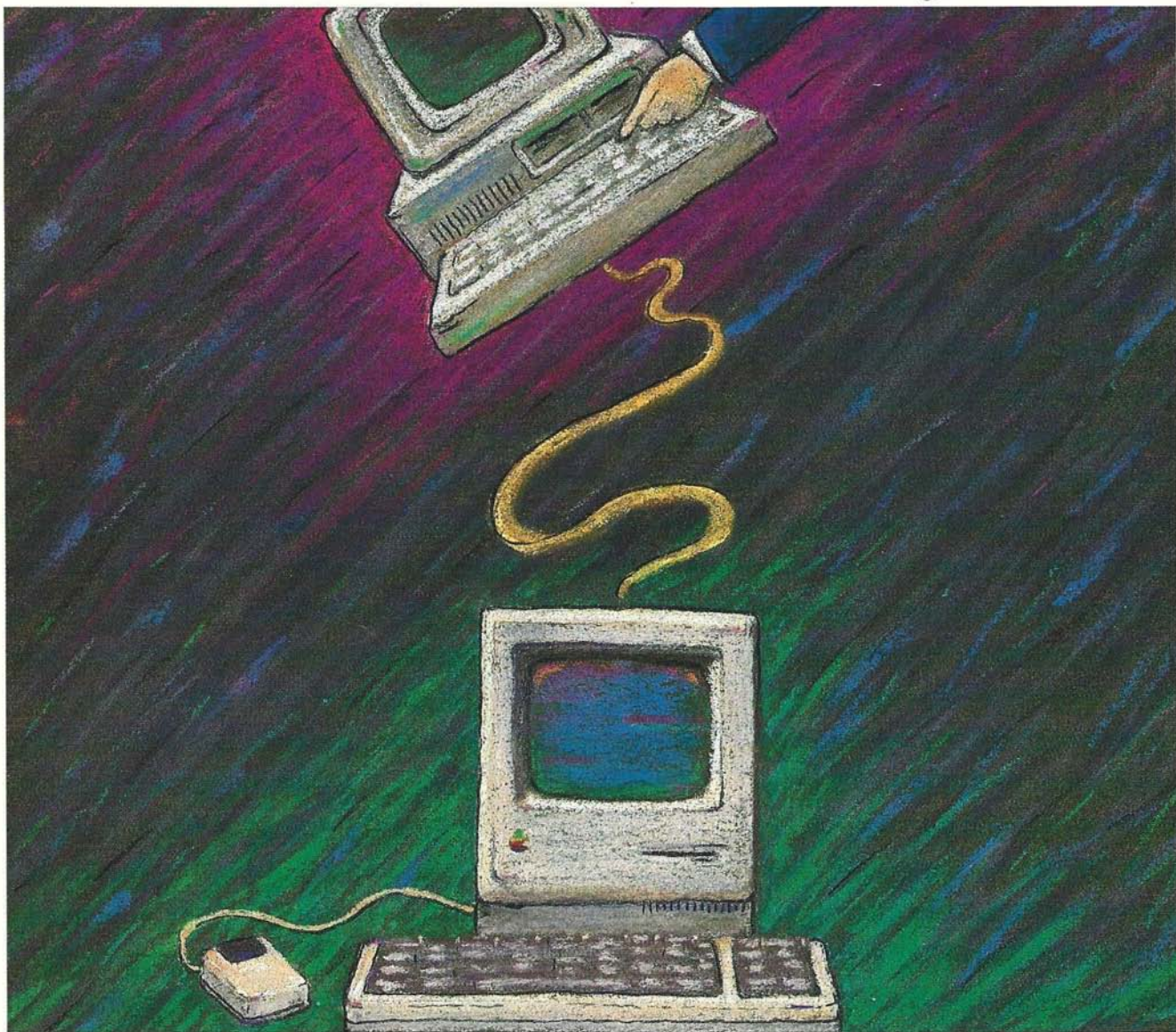


LAP-LINK™

Mac

Links Macintosh with IBM-compatible
desktop and laptop computers



WAVE

MAP-TINK

Map

Travelins

Software

LAP-LINK[™] Mac

- Special universal cable links any Mac (including the 512, Plus, SE and Mac II) with any IBM or compatible (including the PC, XT, AT or PS/2).
- Transfer speeds faster than any previous Mac serial-transfer product. (Up to 57,000 baud.)
- Lowest cost, easiest to use Mac-to-IBM "plug and go" product available.
- Unique split-window file selection on IBM-PC and compatible computers.
- Supports all new IBM PS/2 computers.
- Includes a MAC 3½" disk as well as 3½" and 5¼" disks for IBM and compatible computers."

YOUR ALL-IN-ONE SOLUTION.

Everything you need to connect a Mac and an IBM-PC is complete in this package. Your LAP-LINK Mac connects any IBM-PC or compatible laptop or desktop computer with any Apple Macintosh. Including the MAC 512, Plus, SE and Mac II. LAP-LINK's universal cable works with any version of the Macintosh. As well as IBM PC, XT, AT or PS/2. No need to run to the store for extra hardware. You also get a 3½" Mac disk and 3½" and 5¼" IBM disks.



QUICK SET-UP.

Your LAP-LINK Mac will be ready to use within seconds after opening the box. Simply connect the LAP-LINK Mac cable to your laptop or desktop PC. Then type "LL" on the PC and double-click the LAP-LINK Mac icon. That's all it takes. From that point, LAP-LINK Mac automatically connects itself. And it's ready to go.

FAST!

Just connect LAP-LINK Mac to the Mac's serial port. It's then able to transfer files back and forth to an IBM-PC or compatible. At speeds up to 57,000

baud. Faster than any previous Macintosh serial-transfer product.

SPLIT-SCREEN DESIGN.

To help you keep track of which files you're working with, LAP-LINK Mac uses the same split-screen design as the original LAP-LINK. The screen on your IBM or compatible monitor is split into two windows. The windows show you the files you're working with. This makes it easy for you to transfer IBM subdirectories to Macintosh file folders, and vice versa. Great for transferring word processing files from your laptop into your desktop publishing applications.

What's more, no matter which of LAP-LINK Mac's functions you're using, the help menu always stands ready for quick, easy reference.

ADDED SELECTIVITY.

LAP-LINK Mac lets you be more selective about the files you transfer. It lets you "tag" files. This means you can select certain files for transfer. Such as those files created on a certain date, or within a particular time frame. So you can be more precise about the information you specify for transfer.

PORTABILITY.

Since LAP-LINK Mac weighs only 10 ounces (cable and disks), you can easily carry it with you for instant connectivity at any location.



Files on both computers are easily accessible



Tree directory allows quick subdirectory access



Flexible options are just a keystroke away

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The registration card below entitles you to receive a free copy of Traveling Software's latest catalog of laptop accessories.

Simply complete the postage-paid registration card and mail it to Traveling Software at your earliest convenience. We will be pleased to promptly send you our free computer accessories catalog, full of many useful and hard-to-find accessories—both hardware and software—for your computer.

By returning this card you will also be kept informed of future product updates.

Please read the license agreement in this book before completing this card.

Note: The version, lot, and serial numbers are printed on your LAP-LINK Mac disks.

Fold on dotted line. Tape closed and drop in mail. *No postage required.*

LAP-LINK Mac Registration Card

Owner's Name

Company Name

Street

City

State/Country

ZIP

LAP-LINK Mac Version Number Lot Number Serial Number

Computer Model

Comments: _____

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- to LAP-LINK Mac?
- to information about computer accessories?

Jot down their name and address, and we'll be glad to send them a *free* Traveling Software catalog.

Name

Street

City

State/Country

Zip

.....

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ARE GOING PLACES"



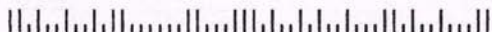
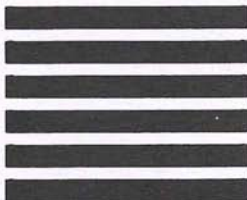
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LAP-LINKTM

Mac

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desktop and laptop computers



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LAP-LINK Mac™

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Bothell, WA 98011

(206) 483-8088

Welcome to LAP-LINK Mac

Traveling Software—the makers of LAP-LINK, LAP-LINK Plus, and DESKLINK—believes that software should be easy to use, fast, and affordable. LAP-LINK Mac is all that and more.

LAP-LINK Mac offers an easy, fast, and inexpensive way to connect any IBM-compatible computer—whether desktop or laptop—and a Macintosh.

The LAP-LINK Mac cable easily connects the two computers through their serial ports and copies files back and forth at incredible speeds—up to 57,600 baud!

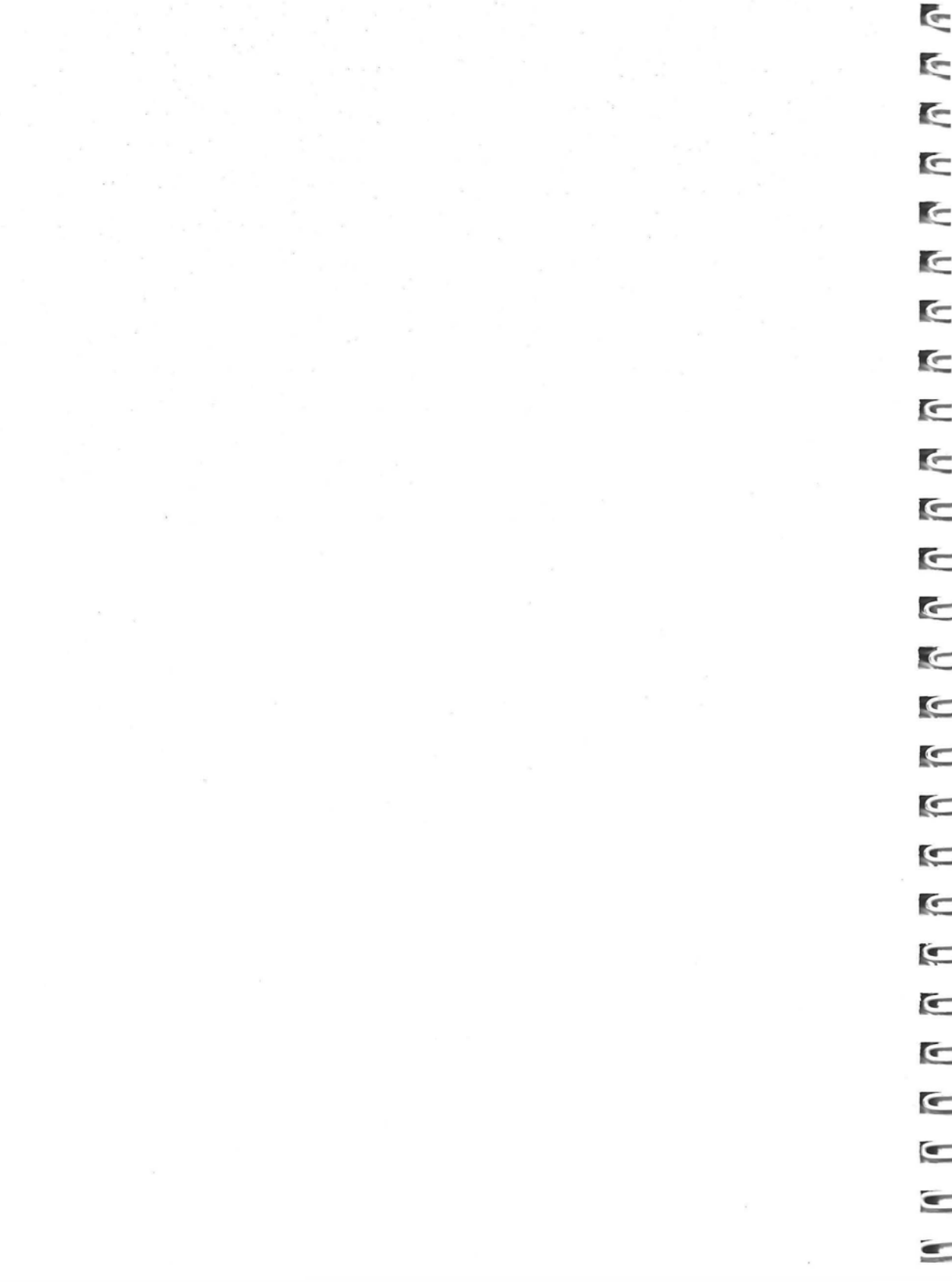
LAP-LINK Mac is fully compatible with Macintosh MultiFinder and various Macintosh and PC networks, such as TOPS, AppleTalk, NetWare, and 3Com's 3+.

LAP-LINK Mac works by splitting the PC screen into two windows. One window displays the files and directories on the PC, the other window the files and folders on the Macintosh.

Use LAP-LINK Mac by simply moving a bar cursor to select one of these files, directories, or folders. Then activate one of the commands, and you can perform most of the LAP-LINK Mac operations easily and quickly—whether you are copying files or using some other operation like erasing, tagging, or viewing the contents of files in either computer.

LAP-LINK Mac can even create a tree diagram of your PC directory structure or your Macintosh folder structure. You can then use that diagram to create and erase directories and folders.

In short, LAP-LINK Mac is a simple and easy answer to the previously difficult, if not impossible, question of how to exchange files between the PC and Macintosh.



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S E C T I O N 1

LAP-LINK™
Mac

Where to Look in

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About this Manual

LAP-LINK Mac is a data transfer product for copying files between a PC and a Macintosh. Before using it, therefore, you should be acquainted with some of the basic procedures and concepts on each computer before using LAP-LINK Mac.

On the PC, you should be familiar with these concepts and procedures:

- the root directory
- subdirectories
- the DOS prompt
- creating directories
- changing drives and directories.

On the Macintosh, you should be familiar with these concepts and procedures:

- volume
- folders
- the Finder
- the bar menu
- the Desktop
- clicking
- dragging.

If you have any questions about these items, consult your PC and Macintosh documentation.

Since almost all LAP-LINK Mac operations are performed on the PC, with the Macintosh operating as a "silent partner," this manual naturally is oriented more to the PC than to the Macintosh. Care has been taken, however, to ensure that those users who are experienced only on a Macintosh will find adequate PC explanations. Conversely, PC users who are not very familiar with Macintosh operations should easily be able to understand the Macintosh explanations.

What You Need to Run LAP-LINK Mac

The LAP-LINK Mac package contains three disks (two 3.5-inch and one 5.25-inch), a cable with four connectors, and this manual.

To use LAP-LINK Mac for exchanging information between IBM-compatible and Macintosh computers you need:

- a computer completely compatible with the IBM PC, XT, AT, or PS/2 computers. *Please note that this computer is referred to as a PC in this manual, regardless of whether it is a desktop or laptop model.*
- a Macintosh computer
- an RS-232C serial port on each computer (such ports are standard on all Macintosh computers where they are identified by a phone-receiver symbol, but they are optional on some PC computers)
- the MS-DOS or PC-DOS operating system, version 2.0 or later, for the PC
- an RS-232C null modem serial cable, included in the LAP-LINK Mac package
- the three LAP-LINK Mac disks, included in the LAP-LINK Mac package
- approximately 128 kilobytes of free memory on your PC and 70 kilobytes on your Macintosh.

If uncertain about the free memory available on your PC, use the DOS command CHKDSK. The value for bytes free listed at the end of the status report produced by this command must be at least 128 kilobytes for you to run LAP-LINK Mac on that PC.

If uncertain about the free memory available on your Macintosh, use the About Finder option in the Apple menu and check the heading Total Memory.

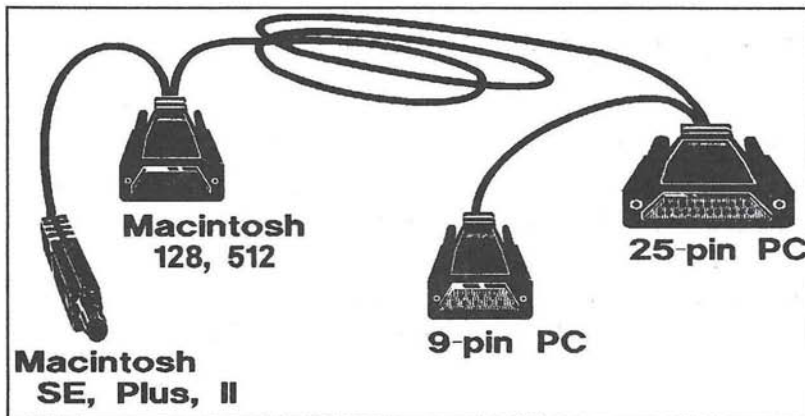
Connecting Your Computers

LAP-LINK Mac links computers only when they are connected by a cable through their RS-232C serial ports.

This connection requires a null modem cable. If you are making your own cable for LAP-LINK Mac, please consult Appendix B for the requirements.

Connecting the PC

The LAP-LINK Mac package includes this cable:



If you have the cable that came in the LAP-LINK Mac package, notice that on one of its ends you have a choice between two female connectors: a smaller DB9 connector, which plugs into serial ports with 9 pins, and a larger DB25 connector, which plugs into serial ports with 25 pins.

Select one of the connectors at that end of the cable to match the RS-232C serial port on your PC; attach the connector to the serial port.

Note: The connectors on the PC end of the LAP-LINK Mac cable are female and thus compatible with the male serial ports on most PC computers. On some PC computers, however, the serial ports are female. If your PC falls into this category, you will have to purchase a gender changer before you can attach the LAP-LINK Mac cable.

LAP-LINK Mac must know which serial port you are using on the PC. At the outset LAP-LINK Mac assumes that the cable is connected to the PC's COM1 serial port. If the cable is connected to the COM2 serial port, you will have to inform LAP-LINK Mac; see *Starting LAP-LINK Mac* (page 10), later in this section.

It is unfortunate but true that many IBM-compatible computers do not label their serial ports. Looking at the rear panel of your PC, you may not be able to distinguish a serial port from a parallel port or some other connector. If you are confused, you are advised to seek help from your computer dealer, the manufacturer of your computer, or a computer users' group. Otherwise, you will have to try one connector after another until you guess the right one.

Connecting the Macintosh

The other end of the LAP-LINK Mac cable has two male connectors: a DB9 connector and a circular 8-pin connector.

If you have a Macintosh Plus, Macintosh SE, or Macintosh II, attach the circular 8-pin connector to the Macintosh port identified by the phone-receiver symbol.

If you have any other model Macintosh, attach the DB9 connector to the port identified by the phone-receiver symbol.

Installing LAP-LINK Mac

LAP-LINK Mac must be installed on both the PC and Macintosh computers between which you want to exchange files.

You have received three disks, each containing the LAP-LINK Mac program. Note that the two 3.5-inch disks are differentiated by *IBM* and *Mac* in the upper left corner of the label. One 3.5-inch disk is for the Macintosh. The other 3.5-inch disk and the 5.25-inch disk are for the PC; which disk you use depends on the size of the PC's floppy drive. Select the disk appropriate to each of your computers. Then follow the instructions below.

PC: Hard Disk System

On a PC with a hard disk, simply copy the LAP-LINK Mac program for the PC—LLMAC.EXE—from the appropriate disk to whichever drive or directory you wish.

Example: You want to place LLMAC.EXE on your hard disk in a directory on the C drive called UTIL. Put the appropriate LAP-LINK Mac disk into drive A. At the C prompt, type:

```
COPY A:LLMAC.EXE C:\directoryname\
```

where *directoryname* can be (but does not have to be) the name of an existing directory containing your utility files or your DOS command files. Then press .

The AUTOEXEC.BAT File. Even though you place LLMAC.EXE in a certain directory, you are not limited to starting the program from that directory. To start it from any directory in that drive, however, you must create—or alter—the AUTOEXEC.BAT file and include the DOS command PATH.

Each time you start LAP-LINK Mac after that, the PATH command will direct the PC to search for the directory where you have installed LAP-LINK Mac regardless of which directory you are in at the moment.

Example: Having installed LAP-LINK Mac in the C:\UTIL directory, you now want to be able to start the program from anywhere in the C drive. Edit your AUTOEXEC.BAT file to include this line:

```
PATH C:\UTIL
```

▽
Set up your
AUTOEXEC.
BAT file to
make
LAP-LINK
available no
matter
where the
operating
program is
stored on a
disk.

For more information about either the AUTOEXEC.BAT file or the PATH command, consult your DOS user's guide.

Note: By including the appropriate PATH command in your AUTOEXEC.BAT file, you will make it easier to save for future use any changes you make in the way LAP-LINK Mac works. (These are changes you can make through the Options command, explained in Section 3.) By saving these changes, you will not have to reset them each time you use the program.

PC: Floppy Disk Drive

Before operating LAP-LINK Mac on a PC floppy disk drive, you should make a working copy of the LAP-LINK Mac disk and use that copy whenever you want to start the program. To make a working copy you need copy only the LAP-LINK Mac operating program—LLMAC.EXE—from either the 5.25-inch or the PC 3.5-inch LAP-LINK Mac disk.

Example: Place one of the LAP-LINK Mac disks in drive A. In drive B place the formatted disk you will use each time you start the program. At the B prompt type:

```
COPY A:LLMAC.EXE/V
```

and press .

To start the program, you must have this working copy of the master disk in the currently logged drive.

Note: If you install LAP-LINK Mac on a tree-structured disk (with subdirectories) anywhere other than in the root directory, you must edit your AUTOEXEC.BAT file as explained for hard disk systems, above.

Macintosh: Hard Disk System

On a Macintosh with a hard disk, open the hard-disk folder into which you want to put LAP-LINK Mac. Place the *Macintosh* (not the PC) 3.5-inch LAP-LINK Mac distribution disk in the floppy drive, and double click on the LAP-LINK Mac *disk* icon. Make sure that at least part of both folders—the hard-disk folder and the Macintosh Lap-Link folder—is visible. From the Macintosh Lap-Link folder, drag the LL-MAC *application* icon to the hard-disk folder.

Macintosh: Floppy Disk Drive

Before operating LAP-LINK Mac on a Macintosh floppy disk drive, you should make a working copy of the LAP-LINK Mac disk and use that copy whenever you want to start the program. To make a working copy you need copy only the LAP-LINK Mac operating program—LL-MAC—from the *Macintosh* (not the PC) 3.5-inch LAP-LINK Mac disk.

Examples:

- **Single Disk Drive System:** After booting the Macintosh, insert an initialized disk—or any other disk, such as a word-processing disk, that you want to install LAP-LINK Mac on. Eject that disk after its disk icon appears on the desktop and insert the LAP-LINK Mac disk. When the LAP-LINK Mac *application* icon appears, drag that icon over to the initialized disk's icon. Follow the disk-swapping instructions in the dialog boxes, paying careful attention to volume labels; the number of times that you have to swap disks depends on your Macintosh's available memory.
- **Dual Drive System:** After booting the Macintosh, put the LAP-LINK Mac disk in one drive and an initialized disk—or any other disk, such as a word-processing disk, that you want to install LAP-LINK Mac on—in the other drive. Click the LAP-LINK Mac *disk* icon and then drag the LAP-LINK Mac *application* icon over to the other disk's disk icon.

When the LL-MAC program has been copied to the initialized disk, you may want to repeat the above steps to copy the System Folder from the Macintosh Lap-Link disk to the initialized disk. Whether you copy the System Folder depends on if you will use that disk to boot your Macintosh.

To start the LAP-LINK Mac program, you must have this working copy of the master disk in the Macintosh floppy drive.

Starting LAP-LINK Mac

Once you have installed the operating program—LLMAC.EXE on the PC and LLMAC on the Macintosh—and your computers are connected by cable through their serial ports, you are ready to start LAP-LINK Mac.

PC Hard Disk: Log onto the drive in which LAP-LINK Mac is installed. And if you have not altered the AUTOEXEC.BAT file to make LAP-LINK Mac available anywhere in the drive, be sure you have logged onto the directory in which you installed the program.

PC Floppy Disk: Place the PC disk with the working copy of the program into a drive and log onto that drive. If you have installed LAP-LINK Mac anywhere other than the root directory—and have not altered AUTOEXEC.BAT as suggested—you must also log onto that directory. If you wish, replace the program disk with another disk once the program has started.

PC Start Up: At the appropriate system prompt type:

LLMAC

and press .

Macintosh Hard Disk: Open the hard-disk folder to which you copied the LAP-LINK Mac program. Double click on the LL-MAC application icon.

Macintosh Floppy Disk: Insert the Macintosh disk with the working copy of the program into the Macintosh drive. If you wish, replace the program disk with another disk once the program has started (see *Change-Volume* under the Tree command and *Changing Macintosh Floppy Disks* under the Log command, both in Section 2).

Macintosh Start Up: Place the arrow cursor over the LAP-LINK Mac application icon and double-click the mouse button.

Having Problems?

If everything has gone as it should, the PC is displaying the LAP-LINK Mac screen, divided into two windows (see page 18). The left window displays the files on the current PC drive or direc-

tory, the right window displays the files on the current Macintosh volume or folder.

The Macintosh screen should be displaying the LAP-LINK Mac Status Window (see page 18).

If something has gone awry, this message appears on the PC in the right window:.

```
Attempting link to Macintosh . . . .
Macintosh not active . . . .
Press →
```

The computers are not communicating with each other. Press the arrow key. This may be all that's required to establish communications.

If the message remains, you have one of these problems:

- you have not attached the LAP-LINK Mac cable to the correct serial port on one or both of the computers
- your PC cannot operate at the current transfer rate of 57,600 baud (all Macintosh computers are able to operate at 57,600 baud).

If you have attached the cable to the COM2 serial port on your PC, press to select Options. In the menu now on the screen press the arrow until the bar cursor is over Communications Port, located near the upper right corner of the menu. Press the arrow key to select 2 (for COM2). Press to return to the LAP-LINK Mac screen.

Make sure the cable is attached to the Macintosh port identified by a phone-receiver symbol. Then return to the PC keyboard and press the arrow to establish communications.

If the problem persists, you may not have attached the cable to either serial port on the PC. You may have attached it to the parallel port or some other connector. Attach it to a different connector on the PC and repeat the process outlined above, trying both the COM1 and COM2 settings. If this solves the problem, once you have LAP-LINK Mac running, turn to Section 3 to learn how to save for future use whichever setting—COM1 or COM2—you need to run the program.

Another possible cause of the problem may be a mouse or other type of device driver installed on your PC. That device driver may be interfering with LAP-LINK Mac. Reboot your PC from a distribution DOS disk and try LAP-LINK Mac again.

RAM-resident programs—including screen-enhancement, keyboard-enhancement, and macro programs like SuperKey—might also interfere with LAP-LINK Mac. If you have installed such a program, try rebooting your PC from a distribution DOS disk and running LAP-LINK Mac again.

Make sure the cable is *securely* connected to both computers.

If none of the above solutions work, you may discover that your serial port is not set up for data communications, as required by LAP-LINK Mac. If a serial port is set up for an external modem, it is ready for LAP-LINK Mac, but if the serial port is set up for a printer, a plotter, or some other device, you will have to reconfigure the port for LAP-LINK Mac. Refer to the documentation for the serial port or consult your computer dealer.

If the transfer rate is the problem, go to your Macintosh, pull down the File menu, and select 38,400 Baud. Then return to your PC and press on the PC keyboard to select Options. In the menu now on the screen press the arrow until the bar cursor is over Baud, located near the upper right corner of the menu. Press the arrow key to select 38400. Press to return to the LAP-LINK Mac screen.

If the problem persists, repeat the process on both computers, this time selecting the next rate, 19200. Continue until you have established communications. Then save the setting for future sessions; see Section 3 for help.

"No Serial Port Found." This message means that you have neither a COM1 nor a COM2 serial port on your PC, or that your serial port may be disabled or switched off. Check your computer's documentation. You will have to install or reactivate a serial port before you can use LAP-LINK Mac to communicate with a Macintosh.

The Latest about LAP-LINK Mac

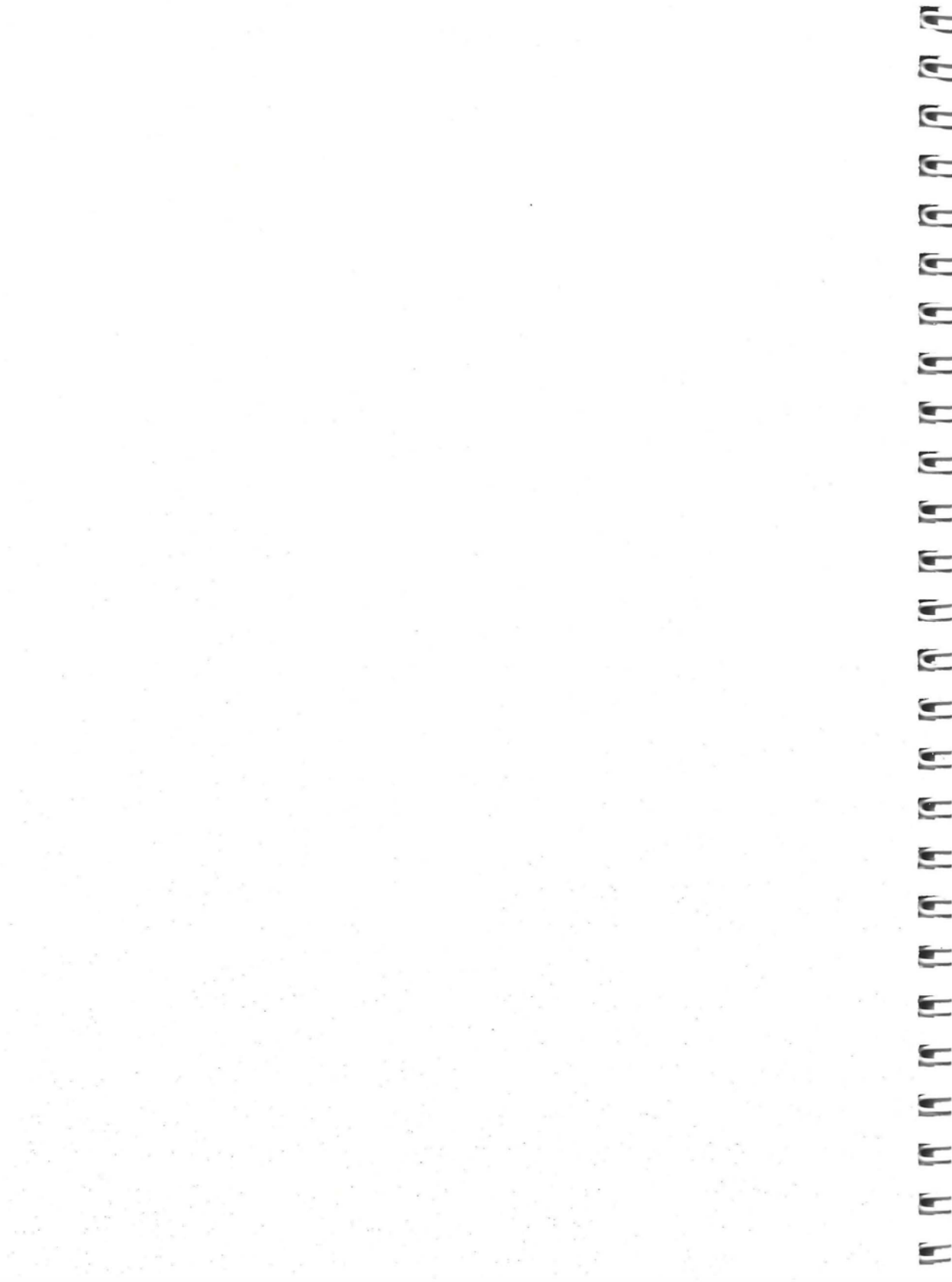
The latest information about LAP-LINK Mac is contained in a file—README.TXT—included on the LAP-LINK Mac disks for the PC. Before proceeding further, take a few minutes to read this file. You can use either your PC word-processing program to display or print the file, or you can read the file on your PC screen by using the LAP-LINK Mac View command or the TYPE command in DOS.

To see the contents of this file on your PC screen using the LAP-LINK Mac View command, follow the instructions on the preceding pages to get LAP-LINK Mac started. Then:

1. Insert the appropriate LAP-LINK Mac disk into the PC.
2. Press **[L]** to select the Log command, then designate the drive in which the disk is located: Type A: for drive A, B: for drive B, and so on. Then press **[Enter]**.
3. You should now see the README.TXT file name listed in the left window of your screen. Press the **[↓]** arrow key to move the bar cursor over README.TXT and press **[V]**.
4. The file will scroll upward on your screen. Press any key except **[Esc]** once to suspend the scrolling and again to resume. Press **[Esc]** at any point to return to the LAP-LINK Mac screen.

Even without starting LAP-LINK Mac, you can read the README.TXT file on your PC screen by means of the TYPE command in DOS:

1. Insert the LAP-LINK Mac disk into the logged drive.
2. At the system prompt type:
TYPE README.TXT and press **[Enter]**.
3. The file will scroll upward on your screen. Press **[Ctrl] - [S]** to suspend the scrolling. Press any key to resume, then press **[Ctrl] - [C]** to leave the file and return to the system prompt.



A spiral-bound notebook cover with a large, hand-drawn number '2' in the center. The number is drawn with a thick, dark grey marker. The top of the number is filled with a dense, scribbled pattern of the same marker. The notebook's spiral binding is visible on the left side.

S E C T I O N 2

LAP-LINKTM
Mac

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LAP-LINK Mac: Orientation

Please pay special attention to this page.

Working From the PC

Virtually all LAP-LINK Mac operations are done from your PC, so you use your PC screen and keyboard almost exclusively to control the program, *even when dealing with files on the Macintosh.*

In effect, the Macintosh becomes a "silent partner" to the PC in LAP-LINK Mac sessions.

Once each computer is displaying its LAP-LINK Mac screen, there are only two options you are able to select on the Macintosh: changing the Macintosh's baud rate or quitting. *Everything else is done at your PC.*

Source vs. Target Disk

When you copy files from one computer to another, the disk you are copying from is referred to as the source disk. The disk you are copying to is the target disk.

Because LAP-LINK Mac is bi-directional, the source disk and the target disk may be in either the PC or the Macintosh. If you were copying from the PC, for example, the disk in that computer would be the source disk; the disk in the Macintosh would be the target disk. But if the situation were reversed—and you were copying from the Macintosh—the disk in that computer would be the source disk, and the disk in the PC, the target disk.

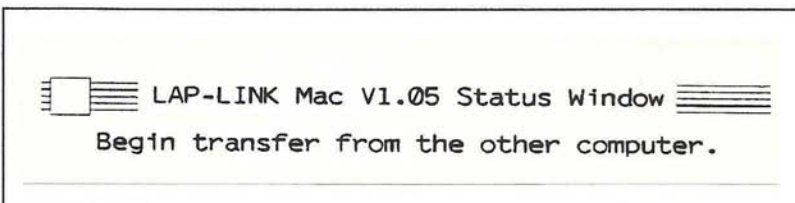
The LAP-LINK Mac Screen

Whenever you activate LAP-LINK Mac on your computers, you see this screen on the PC:

```
LAP-LINK Mac V(1.05), Copyright 1987-88      Traveling Software, Inc.      M123456
-- MS-DOS Drive (C:)23230464 Free      -- Macintosh 10713023 Free --
ACCTS      <DIR> 04-17-86 12:37a      :      <VOL> 12-13-86 2:27p
UTIL       <DIR> 04-17-86 12:38a      ::     <FOLDR> 00-00-80 1:30p
CHAPTER1.LL 2455 09-13-86 10:32a      ASM   <FOLDR> 01-14-88 8:30p
CHAPTER2.LL 10385 10-18-86 5:32p      Sample Docum <FOLDR> 12-22-86 8:02p
CHAPTER3.LL 5233 09-24-86 11:15a      System Folde <FOLDR> 01-22-87 7:32p
LEP       .BAT      33 10-22-86 9:50a      Update Folde <FOLDR> 06-27-86 12:30p
SCREEN   .LP2      2337 08-22-86 7:33p      Util 1      <FOLDR> 07-22-86 3:33p
WS       .EXE      78208 03-24-87 7:18p      Word Perfect <FOLDR> 12-20-86 5:15p
WSMSGs   .OVR      43668 02-14-87 12:00p      Main Diction 164824 01-31-87 9:35p
WSPRINT  .OVR      134784 03-11-87 12:44p      PostScript G 4196 01-31-87 9:45p
WSSPELL  .OVR      23520 02-14-87 12:00p      Word Hyphena 24072 12-25-87 10:15p
LLMAC    .EXE      56064 02-14-87 12:05p
HYPHEN   .BAT      128 03-04-87 10:12a
INTERNAL.DCT 256600 12-30-86 1:04p
MAIN     .DCT      277504 12-30-86 1:04p
HESEL    .LTR      3001 09-14-87 12:23p

- C:\LAPDOS\LAPLINK _____ Traveling Software Inc. _____
COM1: 57600
COMMANDS: Help Log Tree Copy Wildcopy Group Options View Erase Rename Quit
```

This display appears on the Macintosh:



The PC is where you will perform virtually all of the operations available through LAP-LINK Mac—whether copying files between computers, viewing files, or using the other LAP-LINK Mac operations.

The Macintosh screen does not change to reflect LAP-LINK Mac operations, and the only options available on that screen are quitting or changing the Macintosh's baud rate.

The top line of the LAP-LINK Mac screen displays the version of the program you have received and the copyright notice. The

serial number of your copy of the program appears at the far right on the top line. Please have this number ready if you call Traveling Software for technical support.

LAP-LINK Mac Windows

Most of the LAP-LINK Mac screen on the PC is occupied by two windows:

- on the left, the PC window displays the names of files in the current drive and directory of your PC
- on the right, the Macintosh window displays the names of files in the current folder of your Macintosh (however, if the operating system on your Macintosh is the older Macintosh File System, rather than the more recent Hierarchical File System, the only folder displayed on the LAP-LINK Mac screen is the : : parent folder).

Each window is identified at the top as either MS-DOS (even if your PC is operating under PC-DOS) or Macintosh. The top of each window also shows the number of bytes free on that drive or volume and, in the case of the PC window, the name of the current drive—A:, B:, or so on.

Most of each window is reserved for displaying file names. To the right of each file name you see the size of the file (in bytes) and the date and time the file was created or last modified.

At the bottom of each window is the current path, reminding you of the PC drive and directory you are currently logged onto and the Macintosh volume and folder currently accessed. The full Macintosh file name, which can include up to 64 characters, for the currently highlighted Macintosh file also appears at the bottom of the Macintosh window.

Note: Some Macintosh files, including LL-MAC itself, are not shown in the Macintosh window. The files not shown are application programs (or just programs, as they are frequently called).

Moving the Window Bar Cursor

The window bar cursor on the PC serves two purposes: It selects the window—and thus the computer—whose files you want to work with. Within each window it selects a particular entry, either a PC directory, Macintosh folder, or file.

Press the **←** or the **→** arrow key to move the bar cursor from one window to the other. Press either arrow key to move the bar cursor back to the previous window. When the bar cursor is in the left window you can work with files on the PC: erase or rename them, for example, or copy them to the Macintosh. When the bar cursor is in the right window you can work with files on the Macintosh. *In other words, you use the bar cursor's location to select the computer whose files you want to work with.*

Press the **↓** and **↑** arrow keys to move the bar cursor within a window one entry at a time. By moving the bar cursor up or down within a window you are selecting a particular file, directory, volume, or folder.

Press **End** to move the bar cursor to the last entry displayed in a window. Press **Home** to move the bar cursor to the first entry displayed.

Each window displays up to 20 entries at once. When you are viewing the contents of a disk with more than 20 entries, use the **PgDn** and **PgUp** keys to move through the entries quickly. Press **PgDn** to advance the bar cursor 19 entries at a time. As you move through the entries, the screen scrolls upward to reveal more entries. Press **PgUp** to reverse the process and move the bar cursor backward 19 entries at a time.

At any point within a long list of entries press **Ctrl** - **Home** to return to the first entry. Press **Ctrl** - **End** to move to the last.

Message Line

Watch the line just below the windows for messages and reminders about certain parameters you have set for the operation of LAP-LINK Mac, such as the currently selected PC serial port and baud rate. These are values you can change with the Options command, explained in Section 3.

Messages appear at the left end of the message line. Some messages are merely advisory and will disappear on their own after three seconds—or sooner if you press any key except **Esc**. Other messages require you to take some action; they disappear as soon as you press a key to tell LAP-LINK Mac how you want to proceed.

▽
For an alphabetical list of error messages that appear in the message line—and the actions to correct them—see Appendix A. Also see *Messages* in the index.

Command Line

Appearing across the bottom of the screen are the LAP-LINK Mac commands, explained on the following pages.

LAP-LINK Mac Commands

Just below the windows of the LAP-LINK Mac screen you see these LAP-LINK Mac commands: Help, Log, Tree, Copy, Wildcopy, Group, Options, View, Erase, Rename, and Quit.

These are the 11 *primary* LAP-LINK Mac commands.

Three of the primary commands—Tree, Group, and Options—make other commands available to you. Activate either the Tree or Group command, and you see *secondary* commands. Activate the Options command, and you see four secondary commands and an entire screen of options.

These are the primary commands and their functions:

Help: displays a help menu explaining the primary commands and other keys to be used in combination with these commands

Log: logs a new disk, volume, drive, directory, or folder

Tree: graphically displays tree-structured directories or folders and lets you log onto any level in the structure or modify that structure by creating and removing directories or folders

Copy: copies single files or entire directories and folders from one computer to the other

Wildcopy: copies multiple files by means of the DOS wild card characters

Group: accesses secondary commands that let you tag multiple files and then copy or erase that group of files

Options: accesses options that let you set the baud rate and COM port, adjust the colors of your PC monitor, and activate file-transfer options (see Section 3)

View: displays the contents of a file on the screen

Erase: erases files or empty directories and folders one at a time

Rename: renames a file

Quit: quits LAP-LINK Mac.

Explanations of the primary commands appear in this section in *alphabetical* order. See the Tree and Group commands for explanations of their secondary commands. See Section 3 for a complete description of the Options command, its secondary commands, and all the options it makes available.

Activating LAP-LINK Mac Commands

There are two ways to activate, or select, LAP-LINK Mac commands:

- press the first (highlighted) letter of each command—**H** for Help, **L** for Log, and so on
- press **Spacebar** or **Backspace** to move the command-line bar cursor over a command. Press **Enter** to activate that command.

Activate the secondary commands just as you do the primary commands.

Press **Q** to quit the Tree, Group, or Options commands.

Selecting Files, Directories, and Folders

Before activating many of the commands, you must select a particular file, PC directory, or Macintosh folder. To erase a file named DOCUMENT.TXT, for example, use the arrow keys to move the bar cursor over DOCUMENT.TXT, then activate the Erase command. To log onto the PROSPECT folder, place the bar cursor over PROSPECT <FOLDR> and activate the Log command.

Note: If the operating system on your Macintosh is the older Macintosh File System, rather than the newer Hierarchical File System, the only folder displayed on the LAP-LINK Mac screen is the parent folder (: :).

With four of the commands, Log, Tree, Group, and Wildcopy, you need select only the appropriate window—either PC or Macintosh—before activating the command. The file currently selected by the bar cursor is irrelevant—except when the cursor is over a Macintosh volume while you activate the Tree command; then a Tree will be built of that particular volume.

The Help command calls up the help menu—and the Options command calls up the options menu—regardless of which window is displaying the bar cursor.



Copy

Press **C**—or select Copy in the command line—to copy from one computer to the other the file selected by the bar cursor. The file will be copied to the currently logged directory or folder on the target disk.

Remember to move the bar cursor and select the file you want to copy *before* activating the Copy command. If you prefer to type the name of a file to be copied—rather than select it with the bar cursor—use the Wildcopy command.

Note: If the operating system on your Macintosh is the older Macintosh File System (MFS), rather than the newer Hierarchical File System (HFS), you cannot have duplicate file names on the Macintosh, even in separate folders. Also, even if your Macintosh operates under the Hierarchical File System, any 400K Macintosh disk is treated by HFS as an MFS disk.

If you try to copy a file that is larger than the number of bytes free on the target disk, this message appears:

Target Disk Full! Press any key

Specifying Where Files Will Be Copied. Unless you instruct LAP-LINK Mac to operate otherwise, Copy is a WYSIWYG (what-you-see-is-what-you-get) command: the file on the source disk you see highlighted by the bar cursor will be copied to the PC directory or Macintosh folder you see listed for the target disk. Therefore, it is essential that you log the target disk *before* activating the Copy command.

Renaming Files. When you use the bar cursor to select a file to copy and then activate the Copy command, this prompt appears:

Copy FILENAME to FILENAME

Press **Enter** if you want LAP-LINK Mac to copy the file onto the target disk with the same name the file has on the source disk.

If you want the file on the target disk to have a different name than the original file on the source disk, type that new name and press **Enter** to start the copying process. Note that the name of the file on the source disk remains unchanged.

You can also use the Rename command to rename files before or after you copy them.

▽
Also see the Group and Wildcopy commands for other ways of copying files from one computer to the other.

The Copy Process. To ensure error-free copying, LAP-LINK Mac copies files as blocks of information—the longer the file, the more blocks it is broken into for copying.

While the copy process is underway, the LAP-LINK Mac screen is replaced by a status display that shows how many blocks the current file contains and keeps you apprised of which block is being copied.

When the process is completed successfully, a message like this appears:

```
23 Files Copied 100% Error Free.  
Copy complete. Press any key to continue . . .
```

If LAP-LINK Mac experienced any problems, you will see messages indicating what the problems were. Look in Appendix A for the causes and remedies. Press any key to return to the LAP-LINK Mac screen.

Press Esc to abort the copy process at any point. This message then appears:

```
14 Files Copied 100% Error Free.  
Copy aborted. Press any key to continue . . .
```

The Copy command cannot be used to copy all the files in a PC directory or Macintosh folder at once. To do so, use the Wildcopy command.

Other Copy Options

The Options command offers several ways of tailoring the operation of the Copy command to suit your needs.

These options include:

- Carriage Return/Line Feed Conversion
- Converting files to ASCII
- Copying Newer Files Only
- Confirming before Overwriting
- Copy Date Range.

Refer to Section 3 for details about the Options command.

Other Ways of Copying Files

By Wild Cards. The Copy command does not allow the use of wild card characters. If you want to include wild card characters in your copy instructions, use the Wildcopy command instead; see pages 50-52.

Use the Wildcopy command to copy all the files in a directory, subdirectory, or folder.

By Tagging. The Group command provides various means of tagging files for copying. Whether you want to copy most of the files and exclude only certain ones or you want to copy only a few files to the exclusion of the rest, the Group command offers the most expeditious way of doing it; see pages 29-35.

Size of Copied files

After copying a file you may notice a small difference in that file's number of bytes on the source disk and the target disk. This discrepancy appears when the Perform CR/LF Conversion option is set at Yes. See that option in Section 3 for further details.



Erase

Press **E**—or select Erase in the command line—to erase the file, empty PC directory, or empty Macintosh folder selected by the bar cursor.

Before erasing a file, LAP-LINK Mac asks for confirmation:

Ok to erase FILENAME? (Y/N) N

Press **Y** to erase, any other key to leave the file intact.

Empty directories and folders can be erased by this command, but not by the secondary Erase command within Group.

The Erase command can also be used in conjunction with the Log command to replace Macintosh floppy disks. See the instructions under Log, page 37.

Read-only files cannot be erased.

Removing PC Directories and Macintosh Folders

(Remember that only the parent folder is displayed on the LAP-LINK Mac screen if your Macintosh operates under the older Macintosh File System.)

Only empty PC directories without subdirectories or empty Macintosh folders without subfolders can be removed. So, before you can remove a directory or folder, you must:

- erase all files from any subdirectories or subfolders included under that directory or folder, and then remove the subdirectories or subfolders themselves
- erase all files in that directory or folder.

The easiest way to erase all the files in a directory or folder (or subdirectory or subfolder) is to use the Log command (see pages 38-39) to log onto that directory, subdirectory, folder, or subfolder. Then activate the Group command (see page 29), wildtag (see pages 34-35) all the files, and erase them with the secondary Group erase command. Quit Group and log onto the parent directory or folder.

▽
Also see the Group and Tree commands for other ways of erasing files.

Then place the bar cursor over the name of the directory or folder you want to remove. Activate the primary Erase command. In response to this prompt:

Ok to erase subdirectory [folder] NAME? (Y/N) N

press Y to remove the directory or folder, any other key to keep it.

If you have failed to erase all the files and subdirectories within the directory or all the files and subfolders within a folder, this message will appear:

Cannot erase NAME

Note: The Tree command also lets you remove empty directories and folders.



Group

Press **G**—or select Group in the command line—to tag files you want to copy or erase as a group.

Before activating this command, remember to place the bar cursor in the appropriate window: in the left window to copy or erase PC files, in the right window to copy or erase Macintosh files. Then log onto the PC directory or Macintosh folder whose files you want to copy or erase.

Group is a time-saving alternative to the Copy, Wildcopy, and Erase commands. It often is the most efficient way of selecting those files in a large directory or folder which you want to copy or erase.

Group is used only to copy or erase files within a single directory or folder at a time. You can tag files but not directories or folders.

The Group screen with some files tagged (notice the small arrows to the left of some file names) looks similar to this:

LAP-LINK Mac V(1.05), Copyright 1987-88		Traveling Software, Inc.		M123456
— MS-DOS Drive (C:)23230464 Free		Macintosh 10713023 Free		
ACCTS	<DIR> 04-17-86 12:37a	:	<VOL> 12-13-86 2:27p	
UTIL	<DIR> 04-17-86 12:38a	::	<FOLDR> 00-00-80 1:30p	
→CHAPTER1.LL	10000 09-13-86 10:32a	ASM	<FOLDR> 01-14-88 8:30p	
→CHAPTER2.LL	10000 10-18-86 5:32p	Sample Docum	<FOLDR> 12-22-86 8:02p	
→CHAPTER3.LL	10000 09-24-86 11:15a	System Folde	<FOLDR> 01-22-87 7:32p	
.BAT	22-86 9:50a	Update Folde	<FOLDR> 06-27-86 12:30p	
.LP2	23 7:33p	Util 1	<FOLDR> 07-22-86 3:33p	
WS		Word Perfect	<FOLDR> 12-20-86 5:15p	
WS		Main Diction	164824 01-31-87 9:35p	
WSPR		PostScript G	4196 01-31-87 9:45p	
WSSSP		Word Hyphena	24072 12-25-87 10:15p	
LLMAC				
HYPHEN				
INTERNAL				
MAIN	DFT 277504 12-30-86 1:04n			

→CHAPTER1.LL
→CHAPTER2.LL
→CHAPTER3.LL

30000 Bytes in 3 Tagged files

— C:\LAPDOS\LAPLINK	Traveling Software Inc.
30000 Bytes in 3 Tagged files	0 Bytes in 0 Tagged files
COMMANDS: Help Copy Erase Tag/untag Wildtag Unwildtag Reverse All None Quit	

These are the secondary commands available through Group:

Help: displays a help menu for the Group commands

Copy: copies the files you have tagged

Erase: erases the files you have tagged

Tag/untag: alternately tags or removes the tag from the file marked by the bar cursor

Wildtag: tags files by means of the DOS wild card characters

Unwildtag: removes tags by means of the DOS wild card characters

Reverse: removes tags from tagged files and adds tags to untagged files

All: tags all files

None: removes all tags

Quit: exits the Group command.

By tagging a file you place an arrow marker beside its name. This marker is temporary and will disappear when you:

- copy or erase all the tagged files through the Group command or individually through the primary Copy or Erase command
- log onto a different drive or volume, directory or folder
- use Unwildtag or None
- quit LAP-LINK Mac.

Here's a way to remove any tags that may remain when you leave the Group command: In the LAP-LINK Mac screen place the bar cursor over any entry except a directory or folder and select the Log command.

Some examples of how Group can be helpful for copying or erasing files in large directories or folders are:

- To erase the PC files JONES.LTR, SMITH.LTR, and MILLER.LTR: Move the bar cursor to each of these file names and tag them by pressing for the Tag/untag command. Select the Erase command to erase them.
- To erase all Macintosh files *except* JONES, SMITH, and MILLER: Activate the All command to tag all files; move the bar cursor to each of these files and press for the Tag/untag command to remove their tags; use Erase to erase the files still with tags.

- To copy all PC files except those with BAK extensions: Activate the Wildtag command and type *.BAK to tag all files with BAK extensions; use Reverse to remove the tags from these files and place them on all the other files; use Copy to copy the tagged files.

Explained below in *alphabetical* order are the 10 *secondary* commands in Group.

Group: All

Press **A**—or select All in the Group command line—to tag every file in the current directory or folder.

Used with Erase, the All command provides a way of erasing at once all the files in a directory or folder. Used with Copy, it provides an alternative to the primary Copy command in order to copy an entire directory (without subdirectories) or folder (without subfolders) at once.

The All command often is used in combination with the Tag/untag or Unwildtag commands: First tag all the files; then remove tags from those you do not want copied or erased.

Group: Copy

Press **C**—or select Copy in the Group command line—to copy all the files you have tagged.

As soon as you activate Copy, LAP-LINK Mac begins copying the tagged files. You will see the progress reported on a status display much as you do when copying individual files: a block counter reports on the blocks of a file as they are copied from one computer to the other.

Press **Esc** to stop the operation at any point.

Once the copying is complete, press any key to return to the LAP-LINK Mac screen. When the copying is complete, the names of files copied to the target disk appear in the appropriate window. Note that copying does not alter a file's date.

To copy tagged files, use only this Copy command. The primary Copy command pays no attention to tags; what it copies is determined solely by the position of the bar cursor.

Order of Copy. By copying tagged files, you place them on the target disk in the order in which they appear in the LAP-LINK Mac screen, not necessarily in the order in which they are stored on the source disk. By default LAP-LINK Mac lists files alphabetically, but through the Options command you can change this order. To copy files in the exact order they appear on the source disk, set the Sort By option (in the Options Menu) to None before copying.

Group and the Copy Options. If you use the Options command to change the Copy Options settings, you can affect the selection of files for copying through the Group command. Reset these options to their factory defaults if you want to copy all of the files you have tagged without any other considerations. Otherwise, use the Copy Options to tailor the operation of the Group Copy command to suit your needs. For example, set the Confirm before Overwriting option to Yes if you want LAP-LINK Mac to ask for your confirmation before overwriting files of the same name. (See Section 3 for details about the Copy Options.)

An Aborted Copy Operation. If a copy operation is aborted prematurely—as when the target disk fills or you press —you can resume the operation where you left off.

This message alerts you to the fact that the operation has been aborted because the target disk is full:

Target disk full! Press any key

Press any key to exit the copy operation, then press or to exit the Group command and go to the main command menu. Follow the instructions on page 37 to activate the Log command, replace the full target disk, and log the new disk. Reactivate the Group command, tag the files that did not get copied, and press to finish the copy operation.

Group: Erase

Press —or select Erase in the Group command line—to erase the files you have tagged.

In response to this prompt:

Ok to erase tagged files? (Y/N) N

press to erase the files, any other key to leave the files intact.

Even if they are tagged, read-only files cannot be erased by this command. If you try to erase such files, this message will appear:

Could not erase FILENAME

Exit Group and use the primary Erase command to remove them.

To erase files by tagging, use only this Erase command. The primary Erase command pays no attention to tags; what it erases is determined solely by the position of the bar cursor.

If an erase operation is aborted for any reason, you can resume where it left off by remaining in the Group command and pressing **[E]**.

Group: Help

Press **[H]**—or select Help in the Group command line—to display a help menu explaining the use of the Group commands.

Press any key to exit the help menu and return to the Group command line.

Group: None

Press **[N]**—or select None in the Group command line—to remove all tags.

Group: Quit

Press **[Q]** (or **[Esc]**)—or select Quit in the Group command line—to quit the Group command.

Any tags still on the screen will remain there when you quit Group.

Here's a way to remove any tags that may remain when you leave the Group command: In the LAP-LINK Mac screen place the bar cursor over any entry except a directory and use the Log command.

Group: Reverse

Press **[R]**—or select Reverse in the Group command line—to remove tags from tagged files and place tags on the other files.

This command is useful for copying or erasing many files and excluding only a few. Begin by tagging the exceptions; then use Reverse to remove the tags from the exceptions and place tags beside the files you want to copy or erase.

Group: Tag/untag

Press **[T]**—or select Tag/untag in the Group command line—to tag the file marked by the bar cursor. If the file already is tagged, this command removes the tag.

Group: Unwildtag

Press **[U]**—or select Unwildtag in the Group command line—to remove tags from files according to the wild card characters you specify.

When you activate Unwildtag while the window bar cursor is in the PC window, this prompt appears:

Unwildtag: *.*

When you activate Unwildtag while the window bar cursor is in the Macintosh window, this prompt appears:

Unwildtag: *

Use the wild card characters to specify the files from which you want the tags removed and press **[Enter]** .

The default wild card is *.* (* on the Macintosh), so if you press **[Enter]** without specifying any wild cards, LAP-LINK Mac removes all tags.

For help with the wild card characters see the Wildcopy command later in this section or refer to your DOS User's Guide.

Group: Wildtag

Press **[W]**—or select Wildtag in the Group command line—to tag files according to the wild card characters you specify.

When you activate Wildtag while the window bar cursor is in the PC window, this prompt appears:

Wildtag: *.*

When you activate Wildtag while the window bar cursor is in the Macintosh window, this prompt appears:

Wildtag: *

Use the wild card characters to specify the files you want tagged and press .

The default wild card is *.* (* on the Macintosh), so if you press without specifying any wild cards, LAP-LINK Mac tags all files.

For help with the wild card characters see the Wildcopy command later in this section or refer to your DOS User's Guide.



Help

Press **H**—or select **Help** in the command line—to replace the LAP-LINK Mac screen with a help menu.

Press **Esc** to leave the help menu at any point. Press any other key to move to the next page and, ultimately, to leave the menu.

Note: LAP-LINK Mac offers three other help menus—one each for the **Tree**, **Group**, and **Options** commands. The help menus for those commands are available only after those commands have been activated.



Log

Press **L**—or select Log in the command line—whenever you want to change floppy disks, move from one drive or volume to another, or change directories or folders in the current drive.

Before activating this command, remember to place the bar cursor anywhere in the left window for operations on the PC or in the right window for operations on the Macintosh.

Note: For an alternative method of changing directories and folders, drives and volumes see the Tree command.

Changing PC Floppy Disks

Remove the disk from the current drive and insert another. Press **L** **Enter**. The file names on the new disk soon appear on the screen.

Note: Assume you are logged onto a subdirectory of a tree-structured floppy disk that contains directories, subdirectories, and files. After changing floppy disks, you must designate the root directory with the Log command: press **L**, type \ and press **Enter**.

Changing Macintosh Floppy Disks

Place the window bar cursor over the name of the volume currently in the Macintosh floppy drive and activate the Erase command, which will eject that disk. Insert a new disk. If the disk is uninitialized, a prompt on the Macintosh screen asks if you want to initialize it; follow the instructions in the Initializing Disk dialog box. Return to your PC and use the Log command to log to the new disk.

Changing Macintosh Volumes

If you have not already logged onto a volume, place the bar cursor over the name of the volume you want to log to, and activate the Log command. When the prompt:

Log to: VOLUMENAME

appears, press .

If you are already logged onto a volume and want to log to another volume, place the bar cursor in the Macintosh window over : (which indicates the volume level), and activate the Log command. When the prompt:

Log to: :

appears, press .

Also, see *Change-Volume* (page 45) under the Tree command in this Section.

Changing the Current PC Drive

While the bar cursor is in the PC window, press to activate Log. This message appears:

Log to:

Then:

- if your PC disk has no directories, type A: for drive A, B: for drive B, and so on. Press .
- if the disk has directories and you want to log to a specific directory, type the full path name in the standard DOS format, and press .

Changing Directories and Folders with the Log Command

When you are logged onto the PC root directory, the directory path at the bottom of that window shows: A:\, B:\, or so on.

When you are logged onto a Macintosh folder, the bottom of that window shows:

VOLUME : FOLDERNAME

Directories are indicated thus: PAYROLL <DIR>, ADMIN <DIR>, and so forth. Folders are indicated thus: SYSTEM FOLDE <FOLDR>, ADMINISTRATION <FOLDR>, and so forth.

When moving from one directory or folder to another on the current drive, you have this choice:

- move the bar cursor to a directory or folder listed on the screen and press .
- when the bar cursor is on a file (not a directory or folder), press , type your own PC directory path (example: \DIRECTORY NAME) or Macintosh folder path (example: NAME folder), and press .

If the bar cursor is selecting a directory or folder, that directory or folder appears.

Once you have selected a subdirectory (one included under a "parent" directory), the first items in the PC window are:

- . <DIR> indicating the root directory
- .. <DIR> indicating the parent directory

Once you have selected a Macintosh folder, the first items in the Macintosh window are:

- : <VOL> indicating the volume
- :: <FOLDR> indicating the parent folder

To select the parent directory or folder (and move up one level in the tree structure) place the bar cursor over

- .. <DIR> or :: <FOLDR>

and press .

To select the PC root directory no matter how deep into the tree structure you are, place the bar cursor over

- . <DIR>

and press .

To select the Macintosh volume level no matter how deep into the tree structure you are, place the bar cursor over


- : <VOL>

and press .





Note: There are times when the PC root directory and the parent directory are the same, and it makes no difference which one you log onto. This occurs when a disk has just two levels of directories: the root directory (created when you format a disk) and one or more subdirectories you have created directly under the root.



Options

Press —or select Options in the command line—to alter the operation of LAP-LINK Mac in a variety of ways.

It does not matter where the bar cursor is when you activate this command.

As soon as you activate Options, a new screen appears—the Options menu. Use the  or  arrow key to select an option and the  or  arrow key to change the setting for that option.

For a description of the options turn to Section 3 or activate the Help command within Options.



Quit

Press **Q** (or **Esc**)—or select Quit in the command line—to quit LAP-LINK Mac and return to the operating system of your PC. The Quit command is also used to quit the secondary command lines of the Tree, Group, and Options commands.

Whenever you activate Quit at the primary command line, LAP-LINK Mac will ask for confirmation:

Ok to quit? (Y/N) N

Press **Y** to quit, any other key to remain in LAP-LINK Mac. If you quit, LAP-LINK Mac returns you to the PC drive and directory from which you started the program.

Note: Quitting LAP-LINK Mac on the PC does *not* quit it on the Macintosh. You must move to the Macintosh computer and either:

- activate the close box in the Macintosh's LAP-LINK Mac Status Window
- or pull down the File menu and select Quit in order to quit the program on the Macintosh.



Rename

Press **R**—or select Rename in the command line—to rename the file selected by the bar cursor.

LAP-LINK Mac will ask for the new name like this:

Rename FILENAME to

Type the new name and press **Enter**. Any time before pressing **Enter** press **Esc** to abort the Rename process without renaming the file.

Note: Do not include the drive or volume specification when typing the new name. You cannot move a file to a different drive or volume while renaming it.

You cannot rename a directory or subdirectory, folder or subfolder. If you activate the Rename command while the bar cursor marks a directory or folder, this message will appear:

Cannot rename a subdirectory [folder] . . .



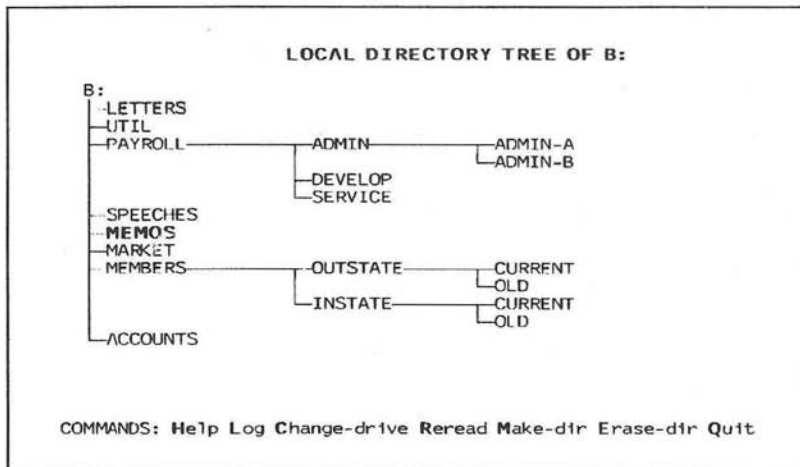
Tree

Press **T**—or select **Tree** in the command line—to call up a diagram of tree-structured directories or folders on the current drive or volume. (There will be a momentary pause before the tree appears on the screen.) You can then:

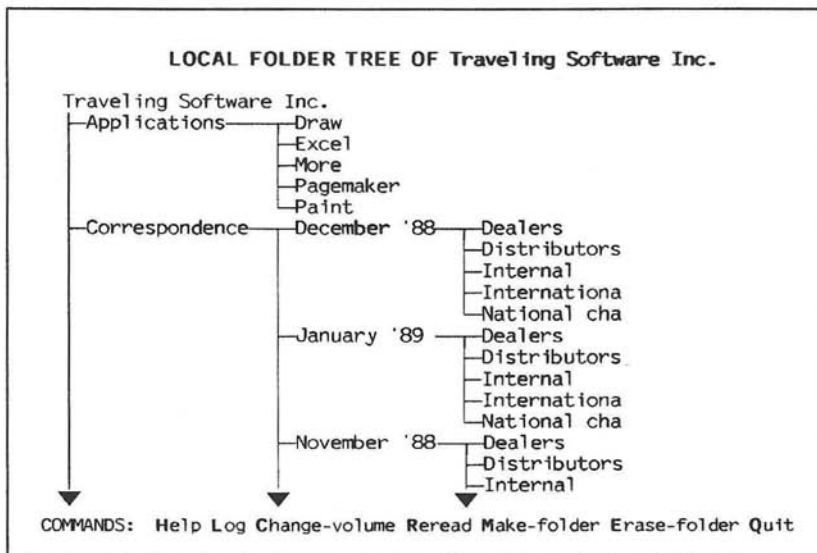
- log onto any of the directories and subdirectories, folders and subfolders displayed
- change drives and display a diagram of the directories, and subdirectories for that drive, or change volumes and display a diagram of the folders and subfolders for that volume
- remove an empty directory or folder
- create a new directory or folder
- reread a drive to update the tree so it registers changes you have made in the directory or folder structure.

The **Tree** command is useful only with disks on which files are organized at two or more levels—or with disks on which you want to create such an organization. If you activate the **Tree** command with a disk on which all files are stored at a single level (the root directory), you see only this: **A:**, **B:**, or so on, depending on the drive.

If you activate the **Tree** command for a tree-structured *PC* disk, you see a screen like the one below. (The active, or default, directory is highlighted.)



If you activate the Tree command for a tree-structured *Macintosh* disk, you see a screen like the one below. (The active, or default, folder is highlighted.)



At the outset the cursor selects the root directory or volume. To move the cursor deeper into the tree press the and arrow keys. To move higher press the and arrow keys. Press to return to the root directory or volume. Press to move to the last directory or folder on the disk.

A pointer appears any time a tree extends below the bottom of the screen or beyond the right edge. Press the or arrow key to shift the tree and make more subdirectories visible.

Summarized below are the *secondary* Tree commands explained in *alphabetical* order on the following pages:

Help: displays a help menu explaining these secondary commands

Log: logs onto the directory or folder marked by the cursor

Change-drive / Change-volume: logs onto the drive or volume you specify and displays the tree, if any, for that drive or volume

Reread: rereads the disk and updates the tree

Make-dir / Make-folder: creates a subdirectory or subfolder one level below that marked by the cursor

Erase-dir / Erase-folder: removes the directory or folder marked by the cursor—but only if that directory or folder is empty

Quit: exits the Tree command.

Note: Change-drive, Make-dir, and Erase-dir are included in the Tree command line when you activate the Tree command while the bar cursor is in the PC window. Change-volume, Make-folder, and Erase-folder are included in the Tree command line when you activate the Tree command while the bar cursor is in the Macintosh window.

Tree: Change-Drive [PC only]

Press C—or activate Change-drive in the Tree command line—to select a different drive and show the tree for that drive.

When you activate this command, you see this prompt:

Change to drive:

Type the letter of the drive—A:, B:, and so on—and press

Enter .

Note: The Tree command only *shows* you the directories on the new drive. Once you have used the Change-Drive command to see a drive, activate the Log command to actually change drives if you want to work with the files on the new drive after quitting the Tree.

Tree: Change-Volume [Macintosh only]

Press C—or select Change-volume in the Tree command line—to select a different volume and show the tree for that volume.

When you activate this command, you see this prompt:

Change to volume:

Type the name of the volume and press Enter .

Note: The Tree command only *shows* you the folders on the new volume. Once you have used the Change-Volume command to see a volume, activate the Log command to actually change volumes if you want to work with the files on the new volume after quitting the Tree.

Tree: Erase-Dir [PC only]

Press **[E]**—or select Erase-dir in the Tree command line—to erase the directory marked by the cursor.

You cannot erase the currently logged directory. (The currently logged directory is highlighted.) If you attempt to erase the currently logged directory, this message appears:

Cannot erase default subdirectory

Log onto another directory and try again.

A directory also cannot be erased if it contains any files or subdirectories. If you try to erase a directory that is not empty, this message appears:

Cannot erase subdirectory NAME

To erase a directory containing several levels of subdirectories, log to the lowest subdirectory in that directory. Return to the main menu and follow the instructions under Erase on pages 27-28 to erase all the files in each subdirectory; then erase the subdirectory itself. Continue moving upward in the structure until you have removed all the subdirectories. Then remove the files in the directory. Finally, remove the directory itself.

Tree: Erase-Folder [Macintosh only]

Press **[E]**—or select Erase-folder in the Tree command line—to erase the folder marked by the cursor.

You cannot erase the currently logged folder. (The currently logged folder is highlighted.) If you attempt to erase the currently logged folder, this message appears:

Cannot erase default folder

Log onto another folder and try again.

A folder also cannot be erased if it contains any files or subfolders. If you try to erase a folder that is not empty, this message appears:

Cannot erase folder NAME

To erase a folder containing several levels of subfolders, log to the lowest subfolder in that folder. Return to the main menu and follow the instructions under Erase on pages 27-28 to erase all the files in each subfolder; then erase the subfolder itself. Continue

the process until you have removed all the subfolders. Then remove the files in the folder. Finally, remove the folder itself.

Tree: Help

Press **[H]**—or select Help in the Tree command line—to call up a help menu explaining the use of the Tree command.

Tree: Log

Press **[L]**—or select Log in the Tree command line—to log onto the directory or folder marked by the cursor. After pressing **[L]**, press **[Q]** to quit the Tree command. When the LAP-LINK Mac screen reappears, only those files in the directory or folder you logged onto are displayed in that window.

Do not confuse this secondary Log command with the primary Log command discussed on pages 37-39.

Note: Directories and folders appear in the tree in the exact order they appear on the disk—regardless of how you may have set the Sort By option in Group.

Tree: Make-Dir [PC only]

Press **[M]**—or select Make-dir in the Tree command line—to create a subdirectory immediately below the directory marked by the cursor.

In response to this prompt:

Make new directory:

type a name and press **[Enter]** to create the directory. Name directories according to the same DOS rules you follow when naming files.

The position of the cursor at the time you activate the Make-dir command determines where the new directory will be placed. If, for example, the cursor is at the PC root directory—A:, B:, or C:—you will create a subdirectory immediately below the root directory. Then if you move the cursor to this new subdirectory and create another subdirectory, the newest one will be placed one level lower.

Tree: Make-Folder [Macintosh only]

Press **M**—or select Make-folder in the Tree command line—to create a subfolder immediately below the folder marked by the cursor.

In response to this prompt:

Make new folder:

type a name and press **Enter** to create the folder.

The position of the cursor at the time you activate the Make-folder command determines where the new folder will be placed. If, for example, the cursor is at the Macintosh home folder, you will create a subfolder immediately below the home folder. Then if you move the cursor to this new subfolder and create another subfolder, the newest one will be placed one level lower.

Tree: Quit

Press **Q** (or **Esc**)—or select QUIT in the Tree command line—to leave the Tree command and return to the LAP-LINK Mac screen.

Tree: Reread

Press **R**—or select Reread in the Tree command line—to reread a disk or volume and update its tree of directories or folders.

Before rereading a disk, LAP-LINK Mac will pause for your approval:

Ok to reread current drive [volume]? (Y/N) N

Press **Y** if you want the disk reread, any other key if you do not.

The Tree command provides a current tree the first time in a session you activate the command. And it continues to update the tree each time you change drives or make or erase directories or folders as long as you are working within the Tree command.

You need to use the Reread command only if you leave the Tree command and alter the directory or folder structure. To see a current tree you should activate the Reread command, for example, after using the Erase command to erase a subdirectory or folder.



View

Press **V**—or select View in the command line—to view the contents of the document file selected by the bar cursor.

Use the bar cursor to select a file before activating this command. When you press **V**, the contents of the selected file scroll upward on the screen.

The message line displays:

Press Any Key to Start/Stop Scrolling, <Esc> to exit.

To pause the scrolling—and to resume it—press any key except **Esc**.

Press **Esc** to quit at any point and return to the LAP-LINK Mac screen.

When a file is viewed to its end, the computer beeps and this message appears:

Done, Press any key.

Pressing any key takes you back to the LAP-LINK Mac screen.

Note: When viewing files that contain non-text characters, you see only parts of the file on the screen because LAP-LINK Mac displays only text characters.



Wildcopy

Press **W**—or select Wildcopy in the command line—to perform any of these copy operations:

- use either of the two wild card characters (* and ?) to specify files for copying
- copy entire disks.

Before activating this command, log onto the directory or folder from which you want to copy files. If you want to copy files from the root directory of a PC disk, for example, log onto the disk and remain in the root directory. Once you have logged onto the appropriate directory or folder it does not matter where the bar cursor rests when you activate Wildcopy.

Note: Wildcopy copies files to the directory or folder currently logged as the target disk. Therefore, it is essential that you log onto the appropriate directory, volume, or folder on the target disk *before* activating the Copy command.

Specifying Files with Wild Cards. The two wild card characters are a form of shorthand which speed the copying process. These are their functions:

- ? indicates that any character can occupy that position
- * indicates that any character can occupy that position or the remaining positions in the file name or in the extension

Examples: You want to copy all the PC files in the PROJECT1 subdirectory with a BAK extension. Press **L** (to activate the Log command), type PROJECT1, and press **Enter**. Then press **W**. At the Wildcopy prompt enter this:

```
*.BAK
```

Assume now that you want to copy these Macintosh files: CHAP1A, CHAP2A, CHAP3A, and CHAP4A. Enter this:

```
CHAP?A
```

To copy all files in a PC directory, regardless of their extension, whose names begin with TR, enter this:

```
TR*.*
```

Similarly, if you want to copy all the files in a Macintosh folder whose names begin with TR, enter this:

▽
Also see the Copy and Group commands for other ways of copying files from one computer to the other.

TR*

Because the two LAP-LINK Mac wild card characters are based on DOS wild card characters, consult your DOS User's Guide for further help with the characters.

Specifying Which Files Are to Be Copied. When you activate the Wildcopy command while the bar cursor is in the PC window, this prompt appears:

Wildcopy: *.*

When you activate the Wildcopy command while the bar cursor is in the Macintosh window, this prompt appears:

Wildcopy: *

LAP-LINK Mac is suggesting *.* (or * for the Macintosh) as the file specification. If you press to accept this specification, you will copy all files within the currently logged directory or folder. If you type a different specification and press , LAP-LINK Mac will act on that specification instead. (The *.* or * default disappears as soon as you begin typing.)

As soon as you have entered a specification, LAP-LINK Mac begins copying all files within that directory or folder which match your specification. You will see the progress in number of blocks reported on the screen much as you do when using the Copy command to copy individual files or directories. Press to stop copying at any point. Once copying is complete, press any key to return to the LAP-LINK Mac screen.

Note: When you copy a file using the Copy command, you must select the file by moving the bar cursor over its name. If you prefer to type the file name—without moving the bar cursor—you can do so using the Wildcopy command. At the Wildcopy prompt type the file name without using either wild card character.

Other Copy Options. The Options command offers several ways of specifying the kinds of files to be copied. One option lets you convert files into ASCII for copying. There is an option that lets you exclude files created or modified outside of a certain date range. Another option requires LAP-LINK Mac to pause before copying a file and ask for your confirmation. Be sure to set these options as you want them *before* starting the Wildcopy process. (See Section 3 for more information.)

Copying Entire Disks

If a disk consists of files all at the same level (either the PC root directory with no subdirectories or the home folder with no subfolders), follow this procedure to copy the entire disk: Log the disk to be copied. With the bar cursor in the window displaying the contents of that disk, press **W** **Enter** to select Wildcopy and begin the copy process.

Wildcopy copies only those files in the currently logged directory or folder. To copy files in another directory or folder, you must first log onto that directory or folder and then press **W** **Enter** to copy all those files.

Reminder: The order of the files shown in the LAP-LINK Mac screen is not necessarily the order in which they appear on the disk. By default, LAP-LINK Mac lists files alphabetically. The Options command lets you change this order. To see the order in which they will be copied by the Wildcopy command, set the Sort By option (in Options) to None. If you want to copy files in some order other than that on the source disk, use the Sort By option to select the order you want; then use the Copy command in Group to copy the disk one subdirectory at a time.

If the disk has more than one directory (or subdirectories) or folder (or subfolders), you have to copy each directory or folder unit individually.

Summary of LAP-LINK Mac Keys

Summarized below are the various keys to be used while you are working in the LAP-LINK Mac screen. Note that the arrow keys serve different purposes in the tree display and the Options menu.

- arrow key—
moves the bar cursor from one window to the other.
- ←** arrow key—
moves the bar cursor from one window to the other.
- ↑** arrow key—
moves the bar cursor up one file, directory, or folder at a time.
- ↓** arrow key—
moves the bar cursor down one file, directory, or folder at a time.
- PgDn**—
in a long list of files and directories or files and folders, moves the bar cursor downward 19 entries at a time, scrolling the entries upward, when necessary, to reveal more entries.
- PgUp**—
in a long list of files and directories or files and folders, moves the bar cursor upward 19 entries at a time, scrolling the entries downward, when necessary, to reveal more entries.
- End**—
moves the bar cursor to the last file, directory, or folder displayed in the window.
- Home**—
moves the bar cursor to the first file, directory, or folder displayed in the window.
- Ctrl** - **Home**—
moves the bar cursor from anywhere within a long list of files and directories or files and folders to the very first entry.
- Ctrl** - **End**—
moves the bar cursor from anywhere within a long list of files and directories or files and folders to the very last entry.

Esc—

if no command has been activated, quits LAP-LINK Mac after confirmation;

if a command like Log, Wildcopy, or Rename has been activated and is waiting for you to enter information, quits that command without executing it;

if a command like Copy or Wildcopy has been activated and an operation is under way, stops the operation immediately.

Spacebar—

moves the command line bar cursor forward one command at a time (press **Enter** to activate the command thus selected).

Backspace—

moves the command line bar cursor backward one command at a time (press **Enter** to activate the command thus selected).

Enter—

activates the command selected by the bar cursor in the command line;

with commands like Log and Wildcopy, sets LAP-LINK Mac to work on the default or any specification you have typed in place of the default.



S E C T I O N 3

LAP-LINK[™]
Mac

Where to Look in

Section 3

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Customizing LAP-LINK Mac

LAP-LINK Mac comes set up to work the way most users prefer, but you can easily customize it to suit your needs.

The Options command makes customizing LAP-LINK Mac easy. You can change many items including the colors or monochrome attributes used in LAP-LINK Mac on the PC screen, the order in which files are displayed on the screen, and the manner in which files are selected for copying.

You can customize LAP-LINK Mac permanently—that is, save any changes for future use—or you can use the changes in the current session only. You can even return everything to the way it was when you received this release of LAP-LINK Mac.

How the Options Command Works

When you press —or select Options in the command line—you see the Options menu:

OPTIONS MENU	
LAP-LINK Mac	
Copy Options	Communications Parameters
Creator: none MacWrite MS-Word Word Perf Excel PageMaker	Baud: 57600 38400 19200 9600
Perform CR/LF conversion: No Yes	Communications Port: 1 2
Convert files to ASCII: No Yes	
Copy Newer Files Only: No Yes	Monochrome and Color Display
Confirm before Overwriting: No Yes	LoLight Color: 7 6 5 4 3 2 1 0 (displays) █ █ █ █ █ █ █ █
Copy Date Range: = > < >= <= <>	HiLight Color: 7 6 5 4 3 2 1 0 (displays) █ █ █ █ █ █ █ █
Copy Date: mm/dd/yy	BackGnd Color: 0 1 2 3 4 5 6 7 (displays) █ █ █ █ █ █ █ █
Directory Options	
Sort By: Name .Ext Size Date None	

OPTIONS: Help Save Restore Quit

Occupying most of this menu are the 13 options by which you can customize LAP-LINK Mac. They appear in four groups:

Copy Options: Includes seven options that alter either how files are copied or how files are selected for copying.

Directory Options: Changes the order in which files are displayed in the LAP-LINK Mac screen.

Communications Parameters: Includes two options—one that alters the transfer rate, and another that tells LAP-LINK Mac whether you are using the COM1 or COM2 serial port on your PC.

Monochrome and Color Display: Changes the colors or monochrome attributes displayed on the PC by LAP-LINK Mac.

Changing the Settings

To select any of these options move the bar cursor by pressing the or arrow key. When the bar cursor is over the desired option, press the or arrow key to move the small option cursor over the desired setting.

The changes you make in any of the settings will take effect when you leave the Options menu.

Example: To instruct LAP-LINK Mac to display files in the order of their size, press the arrow key until the bar cursor is over Sort By. Press the arrow key until the small option cursor is over Size. When you return to the LAP-LINK Mac screen, your files will now appear by size, from the smallest to the largest.

Reminders in the Message Line

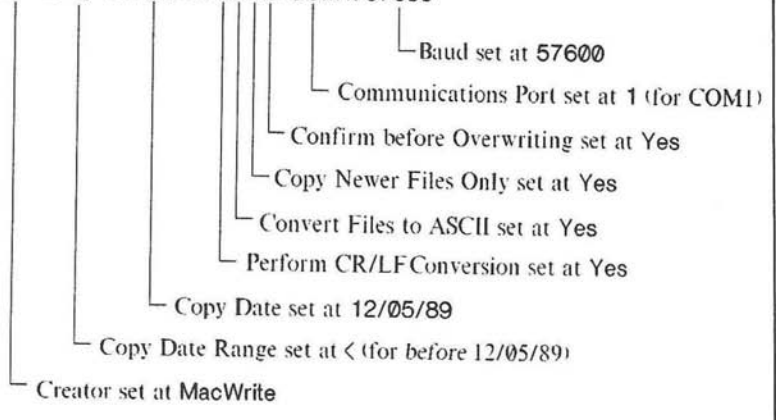
Once you have altered the Copy Options in the Options menu, LAP-LINK Mac shows a brief reminder in the message line of the LAP-LINK Mac screen, making it unnecessary for you to call up the Options menu every time you want to check on the status of these five items.

In addition, the message line always shows these two reminders: the current settings for the PC port—either COM1: or COM2:—and the transfer rate—57600, 38400, 19200, or 9600.

This example shows how the message line in the LAP-LINK Mac screen would look if some of the Copy Options have been altered:

▽
Use the Save command to save for the future any changes you make in the Options menu.

MacWrite < 12/05/89 CANO COM1: 57600



Options Menu Commands

Appearing in the command line of the Options menu are four commands: Help, Save, Restore, and Quit.

With these commands you can:

- see a help menu that explains the options in the menu
- save any changes you make in the settings for future sessions
- restore all the settings to the original (factory) defaults
- quit the Options command and return to the LAP-LINK Mac screen.

These commands are explained below in *alphabetical* order.

Options: Help

Press **[H]**—or select Help in the Options command line—to see a help menu explaining the options and commands of the Options menu.

Press **[Esc]** to leave the help menu at any point. Press any other key to move to the next page and, ultimately, to leave the menu.

Options: Quit

Press **[Q]** (or **[Esc]**)—or select Quit in the Options command line—to leave the Options menu and return to the LAP-LINK Mac screen.

Any changes you have made in the settings will be in effect when the LAP-LINK Mac screen reappears.

Options: Restore

Press **[R]**—or select Restore in the Options command line—to restore all the settings in the Options menu as they were when you received LAP-LINK Mac.

In response to this prompt:

Ok to restore default settings? (Y/N)N

press Y to restore the original settings, any other key to leave the settings as they are.

For each option the original setting appears first among the possible settings: No for most of the Copy Options, 57600 for Baud, and so on.

The Restore command by itself affects the settings for the current session only. To preserve these default settings for future sessions, save them by use of the Save command.

Options: Save

Press S —or select Save in the Options command line—to save for future sessions any changes you have made in the settings. If you do not save changes, they will be in effect only until you leave LAP-LINK Mac at the end of the current session.

When you press S , this prompt appears:

Ok to save settings? (Y/N)N

Press Y to save the settings, any other key to not save them.

LAP-LINK Mac stores the Options menu settings in the operating program, LLMAC.EXE, but it can do so only when it can find LLMAC.EXE. If you attempt to save changes in the settings and LLMAC.EXE cannot be found, you will see this message:

Cannot find LLMAC.EXE. Your Options settings were not saved.

To make LLMAC.EXE available and save the settings in the Options menu observe the following requirements.

On PC Hard Disk Systems. To save the Options settings on a PC hard disk system you have this choice:

- log to the directory in which you have installed LLMAC.EXE before you attempt to save the settings
- set up an AUTOEXEC.BAT file that includes the DOS PATH command so that LLMAC.EXE can be found no matter what directory you may be logged to at the moment.

See Section 1 for more information about the AUTOEXEC.BAT file and the DOS PATH command.

On PC Floppy Disk Systems. To save the Options settings on a PC floppy disk system you must have the disk with the working copy of LLMAC.EXE in the currently logged disk drive.

▽
■ If you are
■ operating
■ LAP-LINK Mac
■ from a floppy disk
■ and have
■ removed the disk
■ since starting the
■ program,
■ remember to
■ replace it before
■ saving any
■ settings.

If you have removed that disk while using the program, replace it to save the settings.

If you have installed LAP-LINK Mac anywhere on a PC floppy disk other than in that disk's root directory, you will also have to observe the requirements outlined for hard disk systems, above.

Saving the Only Macintosh Option

Aside from quitting, the only LAP-LINK Mac option that you can select on your Macintosh computer for that computer is the baud rate. (Make this change, if necessary, by pulling down the Macintosh's Rate menu while a LAP-LINK Mac session is underway and selecting a different baud rate.) If you change this option on the Macintosh, the change is automatically saved by the Macintosh and, unless changed further, the new baud setting will be in effect when you next activate LAP-LINK Mac on your Macintosh.

Remember that the baud rate setting must be identical on both computers.

Copy Options

The seven options under Copy Options let you customize LAP-LINK Mac by specifying in a general way how files will be copied or which files will be copied.

By themselves the Copy options transfer no information. But they perform the important role of instructing LAP-LINK Mac on how to select files—or how to copy them—when you use the Copy, Wildcopy, or Group commands to copy files from one computer to the other. Remember to alter the Copy options to meet your needs before using the other commands.

Here in brief are the seven Copy options and their functions:

Creator: Once you have used one of the settings in this option to transfer a file from the PC to the Macintosh, you can simultaneously call up that file on the Macintosh and the file's application by double clicking only the file icon.

Perform CR/LF Conversion: When copying files in ASCII, this option should be set at Yes to reflect the fact that a PC carriage return/line feed is the same as a Macintosh carriage return (which is treated by the Macintosh as a carriage return *and* line feed). Some word-processing applications need this option set at No so that carriage returns and line feeds are sent as two separate bytes between the source and target disks.

Convert files to ASCII: Set this option to Yes to prevent LAP-LINK Mac from copying a file's control codes that are specific to a particular application program.

Copy Newer Files Only: Unless you set this option to Yes, LAP-LINK Mac will overwrite all files of the same name. Set this option to Yes, and it will overwrite a file on the target disk only if it finds a more recent version of the file on the source disk. (Unchanged and older copies of a file will not be copied.)

Confirm before Overwriting: LAP-LINK Mac automatically will overwrite files of the same name without asking for confirmation from you unless you set this option to Yes.

Copy Date Range and Copy Date: Used together, these options let you specify a time range. Files created or modified outside that range will not be copied.

Except for the Creator option, any changes to the Copy Options affect files on both the PC and Macintosh.

- ▽ Remember to change any of the Copy option settings *before* starting a copy operation.

By changing many of these options from their defaults, you are in effect asking LAP-LINK Mac to exclude certain files from being copied. Each time a file is excluded, LAP-LINK Mac will inform you of that fact and tell you why. It does so file by file, as the copy process is going on. Then at the end of the copy session you see a report totaling the number of files not copied—and the reason(s) why.

Creator

The available Creator settings are: none, MacWrite, MS-Word, Word Perfect, Excel, and PageMaker.

The Creator option is useful only when copying from the PC to the Macintosh.

When one of the settings, other than none, is selected before a file is copied from the PC to the Macintosh, that setting tells LAP-LINK Mac to flag the file when it is copied to the Macintosh. After the LAP-LINK Mac session has ended and you have moved to the Macintosh to call up that file, the Macintosh can read the flag and use it to also call up the application program specified by the flag.

Example: Assume you have Word Perfect installed on both your PC and Macintosh. Select the Word Perfect setting in the Creator option; when you return to the LAP-LINK Mac screen, note that the setting appears as Word Perf in the message line. Use LAP-LINK Mac to copy an ASCII or a Word Perfect file from the PC to the Macintosh. End the LAP-LINK Mac session, move to your Macintosh, and double click that file (note that the file name appears on a Word Perfect document icon). Double clicking the file first activates the Word Perfect application program and then loads that file within Word Perfect.

Without the Creator option you would have to go through two steps to use the file: activate the application, then load the file. With this option, you can perform both procedures in one step.

For more specific examples of how and when to use the Creator option, see Section 4.

When you have selected a Creator option other than none, you see the name of the option selected in the message line of the LAP-LINK Mac screen.

Perform CR/LF Conversion

Because of differences in the PC and Macintosh operating systems, a PC carriage return and line feed are the equivalent of a Macintosh carriage return only.

When this option is set at Yes and a text file is copied from the PC to the Macintosh, a carriage return and line feed in that file on the PC source disk become only a carriage return on the Macintosh target disk. Conversely, when a file is copied from the Macintosh to the PC, what is only a carriage return in that file on the Macintosh source disk becomes both a carriage return and line feed on the PC target disk.

Note: A carriage return and line feed are each one byte, so when this option is set at Yes and a text file is copied from a PC to a Macintosh, the file's size is reduced by one byte for every carriage return/line feed combination that is converted to only a carriage return. Similarly, when a text file is copied from a Macintosh to a PC, its size will increase slightly as each one-byte carriage return becomes a two-byte carriage return/line feed combination.

Note: This option is not affected by the setting of the Convert Files to ASCII option.

The Perform CR/LF Conversion option should be set to Yes when:

- copying ASCII files
- recopying files that have previously been copied with the option set to No and that either appeared on the Macintosh target disk with extra blank lines or appeared on the PC target disk with *no* line feeds.

However, if you have the same application program on both the PC and Macintosh, that program may require that a PC text file's carriage return/line feed combination be treated by the Macintosh as a two-step carriage return and line feed. This option should be set to No when you are copying files for those programs.

Unfortunately, the only way you may know if this option should be set at No for a given program is to experiment with copying one of that program's files with the option set at Yes. Then, if problems arise in the file on the target disk, try copying the file again with the option set at No.

This chart illustrates the Perform CR/LF Conversion option:

No	PC	CR/LF	↔	Macintosh	CR/LF
Yes	PC	CR/LF	↔	Macintosh	CR

When this option is set to Yes, you see a C in the message line of the LAP-LINK Mac screen, C standing for carriage return/line feed.

Convert Files to ASCII

Unless you set this option to Yes, LAP-LINK Mac will copy the text *and* any control codes that may be embedded in files by the application program under which those files were created. If you do not have a copy of that same application program on the target computer, those control codes may cause you some difficulties in working with those files on that computer.

Setting the ASCII option to Yes ensures that only generic text characters will be copied from one computer to the other. (A technical note: generic text characters are those with ASCII values of 32-127, as well as carriage returns, line feeds, and tab characters.)

When the ASCII option is set to Yes and the Copy command is activated for a file, this prompt appears in the message line:

ASCII Copy FILENAME to FILENAME

Press if you do not want to rename the file on the target disk. If you do want to rename the file on the target disk, type in the new filename and press .

When this option is set to Yes, you see an A in the message line of the LAP-LINK Mac screen, A standing for ASCII.

Copy Newer Files Only

Set Copy Newer Files Only to Yes if you want to ensure that a file on the target disk will be overwritten only by a newer copy of that file. In other words, the Yes setting will keep unchanged and older copies of a file from being copied to the target disk.

Leave the setting at No if you want all files on the target disk overwritten regardless of the date and time they were created or last modified.

This option affects the operations of the Copy, Wildcopy, and Group commands.

▽
Set to Yes, this option prevents the overwriting of files by anything except newer copies of those files.

LAP-LINK Mac offers this option as an easy means of keeping one disk up to date with another; you no longer have to keep track of the files you change between sessions with LAP-LINK Mac.

Set at Yes, this option has these effects: It does not waste time by copying over unchanged files, and it preserves files on the target disk which have been updated more recently than those on the source disk.

With the Copy Newer Files Only set to Yes, LAP-LINK Mac first checks for files on the source and target disks with the same name. When it finds a match, it compares the date and time of the two files and copies only when the date and time of the target file is older than that of the source file.

Note: Though DOS displays times for files only in hours and minutes, DOS actually records these times in increments of two seconds; the Macintosh records them second by second. LAP-LINK Mac is thus able to check times with considerable accuracy.

When you are copying files, LAP-LINK Mac tells you whenever it does not copy a file because that file has not been modified since last copied to a particular disk:

Target file is unmodified. Not copied!

If the file is not copied because it is older than the copy on the target disk, you will see this message:

Source file is older than target file. Not copied!

When the copy process is complete, you will see a report totaling the number of files so excluded:

Files not copied:
Unmodified: 3
Older: 9

If speed of transfer is particularly important to you, keep in mind that whenever you set this option to Yes, you are asking LAP-LINK Mac to check files before copying them. This checking process takes additional time. For example, when copying a source disk with many files, only a few of which differ from those on the target disk, you would certainly save time with the Yes setting. On the other hand, if you were copying to a blank target disk, this setting would only slow the copy process.

When this option is set to Yes, you see an N in the message line of the LAP-LINK Mac screen, N standing for Newer.

Confirm Before Overwriting

Set Confirm before Overwriting to Yes to instruct LAP-LINK Mac to ask for confirmation before overwriting files of the same name:

File exists! Overwrite it? (Y/N) N

Press Y to copy over the file; press any other key to not copy the file.

Leave the setting at No if you want files overwritten automatically, without your approval.

This option affects the operations of the Copy, Wildcopy, and Group commands.

Keep in mind that by asking for confirmation, you are asking LAP-LINK Mac to check the name of each file on the source disk against those on the target disk. These checks take time and slow down the copy process; this will be especially noticeable when you are copying many files.

When this option is set to Yes, you see an O in the message line of the LAP-LINK Mac screen, O standing for Overwrite.

Copy Date Range

Use this option to select the parameter for a time frame by which LAP-LINK Mac will select files for copying. *Once you have selected a parameter, you must use the Copy Date option to enter a date.*

The Copy Date Range and Copy Date options let you specify that you want to copy only those files that were modified or created on, before, after, or in some other relation to a specific date.

These two options affect the operations of the Copy, Wildcopy, and Group commands.

Use the → or ← arrow keys to select one of these parameters:

- = on the specified date
- > after the specified date
- < before the specified date
- >= on or after the specified date
- <= on or before the specified date
- <> on any date but the one specified

The parameter you select will appear in the message line of the LAP-LINK Mac screen.

Copy Date

To set the date to be used with the Copy Date Range parameter, type over the mm/dd/yy prompt; type the month first, the day second, and the year last.

To set June 27, 1989, for example, type 062789 (or 06/27/89). To correct a typo, press the arrow key or to erase; then type the correction.

When you are copying files, LAP-LINK Mac tells you whenever it does not copy a file that does not fall within the time range you have specified:

File(s) not within specified time frame. Not copied!

When the copy process is complete, you will see a report totaling the number of files so excluded:

Files not copied:
Date mismatched: 3

When you have set the date through this option, you will see a reminder in the message line of the LAP-LINK Mac screen showing both the parameter and the date.

Removing Date as a Consideration. Once you have set a time frame for copying files, you can remove date as a consideration in copying by returning to the Copy Date option. Press any numeric key, then press and use or to move to another option. At that point the date prompt will return to its factory default: mm/dd/yy. As long as mm/dd/yy is showing, files will not be selected according to date and time.

Combining the Copy Options

There may be times when you want to combine two or more Copy options.

Set Copy Newer Files Only and Confirm before Overwriting both to Yes, and LAP-LINK Mac will pass over any source files that are older than, or the same date and time as, target files with the same name. When it encounters any other same-name files, it will pause and ask for confirmation before proceeding.

You could further limit the files to be sent by setting a date and selecting a date parameter.

Directory Options

The Sort By option under Directory Options controls the order in which:

- files are copied
- files and directories are displayed in the LAP-LINK Mac screen.

Sort By

As you receive it, LAP-LINK Mac displays files in alphabetical order, according to their names. But the Sort By option lets you change that order. You can list files:

- alphabetically in ascending order by name—or, on the PC only, by extension
- by size in ascending order
- by date in ascending order
- or in the exact order in which they appear on the disk.

As explained below, the order of directories and folders is also affected by this option.

Note: For many operations it does not matter which order you choose. When you are using the Group command to tag and copy files, however, the order is important. Tagged files will be copied in the order in which they appear on the screen.

This is how files and directories, or files and folders, are ordered according to the five settings:

Name: First all directories or folders, in alphabetical order. Then the files, in alphabetical order by name. Files with the same name are listed alphabetically by extension.

Ext: First all directories or folders, in alphabetical order. Then the files, in alphabetical order by extension. Files with the same extension are listed alphabetically by name.

Size: First all directories or folders, in alphabetical order. Then the files, from smallest to largest.

Date: First all directories or folders, by date and time. Then the files, by date and time.

∇
■ The order in which files are displayed on the screen affects the order in which they will be copied only when you use the Group command.

None: Directories and files, or folders and files, in the order in which they are stored on the disk.

Changing the Sort By order affects both PC files and directories and Macintosh files and folders.

Communications Parameters

The two options under Communications Parameters have to do with the way in which the PC and Macintosh communicate with each other. In fact, if either of these options is set incorrectly, the computers will not communicate at all.

Here in brief are the two options available within Communications Parameters and their functions:

Baud: Changes the rate at which the computers communicate.

Communications Port: Tells LAP-LINK Mac which serial port—whether COM1 or COM2—is being used on the PC.

Baud

Use the Baud option to select the rate at which information will be transferred from one computer to another. The four speeds are listed from fastest to slowest: 57600, 38400, 19200, and 9600.

Baud rate is the *only* option (aside from quitting) that you can also select on the Macintosh. After activating LAP-LINK Mac on the Macintosh, change the baud rate, if necessary, by pulling down the Rate menu and selecting the same baud rate that you have chosen on the PC. *The two baud rates must be identical: any discrepancy will prevent LAP-LINK Mac from copying files between the computers.*

For greatest efficiency you want to use the fastest rate possible on your computers.

LAP-LINK Mac initially is set to operate at 57600 baud (bits per second), the fastest of the four rates. All Macintosh computers can operate at 57600, but a few PC computers cannot operate at this rate. If your PC cannot operate at 57600, you will see files listed for the PC but none for the Macintosh. Instead of files the right window will display this message:

```
Attempting link to Macintosh . . . .  
Macintosh not active . . . .  
Press →
```

(**Note:** A problem with the PC communications port also causes the same message to appear. See *Communications Port*, below.)

▽
Unless this option is the same on both computers, you cannot communicate between them.

Set the Baud option on *each* computer at 57600. Quit the Options menu. If the Macintosh not active... message is still in the right window, return to the Options menu and lower the setting one step, to 38400, on each computer. Continue these steps until the message disappears and you have established communications between the computers.

If you exhaust the list of possible settings and you still see the message, the problem probably lies with the Communications Port setting (see below).

Reminder: The LAP-LINK Mac screen always displays the current PC baud setting on the message line.

Communications Port

Use the Communications Port option to tell the program where you have attached the LAP-LINK Mac cable on the PC—whether to the COM1 or COM2 serial port.

Unless you use this option to tell it otherwise, LAP-LINK Mac assumes you are using the COM1 serial port on the PC. If that is so, do not change this option.

To register a COM2 port place the bar cursor over Communications Port and press the or arrow key to place the small options cursor over 2.

LAP-LINK Mac reminds you which port you have selected on the PC: you will see COM1: or COM2: in the message line.

See also pages 11-12 for further information on the PC communications port.

If You Select the Wrong Port. Unless you are thoroughly familiar with your PC, you may not know its COM1 port from its COM2 port—or its serial ports from look-alike connectors. This poses a problem for LAP-LINK Mac. If it does not know which PC serial port you are using to connect the PC and Macintosh computers, it cannot communicate between the two computers. To the extent that it can, LAP-LINK Mac will help you make the correct determination, but it is limited in what it can do.

As you receive it LAP-LINK Mac is set to read the COM1 serial port on the PC. If you start the program and the right window shows this message:

Attempting link to Macintosh
Macintosh not active
Press →

you may have attached the LAP-LINK Mac cable to the COM2 port on the PC. (Or you may not have connected it to a serial port at all.) Change the port setting on the PC. Check to see that the baud rates on the two computers are identical. If these two steps do not put you in communication with the Macintosh, see Section 1, pages 11-12.

Another possibility is that there is no COM1 port on the PC. If this is so, LAP-LINK Mac automatically switches to the COM2 port at startup time and shows this message before the LAP-LINK Mac screen appears:

Could not find COM1: — Switching to COM2:
Press any key to continue . . .

If LAP-LINK Mac finds a COM2 port, the LAP-LINK Mac screen will appear.

Note: Since the appropriate Macintosh port for LAP-LINK Mac is always the one identified by a phone-receiver symbol, there should not be any confusion over choosing the correct Macintosh port.

"No Serial Port Found." If LAP-LINK Mac cannot find either a COM1 or a COM2 port, you see this message:

No Serial Port Found

which tells you the PC either lacks the serial port necessary to operate LAP-LINK Mac or that port is disabled or switched off. Check your computer's documentation. You will have to install or reactivate a serial port on your PC before you can use LAP-LINK Mac to communicate with a Macintosh.

Monochrome and Color Display

The three options under Monochrome and Color Display let you change the monochrome attributes or colors used in the LAP-LINK Mac screen.

These are the three options and their functions:

LoLight Color: Affects the display of file names and any other text that is not highlighted.

HiLight Color: Affects the display of the bar cursor, prompts, messages, and other highlighted text.

BackGnd Color: Affects the background.

Select one of these options and use the → or ← arrow keys to choose one of the 8 possible settings, numbered 0 through 7. By selecting one of these settings for either LoLight Color or HiLight Color you are making that setting unavailable in BackGnd Color. The settings you choose will take effect when you leave the Options command.

When you use these options, the effects are seen only on the PC.



S E C T I O N 4

LAP-LINKTM
Mac

Where to look in

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LAP-LINK Mac and Application Programs

This section is a general outline of how LAP-LINK Mac can help you utilize specific application programs on your PC and Macintosh.

The application programs mentioned in this section are among those most widely used. However, even if an application program is not mentioned, you may still be able to use its files on the target disk in an application program of the same type—such as word processing (which can include desktop publishing), spreadsheet, and data base. Try copying the files with different combinations of the LAP-LINK Mac ASCII and Carriage Return/Line Feed options, and then experiment with loading those files into an appropriate application program on the target disk.

In all cases you are advised to consult the manuals that came with your PC, Macintosh, utility programs, and application programs. If you are having problems, though, and you think some advice on using LAP-LINK Mac may help, call Traveling Software's technical support staff at 206-483-8088.

Word Processing

To be able to use word-processing documents after you have used LAP-LINK Mac to send them to the target disk, you need to have a word-processing (or desktop-publishing) application program for the target computer. These application programs include, among others, MacWrite for the Macintosh, and WordStar for the PC; some programs, such as MS-Word and Word Perfect, are available in different versions for both the Macintosh and PC.

If you have the same application program on both your PC and Macintosh, see the *PC—Macintosh Programs* subsection below on pages 83-85.

Note: In the following discussion of PC and Macintosh word-processing application programs, the term *special formatting* refers to such items as italics, bold characters, underlining, superscript, subscript. Special formatting does not include paragraph breaks, blank spaces, and tab characters—those three items are included in generic text files.

Converting PC Word-Processing Documents to MacWrite Documents

Retaining Special Formatting. You can use the Apple File Exchange and a translator to convert PC word-processing documents to documents that can be used in MacWrite on the Macintosh. The Apple File Exchange is a Macintosh application designed to let you work on the Macintosh with files that were created on a PC.

To retain special formatting, while in the PC word-processing program, save:

- an MS-Word document in the usual way as a formatted document
- a Word Perfect document in the usual way with F5
- a WordStar document in the usual way as a document file.

Then use LAP-LINK Mac to copy the document to the Macintosh with the ASCII and Carriage Return/Line Feed options set to No and the Creator option set to none. Use a Word or DCA (Document Content Architecture) translator with the Apple File Ex-

change to translate the document and its special formatting into a MacWrite document. (See your Apple File Exchange and translator documentation for details.)

Without Special Formatting. Even if the Apple File Exchange utility or the appropriate translator are not available, you can still copy and use the generic (ASCII) text portions of your PC Word document on MacWrite; the special formatting, though, will be lost.

Note: Save your word-processing documents in ASCII through the PC word-processing program, rather than through LAP-LINK Mac's ASCII option. If the word-processing program converts its own document to ASCII, it also removes its special control codes, which will be unusable on the target disk anyway. If LAP-LINK Mac converts the document to ASCII, the control codes will remain with the document, but they will be unusable and *you* will have to remove them one by one.

While in the PC word-processing program, save:

- an MS-Word document as an *unformatted* document
- a Word Perfect document with *Ctrl-F5* to display the Document Conversion Menu where you select "Save" under "DOS Text File Format." (See Text In/Text Out in the Reference section of your Word Perfect manual for details.)
- a WordStar document by printing the file to disk. Select P from the main menu. After entering the document's name, default through all print options except the last two: answer Yes to the Nondocument prompt, and answer ASCII to the Name of Printer prompt. (For further information, see ASCII under the reference section of your WordStar manual.)

Use LAP-LINK Mac to copy the document to the Macintosh with the ASCII and Carriage Return/Line Feed options set to No and the Creator option set to MacWrite. (The ASCII option should be set to No because the file you are copying has already been converted to ASCII by your PC word-processing program, so there is no benefit to having LAP-LINK Mac take the additional time to convert it to ASCII again.)

When you open the document from the desktop, you will first see a MacWrite prompt:

Should a Carriage Return signify a new paragraph or a line break?

Select Paragraphs, and respond to any other prompts as they appear.

Converting MacWrite Documents to PC Word-Processing Documents

Retaining Special Formatting. To retain special formatting, first use MacWrite to save your MacWrite document, selecting Entire Document in the Save As dialog box. Use the Apple File Exchange utility program with whichever translator file is appropriate for the word-processing application program on your PC. Use LAP-LINK Mac to copy the document to the PC with the ASCII and Carriage Return/Line Feed options set to No and the Creator option set to none. Then load your PC word-processing application program and call up the documents.

Without Special Formatting. Even if the Apple File Exchange utility or the appropriate translator are not available, you can still copy and use the text-only portions of your MacWrite document in your PC word-processing application program; the special formatting, though, will be lost. While in MacWrite, save the document to be copied: select Text Only in the Save As dialog box, press , and when this message appears:

Should a Carriage Return be put at the end of each line or only between paragraphs?

select Paragraphs. Quit MacWrite. Use LAP-LINK Mac to copy the document, with the ASCII and Carriage Return/Line Feed options set at No. Then load your PC word-processing application program and call up the document in the usual way.

PC—Macintosh Programs

This subsection deals with using PC and Macintosh versions of the same application program.

MS-Word. If your PC version of MS-Word is 2.0 or later and your Macintosh version is 1.05 or later, you can copy documents back and forth between the two versions. (If you have Macintosh version 1.05, note that it comes with a special application called Word Convert on the backup disk; consult your Word manual for instructions on using Word Convert.)

To copy documents from PC Word to Macintosh Word, save the PC Word documents as formatted files. Copy the documents in LAP-LINK Mac, with the ASCII option set to No, the Carriage Return/Line Feed option set to No, and Creator set to MS-Word.

To copy documents from Macintosh Word to PC Word, follow the instructions in your Macintosh Word manual to display Full Menus and save the documents in Word's MS-DOS File Format (see the "Save/Save As Commands" section). Copy the documents in LAP-LINK Mac, with the ASCII option set to No and the Carriage Return/Line Feed option set to No.

Word Perfect. Documents that were created on your PC in Word Perfect 4.2 (or later versions) can be used in your Macintosh version of Word Perfect. Follow the instructions in your Macintosh Word Perfect manual, using LAP-LINK Mac to copy the documents with the ASCII option set to No, the Carriage Return/Line Feed option set to No, and the Creator Option set to Word Perfect. (Depending upon which version of the Macintosh Word Perfect manual you have, these instructions may be found in the Appendix under File Formats.)

You can also use Macintosh Word Perfect files on your PC. While in Macintosh Word Perfect, use the Word Perfect Save dialog box to save the document in IBM WP 4.2 file format. Then set the LAP-LINK Mac ASCII and Carriage Return/Line Feed options to No, and copy the documents. When you load Word Perfect 4.2 (or a later version) on the PC, you will be able to call up the these documents.

PageMaker. If your PC version of PageMaker is 1.0A or later and your Macintosh version is 2.0 or later, you can copy PageMaker publication documents back and forth between the PC and Macintosh. The PC PageMaker documents that can be copied to the Macintosh are those with the .PUB extension. The Macintosh PageMaker documents that can be copied to the PC are those identified by the publication icon.

Regardless of which computer is the source, the ASCII and Carriage Return/Line Feed options should be set to No. If the PC is the source, select the PageMaker setting under the Creator option; also, you may rename the document when copying it to the Macintosh, but make sure you add the .PUB extension to the new name. When copying from the Macintosh to the PC, add the .PUB extension to the file name.

Excel and Other Spreadsheets. Even if you have different spreadsheet programs on your PC and Macintosh, most spreadsheet files can still be copied back and forth from the PC and the Macintosh. Check the output formats of whichever spreadsheet programs you have for compatible file types, such as symbolic link (which is also known as SYLK) and .DIF formats.

To copy spreadsheet files from the PC to the Macintosh, start in the PC spreadsheet program. Save the files in SYLK, symbolic, or some other format compatible with your Macintosh spreadsheet program. Exit the PC spreadsheet program and set the LAP-LINK Mac ASCII and Carriage Return/Line Feed options to No; if you are copying PC Excel files to Macintosh Excel, set the LAP-LINK Mac Creator Option to Excel. Exit LAP-LINK Mac after copying the files and follow the appropriate steps to open your Macintosh spreadsheet package and call up the files (or, in the case of Excel files, click on the copied file's Excel icon).

To copy spreadsheet files from the Macintosh to the PC, start in the Macintosh spreadsheet program. Save the files in SYLK, symbolic link, or some other format compatible with your PC spreadsheet program. Exit the Macintosh spreadsheet program and set the LAP-LINK Mac ASCII and Carriage Return/Line Feed options to No. Exit LAP-LINK Mac after copying the files and follow the appropriate steps to open your PC spreadsheet package and load the files.

dBASE. You can copy dBASE files back and forth between the PC and Macintosh if your PC version is dBASE II or later and your Macintosh version is 1.0 or later.

To send dBASE files from the Macintosh to the PC, select Export and dBASE Format for Translation for those files before quitting dBASE on the Macintosh. Copy the files with LAP-LINK Mac, setting the ASCII and Carriage Return/Line Feed options set to No. When in dBASE on the PC, call up the files by setting Import mode and following the prompts.

To send dBASE files from the PC to the Macintosh, start with dBASE on the PC. While in Assist mode, call up the Tools menu, select Export and follow the prompts. Copy the files with LAP-LINK Mac, setting the ASCII and Carriage Return/Line Feed options set at No. When in dBASE on the Macintosh, start with a Foreign File Statement and create a View for those files.

If you are having problems with the files on the target disk, try recopying those files with either the ASCII or the Carriage Return/Line Feed option set to Yes.

Macintosh Networks

No special procedures are required to use LAP-LINK Mac between a PC and a Macintosh that is linked to a Macintosh network, such as AppleTalk or TOPS.

Files can usually be copied back and forth with LAP-LINK Mac between the PC and any Macintosh on the Macintosh network—provided that the node for a specific Macintosh is not set at Read Only.

Because LAP-LINK Mac is a data transfer package only, the PC half of its link does not become a PC node on the network. That PC does, however, have full file access throughout the network since the LAP-LINK Mac connection becomes a "slotless" PC gateway to the AppleTalk or TOPS network.

PC Networks

No special procedures are required to use LAP-LINK Mac between a Macintosh and a PC that is linked to a PC network, such as Novell's NetWare and 3Com's 3+. LAP-LINK Mac has full file access to the network file server.

Also, LAP-LINK Mac can be used as a gateway file-access bridge between PC and Macintosh networks.

LAP-LINK Mac and MultiFinder

LAP-LINK Mac is compatible with MultiFinder, a Macintosh operating system that can run on all Macintosh Plus, Macintosh SE, and Macintosh II computers with a minimum of one megabyte of RAM memory.

If you use MultiFinder on your Macintosh, you can direct that operating system to include LAP-LINK Mac as part of the Macintosh's startup procedure.

Once you have finished using LAP-LINK Mac as a foreground application, you can move it to the background on your Macintosh by selecting and opening some other icon. After completing work in the other icon, you can move to LAP-LINK Mac back to the foreground by:

- choosing LAP-LINK Mac in the Apple menu
- clicking the LAP-LINK Mac window
- or double-clicking the dimmed LAP-LINK Mac icon in its volume window.

If LAP-LINK Mac has remained active on your PC while you were working in the other icon on the Macintosh, the connection between the two computers will still exist.

Note: Any files currently open under other applications on the Macintosh do not appear in the Macintosh window of the LAP-LINK Mac screen.

If you have any questions about these MultiFinder procedures, consult your MultiFinder User's Guide.

APPENDIX A: Messages

Critical Error Messages on the PC

There are three errors that cause LAP-LINK Mac to pause and require you to take corrective action: drive A: not ready; drive A: write protected; and general failure error. If you encounter one of these errors, a message pops up in the middle of the screen, informing you of the problem and asking you what to do next:

Retry, Ignore?

Press R to retry the command or I to ignore the command and resume the program. (You may have to press I several times.)

Drive A: not ready
Retry, Ignore?

These are the most likely causes: there is no disk in the drive; the disk is not formatted for that computer; or there is a bad sector on the disk. If you have forgotten to insert a disk, do so, and press R. If you decide that the disk is not properly formatted or there is a bad sector, press I until the message disappears; then exit LAP-LINK Mac and take corrective action.

Drive A: write protected
Retry, Ignore?

You are trying to copy to a write-protected disk. On 5.25-inch disks, remove the write-protect tab. On 3.5-inch disks, move the write-protect tab so that the window is closed. Then press R to continue with LAP-LINK Mac.

General failure error
Retry, Ignore?

There are many possible reasons for this message, but the most common is a bad sector on the disk or a hardware failure. Try pressing R once or twice to correct the situation. If that fails, press I until the program resumes; then exit the program and track down the problem.

Other PC Messages

Explained below in *alphabetical* order are various messages you may encounter while using LAP-LINK Mac. Some of these messages inform you that you have attempted something that LAP-LINK Mac does not allow, at least in the way you tried it. Some alert you to the fact that something has gone wrong. Other messages require you to instruct LAP-LINK Mac on how to proceed. Still others simply keep you informed of what LAP-LINK Mac is doing.

Most messages appear in the message line of the LAP-LINK Mac screen. Others appear as part of the report LAP-LINK Mac issues while copying files.

Cannot erase default subdirectory [folder]

You have tried to use Erase-Dir or Erase-Folder in the Tree command line to erase the currently logged directory or folder (highlighted on the screen). Use the Log command to log onto a different directory or folder and try again.

Cannot erase subdirectory [folder] NAME

You have tried to use Erase-Dir or Erase-folder in the Tree command line to erase a directory or folder that contains files, subdirectories (or subfolders), or both. You must remove all subunits and their files below that directory or folder, as well as any files within that directory or folder before you can erase it.

Cannot erase NAME

For NAME you will see the name of a directory or folder, or the designation for either the root directory (.) parent directory (..), volume (:), or parent folder (: :). In any case, you have tried to erase a directory or folder that contains subunits. LAP-LINK Mac does not allow this operation. See the primary Erase command in Section 2 for information about erasing directories. Note that under no circumstances can you erase the root directory.

Cannot find COM1: [or COM2:]
Switching to COM2: [or COM1:]

LAP-LINK Mac is telling you that it cannot find a particular serial port on the PC. The port it is looking for is the one selected in the Communications Port option in the Options menu. (The very first time you start LAP-LINK Mac this port is COM1.) Unable to find this port, LAP-LINK Mac will look for the other port—either COM2 or COM1. Note that this message has nothing to do with the connector to which you have attached the LAP-LINK Mac cable. Its sole purpose is to alert you to the fact that your PC lacks a particular port.

Cannot find COM2: [or COM1:]
Must have at least one COM port

This message will appear only after the previous message. It means that the PC has no COM1 or COM2 serial port (or that the port is disabled). You cannot communicate with a Macintosh through LAP-LINK Mac until you install a serial port.

Cannot find LLMAC.EXE. Your Options settings were not saved.

You have attempted to save the current settings of the Options menu but LAP-LINK Mac could not locate its operating program, LLMAC.EXE, on which the settings must be saved. On a floppy disk system be sure that the disk with the working copy of LLMAC.EXE is in the currently logged drive. On a hard disk—or a floppy disk with more than one level of directories—you must log onto the directory in which LLMAC.EXE is stored. See Section 1 for instructions on setting up an AUTOEXEC.BAT file to make LLMAC.EXE available from any directory.

Cannot find path NAME

You have tried to log onto a directory or folder that does not exist. Reactivate the Log command, and type the correct drive, path name, or both. This error will also occur if you are in the root directory and try to move to the parent directory by entering .. after activating the Log command—or if you are in the volume and try to move to the parent folder by entering :.. If you are having trouble designating path names, you will find the Tree command an easier way to change directories.

Cannot rename a subdirectory [folder]

You have activated the Rename command while the bar cursor was over a subdirectory or folder. LAP-LINK Mac does not allow you to rename a subdirectory or folder. Your only recourse is to create a directory or folder with the name you want, copy files from the old directory or folder to the new one, and then erase the old files and directory or folder.

Cannot rename FILENAME1 to FILENAME2

You may have typed an invalid file name; if so, reactivate the Rename command, and try again. (See your DOS or Macintosh manual if you are uncertain about the rules for assigning file names.) The other possibility is that FILENAME2, the name you have tried to substitute for FILENAME1, already exists in the current directory or folder. Your choice in this case is either to restart the Rename command and assign a different name or erase or rename the file with which there is a conflict.

Cannot view a subdirectory [folder].

You have activated the View command while the bar cursor was over a subdirectory or folder. The View command works only when the bar cursor selects a file.

Communication error

An error occurred while LAP-LINK Mac was sending or receiving the header block of a file. (The header block contains the name, size, date, and other information about each file.) The block will be re-sent until it is received correctly or until there are 10 consecutive errors, at which time the copy function will be aborted. If this error occurs infrequently, it does not call for any remedy on your part. If it persists, you should try setting a lower baud rate using the Baud option—or shorten your LAP-LINK Mac cable if you have added any extensions.

Copy aborted. Press any key to continue...

This message appears whenever a copy operation is aborted for one of several reasons. If the reason is a full target disk, you will also see this message: Target disk full! If you do not see this message, look for other messages that may indicate problems, and

check out their causes. If you see no other messages, it may be that you pressed **Esc** accidentally.

Copy complete. Press any key to continue...

The file or files you designated to be copied were copied successfully. Press any key to return to the LAP-LINK Mac screen.

Could not create subdirectory NAME

Having activated the Make-dir command in the Tree command line, you have designated a directory name that DOS does not allow. When assigning a name to a directory, observe the rules in your DOS manual for assigning file names. If you enter a name according to these rules and it is rejected, try a different name; you have probably duplicated a name already assigned to a file or a directory.

Could not erase FILENAME

While working in the Group command, you have tried to erase a read-only file. You cannot erase read-only files in LAP-LINK Mac. This message will disappear from the message line in 3 seconds or sooner if you press a key.

Could not find DRIVE\PATH\FILENAME

LAP-LINK Mac could not find the file or files you have specified.

File create error

LAP-LINK Mac could not create the file for some reason. The most likely reason is that you were trying to copy a file to a root directory which already holds the maximum number of files allowable in a root directory. Either erase files to make room or copy to another directory or disk.

File exists! Overwrite it? (Y/N)N

Through the Confirm before Overwriting option you have instructed LAP-LINK Mac not to copy over files of the same name

without your confirmation. Press Y to copy over the file; press any other key not to copy the file. To instruct LAP-LINK Mac not to ask for your confirmation before overwriting files of the same name, set the Confirm before Overwriting option (in the Options command) to No.

FILENAME is marked as read only. Press any key

This message is intended to alert you to a read-only file. You cannot erase read-only files in LAP-LINK Mac.

File(s) not within specified time frame. Not copied!

Through the Copy Date Range and Copy Date options you have set a time frame for the copying of files. During copying this message will appear for each file that does not fit within this time frame. To remove the time frame, activate the Options command, move the bar cursor over Copy Date, press any numeric key and then Enter . As long as you see mm/dd/yy listed for this option, files will not be selected by date or time.

Not enough memory to run LAP-LINK Mac.

There must be at least 128,000 bytes of free memory

You must have at least 128,000 bytes of free memory on a PC to run LAP-LINK Mac. Use the DOS command CHKDSK. The value for bytes free listed at the end of the status report produced by this command should read about 128,000 or more. Note that the actual memory requirement you see listed in this message may be slightly larger or smaller than 128,000 bytes, depending on the version of LAP-LINK Mac you have received.

No serial port found

Your PC is lacking a serial port or that port is disabled. You will have to install or activate a serial port before that PC can communicate with a Macintosh over LAP-LINK Mac.

No tagged files found...

You have activated the Group command and then either Copy or Erase without having tagged any files. As long as you remain in

the Group command you cannot copy or erase files without tagging them first.

Source file is older than target file. Not copied!

You have set the Copy Newer Files Only option to Yes. During copying this message will appear for each file that is not copied from the source disk because it is older than the copy of the same file on the target disk. Set the Copy Newer Files Only option to No to overwrite files on the target disk without considering whether they are newer or older.

Target disk full! Press any key...

You have tagged more files than can be copied to the target disk. Press a key and follow the instructions under the Log command for changing disks.

Target file is read only. Not copied!

You have tried to copy a file that already exists on the target disk as a read-only file. LAP-LINK Mac does not allow this file to be overwritten.

Target file is unmodified. Not copied!

You have set the Copy Newer Files Only option to Yes. During copying this message will appear for each file that is not copied from the source disk because it is not different from the copy of that file on the target disk. (The dates and times match exactly, to the nearest two seconds.) Set the Copy Newer Files Only option to No to overwrite files on the target disk without considering whether they have been modified.

Macintosh Messages

Not Enough Memory

This message may appear with different wording, depending on your system version. Consult your Macintosh documentation for how to proceed.

This disk is unreadable:
Do you want to initialize it?

You have inserted an uninitialized disk into a Macintosh floppy drive. Follow the prompts to initialize the disk.

Please insert the disk:
DISKNAME

This message may appear when you are changing Macintosh disks or copying LAP-LINK Mac to a disk. Insert the requested disk in the disk drive.

Appendix B: Cable Specifications

Macintosh with DB9 port to PC with DB9 port

Macintosh End	PC End
3	5
5	2
6	8,6
9	3

Macintosh with DB9 port to PC with DB25 port

Macintosh End	PC End
3	7
5	3
6	5,6
9	2

Macintosh with 8-pin mini DIN port to PC with DB9 port

Macintosh End	PC End
4	5
3	2
1	8,6
5	3

Macintosh with 8-pin mini DIN port to PC with DB25 port

Macintosh End	PC End
4	7
3	3
1	5,6
5	2

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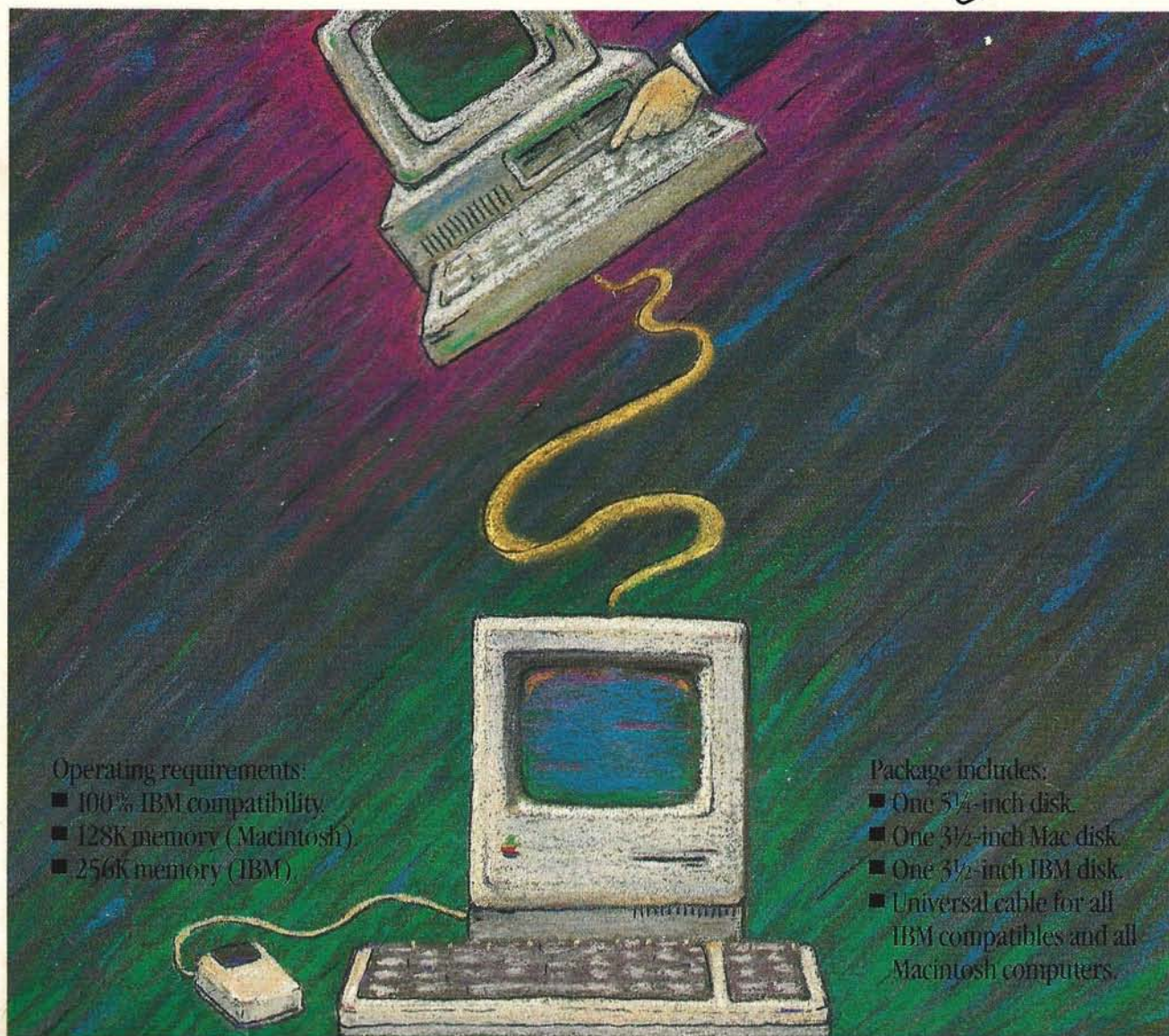
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LAP-LINK™

Mac

Links Macintosh with IBM-compatible
desktop and laptop computers



Operating requirements:

- 100% IBM compatibility
- 128K memory (Macintosh)
- 256K memory (IBM)

Package includes:

- One 5¼-inch disk
- One 3½-inch Mac disk
- One 3½-inch IBM disk
- Universal cable for all IBM compatibles and all Macintosh computers

INCLUDES CONNECTING CABLES

TRAVELING Mac

Traveling
Software



Bothell,
Washington

Traveling Software



Bothell,
Washington

LAP-TITANTM Mac

Bothell, Washington
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LAP-LINKTM Mac

- Special universal cable links any Mac (including the 512, Plus, SE and Mac II) with any IBM or compatible (including the PC, XT, AT or PS/2).
- Transfer speeds faster than any previous Mac serial-transfer product. (Up to 57,000 baud.)
- Lowest cost, easiest to use Mac-to-IBM "plug and go" product available.
- Unique split-window file selection on IBM-PC and compatible computers.
- Supports all new IBM PS/2 computers.
- Includes a MAC 3½" disk as well as 3½" and 5¼" disks for IBM and compatible computers."



QUICK SET-UP.

Your LAP-LINK Mac will be ready to use within seconds after opening the box. Simply connect the LAP-LINK Mac cable to your laptop or desktop PC. Then type "LL" on the PC and double-click the LAP-LINK Mac icon. That's all it takes. From that point, LAP-LINK Mac automatically connects itself. And it's ready to go.

FAST!

Just connect LAP-LINK Mac to the Mac's serial port. It's then able to transfer files back and forth to an IBM-PC or compatible. At speeds up to 57,000

baud. Faster than any previous Macintosh serial-transfer product.

SPLIT-SCREEN DESIGN.

To help you keep track of which files you're working with, LAP-LINK Mac uses the same split-screen design as the original LAP-LINK. The screen on your IBM or compatible monitor is split into two windows. The windows show you the files you're working with. This makes it easy for you to transfer IBM subdirectories to Macintosh file folders, and vice versa. Great for transferring word processing files from your laptop into your desktop publishing applications.

What's more, no matter which of LAP-LINK Mac's functions you're using, the help menu always stands ready for quick, easy reference.

ADDED SELECTIVITY.

LAP-LINK Mac lets you be more selective about the files you transfer. It lets you "tag" files. This means you can select certain files for transfer. Such as those files created on a certain date, or within a particular time frame. So you can be more precise about the information you specify for transfer.

PORTABILITY.

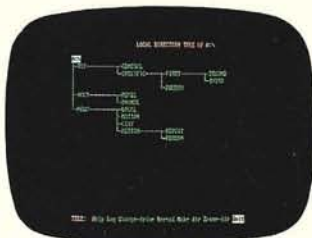
Since LAP-LINK Mac weighs only 10 ounces (cable and disks), you can easily carry it with you for instant connectivity at any location.

YOUR ALL-IN-ONE SOLUTION.

Everything you need to connect a Mac and an IBM-PC is complete in this package. Your LAP-LINK Mac connects any IBM-PC or compatible laptop or desktop computer with any Apple Macintosh. Including the MAC 512, Plus, SE and Mac II. LAP-LINK's universal cable works with any version of the Macintosh. As well as IBM PC, XT, AT or PS/2. No need to run to the store for extra hardware. You also get a 3½" Mac disk and 3½" and 5¼" IBM disks.



Files on both computers are easily accessible



Tree directory allows quick subdirectory access



Flexible options are just a keystroke away

Traveling Software



LOT: 88-8C04
VER: 1.2

Links
IBM
compat
laptop
desktop

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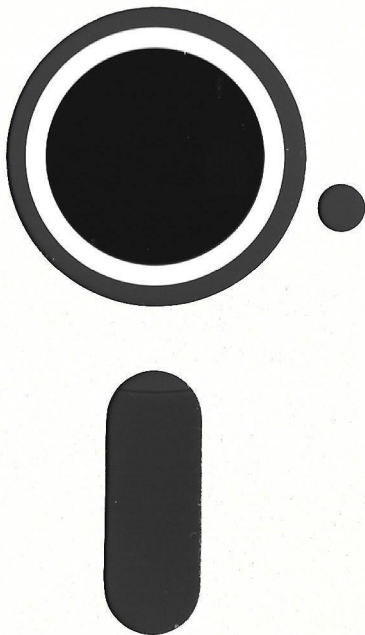
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Ver: 1.2

Lot: 88-8C04

Ser: 11309



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