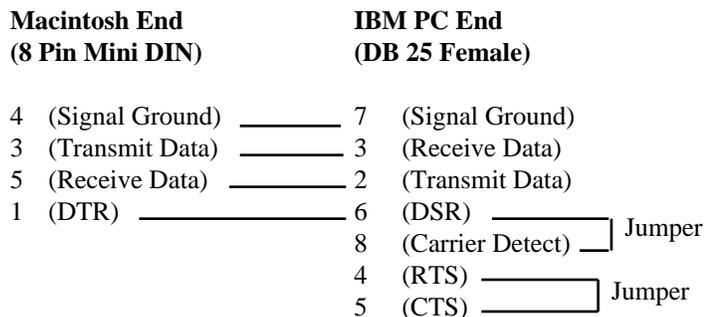
Cable for connecting a Macintosh Phone or Printer Port to an IBM PC 9 Pin Serial Port

Macintosh End **(8 Pin Mini DIN)**		**IBM PC End** **(DB 9 Female)**	
4	(Signal Ground)	5	(Signal Ground)
3	(Transmit Data)	2	(Receive Data)
5	(Receive Data)	3	(Transmit Data)
1	(DTR)	6	(DSR)
		1	(Carrier Detect)
		7	(RTS)
		8	(CTS)

4 (Signal Ground) ——— 5 (Signal Ground)
3 (Transmit Data) ——— 2 (Receive Data)
5 (Receive Data) ——— 3 (Transmit Data)
1 (DTR) ——————— 6 (DSR) ⎤ Jumper
1 (Carrier Detect) ⎦
7 (RTS) ⎤ Jumper
8 (CTS) ⎦