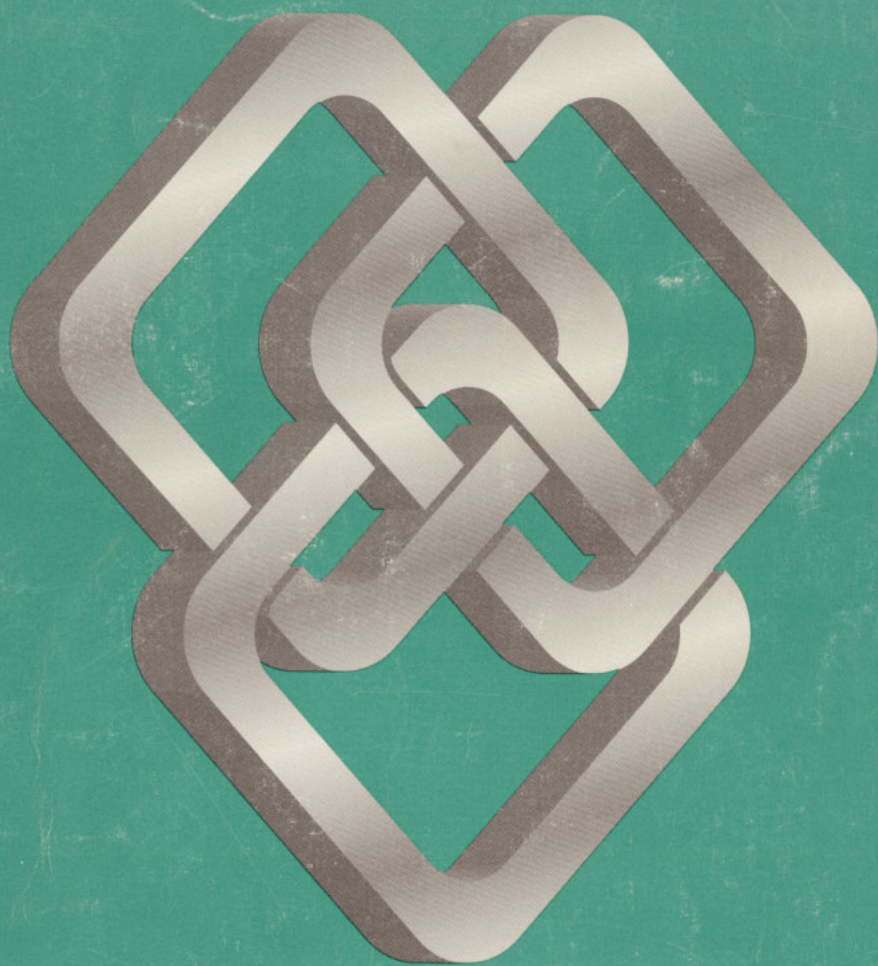


QuickLinkTM II

fax and telecommunications



WINDOWS

&

DOS

SMITHMICRO
SOFTWARE 

QuickLink II

Fax

Win/DOS

USER'S GUIDE

Documentation Revision 2.01

SMITHMICRO
SOFTWARE 



This manual is printed on recycled paper

NOTICE

SMITH MICRO SOFTWARE, INC. reserves the right to make improvements in the product described in this manual at any time and without notice.

LIMITED WARRANTY ON MEDIA. SMITH MICRO SOFTWARE, INC. or its distributor, depending on which party produced the program diskette, warrants the diskettes on which the software is recorded to be free from defects in materials and faulty workmanship under normal use for a period of 90 days after the date of original purchase. If during this 90 day period a defect in the diskette should occur, the diskette may be returned for replacement without charge, provided that you have completed the enclosed registration form and returned it to SMITH MICRO SOFTWARE, INC. Your sole remedy in the event of a defect in a diskette is limited to replacement of the diskette as provided above.

EXCEPT AS EXPRESSLY PROVIDED ABOVE FOR MEDIA, SMITH MICRO SOFTWARE, INC., DISTRIBUTORS AND DEALERS MAKE NO WARRANTIES, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THE SOFTWARE, ITS MERCHANTABILITY OR ITS FITNESS FOR ANY PARTICULAR PURPOSE. THE SOFTWARE IS LICENSED SOLELY ON AN "AS IS" BASIS. THE ENTIRE RISK AS TO ITS QUALITY AND PERFORMANCE IS WITH YOU. SMITH MICRO SOFTWARE, INC. IS IN NO WAY AFFILIATED WITH MICROSOFT CORPORATION.

The software product, including this manual and the diskette supplied, is copyrighted and contains proprietary information. All rights are reserved. This document may not, in whole or in part, be copied, photocopied, reproduced, translated or reduced to any electronic medium or machine readable form without prior consent, in writing, from SMITH MICRO SOFTWARE, INC. Willful violations of the Copyright Law of the UNITED STATES of AMERICA can result in civil damages of up to \$50,000 in addition to actual damages, plus criminal penalties of up to one year imprisonment and/or a \$10,000 fine.

QuickLink II Fax is a trademark of Smith Micro Software, Inc. All other trademarks are registered by their respective companies.

**Copyright 1994 by Smith Micro Software, Inc.
51 Columbia
Aliso Viejo, California 92656**

**All rights reserved.
Written and typeset by Warren J. Ernst
Typeset assistance by Edward J. Craig**

Read Me First

Read this page to get the most out of QuickLink II Fax. Place a check in each box as you complete the step.

☐ **COM port selection**

Follow the installation instructions in Chapter 1 carefully. In particular, be sure to configure QuickLink II Fax for the same COM port as your modem. For example, if your modem is using COM2, set up QuickLink II Fax to address COM2. If you will be using QuickLink II Fax with a standard COM port (COM1 through COM4), which use interrupt request lines IRQ3 or IRQ4, we recommend you take advantage of QuickLink II Fax's auto-detection feature to find the COM port automatically.

☐ **Default settings**

QuickLink II Fax is designed to let you start sending and receiving fax and modem files as soon as it's installed. Before you begin, it is recommended that you review the QuickLink II Fax's default settings starting on pages 6 and 12. QuickLink's default settings should be satisfactory for most users. However, you may want to customize certain settings for your particular requirements. A few seconds of your time will ensure that you get the most out of QuickLink II Fax.

☐ **"To Mouse, or Not to Mouse"**

There is a copy of QuickLink II Fax that is a DOS program on this disk, which means that it is not a Windows program and will not automatically respond to your mouse if it only works within Windows. This also means that your mouse might not necessarily respond in QuickLink II Fax if you've only used your mouse in Windows up until now. This program is fully compatible with your mouse when your DOS mouse drivers are loaded into memory.

Secondly, unless you are paying attention, your mouse and modem may conflict with each other when you plug both into your computer. It is possible that you may have them both using the same COM port or IRQ setting. Please be sure to refer to Chapter 1 if you are unsure about how to configure your hardware or load your DOS mouse drivers.

Thirdly, QuickLink II Fax for DOS is completely functional to those users who prefer not to use a mouse or don't have one. If you will not be using the mouse, please be sure to look over Chapter 1 to review the DOS keyboard commands and shortcuts.

Table of Contents

Introduction

Unpacking your components	xi
Features	xii
General features	xii
Fax features	xiii
Telecommunication features	xiv

Chapter 1

Installing QuickLink II Fax 1

Minimum Windows system requirements	1
Windows installation instructions	1
Starting QuickLink II Fax for Windows for the first time	4
Elements of the main screen	4
Using the default configuration	6
Default fax settings	6
Default data settings	7
Where to proceed	7
Starting QuickLink II Fax for DOS for the first time	7
Special mouse and modem considerations	8
Elements of the main screen	8
Getting around within QuickLink II Fax	9
Accessing the Menu Bar	9
Selecting menu functions	10
Dialog boxes	10
Help	12
Using the default configuration	12
Default fax settings	12
Default data settings	12
DOS Installation instructions	13
Where to proceed	15
Additional Win/DOS Considerations	15

Chapter 2

Getting Started — Windows W-17

Faxing out from a Windows application	W-17
Faxing out from QuickLink II Fax	W-19
Receiving a fax	W-20
Online help	W-21

Chapter 3

Viewing and Printing Faxes

W-23

QuickLink II fax files	W-23
Viewing faxes	W-24
The fax viewer	W-24
Printing faxes	W-26
Advanced faxing	W-26

Chapter 4

Advanced Fax Functions

W-27

The fax phone list	W-27
Building and editing the list	W-27
Choosing fax destinations	W-28
Fax logs	W-29
Receive fax log	W-29
Send fax log	W-30
Converting fax files graphically	W-30
Exporting a fax into a graphic file	W-30
Importing a graphic into a fax	W-31
Fax scheduling	W-32
Sending a fax manually	W-33
Viewing the fax schedule	W-33
Sending the same fax to several destinations	W-34
The Fax Manager	W-34
Fax Manager options	W-34
Fax setup options	W-35
Send fax setup	W-35
Receive fax setup	W-37
Cover page setup	W-39

Chapter 5

DataComm Overview

W-41

Originating a data call (dialing out)	W-41
Quickly dialing a number	W-41
Using the Data Phone List	W-42
File transfers	W-44
The concept of file transfers	W-44
Selecting one file to upload	W-45
Selecting multiple files to upload	W-46
Upload status	W-47
Downloading files	W-48
Receiving one file	W-48
Receiving a batch of files	W-49

Download status	W-49
Capture text	W-50
Retransmitting what you see	W-50
Clearing the screen	W-51
Answering a data call	W-51
Using the ModemMonitor	W-51
Displaying the ModemMonitor	W-52
The status lights	W-52
Freeing the COM port	W-53
Protocols	W-53
ASCII	W-54
CompuServe B/B+ (Available with selected versions)	W-54
Kermit/SuperKermit	W-54
Xmodem	W-55
Xmodem CRC	W-55
Xmodem 1K	W-55
Ymodem	W-56
Ymodem-G	W-56
Zmodem (Available with selected versions)	W-56
Data communications setup options	W-57
Line settings	W-57
Modem setup	W-58
Terminal options	W-60

Chapter 6

Automating QuickLink II Fax W-65

Online services quick access	W-65
Services setup	W-65
Connecting to online services	W-66
Macro keys	W-66
Scripts	W-67
Running scripts	W-67
QuickLink II Fax Script language elements	W-68
Script language commands	W-69

Chapter 7

Getting Started — DOS D-75

Starting QuickLink II Fax	D-75
Sending a fax from within a DOS application	D-75
Setting up FastFax	D-76
Faxing out with FastFax	D-77
Faxing out from QuickLink II Fax	D-79
Receiving a fax	D-81

Text editor	D-82
Online help	D-84
Leaving QuickLink II Fax	D-84

Chapter 8

Viewing and Printing Faxes D-85

QuickLink II fax files	D-85
Viewing faxes	D-86
Printing faxes	D-87
Setting your printer	D-87
Printing the fax	D-87
Advanced faxing	D-88

Chapter 9

Advanced Fax Functions D-89

The fax phone list	D-89
Building and editing the list	D-89
Choosing fax destinations	D-90
Fax logs	D-91
Receive fax log	D-91
Send fax log	D-92
Converting fax files graphically	D-92
Exporting a fax into a graphic file	D-92
Importing a graphic into a fax	D-93
Fax scheduling/Background fax transmissions	D-94
Viewing the fax schedule	D-95
Sending the same fax to several destinations	D-95
Manual fax receives	D-96
Fax setup options	D-96
Send fax setup	D-96
Receive fax setup	D-98
Cover page setup	D-99
PCL font setup	D-100

Chapter 10

DataComm Overview D-103

Originating a data call (dialing out)	D-103
Quickly dialing a number	D-103
Using the Data Phone List	D-104
File transfers	D-106
The concept of file transfers	D-106
Selecting one file to upload	D-107
Selecting multiple files to upload	D-107

The Send File status box	D-108
Downloading files	D-109
Receiving one file	D-109
Receiving a batch of files	D-110
The Receive File status box	D-110
Capture text	D-111
Clearing the screen	D-111
Line Buffer	D-112
Toggle Printer	D-112
Printing Text Files	D-112
Answering a data call	D-112
Protocols	D-113
ASCII	D-113
CompuServe B/B+ (Available with selected versions).....	D-114
Kermit/SuperKermit	D-114
Xmodem	D-114
Xmodem CRC	D-115
Xmodem 1K	D-115
Ymodem	D-115
Ymodem-G	D-115
Zmodem (Available with selected versions).....	D-116
Data communications setup options	D-116
Line settings	D-116
Modem setup	D-117
Terminal options	D-120
Connection Setup	D-122
Color Setup	D-124
Hardware Setup	D-124

Chapter 11

Automating QuickLink II Fax D-127

Online services quick access	D-127
Services setup	D-127
Network numbers.....	D-127
Account information.....	D-128
Connecting to online services	D-128
Macro keys	D-128
Scripts	D-129
Running scripts	D-129
QuickLink II Fax script language elements.....	D-130
Script language commands	D-131

Chapter 12

Command Line Options **D-137**

FastFax IV	D-137
FastFax IV Command Line Options	D-137
Fonts	D-138
NiteFax	D-139
Convert	D-140
SNDFAX	D-140
Export	D-141
ViewFax	D-142
PrintFax	D-142
RECFAX	D-143

Appendix A

Terminal emulation keys **A-145**

Appendix B

ASCII character table **A-147**

Appendix C

Advanced Considerations **A-149**

Program filenames	A-149
IRQ settings and common usage	A-150
Standard COM port settings	A-150
Common IRQ Usage	A-150
Window's IRQ settings	A-151
The WIN.INI file and your system	A-152
The SMSSETUP.DAT file	A-153
The QLSETUP.DAT file	A-153
Fax Manager launching	A-154
Using a scanner	A-154
FastFax and softfonts	A-155
Error codes	A-155
AT command set	A-157

Appendix D

Troubleshooting **A-159**

General/Data Comm troubleshooting	A-159
Faxing troubleshooting	A-160

Introduction

A modem or fax/modem connects your computer to the telephone line so that you can exchange information with a remote modem, fax/modem, or fax machine. QuickLink II Fax is a communications software package that controls the exchange of information between your fax/modem and the remote modem, fax/modem, or facsimile machine at the other end of the communications line. QuickLink II Fax represents the latest technology in fax/data communications software design and fully conforms to the standard Windows user interface in both the Windows *and* DOS environments.

We have developed the Win/DOS version QuickLink II Fax with the idea that Windows users do not operate in the Windows environment exclusively. Therefore we have given our Windows package the special capability of communicating with our QuickLink II Fax for DOS package. This enables you to share a variety of fax/data information between Windows and DOS, such as Phone Lists, Fax Logs, and Scheduled Faxes. No longer do you have to worry about receiving a fax that may come through if they have temporarily quit Windows to do some work in DOS. This feature also gives the user the ability to schedule faxes with the DOS product and have them detected and transmitted by the Windows product. Refer to Chapter 1 for more information.

QuickLink II Fax allows you to utilize all of the features of your modem or fax/modem. QuickLink II Fax will operate with all AT command set (Hayes) compatible modems as well as most other modems that are not compatible with the AT command set. The fax mode of QuickLink II Fax is designed to be used with either EIA Class 1 or 2 compatible send-receive fax/modems.

Unpacking your components

QuickLink II Fax for Win/DOS comes on either a high density 3½-inch diskette (1.44m) or on a high density 5¼-inch diskette (1.2m). If any diskettes are missing or damaged, please contact your place

of purchase immediately. If the wrong disk size is provided, contact your modem manufacturer or fill out and return the Replacement Disk Form in the back of this book to Smith Micro Software, Inc.

Features

This section briefly describes the myriad of general, fax, and telecommunications features that QuickLink II Fax provides.

General features

A few of the general features that QuickLink II Fax provides are:

Complete Windows and DOS fax system. QuickLink II Fax sends and receives faxes both within the DOS and Windows operating systems and applications, sharing data, logs, and phone lists.

Complete Windows user interface. QuickLink II Fax uses standard Pull-down menus, dialog boxes and mouse control, so all features are only a familiar click away.

Button Bar. Many of QuickLink II Fax's most used features are accessible through a button bar, so these commands are only a mouse click away.

Context sensitive help. You can never get lost when using QuickLink II Fax. Context-sensitive help is always available within the dialog boxes. The term context sensitive means that the help topics change for each dialog box. There is also a Help command on the main menu, in case you need assistance at any time. With so much assistance at your fingertips, you'll be using QuickLink II Fax's many features in no time!

Support for COM1 through COM4. For even greater flexibility, QuickLink II Fax supports IRQ2 through IRQ7 (as set in the Windows Control Panel for Windows) to ensure that there is no conflict with any of the serial devices or interface cards installed in your PC. If you prefer, you can take advantage of QuickLink II Fax's automatic COM port detection and selection and let QuickLink II Fax automatically ascertain the COM port being used.

Fax features

The following section describes some of the fax features that QuickLink II Fax provides.

Foreground and background fax capability. In the foreground, you can manually send and receive faxes. Background operation lets you send and receive faxes while you use your PC for other applications.

Sending faxes. You can send faxes out of most applications that have printing capabilities, which means that faxes can be sent that were previously typed in with almost any word processor, database manager, spreadsheet, or planner program. Faxes can be sent immediately or at scheduled times, when telephone-line charges are at their lowest or when you are certain that the remote facsimile machine or fax/modem will be turned on. You can even broadcast your faxes to multiple recipients, when you need to make sure that multiple recipients receive identical faxes.

WYSIWYG faxing. Faxes sent out use the same fonts, layout and graphics as the original document, creating faxes of true laser-quality. As a result, you can create faxes that consist of high-quality fonts and graphics, to be assured that the received document will appear just like the original.

Cover page. QuickLink II Fax lets you include a cover page with your faxes. Your cover page can include a high-quality graphic that have been scanned into your PC or created in your favorite drawing and paint programs.

Printing received faxes. If you prefer a hard copy, QuickLink II Fax can be instructed to send all received faxes to your printer. Any Windows supported printer, be it a dot-matrix, HP LaserJet compatible, or PostScript (Windows only) printer can print faxes (in the background upon reception within Windows).

Fax phone list. A separate fax phone list is maintained for sending faxes to frequently dialed telephone numbers. Numbers can be assigned to Groups, so that a fax can be easily sent to any number of fax machines with just a few keystrokes.

Export fax capabilities. QuickLink II Fax lets you export faxes into PCX, DCX and TIFF graphic file formats, allowing for importing faxes into Paint, Drawing, or OCR programs.

Telecommunication features

The following section describes some of the telecommunication features that QuickLink II Fax provides.

Background file transfers. Uploads and downloads can take place while using other programs within Windows. A large file transfer need never keep you from working!

Transfer protocols. For your convenience, QuickLink II Fax provides 8 transfer protocols: ASCII, Kermit, Super Kermit, Xmodem, Xmodem CRC, Xmodem 1K, Ymodem, and Ymodem G.

Terminal emulators. Five terminal emulators are provided: ANSI, TTY, VT52, VT100, and VT102.

Complete scripting language. This feature lets you write miniature programs so that logging onto Host computers can be done automatically, with little, if any, keyboard input.

Easy access to popular online services. QuickLink II Fax automates the logon sequence for popular services such as CompuServe, Dow Jones, and Genie.

16c550 UART support. With all it's modem features, QuickLink II Fax won't slow you down. To guarantee the fastest throughput possible, QuickLink II Fax supports the 16c550 UART, which is found on some high speed PC serial cards. If you have a high speed modem that operates at 9600 baud or faster and a PC equipped with a 16c550 UART and the Windows 3.1 COMM driver, QuickLink II Fax ensures that you will get the maximum data throughput from your high-speed data communication system!

Chapter 1

Installing QuickLink II Fax

Chapter 1 describes the requirements needed to install QuickLink II Fax, provides step-by-step instructions for installation, and walks through running the program for the first time. It does so in the following order:

1. Installation of the Windows and/or DOS versions of QuickLink II Fax from within Windows (pg 1).
2. Running QuickLink II Fax for Windows for the first time (pg 4).
3. Running the DOS version of QuickLink II Fax for the first time (pg 7).
4. Installing QuickLink II Fax from DOS (pg 12).

Minimum Windows system requirements

To use QuickLink II Fax for Windows on your computer, make sure you have the following **minimum** system requirements:

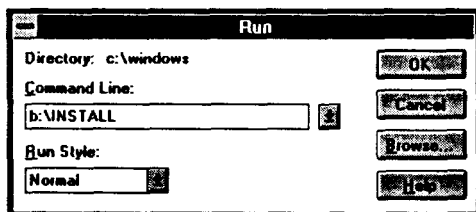
- Microsoft Windows 3.0 or greater
- IBM-PC AT, PS/2 or compatible computer (286 or higher)
- 1 Megabyte of RAM memory
- a hard disk with 2 MB free disk space
- MS-DOS or PC-DOS operating system 3.3 or greater
- CGA, EGA, VGA, 8514/A, or Hercules graphics adapter and monitor
- EIA Class 1 or 2 standard fax/modem

Windows installation instructions

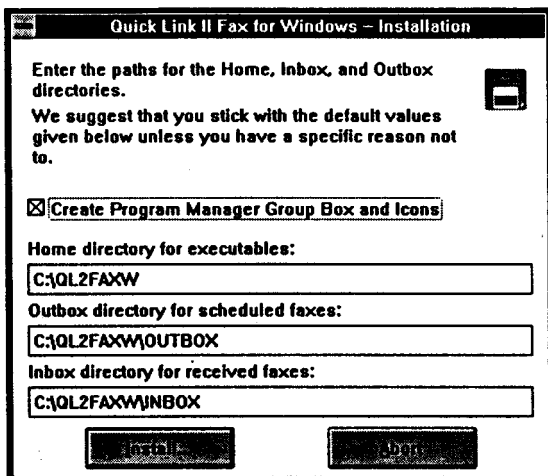
For your convenience, QuickLink II Fax comes on either a 3½-inch or a 5¼-inch diskette; replacement disks or alternative sizes can be ordered with the Replacement Disk Form at the end of this book

(some versions may arrive to you on 2 disks). All the files on the QuickLink II Fax Install disk are compressed and cannot be used until the Install program has been run. The Install program can be run from either the DOS prompt or with the Windows **Run** command. The following steps will walk you through the Installation process.

1. Turn on your computer. If your computer boots into Windows automatically, jump ahead to step 3. If your computer launches a menu program or shell, quit out of it and go to the DOS prompt.
2. Place the QuickLink II Fax diskette into the appropriate drive. If you are installing from the A: drive, type **A:INSTALL** and press the Enter key. If you are installing from the B: drive, type **B:INSTALL** and press the Enter key. The Install program will ask you what versions of QuickLink you want to install, then launch Windows in Standard Mode. Jump ahead to step 4. Alternatively, simply start Windows and go to 3.
3. To run the Install program from the Windows Program Manager, pull down the **File** menu and choose **Run**. At the Command Line field, type in **A:INSTALL** if the QuickLink II Fax Install disk is in drive A; type **B:INSTALL** if it is in the B drive. Press the Enter key or click **OK**.



4. Since you received the Win/DOS software combination, a dialog box will appear prompting you with which products you wish to install. Select the product combination you wish to install and continue.
5. The main installation dialog box appears on screen with the default directory **C:\QL2FAXW** as the install directory for QuickLink II Fax's main program files. The **Inbox** and **Outbox** are sub-directories of the install directory. To accept the defaults, simply press the Enter key or click the **Install** button.



6. Insert the QuickLink II Fax Install disk #2 when prompted, if necessary.
7. The **Default Printer** dialog box appears, asking if you want the QuickLink II Fax Driver to be your Windows default printer driver. Click **No** if you want to keep your regular printer driver as the default. Click **Yes** or press the **ENTER** key if you want the Fax driver to be the default Windows printer. This setting can be changed at any time with the Windows Control Panel.
8. When the installation is complete, a QuickLink II Fax Program Group is created in the Program Manager with the QuickLink II Fax program icons inside. There is also an icon labeled **Read Me!**, which contains important information and any changes that have occurred to the software since this manual was printed. We recommend that you read it by double-clicking the **Read Me!** icon. It can be printed from Notepad or Write for future reference. Note that no icons are created for the DOS
9. Remove the QuickLink II Fax disk from the floppy drive and put them in a safe place away from heat, dust, and magnetic fields. This is also a good time to fill out the registration card and mail it in.

Starting QuickLink II Fax for Windows for the first time

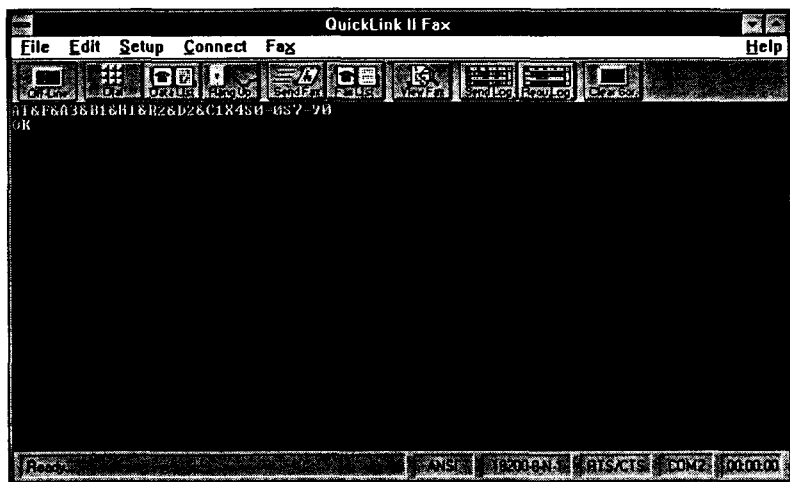
There are several ways to run the QuickLink II Fax main application. When in Windows, the most straightforward way is to open the QuickLink II Fax Program Group by double-clicking on it, and then double-clicking on the QuickLink II Fax program icon to launch the application. It can also be launched by pulling down the **File** menu, choosing **Run**, and running the file **C:\QL2FAXW\QL2FAXW.EXE**.

The first time QuickLink II Fax is run, the program will ask which **COM port** your modem is connected to in the Modem Setup dialog box. You are given the option to either directly select the appropriate COM port (COM1 through COM4) or use the **Auto Detect** feature, which is the default. This default choice allows QuickLink II Fax to test the COM ports on your PC and automatically determine which COM port is being used. Since most communications problems involve incorrect COM port selections, it is recommended that you accept the default selection of Auto Detect. If QuickLink II Fax does not find a COM port, it asks you to select a default COM port.

If your computer has another serial device, such as a serial mouse or a scanner, be sure each serial device has a different COM port and **IRQ** setting than the fax/modem QuickLink II Fax is using. Otherwise, the serial devices and QuickLink II Fax will not operate properly. For more information on COM ports and IRQ settings, refer to Appendix C.

Elements of the main screen

When you start QuickLink II Fax, the main screen appears. The main screen consists of the following elements:



The Title Bar is the top of the QuickLink II Fax window, and responds to being dragged and clicked on like other Windows programs. The Menu Bar consists of the pull down menus which contain all of QuickLink II Fax's commands; they can be accessed with the mouse or through Alt-Key combinations. Beneath the Menu Bar is the Button Bar, which provides quick access to QuickLink II Fax's most frequently used commands. The Terminal Window appears below the button bar. When you perform data activities, the data will scroll across the terminal window as it is sent to or received from the remote modem. Direct communication with your fax/modem also takes place within the terminal window — AT commands can be typed in directly and the modem responses can be read. The Initialization string is just such an AT command and the OK beneath it is a modem response.

The Terminal Status Bar runs along the bottom of the QuickLink II Fax window and provides you with a display of important communications settings and messages about current activities. For example, if you hang up following a modem call, the Message **Disconnecting...** appears. Selecting a menu option makes a brief explanation appear here too. Information to the right of this message area displays:

- The current terminal emulation (the default is TTY)
- The current line settings (baud rate, data bits, parity bit, stop bits)

- The flow control being used, if any.
- The serial port QuickLink II Fax is addressing (This is the COM port setting).
- The duration of your data call (the timer is also controlled using the **Start Timer**, **Stop Timer**, and **Reset Timer** commands in the **Edit** menu).

You can also click on the current terminal emulation, line settings, flow control, and/or COM port information in the terminal status bar to change these parameters. If you desire, you can turn off the terminal status bar with the **Terminal Options** dialog box from the **Setup** menu.

Using the default configuration

When QuickLink II Fax is started for the first time, certain default settings go into effect. These settings allow the majority of users to begin fax and data transmissions immediately. The first table shows the default settings for fax communications, and the second shows the default settings for data communications. If you need to change settings, or want to find more information about them, refer to the appropriate page numbers.

Default fax settings

Parameter	Setting	See Page:
Maximum transmit baud rate	9600	W-35
Number of redialing attempts	3	W-37
Seconds between redialing attempts	30	W-37
Cover page sent with faxes	Enabled	W-36
Default cover page information	Blank	W-39
Default cover page graphic	None	W-39
High resolution faxes sent	Disabled	W-36
Paper size of sent faxes	Letter	W-36
Print Received faxes on receive	Disabled	W-39
Fax receiving at Windows startup	Disabled	W-39

Default data settings

Parameter	Setting	See Page:
Baud rate	2400	W-57
Data, parity, stop bits	8, None, 1	W-57
Flow control	None	W-57
Terminal emulation	TTY	W-61
Autobaud	Enabled	W-60
Redial busy data number	Enabled	W-60
Auto-answer a call	At first ring	W-59
Answer mode	Auto Detect	W-59

Where to proceed

QuickLink II Fax for Windows is now successfully installed and ready for faxing documents out of any Windows application, sending faxes from within QuickLink II Fax itself, and can be set for receiving faxes. The next section gets you started faxing with the DOS version of QuickLink II Fax.

Starting QuickLink II Fax for DOS for the first time

From the DOS prompt (in other words, when not running Windows), QuickLink II Fax for DOS can be started by simply typing:

QL2FAX

when in the QL2FAXW directory. Since this is the first time QuickLink II Fax is being run, the program asks you for some initial setup information.

First, QuickLink II Fax asks you what type of monitor you are using: color, monochrome, or LCD ("Liquid Crystal Display", found on most laptops). Enter the type of monitor you have to continue.

Next, QuickLink II Fax asks you what COM port your fax/modem is connected to, and volunteers to search your system for it with the **Auto Detect** setting selected by default. If you already know where your fax/modem is connected or Auto Detect is unable to find your fax modem, manually select a COM port by moving the dot to the correct COM port with the arrow buttons on your keyboard and pressing the ENTER key. These settings can be changed later within QuickLink II Fax if your system configuration changes. *If you have an external fax/modem, be sure to have it connected to your computer and turned on at this time.*

Once QuickLink II Fax knows your initial settings, it starts as it normally will, starting up with the **Start-up Screen** — displaying the **version number** of the program and the Quick Help display. Take note of both and either click **OK** with your mouse or press the **ENTER** key to continue. Finally, the QuickLink II Fax main screen appears.

Special mouse and modem considerations

Your modem connects to your computer via a COM port (COM1 through COM4; your serial ports) — so does your mouse if you have what is called a “serial mouse”. Your modem and mouse **cannot** use the same COM port. Also, *if your fax/modem is on COM1 or COM3, the mouse can only use COM2 or COM4. If the fax/modem is on COM2 or COM4, then the mouse can only use COM1 or COM3.* If you do not follow this very important rule, your mouse or modem will not work.

Additionally, in order for your mouse to function in the DOS environment, you must have the mouse's DOS driver installed in either your CONFIG.SYS or AUTOEXEC.BAT file, depending on the brand of mouse you have. These drivers should have been included with your mouse and might have been already installed by your dealer. If your mouse works in Windows, but not in DOS or QuickLink II Fax, consult the documentation that came with your mouse or contact your dealer.

Elements of the main screen

When you start QuickLink II Fax, the main screen appears. The main screen consists of the following elements:

The **Menu Bar** runs along the top edge of the screen, and it consists of the pull-down menus which contain all of QuickLink II Fax's commands; they can be accessed with the mouse or through Alt-Key commands (more on this next section). The right edge of the Menu Bar displays the current datacom settings of the fax/modem and messages about current activities. Beneath the Menu Bar is the **Terminal Window**. When you perform datacom activities, the data will scroll up the Terminal Window as it is sent to or received from the remote modem. Direct communication with your fax/modem also takes place within the Terminal Window — AT commands can be typed in directly and the modem responses can be read. The **Initialization String** is just such an AT command and the **OK** beneath it is a modem response.

Getting around within QuickLink II Fax

QuickLink II Fax provides a state of the art “pull-down menu” user interface, so users familiar with Windows or a Macintosh will feel right at home. If you have never used your mouse much, or don’t even have one and plan to use the keyboard, then this section is for you.

Needless to say, the program can be operated directly from the keyboard or with the use of a MicroSoft or Mouse Systems compatible mouse. At the top of the screen is the QuickLink II Fax Menu Bar. The area below the Menu Bar is the terminal window. The terminal window will be used to display all textual information coming from the modem as well as displaying all information you send to your modem via the keyboard. Different functions, such as accessing the help window, will generate dialog boxes that allow you to perform specific operations or provide you with special information. These dialog boxes temporarily cover portions of the terminal window, but the full screen with information intact is displayed when the dialog boxes are removed.

The Menu Bar allows you to easily access the many functions provided with QuickLink II Fax as well as providing you with the current QuickLink II Fax program settings. At the right side of the Menu Bar you will find the current baud rate, data bit, stop bit and parity settings (Refer to Chapter 5 for more information). You will also find displayed the current terminal emulation mode. At different points in the use of QuickLink II Fax you will find additional status information displayed in the Menu Bar.

Accessing the Menu Bar

From Keyboard: You can access the Menu Bar by simply pressing and holding down the ALT key and then selecting the key that matches the first letter in the menu item, such as “C” for the Connect Menu. The only exception to this rule is the Fax Menu that use the “x” key since the “F” key is already used for the File Menu (These letters are highlighted when the Alt key is pressed). When operating from the keyboard, you could also use the left and right arrow keys to select the menu item. First depress the ALT key to activate the Menu Bar and press the desired arrow key to select the menu item. Press either the ENTER key or the down arrow to open the selected menu.

With Mouse: If you are using a mouse, simply place the mouse pointer on the desired menu item and click the left mouse button. This action will cause the desired menu to drop into view.

Selecting menu functions

After selecting the desired menu item from the Menu Bar, the full menu for that item will drop into view and appear as is shown in the example below.

From Keyboard: To select a function on the displayed menu, simply press the up or down arrow key to highlight the desired function, and press the ENTER key to select that function. Note also that the a letter of each menu function is highlighted or in the case of monochrome screens, underlined. You can select a menu function directly by pressing the key that corresponds to the highlighted letter. Some menu functions also have ALT key equivalents which are displayed to the right of the menu function. Pressing the ALT key equivalents have the same effect as selecting the menu item from the menu bar and then selecting the desired menu function.

With Mouse: If you have a mouse simply depress the left mouse button and drag (click and hold) the mouse pointer up or down the menu to highlight the desired function — release the mouse button when the desired function is highlighted. You may also point the mouse cursor directly at the desired function and click the left mouse button to select.

Dialog boxes

Many menu selections will cause a Dialog Box to be displayed. A dialog box is simply an area in the program where QuickLink II Fax asks you for some information or wants to tell you something. Dialog boxes can contain a number of entry fields of a variety of types. The example below is of the Terminal Setup Dialog box that contains a variety of these entry fields.

Textual information is entered by using a Text Box. Simple on/off selections use check boxes. Option Lists with a limited number of possible responses use option pointers (also called “Radio Buttons”) for selection. Another method of selecting from a list of possible responses is through the use of the scroll box. Lastly, a dialog box will also contain selection buttons. A button with a double border is a default button which can be selected at any time, with the exception of when a scroll box is active, by simply pressing the

ENTER key. Pressing the Escape key at any time will cause a dialog box to disappear and has the same effect as selecting a Cancel Button.

To move from area to area within a dialog box, simply press the TAB key. To reverse the order of movement between entry fields, press Shift-TAB. If you have a mouse, simply point the mouse cursor at the desired entry and click the left mouse button to select an entry item.

Text Boxes

A Text Box is used to enter textual information such as the modem initialization string on the Modem Setup Dialog Box. When the current value contained in a Text Box is highlighted, pressing the Backspace key will delete the contents.

Check Boxes

Check boxes either turn an option on or off by placing an "X" in the box. A Check Box will toggle between on or off by pressing the Space Bar when a Check Box field is active/highlighted. When using a mouse, simply place the mouse cursor on the Check Box and click the left mouse button to toggle the Check Box.

Option Lists

Option Lists allow you to choose an item in a list by simply moving the Option Pointer to the desired option, such as when selecting the baud rate in the Line Settings dialog box. Use the up, down, left or right arrow, or the mouse cursor to move the selection bullet.

Scroll Boxes

Scroll Boxes allow you to select from a large number of possible options, such as when selecting the Help Screen topic. Pressing the up or down arrows or clicking the mouse cursor on an arrow will cause the various options in the scroll box to be highlighted. Pressing the ENTER key or clicking the left mouse button will select the highlighted item.

Buttons

Buttons perform specific tasks. The **OK** button accepts all dialog entries as displayed and removes the dialog box. The **SAVE** button permanently saves the current status of the dialog entries, writing the information to disk. The **CANCEL** button removes the dialog box and does not use any changes made in the dialog entries. The **HELP** button causes the Help Screen Scroll Box to be displayed with the topic highlighted that corresponds to the dialog box for which help has been requested.

To select a button, press the **ENTER** key when the button is highlighted or place the mouse cursor on the button and click the left mouse button. You can also depress the **ALT** key and press the key that corresponds to the first letter in the button title.

Help

Remember, if you need help while using QuickLink II Fax, all Help Screens are directly available by depressing the **ALT** and "**H**" keys simultaneously or selecting **HELP** from the Diamond Menu.

Using the default configuration

When QuickLink II Fax is started for the first time, certain default settings go into effect. These settings allow the majority of users to begin fax and data transmissions immediately. The first table shows the default settings for fax communications, and the second shows the default settings for data communications. If you need to change settings, or want to find more information about them, refer to the appropriate page numbers.

Default fax settings

Parameter	Setting	See Page:
Number of redialing attempts	3	D-95
Seconds between redialing attempts	30	D-95
Cover page sent with faxes	Enabled	D-95
Default cover page information	Blank	D-98
Default cover page graphic	None	D-98
High resolution faxes sent	Disabled	D-94
Paper size of sent faxes	Letter	D-95
Fax receiving at Computer startup	Set by User	13

Default data settings

Parameter	Setting	See Page:
Baud rate	2400 (variable)	D-114
Data, parity, stop bits	8, None, 1	D-114
Flow control	None	D-118
Terminal emulation	TTY	D-117
Autobaud	Enabled	D-117

Redial busy data number	Enabled	D-118
Auto-answer a call	At first ring	D-116
Answer mode	Auto Detect	D-116

DOS Installation instructions

If you don't have Windows or don't care to use it, you can install the DOS version of QuickLink II Fax from DOS directly off the QuickLink II Fax Install disk. All the files on the QuickLink II Fax Install disks are compressed and cannot be used until the Install program has been run. The following steps will walk you through the installation process.

1. Turn on your computer. If your computer boots into Windows automatically, pull down the **File** menu in the Windows Program Manager and choose **Exit**, which exits out of Windows to the DOS prompt. If your computer launches a menu program, quit out of it to the DOS prompt. Otherwise, your computer should have the **C:\>** prompt showing.
2. Insert the QuickLink II Fax Install disk into your floppy drive. If you put the disk into the A: drive, type **A:\DOSINST**; if you put it into the B: drive, type **B:\DOSINST** and press the **ENTER** key.
3. Answer the **Color** question about your monitor with either a **Y** or **N**. Press any key to go past the System Requirements screen.
4. The Target Drive screen asks you which hard drive you want QuickLink II Fax to install on — the default is **C**. To accept this drive, press the **ENTER** key.
5. The follow-up question asks you which directory on your hard drive you want QuickLink II Fax installed on — the default is **\QL2FAX**. If you want QuickLink II Fax to install in another directory of your choosing, type in the new directory name and press **ENTER**; otherwise, simply press the **ENTER** key to accept the default directory. *If you do not accept the default directory or enter a different directory, QuickLink II Fax will install on the root directory of your hard drive, generally regarded as a bad thing to do. If you do not care to think about directories or are unclear on the concept, simply accept the default setting and just press ENTER.*

6. QuickLink II Fax asks for confirmation of your settings. Press the ENTER key to accept. Accepting begins the unpacking of the QuickLink II Fax files.
7. Exchange Install Disks when prompted, if necessary.
8. The Installer will suggest that you print the README file at this time. The README file contains updates to the manual since the time of printing. This file can be viewed and printed at any time. To print it now, press Y; otherwise, press N.
9. The **Receive Fax Load Option** dialog box appears next, asking you if you want the module that actually receives faxes to be loaded into memory every time you start your computer. Answering Y enables your computer to receive faxes automatically without you having to actually turn fax receiving "on". Answering N means that you must manually load the module that receives faxes whenever you turn your computer on and/or wish to receive faxes. The trade-off of having the module load automatically at boot up is that some conventional memory is subsequently occupied at all times, and you may be surprised when an unexpected call comes in and your computer automatically answers it. This option can be manually changed at any time. Press Y or N to continue.
10. The **FastFax IV Load Option** dialog box appears next, asking you if you want the module that allows you to send a fax out from most printing DOS applications to be loaded whenever you start your computer. Answering Y enables you to fax out of applications directly without having to manually load the module. Answering N means that you must manually load this feature when you wish to fax out of applications directly. FastFax takes an additional amount of conventional memory above and beyond the Receive Fax module when loaded, so you may only want to load FastFax in memory as you use it. Press Y or N to continue.
11. A Confirmation dialog box double-checks your options. Press Y or N to continue.
12. To work properly and install any additionally selected load options, QuickLink II Fax needs to modify your AUTOEXEC.BAT file. Unless you have a specific reason to do otherwise, press M to select the first option. QuickLink II Fax

then completes the installation, prompts you while quitting the installer, and leaves you with the DOS prompt in the QuickLink II Fax install directory.

13. Remove the QuickLink II Fax disks from the floppy drive and put them in a safe place away from heat, dust, and magnetic fields. This is a good time to fill out the registration card at the end of this manual and mail it in.

Where to proceed

QuickLink II Fax is now successfully installed and ready for faxing documents from any Windows application that can print to a LaserJet Series II, sending faxes from within QuickLink II Fax itself, and can be set for receiving faxes. The second half of the User's Guide gets you started faxing out of the DOS environment.

Additional Win/DOS Considerations

This section outlines the special features of QuickLink II Fax for Windows when it is used in conjunction with QuickLink II Fax for DOS.

We have developed the QuickLink II Fax for Windows package with the idea that Windows users do not operate in the Windows environment exclusively. Therefore we have given our Windows package the special capability of communicating with our QuickLink II Fax for DOS package. This enables a user to share a variety of fax/data information between Windows and DOS, such as Phone Lists, Fax Logs, and Scheduled Faxes. No longer does a user have to worry about receiving a fax that may come through if they have temporarily quit Windows to do some work in DOS. This feature also gives the user the ability to schedule faxes with the DOS product and have them detected and transmitted by the Windows product. However, in order for this unique feature to operate properly, there are some requirements that must be strictly followed.

Software Setup Requirements:

1. Both of these products must be installed to the same directory on your hard drive. The Installer included with the Win/DOS single disk package will default to installing both products to C:\QL2FAXW.
2. The DOS Send/Receive Fax TSR (RECFAX.BAT) **must** be loaded into memory prior to running Windows.

Files that the Win/DOS Combination can share:

1. The Send Fax Log (FAXSEND.LOG)
2. The Receive Fax Log (FAXREC.LOG)
3. The Data Phone List (PHONE.LST)
4. The Fax Phone List (FAXPHONE.LST)
5. The Send Fax Scheduler (SCHEDULE.QL2)
6. Setup File Information (SMSSETUP.DAT)

Chapter 2

Getting Started — Windows

Chapter 2 describes how to begin using QuickLink II Fax. It describes how to send a fax from a Windows application, from within the QuickLink II Fax application, and how to prepare to receive a fax. It also describes how QuickLink II Fax receives data/modem calls, and the online help facilities as well.

Faxing out from a Windows application

The most convenient way to send out a fax is to do it directly from your Windows programs. The benefits of sending out faxes in this manner are that there is no need to interrupt your work to fax out, and that all of your fonts, graphics, and formatting are incorporated; true WYSIWYG faxing!

The process is simple. When QuickLink II Fax is installed, it installs a print driver called **QuickLink II Fax on FAX/MODEM**. When you print to this print driver, your document is converted into a faxable format, the Fax Manager activates, and the fax/modem picks up the phone line, dials, and sends out the fax.

As an example, minimize any program you are in and double-click on the **Read Me!** icon in the QuickLink II Fax Program Group, which will run the Windows **Notepad** program and load the Read Me! file. Alternatively, you could double-click on the Windows **Notepad** icon, located in the **Accessories** group of the Program Manager, and open the file **README.TXT** in the QuickLink II Fax directory.

To fax this document, simply pull down the **File** menu and choose **Print Setup**. Click on **Specific Printer** and choose **QuickLink II Fax**. Clicking on the **Options** button at this point will call the **Fax Driver Setup** dialog box, which sets the fax's **Resolution** and **paper size** — click **OK** to set. Next, pull down the **File** menu and choose **Print**.

After a pause for “printing”, the **Send Fax Information** dialog box appears, which is where the telephone number is input and the **Cover Page** set. The left portion of the dialog box allows you to input the name and phone number of the fax recipient. Click on the **Phone List** button if you want to choose a number from the **Fax Phone List**, or click on **Add** if you wish to add the current name and number to the Fax Phone List. The **Manual Send** checkbox allows for sending a fax to a fax machine which is already on the telephone line, such as when an operator must make a connection for you. When checked, clicking the **Send Fax** button will prompt you to pick up the phone and dial manually, allowing you to send the fax when the line is already off-hook.

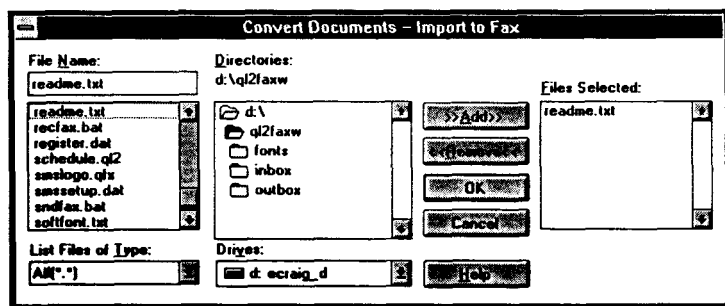
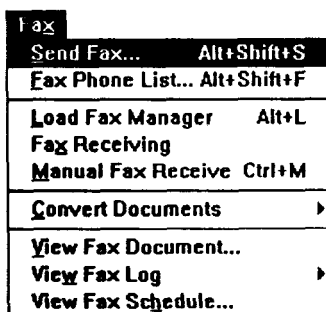
The right side of the dialog box allows you to **Schedule** the time of transmission of the fax; just key in the date and time you want the fax sent to send it later — leave it alone if you want to send the fax now. If you wish to send a **Cover Page**, check the **Send Cover Page** check box. This Cover Page will contain the information defined in Cover Page Setup dialog box in the QuickLink II Fax main application. The Cover Page for this fax can be changed or a note added to it by clicking on the **Modify Cover Page** button. Fill out this dialog box with the information needed to send out a test fax, and click on the **Send Fax** button when the information is correct.

When **Send Fax** is clicked, the document will print to the fax/modem, calling up the **Fax Manager**. The Fax Manager, in turn, dials the telephone number, displays the status of the fax, and alerts you when the fax is finished. If the Fax Manager appears only as an icon at the bottom of the screen, double-click it to maximize the Fax Manager dialog box. After it sends, you can close or minimize the Fax Manager and continue to work as though you had simply printed to your normal printer.

Faxing out from QuickLink II Fax

While faxing directly out of your application is probably the most convenient way to fax a document, there are instances when faxing out from the QuickLink II Fax main application makes sense, such as when you want to quickly fax out an unformatted TEXT file (such as your AUTOEXEC.BAT file to a technician), or pre-converted fax files, or previously received faxes.

For this example, start the QuickLink II Fax program — after it loads pull down the **Fax** menu and choose **Send Fax**, or if you like, click on the **Send Fax** button on the button bar. This calls up the **Select Files** dialog box, which is where files to fax out are selected and converted. There are three main sections to this dialog box: the **Directories** list box in the center, the **Files Available** list box to the left, and the **Files Selected** list box to the right. Your goal is to select the directory of the file you want to fax with the **Directories** list box, highlight the file in the **Files Available** list box, click the **Add** button to bring the file over to the **Files Selected** list box, and click **OK** when finished.



There is already a text file called **README.TXT** in the QuickLink II Fax directory to illustrate faxing out this way, so select the **QL2FAXW** directory in the **Directories** list box. The **Files Available** list box will display all the files in this directory; use the scroll bar to scroll down until **README.TXT** is visible and click on it once to select it. When highlighted, click the **Add** button. The **Document Type Selection** dialog box appears in order to confirm the type of

file selected; the README.TXT file is a text file, so ensure that **Text** is chosen and click **OK**. This finally brings the file to the **Files Selected** list box. You could add up to 255 files to the **Files Selected** list box to fax out in this manner, but for now, just click **OK** to fax this one file.

The **Send Fax Information** dialog box results, and it is virtually identical to the **Send Fax Information** dialog box you used when faxing out of Notepad. Fill out the information requested and click **Send Fax** when finished. As before, the file will convert to a faxable format, start up the Fax Manager, dial, and send.

Receiving a fax

Receiving a fax is an almost totally automatic procedure. To receive a fax, simply have the **Fax Manager** loaded into memory and **Fax Receiving** enabled (this is the default setting). It can be minimized at the bottom of the screen, open and maximized, or open behind other windows; it merely needs to be available in memory. This can be done by simply double-clicking the Fax Manager icon from the QuickLink II Fax group in the Program Manager, or by choosing **Load Fax Manager** from the **Fax** menu within QuickLink II Fax. Since its default setting enables it to receive faxes, it is set up and ready to receive immediately. The Fax Manager can be launched automatically when Windows starts up by configuring it to do so in the **Receive Fax Setup** dialog box under the **Setup Menu** (see Chapter 4).

The Fax Manager normally stays in an **Idle** state while awaiting a call; it switches over to active while actually answering. When a fax gets received, the call is automatically logged in the **Receive Fax Log** and the fax gets saved on the hard disk in the **Inbox** directory in the QuickLink II Fax directory. The first file gets named FAX0001.REC — the 4 digit number increases with each received fax. The received fax file can be viewed, printed, and re-sent at any time once saved on disk; QuickLink II Fax can be configured to automatically alert you and print the fax as soon as it arrives and do it all in the background as well (See Chapter 4).



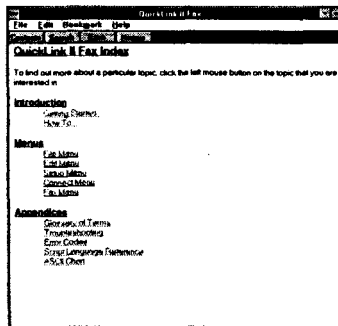
FaxManager
-- Idle

The Fax Manager's default settings will let answer the incoming call to determine what it is: either fax, data, or voice. If the call is a fax, it will be received in the manner just described. If it is a modem/data call, the Fax Manager will seamlessly pass the call

into the QuickLink II Fax telecommunications mode, even automatically launching the QuickLink II Fax main application if it already isn't running. If the incoming call isn't a fax or a modem, QuickLink II Fax will display a message on screen to inform you a voice call has come through: Pick up the Phone. In short, the Fax Manager will always answer the incoming telephone call and determine its nature unless otherwise configured. For more detailed information about the Fax Manager, refer to Chap 4.

Online help

At almost every point in QuickLink II Fax, there is a **Help** button just waiting to be clicked if you are beginning to get lost or don't know what to do next.



Additionally, there is a **Help** menu at the right end of the menu bar for broader concepts and the Help Index. This online help system summarizes most of this manual and can even be printed by choosing **Print Topic** from the **File** menu in the Help Window.

Chapter 3

Viewing and Printing Faxes

There is little point in receiving faxes unless you can easily look at them and print them. Chapter 3 explains how to print and view faxes, as well as provides a description of fax files and their usual locations.

QuickLink II fax files

QuickLink II Fax has a standard naming convention for received faxes and the files that they are saved in. All received fax files have the three letter file extension **.REC**. Also, faxes are numbered sequentially and have the word **FAX** as the first three letters in the filename. Therefore, your first received fax will have the file name **FAX0001.REC**. Received faxes also get saved in the same directory every time, so there is no need to search your hard disk for fax files. The default location is the **INBOX** subdirectory off the QuickLink II Fax directory (this would look like **C:\QL2FAXW\INBOX**), though this can be set differently with the **Receive Fax Setup** dialog box under the **Setup** menu (refer to Chap 4).

The files created by you to fax out have a virtually identical internal format as received fax files, but they have a different three letter file extension so you can easily keep track what faxes are incoming and which are outgoing. These outgoing fax files are **.QFX** files and these are the files that you create when you convert your documents and graphics files to the faxable format by clicking the **Save to File** button in the **Send Fax Information** dialog box when using the print driver. QFX files normally get stored in the **OUTBOX** subdirectory off the QuickLink II Fax directory (this would look like **C:\QL2FAX\OUTBOX**), though this can be set differently with the **Send Fax Setup** dialog box under the **Setup** menu (refer to Chap 4).

It cannot be stressed enough that **REC** files and **QFX** files are the same type of files with different three letter extensions. They are printed, viewed, faxed out, and in every other way handled the same way by QuickLink II Fax.

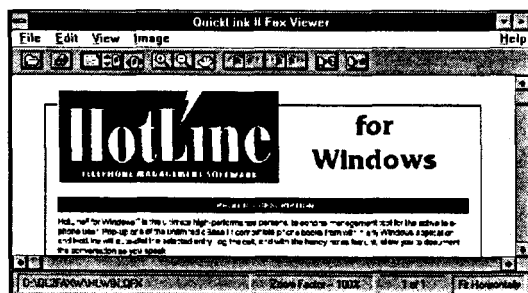
Viewing faxes

QuickLink II Fax has a separate module used solely for viewing faxes; the **Fax Viewer**. The Fax Viewer can be accessed several ways: it can be launched by double clicking on the **View Fax** icon in the Windows Program Manager, by clicking on the **View Fax** button on the QuickLink II Fax button bar, or from within the QuickLink II Fax application by choosing **View Fax Document** from the **Fax** menu. For this example, launch the Fax Viewer from the QuickLink II Fax main application with the **Fax** pull down menu.

Choosing **View Fax Document** calls up the **View Fax Document** single file selection dialog box. It is here that specific QFX or REC files can be selected to view. To select one, simply select the directory where the file is with the **Directories** list box and double click on the file you want to view in the **Files** list box. Choosing **Open** in the Fax Viewer will call this same dialog box to select a fax file to view. There is already a file called README.QFX in the QuickLink II Fax directory to test the viewer, so select this file to view. (This file was created when sending the README.TXT file from the QuickLink II Fax main application in the previous chapter. If you did not follow the tutorial, this file will not exist.)

The fax viewer

When a file loads into the Fax Viewer, it loads at full size at the upper left corner of the fax. Immediately above the fax is the Viewer button bar, which provides easy access to all the viewer functions. These functions are also duplicated through the pull down menus if you do not want to use the button bar (the button bar can be removed by choosing **Button Bar** in the **Edit** menu).



The first button is the **Open File** button, which allows you to open fax files within the module. The second button is the **Print** button, which will print the currently viewed fax to your active printer (Refer to the next section for more information about printing faxes). These commands are duplicated in the **File** menu.

The next three buttons allow you to change the view of the fax. The first is the **Full Size** button, which displays the fax at its actual size. Notice that since this is the view being used now, the button looks pressed in. Next to it is the **Fit Vertical** button, which makes the current page fit in the Fax Viewer Window vertically. The **Fit Horizontal** button, located next to the Fit Vertical button, does the same thing only horizontally. Depending how the Fax Viewer window is sized, these last two options can dramatically change the view of the fax. These commands are duplicated in the **View** menu.

The next set of three buttons controls the view and movement of the fax within the Fax Viewer window. The first and second are the **Zoom In** and **Zoom Out** buttons, which will increase and decrease the magnification of the fax. The **Grabber Hand** button will restore the pointer to the normal hand, which permits you to manually drag the fax around the window; the hand performs the same function as the scroll bars along the side of the window. Simply dragging the hand (clicking and holding the mouse button when the pointer looks like a hand) moves the fax. These commands are duplicated in the **View** menu.

The next set of four buttons is used to change pages in multiple page faxes. The first two in the set will display the **Previous Page** and **Next Page** of a fax document, respectively. The last two will leap to the **First Page** and **Last Page** in the fax. Note that these buttons will be dimmed for single page faxes. These commands are also duplicated in the **View** menu.

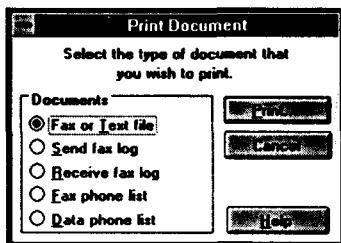
The next buttons control the image. The first is the **Flip Horizontal** button, followed by the **Flip Vertical** button, which allow you to flip the fax image along both axes. These commands are very useful if the person sending the fax put the original sheet through their fax machine upside-down or backwards. The following button **Reverses** the image — in other words it makes black text on a white sheet of paper look like white text on a black sheet of paper like a photo negative. These commands are accessible through the **Image** menu.

When you are through viewing a fax, choosing **Exit** from the **File** menu will close the Fax Viewer window. Since the fax file itself does not get altered in any way by viewing, there is no command to save the image.

Printing faxes

Faxes can be printed with any Windows compatible printer, so printers successfully configured to print out files from other Windows programs will successfully print faxes with QuickLink II Fax.

Printing faxes is a very simple process. From within the QuickLink II Fax main application or the Fax Viewer, pull down the **File** menu and choose **Print**. Choose **Fax or Text File** in the resulting **Print Document** dialog box and click **Print**. Choose the fax file you want to print from the **Print File** dialog box by selecting the directory in the **Directories** list box and double clicking on the file in the **Files** list box (this step is skipped when printing from the fax viewer, which prints the currently viewed fax).



The final steps to printing a fax are completed in the **Print** dialog box. It is here that you can select the printer you wish to print to by clicking the **Setup** button, setting the **Print Quality** with the pull down menu, and selecting the range of pages to print with **Page Range**. The **Image Scale** will print full size 8 1/2" by 11" faxes at their original size; long faxes can be automatically scaled to fit on a single sheet of paper by choosing **Scale to fit page length**.

Advanced faxing

If you have the need to manipulate your faxes and fax files further, refer to the next chapter for an explanation of advanced fax functions.

Chapter 4

Advanced Fax Functions

You now know everything you need to make QuickLink II Fax send and receive faxes, print and view them, and all the basic skills to keep you happily faxing. But there is so much more QuickLink II Fax can do to meet your special faxing needs. These special functions are covered in Chapter 4, and include:

- How to use the Fax Phone List
- Keeping track of your faxes by using the Fax Logs
- How to convert faxes into graphic files and vice versa
- How to schedule faxes to send at a later time
- How to view the outgoing fax schedule
- How to send a fax to someone who is already on the line
- How to send the same fax to hundreds of fax machines
- How to use the Fax Manager, and what it does
- How to change QuickLink II Fax's default fax settings

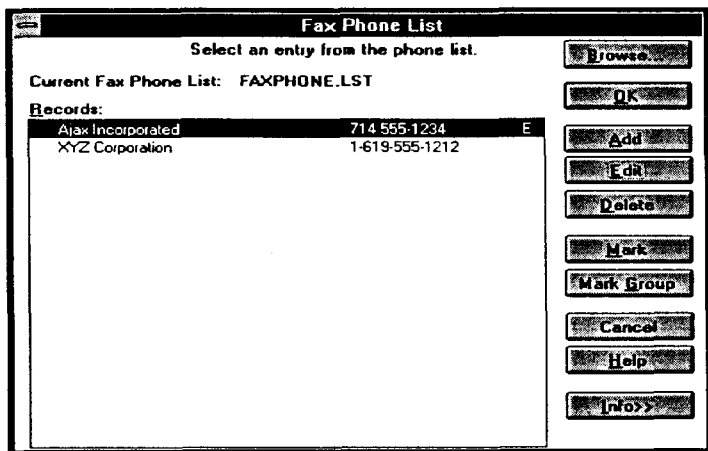
The fax phone list

The Fax Phone list provides access to your personalized fax phonebook for frequently dialed fax machines. It can be accessed by choosing **Fax Phone List** from the **Fax** menu and from the **Send Fax Information** dialog box, as well as directly from the button bar with the **Fax List** button.



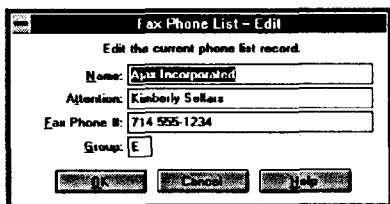
Building and editing the list

The **Fax Phone List** dialog box is comprised of the entry list box and its function buttons. To add a number to the Fax Phone List, click the **Add** button. The **Fax Phone List Add** dialog box will appear, providing text boxes for the **Name**, the **Fax phone number**, and the **Group** identifier, if desired. If a fax is normally sent to someone specifically within a company, a fax can be made to their attention by entering their name in the **Attention** field.



The **Group** identifier allows you to define a collection of fax numbers that may be dialed by selecting one member of the group. For example, you could easily send the same fax to all your customers by giving each person who is on your list who is a customer the same Group character, and then simply sending a fax to the group. Each person would receive the fax. A Group identifier may be any character on your keyboard. Using a Group identifier is optional. After entering the information required, click the **OK** button to add the entry to the directory.

The **Edit** button is used to modify an entry listing. To select an entry to edit, select the desired name and number by clicking on it and click **Edit**. The **Delete** button will remove the selected entry — the **Info** button displays the entire entry.



Choosing fax destinations

Once the Fax Phone List has the telephone numbers of your intended fax recipients, choosing entries to fax to is done with the **Mark** and **Mark Group** buttons. The **Mark** button is used to select those fax numbers to which you wish to send a fax — you may send

a fax to as many different numbers as you have entries in the Fax Phone List. Highlighting the entry you wish to send the fax to and clicking **Mark** will mark it. Entries must be marked before faxes can be sent to them; a marked entry has an icon placed next to it to show its marked status. **Mark Group** instructs QuickLink II Fax to select the entire group of fax numbers based on the Group of the highlighted entry. Marking instructs QuickLink II Fax to send a fax document or several documents to the Marked fax numbers when the **OK** button is clicked. The **Cancel** button will remove the Fax Phone List from your screen without dialing a remote fax telephone number or recording any updates made to the fax phone list.

If you are choosing **Fax Phone List** from the main application and a fax document has not yet been specified, the **Select Files** dialog box appears next to select a document to fax. It functions exactly as if choosing **Send Fax**.

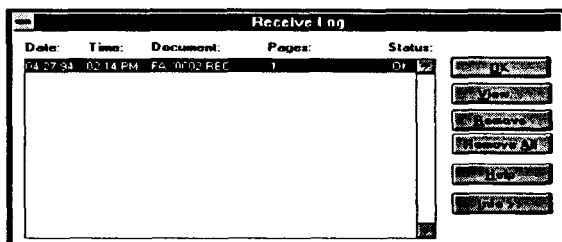
Fax logs

By choosing **View Fax Log** from the **Fax** menu, you can view a log of faxes that have been sent and received with the **Send Log** and the **Receive Log**. Both logs provide the status of the 200 most recent fax transmissions, and can be printed by choosing **Print** from the **File** menu. These logs are also accessible with the **Send Log** and **Rec. Log** buttons on the button bar.



Receive fax log

The Receive Fax log provides a line of information for each fax transmission received. The log displays the **Date**, **Time**, **Document** file name, the number of **Pages** received, and the **Status** of the received fax. A specific entry can be removed with the **Remove** button; the entire log can be cleared by clicking **Remove All**.



By clicking the **Info** button, additional information will be displayed for the selected fax, including the **Remote ID** of the sending fax, the **Resolution**, and the specific **Error** of a failed fax receive, if any. A fax can be viewed directly from the log by simply double-clicking it from the list box.

Send fax log

Each entry in the Send Fax log represents a transmitted fax from either the main application or the print driver. Each entry includes the **Date** and **Time** of the transmission, the **Name** of the fax called, the **Phone Number**, and the **Status** of the sent fax. A specific entry can be removed with the **Remove** button; the entire log can be cleared by clicking **Remove All**.

By clicking the **Info** button, additional information will be displayed for the selected fax, including the **Resolution** of the sent fax, the **Duration** of the call, and the specific **Error** of a failed fax send, if any.

Converting fax files graphically

All faxes that get received are **graphics**, as opposed to **text** files. As such, you can modify a fax by



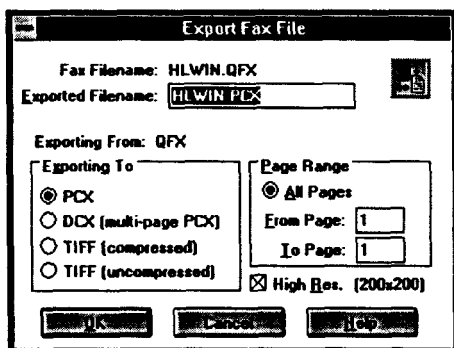
converting it into a common graphic file so that it can be edited with a **Paint** program, such as Windows Paint. Faxes that get sent out are graphics too (your text documents are converted into a “picture” of the text, so to speak), so you can convert graphic files to fax easily. Graphics conversions of faxes can be completed with the **Convert Documents** command, located under the **Fax** menu, which presents the sub-menu **Export from Fax** and **Import to Fax**.

Exporting a fax into a graphic file

The **Export** command allows you to convert a fax file (QFX or REC file formats) into a Paintbrush file (.PCX or .DCX) or one of two TIFF (.TIF) formats: compressed or uncompressed. These formats can be imported into most Windows and paint applications; in general, simple Paint programs tend to use PCX files, while higher end graphics programs work better with TIFF files.

To convert a fax file, choose **Export**, which calls up the **Export File** dialog box. With it, select the appropriate directory in the **Directories** list box and select the fax file you want to convert in the **Files** list box, clicking **OK** when highlighted.

Selecting a file calls up the **Export Fax File** dialog box, which controls the aspects of the graphic file the fax is being converted into. The filename of the fax can be changed in the **Exported Filename** field. The file format (and the three letter file extension for the new file) is controlled with the **Exporting To** radio buttons; simply pick a file format by clicking on it. Converting specific pages of multipage faxes can be controlled by entering a specific range of pages in the **Page Range** area, and the resolution can be manually changed by checking the **High Resolution** checkbox.



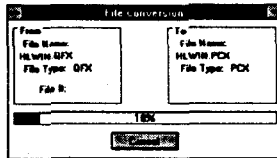
Clicking **OK** will start the conversion, and a percent bar will inform you of the status of the conversion. The resulting graphic file will be located in the same directory as the fax file from which it was created.

Importing a graphic into a fax

Ordinarily, graphics can be faxed out by simply printing to the fax/modem with the QuickLink II Fax print driver from the Windows application that created the graphic itself, but graphics can also be converted directly into a fax file from within QuickLink II Fax by choosing **Import to Fax**.

Since several graphic files can be converted at once, the multiple files dialog box **Convert Documents — Import to Fax** is used. Up to 255 files can be converted at once with this dialog box; files are selected just like sending a fax. The graphic formats supported

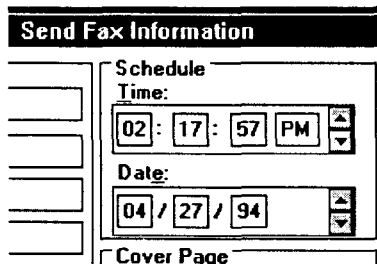
include PC Paintbrush (.PCX), multiple page Paintbrush (.DCX), TIFF (.TIF), Windows Bitmap (.BMP), or MacPaint (.MAC). Graphic files convert into .QFX fax files. Files get saved in their original locations.



After selecting the files to send and clicking **OK**, the document conversion window will appear during the conversion process to provide status information on the conversion.

Fax scheduling

When faxing out, there may be occasions when you do not want to fax the document out immediately, perhaps because you know the recipient's fax machine is only on at a certain time of the day, or because you want to fax during the night when telephone rates are lowest. If this is the case, you can schedule the fax to send later.



Scheduling a fax is very simple. Regardless of how you send out a fax, you can schedule an outgoing fax from the **Send Fax Information** dialog box. Within it, in the **Schedule** section, you can set the **Time** and **Date** when you want the fax to send. The document will immediately convert into a QFX file located in the OUTBOX folder, ready to be faxed out at the scheduled time. The date and time on the cover page will be added as the document is actually sent, reflecting the send time, not the convert time. If your computer is not powered on and running Windows at the scheduled time, it will begin the transfer as soon as the Fax Manager is launched.

Sending a fax manually

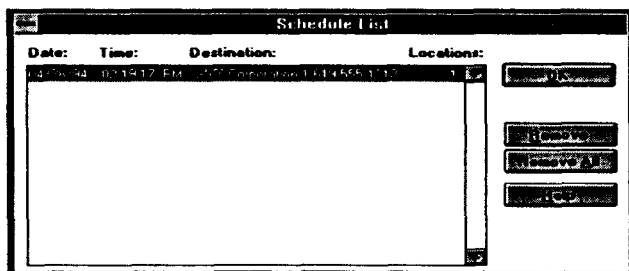
One of the nicer features of a true fax machine is its ability to send a fax to someone who is already on the phone with you. A fax machine owner could just reach down and press the Send button to start sending a fax over the line. Traditionally, fax modems have had a problem with this, but QuickLink II Fax allows you to do the equivalent.

To send a fax manually, send a fax as you ordinarily would, right up to the point where a phone number would be entered in the **Send Fax Information** dialog box. Instead of keying in a number, check the **Manual Send** checkbox and click the **Send Fax** button. Then, QuickLink II Fax will create a cover page and convert the file (if necessary), and prompt you to dial.

Manual receiving works through the Fax Manager; for more information, refer to the Fax Manager section in this chapter.

Viewing the fax schedule

The **View Fax Schedule** command, accessed from the **Fax** menu, allows you to see what fax transmissions are scheduled to be sent and at what date and time. Provided information includes **Date**, **Time**, **Destination**, **Phone Number**, and the number of **Locations** the document will be sent to. Unless you are broadcasting to a group (Refer to next section), this will read 1.



To remove a selected scheduled transmission, select the desired entry from the list and click the **Remove** button. To totally clear the schedule of faxes, click **Remove All**.

Sending the same fax to several destinations

The ability to send out the same fax to several destinations is called **broadcasting**, and is fully supported by QuickLink II Fax. The easiest way to broadcast a fax is to simply select more than one destination from the Fax Phone List by highlighting it and clicking the **Mark** button, which will put a small icon next to it to indicate that it is on the broadcast list. You may mark as many destinations in the Fax Phone List as you want — clicking **OK** will lock the destinations in. Destinations can be unmarked by highlighting the destination and clicking **Un-Mark**. A fax can be sent to a whole **Group** quickly by selecting a member of a Group and clicking on **Mark Group**. Clicking **Un-Mark Group** will unmark them all. Group broadcasting is the main reason to use the Group field in the phone list.

When combined with scheduling, it is easy to send literally hundreds of faxes at night; just enter a **Date** and **Time** in the **Send Fax Information** dialog box.

The Fax Manager

The Fax Manager is in charge of monitoring the modem and COM port for sending faxes, answering incoming calls, and identifying calls as either fax, voice, or data. When running, the Fax Manager is either a minimized icon at the bottom of the desktop, or maximized and displaying its status. It can be loaded by double-clicking the Fax Manager icon in the Windows Program Manager or by choosing **Load Fax Manager** from the QuickLink II Fax menu.

Fax Manager options

Clicking once on the minimized Fax Manager icon or clicking on the Control box on the upper left corner of the maximized Fax Manager window will pull down the Fax Manager Control menu. It is from this menu that the Fax Manager can be configured.

Fax Receiving is a toggled option, which means that the Fax Manager's

Restore	
Move	
Minimize	
Close	Alt+F4
<input checked="" type="checkbox"/> Fax Receiving	
Manual Fax Receive	Ctrl+M
Show Modem Monitor	



ability to receive faxes is enabled when this option has a checkmark next to it. This option is toggled by choosing it from the Control menu. When Fax Receiving is not checked, the Fax Manager has released the COM port and modem, so other modem programs can have access to your hardware. If you have an auto-dialer, for example, and it is not working while the Fax Manager is loaded, disable Fax Receiving. Clicking on the minimized Fax Manager with the **right mouse button** also toggles Fax Receiving. When disabled, the small phone on the icon will disappear. This command can also be set from the **Fax** menu within the QuickLink II Fax main application.

Choosing **Manual Fax Receive** forces the Fax Manager to pick up the phone line and start broadcasting "receive fax" tones, which will initiate a fax receive. This feature is useful for occasions where you are already speaking to someone on the telephone and they press the send button on their fax machine to send a fax. Many fax-back services will not work until the Manual Fax Receive command is used. This command can also be invoked from the **Fax** menu within the QuickLink II Fax main application. Not all modems support this option fully.

The bottom option on the menu toggles between **Show ModemMonitor** and **Show Percent Bar**. The percent bar is a status rectangle that fills as faxes are transmitted. While maximized, you can toggle between the two options by clicking on the status rectangle or ModemMonitor with your cursor. For more information on the ModemMonitor, refer to Chap 5.

Fax setup options

The commands and options that customize your faxing features and abilities that are accessible under the **Setup** menu are covered in this section.

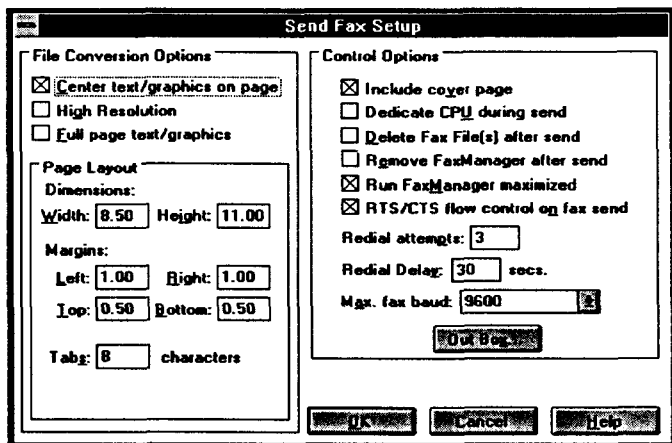
Send fax setup

The **Send Fax Setup** dialog box allows you to define standard information to be used during fax transmissions. The Send Fax Setup dialog box contains two sections; **Conversion options** and **Control Options**.

File Conversion Options

The File Conversion options define how a fax document will appear when it is transmitted to a remote fax when the file is converted

within QuickLink II Fax — most of these settings do not apply when converting faxes using the Print Driver. The first check box tells QuickLink II Fax to **Center the Text or Graphic** on the fax page vertically when converting. The second option is to allow you to change between **Normal resolution** and **Fine/High resolution** fax modes. Normal is the default resolution when this option is not selected. With normal resolution, QuickLink II Fax doubles the scaling on the vertical axis to allow for the differing resolution between the computer graphics standards and fax standards. This scaling is not needed for fine/high resolution. At document conversion time, QuickLink II Fax will look to see which resolution has been selected and perform any scaling necessary.



The next check box in this section, **Full Page Text/Graphics**, instructs QuickLink II Fax to force the page length specified in page layout, even if this results in blank space on a page. Otherwise, it will be the length of the text you are sending.

The **Page Layout** settings allow you to specify the page size and margin and tab settings when converting text files in the QuickLink II Fax main application. These options are used at fax conversion time.

Control Options

The second section of the Send Fax Setup dialog box provides fax transmission control options. The first check box, **Include Cover Page**, provides you with the option to include a cover page with each fax transmission. Failure to select this option means that you cannot send a cover page; therefore, the default is On.

The **Dedicate CPU during send** checkbox tells QuickLink II Fax to force the sending of fax transmissions to the foreground and in doing so dedicate your computer until the completion of the transmission. Any applications running in the foreground at the time a fax transmission occurs would be temporarily halted until the completion of the send. The default for this option is off. You may find that it is necessary to turn this option on if you are running disk access intensive applications in the foreground.

The **Delete Fax Files after send** checkbox instructs QuickLink II Fax to delete the .QFX file after successful transmission. This can save a good deal of disk space.

The next two selections deal with Fax Manager. **Remove Fax Manager after send** tells QuickLink II Fax to remove the Fax Manager from memory after sending a fax document. The second option instructs **Fax Manager to run maximized**.

RTS/CTS flow control on fax send lets your fax/modem use its built in flow control during a fax transmission. If your fax modem does not support this type of flow control and you are unable to send faxes, uncheck this option. The default is on.

The number of **Redial attempts** field allows you to specify how many times to redial a busy fax machine before logging it as busy in the Send Fax Log. The **Redial Delay** field specifies the number of seconds to wait before attempting to redial a busy fax machine. The **Maximum fax baud rate** menu instructs QuickLink II Fax what the maximum speed to use when sending a fax.

The **Out Box** button allows you to specify the directory into which QuickLink II Fax stores fax documents for sending during a schedule. The default directory is called \OUTBOX in the \QL2FAXW directory.

Clicking **OK** saves these settings and closes the dialog box, **Cancel** will close the dialog box and ignore the new settings.

Receive fax setup

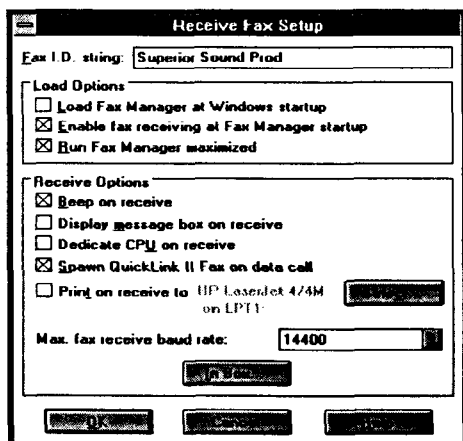
The Receive Fax Setup dialog box allows you to define standard information to be used during the receiving of fax transmissions.

The **Fax ID string** field allows you to specify your Fax ID. This string is limited to 19 characters in length. The Fax ID is an identifier to the remote fax machine or fax/modem, and often

appears in the sending fax machine's status window. Common ID's include telephone numbers, names, and business names. Note that some older fax machines must sense a Fax ID in all uppercase letters. See the Troubleshooting Appendix for more information.

Fax Manager load options

This section of Receive Fax Setup provides special control over the loading and unloading of the Fax Manager. The first option specifies that **Fax Manager** be loaded at **Windows startup** time. The second option **Enables the Fax Manager to receive faxes**. The final option instructs **Fax Manager to run maximized**. If the Fax Manager is not loaded and enabled you cannot receive an incoming fax.



Receive Options

These options tell the Fax Manager what actions to take when a fax is received. Checking **Beep on receive** will cause a beep to sound when a fax is received. The second option will **Display a message box** when a fax is received. The **Dedicate CPU on receive** check box tells the Fax Manager to force the receiving of fax transmissions to the foreground and in doing so dedicate your computer until the completion of the transmission. Any applications running in the foreground at the time an incoming fax transmission occurs would be temporarily halted until the completion of the receive. The default for this option is off. The **Spawn QuickLink II Fax** option instructs Fax Manager to automatically start QuickLink II Fax if it is not already running when a data call is detected.

The final option instructs Fax Manager to **Automatically print a received fax** to the printer selected after the receipt of an incoming fax. Clicking the **Select** button allows you to choose a printer.

The **In Box** button allows you to change where your incoming fax messages will be saved. This setting defaults to the \INBOX sub-directory under the \QL2FAXW directory.

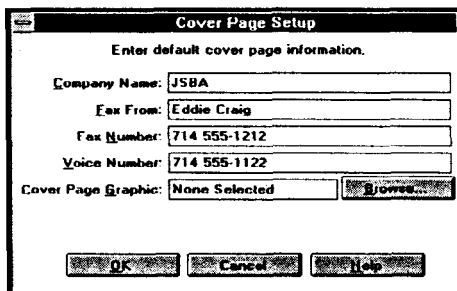
The **OK** button will accept the entries and remove the dialog box from the screen. The **Cancel** button will disregard any changes and remove the dialog box. The **Help** button will cause the Help Window to be displayed.

Cover page setup

The Cover Page Setup dialog box provides you with text boxes to be used for entering information about you and your company for the fax page headers and fax cover page.

Each fax page sent with QuickLink II Fax (excluding the cover page) will include a page header with the Company name, date, time and page # of the fax, assuming that information has been entered in the **Company Name** text box.

QuickLink II Fax will automatically create and send a cover page at the front of each fax transmission if the **Include Cover Page** option is checked on the Send Fax Setup dialog box. The **Company Name** is also placed at the top of the cover page and the **Fax From** name and Phone # shown on the cover page default to the entries in the **From** and **Fax #** text boxes. The **Voice** contact number is also included on the cover page.



The image shows a Windows-style dialog box titled "Cover Page Setup". Inside the dialog, there is a label "Enter default cover page information." followed by four text input fields: "Company Name:" with the text "JSBA", "Fax From:" with the text "Eddie Craig", "Fax Number:" with the text "714 555-1212", and "Voice Number:" with the text "714 555-1122". Below these fields is a label "Cover Page Graphic:" followed by a dropdown menu showing "None Selected" and a "Browse..." button. At the bottom of the dialog are three buttons: "OK", "Cancel", and "Help".

If you wish to include a **Cover Page Graphic** such as a company logo, enter its complete pathname or click the **Browse** button. A file selection box will appear asking you for the name of the graphic logo or image file. This file can be either a black and white TIF or PCX file or Monochrome Bitmap file (BMP) with a resolution no greater than 200 DPI. Once you select the file, the name will appear next to the Cover Page Graphic field. When you press **OK**, a conversion box will appear while the selected file is converted to a form usable as your cover page graphic. Once this is done, the graphic will be at the top of each cover page you fax out.

Select the **OK** button to accept any changes and remove the dialog box. The **Cancel** button will disregard any changes and remove the dialog box from the screen.

Chapter 5

DataComm Overview

Chapter 5 describes how to call another modem or BBS for a Data Communications connection and how to **upload** (send) and **download** (receive) files to and from remote systems. The commands used for data communications are in the **Connect** menu. Topics include:

- Calling a BBS (Bulletin Board System) or other modem
- How to use the Data Phone Book
- Uploading a file
- Downloading a file
- How to capture the text of an online session to a text file on disk
- How to paste the Clipboard's contents to the host computer
- How to clear the screen
- How to answer a Data call
- How to emulate modem status lights with the ModemMonitor
- How to free the COM port for other Windows programs
- A brief description of the transfer **protocols** available

Chapter 6 also explains the configurable settings under the **Setup** menu for data communications.

Originating a data call (dialing out)

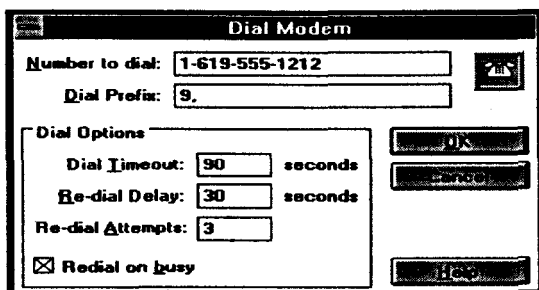
There are two ways to dial out for a Data Comm connection: a quick **Dial**, or accessing the **Data Phone List**.

Quickly dialing a number

The great majority of data communications sessions will begin with you dialing out to another modem, BBS, or online service. The quickest way to do this is by simply dialing the modem with the **Dial** command from the **Connect** menu or with the **Dial** button on the button bar, which brings up the **Dial Modem** dialog box. From this box, the telephone number can be entered in to the **Number to dial** field and dialed. If you would like the modem to redial if it encounters a BUSY



signal, check the **Redial on busy** checkbox. Clicking **OK** starts dialing.



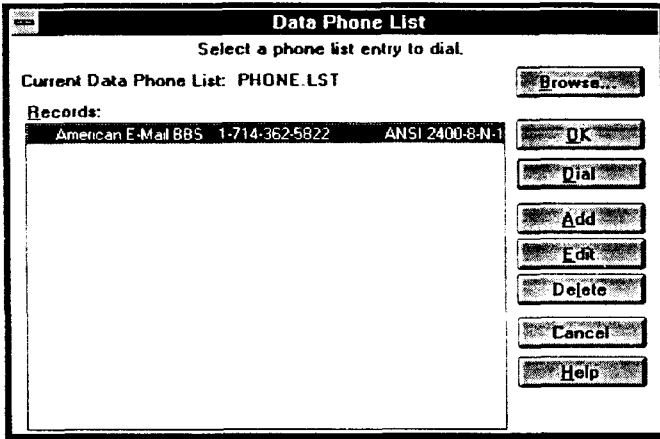
The **Dial Prefix** is used for dialing any digits before the actual telephone number is dialed, and may be set for all calls from the **Modem Setup** dialog box, accessible from the **Setup** menu (discussed later this Chapter). The **Dial Prefix** is commonly used in office situations where you need to dial a 9 to get an outside line or dialtone, for example. In such a case, entering a 9, followed by a **comma** (,) would first dial a 9, then pause 2 seconds (a comma is a 2 second pause) then continue dialing the telephone number. The **Redial Timeout** tells QuickLink II Fax how long to wait for a **CONNECT** before aborting. If the **S7** register is set lower than the **Redial Timeout**, the **S7** register time will be used.

Using the Data Phone List

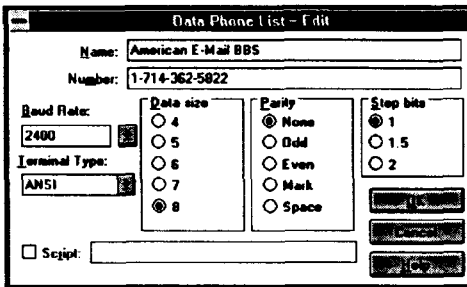
Choosing **Data Phone List** from the **Connect** menu brings up the **Data Phone List** dialog box, allowing access to a datacom telephone book of all your frequently dialed data numbers — clicking **Data List** on the button bar accesses the phone book too. You'll find that it is accessed almost exactly like the **Fax Phone List**, and can be printed the same way (choosing **Print** from the **File** menu and selecting **Data Phone List**).



Choose it now, and you will find that there is already an entry in the list: **American E-Mail**. **American E-Mail** is Smith Micro Software's BBS; you are invited to use this system to test the data portion of QuickLink II Fax. There is no charge for using our system, other than the long distance charges from your telephone company for dialing the 714 area code (The 714 area code connects to Southern California). To dial any number as it appears in the **Data Phone List**, highlight the entry by clicking on it and click on the **Dial** button. The **Add** and **Delete** buttons allow you to respectively add and delete **Data Phone List** entries.



To edit an entry in the Data Phone List, highlight the entry and click the **Edit Button**. Highlight the American E-Mail entry and click the **Edit** button now. This brings up the **Data Phone List - Edit** dialog box, where every aspect of an entry can be changed. To change the **Name** or **Number** of an entry, just click in the appropriate field and type in the new entry. Notice that spaces and dashes are acceptable in the telephone number. If you are calling from the 714 area code, be sure to delete the 1-714 from the **Number** field.



The other fields deal with the more technical aspects of the connection, such as the **Baud Rate**, **Terminal Type**, and **Line** settings. The baud rate and terminal type fields are pull down menus and the line settings are radio buttons. While there is no set standard terminal type and line setting combination for every modem connection, there are some guidelines to follow which may be helpful.

- Set the **Baud Rate** to the highest your modem will support, or to 2400 if you are getting bad connections. When you dial the other modem, the two modems will establish the highest connection speed possible automatically so long as the **Autobaud** feature is turned on (The default setting for Autobaud is **On**. Refer to later this Chapter).
- Small systems (BBS's) tend to use the ANSI terminal type with 8 data bits, no parity, and one stop bit (8-N-1 for short).
- Large installations (such as mainframes and online services like GENie and CompuServe) tend to use the VT100 terminal type with 7 data bits, even parity, and 1 stop bit (summarized by 7-E-1).
- Two people connecting their PC's together via modem should try the TTY terminal type with 8-N-1. You may also need to turn on Local Echo and both CR/LF checkboxes in the Terminal Options dialog box, covered later this Chapter.

Other than the area code in the telephone number, all the settings for the American E-Mail entry are correct. Click **OK** to leave the **Edit** dialog box and click **Dial** to dial our BBS.

Once connected to our American E-Mail system, follow the prompts to create a new user account. You will be prompted at every step and must create a password of your own choosing to enter the system for future online sessions. When connected to our system, you may upload and download public domain and utility files and programs, visit the Online Software Store, or get online technical support. All selections are menu driven; when in doubt enter a Question Mark (?) for help. To disconnect from our (or any) system, pull down the **Connect** menu and choose **Hangup**.

File transfers

Unlike faxing, file transfers do not happen automatically; there is a good deal of preparation to consider. Fortunately, QuickLink II Fax makes the procedure as intuitive as possible.

The concept of file transfers

Before getting into the specifics of file transfers, an outline of the concept of uploading and downloading should be very helpful to

those users who have never transferred files before. The general process is something like this:

1. Connect with the other modem or system (covered in the previous sections). Make sure that you can both write to the screen so the other end can understand you and vice versa.
2. Tell the other side that you are interested in file transfers.
3. Tell the other side what file(s) you want or what file(s) they should expect from you.
4. Tell the other side what transfer protocol to use (for a discussion on the differences between the protocols, refer to the next section).
5. When the other side says they are ready, pull down the **File** menu and choose **Send File** or **Receive File**, and choose the protocol you told the other side to expect.

File		
Send File	PgUp	ASCII...
Receive File	PgDn	Kermit...
Capture Text...	Alt+T	Super Kermit...
Print...	Ctrl+P	Xmodem...
Printer Setup...		Xmodem CRC...
Exit	Alt+F4	Xmodem 1K...
		Ymodem...
		Ymodem-G...
		Zmodem...
		CompuServe B/B+...

6. If sending, choose the file(s) you want to send and click **OK** the transfer begins. If receiving using Xmodem (of any type) or ASCII protocols, type the name of the file you want to receive and Click **OK**; for all other protocols just click **OK** and the transfer begins.

With this in mind, QuickLink II Fax file transfers will make a lot more sense.

Selecting one file to upload

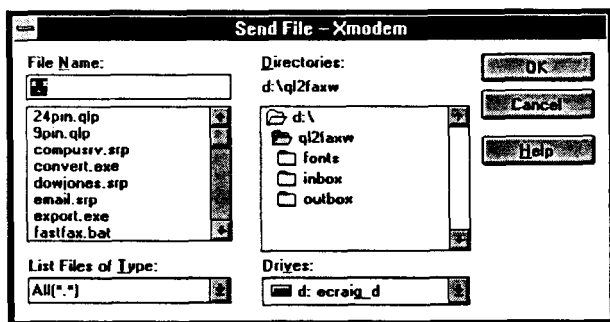
The ASCII, Xmodem, Xmodem CRC, and Xmodem 1K protocols let you upload only one file per transmission. When you select sending

by one of these protocols, the Send Single File dialog box appears with the selected protocol as the title.

To send a file, enter the complete path of the file you want to upload. For example, to upload the file SALARY.DOC from the WINWORD subdirectory on your computer's C drive, type: C:\WINWORD\SALARY.DOC and click OK.

OR

Use the **Directories** list box to scroll through the subdirectories on your PC's hard drive and select the file from the **Files** list box, clicking **OK** when highlighted. This starts the transfer and calls up the **Upload Status** dialog box.



Selecting multiple files to upload

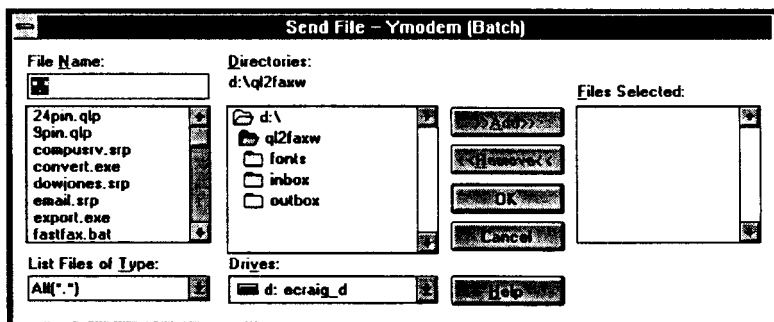
The Kermit/SuperKermit, Ymodem, and Ymodem-G protocols let you upload more than one file during the same transmission. In addition to sending a batch of files, one file may also be sent by itself. The main advantage of sending one file with one of these protocols is that the other end need not type in a file name, as the file name is included with the transfer using these protocols. If you select one of these protocols, the Send Multiple Files dialog box appears with the selected protocol as the title. This dialog box works similarly to the Send Fax dialog box.

If you want to upload files from the current path, shown at the top of the **Directories** list box, enter the file name in the **File Name** field and click **Add**. Otherwise, enter the complete path of the file you want to upload. For example, to upload the file SALARY.DOC

from the WINWORD subdirectory on your computer's C drive, type: C:\WINWORD\SALARY.DOC and click OK.

OR

Use the **Directories** list box to scroll through the subdirectories on your PC's hard drive and select the files from the **Files Available** list box, clicking **ADD** to add the file to the **Files Selected** list box. Repeat this for every file you want to add to the batch send. If you change your mind about sending one of the files, highlight it in the **Files Selected** list box and click **Remove**. The selected file is removed from the list box and will not be sent. When the list of files selected is complete, click the **OK** button, which begins the transfer and calls up the **Upload Status** dialog box.



Upload status

The **Upload Status** dialog box keeps you informed of the status of the upload. It displays the following information:

- **Protocol** displays which protocol is being used for the current transmission.
- **File Name** displays the name of the current file being transferred.
- **File Size** displays the size of the current file being transferred.
- **Bytes Sent** displays the number of bytes sent.
- **Status** shows the current status of the upload. For example, **Sending data** appears when data is being sent to the remote system.

The status percent bar at the bottom of the dialog box displays the progress of the upload. The whole transfer can be stopped by

clicking the **Cancel** button. The **Minimize** button will reduce QuickLink II Fax to an icon at the bottom of the screen while the transfer is still taking place, so you can truly send files in the background and work with other programs.

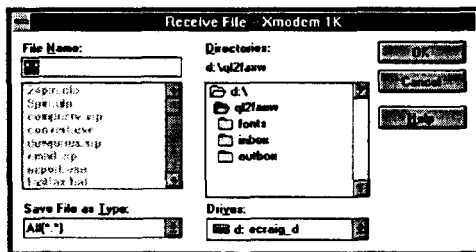
When the transfer is finished, a dialog box will appear to alert you, and the computer will beep. Clicking **OK** removes the dialog box. If QuickLink II Fax is still minimized, double clicking on its icon will return you to the terminal window to resume communications.

Downloading files

Receiving files works much like sending a file and actually involves less steps. The biggest issue is determining what protocol is being used and how many files are being sent.

Receiving one file

The ASCII, Xmodem, Xmodem CRC, and Xmodem 1K protocols let you download only one file per transmission. When you select receiving by one of these protocols, the Receive Single File dialog box appears with the selected protocol as the title.



At this point, QuickLink II Fax needs a file name to save the file under. To receive the file, enter the complete path of the file you want to download. For example, to download the file PICTURE.BMP to the WINDOWS subdirectory on your computer's C drive, type: C:\WINDOWS\PICTURE.BMP and click **OK**.

OR

Use the **Directories** list box to scroll through the subdirectories on your PC's hard drive and type in the file's name in the **File Name** field, clicking **OK** done. This starts the transfer and calls up the **Download Status** dialog box.

Receiving a batch of files

The Kermit/SuperKermit, Ymodem, and Ymodem-G, protocols let you download more than one file during the same transmission. In addition to receiving a batch of files, one file may also be received by itself. The main advantage of receiving one file with one of these protocols is that the file name is included with the transfer using these protocols, so it is impossible for files to be named incorrectly.

When you use one of these protocols, the **Receive Multiple Files** dialog box appears with the selected protocol as the title. This dialog box works similarly with the **Receive Single Files** dialog box, except that you cannot enter a file name. Another directory can be selected with the **Directories** list box, and clicking **OK** initiates the transfer and calls up the **Download Status** dialog box.

Download status

The **Download Status** dialog box keeps you informed of the status of the download. It displays the following information:

- **Protocol** displays which protocol is being used for the current transmission.
- **File Name** displays the name of the current file being transferred.
- **File Size** displays the size of the current file being transferred. (Batch protocol only)
- **Bytes Received** displays the number of bytes sent
- **Status** shows the current status of the upload. For example, **Receiving data** appears when data is being received from the remote system.

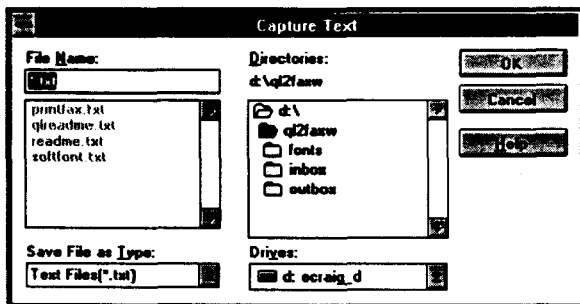
The status percent bar at the bottom of the dialog box displays the progress of the download (Batch protocol only). The whole transfer may be stopped by clicking the **Cancel** button. The **Minimize** button will reduce QuickLink II Fax to an icon at the bottom of the screen while the transfer is still taking place, so you can truly receive files in the background and work with other programs.

When the transfer is finished, a dialog box will appear to alert you, and the computer will beep. Clicking **OK** removes the dialog box. If QuickLink II Fax is still minimized, double clicking on its icon will return you to the terminal window to resume communications.

Capture text

If you know in advance that you want to capture the text that appears on screen, QuickLink II Fax can be set to make a copy of everything you see and save it into a text file on your computer's hard disk.

To capture text, pull down the **File** menu and choose **Capture Text**, which calls up the **Capture Text** dialog box. The **Capture Text** dialog box works just like the **Receive Single File** dialog box. Type a name for the file to save the captured text in the **File Name** field and click **OK** to begin capturing. You can select another directory with the **Directories** list box.



You can double-check that QuickLink II Fax is indeed capturing text by pulling down the **File** menu; when there is a checkmark next to **Capture Text**, text is being captured. Choosing **Capture Text** again will stop the capture and close the file, making the checkmark disappear. **Capture Text** has nothing to do with receiving faxes or faxing.

Retransmitting what you see

Choosing **Paste to Host** will transmit the contents of the Windows Clipboard out the modem or fax/modem to the remote computer or terminal. This function will only operate if the contents of the clipboard are in text format.

Clearing the screen

Choosing **Clear Screen** from the **Edit** menu will clear the terminal window of its text. This command will not affect the connection to the remote system.

Answering a data call

Answering a call is almost totally automatic and handled by the Fax Manager. The Fax Manager's default settings will let it listen to the incoming call to determine what it is: either fax, data, or voice. If it is a modem/data call, the Fax Manager will seamlessly pass the call into the QuickLink II Fax telecommunications mode, even automatically launching the main application and waiting for your input in the terminal window.

A data call can also be answered when you are in the main application QuickLink II Fax and the Fax Manager is not running if the **Answer Mode** is set to either **Data Only** or **Auto Detect** from the **Modem Setup** dialog box (Refer to later this Chapter). Typing **ATA** and then the Enter key in the terminal window will also force the modem to pick up the line and answer the call.

Strictly speaking, the S0 register can be set to the number of rings you want the modem to answer the phone, but this will conflict with the Fax Manager's operation and bypass the **Number of Rings to Answer Phone** field in the **Modem Setup** dialog box. You are strongly urged not to change the S0 register in the Init string. If you do, be sure to change it back to S0=0 to receive faxes.

Using the ModemMonitor

The lack of status lights on internal modems or fax/modems can sometimes leave you in the dark about what your fax/modem is actually doing when online. For example, if a connection accidentally terminates when online, someone with an external modem can simply look at the status lights on the modem itself and determine what's happening — an internal modem owner might be left in the dark.

When activated, the ModemMonitor creates a set of modem status lights on screen in their own window. Since the ModemMonitor is

actually a part of the Fax Manager, it must be running and maximized, and then the ModemMonitor called to the screen.

Displaying the ModemMonitor

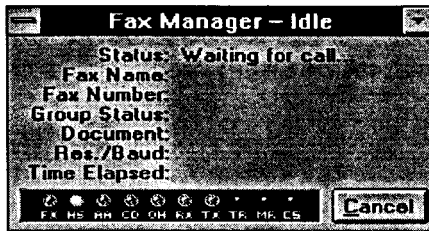
Follow these steps to display the ModemMonitor:

1. Load the Fax Manager. This can be done by choosing **Load Fax Manager** from the **Fax** menu or by double-clicking it from the Windows Program Manager.
2. Maximize the Fax Manager, if an icon. Double-clicking on it while at the bottom of the desktop will maximize the Fax Manager.
3. If necessary, display the ModemMonitor by choosing **Show ModemMonitor** from the Fax Manager Control menu, or click on the empty percent bar.

The status lights

There are 10 modem status lights visible in the ModemMonitor. They indicate the following when on (red):

FX:	Fax Connection	The incoming or outgoing call is a fax. This light is blue.
HS:	High Speed	The established connection is 9600 baud or higher.
AA:	Auto Answer	Flashes whenever a RING is detected by the modem
CD:	Carrier Detect	The modem detects a remote carrier
OH:	Off Hook	The modem has picked up the telephone line
RX:	Receive Data	The modem is receiving characters or data
TX:	Transmit Data	The modem is transmitting characters or data out
TR:	Terminal Ready	The modem/computer is ready to send and receive commands
MR:	Modem Ready	The modem is powered up
CS:	Clear to Send	The modem is ready to receive more data



Freeing the COM port

The Data Comm portion of QuickLink II Fax has control of the COM port (and your modem or fax/modem) whenever the terminal window is **On-Line**, even if behind other windows or minimized. On some systems, this can interfere with auto-dialing and other modem programs. Therefore, QuickLink II Fax can release the COM port temporarily for other programs by doing one of the following:



- Clicking the **Off-Line** button on the button bar. This removes the terminal window and releases the COM port. Clicking **On-Line** restores the terminal window.
- Choose **Off-Line** from the **Connect** menu. This also removes the terminal window and releases the COM port. Choosing **On-Line** from the **Connect** menu restores the terminal window.
- Close the QuickLink II Fax main application by exiting it.

If the Fax Manager is running, it may also have access to the COM port, interfering with other modem programs. Refer to Chapter 4 for more information.

Protocols

This section describes the various protocols that QuickLink II Fax provides for uploading and downloading data files.

ASCII

The **ASCII** protocol (pronounced asky) is a seven-bit protocol that consists of the 128 characters that make up the upper- and lower-case alphabet, numbers, characters available on a standard keyboard, and certain special control characters.

The ASCII protocol has no error-checking capabilities. ASCII protocol uses XON/XOFF handshaking and requires XON/XOFF flow control to be enabled at both communicating devices. By default, QuickLink II Fax has XON/XOFF flow control disabled. When the computer receiving data needs to stop the data transmission temporarily to process the received data, it sends a Ctrl-S (^S) character to stop the sending computer from sending data. When the receiving computer has processed the received data and is ready to accept more, it sends the sending computer a Ctrl-Q (^Q) character to resume data transmission.

Since there are no additional error checking characters sent during the transmission, ASCII is good for sending a burst transmission of raw text/data uninterrupted.

CompuServe B/B+ (Available with selected versions)

The CompuServe B/B+ protocol should be used when communicating with CompuServe.

Kermit/SuperKermit

QuickLink II Fax provides both the standard Kermit as well as the powerful Super Kermit (Windowed Kermit) protocol. It was developed to meet the needs for file transfer between a number of different types of computers, including mainframes, mini computers and personal computers. Unlike Xmodem and Ymodem, Kermit uses variable packet sizes, with a maximum size of 1024 bytes. Like Ymodem, Kermit provides for batch file transfers.

SuperKermit is especially useful when transferring data over data networks such as Telenet or Tymnet. These networks have long communications delays that can significantly degrade the performance of file transfers. For each packet transmitted, two communications delays will be interjected into the transfer. Super Kermit addresses this problem by sending multiple packets at one time, also known as a transmission window. All error correction is still performed, however the receiving computer does not

acknowledge the receipt of the data or ask for re-transmission of any bad packets until all packets in the window have been received. This process results in a dramatic reduction in the delay time.

Of the public services, only CompuServe supports Kermit. If you select Super Kermit and the remote computer only supports Kermit, QuickLink II Fax will drop back to Kermit.

Xmodem

QuickLink II Fax provides three different Xmodem protocols: Xmodem 1K, Xmodem CRC and the original Xmodem (also called Modem7 or Xmodem Checksum or Christenson).

In order for Xmodem to work, the data format must be set to 8 data bits, 1 stop bit, and no parity. If you did not begin the communications session with this setting, QuickLink II Fax will automatically correct this for you. Xmodem Checksum sends the data in packets off 128 bytes. Therefore a 1K file (1,024 bytes) would be transmitted in 8 data packets. A simple data checksum is added to each packet and is checked on the receiving end of the transfer. If the receiving Xmodem detects a bad packet, it can request the packet again giving a good level of error recovery.

Xmodem CRC

In an effort to guard against undetected errors the original Xmodem was enhanced by replacing the 8 bit checksum with a 16 bit Cyclic Redundancy Check (CRC). This change provides a 99.9984% assurance of detecting any transmission errors. With the checksum method, it is possible for 1 out of 256 bad packets to have a valid checksum, and thus go undetected. With the CRC method only 1 out of 700 billion bad packets will generate a valid CRC. The CRC method also transmits 128 byte blocks or packets of data. If you select Xmodem CRC and the other system does not support it, QuickLink II Fax will automatically switch over to the standard Xmodem; to the user both methods appear to operate identically.

Xmodem 1K

This method of Xmodem replaces the original 128 byte packets with packets of 1,024 bytes when possible. Assuming that no transmission errors are detected, this method of Xmodem will enlarge the packet size to 1K and maintain that packet size for as long as possible.

Enlarging the packet size will improve the speed of the file transfer. If you attempt to receive a file using Xmodem 1K and the other side only supports Xmodem CRC, QuickLink II Fax will fall back to Xmodem CRC.

Ymodem

The Ymodem protocol (also called Ymodem Batch, Ymodem 1K, and Ymodem CRC) is very similar to the Xmodem 1K, with two major differences — with Ymodem you can automatically receive or send multiple files in one session, and file names are included with the transfer. In general, Ymodem is very fast, very safe and preferable to Xmodem, even for single files.

Ymodem-G

Ymodem-G is a file transfer protocol that provides the same error checking as Ymodem, but it will not perform any error recovery. Therefore, Ymodem requires an error-correcting modem or fax/modem with either MNP 2-4 and/or V.42. If both ends of the transmission meet the requirements, transfers will be exceptionally fast.

Zmodem (Available with selected versions)

The Zmodem protocol is a new and popular protocol that lets you send multiple files in one transfer. Features include automatic downloading and the ability to send file names, sizes, and creation dates of each file. Also, if a data transmission is interrupted midway, Zmodem lets you resume the data transmission from the point where it let off.

The size of the data block varies with Zmodem, depending on the condition of the connection of the telephone line between the communicating devices. Moreover, both 32-bit and 16-bit CRC error-checking are available with Zmodem.

Zmodem is a relatively young transfer protocol, not identically implemented at various sites. If you are having problems with Zmodem protocols, try Ymodem or Xmodem.

Data communications setup options

In addition to permitting QuickLink II Fax to communicate with the variety of standard data communication configurations, the **Setup** menu contains the options to customize QuickLink II Fax to your system.

Line settings

Choosing **Line Settings** from the **Setup** menu causes the **Line Settings** dialog box to appear. This dialog box allows you to select the line speed, data format and flow control to be used during communications; these settings are independent of the settings in the **Data Phone List**, but the same general guidelines for setting them apply (Refer to the Data Phone List section for more information). The **Cancel** button will exit without using any changes. The **OK** button will remove the dialog box and implement all option changes.

Baud rate

Possible baud rate settings may vary from 110 baud to 115,200 baud. The default speed is 2400 baud. Refer to your modem manual for the maximum baud rate that your modem will handle.

Data bits

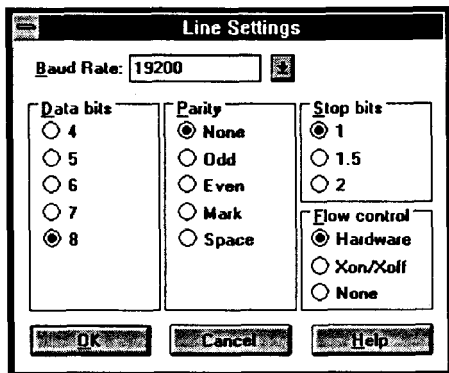
The allowable options are 4, 5, 6, 7 or 8 data bits — the default setting is 8 data bits.

Parity

Parity may be Odd, Even, Mark, Space or None. None only applies when 8 data bits are selected. The default setting is no parity.

Stop bits

The allowable settings are 1, 1.5 or 2. The default setting is 1 stop bit.



Flow control

Flow Control is the process of telling each computer to stop sending data and starting it again. This provides time to process the data received. Flow control is usually not needed for 2400 baud data connections.

Xon/Xoff is a software flow control that involves the sending of special control codes as part of the data. It is usually necessary for ASCII file transfers. Hardware flow control (RTS/CTS) is implemented in both software and the modem hardware, therefore your modem must support the RTS/CTS standard for this method to be used. The RTS/CTS method is more reliable and is necessary for use with modems equipped with V.42/V.42bis and MNP Level 5. The default setting is none.

Modem setup

The Modem Setup dialog box provides you with the ability to define the modem **Initialization**, **Dial**, and **Hang up** strings. This dialog box also allows you to set the COM port that the modem will use and define key information to be used by the Fax Manager for answering incoming calls.

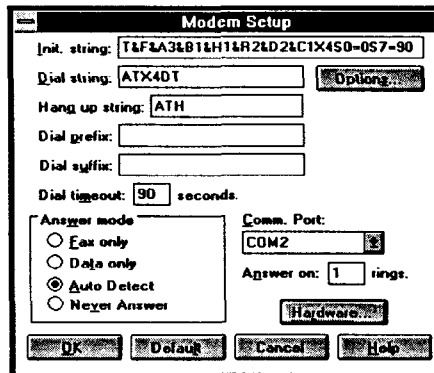
The **Cancel** button allows you to exit the dialog box without using any changes. The **Default** button resets the settings to factory defaults. The **OK** button accepts all changes and removes the dialog box from the screen. The **Hardware** button allows you to change the class of Fax Manager used by QuickLink II. It is not normally necessary to alter this setting.

Initialization string

The modem initialization string is the command set that QuickLink II Fax issues to the modem when the application is first started. The default string works with most modems and fax/modems. If your modem has special features or commands, the AT commands needed to enable them are entered here. Check your modem manual for a detailed breakdown of the AT command set. An abbreviated set is listed in Appendix C.

Dial string

The Dial string is the command QuickLink II Fax issues to the modem when instructed to dial a number. This event occurs when dialing from the Data Phone List, using the Dialer, sending a fax, or connecting to either CompuServe, Dow Jones or GENie. Click the **Options** button to automatically change the Dial string for pulse dialing, detecting the dial tone, detecting the BUSY signal, and/or disabling call waiting.

A screenshot of the 'Modem Setup' dialog box. It contains several input fields and buttons. The 'Init. string:' field is pre-filled with 'T&F&A3&B1&H1&R2&D2&C1X4S0-0S7-90'. The 'Dial string:' field contains 'ATX4DT' and has an 'Options...' button next to it. The 'Hang up string:' field contains 'ATH'. The 'Dial prefix:' and 'Dial suffix:' fields are empty. The 'Dial timeout:' field is set to '90' seconds. Under 'Answer mode', there are four radio buttons: 'Fax only', 'Data only', 'Auto Detect' (which is selected), and 'Never Answer'. To the right, the 'Comm. Port:' dropdown is set to 'COM2' and the 'Answer on:' field is set to '1' rings. There is a 'Hardware...' button below the 'Answer on:' field. At the bottom, there are four buttons: 'OK', 'Default', 'Cancel', and 'Help'.

Hangup string

The hangup string is the command QuickLink II Fax issues to the modem when the **Hangup** command is chosen from the **Connect** menu. This string is pre-set to ATH, which is the AT command to hangup the modem.

Dial prefix/suffix

The dial prefix/suffix strings are appended to the beginning and end of the telephone number when dialing. These strings are handy when you need to dial using credit card, or for long distance telephone access, or for dialing a digit to get an outside line. For example, if you need to dial a 9 to dial out of an office building, enter a 9 and a comma (,) in the **Dial prefix** (a comma is a 2 second pause).

Answer mode

This entry asks under what circumstances you want QuickLink II Fax to answer the telephone. **Fax only** tells Fax Manager to process fax calls only and hangup on all others. With **Data only** selected, QuickLink II Fax will handle data calls and hangup on fax or voice calls. **Auto Detect** instructs the Fax Manager to answer all calls. With Auto Detect selected the Fax Manager will receive fax transmissions, transfer data calls automatically to the QuickLink II Fax main application, or display a message that a voice call is waiting and provide a limited amount of time to respond prior to hangup (some modems are not capable of Automatically Detecting the line). If you do not want the phone to be answered, select the **Never Answer** option. Selecting the Never Answer option is similar to setting the number of rings to answer to 0.

Number of rings to answer phone

QuickLink II Fax will pick up the line and answer the phone on the number of rings specified in the **Answer on** field. Setting this number to 0 will keep the Fax Manager from answering calls. Some modems will answer 1 to 2 rings after the number specified due to the hardware. The default is 1.

Terminal options

The **Terminal Options** dialog box allows you to set the terminal attributes you want QuickLink II Fax to use. A number of check boxes are provided to turn options on or off.

Local echo

The Local echo option tells QuickLink II Fax to display all keyboard entries directly to the terminal window rather than letting the remote computer echo the keystrokes back as is normal. If you cannot see what you type, turn this option on. If characters appear double, (lIikkee tthhiiss) turn this option off. Some telecom programs call this setting "Duplex/Half-Duplex".

Change CR to CRLF

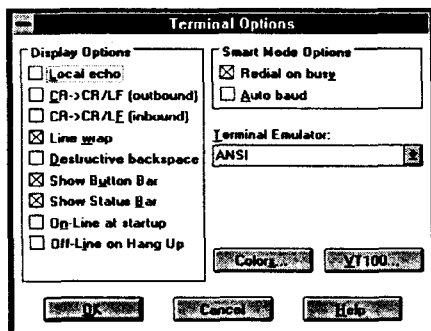
These options tell QuickLink II Fax to translate all outgoing and/or incoming Carriage Returns to Carriage Return + Line Feed. If incoming or outgoing lines are overwriting each other, turn the option on.

Line wrap

This option issues a carriage return + line feed if more than 80 characters are transmitted on a single line.

Destructive backspace

This option instructs QuickLink II Fax to erase a character when the backspace key is pressed. When this option is not selected, pressing the backspace key will move the cursor back one character but will not erase the character that may be above the cursor.



Show status bar

This option tells QuickLink II Fax to always display the terminal Status Bar when the program is started. Choosing **Status Bar** from the **Edit** menu only affects the Status Bar for a single session.

Show button bar

This option tells QuickLink II Fax to always display the Button Bar when the program is started. Choosing **Button Bar** from the **Edit** menu only affects the Button Bar for a single session.

On-Line at startup

This option opens the terminal window and COM port when the program is started.

Off-Line on hang up

This option ensures QuickLink II Fax closes the COM port when you exit the program.

Smart mode

Selecting **Redial on busy** tells QuickLink II Fax to perform an auto-redial when your modem detects a busy signal. Selecting **Auto baud** tells QuickLink II Fax to automatically reset the baud rate if the modem answers a call and makes a connection at a rate

other than the rate specified at dialing. Smart Mode options apply at any time QuickLink II Fax dials the modem, such as when using the Dialer, Phone List, executing a Script Dial Statement, or connecting to CompuServe, Dow Jones or GEnie. You must also have an AT Command set compatible modem that detects and displays the connection baud rate. English responses must be set on.

Color setup

The **Color** button provides you with the capability to adjust the terminal screen foreground and background colors, as well as the colors used for blinking text for VT100/VT102. All color choices are accessible through the pull down menus.

Terminal Emulation

The **Terminal Emulator** menu allows you to change the emulation by providing you with an emulator list. QuickLink II Fax supports Teletype (TTY), Dec VT102, Dec VT100, Dec VT52 and ANSI terminal emulation. Terminal emulation is the ability of QuickLink II Fax to make your PC look like a specific type of terminal to a remote computer. In performing this task QuickLink II Fax translates the remote computers special instructions for such things as screen cursor positioning, display color and text/graphics display.

VT100 / VT102 setup

The **VT100** button allows for additional settings for the VT100/VT102 emulation modes. By selecting the VT100 Button the VT100/102 Terminal Setup dialog box will appear.

You should take special care in not changing the default settings unless you are certain that the host application absolutely requires a change. The default settings have been set to the most commonly used values. Altering options such as the Tab Stops may cause host applications to not operate properly on your terminal. The following options are found on the VT100/VT102 Terminal Setup:

New line mode

With this option off, a Return generates a carriage return. A linefeed (LF) moves the cursor to the next line maintaining the current column position. With this option on, a Return generates a carriage return and a linefeed. A linefeed moves the cursor to the left margin of the next line.

Answerback message

The text box contains a 1 to 20 character message that will be transmitted upon computer request or operator command.

Tabs

Up to 10 tab positions may be entered in the tab text box. Each tab position entry must be separated from the next entry by a comma.

The **OK** button will remove the dialog box from the screen and implement any option changes. Clicking **Cancel** removes the dialog box from the screen but does not use any changes made.

Refer to Appendix A for additional information on the QuickLink II Fax implementation of the VT100/102 keypad and other special VT100/102 keys. The appendix lists the PC key equivalents established by QuickLink II Fax to emulate the VT100/102 keyboard.

Chapter 6

Automating QuickLink II Fax

QuickLink II Fax has several advanced features which can make your online communications sessions quicker and easier to manage by automating various functions. Chapter 7 describes these features:

- Logging on to online services automatically
- Macro Keys
- Scripts and the scripting language

Online services quick access

QuickLink II Fax can quickly connect you to your accounts on the major online services. Before it can do this, however, you must set QuickLink II Fax with the proper information. When configured, you can connect to Dow Jones, CompuServe, and GEnie with just one mouse click.

Services setup

Services Setup, accessed from the **Setup** menu, allows you to specify account information for the Dow Jones, CompuServe, and GEnie online services. Choosing **Services Setup** from the **Setup** menu calls the **Services Setup** dialog box, which is where the actual account information is keyed into QuickLink II Fax.

Follow the appropriate section(s) for your online service account(s):

CompuServe: If you will be calling CompuServe, use this section to enter your **Account** number and **Password**, and select the public network (**Compunet**, **Telenet**, or **Tymnet**) you want to access by keying in its phone number and clicking the corresponding radio button.

Dow Jones: If you will be calling Dow Jones, use this section to enter your **Password** and select the public

network (**Telenet** or **Tymnet**) you want to access and its phone number.

GEnie:

If you will be calling **GEnie**, use this section to enter your **User ID** and **Password**. Do not enter the separating comma. Enter the telephone number needed to connect to **GEnie** in the **GENienet** field.

Clicking **OK** sets the information.

Connecting to online services

Once the account information is keyed in, simply pulling down the **Connect** menu and selecting the appropriate Online Service will automatically dial your modem, log you in, and enter your password.

Macro keys

The **Macro Key** function allows you to define a custom meaning or sequence of keystrokes to the selection of function keys, **F1** through **F12**. These **Macro Keys** can cause a user defined literal string (series of characters) to be transmitted or they can be used to launch a script file.

Choosing **Macro Keys** from the **Setup** menu calls the **Macro Key** definition dialog box, which allows you to enter a literal string you want transmitted when each of the function keys are depressed, or to specify a **Script** file name if you want a script file launched when the function key is pressed. If you wish the edit field to contain a script file name, check the **Script** checkbox next to the edit field and

a file selection window will appear allowing you to automatically select the script file. The text box may contain either a literal string or a script file name, but not both. In the example below, note that the definition for F1 is defined as a literal string while the definition of F2 is a Script File. Additionally the "\r" in the definition for F1, instructs QuickLink II Fax to send a Carriage Return after typing out the characters. Clicking **OK** saves the macro keys for future sessions. For more information on Scripts, refer to the next section.

Macro Keys	Script	Macro Keys	Script
F1: Eddie's_password\r	<input type="checkbox"/>	F7:	<input type="checkbox"/>
F2: D:\QL2FAX\WGENIE.S	<input checked="" type="checkbox"/>	F8:	<input type="checkbox"/>
F3:	<input type="checkbox"/>	F9:	<input type="checkbox"/>
F4:	<input type="checkbox"/>	F10:	<input type="checkbox"/>
F5:	<input type="checkbox"/>	F11:	<input type="checkbox"/>
F6:	<input type="checkbox"/>	F12:	<input type="checkbox"/>

OK Cancel Help

Scripts

Scripts are miniature programs-within-a-program, and can totally automate your online sessions (the **Online Services** module of QuickLink II Fax is actually a script file, for example). Properly programmed, a script can call a BBS, log on to it, and automatically read your mail, and log out, all by pressing a single key. This section describes how to run and write scripts.

Running scripts

Scripts are actually files that contain within them a list of instructions and commands. Scripts, therefore, are on your disk and must be opened and ran; there are the main ways to do this:

1. With a Macro Key, as described previously in this chapter. Checking the Script checkbox in the **Macro Keys** dialog box calls another dialog box to select a script file from your hard disk.

2. Choose **Run Script** from the **Connect** menu, which calls the same dialog box to open and run a script file on your hard disk.
3. By dialing a telephone number from the Data Phone List with an associated script

QuickLink II Fax Script language elements

The QuickLink II Fax script language is made up of commands that may be used to create a script file. A script file may be created using the Notepad on the Edit Menu. You may also use any external editor to create the script file.

A script file is used to instruct QuickLink II Fax to perform a predefined set of operations. Script files can be defined to automatically perform the dialing and logon process necessary to automatically connect to a remote computer. The script can also be programmed to perform specific steps once the connection to a remote computer is made.

The commands that comprise the script language may be entered in either upper or lower case. Each line of the script may contain only one command. The commands may be indented to any point you wish in order to enhance readability. Blank lines may also be inserted in the script files to show breaks in sections on the script statements.

You may include comments in the script file by placing a semi-colon in the first position of the line to contain a comment. Any information appearing on the line after the semicolon will be considered as comments, even if the information includes otherwise valid script commands.

When sending strings to a remote computer, a string may be defined to include a literal value, a Return character or an ASCII character represented by its decimal value. Literal character strings must be enclosed by double quotes. A return character is defined by including a '\r' in the command line. An ASCII character is defined by including a '\ddd' in the command line, where ddd is the decimal value of the ASCII character (see Appendix B for ASCII Value Table). For example, you would use this feature to send a Control-C to a remote computer.

When a script is running, a message will be displayed in the status area of the Menu Bar. You may abort a script execution by simply pressing the Escape key.

Script language commands

The QuickLink II Fax script language is comprised of the following commands:

Baud Statement:

This Statement allows you to specify the baud rate to be used when the script file is executed.

Format: Baud "rate"

"Rate" can be set to 110, 150, 300, 600, 1200, 2400, 4800, 7200, 9600, 12000, 14400, 19200, 38400, or 57600.

Clearstring Statement:

This command will clear the contents of the special variable called InString. This variable is created by the use of the second form of the In Statement defined below.

Format: Clearstring

CLS Statement:

This command will clear the QuickLink II Fax Terminal Window and has the same effect as selecting Clear Screen on the Edit Menu.

Format: CLS

The CLS statement will not impact the contents of the Line Buffer.

Data Statement:

This statement is used to specify the number of data bits, either 4, 5, 6, 7 or 8 to be used during the execution of the script.

Format: Data "#"

Where # is either 4, 5, 6, 7 or 8.

Dial Statement:

This command will instruct QuickLink II Fax to dial a specified telephone number.

Format: Dial "xxx-xxxx"

Where, xxx-xxxx is the telephone number to be dialed. QuickLink II Fax will use the dialing prefix defined on the Modem Setup Dialog Box. You must have an AT command set compatible modem and have English Responses set on to use this statement.

Example: **Dial "1-714-362-5822"**

The example above would instruct QuickLink II Fax to dial the Smith Micro Software support BBS.

Echo Statement:

This command will cause a literal string that follows the command to be displayed in the local Terminal Window.

Format: **Echo "xxxxxxx"**

Where, xxxxxx is a literal string to be echoed to the Terminal Window. The string must be enclosed by double quotes.

Example: **Echo "This is a sample string"**

The string, *This is a sample string*, will be displayed in the local Terminal Window.

End Statement:

This command is used to mark the logical end of a set of script commands.

Format: **End**

Execution of the script instructions is halted upon encountering an END command.

Goto Statement:

This command will transfer the execution to a specified procedure name.

Format: **Goto Procedure:**

Where *Procedure:* is the name of a procedure defined in the script file. The procedure name must end with a colon. The following script code shows the use of the GOTO statement.

Example Start:
 Echo "This is an example"
 Goto Step2:
 Step1:
 End
 Step2:
 Goto Step1:

If you follow the execution of the script above, the last procedure executed is Step1: that terminates the script with the END Statement.

If Statement:

The IfStatement allows you to test the contents of a special variable called InString. InString is created by using the second form of the In Statement defined below.

Format: **If InString = "xxxxxxx" Goto Procedure:**

Where xxxxxxx is a literal string not longer than 40 characters. If InString equals the specified literal string then execution is transferred to the procedure specified in the Goto.

Example: **If InString = "Password" Goto Step2:**

In Statement:

There are two forms of the In Statement. The first form of the statement will cause QuickLink II Fax to wait "n" seconds for string of characters to be received from a remote computer.

Format: **In "xxxxxx" n**

Where, xxxxxx is a string for which you want QuickLink II Fax to wait. QuickLink II Fax will wait up to "n" seconds for a message to be received from a remote computer. If after waiting "n" seconds, the string is not received, the remainder of the commands in the script file will be bypassed.

Example: **In "Password?" 30**

QuickLink II Fax will wait 30 seconds for the string, *Password?*, to be received from the remote computer, before continuing with the execution of the script.

The second form of the In Statement allows you the capability to receive one character at a time from your modem. Each character will be added to a special buffer called InString.

Format: **In InString**

InString may contain up to 40 characters of input and will generate an error if more than 40 characters are received. InString may be used in an If statement for testing and controlling the flow of the script execution.

Out Statement:

This command will cause a string to be transmitted to a remote computer.

Format: **Out "xxxxxx"**

Where, xxxxxx is a string to be transmitted to a remote computer.

Example: **Out "DEMOPASS\r"**

QuickLink II Fax will transmit the string, *DEMOPASS*, to the remote computer followed by a Return character (\r).

Pause Statement:

This statement will cause the execution of a script file to be temporarily halted until the user presses a key on the keyboard.

Format: **Pause**

A message will be displayed in the terminal window, instructing the user to Press a Key to Continue.

Parity Statement:

This statement is used to specify the parity to be used during the execution of the script.

Format: **Parity "x"**

Where, x is "N" for none, "O" for odd, "E" for even, "M" for mark, and "S" for space parity.

RtsCts Statement:

This statement is used to specify whether the RTS/CTS hardware flow control is to be used when executing this script.

Format: **RtsCts "xx"**

Where, xx is "ON" for on or "OFF" for off.

Stop Statement:

This statement is used to specify the number of stop bits, either 1, 1.5 or 2 to be used during the execution of the script.

Format: **Stop "#"**

Where # is either 1, 1.5 or 2.

Until Statement:

This command will cause QuickLink II Fax to wait until a specified time before continuing with the execution of the script.

Format: **Until "hh:mm"**

The time must be specified in the form of 24 hour military time.

Wait Statement:

This command will cause QuickLink II Fax to delay for 'n' seconds before proceeding with the next script command.

Format: **Wait n**

Where 'n' is the number of seconds you want QuickLink II Fax to wait before proceeding to the next script command.

Example: **Wait 15**

QuickLink II Fax will wait 15 seconds before executing the next step in the script file.

XonXoff Statement:

This statement is used to specify whether the Xon/Xoff flow control is to be used when executing this script.

Format: **XonXoff "xx"**

Where, xx is "ON" for on or "OFF" for off.

In addition to the above script commands, the QuickLink II Fax script language includes a number of predefined variables that may be used in writing a script. Many of these variables are used by QuickLink II Fax to provide automatic connection to CompuServe, Dow Jones and GENie. The following list of variables are included in the script language:

Variable	Meaning
Compunet	Telephone number for CompuServe's own network
Telenet	Telephone number for Telenet
Tymnet	Telephone number for Tymnet
Cacct	CompuServe account number
Cpass	CompuServe password
Dpass	Dow Jones password
Guser	GENie user number
Gpass	Genie password

You will find a number of script files (.SRP) in your QuickLink II Fax default directory that use the above script commands and variables for accessing CompuServe, Dow Jones and GENie. These files are listed below:

File	Use
COMPUSRV.SRP	Connects to CompuServe
DOWJONES.SRP	Connects to Dow Jones
EMAIL.SRP	Connects to the American Email BBS at Smith Micro Software, Inc.
GENIE.SRP	Connects to GENie

You can use the above files as examples for creating your own scripts. Also, if you are not in the United States and want automatic access to CompuServe, Dow Jones or GENie simply modify the proper script file, from the list above, to operate with your country's telephone access system.

Chapter 7

Getting Started — DOS

Chapter 7 describes how to begin using QuickLink II Fax. It describes how to start QuickLink II Fax, how to send a simple fax or note from the QuickLink II Fax Main Application, how to send a fax from most DOS applications that can print to a LaserJet Series II printer driver, and how to prepare to receive a fax. It also describes how QuickLink II Fax receives datacom/modem calls and determines how an incoming call is a fax, datacom connection, or voice call.

Starting QuickLink II Fax

QuickLink II Fax is a DOS program, which means that you must navigate through DOS somewhat in order to start it up. The preferred way to run QuickLink II Fax is the following:

1. Start your computer — after a moment you should see the **C:\>** prompt. If you launch into Windows or a menu program, exit to DOS until you get a prompt.
2. Type **CD\QL2FAX** at your DOS prompt. This switches you into the default QuickLink II Fax Install directory. If you installed QuickLink II Fax into another directory, use the **CD** command to switch into it.
3. Type **QL2FAX** to run the QuickLink II main program. The startup screen appears — press the **ENTER** key or click **OK** to continue to the main screen.

Sending a fax from within a DOS application

QuickLink II Fax has a pop-up module called **FastFax IV**, which allows you to fax out a document from within most DOS applications that allow you to print through a Hewlett Packard LaserJet Series II printer driver. This does not mean that you have to own a LaserJet II; it means that your DOS application must have access

to a LaserJet Series II printer driver. WordPerfect, for example, can be configured to print with several printers — if you have an Epson printer, you told WordPerfect to install the Epson printer driver from the WordPerfect Install Disks. FastFax needs you to install the **HP LaserJet Series II printer driver** *in addition to any printer drivers you already have configured* for the programs you want to fax out of. The manual that came with your application will show you how. ***Printing with any other print driver will most likely not work or result in extremely bizarre looking faxes.***

The benefits of using FastFax are numerous. Once set up, you can send out a fax from your DOS application without ever leaving it; by simply pressing a Hot-Key on your keyboard and printing, your document will instantly fax out. In addition, all of your fonts, graphics, layout, and formatting will fax out exactly as it would print on a laser printer — true WYPIWYG (What You Print Is What You Get) faxing! Since FastFax faxes out as you “print”, file formats and file conversions are completely irrelevant.

FastFax has many command line options and can be configured to activate from a specific printer port. For more information, refer to Chapter 12.

Setting up FastFax

The FastFax module does require a small amount of initial setup before you can use it. First, there is a one-time need to install an HP LaserJet Series II printer driver in the DOS application(s) you wish to fax out of. Secondly, the FastFax module must be loaded into memory each computing session you want to fax out of your DOS application.

Installing the HP LaserJet Series II Print Driver

1. Install a **HP LaserJet Series II printer driver** into your DOS program if you don't normally print to a LaserJet Series II. It may be configured for LPT1 or LPT2 (LPT1 is normal) even if you already have another printer set for that port. Most programs can have more than one printer driver installed/ listed at the same time, so your normal printer shouldn't be affected. You may need to consult the documentation that came with the program if you are unsure how to do this. *If, after searching your documentation and referring to the authors of the program, you cannot find or do not have access to the HP LaserJet Series II printer driver, try using DOS TEXT or GENERIC PRINTER; satisfactory faxes may result.*

Loading FastFax IV into memory

2. Loading FastFax into memory is very simple; in fact, it may already be in memory. If you told the QuickLink II Fax Installer program to have FastFax load into memory when you turn your computer on, you can skip ahead to the next section. Otherwise, the first step to loading FastFax into memory is to get to the DOS prompt `C:\>`.
3. Next, change directories to the QuickLink II Fax Install directory, normally `C:\QL2FAX`, by typing
`C:\>CD\QL2FAX`
Your DOS prompt should change to `C:\QL2FAX>`.
4. Once in the QuickLink II Fax directory, FastFax is loaded into memory by simply typing **FASTFAX**. The process should look something like:
`C:\QL2FAX>FASTFAX`
5. FastFax starts to load, asking if you want to load the actual **sending** module (it asks if you want to load the TSR) if it wasn't already loaded at your computer's starting up. Unless you have a specific reason to do otherwise, type **Y** for yes. The hard disk will spin, your computer will beep, your screen will tell you that the FastFax module and the Send/Receive Fax module (TSR) have successfully loaded, and return to the DOS prompt. For more information about the Send/Receive Fax module, refer to the **Receiving A Fax** section, later this chapter.

Faxing out with FastFax

Once set up, FastFax is extremely easy to use.

1. Start your word processor or other DOS application, such as WordPerfect for DOS, Word for DOS, Q & A, Professional Write, or whatever DOS program you want to fax out of.
2. Retrieve/Open your document on screen as if you were going to print it on your normal printer.
3. Press the **"ALT"** and **"\"** keys at the same time. This is the hotkey which call up FastFax from the background. After a moment, the FastFax dialog box appears.
4. Fill out the cover page information, such as the **Fax phone number**, the company that the fax is going **To**, whose **Attention** you want, and a short **Note**. You may also access your QuickLink

Fax Phone List at this point by clicking the **Phone List** button. When finished, press the ENTER key or click **OK**.

FastFax 1.0

Fax #: 555-4878 Phone List

To: Magnum Opus, Inc.

Attn: Greg Knauss

Note: Notes on Turtle Groves

[X] Send Cover Page [X] High Resolution

Fax Options:
< > Send <=> Save < > Send and Save

Ok Schedule Cancel Help

5. Print the document to the LaserJet Series II printer driver.
6. After a moment, you will hear a beep and the hard drive will spin. The document will be intercepted from the printer driver on its way to the parallel printer port and be redirected to the fax/modem, which dials out and connects to the remote fax machine, and sends the fax.

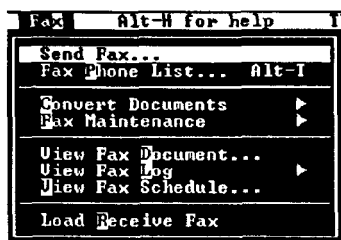
What you should see and hear as this happens: As soon as you print, there will be a "beeping-up" sound and your hard disk will spin. While the application is printing, you will see a dialog box saying "Converting PCL file" as the hard disk spins some more. Finally, if the send/receive module was loaded, the right side of the top line of your screen starts displaying messages, such as: "Creating Headers", "Creating Cover Page" "Dialing", "Sending Page 1", "Fax Busy", etc. When the message area on the top line disappears, the fax is completed.

7. One fax will be intercepted by FastFax each time the ALT+\ keys are pressed. To send another fax, press the ALT+\ keys again and fill out the cover page information again. If you want to print to the printer, simply **don't** press the ALT+\ keys and print to your printer's print driver, and your program will operate normally.

Faxing out from QuickLink II Fax

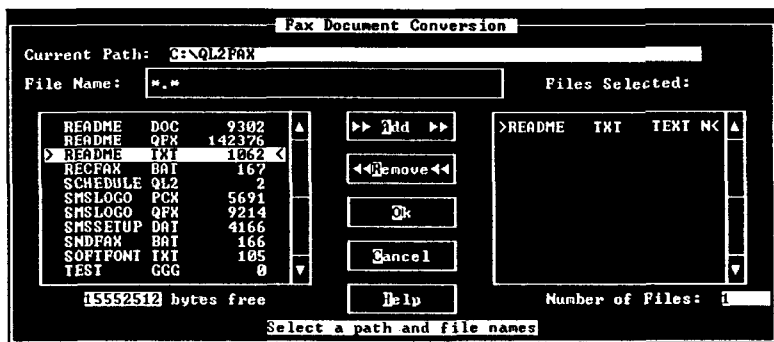
If all you need to do is fax out very simple documents quickly, faxing directly out of QuickLink II Fax makes sense. Before you fax files out, however, you should be aware of some limitations when faxing out in this manner. First, only DOS Text (batch files and such), ASCII Text (pronounced "Ask-y"), WordPerfect for DOS version 5.0/5.1 documents, and several graphics formats will convert and fax out completely. This means that document files from MicroSoft Word for DOS and Windows, PFS Professional Write, WordPerfect for DOS version 4.1/4.2 and Windows 5.1/5.2, Q & A, Lotus 123, Quatro Pro for DOS, and most other DOS and Windows programs must be converted into WordPerfect v5.0, or DOS or ASCII text files before the QuickLink II Fax main application can send them (Look in your program's manual under *Export*, *Save As*, or *Print to Disk* to find out how to do this). Second, only a minimum amount of formatting carries over to the converted documents — fonts, columns, and graphics are stripped away as only the basic text of the document is faxed out. If these limits are too restraining, consider using the FastFax module, described in the previous section.

Sending out faxes from the main application requires almost no prior set-up, however, and takes only a few steps. Start by running QuickLink II Fax, pulling down the **Fax** menu and choosing **Send Fax**. This calls up the **Fax Document Conversion** dialog box, which is where the files to fax out are selected and converted. There are two main sections to this dialog box, the **Files available** list box on the left, and the **Files Selected** list box on the right. Your goal is to choose the file you want to fax in the **Files available** list box, highlight the file, click the **Add** button to bring the file over to the **Files Selected** list box, and click **OK** when finished. If you already know the file name and its directory, you could also type it in the **File Name** text box and press the **ENTER** key to place it in the **Files Selected** list box too.



The location of the files in the **Files available** list box is displayed at the top of this dialog box as the **Current Path**, and it changes as you move from directory to directory when retrieving your files for conversion. You can change directories to locate your files by

either typing the path in the File Name text box (example: typing **C:\WP51\WPDATA** moves you to your WordPerfect data directory) or by using the **Files** available list box as a menu. You can back up one directory level by highlighting the “..” line and pressing the **ENTER** key or by double-clicking on it; you can enter a directory or subdirectory by highlighting the name of the directory in brackets and pressing the **ENTER** key or by double-clicking it.



There is already a text file called **README.TXT** in the QuickLink II Fax directory to illustrate faxing out in this way, so if you haven't already, pull down the **Fax** menu and choose **Send Fax**, scroll down the **Files** available list and add the file **README.TXT**. Since this is a text file, select the **Text** file format in the resulting **Fax Document Type** dialog box and click **OK** to continue. This finally brings the file to the **Files Selected** list box — up to 255 files can be selected to be faxed out in this manner, but for now, just click **OK** to fax this one file.

When you click **OK**, your files convert into a faxable format, which can take more than a minute on some systems, depending on the length of the original document. Once finished, your computer beeps, and calls up the **FAX Dialer** dialog box. To enter the telephone number of the fax recipient, simply type the number in the text box, spaces, dashes, and parenthesis can be included if you like, and click **Dial** or press the **ENTER** key. Clicking the **Phone List** button allows you to access entries in your Fax Phone List if you have created one. Enter a phone number and click **Dial** to continue.

Since the default configuration includes a Cover Page with each sent fax, the **Send Fax Information** dialog box appears, prompting you to include information about the Recipient for the Cover Page. This information includes the company you are sending to in the

To: text box, the specific recipient's name in the **Attn:** text box, the recipient's **Fax Number**, and a short **Cover Page Note** of up to 250 characters (about 50 words). Clicking **OK** completes the process, creates the Cover Page, and sends out the fax.

Receiving a fax

Receiving a fax is handled by the send/receive program module of QuickLink II Fax, called **RECFAX**; when loaded into memory **RECFAX** totally automates the process of receiving a fax (Strictly speaking **RECFAX** is a TSR, or Terminate and Stay Resident program). Depending of how QuickLink II Fax was installed, **RECFAX** may already be loaded into memory when you turn on your computer, so you'll be able to receive faxes whenever your computer and fax/modem is powered on. If not, **RECFAX** can be loaded into memory at any time by following one of the following procedures.

If you are in the QuickLink II Fax main application:

1. Pull down the **Fax** menu and choose the bottom option, **Load Receive Fax**. A dialog box appears to inform you that the loading process completes.
2. If the bottom option of the **Fax** menu is **Unload Receive Fax**, the **RECFAX** module is already in memory. Selecting **Unload Receive Fax** will remove **RECFAX** from memory.

If you are at a DOS prompt:

1. Change directories to the QuickLink II Fax install directory. This is normally done by typing **CD\QL2FAX**. Your DOS prompt will probably change to **C:\QL2FAX>**.
2. Type **RECFAX** and press the **ENTER** key. This loads the module into memory and initializes the modem. If **RECFAX** is already loaded into memory, the screen will say so.
3. To disable the receiving portion of **RECFAX** from memory, type **RECFAX /OUT** at the DOS prompt from within any directory. To totally remove it from memory, type **RECFAX /ALL**.

RECFAX normally stays in an invisible, idle state while awaiting a call; it pops up a status line over anything else on screen along the top right edge while actually answering and processing the fax. When a fax gets received, the call is automatically logged in the **Receive Fax Log** and the fax gets saved on the hard disk in the

QuickLink II Fax Install directory. The first fax file gets named FAX0001.REC — the 4 digit number increases with each received fax. The received fax file can be viewed, printed, and re-sent at any time once saved on disk.

RECFAX's default settings will let it answer the incoming call to determine what it is: either fax, data, or voice. If the call is a fax, it gets received in the manner just described. If it is a modem/data call, RECFAX displays in the top status line that there is an incoming data call, giving you 30 seconds to quit out of your application and enter the QuickLink II Fax main application to establish the connection. If the incoming call isn't a fax or a data call, the status line will display "VOICE CALL".

How RECFAX makes a determination: Since not all fax machines broadcast CNG tones (a special noise which makes it clear to a fax/modem that a fax transmission is following) when sending, RECFAX makes your fax/modem first broadcast datacom handshake tones, then fax handshake/training tones, and then repeats the cycle a number of times, depending somewhat on the fax/modem, and then displays the VOICE CALL message. This means that people calling you will be hearing some computer tones before you pick up your handset. If you only have one telephone line and rarely receive faxes (or people call you ahead of time before faxing), you may want to set the number of rings to answer the phone to 3-5 rings and set the **Answer Mode** to **Fax Only**, which will allow you to pick up the phone before the fax/modem does. Refer to Chapter 10 for more information.

Text editor

QuickLink II Fax includes a built-in, miniature text editor, accessible from the **Edit** menu. The Text Editor is perfect for editing Script Files and other small text documents, and creating small text files to fax out from the QuickLink II Fax main application. A file is limited to a maximum of 400 lines of text, or about 5 typewritten pages.

You also have the option of loading your own editor instead of the QL II Fax editor if you desire. Upon choosing **Editor** from the **Edit** menu, a hierarchical menu will appear for you to specify if you are editing an existing file, a new file, the contents of the line buffer or Editor Setup. If you wish to use your own editor such as Word Perfect® choose **Editor Setup**. In the first text box enter the drive and full path and filename for accessing your editor, such as

C:\WP51\WP.EXE. In the second text box enter any execution time parameters (command line arguments) that you may normally need to specify for your editor. If you do not use execution parameters leave the second text box blank (this is normal). If you would like to select the file to edit before leaving the QuickLink II Fax environment and entering the desired editor, select the first check box. If you wish to have the default path changed to the path of the desired editor, select the second check box. This may be necessary if the editor relies on program or setup files in its own subdirectory. Save the information you have entered by clicking the **Save** button. Click the **OK** to continue. Now when you select the Editor you will have your editor loaded instead of the built in QuickLink II Fax editor. To return to QuickLink II Fax from your editor, select the quit function provided by your editor.

If you are using the editor provided with QuickLink II Fax, you will need to select one the first three options on the **Editor** hierarchical menu. If you are editing an existing file you will be presented with the standard QuickLink II Fax file selection screen. You will need to open the file you wish to edit. The **New File** option will open the Editor with a blank file and the **Line Buffer** menu selection will place the contents of the Line Buffer in the Editor.

When you enter the QuickLink II Fax Editor, the menu bar will change. It will change to a **Diamond**, **File**, and **Edit** menus. The **Diamond** menu will allow you to access a help screen with the Editor key commands. The **File** menu bar lets you create **New** files, **Save** files, **Print** files, leap to a **DOS shell**, and **Return to QL II Fax**. The **Edit** menu gives you functions to **Cut**, **Copy**, **Paste**, **Clear**, **Insert** and **Delete** lines.

When you first enter the editor you will be placed in Edit Mode for editing the text file. You are, by default, in the character insert mode. You can toggle between insert and over write mode for editing by pressing the **Ins** key on your keyboard. You have full use of the **Home**, **End**, **Page Up**, **Page Down**, and **Del** keys for positioning the cursor in the text file or removing characters. In addition to the use of the above standard keys, the QuickLink II Fax Text Editor uses special key assignments to cut, copy and paste text and to insert and delete lines. The table below defines the special key assignments.

Keys	Meaning
Alt-S	Saves your current text file
Alt-Z	DOS Shell
Alt-	Editor, Return to QL II Fax
Alt-X	Copy marked text to scrap

Alt-C	Cut marked text to scrap
Alt-V	Paste scrap at cursor position
Alt-D	Delete current line
Alt-I	Insert line
Alt-M	Mark text for copy/cut text
Ins	Toggle insert/over write mode

Online help

At almost every point in QuickLink II Fax, there is a Help button just waiting to be clicked if you are beginning to get lost or don't know what to do next. The quick key for the Help button is always ALT-H.



Additionally, there is a Help item in the Diamond Menu at the left end of the menu bar for broader concepts and the Help Index. This online help system summarizes most of this manual and can guide you through any sticky spots.

Leaving QuickLink II Fax

Pulling down the **File** menu reveals the two commands to leave QuickLink II Fax:

Quit

The **Quit** function allows you to quit QuickLink II Fax and return to the DOS command line. Quit does not disconnect the line unless you instruct it to do so, so you could switch over to another communications program while maintaining the connection if your other application supports this function. **Quit** totally removes the Main Application from memory and is the normal way to leave the program.

DOS Shell

The **DOS Shell** function allows you to temporarily exit and perform DOS functions (like deleting files, for example), and then return to the communications session. When you are ready to return to QuickLink II Fax from DOS, simply type the word **EXIT** at the command line.

Chapter 8

Viewing and Printing Faxes

There is little point in receiving faxes unless you can easily look at them and print them. Chapter 8 explains how to print and view faxes, as well as provides a description of fax files and their usual locations.

QuickLink II fax files

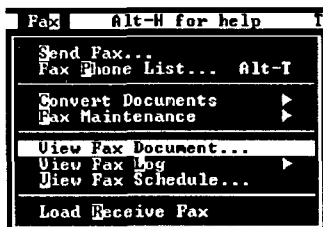
QuickLink II Fax has a standard naming convention for received faxes and the files that they are saved in. All received fax files have the three letter file extension .REC. Also, faxes are numbered sequentially and have the word FAX as the first three letters in the filename. Therefore, your first received fax will have the file name FAX0001.REC. Received faxes also get saved in the same directory every time, so there is no need to search your hard disk for fax files. The default location is the QuickLink II Fax directory (normally C:\QL2FAX), though this can be set differently with the Receive Fax Setup dialog box under the Setup menu (refer to Chap 9).

The files created by you to fax out have a virtually identical internal format as received fax files, but they have a different three letter file extension so you can easily keep track what faxes are incoming and which are outgoing. These outgoing fax files are .QFX files and these are the files that you create when you convert your documents and graphics files to the faxable format by choosing **Convert Document** or **Send Fax** from the **Fax** menu or select **Save or Send and Save** from FastFax — QFX files normally get stored in the QuickLink II Fax directory (normally C:\QL2FAX).

It cannot be stressed enough that REC files and QFX files are basically the same type of files with different three letter extensions. They are viewed, printed, faxed out, and in every other way handled the same way by QuickLink II Fax.

Viewing faxes

Faxes don't just appear on your screen automatically — you must first call the REC or QFX fax files into view. The simplest way to do this is to pull down the **Fax** menu and choose **View Fax Document**. When chosen, the **View Fax File** dialog box appears, allowing you to select a fax file to view. If you know the name of the fax file you want to view, simply type the file's name in the **File Name** text box and press the ENTER key; otherwise, select the file from the list box (press the TAB key if you're using the keyboard) and click **OK** or double-click on the file. In order to test the viewer right now, choose the file **README.QFX**, a fax file that was created when you followed the previous chapter's section on faxing out within QuickLink II Fax.



Once a file is selected to view, your screen changes into graphics mode and reads in the fax file, finally displaying the first page of the upper left corner of the fax at full size. While viewing a fax, pressing the F1 key or ALT-H calls up the **QuickLink II Fax View Help** dialog box, which displays all of your commands and options while in the Viewer. They are:

Key	Action
F2	Zoom Out (Fit page to Screen)/Zoom In (Full Size)
F3	Previous Page (multiple page fax only)
F4	Next Page (multiple page fax only)
F5	Invert Image (Toggle)
F6	Flip Image Vertically (180°)
Arrow Keys	Move Up, Down, Left, Right
PageUp	Move 1 Screen Up
PageDown	Move 1 Screen Down
Home	Top of Page
End	Bottom of Page
Ins	Left Edge of Page
Del	Right Edge of Page

When finish viewing a fax, pressing the ESCAPE key returns to the main application.

Printing faxes

Printing faxes is a very simple process, so you can easily have hard copies of your received faxes to photocopy and pass around. QuickLink II Fax is compatible with most graphics capable dot-matrix and Hewlett Packard compatible printers — if you can print out graphics files or from within Microsoft Windows, chances are you printer will work.

Setting your printer

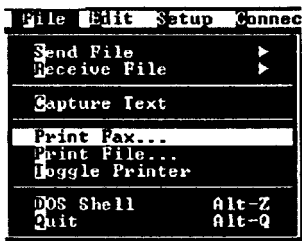
Before printing a fax, you must tell QuickLink II Fax what printer you have from a provided list. This section will walk you through quickly setting up your printer; if you have a problem or for more information, please refer to the Hardware Setup section of Chapter 9.

To configure your printer, pull down the **Setup** menu and choose **Hardware**. Click on the **Type** button, and scroll through the resulting list until your printer is highlighted — when highlighted, click the **Select** button (or press ENTER). Choose the appropriate LPT port from the next dialog box, then click **Save**, then **OK**. *If your printer is not listed, not connected to an LPT port, or for more information about the Hardware Setup dialog box, refer to Chapter 9.*

Printing the fax

Once QuickLink II Fax knows what printer to print to, printing faxes consists of two quick steps.

1. Pull down the **File** menu and choose **Print Fax**.
2. Scroll down the list box and select the fax file you want to print, or type the name of the fax file you want to print in the **File Name** text box. *In the File Name text box, "*.REC" is listed, which means that only files with the .REC extension (your received faxes) will be listed. To list your .QFX files, type "*.QFX" in the File Name text box and press ENTER; to see all files in the directory, type "*" and press ENTER.*



Once selected, a status dialog box appears to tell you what file, what printer, and what print quality is being accessed. To print another fax file, repeat steps 1 and 2.

Advanced faxing

If you have the need to manipulate your faxes and fax files further, refer to the next chapter for an explanation of advanced functions.

Chapter 9

Advanced Fax Functions

You now know everything you need to make QuickLink II Fax send and receive faxes, print and view them, and all the basic skills to keep you happily faxing. But there is so much more QuickLink II Fax can do to meet your special faxing needs. These special functions are covered in Chapter 9, and include:

- How to use the Fax Phone List
- Keeping track of your faxes by using the Fax Logs
- How to convert faxes into graphic files and vice versa
- How to schedule faxes to send at a later time
- How to view the outgoing fax schedule
- How to send the same fax to up to hundreds of fax machines
- How to manually receive a fax from someone already on the line
- How to change QuickLink II Fax's default fax settings

The fax phone list

The Fax Phone list provides access to your personalized fax phonebook for frequently dialed fax machines. It can be accessed by choosing Fax Phone List from the Fax menu and from the Fax Dialer dialog box, as well as directly from the keyboard with the ALT-T key combination.

Building and editing the list

The Fax Phone List dialog box is comprised of the entry list box and its function buttons. To add a number to the Fax Phone List, click the **Add** button. The Fax Phone List Entry dialog box will appear, providing text boxes for the **Name**, the Fax phone **Number**, and the **Group** identifier, if desired. If a fax is normally sent to someone specifically within a company, a fax can be made to their attention by entering their name in the **Attention** field.

FAX Phone List		
a	User Group	Mr. Jeff Jones 1 (619) 555-1212
	XYZ Company	555-1234
U	Animal Shelter	Ms. Lisa M. Rivera (714) 555-1258
U	Go West Medical	Mr. Jason Black (213) 555-1117

Send
Add
Edit
Remove

Mark
Sort
Cancel
Help

The Group identifier allows you to define a collection of fax numbers that may be dialed by selecting one member of the group. For example, you could easily send the same fax to all your customers by giving each person who is on your list who is a customer the same Group character, and then simply sending a fax to the group. Each person would receive the fax. A Group identifier may be any character on your keyboard — the cases must also match (A group with a "B" identifier is different than one with a "b"). Using a Group identifier is optional. After entering the information required, click the **OK** button to add the entry to the directory, or **Cancel** to undo.

The **Edit** button is used to modify an existing entry listing. To select an entry to edit, highlight the desired name and number and click **Edit**; you can move from text box to text box with the **TAB** key and change what you want. The **Sort** button allows you to sort your Fax Phone List either alphabetically, by Group, or by phone number. The **Remove** button will remove the selected entry.

FAX Phone List Entry	
Name:	Animal Shelter
Attn:	Ms. Lisa M. Rivera
Number:	(714) 555-1258
Group:	U

OK
Cancel
Help

Choosing fax destinations

Once the Fax Phone List has the telephone numbers of your intended fax recipients, choosing the entries to fax to is done with the **Mark** button. The **Mark** button is used to select those fax

numbers to which you wish to send a fax — you may send a fax to as many different numbers as you have entries in the **Fax Phone List**. Highlighting the entry you wish to send the fax to and clicking **Mark** will mark it. Entries must be marked before faxes can be sent to them; a marked entry has a checkmark placed next to it to show its marked status. If you mark an entry that is in a Group, QuickLink II Fax asks you if you want to select the entire group of fax numbers to fax to based on the Group of the highlighted entry. Clicking **Cancel** will mark only the selected entry; clicking **OK** marks the whole Group. Marking instructs QuickLink II Fax to send a fax document or several documents to the Marked fax numbers when the **Send** button is clicked. The **Cancel** button will remove the Fax Phone List from your screen without dialing a remote fax telephone number or recording any updates made to the fax phone list.

If you are choosing **Fax Phone List** from the main application and a fax document has not yet been specified, the **Fax Document Conversion** dialog box appears next to select a document to fax. It functions exactly as if choosing **Send Fax** (Refer to Chapter 2).

Fax logs

By choosing **View Fax Log** from the **Fax** menu, you can view a log of faxes that have been sent and received with the **Send Log** and the **Receive Log**. Both logs provide the status of the 250 most recent fax transmissions.

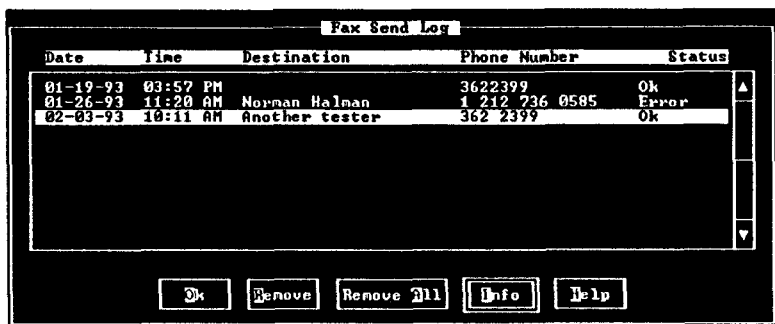
Receive fax log

The Receive Fax log provides a line of information for each fax transmission received. The log displays the **Date**, **Time**, **Document** file name, the number of **Pages** received, and the **Status** of the received fax. A specific entry can be removed with the **Remove** button; the entire log can be cleared by clicking **Remove All**. Clicking **OK** returns you to the program.

By clicking the **Info** button, additional information will be displayed for the selected fax, including the **Remote ID** of the sending fax, the **Resolution**, the **Baud** rate, and the specific Error of a failed fax receive, if any in the **Status** line (Error Codes for fax transmissions are listed in Appendix C).

Send fax log

Each entry in the **Send Fax Log** represents a transmitted fax from either the main application or the FastFax. Each entry includes the **Date** and **Time** of the transmission, the **Destination**, the **Phone Number**, and the **Status** of the sent fax. A specific entry can be removed with the **Remove** button; the entire log can be cleared by clicking **Remove All**. Clicking **OK** returns you to the program.



By clicking the **Info** button, additional information will be displayed for the selected fax, including the **Document** name, the **Resolution** of the sent fax, the **Duration** of the call, and the specific Error of a failed fax send, if any in the **Status** line (Error Codes for fax transmissions are listed in Appendix C).

Converting fax files graphically

All faxes that get received are **graphics**, as opposed to **text** files. As such, you can modify a received fax by converting it into a standard graphic file so that it can be edited with a Paint program, such as Windows Paint or PC Paintbrush. Faxes that get sent out are graphics too (your text documents are converted into a graphic "picture" of the text, so to speak), so you can convert graphic files to fax easily too. Graphics conversions of faxes can be completed with the **Convert Documents** command, located under the **Fax** menu, which presents the sub-menu **Fax Out** and **Export**.

Exporting a fax into a graphic file

The **Export** command allows you to convert a fax file (QFX or REC file formats) into a Paintbrush file (.PCX) or a TIFF (.TIF) file.

These formats can be imported into most Graphics and paint applications; in general, simple Paint programs tend to use PCX files, while higher end graphics programs work better with TIFF files.

To convert a fax file, choose **Export**, which calls up the **Export Fax** dialog box. With it, double-click the appropriate file in the file List Box or type the file's name in the **File Name** text box, clicking **OK** when finished.

Selecting a file calls up the second **Export Fax** dialog box, which controls the aspects of the graphic file the fax is being converted into. The filename of the converted fax can be changed in the **File** text box. The file format (and the three letter file extension for the new file) is controlled with the **Exporting To** radio buttons. Converting specific pages of multipage faxes can be controlled by entering a specific range of pages in the **Page Range** area.

Clicking **Export** starts the conversion, and a Status bar will inform you of the status of the conversion. The resulting graphic file will be located in the same directory as the fax file from which it was created (normally C:\QL2FAX). The **Cancel** discontinues the conversion process.

Importing a graphic into a fax

Normally, graphics can be faxed out by simply using FastFax from within the application that created the graphic itself, but graphics can also be converted directly into a fax file (QFX) from within QuickLink II Fax by choosing **Fax Out** from beneath **Convert Documents**.

Since several graphic files can be converted at once, the select multiple files dialog box **Fax Document Conversion** is used. Up to 255 files can be converted at once with this dialog box; files are selected just like sending a fax (Refer to Chapter 2). The graphic formats supported include PC Paintbrush (.PCX), multiple page Paintbrush (.DCX), TIFF (.TIF), Windows Bitmap (.BMP), or MacPaint (.MAC), LaserJet print files (.PCL), Image files (.IMG), and CUT (.CUT) files. Graphic files convert into .QFX fax files. Files get saved in their original locations on your hard drive.

After selecting the files to send and clicking **OK**, the document conversion window will appear during the conversion process that provides status information on the conversion.

Fax scheduling/Background fax transmissions

When faxing out, there may be occasions when you do not want to fax the document out immediately, perhaps because you know the recipient's fax machine is only on at a certain time of the day, or because you want to fax during the night when telephone rates are lowest. If this is the case, you can **Schedule** your faxes to send later.

Note:

Send Fax: (>) Now 03 : 15 (>) am
 (< -) **Scheduled** (< -) pm

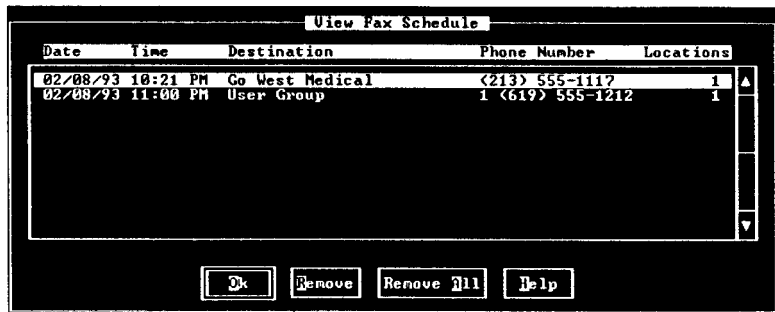
Ok Omit Cancel Help

Scheduling a fax is very simple. When sending a fax from within the QuickLink II Fax main application, you can schedule an outgoing fax from the **Send Fax Information** dialog box. Within it, in the **Send Fax** section, you can set whether or not a fax is set to be sent **Now** or **Scheduled**. If **Scheduled**, the time of the fax send is set by entering the new time (up to 24 hours in advance) in the time text boxes and selecting **am** or **pm**. Clicking **OK** locks in the **Scheduled** send — the document will immediately convert into a QFX file located in the QuickLink II Fax install directory, ready to be faxed out at the scheduled time. The date and time on the cover page will be added as the document is actually sent, reflecting the send time, not the convert time. If your computer is not powered on and RECFAX is not loaded at the scheduled time, the fax will not send. However, if after the appointed time you do load RECFAX into memory, the *Scheduled fax will start transmitting*. (As per Chapter 12, you could also type SNDFAX/IDLE at the command line and the Scheduled fax would send, but you would not activate the receiving module.

Faxes can be Scheduled from FastFax too — simply click the **Schedule** button on the FastFax dialog box and set the time. When you print to the document to the LaserJet II, the document will convert immediately, but not be sent until the time you set. All Scheduled faxes get sent in the **Background**, unlike when you send them immediately from within the Main Application (FastFax always sends in the background unless set otherwise). Therefore, if you want to send faxes in the background, Schedule them, even if you set the time one minute ahead.

Viewing the fax schedule

The **View Fax Schedule** command, accessed from the **Fax** menu, allows you to see what fax transmissions are scheduled to be sent and at what date and time. Provided information includes **Date**, **Time**, **Destination**, **Phone Number**, and the number of **Locations** the document will be sent to. Unless you are broadcasting to a group (Refer to the next section), this will read 1.



To remove a selected scheduled transmission, select the desired entry from the list and click the **Remove** button. To totally clear the schedule of faxes, click **Remove All**.

Sending the same fax to several destinations

The ability to send out the same fax to several destinations is called **broadcasting**, and is fully supported by QuickLink II Fax. The easiest way to broadcast a fax is to simply select more than one destination from the Fax Phone List by highlighting it and clicking the **Mark** button, which will put a small icon next to it to indicate that it is on the broadcast list. You may mark as many destinations in the Fax Phone List as you want — clicking **OK** will lock the destinations in. Destinations can be unmarked by highlighting the destination and clicking **Mark** again. A fax can be sent to a whole Group quickly by selecting a member of a Group and clicking on **Mark**, and confirming the Group send. Clicking **Mark** again will unmark them all. Group broadcasting is the main reason to use the Group field in the phone list.

When combined with Scheduling, it is easy to send literally hundreds of faxes at night; just enter the **Time** in the Send Fax Information dialog box.

Manual fax receives

Occasionally, you may want to start receiving a fax from someone who is already on the telephone with you, or you are connected to a fax-back service which will start sending you faxes after you press some touch-tones on your phone. If you were using a regular fax machine, you would probably just press the "Receive" button to start receiving the fax.

QuickLink II Fax can accommodate you in these situations. When RECFAH is loaded into memory, there is a Hotkey with acts like a Receive button: ALT-; (that's the ALT key and the semi-colon key pressed together). If you press these keys and you do not hear your fax/modem pick up the line and start sending "Receive Fax tones", RECFAH is not loaded into memory. *Note: not all fax/modems support the manual receive feature.*

Fax setup options

The commands and options that customize your faxing features and abilities that are accessible under the **Setup** menu are covered in this section.

Send fax setup

The **Send Fax Setup** dialog box allows you to define standard information to be used during fax transmissions. The Send Fax Setup dialog box contains two sections; **Conversion options** and **Control options**.

File Conversion Options

The first check box tells QuickLink II Fax to **Center the Text or Graphic** on the fax page horizontally when converting, otherwise a 1 inch left margin is used; this option may not be access when using FastFax, since the page is sometimes determined by your DOS application. The second option is to allow you to change between Normal resolution and Fine/**High resolution** fax modes when sending from within QuickLink II Fax — normal is the default resolution when this option is not selected. With normal resolution, QuickLink II Fax doubles the scaling on the vertical axis to allow for the differing resolution between the computer

graphics standards and fax standards. This scaling is not needed for fine/high resolution. At document conversion time, QuickLink II Fax will look to see which resolution has been selected and perform any scaling necessary.

The next check box in this section, **Full Page Text/Graphics**, instructs QuickLink II Fax to force the page length specified in page layout, even if this results in blank space on a page. Otherwise, it will be the length of the text you are sending. This option may also not apply when using FastFax.

The Page Layout settings allow you to specify the number of **Text Lines per Page**, the **Width of Tabs** (in number of characters), and the **Top and Bottom Margins** (in text lines). These options are used at fax conversion time.

Send Fax Setup	
Conversion options:	Control options:
<input checked="" type="checkbox"/> Center text/graphics on page	<input checked="" type="checkbox"/> Include cover page
<input checked="" type="checkbox"/> High resolution	<input type="checkbox"/> Delete QFX files after sending
<input checked="" type="checkbox"/> Full page text/graphics	<input type="checkbox"/> Dedicate CPU while sending a fax
Text lines per page: <input type="text" value="66"/>	Number of redials: <input type="text" value="3"/>
Width of tab stops: <input type="text" value="8"/>	Seconds between busy redials: <input type="text" value="30"/>
Top/bottom margin: <input type="text" value="1"/>	Dial Timeout in Seconds: <input type="text" value="120"/>
<input type="button" value="Ok"/> <input type="button" value="Save"/> <input type="button" value="Cancel"/> <input type="button" value="Help"/>	

Control Options

The second section of the Send Fax Setup dialog box provides fax transmission control options. The first check box, **Include Cover Page**, provides you with the option to include a cover page with each fax transmission. Failure to select this option means that you cannot send a cover page; therefore, the default is On.

The **Delete QFX Files after send** checkbox instructs QuickLink II Fax to delete the .QFX file after successful transmission. This can save a good deal of disk space.

The **Dedicate CPU during send** checkbox tells QuickLink II Fax to force the sending of fax transmissions to the foreground and in doing so dedicate your computer until the completion of the transmission. Any applications running in the foreground at the time a fax transmission occurs would be temporarily halted until the completion of the send. The default for this option is off. You

may find that it is necessary to turn this option on if you are running disk access intensive applications in the foreground, or you have an older or slower PC.

The **Use RTS/CTS Flow Control** checkbox tells what flow control to use when sending a fax. The default is RTS/CTS — if not checked, Xon/Xoff flow control will be used. This is provided for those modems that do not support RTS/CTS flow control.

The **Number of Redial attempts** text box allows you to specify how many times to redial a busy fax machine before logging it as busy in the Send Fax Log. The **Seconds between busy redial** text box specifies the number of seconds to wait before attempting to redial a busy fax machine. The **Dial Timeout in Seconds** text box specifies the number of seconds to wait before redialing a number when the modem has not responded to the dial command in the allocated number of seconds. This feature is very useful when calling foreign locations. All three of these options affect the foreground and background sending of faxes.

Clicking **Save** saves these settings for all future sessions; **OK** closes the dialog box and puts the settings into effect immediately. **Cancel** will close the dialog box and ignore the new settings.

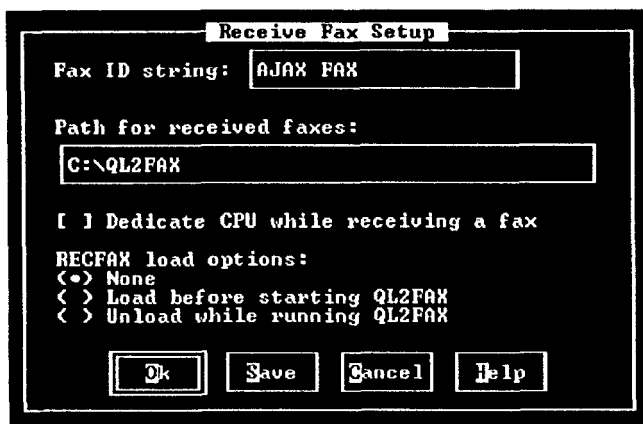
Receive fax setup

The **Receive Fax Setup** dialog box allows you to define standard information to be used during the receiving of fax transmissions.

The **Fax ID string** text box allows you to specify your Fax ID. This string is limited to 19 characters in length. The Fax ID is an identifier to the remote fax machine or fax/modem, and often appears in the sending fax machine's status window. Common ID's include telephone numbers, names, and business names. Note that some older fax machines must sense a Fax ID in all uppercase letters. See the Troubleshooting Appendix for more information.

The **Path for received faxes** text box allows you to change where your incoming fax files will be saved. This setting defaults to the QuickLink II Fax install directory, normally C:\QL2FAX. The **Dedicate CPU while receiving a fax** check box tells RECFAX to force the receiving of fax transmissions to the foreground and in doing so dedicate your computer until the completion of the transmission. Any applications running in the foreground at the time an incoming fax transmission occurs would be temporarily halted until the completion of the receive. The default for this

option is off. If you tend to run many disk intensive DOS applications or you have an older or slower PC, you may want to turn this option on.



The bottom half of the Receive Fax Setup dialog box provides special control over the loading and unloading of RECFAX, the Receive Fax background application. The first option **None** is the default and assumes you have loaded RECFAX prior to running QuickLink II Fax or that you don't want to. The second option instructs QuickLink II Fax to load RECFAX before loading itself. The final option instructs QuickLink II Fax to unload RECFAX prior to loading itself and reload RECFAX upon quitting QuickLink II Fax. Remember, if RECFAX is not loaded, you cannot receive an incoming fax or send a fax in the background.

Clicking **Save** saves these settings for all future sessions; **OK** closes the dialog box and puts the settings into effect immediately. **Cancel** will close the dialog box and ignore the new settings.

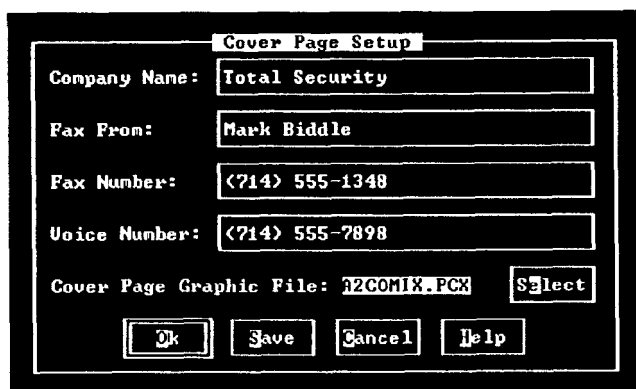
Cover page setup

The **Cover Page Setup** dialog box provides you with text boxes to be used for entering information about you and your company for the fax page headers and fax cover page.

Each fax page sent with QuickLink II Fax (excluding the cover page) will include a page header with the Company name, date,

time and page # of the fax, assuming that information has been entered in the **Company Name** text box.

QuickLink II Fax will automatically create and send a cover page at the front of each fax transmission if the **Include Cover Page** option is checked on the **Send Fax Setup** dialog box. The **Company Name** is also placed at the top of the cover page and the Fax From name and phone number shown on the cover page default to the entries in the **Fax From** and **Fax Number** text boxes. The **Voice** contact number is also included on the cover page.

A screenshot of the 'Cover Page Setup' dialog box. It has a title bar 'Cover Page Setup'. Inside, there are four text input fields: 'Company Name:' with 'Total Security', 'Fax From:' with 'Mark Biddle', 'Fax Number:' with '(714) 555-1348', and 'Voice Number:' with '(714) 555-7898'. Below these is a label 'Cover Page Graphic File:' followed by the text '12COMIX.PCX' and a 'Select' button. At the bottom are four buttons: 'OK', 'Save', 'Cancel', and 'Help'.

If you wish to include a **Cover Page Graphic** such as a company logo, enter its complete pathname or click the **Select** button. A file selection box will appear asking you for the name of the graphic logo or image file. This file can be either a black and white TIF or PCX file or Monochrome Bitmap file (BMP) with a resolution no greater than 200 DPI. Once you select the file, the name will appear next to the Cover Page Graphic field. When you press **OK**, a conversion box will appear while the selected file is converted to a form usable as your cover page graphic. Once this is done, the graphic will be at the top of each cover page you fax out.

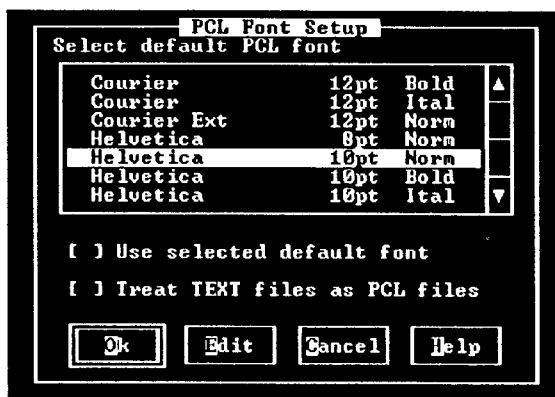
Clicking **Save** saves these settings for all future sessions; **OK** closes the dialog box and puts the settings into effect immediately. **Cancel** will close the dialog box and ignore the new settings.

PCL font setup

The **PCL Font Setup** dialog box allows you to specify the default font to be used for PCL file conversion by QuickLink II Fax and FastFax (in some cases, depending on the printing DOS application).

This is the font that will be used if the application that created the PCL 4 file does not specify a font.

You can also define two custom fonts that can control what the output will look like. If you highlight one of the user defined fonts, you can click **Edit** to enter your own printer commands. Consult your HP LaserJet II manual for the desired results.



The first check box, **Use selected default font**, allows you to turn on and off the default font. If no font is specified, a Courier 12 point font will be used for text. This font will only be used if the document you are printing has not specified a font and has not issued a printer reset command. The second check box, **Treat TEXT files as PCL files**, allows you to convert any ASCII text document and have LaserJet results. When selecting a text document to fax or view, instead of the file type of TEXT, PCL is used.

Chapter 10

DataComm Overview

Chapter 10 describes how to call another modem or BBS for a Data Communications connection and how to **upload** (send) and **download** (receive) files to and from remote systems. The commands used for data communications are in the **Connect** menu. Topics include:

- Calling a BBS (Bulletin Board System) or other modem
- How to use the Data Phone Book
- Uploading a file
- Downloading a file
- How to capture the text of an online session to a text file on disk
- How to clear the screen
- How to review what has scrolled up past the screen
- How to print every line as it transmits to your screen
- How to print a text file
- How to answer a Data call
- A brief description of the transfer protocols available

Chapter 10 also explains the configurable settings under the **Setup** menu for data communications.

Originating a data call (dialing out)

There are two ways to dial out for a Data Comm connection: a quick **Dial**, or accessing the **Connect Phone List**.

Quickly dialing a number

The great majority of data communications sessions will begin with you dialing out to another modem, BBS, or online service. The quickest way to do this is by simply dialing the modem with the **Dial** command from the **Connect** menu, which brings up the **Dialer** dialog box. From this box, the telephone number can be entered in to the Number to dial field and dialed. Clicking **Dial** starts dialing, calling up a dialog box which displays the status of the dial.

Using the Data Phone List

Choosing **Data Phone List** from the **Connect** menu brings up the Data Phone List dialog box, allowing access to a datacom telephone book of all your frequently dialed data numbers — its quick key is ALT-P. You'll find that it is accessed almost exactly like the Fax Phone List.



Choose it now, and you will find that there is already an entry in the list: American E-Mail. American E-Mail is Smith Micro Software's BBS; you are invited to use this system to test the data portion of QuickLink II Fax. There is no charge for using our system, other than the long distance charges from your telephone company for dialing the 714 area code (The 714 area code connects to Southern California). To dial any number as it appears in the Data Phone List, highlight the entry by clicking on it and click on the **Dial** button. The **Add** and **Remove** buttons allow you to respectively add and delete Data Phone List entries — **Sort** allows you to sort the list by number or alphabetically.

To edit an entry in the Data Phone List, highlight the entry and click the **Edit** button. Highlight the American E-Mail entry and click the **Edit** button now. This brings up the **Phone List Entry** dialog box, where every aspect of an entry can be changed. To change the **Name** or **Number** of an entry, just click in the appropriate text box and type in the new entry. Notice that parentheses, spaces and dashes are acceptable in the telephone number — a comma will create a 2 second pause in dialing. If you are calling from the 714 area code, be sure to delete the 1-714 from the Number field.

The other fields deal with the more technical aspects of the connection, such as the **Baud** rate, **Terminal** type, and line settings. While there is no set standard terminal type and line setting combination for every modem connection, there are some guidelines to follow which may be helpful.

Phone List Entry

Name:

Number:

Baud: Data: Stop: Terminal:

Parity: TX Script:

- Set the Baud Rate to the highest your modem will support, or to 2400 if you are getting bad connections. When you dial the other modem, the two modems will establish the highest connection speed possible automatically so long as the Autobaud feature is turned on (The default setting for Autobaud is On. Refer to later this Chapter), otherwise, the baud rate is determined by the caller.
- Small systems (BBS's) tend to use the ANSI terminal type with 8 data bits, no parity, and one stop bit (8-N-1 for short).
- Large installations (such as mainframes and online services like GENie and CompuServe) tend to use the VT100 terminal type with 7 data bits, even parity, and 1 stop bit (summarized by 7-E-1).
- Two people connecting their PC's together via modem should try the TTY terminal type with 8-N-1. You may also need to turn on Local Echo and both CR/LF checkboxes in the Terminal Options dialog box, covered later this Chapter.

Other than the area code in the telephone number, all the settings for the American E-Mail entry are correct. Click **OK** to leave the Edit dialog box and click **Dial** to dial our BBS.

Once connected to our American E-Mail system, follow the prompts to create a new user account. You will be prompted at every step and must create a password of your own choosing to enter the system for future online sessions. When connected to our system,

you may upload and download public domain and utility files and programs, visit the Online Software Store, or get online technical support. All selections are menu driven; when in doubt enter a Question Mark (?) for help. To disconnect from our (or any) system, pull down the **Connect** menu and choose **Hangup**.

File transfers

Unlike faxing, file transfers do not happen automatically; there is a good deal of preparation to consider. Fortunately, QuickLink II Fax makes the procedure as intuitive as possible.

The concept of file transfers

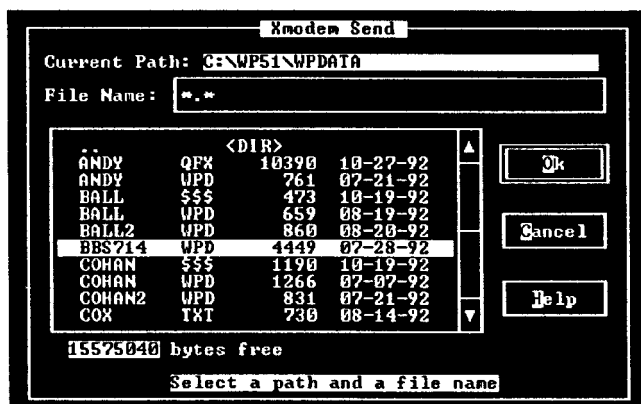
Before getting into the specifics of file transfers, an outline of the concept of uploading and downloading should be very helpful to those users who have never transferred files before. The general process is something like this:

1. Connect with the other modem or system (covered in the previous sections). Make sure that you can both type to the screen so the other end can understand you and vice versa.
2. Tell the other side that you are interested in file transfers.
3. Tell the other side what file(s) you want or what file(s) they should expect from you.
4. Tell the other side what transfer protocol to use (for a discussion on the differences between the protocols, refer to the next section).
5. When the other side says they are ready, pull down the **File** menu and choose **Send File** or **Receive File**, and choose the protocol you told the other side to expect.
6. If sending, choose the file(s) you want to send and click **OK** the transfer begins. If receiving using Xmodem (of any type) or ASCII protocols, type the name of the file you want to receive and click **OK**; for all other protocols just click **OK** and the transfer begins.

With this in mind, QuickLink II Fax file transfers will make a lot more sense.

Selecting one file to upload

The ASCII, Xmodem, Xmodem CRC, and Xmodem 1K protocols let you upload only one file per transmission. When you select sending by one of these protocols, the Send Single File dialog box appears with the selected protocol as the title.



To send a file, enter the complete path of the file you want to upload. For example, to upload the file SALARY.DOC from the WP51 subdirectory on your computer's C:\ drive, type: C:\WP51\SALARY.DOC and click OK.

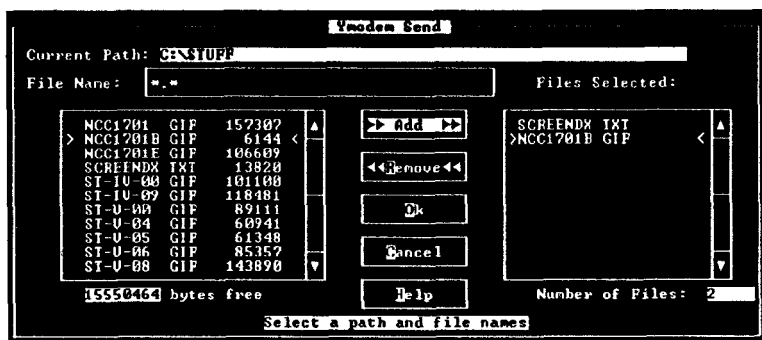
OR

Use the list box to scroll through the subdirectories on your PC's hard drive and select the file from the list box by double-clicking on it, clicking OK when selected. This starts the transfer and calls up the Send File dialog box.

Selecting multiple files to upload

The Kermit/SuperKermit, Ymodem, Ymodem-G and Zmodem protocols let you upload more than one file during the same transmission. In addition to sending a batch of files, one file may also be sent by itself. The main advantage of sending one file with one of these protocols is that the other end need not type in a file name, as the file name is included with the transfer using these protocols. If you select one of these protocols, the Send Multiple

Files dialog box appears with the selected protocol as the title. This dialog box works similarly to the Send Fax dialog box.



If you want to upload files from the current path, shown at the top of the list box, enter the file name in the File Name text box and click **Add**. Otherwise, enter the complete path of the file you want to upload. For example, to upload the file SALARY.DOC from the WP51 subdirectory on your computer's C drive, type: C:\WP51\SALARY.DOC and click **OK**.

OR

Use the list box to scroll through the subdirectories on your PC's hard drive and select the files from the Files Available list box, clicking **ADD** to add the file to the **Files Selected** list box. Repeat this for every file you want to add to the batch send. If you change your mind about sending one of the files, highlight it in the **Files Selected** list box and click **Remove**. The selected file is removed from the list box and will not be sent. When the list of files selected is complete, click the **OK** button, which begins the transfer and calls up the **Send File** dialog box.

The Send File status box

The **Send File** dialog box keeps you informed of the status of the upload. It displays the following information:

- **Protocol** displays which protocol is being used for the current transmission.
- **File Name** displays the name of the current file being transferred.
- **File Size** displays the size of the current file being transferred.

- **Bytes Sent** displays the number of bytes sent.
- **Status** shows the current status of the upload. For example, **Sending data** appears when data is being sent to the remote system.

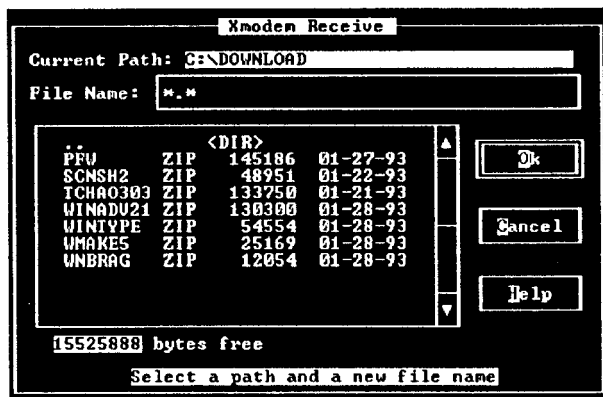
The whole transfer can be stopped by clicking the **Cancel** button. When the transfer is finished, a dialog box will appear to alert you, and the computer will beep. Clicking **OK** removes the dialog box.

Downloading files

Receiving files works much like sending a file and actually involves less steps. The biggest issue is determining what protocol is being used and how many files are being sent to you.

Receiving one file

The ASCII, Xmodem, Xmodem CRC, and Xmodem 1K protocols let you download only one file per transmission. When you select receiving by one of these protocols, the Receive Single File dialog box appears with the selected protocol as the title.



At this point, QuickLink II Fax needs a file name to save the file under. To receive the file, enter the complete path of the file you want to download. For example, to download the file PICTURE.BMP to the WINDOWS subdirectory on your computer's C:\ drive, type: C:\WINDOWS\PICTURE.BMP and click **OK**.

OR

Use the list box to scroll through the subdirectories on your PC's hard drive and type in the file's name in the **File Name** text box, clicking **OK** done. This starts the transfer and calls up the **Receive File** dialog box.

Receiving a batch of files

The Kermit/SuperKermit, Ymodem, Ymodem-G, and Zmodem protocols let you download more than one file during the same transmission. In addition to receiving a batch of files, one file may also be received by itself. The main advantage of receiving one file with one of these protocols is that the file name is included with the transfer using these protocols, so it is impossible for files to be named incorrectly.

When you use one of these protocols, the path selection dialog box appears with the selected protocol as the title. This dialog box works similarly with the files selection dialog box, except that there is no need to type a file name, and is used to specify the directory where you want the files to be copied to. Another directory can be selected with the list box or typed in directly, and clicking **OK** initiates the transfer and calls up the **Receive File** dialog box.

The Receive File status box

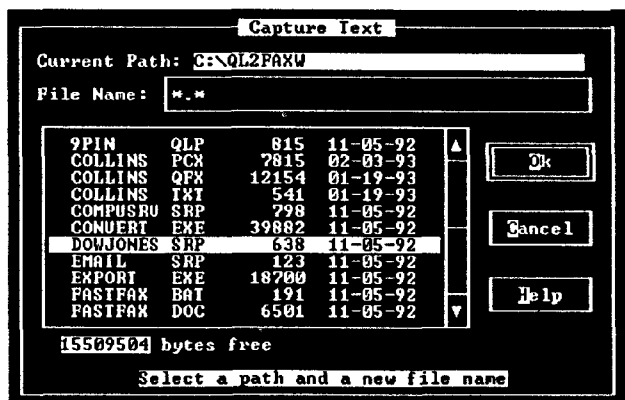
The Receive File dialog box keeps you informed of the status of the download. It displays the following information:

- **Protocol** displays which protocol is being used for the current transmission.
- **File Name** displays the name of the current file being transferred.
- **File Size** displays the size of the current file being transferred. (Batch protocol only)
- **Bytes Received** displays the number of bytes sent
- **Status** shows the current status of the upload. For example, **Receiving data** appears when data is being received from the remote system.

The whole transfer may be stopped by clicking the **Cancel** button. When the transfer is finished, a dialog box will appear to alert you, and the computer will beep. Clicking **OK** removes the dialog box.

Capture text

If you know in advance that you want to capture the text that appears on screen, QuickLink II Fax can be set to make a copy of everything you see and save it into a text file on your computer's hard disk.



To capture text, pull down the **File** menu and choose **Capture Text**, which calls up the Capture Text dialog box. The Capture Text dialog box works just like the Receive Single File dialog box; type a name for the file to save the captured text in the **File Name** field and click **OK** to begin capturing. You can select another directory with the list box.

You can double-check that QuickLink II Fax is indeed capturing text by pulling down the **File** menu; when there is a checkmark next to **Capture Text**, text is being captured. Choosing **Capture Text** again will stop the capture and close the file, making the checkmark disappear. *Capture Text has nothing to do with receiving faxes or faxing.*

Clearing the screen

Choosing **Clear Screen** from the **Edit** menu will clear the terminal window of its text. This command will not affect the connection to the remote system.

Line Buffer

The **Line Buffer** command from the **Edit** menu is used to view data that has scrolled out of view on the Terminal Window. The line buffer will hold up to 200 lines of information which includes those lines presently in view. If you need to capture more than 200 lines of text, use the **Capture Text** function on the **File** menu.

Choosing **Line Buffer** will cause the menu bar to change, and the **Diamond**, **File**, and **Edit** menus of the QuickLink II Fax Text Editor will appear. The menu bar will show that you are currently viewing the line buffer. Use the up and down arrow keys on your keyboard to scroll the Line Buffer. When you are finished looking at the Line Buffer, press the ESCAPE key or type Alt-R to exit the Line Buffer and return to the QuickLink II Fax main application.

Toggle Printer

The **Toggle Printer** function, located in the **File** menu, allows you to print information directly to your printer as it is received from your modem and displayed on the screen. You can verify that this option is turned on pulling down the **File** menu again — a check mark next to the menu listing indicates the printer is currently toggled on. You should only use this option with a buffered printer. Printing directly to your printer may also degrade the speed of displaying information on your monitor. Choosing **Toggle Printer** a second time will turn the function off.

Printing Text Files

Choosing **Print File** from the **File** menu calls up a dialog box which permits you to print ASCII text files directly to your selected printer. This is useful to print files created within the QuickLink II Fax text editor or files created with the Capture Text option. This command will not print faxes — only text files.

Answering a data call

Answering a call is almost totally automatic and handled by RECFAH if loaded — if RECFAH isn't loaded, the call gets

automatically answered on the number of rings set in the **Modem Setup** dialog box (Refer to later this Chapter). RECFAX's default settings will let it listen to the incoming call to determine what it is: either fax, data, or voice. If it is a modem/data call, RECFAX will seamlessly pass the call into the QuickLink II Fax telecommunications mode. *You must always be within the QuickLink II main application to receive a datacomm call.* Typing ATA and then the ENTER key in the terminal window will also force the modem to pick up the line and answer the call.

Strictly speaking, the S0 register can be set to the number of rings you want the modem to answer the phone, but this will conflict with RECFAX's operation and bypass the **Number of Rings to Answer Phone** field in the **Modem Setup** dialog box. You are strongly urged not to change the S0 register in the Init string. If you do, be sure to change it back to S0=0 to receive faxes.

Protocols

This section describes the various protocols that QuickLink II Fax provides for uploading and downloading data files.

ASCII

The ASCII protocol (pronounced asky) is a seven-bit protocol that consists of the 128 characters that make up the upper- and lower-case alphabet, numbers, characters available on a standard keyboard, and certain special control characters.

The ASCII protocol has no error-checking capabilities. ASCII protocol uses XON/XOFF handshaking and required XON/XOFF flow control to be enabled at both communicating devices. By default, QuickLink II Fax has XON/XOFF flow control disabled. When the computer receiving data needs to stop the data transmission temporarily to process the received data, it sends a Ctrl-S (^S) character to stop the sending computer from sending data. When the receiving computer has processed the received data and is ready to accept more, it sends the sending computer a Ctrl-Q (^Q) character to resume data transmission.

Since there are no additional error checking characters sent during the transmission, ASCII is good for sending a burst transmission of raw text/data uninterrupted.

CompuServe B/B+ (Available with selected versions)

The CompuServe B/B+ protocol should be used when communicating with CompuServe.

Kermit/SuperKermit

QuickLink II Fax provides both the standard Kermit as well as the powerful Super Kermit (Windowed Kermit) protocol. It was developed to meet the needs for file transfer between a number of different types of computers, including mainframes, mini computers and personal computers. Unlike Xmodem and Ymodem, Kermit uses variable packet sizes, with a maximum size of 1024 bytes. Like Ymodem, Kermit provides for batch file transfers.

SuperKermit is especially useful when transferring data over data networks such as Telenet or Tymnet. These networks have long communications delays that can significantly degrade the performance of file transfers. For each packet transmitted, two communications delays will be interjected into the transfer. Super Kermit addresses this problem by sending multiple packets at one time, also known as a transmission window. All error correction is still performed, however the receiving computer does not acknowledge the receipt of the data or asks for re-transmission of any bad packets until all packets in the window have been received. This process results in a dramatic reduction in the delay time.

Of the public services, only CompuServe supports Kermit. If you select Super Kermit and the remote computer only supports Kermit, QuickLink II Fax will drop back to Kermit.

Xmodem

QuickLink II Fax provides three different Xmodem protocols: Xmodem 1K, Xmodem CRC and the original Xmodem (also called Modem7 or Xmodem Checksum or Christenson).

In order for Xmodem to work, the data format must be set to 8 data bits, 1 stop bit, and no parity. If you did not begin the communications session with this setting, QuickLink II Fax will automatically correct this for you. Xmodem Checksum sends the data in packets off 128 bytes. Therefore a 1K file (1,024 bytes) would be transmitted in 8 data packets. A simple data checksum is added to each packet and is checked on the receiving end of the transfer. If the receiving Xmodem detects a bad packet, it can request the packet again giving a good level of error recovery.

Xmodem CRC

In an effort to guard against undetected errors the original Xmodem was enhanced by replacing the 8 bit checksum with a 16 bit Cyclic Redundancy Check (CRC). This change provides a 99.9984% assurance of detecting any transmission errors. With the checksum method, it is possible for 1 out of 256 bad packets to have a valid checksum, and thus go undetected. With the CRC method only 1 out of 700 billion bad packets will generate a valid CRC. The CRC method also transmits 128 byte blocks or packets of data. If you select Xmodem CRC and the other system does not support it, QuickLink II Fax will automatically switch over to the standard Xmodem; to the user both methods appear to operate identically.

Xmodem 1K

This method of Xmodem replaces the original 128 byte packets with packets of 1,024 bytes when possible. Assuming that no transmission errors are detected, this method of Xmodem will enlarge the packet size to 1K and maintain that packet size for as long as possible. Enlarging the packet size will improve the speed of the file transfer. If you attempt to receive a file using Xmodem 1K and the other side only supports Xmodem CRC, QuickLink II Fax will fall back to Xmodem CRC.

Ymodem

The Ymodem protocol (also called Ymodem Batch, Ymodem 1K, and Ymodem CRC elsewhere) is very similar to the Xmodem 1K, with two major differences — with Ymodem you can automatically receive or send multiple files in one session, and file names are included with the transfer. In general, Ymodem is very fast and very safe and preferable to Xmodem, even for single files.

Ymodem-G

Ymodem-G is a file transfer protocol that provides the same error checking as Ymodem, but it will not perform any error checking. Therefore, Ymodem requires an error-correcting modem or fax/modem with either MNP 2-4 and/or V.42. If both ends of the transmission meet the requirements, transfers will be exceptionally fast.

Zmodem (Available with selected versions)

The Zmodem protocol is a new and popular protocol that lets you send multiple files in one transfer. Features include automatic downloading and the ability to send file names, sizes, and creation dates of each file. Also, if a data transmission is interrupted midway, Zmodem lets you resume the data transmission from the point where it let off.

The size of the data block varies with Zmodem, depending on the condition of the connection of the telephone line between the communicating devices. Moreover, both 32-bit and 16-bit CRC error-checking are available with Zmodem.

Zmodem is a relatively young transfer protocol, not identically implemented at various sites. If you are having problems with Zmodem protocols, try Ymodem or Xmodem.

Data communications setup options

In addition to permitting QuickLink II Fax to communicate with the myriad of standard data communication configurations, the **Setup** menu contains the options to customize QuickLink II Fax to your system.

Line settings

Choosing **Line Settings** from the **Setup** menu causes the **Line Settings** dialog box to appear. This dialog box allows you to select the line speed and data format; these settings are independent of the settings in the Data Phone List, but the same general guidelines for setting them apply (Refer to the Data Phone List section for more information). Clicking **Save** saves these settings for all future sessions; **OK** closes the dialog box and puts the settings into effect immediately. **Cancel** will close the dialog box and ignore the new settings.

Line Settings			
Baud Rate	Data Bits	Parity	Stop Bits
< > 300	< > 7	< > Odd	< > 1
< > 1200	< > 8	< > Even	< > 2
< > 2400		< > None	
< > 4800			
< > 9600			
< > 19200			
< > 38400			
< > 57600			
< > 115200			

Ok Save Cancel Help

Baud Rate

Possible baud rate settings may vary from 300 baud to 115,200 baud. The default speed is 2400 baud for most modems. Refer to your modem manual for the maximum baud rate that your modem will handle.

Data bits

The allowable options are 7 or 8 data bits — the default setting is 8 data bits.

Parity

Parity may be Odd, Even, or None. None only applies only when 8 data bits are selected. The default setting is no parity.

Stop bits

The allowable settings are 1 or 2. The default setting is 1 stop bit.

Modem setup

The **Modem Setup** dialog box provides you with the ability to define the modem **Initialization**, **Dial**, and **Hang up** strings. This dialog box also allows you to set the COM port that the modem will use and define key information to be used by RECFAQ for answering incoming calls.

Clicking **Save** saves these settings for all future sessions; **OK** closes the dialog box and puts the settings into effect immediately. **Cancel** will close the dialog box and ignore the new settings.

Initialization String

The modem initialization string is the command set that QuickLink II Fax issues to the modem when the application is first started. The

default string works with most modems and fax/modems. If your modem has special features or commands, the AT commands needed to enable them are entered here. Check your modem manual for a detailed breakdown of the AT command set. An abbreviated set is listed in Appendix C.

Dial String

The Dial string is the command QuickLink II Fax issues to the modem when instructed to dial a number. This event occurs when dialing from the Data Phone List, using the Dialer, sending a fax, or connecting to either CompuServe, Dow Jones or GENie.

Hangup String

The hangup string is the command QuickLink II Fax issues to the modem when the Hangup command is chosen from the Connect menu. This string is pre-set to ATH, which is the AT command to hangup the modem.

Dial Prefix/Suffix

The dial Prefix/Suffix strings are appended to the beginning and end of the telephone number when dialing. These strings are handy when you need to dial using credit card, or for long distance telephone access, or for dialing a digit to get an outside line. For example, if you need to dial a 9 to dial out of an office building, enter a 9 and a comma (,) in the Dial prefix (a comma is a 2 second pause).

Number of rings to answer phone

QuickLink II Fax will pick up the line and answer the phone on the number of rings specified in the Answer on field. Setting this number to 0 will keep RECFAX and QuickLink II Fax from answering calls. Some modems will answer 1 to 2 rings after the number specified due to the hardware. The default is 1.

Answer Mode

This entry asks under what circumstances you want QuickLink II Fax to answer the telephone. Fax only tells RECFAX to process fax calls only and hangup on all others — if RECFAX is not loaded, your fax/modem will pick up the phone only when the main application is running. With Data only selected, QuickLink II Fax will handle data calls and hang up on fax or voice calls. Auto Detect instructs RECFAX/QuickLink II Fax to answer all calls; with Auto Detect selected RECFAX will receive fax transmissions, transfer data calls automatically to the QuickLink II Fax main application, or display a message that a voice call is waiting and provide a limited amount of time to respond prior to hangup (some modems are not capable of Automatically Detecting the line).

Modem Port/Option

These radio buttons allow you to manually set your COM port for your fax/modem. It is normally configured when you run QuickLink II Fax for the first time.

Clicking the Option button allows you to set a custom configuration for your fax/modem's **IRQ** and **COM port Address**. The **IRQ** setting must always match what you have set on your hardware; simply setting the **IRQ** here will **not** change the **IRQ**. For a more complete of **IRQ's** refer to Appendix C.

Look for modem "RING"

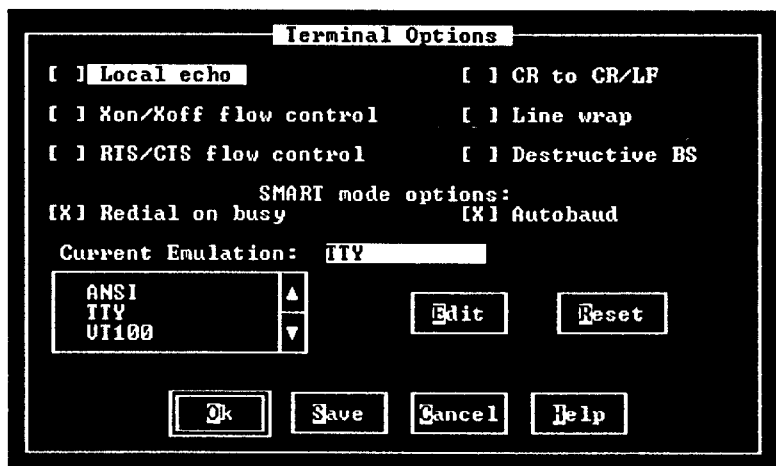
Most modems, when they sense an incoming call, send both a word **RING** to the screen, as well as send a special ring signal through one of the leads in the cable or to the COM port. Some modems, however, don't do both of these, and as such, won't be able to let **RECFAX** or **QuickLink II Fax** know that a call is, in fact, ringing through. This check box tells the program what indicator to look for.

Redial on "NO CARRIER"

Some modems are incapable of detecting a **BUSY** signal when the person you are calling has a busy line, and instead report **NO CARRIER**. Also, some overseas locations simply don't have a busy signal that sounds anything like that of North American locations. This check box tells the program to assume that a **NO CARRIER** message is resulting from a busy signal.

Terminal options

The Terminal Options dialog box allows you to set the terminal attributes you want QuickLink II Fax to use. A number of check boxes are provided to turn options on or off.



Local echo

The Local echo option tells QuickLink II Fax to display all keyboard entries directly to the terminal window rather than letting the remote computer echo the keystrokes back as is normal. If you cannot see what you type, turn this option on. If characters appear double, (llikkkee tthhiiss) turn this option off. Some telecom programs call this setting "Duplex/Half-Duplex".

Change CR to CR/LF

These options tell QuickLink II Fax to translate all outgoing and/or incoming Carriage Returns to Carriage Return + Line Feed. If incoming or outgoing lines are overwriting each other, turn the option on.

Line wrap

This option issues a carriage return + line feed if more than 80 characters are transmitted on a single line.

Destructive backspace

This option instructs QuickLink II Fax to erase a character when the backspace key is pressed. When this option is not selected, pressing the backspace key will move the cursor back one character but will not erase the character that may be above the cursor.

Flow control

Flow Control is the process of telling each computer to stop sending data and starting it again. This provides time to process the data received. Flow control is usually not needed for 2400 baud data connections.

Xon/Xoff is a software flow control that involves the sending of special control codes as part of the data. It is usually necessary for ASCII file transfers. Hardware flow control (**RTS/CTS**) is implemented in both software and the modem hardware, therefore your modem must support the RTS/CTS standard for this method to be used. The RTS/CTS method is more reliable and is necessary for use with modems equipped with V.42/V.42bis and MNP Level 5. The default setting is none.

Smart mode

Selecting **Redial on busy** tells QuickLink II Fax to perform an auto-redial when your modem detects a busy signal. Selecting **Autobaud** tells QuickLink II Fax to automatically reset the baud rate if the modem answers a call and makes a connection at a rate other than the rate specified at dialing. Smart Mode options apply at any time QuickLink II Fax dials the modem, such as when using the Dialer, Phone List, executing a Script Dial Statement, or connecting to CompuServe, Dow Jones or GENIE. You must also have an AT Command set compatible modem that detects and displays the connection baud rate. English responses must be set on.

Terminal Emulation

The Current Emulator list box allows you to change the emulation by providing you with an emulator list. QuickLink II Fax supports Teletype (TTY), Dec VT102, Dec VT100, Dec VT52 and ANSI terminal emulation. Terminal emulation is the ability of QuickLink II Fax to make your PC look like a specific type of terminal to a remote computer. In performing this task QuickLink II Fax translates the remote computers special instructions for such things as screen cursor positioning, display color and text/graphics display.

VT100 / VT102 setup

The **Edit** button allows for additional settings for the VT100/VT102 emulation modes. By selecting the **Edit** button the **VT100/102 Setup** dialog box will appear.

You should take special care in not changing the default settings unless you are certain that the host application absolutely requires a change. The default settings have been set to the most commonly used values. Altering options such as the Tab Stops may cause host applications to not operate properly on your terminal. The following options are found on the VT100/VT102 Terminal Setup:

New line mode

With this option off, a Return generates a carriage return. A linefeed (LF) moves the cursor to the next line maintaining the current column position. With this option on, a Return generates a carriage return and a linefeed. A linefeed moves the cursor to the left margin of the next line.

Wraparound mode

When this option is not checked, characters transmitted beyond the 79th character get printed on top of each other at the 80th column. When checked, these additional characters will get printed on the next line.

Underline color

This list box allows you to select the current color that QuickLink II Fax will display text in when the remote system underlines it locally.

Tabs Stops

Up to 10 tab positions may be entered in the tab text box. Each tab position entry must be separated from the next entry by a space.

Answerback message

The text box contains a 1 to 20 character message that will be transmitted upon computer request or operator command.

Clicking **Save** saves these settings for all future sessions; **OK** closes the dialog box and puts the settings into effect immediately. **Cancel** will close the dialog box and ignore the new settings.

Refer to Appendix A for additional information on the QuickLink II Fax implementation of the VT100/102 keypad and other special VT100/102 keys. The appendix lists the PC key equivalents established by QuickLink II Fax to emulate the VT100/102 keyboard.

Connection Setup

The **Connection Setup** dialog is only present when using a Class 1 fax/modem. Furthermore it is only accessible for selected Class

1 fax/modems that require the software to assist in implementing V.42/V.42bis/MNP error correction. To allow you to change the modem connection settings, QuickLink II Fax includes the Connection Setup dialog box. This dialog box lets the user set various connection parameters.

Protocol type

This option group enables you to select the protocol at which the software will attempt connection. **V.42 Auto-reliable** means that the software will first attempt a V.42 connection, then try a MNP connection, then attempt speed matching if the others fail to connect. **V.42 Reliable** means that the software will attempt to make a V.42 connection. If no V.42 connection is made the software will hangup. **MNP only** is a similar option, but will attempt to make only a MNP connection. The **None** selection will make a normal modem connection without error correction.

V.42bis Type

This option group only affects connections made with V.42. This option tells QuickLink II Fax how to use V.42bis. The default data compression is in both directions.

MNP 5 compression

This check box affects only MNP data connections. When this option is checked MNP class 5 data compression will be enabled.

Inactivity time

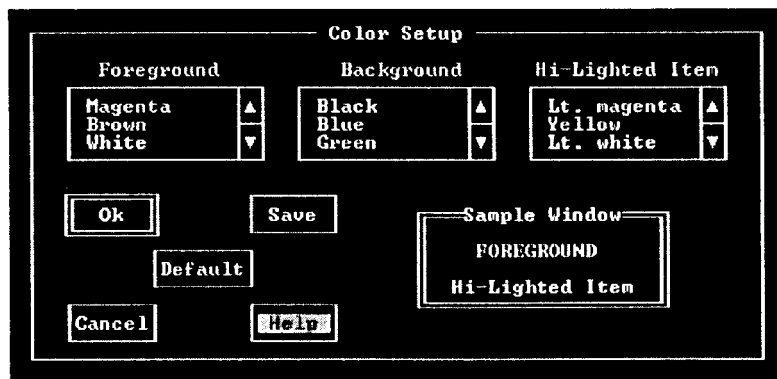
The last option is a connection inactivity time limit. If you wish a connection to be automatically terminated after a set number of seconds of inactivity, type in the number of seconds in this edit box. The default is 0, which turns this feature off. This feature, if enabled, will only affect V.42 and MNP connections.

The **Connection Setup** dialog box only affects incoming and outgoing data call connection, and outgoing connections dialed with the Dialer. For entries in the Phone List, there is a separate setup for each Phone List entry. When you add a Phone List entry, there will be a **Connection Type** button in the **Entry Screen**. Clicking this button gives you a setup box similar to that displayed above, but the options you select here will only take effect when the selected number from the Phone List is dialed.

Clicking **Save** saves these settings for all future sessions; **OK** closes the dialog box and puts the settings into effect immediately. **Cancel** will close the dialog box and ignore the new settings.

Color Setup

The **Color Setup** function provides you with the capability to adjust the foreground, background and high light colors used if you have a CGA, EGA or VGA graphics adapter and a color monitor. If you have a monochrome adapter and monitor this function will not be operational.



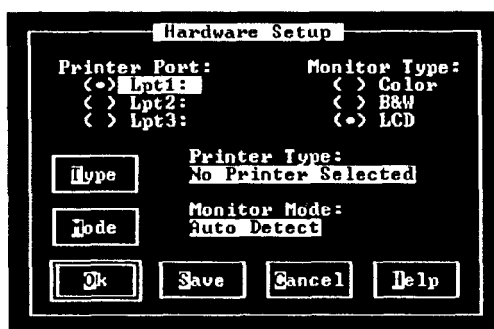
Upon selecting the Color Setup function you will have the **Color Setup** dialog box displayed. The three scroll bars at the top of the dialog box are used to select the **Foreground**, **Background** and **Hi-Lighted** colors. The **Sample Window** in the lower right portion of the dialog box will display the colors as selected. The **Save** button will record the new colors selected. The **OK** button will accept any color changes and remove the dialog box from the screen. The **Default** button will cause the default colors to be restored. The **Cancel** button will disregard any color changes and remove the dialog box. The **Help** button will cause the Help Window to be displayed.

Hardware Setup

The **Hardware Setup** function allows you to set the printer port to be used by QuickLink II Fax and to change the monitor type from Color (CGA, EGA or VGA) to Black and White (Monochrome) or Liquid Crystal Display (LCD). Additionally, you can select graphic printer driver used for printing incoming fax transmissions. It is important to note that your printer must have graphic printing capabilities. You must select the correct printer driver in order to

ensure that your printed fax transmissions can be easily read and are printed with the correct proportions.

The first set of Hardware Setup selections allows you to select the **Printer Port** to which your printer is selected. The default setting is LPT1:. The second set of options allows you to change the **Monitor Type**. This setting is initially set the first time you run QuickLink II Fax after installation. If you cannot easily see all of the colors on your computer screen, first try to change the color mix by selecting the **Color Setup** function on the **Setup** menu. If this does not correct your problem change the Monitor Type from Color to B&W (monochrome). If you are using a monochrome screen with a standard monochrome adapter, QuickLink II Fax will not allow you to change the monitor type to Color. The LCD (liquid crystal display) option is provided primarily for laptop computer users.



The next part of Hardware Setup allows you to specify the type of printer you have by picking the appropriate graphic printer driver. This driver is used for printing fax transmissions. To select the printer driver select the **Type** button and a scroll box will appear listing all the drivers provided. If you do not find a driver for your printer, you may find that you can use the generic 9 pin or 24 pin drivers. You may need to experiment with this selection, or call your printer manufacturer to see if your printer emulates a printer on the list. This dialog box also allows you to specify at which resolution you will print fax documents. **Normal** quality is the default selection and will give good results on most printers. If you wish to print at a higher resolution on you printer, select **High** quality. If you wish to print your fax documents more quickly and quality is not as important, select the **Draft** option. When printing faxes, a fax page is normally compressed vertically to fit on a standard sheet of letter size paper. Checking **Actual size printing of faxes** will force the printing of faxes at their actual size, regardless of the length. When you are satisfied with these settings, click the **Select** button to accept these changes.

Chapter 11

Automating QuickLink II Fax

QuickLink II Fax has several advanced features which can make your online communications sessions quicker and easier to manage by automating various functions. Chapter 11 describes these features:

- Logging on to online services automatically
- Macro Keys
- Scripts and the scripting language

Online services quick access

QuickLink II Fax can quickly connect you to your accounts on the major online services. Before it can do this, however, you must set QuickLink II Fax with the proper information. When configured, you can connect to Dow Jones, CompuServe, and GEnie with just one mouse click.

Services setup

Services Setup, accessed from the **Setup** menu, allows you to specify account information for the Dow Jones, CompuServe, and GEnie online services. Choosing **Services** from the **Setup** menu calls the a sub-menu, allowing you to set the **Network Numbers** and **Account Information**. This is where the actual account information is keyed into QuickLink II Fax.

Network numbers

Enter the local telephone numbers in the appropriate text boxes for accessing the Telenet, Tymnet and CompuServe's or GE's own networks. Use a comma to cause a 2 second delay in dialing when needed, as when switching to an outside line when using an internal phone system. Click the **Save** button to permanently store the updated telephone numbers to disk.

Account information

Enter the applicable account and password information to be used for connecting to each service. Leave blank the information for unused services. Select the network to be used for accessing each of the services.

Account Information

CompuServe:
Account: Password: Network: (<)> Compunet
< > Telenet
< > Tynnet

Dow Jones:
Password: Network: (<)> Telenet
< > Tynnet

GEnie:
User ID: Password:

The **Save** button accepts all changes, and saves the new services information. The **OK** button accepts the changes and removes the dialog box from the screen. The **Cancel** button removes the dialog box but does not apply any changes.

Connecting to online services

Once the account information is keyed in, simply pulling down the **Connect** menu and selecting the appropriate Online Service will automatically dial your modem, log you in, and enter your password.

Macro keys

The **Macro Keys** function allows you to define a custom meaning or sequence of keystrokes to the selection of function keys, F1 through F10. These Macro Keys can cause a user defined literal string (series of characters) to be transmitted or they can be used to launch a script file.

Choosing **Macro Keys** from the **Setup** menu brings up a sub-menu: **Set 1** and **Set 2**. The first 5 function keys are set from Set 1, the last 5 from Set 2; choosing one calls the matching **Macro Key** definition dialog box, which allows you to enter a literal string you

want transmitted when each of the function keys are depressed, or to specify a Script file name if you want a script file launched when the function key is pressed. If you wish the edit field to contain a script file name, check the Script checkbox next to the edit field and type the filename of the script file. The text box may contain either a literal string or a script file name, but not both. In the example below, note that the definition for F1 is defined as a literal string while the definition of F2 is a Script File. Additionally the "\r" in the definition for F1, instructs QuickLink II Fax to send a Carriage Return after typing out the characters. Clicking **Save** saves the macro keys for future sessions. For more information on Scripts, refer to the next section.

Macro Keys - Set 1		
F1:	<input type="text" value="my_password\r"/>	<input type="checkbox"/> Script
F2:	<input type="text" value="MYSCRIPT.SRP"/>	<input checked="" type="checkbox"/> Script
F3:	<input type="text"/>	<input type="checkbox"/> Script
F4:	<input type="text"/>	<input type="checkbox"/> Script
F5:	<input type="text"/>	<input type="checkbox"/> Script
<div><input type="button" value="Ok"/> <input type="button" value="Save"/> <input type="button" value="Cancel"/> <input type="button" value="Help"/></div>		

Scripts

Scripts are miniature programs-within-a-program, and can totally automate your online sessions (the **Online Services** module of QuickLink II Fax is actually a script file, for example). Properly programmed, a script can call a BBS, log on to it, and automatically read your mail, and log out, all by pressing a single key. This section describes how to run and write scripts.

Running scripts

Scripts are actually files that contain within them a list of instructions and commands. Scripts, therefore, are on your disk and must be opened and ran; there are three main ways to do this:

1. With a Macro Key, as described previously in this chapter. Checking the Script checkbox in the Macro Keys dialog box calls another dialog box to select a script file from your hard disk.
2. Choose Run Script from the Connect menu, which calls the same dialog box to open and run a script file on your hard disk.
3. By dialing a telephone number from the Data Phone List with an associated script.

QuickLink II Fax script language elements

The QuickLink II Fax script language is made up of commands that may be used to create a script file. A script file may be created using the Notepad on the Edit Menu. You may also use any external editor to create the script file.

A script file is used to instruct QuickLink II Fax to perform a predefined set of operations. Script files can be defined to automatically perform the dialing and logon process necessary to automatically connect to a remote computer. The script can also be programmed to perform specific steps once the connection to a remote computer is made.

The commands that comprise the script language may be entered in either upper or lower case. Each line of the script may contain only one command. The commands may be indented to any point you wish in order to enhance readability. Blank lines may also be inserted in the script files to show breaks in sections on the script statements.

You may include comments in the script file by placing a semi-colon in the first position of the line that contains a comment. Any information appearing on the line after the semicolon will be considered as comments, even if the information includes otherwise valid script commands.

When sending strings to a remote computer, a string may be defined to include a literal value, a Return character or an ASCII character represented by its decimal value. Literal character strings must be enclosed by double quotes. A return character is defined by including a '\r' in the command line. An ASCII character is defined by including a '\ddd' in the command line, where ddd is the decimal value of the ASCII character (see Appendix B for ASCII Value Table). For example, you would use this feature to send a Control-C to a remote computer.

When a script is running, a message will be displayed in the status area of the Menu Bar. You may abort a script execution by simply pressing the Escape key.

Script language commands

The QuickLink II Fax script language is comprised of the following commands:

Baud Statement:

This Statement allows you to specify the baud rate to be used when the script file is executed.

Format: Baud "rate"

"Rate" can be set to 110, 150, 300, 600, 1200, 2400, 4800, 7200, 9600, 12000, 14400, 19200, 38400, or 57600.

Clearstring Statement:

This command will clear the contents of the special variable called InString. This variable is created by the use of the second form of the In Statement defined below.

Format: Clearstring

CLS Statement:

This command will clear the QuickLink II Fax Terminal Window and has the same effect as selecting Clear Screen on the Edit Menu.

Format: CLS

The CLS statement will not impact the contents of the Line Buffer.

Data Statement:

This statement is used to specify the number of data bits, either 4, 5, 6, 7 or 8 to be used during the execution of the script.

Format: Data "#"

Where # is either 4, 5, 6, 7 or 8.

Dial Statement:

This command will instruct QuickLink II Fax to dial a specified telephone number.

Format: Dial "xxx-xxxx"

Where, xxx-xxxx is the telephone number to be dialed. QuickLink II Fax will use the dialing prefix defined on the Modem Setup dialog box. You must have an AT command set compatible modem and have English Responses set on to use this statement.

Example: **Dial "1-714-362-5822"**

The example above would instruct QuickLink II Fax to dial the Smith Micro Software support BBS.

Echo Statement:

This command will cause a literal string that follows the command to be displayed in the local Terminal Window.

Format: **Echo "xxxxxxx"**

Where, xxxxxx is a literal string to be echoed to the Terminal Window. The string must be enclosed by double quotes.

Example: **Echo "This is a sample string"**

The string, *This is a sample string*, will be displayed in the local Terminal Window.

End Statement:

This command is used to mark the logical end of a set of script commands.

Format: **End**

Execution of the script instructions is halted upon encountering an END command.

Goto Statement:

This command will transfer the execution to a specified procedure name.

Format: **Goto Procedure:**

Where *Procedure:* is the name of a procedure defined in the script file. The procedure name must end with a colon. The following script code shows the use of the GOTO statement.

Example Start:
 Echo "This is an example"
 Goto Step2:
 Step1:
 End
 Step2:
 Goto Step1:

If you follow the execution of the script above, the last procedure executed is Step1: that terminates the script with the END Statement.

If Statement:

The If Statement allows you to test the contents of a special variable called InString. InString is created by using the second form of the In Statement defined below.

Format: If InString = "xxxxxxx" Goto Procedure:

Where xxxxxxx is a literal string not longer than 40 characters. If InString equals the specified literal string then execution is transferred to the procedure specified in the Goto.

Example: If InString = "Password" Goto Step2:

In Statement:

There are two forms of the In Statement. The first form of the statement will cause QuickLink II Fax to wait "n" seconds for string of characters to be received from a remote computer.

Format: In "xxxxxxx" n

Where, xxxxxx is a string for which you want QuickLink II Fax to wait. QuickLink II Fax will wait up to "n" seconds for a message to be received from a remote computer. If after waiting "n" seconds, the string is not received, the remainder of the commands in the script file will be bypassed.

Example: In "Password?" 30

QuickLink II Fax will wait 30 seconds for the string, *Password?*, to be received from the remote computer, before continuing with the execution of the script.

The second form of the In Statement allows you the capability to receive one character at a time from your modem. Each character will be added to a special buffer called InString.

Format: In InString

InString may contain up to 40 characters of input and will generate an error if more than 40 characters are received. InString may be used in an If statement for testing and controlling the flow of the script execution.

Out Statement:

This command will cause a string to be transmitted to a remote computer.

Format: Out "xxxxxx"

Where, xxxxxx is a string to be transmitted to a remote computer.

Example: Out "DEMOPASS\r"

QuickLink II Fax will transmit the string, *DEMOPASS*, to the remote computer followed by a Return character (\r).

Pause Statement:

This statement will cause the execution of a script file to be temporarily halted until the user presses a key on the keyboard.

Format: Pause

A message will be displayed in the terminal window, instructing the user to Press a Key to Continue.

Parity Statement:

This statement is used to specify the parity to be used during the execution of the script.

Format: Parity "x"

Where, x is "N" for none, "O" for odd, "E" for even, "M" for mark, and "S" for space parity.

RtsCts Statement:

This statement is used to specify whether the RTS/CTS hardware flow control is to be used when executing this script.

Format: RtsCts "xx"

Where, xx is "ON" for on or "OFF" for off.

Stop Statement:

This statement is used to specify the number of stop bits, either 1, 1.5 or 2 to be used during the execution of the script.

Format: **Stop “#”**

Where # is either 1, 1.5 or 2.

Until Statement:

This command will cause QuickLink II Fax to wait until a specified time before continuing with the execution of the script.

Format: **Until “hh:mm”**

The time must be specified in the form of 24 hour military time.

Wait Statement:

This command will cause QuickLink II Fax to delay for ‘n’ seconds before proceeding with the next script command.

Format: **Wait n**

Where ‘n’ is the number of seconds you want QuickLink II Fax to wait before proceeding to the next script command.

Example: **Wait 15**

QuickLink II Fax will wait 15 seconds before executing the next step in the script file.

XonXoff Statement:

This statement is used to specify whether the Xon/Xoff flow control is to be used when executing this script.

Format: **XonXoff “xx”**

Where, xx is “ON” for on or “OFF” for off.

In addition to the above script commands, the QuickLink II Fax script language includes a number of predefined variables that may be used in writing a script. Many of these variables are used by QuickLink II Fax to provide automatic connection to Compuserve, Dow Jones and GENie. The following list of variables are included in the script language:

Variable	Meaning
Compunet	Telephone number for CompuServe's own network

Telenet	Telephone number for Telenet
Tymnet	Telephone number for Tymnet
Cacct	CompuServe account number
Cpass	CompuServe password
Dpass	Dow Jones password
Guser	GENie user number
Gpass	Genie password

You will find a number of script files (.SRP) in your QuickLink II Fax default directory that use the above script commands and variables for accessing CompuServe, Dow Jones and GENie. These files are listed below:

File	Use
COMPUSRV.SRP	Connects to CompuServe
DOWJONES.SRP	Connects to Dow Jones
EMAIL.SRP	Connects to the American Email BBS at Smith Micro Software, Inc.
GENIE.SRP	Connects to GENie

You can use the above files as examples for creating your own scripts. Also, if you are not in the United States and want automatic access to CompuServe, Dow Jones or GENie simply modify the proper script file, from the list above, to operate with your country's telephone access system.

Chapter 12

Command Line Options

Most of the fax functions of QuickLink II Fax are actually modules and TSR's that can be driven and run directly from the DOS command line. In fact, with some industrious batch file writing, you could create your own customizable front end for faxing. While it is not within the scope of this manual to do that, this Chapter covers all the command line options for QuickLink II Fax and its modules. Note that all modules are configured through the Main Application, so it will still need to be used to set your system up. Note also that all commands can be listed on screen by typing the name of the module followed by a `/?` (Example: `RECFAX /?`). Finally, note that none of the TSR's can be loaded into High, Extended, or Expanded memory.

FastFax IV

FastFax IV is a memory resident utility which captures HP Laserjet II (PCL 4) printer commands from within any application and faxes the resulting document. This means that what you fax will look the same as if you had printed it out on a HP Laserjet printer. FastFax IV can be activated by a hotkey, printing to a specific printer port, or a combination of the two. This will allow you to print to a printer port for sending a fax and another printer port for generating a hard-copy printout. The `ALT-=` key combination removes FastFax from memory.

FastFax IV Command Line Options

While at the DOS prompt, type `FASTFAX` followed by the optional parameters to load FastFax IV into memory. Once loaded into memory, FastFax IV can be used to send a fax or create a file to fax at a later time with QuickLink II Fax. The command line and options are as follows:

`FASTFAX [options]`

- /C** Use the **CONTROL.PCL** file in the **FONTS** subdirectory (located off of the directory where QuickLink II Fax was installed) to control what the fax document will look like when faxed. This file can contain information about font attributes in respect to: orientation, symbol set, spacing, pitch, point size, style, stroke, and typeface. This file can contain only legal PCL 4 commands.
- /F** Automatically load **SNDFAX** in memory if not already loaded. If this option is not used and **SNDFAX** is not loaded, **FastFax IV** will ask you if you want it loaded. Without **SNDFAX** or **RECFAX** in memory, **FastFax IV** will not be able to send faxes.
- /L#** Specify a printer port you wish to have automatically activated by **FastFax IV**. The **#** represents the printer port (LPT Port) number which will activate **FastFax IV** (ie. **/L2 = LPT2**). If no **/L** is specified then **FastFax IV** can only be activated by pressing the **ALT** and **'\'** keys simultaneously.
- /N** Turn off **FastFax IV** activation/deactivation sounds.
- /Rd** Use a RAM disk for the PCL conversion. The **'d'** represents the drive letter of the RAM disk. If you have a DOS variable **TEMP**, the path represented by **TEMP** will be used as the RAM disk location. The **TEMP** variable will be used automatically whether **/Rd** is specified or not.
- /S** Suppress all messages to the screen.
- /T#** Specify the printer timeout period in seconds. The **#** represents the number of seconds after printing has ended before **FastFax IV** is activated (default is 15 seconds).
- /U** Unload **FastFax IV** from memory from the DOS command line.

Fonts

Fonts that are supported by **FastFax IV** are as follows:

Portrait

Courier 12 point Medium, Bold and Italic.

Courier 12 point in the extended PC symbols set.

LinePrinter 8.5 point in the extended PC symbols set.

Helvetica 8 point Medium.

Helvetica 10 point Medium, Bold and Italic.

Helvetica 12 point Medium, Bold and Italic.

Helvetica 14 point Bold.

TimesRoman 8 point Medium.

TimesRoman 10 point Medium, Bold and Italic.

TimesRoman 12 point Medium, Bold and Italic.

TimesRoman 14 point Bold.

Landscape

Courier 12 point Medium, Bold and Italic.

Courier 12 point in the extended PC symbols set.

LinePrinter 8.5 point in the extended PC symbols set.

If you use a font that is not supported, FastFax IV will use the font most similar to the one you specified.

NiteFax

NiteFax is a powerful utility that allows you to emulate a fax machine when you are not using your computer for other applications. Such a time may be after hours when you leave your office for the day. Running NiteFax before you leave by entering the following command from the DOS Command line:

NITEFAX

will start the NiteFax process. If the Receive Fax background program (RECFAX) is not resident in memory, NiteFax will load it. As an incoming fax is received it will automatically be printed on your graphic printer using the printer driver you specified in Hardware Setup on the Setup Menu in the QuickLink II Fax environment. Be sure to leave your printer turned on! All entries will also be made in the Receive Fax log and all .REC fax files will be saved. The best part is that your received fax transmissions will be printed and waiting for you when you arrive in the morning.

If a printer error occurs such as paper out, NiteFax will be terminated. Fax transmissions will continue to be automatically received and logged by the Receive fax program.

To turn off NiteFax, simply press the ESC key. The Receive Fax program will remain active after you turn off NiteFax until you issue the **RECFAX /OUT** DOS Command to remove it from memory.

Convert

CONVERT allows you to prepare a file for outgoing fax transmission. It operates as a foreground application and occupies approximately 90K bytes of main memory. CONVERT will create a .QFX file. The format of the DOS Command line function is as follows:

CONVERT <source file> [file type] [conversion flags]

where the source file is the name of the file to be converted. The output file will have the same name as the source but will have a .QFX file extension. The other parameters are as follows:

File Types	Conversion Flags
/B BMP	/C Center on page
/D DCX	/F Turn Full page on
/I IMG	/H High Resolution
/M MacPaint	/L# Lines/page (default 66)
/P PCX	/N Long merged file to next page
/PCL PCL4	/R Remove merged file of different resolution
/T TIFF	/S Suppress messages and DOS error setting
/U CUT	/V# Vertical Margin (def 1)
/X Text	/W# Width of tab (def 8)
/WP Word Perfect	/K Use compressed 200 character/line font

You must specify the source file type and may at your option specify the desired conversion flags. Each entry on the command line must be separated by a space. A DOS error code of other than zero indicates a failed conversion of the source file. Each parameter entry must be separated by a blank space.

SNDFAX

SNDFAX provides you with a method of sending fax transmissions from the DOS prompt.

The command line method of sending a fax requires that the file be converted prior to executing the SNDFAX DOS command. This

method will send the fax in the background using the following command:

SNDFAX /F:<FileName> /FN:<FaxNumber> /GP:<Group>

Where FileName is from one to ten .QFX file names. The 'FN' telephone # is the fax number to which the fax will be sent or you can use the 'GP' to fax to a group ID defined on the Fax Phone List. The 'time' parameter is optional. When specified, it allows you to schedule a fax transmission. If the 'TM' parameter is not included the fax is sent 'Now'. The 'TM' parameter has the format of HH:MMx, where x is A for AM or P for PM.

This method of sending a fax loads the RECFAX program background program which requires approximately 90K of main memory. RECFAX performs all background operations.

To remove all scheduled background fax transmissions issue the following DOS command:

SNDFAX /OUT

This command will cancel all scheduled fax transmissions. To remove the RECFAX background program from memory in addition to removing all scheduled transmissions enter SNDFAX /A. Other comands include:

/CP Include a cover page when a fax is sent
/IDLE Load SNDFAX without sending a fax
/RSCH Remove all scheduled faxes

Export

The Export function allows you to export a .QFX or .REC file to a PCX or TIFF format from the DOS Command line.

EXPORT <source file> [/P or /T] /I /Q# /Rx-y /S

where source file is the name of the file to be exported. The 'P' option specifies a PCX export and 'T' specifies TIFF. If the 'I' option is specified, the fax will be exported with inverse colors, white on black rather than black on white. The optional 'Q' parameter specifies to which resolution you wish to export. 'Q1' means export to 100dpi (dots per inch), and 'Q2' means export to

200dpi. The default is '/Q1' for normal resolution documents and '/Q2' for high resolution documents. This option may be useful to force a particular resolution if the application you are using requires it. The '/R' parameter is optional and allows you to specify the page range to export within a document. For example, /R2-3 would instruct EXPORT to export pages 2 and 3. If you do not specify a range of pages, all pages will be exported. The '/S' parameter is also optional and will suppress all error messages.

ViewFax

The ViewFax function allows you to view a .QFX or .REC file from the DOS Command line. This option provides all the interactive functionality of viewing a send or receive fax document from within the QuickLink II environment. The form of the command is as follows:

VIEWFAX <source file> /Rx /M#

Where source file is the name of the file to be viewed. The /R parameter is optional and allows you to specify the starting page number within the document, ie. /R2 would instruct ViewFax to begin the view with page 2. If the /Rx parameter is not used, viewing will begin with page 1. The /M# parameter is also optional. It specifies the graphic adaptor type. The default if not specified is for QuickLink II Fax to auto detect. Other values are CGA = M6, Hercules = M8, EGA = M15, VGA = M17. These values may vary depending on the manufacturer of your adaptor card.

PrintFax

The PrintFax command line function allows you to print a fax file (either .QFX or .REC) to your graphics printer. The form to the command is as follows:

PRINTFAX <source file> <printer> /Rx-y

Where, source file is the name of the file to be printed. The printer parameter must be the name of an existing .QLP file. For example, 9PIN.QLP is the printer file that prints on most 9 pin dot matrix printers. To print the README.QFX file on a 9 pin, type:

PRINTFAX README.QFX 9PIN.QLP

The /R optional parameter provides you with the capability of specifying a page range within the document to print. The starting page number is x and the ending page number is y. Omitting the /R parameter will result in the entire document being printed.

RECFAX

RECFAX was discussed in detail in Chapter 7. A complete command line parameter listing is provided here:

/ALL Remove both SNDFAX and RECFAX from memory
/OUT Remove RECFAX from memory
/NOMSG No messages will be displayed on the screen

Appendix A

Terminal emulation keys

The special VT52/100/102 keypad and other special VT52/100/102 unique keys have been translated into the PC keyboard. Use the following keypresses for special VT terminal keys:

VT100 Key	Equivalent PC Key
Keypad 0	Alt 0
Keypad 1	Alt 1
Keypad 2	Alt 2
Keypad 3	Alt 3
Keypad 4	Alt 4
Keypad 5	Alt 5
Keypad 6	Alt 6
Keypad 7	Alt 7
Keypad 8	Alt 8
Keypad 9	Alt 9
Keypad -	Alt -
Keypad ,	Alt A
Keypad .	Alt B
Keypad ENTER	Alt =
PF1	Alt F1
PF2	Alt F2
PF3	Alt F3
PF4	Alt F4
Del	Del
No Scroll	Ctrl Q to Resume
Ctrl-Print	Alt F5 (VT102 Autoprint)
Shift-Print	Alt F6 (VT102 Print Screen)

Appendix B

ASCII character table

The following table lists the ASCII character set and each character's corresponding decimal and hexadecimal code equivalent. This chart is often useful for creating scripts and as a reference.

CTRL	CODE	DEC	HEX
@	NUL	0	00
A	SOH	1	01
B	STX	2	02
C	ETX	3	03
D	EOT	4	04
E	ENQ	5	05
F	ACK	6	06
G	BEL	7	07
H	BS	8	08
I	HT	9	09
J	LF	10	0A
K	VT	11	0B
L	FF	12	0C
M	CR	13	0D
N	SO	14	0E
O	SI	15	0F
P	DLE	16	10
Q	DC1	17	11
R	DC2	18	12
S	DC3	19	13
T	DC4	20	14
U	NAK	21	15
V	SYN	22	16
W	ETB	23	17
X	CAN	24	18
Y	EM	25	19
Z	SUB	26	1A
[ESC	27	1B
\	FS	28	1C
]	GS	29	1D
^	RS	30	1E
_	US	31	1F

CODE	DEC	HEX
SP	32	20
!	33	21
"	34	22
#	35	23
\$	36	24
%	37	25
&	38	26
'	39	27
(40	28
)	41	29
*	42	2A
+	43	2B
,	44	2C
-	45	2D
.	46	2E
/	47	2F
0	48	30
1	49	31
2	50	32
3	51	33
4	52	34
5	53	35
6	54	36
7	55	37
8	56	38
9	57	39
:	58	3A
;	59	3B
<	60	3C
=	61	3D
>	62	3E
?	63	3F

CODE	DEC	HEX
@	64	40
A	65	41
B	66	42
C	67	43
D	68	44
E	69	45
F	70	46
G	71	47
H	72	48
I	73	49
J	74	4A
K	75	4B
L	76	4C
M	77	4D
N	78	4E
O	79	4F
P	80	50
Q	81	51
R	82	52
S	83	53
T	84	54
U	85	55
V	86	56
W	87	57
X	88	58
Y	89	59
Z	90	5A
[91	5B
\	92	5C
]	93	5D
^	94	5E
_	95	5F

CODE	DEC	HEX
'	96	60
a	97	61
b	98	62
c	99	63
d	100	64
e	101	65
f	102	66
g	103	67
h	104	68
i	105	69
j	106	6A
k	107	6B
l	108	6C
m	109	6D
n	110	6E
o	111	6F
p	112	70
q	113	71
r	114	72
s	115	73
t	116	74
u	117	75
v	118	76
w	119	77
x	120	78
y	121	79
z	122	7A
{	123	7B
	124	7C
}	125	7D
~	126	7E
DEL	127	7F

Appendix C

Advanced Considerations

If you have a specialized need, a fairly unusual system setup, are a Windows user that knows every line of your WIN.INI file, or you just want to know a little more about how your system operates, this appendix is filled with the QuickLink II Fax arcane knowledge you are looking for. Topics include:

- The files used to launch QuickLink II Fax for Windows
- How to set your PC for different IRQ and COM ports
- How to set Windows to use different IRQ's for your modem
- What QuickLink II Fax adds to your WIN.INI file and your system
- The SMSSETUP.DAT file
- The QLSETUP.DAT file
- How the Fax Manager launches
- Using your scanner to scan documents
- Using softfonts with FastFax
- The Error Code table, should fax transmissions be unsuccessful
- Common Hayes compatible AT commands.

Program filenames

For users who will be launching QuickLink II Fax for Windows in manners other than the Windows Program Manager, the following is a list of applicable filenames and the programs they run:

QL2FAXW.EXE:	QuickLink II Fax main application
QLFVIEW.EXE:	Fax Viewer
FMLAUNCH.EXE:	Launches the appropriate class Fax Manager
FAXMGRC1.EXE:	Fax Manager for Class 1 modems
FAXMGRC2.EXE:	Fax Manager for Class 2 modems

The icons are imbedded in the EXE files.

IRQ settings and common usage

Since various add in cards like scanners, bus mice, network cards, and sound boards use **IRQ's (interrupts)**, it is possible that the default IRQ settings for your modem will not work. If you suspect there is an IRQ conflict, QuickLink II Fax can work around the problem if you do the following:

1. Change the IRQ jumper or DIP switch on the modem itself (your modem manual will show you how, if possible).
2. If using the DOS version of QuickLink II Fax, go into **Modem Setup**, click **Option**, and manually reset the IRQ of QuickLink II Fax to what you set it for on your fax/modem. If using Windows, refer to the next page covering Windows and IRQ's.

As an example, suppose that your modem on COM2 (which normally uses IRQ3) cannot function because IRQ3 is used by your scanner card, and that IRQ 5 is available. Open your PC and set the appropriate jumpers to COM2, IRQ 5. Run QuickLink II Fax, get into the **Modem Setup** dialog box, and set the on screen COM port setting to COM 2, IRQ 5.

Standard COM port settings

Port	IRQ	Address
COM1	4	3F8
COM2	3	2F8
COM3	4	3E8
COM4	3	2E8

Common IRQ Usage

The following IRQ table holds true for most PC AT/386-486 computers:

IRQ	USE
0	Timer Interrupt
1	Keyboard Interrupt
2	Programmable Interrupt Controller Cascade (to IRQ 9)
3	COM2 and COM4
4	COM1 and COM3

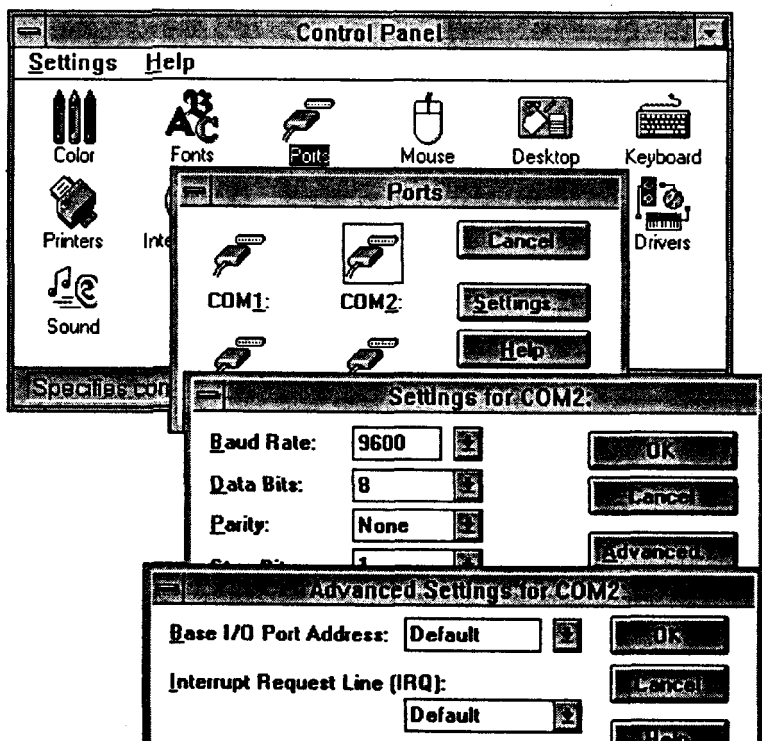
5	LPT2 (Parallel Printer Port 2 - Probably Open)
6	Floppy Disk
7	LPT1 (Parallel Printer Port 1)
8	Real Time Clock
9	Cascade to IRQ 2
10	Reserved for future expansion (Open)
11	Reserved for future expansion (Open)
12	Reserved for future expansion (Open)
	Mouse Port on PS/2 — PS/2 mouse interface
13	80x87 Math Coprocessor (486DX chip)
14	Hard Disk
15	Reserved for future expansion (Open)

Window's IRQ settings

Since various add in cards like scanners, bus mice, network cards, and sound boards use **IRQ's (interrupts)**, it is possible that the default IRQ settings for your modem will not work. If you suspect there is an IRQ conflict, QuickLink II Fax can work around the problem if you do the following:

1. Change the IRQ jumper or DIP switch on the modem itself (your modem manual will show you how, if possible).
2. Go into the Windows Control Panel and set the IRQ to the setting that matches the modem. (This only applies to Windows version 3.1)

As an example, suppose that your modem in COM2 (which normally uses IRQ3) cannot function because IRQ3 is used by your scanner card, and that IRQ 5 is available. Open your PC and set the appropriate jumpers to COM2, IRQ 5. Launch Windows and open the Control Panel. Double-click on **Ports**, which opens the Ports dialog box. Select COM2 and click **Settings**. From the Settings dialog box, click **Advanced** and choose IRQ5 from the IRQ pull down menu. Click **OK** to close the dialog boxes down and set the change.



The WIN.INI file and your system

When QuickLink II Fax installs on your system, it makes changes to your WIN.INI file, located in your \WINDOWS directory. The following lines are added:

```
[QuickLink II Fax]
InstallDirectory=C:\QL2FAXW
LanguageResource=QLFENGL.DLL
ModemMonitor=0
FaxManagerX=566
FaxManagerY=454
```


(some additional lines may appear also)

These lines are normally changed when configuring QuickLink II Fax as described in previous chapters. However, if you want to alter the settings directly, they will take affect the next time QuickLink II Fax is run.

There are also lines added to the WIN.INI file by QuickLink II Fax in the [PrinterPorts] section and the [devices] section for the QuickLink II Fax Printer Driver. These lines can be manually deleted, or automatically deleted by removing the printer driver with the Windows Control Panel.

QuickLink II Fax installs all of its files into the QuickLink II Fax install directory (normally \QL2FAXW) except for 1, located in the \WINDOWS\SYSTEM directory. If for some reason you wish to completely uninstall QuickLink II Fax, delete the QuickLink II Fax install directory, the afore mentioned lines in the WIN.INI file, the printer driver, and the following file from the \WINDOWS\SYSTEM directory:

C:\WINDOWS\SYSTEM\QLFXDRV.DRV

The SMSSETUP.DAT file

When QuickLink II Fax for Windows is run for the first time, a file called SMSSETUP.DAT is automatically created. When settings are modified, the changes get written into this file. Therefore, if this file gets corrupted, the settings will change in unpredictable ways, and QuickLink II Fax might not act properly.

If QuickLink II Fax suddenly starts acting mysteriously, consider deleting this file and running QuickLink II Fax again. This will recreate the file and reset the program to the factory defaults. This is also a good way to reset the program if you purchase a new modem or fax/modem and want to renew the program.

The QLSETUP.DAT file

When QuickLink II Fax for DOS is run for the first time, a file called QLSETUP.DAT is automatically created. When settings are modified, the changes get written into this file. Therefore, if this file

gets corrupted, the settings will change in unpredictable ways, and QuickLink II Fax might not act properly or the fax modules may not find the fax/modem.

If QuickLink II Fax suddenly starts acting mysteriously, consider deleting this file and running QuickLink II Fax again. This will recreate the file and reset the program to the factory defaults. This is also a good way to reset the program if you purchase a new modem or fax/modem and want to renew the program.

Fax Manager launching

The Icon labeled “Fax Manager” in the QuickLink II Fax Windows Program Group actually runs the program FMLAUNCH.EXE. This program in turn determines what Class of fax/modem you have by reading the SMSSETUP.DAT file and loads the appropriate Fax Manager into memory. If you will be launching the Fax Manager in a special way, you can launch the correct Fax Manager file by loading it directly, bypassing FMLAUNCH.EXE. You can double-check which class fax/modem you have by clicking the **Hardware** button in the **Modem Setup** dialog box.

Using a scanner

If you own a scanner, it may be used to read in various printed documents, the image of which can be faxed out with QuickLink II Fax. Most scanners and scanner software are extremely flexible concerning the type of files that the scanned document can be saved to. QuickLink II Fax is compatible with most of the files that the popular scanners create, so long as you follow the following guidelines:

- Grayscale scans cannot be faxed out, so set your scanner accordingly. Set the image type to **Black and White**, **Line Art**, or **One Bit Grayscale**, depending on which mode your scanner offers.
- Scan Documents in at 100 DPI if you will be setting QuickLink II Fax to Normal Resolution fax sends; 200 DPI if you have QuickLink II Fax set to High Resolution.
- Save the scans as either TIF files or PCX files.

If you follow these guidelines, you can send your scans with the **Send Fax** command from the **Fax** menu.

If you are using the Windows version of QuickLink II Fax and you have Windows scanner software, you can use the print driver to fax out the scan.

FastFax and softfonts

There are two ways to print a document with soft fonts. One way assumes that you have down loaded the soft font to your printer's memory prior to printing your document. The other way is to give the printer the soft font information while actually printing your document (the font gets downloaded with the print job). For FastFax to use soft fonts properly, you must use the second method described above. Note that you will only have to do this once per soft font, since FastFax will remember the font information the next time you print your document. The soft font information that was given to FastFax will be stored on disk so it can be accessed any time after. Once FastFax stores the soft font, you can use the first method of printing your documents.

Some applications may only give the printer the soft font characters that are used in the document. This will cause later problems with FastFax when you try to print a soft font character that was not originally printed to FastFax. If you are unsure of how your application handles soft fonts, you will want to print the provided ASCII text file SOFTFONT.TXT before any document that uses soft fonts. This file is located in the QuickLink II Fax directory. If there are characters that are not in SOFTFONT.TXT, you can add them yourself using a text editor.

Error codes

In the unlikely event of a fax not successfully transmitting, the Fax Logs will display an error code. You may get a detailed explanation of the error by clicking the **Errors** button when displaying the **Info** on the Fax Log entry, or from the Help system. The following is a summary of the Error codes:

Error Codes:

100 - 199	Modem Errors
200 - 299	File Errors
300 - 399	Send Fax Errors
400 - 499	Receive Fax Errors

500 - 599

Miscellaneous Errors

Modem Errors:

Error: 101	Unable to open COM port.
Error: 102	Unable to detect modem.
Error: 103	Modem not a fax modem.

File Errors:

Error: 201	Unable to create necessary file.
Error: 202	Out of disk space.
Error: 203	Error reading file.
Error: 204	Error writing file.
Error: 205	Unable to close file.
Error: 206	Unable to access file.
Error: 207	Unable to open fax file.
Error: 208	Unable to open exchange file.
Error: 209	Unable to open setup file.
Error: 210	Unable to create/send cover page.
Error: 211	Unable to create/send headers.
Error: 212	Unable to open file.
Error: 213	Error reading exchange file.

Send Fax Errors:

Error: 301	No dial tone detected from modem.
Error: 302	Number dialed was not a fax machine.
Error: 303	Number dialed was busy.
Error: 304	No carrier detected after dial.
Error: 305	Error occurred during fax training.
Error: 306	No CONNECT message from remote.
Error: 307	No End Of Page acknowledgment received.
Error: 308	No phase D page response received.
Error: 309	Unknown phase D error.
Error: 310	No End Of Page response received.
Error: 399	Unknown send error.

Receive Fax Errors:

Error: 401	Remote fax failed to train.
Error: 402	Remote fax failed to train.
Error: 403	Error during End Of Fax handshake.
Error: 404	Error occurred during End Of Page.
Error: 405	Unknown phase D error.
Error: 406	Received no acknowledgment during End Of Page.
Error: 407	Time-out on end of reception.
Error: 408	No end of transmission acknowledgment received.
Error: 499	Unknown fax receiving error.

Miscellaneous Errors:

- Error: 501 Unable to allocate memory.
Error: 502 The selected document contains 0 pages.

AT command set

Most modems used with PC's implement the AT Command Set as a method of issuing commands to the modem. The actual implementation by your modem's manufacturer is documented in the hardware manual included with your modem. The chart below is a summary of many of the more commonly used AT commands. Many users may never find a need to use this command set, as QuickLink II Fax does much of the work for you.

Command	Description
AT	Attention command and precedes command line
A/	Repeat preceding Command
A	Answer call immediately
DT	Dial Touch Tone Mode
DP	Dial Pulse Mode
E	Command Echo Disabled
E1	Command Echo Enabled
H	Hangup (on-hook)
H1	Off Hook
I	Output Product Code to PC
L	Speaker Volume (L0, L1, L2, L3)
M0	Speaker off
M1	Speaker on until Carrier Detect
M2	Speaker always on
M3	Speaker on from dial to Carrier Detect
O	Return to On-line Communications
O1	Return to On-line Communications & Retrain
Q	Send Result Code Messages
Q1	Do not Send Result Code Messages
Sr?	Read & Display Contents of Register (r)
Sr=n	Set Register (r) to Value (n), ATS0=1, answer phone on first ring
V	Result Code Messages sent in Numeric format
V1	Result Code Messages Sent in English Word Format
X	Extended Status Mode
Y	Long Space Disconnect
Z	Reset and Initialize Modem
+++	Escape Code from On-line to Command State

Appendix D

Troubleshooting

The subject of telecommunications is filled with many variables and potential pitfalls. This Appendix addresses some of the problems you might encounter with QuickLink II Fax, and how to solve them.

General/Data Comm troubleshooting

You cannot communicate with your modem or fax/modem, or you receive unintelligible garbage characters in the terminal window.

- The COM port and/or IRQ used by your modem or fax/modem is also being used by another serial device installed in your computer. Refer to Chapter 1 and Appendix C for more information.

When you type a character in the terminal window, it appears twice or not at all.

- QuickLink II Fax has its **Local Echo** feature turned on and the modem's echo feature is also turned on. If the system you are calling echoes your typed characters, turn off **Local Echo** in the **Terminal Options** dialog box.

You cannot hear the modem dial or connect.

- Add **M1L3** to the end of your **Init String** in the **Modem Setup** dialog box.

Your modem or fax/modem disconnects while communicating remotely.

- The other side has hung up.
- Your telephone line may have call waiting and a call has come in. It can be disabled in the **Modem Setup** dialog box. If this does not work, contact your local telephone company.

- Someone may be picking up an extension connected to the line your modem or fax/modem is using.
- You are using an MNP 5 or v.42bis modem and the other modem does not support MNP 5 or v.42bis. Refer to your modem manual and disable them.
- Your **Line Settings** do not match those of the other communicating device.

Characters are dropped at high baud rates (9600 or higher).

- Ensure you are using Windows 3.1 and the Windows 3.1 comm driver, along with a 16550 UART serial chip.

Faxing troubleshooting

QuickLink II Fax is not able to connect or receive faxes from remote fax sources.

- Ensure the Fax Manager is loaded and **Fax Receiving** is enabled if in Windows; ensure the RECFAX module (TSR) has been loaded into memory if in DOS.
- Your fax/modem may not be compatible with the specific brand of fax connecting. Contact the modem manufacturer to determine if there is a known problem.
- Some fax machines cannot handle certain Fax ID's. For example, some fax machines require only numbers as the Fax ID, while others require only upper case or no spaces. Your Fax ID can be changed in the **Receive Fax Setup** dialog box.

QuickLink II Fax connects to the remote fax machine, but none of the document pages are sent or are blank.

- If you have scheduled the fax to be sent, you may have deleted the fax document before it was sent.
- You may be trying to send a fax from the floppy disk. This is not recommended, since disk access times are longer when files are on the floppy drive. Copy the file to your hard disk and try again.
- You are trying to send a file other than an ASCII text, DOS text, or WordPerfect DOS v5.0/5.1 (WordPerfect in DOS only) file

format from the Fax menu from the QuickLink II Fax main application. Convert your document file into one of these formats or use the FastFax pop-up utility/QuickLink II Fax print driver. Review Chapter 2 and 7 for more information.

Faxes are being sent at a lower baud rate than the rated speed of the fax/modem or the specified Maximum Baud Rate in the Send Fax Dialog box.

- Your fax/modem can't connect at the faster baud rate. This can be caused by poor line quality, speed limitations of the receiving fax machine, or a hardware incompatibility. This is not necessarily indicative of any problem with your fax/modem.

When you view a received fax, there appear to be missing lines, garbage, or "bar code".

- Your fax/modem may be incompatible with the sending hardware.
- There may have been a bad telephone connection for the call.
- Your fax/modem may be improperly installed or damaged.

The Fax Viewer or Fax Manager will not read a .QFX or .REC file.

- Re-create the .QFX file from the original graphic or document.
- Export the .REC file to a .PCX and back into a .QFX and try again.

QuickLink II Fax says that there are faxes scheduled to be sent, though Viewing the Schedule reveals nothing.

- Delete the file SCHEDULE.QL2 from the QuickLink II Fax install directory. This file contains the schedule information and is likely written to the disk incorrectly. It will be re-created the next time you schedule a fax.

When loading the Fax Manager from the Program Manager, loading RECFAX, or sending QuickLink II Fax fax commands to your fax/modem, there is an error to the effect that the fax/modem cannot be found, or initialized, or opened.

- QuickLink II fax is assuming you have the wrong class Fax Manager. Use the **Hardware** button under **Modem Setup** to switch classes in the Windows version — delete the file QLSETUP.DAT for the DOS version.
- You have the wrong COM port or IRQ set for your Fax Modem.

Index

16c550 UART xiv

A

American E-Mail W-42, D-105

Answer Mode W-51, D-82, D-118

Answering a Data Call D-112

ASCII W-45, W-48, W-54, D-107, D-109, D-113

AT Command Set A-157

Auto Detect 4

Autobaud W-61, D-121

AUTOEXEC.BAT 8, 14

B

Background Faxing D-94

Baud W-43, D-105, D-117

BMP W-32, D-93

Broadcasting W-34, D-95

Button Bar xii, 5

C

Capture Text W-50, D-111

Clear Screen W-51, D-111

Color Setup D-124

Color, Text W-62

COM Port D-119

Conflicts 8

Initial Selection 7

Settings A-150

CompuServe W-65

CONFIG.SYS 8

Connection Setup D-122-D-123

Convert D-140

Convert Fax Document D-85, D-92-D-93

Exporting D-92-D-93

Importing D-93

Cover Page W-18, D-97, D-99-D-100

Graphic W-40, D-100

Setup W-39

CUT D-93

D

Data Phone List W-42-W-44, D-104

Edit D-104

Sort D-104

DCX W-30, W-32, D-93

Dedicate CPU D-97, D-98

Default Configuration 12

Default Data Settings 7

Default Fax Settings 6

Default Printer 3

Dial W-41, D-103

Credit Card Usage W-59, D-118

Dialing Out D-103

Prefix W-42

Prefix/Suffix D-118

Redial on Busy W-42

Redial Timeout W-42, D-98

Document Type Selection W-19

DOS 15

DOS Shell D-84

Dow Jones W-65

Downloads D-109

Download Status W-49

Multiple File Protocols W-49

Single File Protocols W-48-W-49

Duplex. See Local Echo

E

Error Codes A-155-A-157

Export D-141

Export From Fax W-30

F

FastFax D-75-D-78, D-137-D-139

Command Line Options D-137-D-138

Fax Phone List D-78

Faxing out with D-77

Load Options 14

Setting Up D-76

Softfonts A-155

Fax Files

Format of D-85

Location of D-85

Fax ID String W-37, D-98

Fax Logs. *See* Send, Receive Fax Logs

Fax Manager W-17, W-18, W-20, W-34-W-40, W-51

Always on Top W-35

Enable Fax Receiving W-34

Loading W-34, W-38

Manual Fax Receive W-35

ModemMonitor W-35

Percent Bar W-35

Fax Phone List W-18, W-27, D-78, D-80, D-89-D-91

Editing D-89-D-90

Group W-28

Mark D-90

Mark Group W-28

Sorting D-90

Fax Receiving D-81-D-82

Fax Schedule W-18

Fax Scheduling W-32, D-94 and RECFAQ D-94

View Schedule W-33

Viewing the Schedule D-95

Fax Viewer W-24-W-25, W-25, D-86

First Page W-25

Fit Horizontal W-25

Fit Vertical W-25

Flip Horizontal W-25

Flip Vertical W-25

Full Size W-25

Grabber Hand W-25

Last Page W-25

Next Page W-25

Open File W-25

Previous Page W-25

Print W-25

Reverse W-25

Zoom In W-25

Zoom Out W-25

Faxing out from Quick Link II Fax D-79-D-81

File Transfers W-44-W-49, D-106-D-110

Flow Control

Xon/Xoff D-121

Freeing the COM Port W-35, W-53

G

GEnie W-65

Graphics, Received Faxes are Export From Fax W-30

Graphics, Received Faxes as W-30

Group W-28

H

Hangup W-44, D-106

Hardware Setup D-87

Help 12, W-21, D-84

High Resolution D-96. *See* Resolution; Send Fax Setup**I**

IMG D-93

Import to Fax W-30, W-31

INBOX W-20, W-23, W-39
 Initialization String 5, 8, W-58, D-117
 IRQ D-119, A-150, A-151

K

Kermit W-46, W-49, W-54, D-114
 Kermit/SuperKermit W-46, W-49, W-54, D-107, D-110, D-114

L

Line Buffer D-112
 Line Settings W-43, W-57, W-57-W-63, D-116-D-117
 Baud D-117
 Baud Rate W-57
 Data Bits W-57, D-117
 Flow Control W-58
 Local Echo D-120
 Parity W-57, D-117
 Stop Bits W-57, D-117
 Local Echo D-120
 Low Resolution. *See* Resolution

M

MAC W-32, D-93
 Macro Keys W-66-W-67, D-128-D-129
 Mainframes D-105
 Manual Fax Receive W-35, D-96
 Manual Fax Send W-18, W-33
 Margins D-97
 Mark D-95. *See* Fax Phone List
 Mark Group. *See* Fax Phone List
 Menu Bar 5, 8
 MNP W-58, D-123
 Modem Setup W-58

Answer Mode W-51, W-60, D-82, D-118
 Dial Prefix/Suffix W-59, D-118
 Dial String W-59
 Hangup String W-59
 Hardware W-58, A-162
 Initialization String W-58, D-117
 Number of Rings to Answer Phone W-51
 ModemMonitor W-35, W-51-W-53
 Monitor Type 7
 Mouse 8

N

NiteFax D-139
 NO CARRIER D-119
 Number of Rings to Answer Phone W-51, D-113, D-118

O

Off-Line W-53, W-61
 On-Line W-53, W-61
 Online Services. *See* Services
 OUTBOX W-23, W-37

P

Parity D-117
 Paste to Host W-50
 PCL D-93
 PCL Font Setup D-100-D-101
 PCX W-30, W-32, D-92, D-93
 Print Faxes W-26
 Scale to Fit W-26
 Print Setup W-17
 Printer Port D-125
 PrintFax D-142
 Printing Faxes D-87-D-88
 Setting your Printer D-87
 Printing Faxes Actual

Size D-125
Printing Text Files D-112
Program Filenames A-149
Protocols W-53-W-56, D-113-D-116
ASCII W-54
CompuServe B/B+ W-54
Kermit/Super Kermit W-54
Xmodem W-55
Xmodem 1K W-55
Xmodem CRC W-55
Ymodem W-56
Ymodem-G W-56
Zmodem W-56, D-116

Q

QFX W-23, W-30, W-32, D-85, D-92, D-93
QLSETUP.DAT A-153
Quick Link II Fax Print Driver W-17
Quit D-84

R

README 3
README.TXT D-80
REC W-23, W-30, D-85, D-92
Receive Fax Log W-20, W-29, D-81, D-91
Errors W-30
Receive Fax Setup W-37, D-98-D-99
Dedicate CPU D-98
Fax ID String W-37, D-98
Path for Received Faxes D-98
Receive Options W-38
Auto Fax-Print on Receive W-39
INBOX W-39
RECFAQ Load Options D-99
Receive File W-45, D-106
Receive File Status D-110

Receiving a Fax D-81-D-82
RECFAQ D-81, D-82, D-94, D-96, D-99, D-112, D-118, D-143
Load Options 14
Redial W-61, D-98
Redial on Busy D-121
RTS/CTS Flow Control D-98
Run command 2

S

Save Documents to QFX File W-23
Scanners A-154
Schedule A-161. *See also* Fax Schedule
Scripts W-67-W-74, D-129-D-136
Running Scripts W-67-W-68, D-129-D-130
Send Fax W-19, D-79, D-85
Send Fax Information W-18, D-80
Send Fax Log W-30, D-92
Errors W-30
Send Fax Setup W-35, D-96-D-98
Center the Text or Graphic D-96
Control Options W-36
Dedicate CPU W-37
RTS/CTS Flow Control W-37
Dedicate CPU D-97
File Conversion Options W-35
Center Text/Graphics W-36
Full Page Text/Graphics W-36
High Resolution W-36
Full Page Text/Graphics D-97
High Resolution D-96
Include Cover Page D-97
Lines per Page D-97

Margins D-97
OutBox W-37
Redial W-37
RTS/CTS Flow Control D-98
Send File W-45, D-106
Send File Status D-108
Services
 Connecting to D-128
Services Setup W-65-W-66, D-127
SMSSETUP.DAT A-153
SNDFAX D-140
Softfonts A-155
Starting Quick Link II
 Fax D-75
Status Bar 5
System Requirements 1

T

Terminal D-105
Terminal Emulation D-121
Terminal Options W-60, W-60-W-63, D-120-D-122
 Autobaud D-121
 Button Bar W-61
 Color W-62
 CR to CR/LF W-60
 Destructive Backspace W-61
 Line Wrap W-60
 Local Echo W-60
 Off-Line W-61
 On-Line W-61
 Protocol D-123
 Redial on Busy D-121
 Status Bar W-61
 Terminal Emulation W-62, D-121
VT100 / VT102 Setup D-121
VT100/102 Setup W-62
 Answerback Message W-62
 New Line Mode W-62
Terminal Type W-43

Terminal Window 5, 8
Text Editor D-82-D-84
 Setup D-82
TIF W-30, W-32, D-92, D-93
Timer 6
Title Bar 5
Toggle Printer D-112

U

Uploading a File D-107
Uploading Multiple Files D-107-D-108
Uploads
 Multiple File Protocols W-46, W-46-W-47, W-56
 Single File Protocols W-45-W-46
 Upload Status W-47

V

V.42bis W-58, D-123
Version Number 8
View Fax. *See* Fax Viewer
View Fax Schedule W-33
ViewFax D-142
VT100 / VT102 Setup D-121

W

WIN.INI A-152
WIN/DOS Considerations 15
Windows 13
WYSIWYG faxing W-17

X

Xmodem W-45, W-48, W-55, D-107, D-109, D-114
 Xmodem 1K W-45, W-48, W-55
 Xmodem CRC W-45, W-48, W-55
Xmodem 1K D-107, D-109, D-115
Xmodem CRC D-107, D-109, D-115

XON/XOFF Flow Control D-
113

Y

Ymodem W-46, W-49, W-
56, D-107, D-110, D-115

Ymodem-G W-46, W-
49, W-56, D-107, D-
110, D-115

Z

Zmodem W-56, D-116



If you think QuickLink II Fax™ is flexible, powerful, and easy to use, you'll love the enhanced version - QuickLink GOLD. This full-featured, integrated data and fax communication product goes far beyond the many great features found in QuickLink II. QuickLink GOLD adds a feature that will convert a received fax into text which can then be edited and returned to the sender. A floating toolbar eliminates steps required to gain access to commonly use functions. Data communication enhanced features include additional file transfer protocols, on-line editing functions, and an enhanced scripting language. All this can be accomplished with a personal computer running Microsoft® Windows™ 3.0 or later with a send-receive fax/modem. Here is a partial list of QuickLink GOLD's enhanced features:

- Flexible Optical Character Recognition (OCR), configurable for foreign languages, different font sets, and dot matrix printouts. It can automatically convert faxes into text files upon fax reception, specify regions and data types, and verify suspect characters.
- Full DataComm feature set, including Z-modem file transfer protocol, scroll back buffer, a robust scripting language, full data host mode, 5 terminal emulations, and the ability to copy and paste while on-line.
- In addition, the program supports unlimited number of data and fax phone lists and records.
- ModemMonitor™ emulates the LED modem status lights on screen.
- ToolBar makes it easy to access commonly used functions.
- Look and feel setup lets you dynamically modify the Graphical User Interface.
- Background fax sending, receiving and printing.
- QuickLink GOLD is upwardly compatible with QuickLink II Fax and gives you everything in that program, plus much, much more!

**You can order by calling
1-714-362-2345 or
on-line from
American E-Mail at
1-714-362-5822**

Check out SMSI's forum on
CompuServe.
Type "GO SMITHMICRO"

SMITHMICRO
SOFTWARE 

QuickLink II Fax — S/R for Win/DOS

USER REGISTRATION FORM

I have read and understand the SMITH MICRO SOFTWARE, INC. License Agreement and agree to abide by its terms.

Customer Signature

Date:

Name:

Address:

City/State/Zip:

Fax/Modem make-model:

Mail today to ensure notification of updates and new products to:
Smith Micro Software • 51 Columbia • Aliso Viejo, CA 92656

BACKUP DISK ORDER FORM

Please send a backup copy of QuickLink II Fax — S/R for Win/DOS. My check for \$15.00 (US) plus \$3.00 shipping and handling is enclosed. California residents add \$1.16 sales tax.

Name:

Address:

City/State/Zip:

Fax/Modem make-model:

Disk Size: (please check one)

☐ 3½

☐ 5¼

Please allow 2 weeks for processing



American E-Mail BBS

(714) 362-5822

Compuserve: GO SMITHMICRO

QSRW/DMA