TELMERGE®

TelMerge

Contents

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Introduction

TelMerge makes electronic communications easy by enabling your computer to communicate with computers all around the world. You can use TelMerge to

- Send and receive electronic mail ("Email")

- Check the progress of stocks and bonds with online communications services like the MCI Dow Jones service

- Set up a data collection terminal for salespeople in the field

- Do computer work at home using dial-up lines to a mainframe

- Exchange messages and files with other personal computer users

The TelMerge documentation is organized as follows:

"Getting Ready to Use TelMerge" explains how to prepare your equipment for TelMerge.

"Calling a Service with TelMerge" and "Sending and Receiving Electronic Mail" illustrate the most common data communications tasks with basic exercises.

"Talking to Other Computers" shows how to transfer data files in different ways.

"Shortcuts with TelMerge" contains tips to speed up and customize the program.

There are also sections listing the TelMerge keywords (special commands), preprogrammed communications services, and function key assignments. If you have a problem using TelMerge, see the "Troubleshooting" chapter.

Getting Ready to Use TelMerge

What You Need

To run TelMerge, you must have the following:

- An IBM PC or an IBM-compatible system with at least 128K of internal memory and 90K of available disk space
- A private telephone line with a plug-in connector (RJ11C jack)
- An asynchronous communications card (if you don't have an internal modem)
- A Hayes-compatible modem

TelMerge may not work if you have any of the following:

- A multiline or "hold button" phone system
- A printer and modem on the same port
- A "call waiting" feature on your phone
- RAM-resident programs running concurrently with TelMerge

Note: In some areas you can turn call waiting off for the duration of a phone call. Call the local business office of your telephone company for details.

Installing TelMerge

If you didn't copy TelMerge when you installed WordStar®, do that now. See the *Installing and Customizing* booklet for information on adding a feature.

Setting Up Your Modem

TelMerge is set up to work with the default switch settings on a Hayes modem. (These are the switch settings set by the factory.) Unless your modem has different factory defaults, you don't need to change any switches.

Hayes 300 and 1200

Hayes 300 and 1200 modems are freestanding and require a serial port and a serial cable from your computer. To use these modems without a serial port, you must buy an asynchronous communications adapter card (an "async card"). Follow the directions in the Hayes manual to connect the modem.

Hayes 300 and 1200 Switch Settings

The Hayes 300 and 1200 modems have a row of switches, found behind the front panel, that have the following settings:

NUMBER	SWITCH SETTING	SWITCH FUNCTION
1	Down	TelMerge ignores the Data Terminal Ready (DTR) signal
2	Up	Puts result codes (CONNECT, RING, etc.) into English words . . .
3	Down	. . . and sends them to your computer
4	Up	Shows modem commands onscreen while dialing
5	Down	Modem doesn't answer incoming calls automatically
6	Down	TelMerge ignores the carrier
7	Up	Sets modem for single-line phone
8	Down	Enables modem command recognition

Hayes 1200B Switch Settings

The Hayes 1200B is an internal modem that plugs into one of your computer's short slots. The 1200B has a row of switches near the top of the card that are set as follows:

NUMBER	SWITCH SETTING	SWITCH FUNCTION
1	On	Selects the communications port [ON = port COM1, OFF = port COM2]
2	Off	Sets modem for single-line phone
3	Off	TelMerge ignores the carrier

If You Have a Phone System with Built-in Modems

Many offices install phones that contain modems so you can use the same telephone line for both voice and data. If you have such a system—and it has a Hayes-compatible mode—you can use TelMerge with it, but it may require special initialization (see **PREMODEM** in the "Keywords" chapter for more information).

Calling a Service with TelMerge

Registering with a Communications Service_____

You get information for TelMerge from services and networks. The leading services and their phone numbers are listed in the "Communications Services" chapter. To register with a service, call the one you want directly, or ask your local computer store. Either way, when you register with a service, you receive a subscriber package with information for TelMerge.

How to Use TelMerge _____

There are two ways to call a service with TelMerge:

■ You can create individual service files that each contain the information necessary to call one service. If you subscribe to only one or two services, this is the easiest way to use TelMerge.

■ You can set up the TELMERGE.SYS control file with the information for several services. Then, when you run TelMerge, you can call any service by choosing it from the TelMerge Communications Menu. If you subscribe to a number of services, this method is more efficient in the long run.

Both methods are described on the pages that follow. Be sure to have your subscriber packages handy.

Creating Individual Service Files

You can create a file for each communications service you want to call.

1   Start TelMerge. Either pull down the Additional Menu at the Opening screen and choose **TelMerge**, or, if you're using classic menus, press **A** at the Opening Menu, then press **T** for TelMerge.

Note: If you want to run TelMerge as a stand-alone program, log on to the directory containing the TelMerge files, type **telmerge**, and press ↵.

You see the TelMerge Communications Menu.

2   Press **F5** (Other) at the TelMerge Communications Menu. Any files in the current directory with the extension .TEL are displayed. You can choose an existing .TEL file or create a new one.

3   To create a new one, press ↵. TelMerge asks you for the name of the service to call, your user ID and password, and the service's phone number. This information is contained in your subscriber package.

4   TelMerge also asks for information about your system, like your baud rate, and so on. In most cases, you can use the default settings, which are:

Modem HAYES specifies that you are connected to a modem. If you are cabled directly to another computer, replace HAYES with the appropriate description. See **MODEM** in the "Keywords" chapter.

Port COM1 means that TelMerge expects to find a modem connected to the COM1 port on your computer. If you are using a different serial port for your modem, type the correct port number here.

Baud 2400 means that you will be transmitting and receiving at 2400 bits per second—about 2400 words per minute. You can change to any baud rate that your modem allows. The correct setting for this keyword may vary for different services. Some telexes, for instance, use baud 300.

Duplex Full means that the remote computer will "echo" your typing back to you. That way, you can be sure it received what you sent. Some services require half duplex—check your subscriber package.

Press ↵ to accept the default answer for the current question and go to the next one. If you press **Esc** after giving the phone number, default answers are used for all the remaining questions.

5   Your answers to these prompts are stored in a new file (in the current directory) with the extension .TEL. You can use it again by pressing **F5** (Other) at the TelMerge Communications Menu and then choosing it.

If you need to change a .TEL file later, edit it as you would any nondocument file. You can add any additional keyword commands you like. See the "Keywords" chapter for more information.

Using the TELMERGE.SYS Control File

If you subscribe to a number of services, you can store the information for every service in one file, which is called a control file. This file (TELMERGE.SYS) is already provided for you. All you need to do is fill in the necessary information. TELMERGE.SYS is usually stored in the WS directory.

The TELMERGE.SYS file contains the TelMerge menu. Below the menu is a series of "scripts" containing information for each service. If you are calling a service that is preprogrammed into TELMERGE.SYS, all you add are the phone number of the service, your user ID, and your password.

Once you add the necessary information to the control file, connecting to a service is simple. You start TelMerge and type the name of the service you want to call when TelMerge asks for it. TelMerge consults the script for that service for the information it needs to make the connection and to log you on.

Note: If you're running TelMerge as a stand-alone program, the TELMERGE.SYS file must be in the current directory or in a directory on your DOS path. To specify a .SYS file to use, other than TELMERGE.SYS, type **telmerge *filename*.sys** at the command line.

*A*dding Information _____

Adding Information to TELMERGE.SYS

1　Start WordStar and edit the TELMERGE.SYS file in nondocument mode.

2　Press the **PgDn** key until you see the "System Section."

```
;*****************
; System    Section
;*****************
;
;The following keywords set the basic defaults for your system.
;The current settings work for most systems.  If the setting for
;any keyword here doesn't match your system's requirements, replace
;it with one of the other choices listed for that keyword.
;
;Specify the settings that you will use most of the time.  If a
;particular service requires different settings, specify them
;in that service's script.  Settings in a script override settings
;in the System Section.
```

Each entry listed in this part of the file is a keyword that tells TelMerge how to work with your system. The default values for these keywords work in most cases. However, check the **MODEM, PORT,** and **BAUD** keywords now to make sure they are set up correctly for your system. See the "Keywords" chapter for a full description of these keywords.

Adding Information about a Service

Once you receive your subscriber package from a service (CompuServe is used in the example below), you enter information into TELMERGE.SYS.

1 Each preprogrammed service has its own script with the information TelMerge needs to place a call. Press the **PgDn** key a few times until you see the CompuServe script, which starts with LABEL CIS. LABEL CIS tells TelMerge to use this script when you specify CIS as the name of the service to call.

The SERVICE CIS tag tells TelMerge what technical information to send to the service. This information is already programmed into TelMerge.

Fill in the next three lines using the information you received from the communications service.

2 Put the cursor after the word NUMBER, press the **Tab** key twice, and type the telephone number of the service. Type **9** or **1** before the number if your telephone system requires it. You can also include the code to turn call waiting off if you need to.

Note: When you use 9 to get an outside line, type one or two commas after it. Each comma makes the modem wait about two seconds so the second dial tone has time to sound before the modem dials the rest of the phone number.

3 Put the cursor after the keyword USERID, press the **Tab** key twice, and type your user ID.

4 Put the cursor after the keyword PASSWORD, press the **Tab** key twice, and type your personal password. The rest of the CompuServe script is already filled in for you.

LOGFILE CIS.LOG means that if LOGGING is ON, the record of your CompuServe session is saved to a file called CIS.LOG. See "Logfiles" in "Sending and Receiving Electronic Mail."

END tells TelMerge that it has come to the end of the script for CompuServe. Once you finish a CompuServe session, TelMerge returns you to the TelMerge Communications Menu.

Note: Printing is off when you start to use CompuServe even if you changed PRINT to YES. You must press **F8** to turn printing on.

5 Save the file.

Calling a Service through a Network

Many people use commercial data networks to contact databases and services. To call a service through a commercial data network, add the name of the network, change the phone number in the service script, and add the **HOSTID** code provided by the network. This example shows the proper entries.

```
Label       MCI
Service     MCI
Network     Tymnet
Hostid      MCIMAIL
Number      9,453-5420
Userid
Password
Logfile     MCI.LOG
End
```

Adding a New Service to TELMERGE.SYS

The procedure for adding a new service (one that isn't preprogrammed) to TelMerge is the same as the one discussed in the previous section, with two exceptions:

- You add the service name to the TelMerge Communications Menu.

- You create a new script in TELMERGE.SYS for the new service.

To add a new service to TELMERGE.SYS, follow these instructions:

1   Use WordStar to edit the TELMERGE.SYS file in nondocument mode.

2   Move the cursor to the Menu section in the file, which contains a series of SAY statements. Mark the line containing NEW as a block. Press ↵ to create a blank line and copy the block.

3   Replace NEW with the name of your service, and delete the semicolon from the beginning of the line.

4   Move down to the Service section and mark the text from LABEL NEW through the next END statement as a block. Move the cursor down one line and copy the block.

Now customize the information in the copied section for your new service:

1   Replace NEW with the name of the new service. This name must match the name you typed on the Menu.

2   Add the phone number, your user ID, and your password.

3   Change any other data that you want to modify.

4   Quit and save the file.

Note: If you want the menu entries you add to be highlighted when you run TelMerge, type a vertical bar (|) before and after the service label.

Adding a Telex Service

You can add any telex service the same way you add other new services, but with these additions:

1   On the line above the phone number, type **INTERACTIVE**, press the **Tab** key twice, and type the phone number of the interactive (real-time) telex service. The service supplies you with this number.

2   On the line below the interactive number, type **ANSWERBACK**, press the **Tab** key twice, and type the answerback name for that service. The service gives you this name when you sign up.

Add the INTERACTIVE and ANSWERBACK responses only if your service provides telex communications. See **INTERACTIVE** and **ANSWERBACK** in the "Keywords" chapter.

Sending and Receiving Electronic Mail

Preparing Messages for Electronic Mail

Most communications services allow you to compose messages online, but you are charged for the time you are connected to the service. It is less expensive to type your messages first, using WordStar. Then, when the service prompts you for your message, press the SEND function key and specify the file containing your message. Your message is sent to the service.

A document file won't always print properly when it's received by the service. For this reason, TelMerge strips most of the print control commands from a file before transmitting it. Tabs, indents, margins, and centering are maintained, though spacing may change slightly. Boldfacing, underlining, and other print features are removed. You can control a file more closely by printing it to disk and then sending the disk file. To send a document that contains footnotes, endnotes, line numbers, or paragraph numbers, print the document to disk in ASCII format and then send the ASCII file.

Sending Electronic Mail

There are several ways to send electronic mail:

- You can send an **electronic letter** to someone if you both have an account with the same service. You deposit the letter in your correspondent's electronic mailbox.

- You can send a **paper letter**. In this case, you still send the letter electronically, but the service prints and delivers it. This may cost more than regular mail, but it can be much faster.

■ If your correspondent has a **telex** machine, you can direct the letter to the telex network. In this case, your mail is printed on your correspondent's telex machine.

Examples of each of these methods follow. Each example shows the use of a particular communications service. Many services offer all of the methods and not just the method shown in the example.

Sending an Electronic Letter

EXAMPLE

To send an electronic letter using CompuServe, follow these steps:

1 Write the letter with WordStar and save the file.

2 Start TelMerge.

3 Type **CIS** (for CompuServe) and press ⏎. TelMerge dials CompuServe.

As TelMerge dials, it counts the seconds it takes to reach that service. At 45 seconds, TelMerge redials the number. After dialing twice, TelMerge gives up. You can change the number of times TelMerge dials with the TRY keyword. See the "Keywords" chapter.

Note: If TelMerge does not find a phone number for a service you specify, it prompts you for that information. At each prompt, type the required information and press ⏎. TelMerge saves the information in a file that you name and calls the service. TelMerge gives the file a .TEL extension and stores it in the \WS directory. If you call that service again, press **F5** at the TelMerge Communications Menu and type the .TEL filename. TelMerge calls the service for you.

4 When CompuServe answers, TelMerge automatically issues your password and identification number and logs you on. You are now at the CompuServe Main Menu.

From the CompuServe Main Menu, go to the Email Menu (see your CompuServe manual). From the Email Menu, enter the CompuServe editing workplace.

5 When you are online in TelMerge, you have two sets of function keys to use. The "TelMerge Function Keys" chapter explains each one and how they are used.

Press the **F2** function key to see function key set 2 (if it is not already displayed). Then press **F4** to send a file. When prompted, type the full pathname of the file that contains your letter and press ⏎. TelMerge transmits your file to CompuServe.

6 Follow the CompuServe instructions to close and send the letter.

7 Exit the Email Menu, then exit CompuServe.

8 Press **F10** to hang up. Press **F10** again to exit TelMerge and return to WordStar.

Sending an Electronic Paper Letter

EXAMPLE

To send an electronic paper letter using MCI Mail, follow these steps:

1   Write the letter with WordStar and save the file.

2   Start TelMerge.

3   Type **MCI** and press ↵. TelMerge dials the number of MCI Mail and logs you on. You are now at the MCI Mail Main Menu.

   See your MCI Mail manual (or follow onscreen instructions) to reach the MCI Mail editing workplace. Type the name and address of your correspondent. MCI Mail prompts you for the letter.

4   Press **F4** of function key set 2 to send a file. Type the full pathname of the file containing your letter and press ↵. TelMerge sends your file.

5   When you are prompted for the end-of-text marker, type a forward slash (/) and press ↵.

6   Select the menu choice that sends your letter. MCI acknowledges receipt of your letter. The letter will be laser-printed and delivered to your correspondent.

7   At the MCI Mail prompt, type **exit** to disconnect from MCI.

8   Press **F10** to hang up. Press **F10** again to exit TelMerge and return to WordStar.

Sending a Telex

EXAMPLE

Following is a sample telex document. This format is prescribed by ITT. For variations of this telex format, see instructions from your service.

```
0000000+

TO:
Barbara Jones
FROM:
Andy Smith
DT:
11/21/88

Greetings from the Fall Cookware Show!  We have just unveiled
our new food processor.  Along with its many powerful features,
this machine kneads dough, grinds meat, and purees vegetables.
To see all of the new features of this state-of-the-art
product, you must try it for yourself.

NNNN

.  .  .  .  .
```

In telex messages you put the addressee's number in the top left corner of the document. End-of-document and disconnect signals come at the end. You then use TelMerge to send the document to the telex service.

There are two ways to send a telex document: **store-and-forward mode** and **interactive mode**.

When you use **store-and-forward** mode, you communicate with an intermediate computer system. Your letter is stored temporarily and transmitted later to its destination.

When you communicate in **interactive** mode, you are connected to your correspondent's individual telex machine, which prints each character as you send it. There is no intermediate computer system.

Using Store-and-Forward Mode

EXAMPLE

To send a telex using ITT TIMETRAN, follow these steps:

1 Write the letter with WordStar and save the file.

2 Start TelMerge.

3 Type **ITT** and press ⏎. You see the prompt *What file do you want to send?*

4 Type the full pathname of the file that contains your letter and press ⏎.

5 If there is an INTERACTIVE number in your control file script, you see the prompt *Want to access interactive mode? Y/N.* Type **N** for no.

 ITT displays your account number, password, and destination account number, then transmits the file. You receive verification—"CALL ACCEPTED." If you have messages in your mailbox, ITT says "MESSAGES WAITING."

6 Press the SEND function key (**F4** of function key set 2) to see your messages. ITT displays all of your messages. When it has finished, it displays "END OF TRANSMISSION."

7 Press **F10** to hang up. Press **F10** again to exit TelMerge and return to WordStar.

Using Interactive Mode

EXAMPLE

To send a telex using ITT telex, follow these steps:

1 Write the letter with WordStar and save the file.

2 Start TelMerge.

3 Type **ITT** and press ⏎.

4 If there is an INTERACTIVE number in your control file script, you see the prompt *Want to access interactive mode? Y/N.* Type **Y** for yes.

5   After the service answers and TelMerge logs you on, type the telex number of your correspondent followed by a + (plus sign). The systems exchange answerback codes.

6   At this point, if your correspondent is there, you could communicate back and forth in real time. Instead, you'll send a prepared document. Press the SEND key (**F4** of function key set 2), type the filename, and press ⏎. TelMerge sends your file.

7   Press the WHO ARE YOU key (**F7** of function key set 1). TelMerge verifies that you were connected during the entire session.

8   Press **F10** to hang up. Press **F10** again to exit TelMerge and return to WordStar.

Note: If you have a problem using interactive mode with a particular service, use that service's store-and-forward mode instead.

*R*eceiving Electronic Mail

The way you receive mail varies with different services. With store-and-forward telex services like ITT and RCA, you give a command after you log on to the service. The service then tells you if you have mail waiting.

With menu-driven communications services like CompuServe and MCI Mail, you are told if mail is waiting as soon as you log on to the service.

If you have mail, make sure the TelMerge logging feature is on and then ask the service to send your mail. When logging is on, all mail is saved in a file on the disk. You turn logging on and off by pressing **F7**. With telex services, however, logging is always on. Check the status line to see if logging is on.

C A U T I O N   *Make sure you have enough room on your disk for your logfile before you turn logging on. If you run out of disk space during a session, TelMerge disconnects from the service immediately to avoid loss of information. If this happens, make room on your disk and log on to the service again. Your mail is probably not lost; in most cases, the service still has it.*

Logfiles

When you turn LOGGING ON, information is saved in a logfile in the current directory (unless you change the pathname for it in your service script). Unless you specify otherwise, the filename is TELMERGE.LOG. (Logfiles for preprogrammed services have been named individually in the TELMERGE.SYS file. For instance, TELMERGE.SYS names a CompuServe session logfile CIS.LOG.) Each session is saved in its own file. Files received by TelMerge can be edited with WordStar in nondocument mode.

When you start a new session, TelMerge saves your previous session by automatically renaming the old .LOG file as .SAV. The new session is then saved in the .LOG file. The contents of the earlier .SAV file are discarded. If you want to save the logfiles of

previous sessions, rename the .LOG file at the end of each session. Choose a filename that reflects the date of your session and the service that you used, for example, JUN06.ITT.

You can use the APPEND keyword to have information from each online session added to the existing logfile without creating a new file each time. See **APPEND** in the "Keywords" chapter for more information.

You can also create prompts that ask you for a logfile name each time you call a service. To do this, type a **?** after the keyword LOGFILE in that service's script. Insert a blank line just before the LOGFILE statement and type **say Name for logfile?** See "Shortcuts with TelMerge" for more information.

Printing

If you have a "PRINT YES" statement in a control file script, you can print your session while you're online. Use the **F8** (PRINT) function key to turn printing on or off. To check the current setting, look at the status line. If you have no printer, you can direct the printed output to a disk file. See **PRINT** in the "Keywords" chapter for more information.

Talking to Other Computers

Methods of Data Transfer

If you use TelMerge exclusively for sending Email through an Email service, you don't need to read this chapter. You can always use the **F4** (SEND) function key to transfer data. However, if you intend to call a mainframe or send program files, read on.

There are two general methods of transferring data between computers:

- **ASCII transfer** allows you to send and receive standard text files. This transfer method will not work for files that contain print controls or for binary and program files. All communications programs and commercial communications services support ASCII transfers.

- **Protocol transfer** allows you to send a file with print controls in place. You can also use this method to send and receive program files.

A protocol is a set of conventions for exchanging data between two computers and checking for errors that may occur during transmission. TelMerge uses the XMODEM checksum and XMODEM CRC protocols. Both the sending and receiving computers must be running the same protocol for a protocol transfer to work.

The protocol TelMerge uses to send the file depends on the function key you send it with and the service specified in the script.

- If you specify SERVICE TelMerge and press the **F4** (SEND) function key, TelMerge uses the CompuServe A protocol.

- If you specify any other service and press **F4**, TelMerge performs an ASCII file transfer.

- If you press the **F6** (XM SND) function key, TelMerge uses the XMODEM protocol.

Talking to Mainframes

Mainframes expect to be talking to terminals, not to your personal computer. If you are simply using Email or doing ASCII file transfers, this should not be a problem. However, the mainframe may require that your personal computer emulate (behave as) one of the more common terminals. TelMerge can be set up to emulate two terminals:

- **VT100**   The DEC VT100 is a popular ASCII terminal. This is the default emulation. You don't need to add it to your script.

- **VIDTEX**   The VIDTEX (or VT52) is another ASCII terminal. If a mainframe requires this emulation, you can put the command **EMULATE VIDTEX** in your control file script.

See **EMULATE** in the "Keywords" chapter for more information.

If you have log-on problems in half-duplex mode, add these keywords to your service script: DUPLEX HALF and ADDLF NO. The ADDLF NO statement prevents TelMerge from sending a line feed after each carriage return sent from the keyboard.

Note: TelMerge may not support certain communication controls required by mainframes.

Online Databases

Online services, such as CompuServe, are large mainframe computers with local nodes distributed throughout the country.

When you send Email and simple text files to an online database, use the **F4** (SEND) function key to send in ASCII mode (without any print controls). When you do a protocol transfer, the service usually asks you which protocol you are using. If you have problems with transmissions (losing characters, etc.) see **BAUD** and **LINEDELAY** in the "Keywords" chapter.

Talking to Another Personal Computer

With TelMerge, you can communicate with personal computers and computer "bulletin boards" that use any asynchronous communications software. You add these services to TelMerge just as you would any other new service. If the other computer is also using TelMerge, see "Talking to Another TelMerge User" later in this chapter.

Use the SEND function key to send ASCII files. For other files, use a protocol transfer (XMODEM CRC or checksum). Modify your TELMERGE.SYS file as follows. First add the new service name (either "ORIGINATE" or "RECEIVE" in our example) to your TELMERGE.SYS menu, then add these scripts:

ORIGINATING COMPUTER		**RECEIVING COMPUTER**	
Label	ORIGINATE	Label	RECEIVE
Say	Originating Computer	Say	Receiving Computer
Number	(number of other computer)	Modem	ANSWER
End		End	

1   If you are the receiving computer, set the modem switch setting for auto-answer to ON, restart your modem (to reinitialize it), start TelMerge, and type **receive** (or whatever name you chose). Then wait for the originating computer to call and establish communication. The modem is placed in answer mode.

   If you are the originating computer, wait until the receiving computer is set up. Then start TelMerge and type **originate** (or whatever name you chose). TelMerge dials the number. The receiving computer answers the call and the two computers connect.

2   To talk with the other computer, type your message. Messages are transmitted.

   To send an ASCII file, press the **F4** (SEND) function key, type the name of a file to send, and press ↵.

   For protocol transfers, tell the remote system that you are about to send a file. When the system indicates that it is ready, press the **XM SND** function key (**F6** of function key set 2) and type the filename (when prompted).

   The default protocol is XMODEM checksum. To use XMODEM CRC protocol, put PROTOCOL XMCRC in the control file script. See **PROTOCOL** in the "Keywords" chapter for more information.

   When the transfer is complete, TelMerge indicates that it was successful.

3   Receiving an ASCII file is automatic. To receive a file via protocol transfer, tell the remote system to initiate a file transfer. When the system indicates that it is ready, press the **XM REC** function key (**F5** of function key set 2) and type the filename (when prompted).

4   The originator or receiver presses **F10** twice to disconnect.

With an ASCII file transfer, you can see the text on your screen as it comes from the modem; if you have LOGGING ON, the file is stored to disk. With a protocol transfer, incoming data is captured in a buffer and written to disk without being displayed onscreen. Instead, the status line displays, for example, *RECORD #4.*

Using Your Personal Computer for Data Collection _____

With the TelMerge auto-answer ability, you can set up your personal computer to receive data automatically. For example, sales staff can call in reports and data.

ASCII File Transfers

To use your personal computer for data collection, add a control file script with this information:

```
Label        COLLECT (or whatever)
Say          Now ready for data collection
Service      TELMERGE
Logfile      COLLECT.LOG
Modem        ANSWER
Duplex       HALF
End
```

With your modem in answer mode, TelMerge treats all incoming calls as one session, adding each call to the same logfile. If your correspondents are using TelMerge and add the following script to their control files, each file they send you creates a new file on your disk. If this is the case, run TelMerge from a directory that has no files in it that you want to save, since files sent to you will overwrite files with the same name on your disk.

```
Label        CALLHOME (or whatever)
Say          Now calling home office for file transfer
Service      TELMERGE
Duplex       HALF
Number       (your phone number)
End
```

Protocol Transfers

In protocol transfers, if a caller tries to send you a filename that already exists on your disk, the file on your disk is overwritten.

C A U T I O N If you expect a lot of incoming calls through TelMerge, be sure your disk has plenty of space to accommodate incoming files. If your disk fills up, the caller is disconnected and all subsequent connections fail.

Talking to Another TelMerge User _____

If you are communicating with another computer that is running TelMerge, set up your script as follows.

```
Label        TMERGE2
Say          Now connected to another TelMerge user
Service      TELMERGE
Duplex       HALF
End
```

Protocol transfers between two computers running TelMerge use the CompuServe A protocol.

If you are sending files to the other computer, type the name to give to the file when it reaches the remote computer.   You can use the wild-card character * to send multiple files with the same extension (*.DOC) or all the files in a directory (C:\DOCS*.*). During a personal-computer-to-personal-computer transfer, the user who presses the SEND function key provides the filename for the other user.

You can use TelMerge to transfer files directly between computers (without modems) if the serial ports of the computers are connected by a special serial cable adapter. Both computers must have TelMerge. Set up the control file scripts as follows.

```
Label       DIRECT
Say         Now set up for direct connection
Service     TELMERGE
Modem       DIRECT
Duplex      HALF
End
```

The direct transfer procedure is the same as for a transfer over the telephone. See "Talking to Another Personal Computer" earlier in this chapter for more information.

A Summary of Techniques to Send and Receive Files ___

Send (F4)   Sends ASCII files. (When contacting another TelMerge user, **F4** uses the CompuServe A protocol.)

XmSnd (F6)   Uses the current protocol (the one set in the service script) to send a file to a service or to a personal computer that is not using TelMerge.

XmRec (F5)   Uses the current protocol (the one set in the service script) to receive a file from a service or from a personal computer that is not using TelMerge.

No action is required to receive an ASCII file. When you contact another TelMerge user, no action is ever required to receive a file.

Shortcuts with TelMerge

This section contains some suggestions for customizing TelMerge for your personal needs. The shortcuts are most useful if you are using the TELMERGE.SYS file to call your services. The shortcuts in this section include

■ programming function keys

■ reprogramming TELMERGE.SYS:
  prompting for a password
  prompting for a logfile name
  prompting for printer or disk output

■ automating an online session

■ exiting while online

■ using Snap Shot and ShoFil

Programming Function Keys _____

You can customize **F7** and **F8** of the online function key set 2 for each service you use. In this example, the **F7** function key (FK1) is programmed to check mail on the CompuServe EasyPlex service.

1 Use WordStar to edit the TELMERGE.SYS file.

2 Page down until you come to the section that begins *Label CIS.*

3 At any point after the *Say* statement, press ⏎ to insert a blank line.

4 On the blank line, type **fk1r,email go_mail**.

5 Save the file.

What does **fk1r,email go_mail** mean?

- **FK1** stands for the **F7** function key. The **R** sends a carriage return at the end of the command.

- When you are online with CompuServe, **Email** is the new label for the **F7** function key (at the bottom of your screen).

- **Go_mail** (followed by ⏎) is the command issued when you press **F7** while logged on to the CompuServe EasyPlex electronic mail service.

You can program **F7** and **F8** to send commands, passwords, or other information while online. They can have different functions for each service.

*R*eprogramming *TELMERGE.SYS* _____

TelMerge has a built-in scripting language with conditional commands like **IF** and **ELSE**. The following examples demonstrate the use of this scripting language.

EXAMPLE

Here is an example of reprogramming TelMerge to prompt you for a password.

```
Say Password?
Hold ?
If =MyPassword
Goto GoodPassword
Else
Say Sorry. Incorrect password.
Exit
EndIf

Label GoodPassword
Password !
```

EXAMPLE

Here is an example of reprogramming TelMerge to prompt you for a logfile name. Insert the following lines into the appropriate section of your control file just after the Label line that gives the service name.

```
Logfile MYFILE.LOG
Say What would you like to call this session's logfile?
Say
Say Type a filename and press Enter,
Say or press Enter to use the filename "MYFILE.LOG."
Say
Hold ?

Logfile !
```

EXAMPLE

Here is an example of reprogramming TelMerge to prompt you for printer or disk output.

```
Print MYFILE.PRN
Say Type the name to use
Say for the diskfile
Say (Type P to use the printer)
Hold ?
If =P
Print YES
Else
Print !
Endif
```

*A*utomating an Online Session

You can use the TelMerge keywords to issue commands automatically, so you have a minimal amount of typing to do. Here are some examples.

Changing the Log-on Script

TelMerge issues the commands in its control file in a particular order (see the "Keywords" chapter for a full listing). If you have a service that needs information in a different order—or one that calls for input that TelMerge doesn't understand—use the LOGON keyword to customize your log-on sequence.

Suppose that you subscribe to a service that requires you to log on by giving (in order) the network identification number, your first name, your last name, and your password. The LOGON keyword is designed to handle this. You would type the following line into your control file:

LOGON *networkid\firstname\lastname\password*

Each vertical bar (I) in the LOGON command tells TelMerge to issue a carriage return and wait for a prompt from the service before continuing.

Since LOGON is one of the last keywords that TelMerge checks, remove the lines containing the network identification and your password from the control file script before using this new version.

Automating an Entire Session

TelMerge can automatically call a service and request the information you need. You can even make several automated calls in sequence without pressing any keys in between. The following keywords work together to create an automated session. (They are described in more detail in the "Keywords" chapter.)

KEYWORD	DESCRIPTION
CALL	Dials the service now
WAIT *word*	Waits for this word from the remote service (after logging on)
SEND *word*	Sends this word (or words) to the service
PAUSE *secs*	Waits this number of seconds for the service to start sending
QUIET *secs*	Waits until the serial line is quiet for this number of seconds
FILESEND *filename*	Sends the specified file
LOGGING ON or OFF	Turns logging on or off at this point in the session
PRINT ON or OFF	Begins or ends printing at this point in the session
HANGUP	Hangs up the phone

In an automated session, when TelMerge finds a CALL keyword, it dials the service using the preceding information. Then the script keywords are executed. When it reaches HANGUP, it looks at the next script to see if it contains a CALL keyword. If it does, TelMerge calls that service. Otherwise, it exits the service and goes to the TelMerge Communications Menu.

If you press any key but **F10** during an automated session, TelMerge terminates the call and switches to normal interactive mode. If you press **F10** during an automated call, the current script (including any other calls that follow in the script) is canceled, and the phone is hung up. You can automate part of a session and then continue it in interactive mode by leaving out the HANGUP keyword after the last CALL keyword.

EXAMPLE

Here is an example of an automated session.

```
Service mci
Print yes
Number (800)123-4567
Baud 2400
Userid kputman

Logging on
Call
Wait command:
Send dowj
Wait query
Send //djnews
Wait help
Send .I/EDP 01
Pause 2
Quiet 1
Send ^M
Pause 2
Quiet 1
Send //cqe
```

```
Wait query
Send wstar
Wait return.
Send f
Pause 2
Quiet 1
Send disc
Wait command:
Send exit
Hangup
```

Exiting While Online

While you're online, you may want to check a file before sending it. With TelMerge, you can exit a service while online without logging off. To do this, press the **F9** (Edit) function key, while you're online. You return to the WordStar Opening screen. When you are ready to reconnect, restart TelMerge and press the **F8** (Go Online) function key. Select the service from the menu. You can skip the automatic log-on process (by pressing any key after you reconnect), since the remote computer thinks you have been logged on all the time.

To go to DOS while you're online, press the **F3** (DOS) function key of set 2. You can use any DOS command or run another program. When you're finished, press **Esc** to return directly to your online session.

Using Snap Shot and ShoFil

Use the **F5** (SnapSh) key to save the current screen in your logfile or in memory. You can save up to five screens in memory, but they are saved for the current session only. Use the ShoFil function key to look at any file while you're online.

You can use Snap Shot during ShoFil. For example, if a service displays a list of files available for downloading, turn logging on, and ask the service to display the list. Logging saves the display on disk. Then press the **F8** (ShoFil) function key and ↵ to view the logfile. Take snap shots of the parts of the list that interest you. Then use the Recall function to display them. Find the file you want to download.

You can use the ShoFil function to create a customized help screen. Edit the previous log file in WordStar to display the information you want to see while you're online. For example, you can consolidate all the commands for a given service onto one screen. Copy that screenful of information to a file with a descriptive name, like CISHELP.DOC. Then, when you're online with that service, use ShoFil to view the screen whenever you want.

You can also use ShoFil to review the logfile of the current session. To do this, press **F8** (ShoFil) and then press ↵.

Keywords

Keywords determine the actions that TelMerge takes. All the TelMerge keywords are listed in this section, with explanations and examples of their use. See "Calling a Service with TelMerge" for more information on using each keyword. Press **F1** to display the current settings for keywords while you're using TelMerge.

How Keywords Are Sent

This list shows the order of keywords sent in a call. The NUMBER keyword is required; all others are optional. See individual entries for default values for the optional keywords (except USERID, HOSTID, FILESEND, and PASSWORD).

KEYWORD	DESCRIPTION
PREMODEM	
INIT	Modem initialization
INIT2	Additional modem initialization
PREFIX	Dial—default ATDT
NUMBER	Or INTERACTIVE if interactive telex
SUFFIX	Wait for carrier reply from modem
ATTENTION	
ATDELAY	Wait this many tenths of a second
ATTENTION	If more than one in control file
TERMINAL	If network
HOSTID	If network
USERID	Or ANSWERBACK for Telex
PASSWORD	
LOGON	

KEYWORD	DESCRIPTION
FILESEND	In a normal session, TelMerge enters interactive online mode. In an automated session, CALL, WAIT, SEND, PAUSE, QUIET, FILESEND, and HANGUP take effect. Press **F10** to hang up the phone, unless there is a HANGUP keyword after the CALL keyword.
HANGCOM POSTMODEM	Modem hangs up

Special Characters

The following special characters can be used with TelMerge keywords.

CHARACTER	FUNCTION
{	Subsequent characters on the line are ignored. Use this symbol to add comments to the control file.
?	Waits for your response from the keyboard. If followed by a number, your response is limited to that number of characters. When used with HOLD, puts the character(s) you type into a memory buffer. You can use a ! to assign these characters later as an entry for a keyword. (See the **HOLD** keyword.)
!	Assigns the contents of the buffer to the preceding keyword.

Entries for the modem keywords (INIT, INIT2, PREMODEM, POSTMODEM, HANGUP) and log-on keywords (TERMINAL, HOSTID, USERID, PASSWORD, LOGON) can include the following special characters.

CHARACTER	FUNCTION
\d	Causes a delay of one second.
^	Sends the next character as a control character. **^E** sends a Ctrl-E.
^^	Sends a caret (^) to the remote service. When the caret is the last character of a string, no carriage return is sent after that string. For instance, **SEND Y^** sends the letter Y without a carriage return.

Ctrl-M and a carriage return are interchangeable. To send one carriage return, type **^M^**. Without the last **^**, a carriage return is added after the string **^M**, resulting in two carriage returns.

Keyword Listing

ADDLF   Tells TelMerge whether to send a line feed following a carriage return entered from the keyboard.

Usage: ADDLF YES
                ADDLF NO

Use for logging on to some half-duplex services such as the legal service LEXIS. Without ADDLF NO, a service may not respond when you press ↵ or it may hang up.

ANSWERBACK   Issues your personal ID code at a *Who are you* request (used by *telex systems only*).

Usage: ANSWERBACK *string*

Example: ANSWERBACK Charlie

Telex-based services request your user identification to verify that you dialed correctly. The code you type for the answerback string (up to 30 characters) is provided by the service when you register.

APPEND   Adds information from new sessions to the named logfile, without starting a new one.

Usage: APPEND YES
                APPEND NO   (default)

Use APPEND in automated sessions when you make several calls, or to avoid renaming .LOG files to save them.

ATDELAY   Pauses before sending first character to a service.

Usage: ATDELAY *tenths of seconds*

Default: ATDELAY 5

Some networks require a delay before the first character (usually the ATTENTION character—see **ATTENTION**) can be received. If the service doesn't respond when you first call, increase the setting to ATDELAY 20 or ATDELAY 30.

ATTENTION   Issues any special characters required by a service at the beginning of transmission.

Usage: ATTENTION *character*

Example: ATTENTION ^C
                (sends Ctrl-C)

                ATTENTION ^M
                (sends Ctrl-M or carriage return)

To specify more than one ATTENTION character, put each one on a separate line following the keyword. You can specify a maximum of six. Supplied automatically for preprogrammed services and if NETWORK keyword is used.

AUTOLOG   Turns automatic log-on on and off.

Usage: AUTOLOG YES (default)
                AUTOLOG NO

If you are testing a new control file script, you may want to disable the automatic log-on process by specifying AUTOLOG NO.

BAUD   Sets the rate at which information is transmitted between two devices.

Usage: BAUD 110
                BAUD 300
                BAUD 1200
                BAUD 2400 (default)
                BAUD 4800
                BAUD 9600

TelMerge can use six different baud rates. The lower the baud rate, the slower the rate of transmission. When an information service supports various baud rates, there may be different phone numbers and charges for each setting.

BITS   Sets the number of bits sent for each character.

Usage: BITS 7
                BITS 8 (default)

Already set internally for preprogrammed services. Change as needed when you add a new service.

CALL   Used instead of END in automated sessions to call the service.

Usage: CALL

All information for contacting a service should be above the CALL keyword in the script. When CALL is encountered, TelMerge calls, attempts to log on, and then executes any subsequent keywords in that script. (See **END**.)

CLS (Clear Screen)   Clears the display.

Usage: CLS

Returns the cursor to the upper-left corner of the screen.

DUPLEX   Determines which computer controls the onscreen display of characters you type.

Usage: DUPLEX FULL (default)
                DUPLEX HALF

Characters you type can be displayed onscreen by your computer or by the host computer. FULL DUPLEX means the host computer "echoes" your characters to the screen as you send them. HALF DUPLEX means your computer echoes the characters. Preprogrammed services already have the proper DUPLEX setting.

ELSE   See **IF**.

EMULATE   Enables monitors to behave like different terminals.

Usage: EMULATE VT100 (default)
                EMULATE VIDTEX
                EMULATE NONE

Use this keyword to emulate a mainframe terminal. VT100 (ANSI standard) is a widely used terminal. See also **FULLSCREEN**.

VT100 emulation accepts and displays ANSI standard sequences for cursor movement, colors, and special attributes. These sequences include foreground color, background color, high intensity, foreground/background reverse, and underlining. Some electronic bulletin boards use these sequences to display color screens with highlighted text.

VIDTEX (VT 52) emulation accepts and displays sequences for cursor movement and printer enabling and disabling.

END   Ignores subsequent commands in a control file script and runs it.

Usage: END

TelMerge starts at the service label, reads in the keyword commands up to the END command, and calls the service. END is similar to the CALL keyword. CALL is used for automated sessions, and END is used for interactive sessions.

ENDIF   See **IF**.

EXIT   Stops and returns to WordStar.

Usage: EXIT

Use with IF/ELSE to end a session if certain conditions are not met. See **IF.**

FILESEND   Sends an ASCII or WordStar file that you specify.

Usage: FILESEND *filename*

Example: FILESEND \MEMO.WS

In interactive sessions (no CALL keyword included), the file is sent after you are logged on to the service. In automated sessions, the file is sent when TelMerge encounters the FILESEND command.

FIRST   Waits for a particular character from the remote service before displaying characters onscreen.

Usage: FIRST *character*

Example: FIRST p

Some services send a series of characters before the prompt you need to read. Use FIRST to specify the first character you want to display. In the example, the first text displayed is *Please log in*, because "p" was specified as the first character to display.

FK   Programs a Function **K**ey (**F7** or **F8** of function key set 2) to issue a specified com-mand.

Usage: FK1,*label space string*
              FK2,*label space string*
              FK1R,*label space string*
              FK2R,*label space string*

Example: FK1R,Email GO_Mail

In the example, Email defines the screen label for function key **F7**. R sends a carriage return at the end of the command. Go_Mail is the command—go to the electronic mail menu.   FK1 represents **F7** and FK2 represents **F8**. Commands can be up to 60 characters long. You can program these keys differently for each service.

FULLSCREEN   Works with EMULATE to allow better VT100 or VIDTEX screen emulation.

Usage: FULLSCREEN YES
                FULLSCREEN NO (default)

Removes the status line at the top of the screen to display 24 lines. When you toggle logging (**F7**) or printing (**F8**) on or off while in FULLSCREEN mode, the status line is temporarily displayed to show this change. Then the status line is overwritten or scrolls off the screen.

GOTO   Goes to a LABEL in the control file.

Usage: GOTO *label name*

Example: GOTO Menu

GOTO and LABEL are always used together.

GRAPHIC   Uses the extended character set for graphic display.

Usage: GRAPHIC YES
                GRAPHIC NO (default)

The extended character set is used by some electronic mail services and bulletin boards to enhance screen displays.

HANGCOM   Gives hangup instructions to the modem.

Usage: HANGCOM *string*

Default: HANGCOM ATH

The command ATH tells your modem to hang up. If your modem uses a different hangup command, use HANGCOM to specify it in your control file. (See **USEDTR** for more information.)

HANGUP   Used in an automated session to hang up the phone.

Usage: HANGUP

To add another call to the automated session, use the NUMBER keyword after HANGUP. Specify any keywords that differ from those in the last call. Then type the CALL keyword. (See **CALL** for more information.)

HARDCOPY   See **PRINT**.

HOLD   Waits for user input from the keyboard, and stores the response in a buffer.

Usage: HOLD ?

A buffer stores information temporarily. Test the buffer contents with the IF and IFNOT keywords. You can use the information in the buffer as the response to another keyword by typing **!** after the keyword. Stores up to 80 characters.

HOSTID   Issues the host ID code.

Usage: HOSTID *string*

Default: No HOSTID is sent

Example: HOSTID XYZZY

HOSTID (up to 30 characters) is the network's internal "phone number" for the service you are calling. Include it if you use NETWORK in the script.

IF, IFNOT, ELSE, ENDIF   Tests for a specific condition and proceeds accordingly.

Usage: IF *string*
                     IFNOT *string*
                     ELSE
                     ENDIF

Example: See "Reprogramming TELMERGE.SYS" in the "Shortcuts with TelMerge" chapter

Use together to create program logic for TelMerge.

IFNOT   See **IF**.

INCLUDE   Interrupts the current script and runs the script in the included file.

Usage: INCLUDE *filename*

Example: INCLUDE SCRIPT.SYS

Use INCLUDE to pass control between several files. When the included script is completed, TelMerge returns to the original script at the line following the INCLUDE keyword. Use as many INCLUDE statements as you want and nest up to four files.

INIT   Initializes the modem before a call is made.

Usage: INIT *string*

Default: INIT ATE1

Specify the initialization string for your modem if it differs from the default. In the default, AT prepares the modem for a command; E1 echoes input to the screen. A carriage return follows the string. A \d with INIT adds a delay of one second. (See "Special Characters" at the beginning of this section.)

INIT2   Adds other initialization information.

Usage: INIT2 *string*

Example: INIT2 ATS 7=20

The string sent by INIT2 follows the INIT string. The example sets the number of seconds TelMerge will wait for a carrier signal after dialing. (The Hayes default is 20 seconds.)

INTERACTIVE   Specifies the phone number of a telex real-time (interactive) service.

Usage: INTERACTIVE *phone number*
                INTERACTIVE P *phone number*

Example: INTERACTIVE 9 (800) 555-1212

Numbers specified can be up to 30 characters long. Include any dialing prefix required by your PBX system and the area code.

The default dialing mode is tone dialing. The "P" preceding the number in the second usage form indicates pulse dialing to the Hayes Smartmodem.

See your modem manual for information about special punctuation marks. For the Hayes Smartmodem, a comma creates a two-second delay. This is useful for dialing out of a local PBX, which requires a second dial tone.

LABEL   Marks a position in the control file as a destination for a GOTO keyword.

Usage: LABEL *label name*

Example: GOTO MCI
             :
             LABEL MCI

Each GOTO statement must have a corresponding LABEL. Labels can be up to 80 characters long.

LINEDELAY   Pauses after each line sent with the **F4** (SEND) function key.

Usage: LINEDELAY *tenths of a second*

Example: LINEDELAY 3

Use LINEDELAY if the receiving computer cannot keep up with your SEND speed. In the example, TelMerge waits three tenths of a second after each carriage return before sending the next line.

LOGFILE   Names the file that records an online session.

Usage: LOGFILE *filename*

Default: LOGFILE *telmerge*.log

Example: LOGFILE MCI.LOG

With logging on, the online session is recorded in the current directory (unless you specify a pathname for it). The name of the logfile defaults to the service name and a .LOG extension. The previous logfile is saved to a .SAV file. The .SAV file from the session before that is overwritten.

LOGGING   Sets the initial status of the logging function.

Usage: LOGGING ON (default)
             LOGGING OFF

When logging is on, a logfile is opened and incoming information from an online session is recorded. You can turn logging on or off during any online session with the LOG function key (**F7** of function key set 2).

LOGON   Automates the log-on process and much of an online session.

Usage: LOGON *string*|*string*|*string*

Example: LOGON Joe|Smith|*password*|^M^|^M^|f

LOGON replaces the USERID, PASSWORD, TERMINAL, and HOSTID keywords. It automates the session up to the point of logging. You can automate the rest of the session with CALL, WAIT, and SEND. LOGON can have up to 80 characters.

In the example, LOGON logs Joe Smith on to a bulletin board service that prompts with *First Name?, Last Name?, Password?, Want to see bulletins? (carriage return for no), Want messages?,* and, finally, a menu in which " f " goes to the file section. The vertical bar character (l) after each item in the string sends a carriage return and waits for the next prompt. (See the **PROMPT** keyword.)

MODEM   Defines the type of modem you are using.

Usage: MODEM AUTOMATIC (default)
                MODEM ACOUSTIC
                MODEM DIRECT
                MODEM ANSWER
                MODEM HAYES
                MODEM HAYES 2400

The default is a Hayes Smartmodem that automatically dials and answers. Use MODEM HAYES 2400 if you are using the Hayes Smartmodem 2400.

For an acoustic modem, change the response to ACOUSTIC and dial the service manually. TelMerge resumes operation after the connection is made. *Note:* If the setting is MODEM ACOUSTIC, AUTOLOG is set to NO for that service, even if you specify AUTOLOG YES in that script. Once the telephone connection is made, you must complete the log-on procedure yourself.

For a direct-cabled connection (without modems), change the response to DIRECT.

For a personal-computer-to-personal-computer transfer, change the response to AUTOMATIC or ANSWER. See "Talking to Another Personal Computer."

NETWORK   Specifies a network to use to contact a particular service.

Usage: NETWORK TYMNET
                NETWORK TELENET
                NETWORK UNINET

A network allows you to reach a service with a local phone call rather than with a long distance one. If you use the NETWORK keyword, you must use HOSTID as well, but you don't need the ATTENTION and TERMINAL keywords.

NUMBER   Specifies the telephone number for a service.

Usage: NUMBER *phone number*
                NUMBER P *phone number*

Example: NUMBER 9,,(201)555-1212
                NUMBER P9,,(201)555-1212

NUMBER can be up to 38 characters long. Include any dialing prefix required by your PBX system and the area code. The commas shown in the examples create two-second delays for a PBX that requires a second dial tone. See your modem manual for more information about special punctuation marks.

If you have call waiting and your local telephone company provides a way to disable it, you can add the call waiting cancel code to the NUMBER string. Put it before the area code of the service number. Call waiting is reinstated as soon as the HANGUP signal is issued.

The default dialing mode is tone dialing. If you have a Hayes Smartmodem, which requires pulse dialing, type a **P** after the NUMBER keyword.

PARITY   Specifies an error-checking procedure.

Usage: PARITY NONE (default)
                PARITY ODD
                PARITY EVEN
                PARITY ZERO
                PARITY ONE

This keyword is already set internally for preprogrammed services. For new services, change the response to the setting required by that service.

PASSWORD   Issues your password to a service automatically.

Usage: PASSWORD *string*

Example: PASSWORD BLUEFOX

Passwords can be up to 30 characters long. If you don't want to include passwords in your control file scripts, type the following lines to have TelMerge prompt you for your password just before logging on to the service.

```
SAY What is your password
PASSWORD ?
CLS
```

PAUSE Pauses for the number of seconds you specify to allow the remote service to begin sending.

Usage: PAUSE *number of seconds*

Example: PAUSE 3

Use PAUSE in an automated session when you don't know how the service will respond. Use PAUSE in conjunction with QUIET to insure that the service is finished sending characters. In this example, TelMerge waits three seconds before proceeding to the next instruction in your script.

PORT Specifies the port on your computer that TelMerge will use to communicate.

Usage: PORT COM1 (default)
                PORT COM2

If you use the COM1 port for your printer, connect TelMerge to the COM2 port and change the entry for PORT to COM2.

POSTMODEM Sends a string of characters to an electronic switch after a call is made.

Usage: POSTMODEM *string*

Example: POSTMODEM ATE1V1^M

Use POSTMODEM to initialize the modem for the next user. If a PREMODEM command tells switching equipment to use modem 3, POSTMODEM can unhook modem 3 to make it available.

In the example, "ATE1" leaves the modem in echo mode. "V1" uses long responses (words) instead of single characters. The "^M" is needed because neither PREMODEM nor POSTMODEM automatically sends a carriage return.

PREFIX Specifies a condition for dialing a phone number.

Usage: PREFIX *string*

Default: PREFIX ATDT

Example: PREFIX ATM0DT

The Hayes Smartmodem dials the "Dial String," which consists of the prefix, the number, and the suffix.

Entries for the PREFIX keyword can be up to 30 characters long. Begin each one with AT and end with a dial command (DT for tone dialing or DP for pulse dialing). In the example, M0 (zero) silences the modem's speaker during dialing. Check your modem manual for more information about dialing prefixes.

PREMODEM Sends a string of characters to the communications port before the modem initialization string is sent.

Usage: PREMODEM *string*

Example: PREMODEM ^Z\d\d\d

A premodem command (up to 32 characters) can be sent to an electronic switch connecting several modems, a corporate phone system with built-in modems, or a modem that requires a special command before normal Hayes-type initialization.

Use ^ to specify control characters and \d to specify a one-second delay. (See "Special Characters" at the beginning of this chapter.)

In the example, a Ctrl-Z (required by some phones with built-in modems) is sent, followed by a three-second pause (one second for each \d).

PRINT Records an online session on your printer or in a disk file.

Usage: PRINT YES
            PRINT *filename*
            PRINT *port*
            PRINT NO (default)

Example: PRINT LPT2

PRINT YES sends a record of your session to your default printer. PRINT *port* sends the information to a printer connected to a different port. PRINT *filename* sends the information to a disk file with that name.

If PRINT is set to YES, turn printing on and off with the **F8** (PRINT) function key. Before you begin printing, be sure that your printer is ready and has enough paper.

Printing is initially ON for preprogrammed telex services. Printing begins as soon as you connect with the service. You can turn it off and on again with **F8**.

PROMPT   Adds new characters to the prompts TelMerge recognizes.

Usage: PROMPT *character*

Example: PROMPT J

A prompt is used by the remote service to tell you that it's waiting for your response. For example, in the phrase "Command :" the colon (:) is a prompt, since it is the service's signal that it is ready for you to respond.

These prompt characters are recognized by TelMerge: @, :, =, !, ?, >, ^, and Q. Use PROMPT to add up to nine new prompts. Prompts can be up to 14 characters long.

PROTOCOL   Changes the file transfer protocol.

Usage: PROTOCOL XMCRC
                PROTOCOL XMCHK (default)

F5 of function key set 2 (XM REC) defaults to XMODEM checksum protocol. To use the CRC protocol, add PROTOCOL XMCRC to the service script.

QUIET   Waits until no character has been received from the remote service for a specified number of seconds before sending new information.

Usage: QUIET *number of seconds*

Example: QUIET 3

Use in conjunction with PAUSE in automated sessions. In this example, TelMerge waits until no characters have been received for three seconds before following the next instruction in your script.

SAY   Displays the subsequent text on that line when you run TelMerge.

Usage: SAY *string*

Example: SAY Check the printer
                SAY
                SAY and press ↵
                SAY to continue
                HOLD ?

Each SAY command can be up to 80 characters long. Create blank lines by using SAY alone with no text.

SEND   Sends a string of characters and a carriage return to the service.

Usage: SEND *string*

Example: SEND //NEWS

In the example, the word NEWS is sent to the remote service, followed by a carriage return. (The slashes are part of an MCI command.) Use SEND in automated sessions.

SERVICE   Logs on to a particular service automatically.

Usage: SERVICE CIS   CompuServe
                SERVICE ESL   EasyLink
                SERVICE ITT   ITT Telex/TIMETRAN
                SERVICE MCI   MCI Mail
                SERVICE OAG   Official Airline Guides
                SERVICE ONT   ONTYME Messaging Service
                SERVICE RCA   RCA Telex/TELEXTRA
                SERVICE Telmerge   Another TelMerge user

SERVICE is a description of your communications service (up to 32 characters long). It appears in the status line when you are connected to that service. Any service not listed here can be added with the SERVICE keyword. (See "Adding a New Service to TELMERGE.SYS.")

If you add a new service without specifying a service name, TelMerge displays *Remote System* when you connect with that service.

STOPS   Sets the number of stop bits.

Usage: STOPS 1   (default)
                STOPS 2

This keyword is already internally set for preprogrammed services. Check the service requirements for this setting when adding a new service. The default setting works for most services.

SUFFIX   Issues a post-dial command to the modem.

Usage: SUFFIX *string*

Default: A carriage return is sent

Example: SUFFIX M1

SUFFIX (up to 30 characters) follows NUMBER. In the example, "M1" turns on the modem speaker after the number is dialed. This is useful if you use PREFIX to tell the modem to be silent *during* dialing, but you want to hear busy or no-answer signals when dialing is completed.

The Hayes Smartmodem dials the "Dial String," which consists of the PREFIX, NUM-BER, and SUFFIX keywords. See your modem manual for more information.

TERMINAL   Specifies your terminal type.

Usage: TERMINAL *string*

Example: TERMINAL A

During an automatic log-on to a network, TERMINAL (up to 6 characters) specifies the equipment you are using. Do not use TERMINAL with a preprogrammed NETWORK keyword, since these terminal settings are already internally programmed into TelMerge.

TRY   Specifies how many times to redial a busy number before giving up and return-ing to WordStar.

Usage: TRY *number from 1 to 99*

Default: TRY 2

Example: TRY 9

When a number is busy, TelMerge does not redial immediately. It waits until the dial-ing clock registers about 45 seconds.

USEDTR   Controls how TelMerge hangs up the modem.

Usage: USEDTR YES
                USEDTR NO (default)

You can use this keyword with modems that have a switch that uses the DTR serial port signal to hang up. The Hayes 2400 modem can use the DTR switch, but it requires special initialization. For this modem, use the INIT2 keyword ("INIT2 AT&D3"). If the phone doesn't hang up when it should, add **USEDTR YES** to your control file script and set the modem switch to use DTR. (See also **HANGCOM.**)

USERID Issues your identifying name when you log on to a communications service.

Usage: USERID *string*

Example: USERID 1456

When you subscribe to a communications service, you receive a user ID code (up to 30 characters long) that you must send each time you call the service.

WAIT Waits for a particular string from the remote service before continuing with the next instruction.

Usage: WAIT *string*

Example: WAIT Command:

In this example, "WAIT Command:" tells TelMerge to wait until the word "Command:" is received from the remote service before proceeding. Use WAIT for automated sessions.

Troubleshooting

This section lists some commonly reported TelMerge problems and their solutions.

CAUTION   Some problems have been reported in running TelMerge with RAM-resident programs. If you have problems using TelMerge, disable any RAM-resident programs you have. To do this, you may need to remove the commands in your AUTOEXEC.BAT file that start these programs. Then reboot your computer and run TelMerge.

Connection Problems

The modem dials the phone, but there is no answer.

The telephone number in the script for this service is probably incorrect. Be sure to include the appropriate prefix ("9" for a PBX or "1" for long distance) and the area code.

The modem dials and connects, but TelMerge doesn't log on to the service.

There may be something wrong with the script for that service. You may have typed the wrong user ID or password, or specified the wrong baud rate setting for your modem. See the "Communications Services" chapter and edit the control file. You can also try increasing the character delay. Set the ATDELAY keyword to 20 or 30. (See **ATDELAY** in the "Keywords" chapter.)

Transmission is erratic, or is cut off when sending a document to a service.

The end-of-document marker for that particular service may have been inadvertently included somewhere in the text of the message. For instance, MCI uses a slash (/) to indicate the end of a letter. Edit the document and remove the offending character(s). See the information packet from your service for more information.

Also, check the LINEDELAY keyword in your control file script. Try increasing the LINEDELAY setting to 10. (See **LINEDELAY** in the "Keywords" chapter.)

When connecting to a service, everything freezes.

Perhaps the keyword in that script is set for PRINT YES, but when you connect to the service, your printer is turned off. Turn on your printer and try again. This can also happen if you run TelMerge while using a RAM-resident program. Disable any RAM-resident programs, reboot your computer, and run TelMerge again.

Screen Display Problems

During a session, none of the characters typed appears on the screen.

The service you are using requires half duplex. Edit the control file and add the line **DUPLEX HALF** to the service's script.

During a session, each character typed appears twice on the screen.

The service you are using requires full duplex. Edit the control file and replace DUPLEX HALF with **DUPLEX FULL** for that service's script.

The screen fills with random characters when connected to a service.

The baud rate of the service and the baud rate of your computer don't match. The baud rate information for the service is in the packet that the service sent you. Edit the service's script in the control file and specify the proper baud rate.

During a telex service session, lines in the text wrap before the end of the line.

Telex services allow fewer than 80 characters across the page. Use a right margin of 65 in document files to be safe.

File Problems

The logfile is erased each time a new session is initiated.

TelMerge renames the previous logfile *logfile*.SAV at the beginning of each new session. The same logfile name is used for every session and is specified in the script for that service after the keyword LOGFILE. If you want to keep old logfiles, rename the file after each session or add APPEND to the scripts whose logfiles you want to save. (See **APPEND** in the "Keywords" chapter for more information.)

Printing Problems

Documents do not retain print commands like bold, underline, and overstrike when sent.

Because of compatibility constraints, TelMerge strips all print commands from WordStar document files, unless you use a protocol transfer. The balance of the document is transmitted faithfully.

CAUTION If you are sending files that you created with another word processor, and these files contain print enhancements, you must use a protocol transfer. Otherwise, serious problems could occur.

During a telex service session, certain punctuation marks don't appear in the document received.

The character set for telex is a subset of the typewriter character set. Generally, lowercase characters are converted to uppercase. Certain punctuation marks are discarded during the transmission, and others are converted. The communications service representative can supply more specific information.

TelMerge Function Keys

TelMerge Communications Menu Function Key Assignments

FUNCTION KEY	LABEL	PURPOSE
F1	Help	Displays TelMerge function keys and current settings
F5	Other	Creates a new service file or allows you to specify an existing one
F8	Go Online	Returns to a service after you go offline temporarily
F10	Exit	Exits the service

Online Function Key Assignments—Set 1

FUNCTION KEY	LABEL	PURPOSE
F1	Help	Explains each function key
F2	Set2	Switches between function key sets 1 and 2
F3	UserID/Hereis	Sends the user identification code you typed in this service's script to the service
F4	PassWd/Mail	Sends the password you typed in this service's script to the service. (For telex services, gets messages)

FUNCTION KEY	LABEL	PURPOSE
F5	SnapSh	Saves current screen in logfile or in memory. Saves up to 5 screens
F6	Recall	Displays screens saved with **F5**
F7	Log/WRU	Turns logging on and off. (For telex services, issues a WHO ARE YOU command)
F8	Print	Turns printing on and off
F9	Edit	Exits to WordStar while online. Use **F8** (Go Online) to return to the service
F10	Hangup	Hangs up the phone. Be sure to log off from your service first if required

Online Function Key Assignments—Set 2

FUNCTION KEY	LABEL	PURPOSE
F1	ShoFil	Displays any file, including the current logfile
F2	Set1	Switches between function key sets 1 and 2
F3	DOS	Goes to operating system without disconnecting from service (type **exit** to go back online)
F4	Send	Sends a WordStar or ASCII file
F5	XM Rec	Receives a file using the XMODEM protocol
F6	XM Snd	Sends a file using the XMODEM protocol
F7	User1	Can be programmed for your own commands. (See the **FK** keyword)
F8	User2	Can be programmed for your own commands. (See the **FK** keyword)
F9	Break	Issues an RS-232C break signal (not normally used)
F10	Hang up	Hangs up the phone. Be sure to log off from your service first, if required.

Communications Services

This chapter provides information about TelMerge preprogrammed services. For more information, contact the service directly. When you register with a service, you receive the information required to call that service with TelMerge. See "Calling a Service with TelMerge."

You can also use TelMerge to call services or networks that are not preprogrammed. For instructions, see "Adding a New Service to TELMERGE.SYS." If you use a network to call a service, see **NETWORK** in the "Keywords" chapter.

CompuServe Information Service _____

5000 Arlington Centre Blvd.   TelMerge Service Name: CIS
Columbus, OH 43220
(800) 848-8990

CompuServe offers an information service as well as electronic mail (EasyPlex and InfoPlex). CompuServe provides business news, computer games, special interest group bulletin boards, online conferencing, newspapers, and much more.

Note: When you call CompuServe, TelMerge uses the CompuServe A protocol to exchange files.

EasyLink by Western Union

Western Union Telegraph
4230 Altha Road
Dallas, TX 75244
(800) 527-5184 (Sales); (800) 435-7375 (Help)

TelMerge Service Name: ESL

Western Union offers EasyLink electronic mail service (a store-and-forward system), an information service called FYI, and a Mailgram service. EasyLink cables your message if it can't be delivered by a telex network.

ITT Telex and TIMETRAN

ITT World Communications
100 Plaza Drive
Secaucus, NJ 07096
(800) 922-0184

TelMerge Service Name: ITT

ITT offers telex services, a store-and-forward service (TIMETRAN), and a paper mail service. ITT cables your message if it can't be delivered by telex. ITT also offers an information service called UPDATE. TelMerge turns logging and printing on automatically for ITT. If you don't want to print your sessions, change the PRINT setting to NO.

MCI Mail

MCI Mail
1150 17th St., N.W, 8th Floor
Washington, DC 20036
(800) 444-6245; (202) 833-8484 (Washington, DC)

TelMerge Service Name: MCI

MCI Mail offers an electronic mail service, an information service (in cooperation with Dow Jones News/Retrieval), and a courier service. Access to telex networks is also available.

Official Airline Guides

Official Airline Guides
2000 Clearwater Drive
Oak Brook, IL 60521
(800) 323-4000

TelMerge Service Name: OAG

The Official Airline Guides Electronic Edition provides airline schedules and fares for commercial air carriers.

ONTYME Messaging Service

ONTYME Marketing TYMSHARE   TelMerge Service Name: ONT
2560 North First Street
San Jose, CA 95131
(800) 435-8880

ONTYME is an electronic store-and-forward message service that provides worldwide local-call access. You can route messages through the telex networks if you want. TYMSHARE has another network called TYMNET.

RCA Telex and TELEXTRA

RCA Global Communications   TelMerge Service Name: RCA
201 Centennial Avenue
Piscataway, NJ 08854
(800) 526-3969

RCA provides real-time telex services, TELEXTRA store-and-forward service, and an information service called HOTLINE. RCA Telegram turns your telex into a telegram if necessary. TelMerge turns LOGGING and PRINT on automatically for RCA. If you do not have a printer or prefer not to use one, change the PRINT setting to NO.