

SOFTWARE MANUAL

# Installation



# VersiCOMM<sup>Plus</sup>

---

·Valley Programming Service·

THE INFORMATION CONTAINED IN THIS MANUAL IS BELIEVED TO BE ACCURATE AND RELIABLE. HOWEVER, NO RESPONSIBILITY FOR THE ACCURACY, COMPLETENESS OR USE OF THIS INFORMATION IS ASSUMED BY VALLEY PROGRAMMING SERVICE, INC.

VersiCOMM INSTALLATION MANUAL

© 1995 VALLEY PROGRAMMING SERVICE, INC.

MANUAL REVISION 3.2 - COMM REVISION 3.1

May 1, 1995

VersiCOMM, VersiCOMM-Plus, FastQ, FasTrans and Z/Archive are trademarks of Valley Programming Service, Inc., Canoga Park, CA 91303.

AMOS, AlphaBASIC and Alpha Micro are trademarks of Alpha Microsystems, Santa Ana, CA 92799.

FasTalk is a trademark of Universal Data Systems, Inc., Huntsville, AL 35805

Valley Programming Service, Inc.  
21822 Sherman Way Suite #202  
Canoga Park, CA 91303  
(818)-992-5134

# Contents

---

## Contents 3

## Introduction 7

- Installation Overview 7
- Patches and Enhancements 7
  - About Z/Archive 8
- Changes in Operation 8
  - STRIP Default OFF 8
  - Communication SBR Flow Control 8
- New Features 8
  - Internet Access Support 8
  - FasTrans Compression 9
  - VersiCOMMander File Manager 9
  - Record and Playback 9
  - Same PIC codes for AMOS/L and AMOS/32 9
  - File List Processing 9
  - Command Recall 9
  - New Terminal Emulations and Enhancements 9
  - Updated Communication Subroutines 9
  - Expand and Sort for Dialer 9
  - Forced Access 9
- What Is All This Stuff? 10
- VersiCOMM vs. VersiCOMM-Plus 11

## Required For All Installations 13

- Select and Define One or More COMM Ports 13
  - The TRMDEF Statement 13
  - Selecting a Terminal Name 14
  - Selecting a Terminal Driver 14
  - Modem Job (Optional) 14
- Install an Appropriate Cable 14
  - Alpha Micro to Modem Cable 14
  - Alpha Micro to Alpha Micro Cable 15

- Alpha Micro to ?????? Cable 16
- Install and Configure the Modem 16
  - The Computer Connection 16
  - The Phone Connection 16
  - Configuration Guidelines 16
- Before Installing the Software 17
  - If Updating VersiCOMM 17
  - If This is a New Installation 18
- Copy the Software to DSK0: 18
  - If Copying from AlphaCD 18
  - If Restoring From VCR Tape 18
  - Verify the Installed Files 18
- Generate the PIC File 18
- Generate the Modem Control Files 19
  - Files Generated 19
  - For Additional Information 20
- Review the Default INI.TIW File 20

## **Recommended For All Installations 23**

- Install the VersiCOMM Clock 23
  - Adding RCLOCK to the INI File 24
- Create the VersiCOMM Initialization File 24
- Enable FastQ Character Input (VersiCOMM-Plus) 24
  - Activating FastQ 25
  - Restrictions 26

## **Review For All Installations 27**

- Memory Requirements 27
- COMMCENTRE Access Parameter Definition 27
- DIALER Access Parameter Definition 27
- Modem Polling Files 28

## **Checking For Correct Installation 29**

- Checking the PIC Installation 29
  - PIC Installation Errors 30
- Can We Talk? 30
- Dial In and Log On 31
- File Transfer Precheck (VersiCOMM-Plus) 33
- Transfer a Test File (VersiCOMM-Plus) 34
- Check the COMMCENTRE 35

## **Program List 37**

- Program Files [1,4] 37
- Interface And Terminal Driver Files [1,6] 39
- Command Files [2,2] 40
- Emulation Files [7,0] 40
- Help Files [7,1] 42
- BASIC RUN File And SBR Account [7,6] 42
- COMMCENTRE Menu Files [7,11] 44
- General VersiCOMM Files [7,121] 44
  - TLK Files 44
  - OFF Files 46

Modem Control Files	46
Modem Initialization Files	46
VersiCOMMander Files	46
Selected Program Source Files	46
BASIC Program Source Files	46
M68 Program Source Files	47

## **Appendix 49**

Example Configuration: Multi-Tech MT1432	49
Switch Settings	49
Modem Memory Configuration	49
Automated Configuration	50
Manual Configuration	50

## **Index**



## Introduction

---

### Installation Overview

VersiCOMM is an extremely flexible communication system. *Please take the time to review this manual carefully.* It has been written to help you achieve an efficient and easy to use configuration for your particular environment and application.

The installation procedures are organized into three categories:

- Procedures *required* for the proper operation of the software.
- Procedures *recommended* for more efficient or dependable operation.
- Procedures that are generally *optional* but should be reviewed.

*Some installations may require the completion of steps that are listed as recommended or optional.*

Certain procedures require that the AMOS INI file be modified. This should be done only by the system administrator.



ONLY INDIVIDUALS KNOWLEDGEABLE IN THE CONFIGURATION AND OPERATION OF THE SYSTEM SHOULD MODIFY THE AMOS SYSTEM INI FILE! **NEVER** DIRECTLY VIEW AND MODIFY THE AMOS SYSTEM INI FILE! **MAKE A COPY OF THE FILE USING A FILENAME SUCH AS "TEST.INI", AND MODIFY THIS FILE INSTEAD. ONLY AFTER USING MONTST TO TEST THE MODIFIED INI FILE AND ALSO VERIFYING CORRECT OPERATION OF THE SYSTEM SHOULD THE "TEST.INI" FILE REPLACE THE ORIGINAL INI FILE.**

### Patches and Enhancements

From time to time important patches or enhancements for VersiCOMM and VersiCOMM-Plus are made available via the VersiCOMM Updates section of AMTEC+. This section can

be accessed by entering the letters "ICV" at the AMTEC+ main menu. Ask your reseller to check AMTEC+ for the current patch and enhancement file.

Before calling for technical support, please be sure your software is up to date.

### **About Z/Archive**

Patches and enhancements are compressed into self-extracting files using the Z/Archive System, another product of Valley Programming Service. The BASIC source files included with VersiCOMM are also compressed and archived using Z/Archive.

You can see a quick demonstration of Z/Archive's compression by moving the file SRCBAS.LIT in [7,121] to an empty account and executing it. Compare the total size of the BAS files generated to the size of the archive file.

### **Changes in Operation**

The following changes may affect the operation of applications using VersiCOMM.

#### **STRIP Default OFF**

When ON, STRIP unconditionally strips eight bit data to seven bit ASCII characters by setting the high bit of the character to zero. Since there are an increasing number of situations where the full eight bits are required when working as a terminal on a remote system, the default has been changed to OFF.

The WAIT and WASIT commands will only match strings whose bytes match the incoming characters *exactly*. If STRIP is OFF, the "P" in the WAIT string "Password:" will not match an incoming "P" if the remote system is setting the high bit of the character. This would occur if the remote system was using odd parity.

In general it's a good idea to turn STRIP ON when using the WAIT or WASIT commands.

The default for STRIP can be changed to ON by adding a \$STRIP ON command to the VersiCOMM initialization file INI.TLK. See the discussion regarding this file in the *Recommended For All Installations* chapter.

#### **Communication SBR Flow Control**

With certain restrictions the TREAD and TWAIT subroutines now use hardware flow control.

The RTS output (usually pin 5) will be dropped on a normal exit from TREAD or TWAIT. These SBR's will automatically raise RTS if no characters are received. If another SBR is used to read data following a TREAD or TWAIT, be sure to use XCALL SETPIN to raise RTS.

For more information refer to the VersiCOMM OPERATION Manual.

## New Features

### Internet Access Support

Internet access support has been added, and extensive Internet "how to" information has been included in the *VersiCOMM On the Internet* chapter of the OPERATION Manual.

### FasTrans Compression

The VersiCOMM-Plus *FasTrans* file transfer software now supports two advanced compression technologies, Adaptive compression *and* the high compression ratio technology of the Z/Archive System.

### VersiCOMMander File Manager

*VersiCOMMander*, a new and powerful point and select file manager, makes it easy to work with files without having to leave VersiCOMM Command mode.

### Record and Playback

VersiCOMM-Plus 3.1 includes tools to record and playback terminal sessions in simulated real-time. This feature can be used to create software demonstrations that can be played on other computers or to record online sessions for later review. Players are included for our VT100/102, V52, LEXis, and GENeric terminal emulations.

### Same PIC codes for AMOS/L and AMOS/32

There is no longer a distinction made regarding PIC's for AMOS/L and AMOS/32 systems.

### File List Processing

The VersiCOMM-Plus program TRANS can now process a list of files, such as a VERIFY directory, and transmit each file specified in the list.

### Command Recall

Previously entered commands can now be recalled in VersiCOMM Command mode using .

### New Terminal Emulations and Enhancements

The VT100 terminal has been enhanced and VT52 and VT220 emulations have been added. The formatting of screen data captured while an emulation is in effect has been modified to produce a VUEable file. In most cases it is no longer necessary to FILTER the captured screen data.

### Updated Communication Subroutines

The TWRITE call now accepts an optional argument specifying the number of characters to be transmitted. The TWAIT and TREAD call include some internal enhancements.

### Expand and Sort for Dialer

Programs have been added to expand and sort the DIALER directory file, and to list the contents of the DIALER modem file.

## Forced Access

VersiCOMM can now be directed to attempt forced access to a specific modem. This can be used in special situations when it is known the modem is free, but it cannot be accessed conventionally.

## What Is All This Stuff?

Several hundred blocks of files are currently included in the VersiCOMM release. The only files that are *absolutely* required to run VersiCOMM are COMM.LIT and its corresponding SSD file COMM.PIC.

If you place COMM.LIT in DSK0:[1,4] and COMM.PIC in DSK0:[7,0] and connect a modem to a previously defined serial port, you could communicate with most computers and services. However, such a configuration would likely not be as efficient as it could be.

The VersiCOMM release is organized into the following accounts:

[1,2] Release Directory File	VERIFY compatible directory listing of all files in the release. To verify the hash total of the files enter the command "VERIFY VCOMP".
[1,4] LIT Files	All LIT files included with VersiCOMM and VersiCOMM-Plus.
[1,6] Drivers	The generic terminal drivers.
[2,2] Command Files	Command files used by the COMMCENTRE, DIALER and other VersiCOMM software.
[7,0] Emulation Files	Files that are used in the VT100, LEXIS VT52 and Generic terminal emulations. The default INI.TIW file is also here.
[7,1] Help Files	Help files for VersiCOMM commands.
[7,6] Basic RUN and XCALL SBR Files.	Various RUN and SBR files used by the COMMCENTRE, the DIALER and VersiCOMM-Plus. Also includes the PIC code installation program ICOMM.RUN.

<p>[7,11]</p> <p>COMMCENTRE MENU Files</p>	<p>COMMCENTRE and Access Parameter Definition Menus.</p> <p>Includes the VPS COMMCENTRE "shell" interface. This software gives a user "push-button" access to several communication and information services. The supporting script files are found in [7,121].</p>
--	---



	<p>It is not necessary to use the AlphaMenu system to initiate COMMCENTRE functions. Nearly all COMMCENTRE functions may be initiated via a command file. As a result, a function such as "Access MCI Mail" can be performed from the COMMCENTRE menu, from AMOS by entering the command "MCI", or from other software that chains to the command "MCI". This provides a great deal of flexibility in the way VersiCOMM can be used to communicate. For example, users have written ESP GLUE menus that replace the AlphaMenu system.</p> <p>Before you can use the COMMCENTRE, your own access numbers, and passwords must be placed in the appropriate "phone" and "password" files for the service you wish to access. See the section titled " COMMCENTRE Access Parameter Definition" for more information.</p>
--	--

<p>[7,121]</p> <p>VersiCOMM General Account</p>	<p>This account includes the following types of files:</p> <ul style="list-style-type: none"> <li>• TLK and OFF script files for the COMMCENTRE selections.</li> <li>• TLK and OFF script files for commands such as AMTECP and AMUS that are not included in the COMMCENTRE menu.</li> <li>• Files used by the DIALER to generate modem control modules.</li> <li>• Selected AlphaBASIC and M68 source program files. The AlphaBASIC files are archived in the self-extracting Z/Archive file SRCBAS.LIT.</li> <li>• Example modem initialization files.</li> </ul>
---	--

## VersiCOMM vs. VersiCOMM-Plus

The following commands or programs require a VersiCOMM-Plus PIC:

TRANS      High performance AMOS to AMOS send with data compression.

RETRV High performance AMOS to AMOS receive with data compression.  
SENDX XMODEM send.  
RECX XMODEM receive.  
SENDZ YMODEM and ZMODEM send.  
RE CZ YMODEM and ZMODEM receive.  
BPXFER CompuServe BPlus send and receive.  
RUN Run AlphaBASIC programs with link to Communication SBR's.  
SELECT *VersiCOMM*ander File Manager.  
X X Command wildcard processor.  
RECORD Enable special RECORD mode when saving captured data.

## Required For All Installations

---

The following steps are essential to the proper operation of VersiCOMM and should be completed for all installations.

### **Select and Define One or More COMM Ports**

In addition to the ports (i.e. terminal connections on the computer) that you use for your terminals, you will need to pick one, or more, ports that will be used by VersiCOMM for communications.

If performance is an issue, i.e. you will be communicating at a high rate or your system is heavily burdened, the selection of a particular port on a particular interface can be important.

Generally, the lower the physical port number for a given interface, the higher the priority. For example, port 0 of a 355 board would have higher priority than port 5.

Because of memory limitations in the implementation of the AM350 interface, if ports on the AM350 are used, some advanced features are not supported if the VersiCOMM-Plus software is running in memory above the 8Mb boundary. The main features affected are large input buffer allocation and optimized packet transmission.

On an AM1000 or AM1200, AM1x03 or AM1x06 ports are better choices than the standard serial ports on the motherboard.

If the system is an AM100L based system, if possible, avoid using the two serial ports on the AM100L board for communications.

### **The TRMDEF Statement**

If it is not already defined as part of the system, the port you have selected for communications must be specified in a TRMDEF statement in the system initialization command file. Refer to the chapter *THE SYSTEM INITIALIZATION COMMAND FILE* in Alpha Micro's SYSTEM OPERATOR'S GUIDE for a detailed description of the TRMDEF

statement. Following is an example of a TRMDEF's that could be used for a communications port with a default baud rate at boot-up of 9600 bps.

```
TRMDEF MODEM1,AM1000=1:9600,ALPHA,100,100,100
```

## Selecting a Terminal Name

Note that in TRMDEF example above the terminal name MODEM1 was used. By convention, this name is used as a default terminal name in several VPS communications programs. Using the default terminal name shortens the command line that is typed when VersiCOMM is run from AMOS command level.

If VersiCOMM finds the specified communications port is "busy" it will sequentially check to see if there is another MODEMn it can use. For example, if MODEM1 is busy it will check MODEM2, etc. If MODEMA is busy, it will check MODEMB, etc. This sequence can be customized by using a "Modem Polling File," discussed in the *Review For All Installations* chapter of this manual.

## Selecting a Terminal Driver

VersiCOMM automatically substitutes the "PSEUDO" driver for whatever driver is defined in the communications TRMDEF and then restores the original driver when it is done. As a result, you may use whatever driver you want in the communications TRMDEF. If users will be calling in to your computer, and most will be using a particular kind of terminal, you would probably specify that terminal's driver in the communications TRMDEF.

## Modem Job (Optional)

IF THE MODEM WILL ONLY BE USED FOR OUTGOING CALLS IT IS NOT NECESSARY TO DEFINE A JOB FOR THE MODEM. Don't attach the modem to a job unless it is actually necessary, since this helps prevent an unauthorized user from accessing the system.

If remote users will be calling into your system it will be necessary to define a job for the modem and attach the modem to the job. The requirements for that job will be the same as if a terminal was locally attached.

## Install an Appropriate Cable

### Alpha Micro to Modem Cable

Follow the instructions in your modem's operating manual for connecting it to a computer (not a terminal). Note that Alpha Micro's ports are configured as "DCE's" (Data Communications Equipment). This means that pins 2 and pins 3 usually "crossover" when connecting the modem (also a DCE) to the port, i.e. pin 2 goes to pin 3, and pin 3 goes to pin 2.

Now that high speed modems are commonplace, the manner in which the modem is cabled and configured can be critical to efficient and proper operation. In most cases the following cable configuration is suggested:

Alpha side	Direction	Modem side
port pin 2	<--input--<	pin 3
port pin 3	>--output->	pin 2
port pin 4	<--input--<	pin 5 CTS
port pin 5	>--output->	pin 4 RTS
port pin 7	-----	pin 7
port pin 8	<--input --<	pin 8 DCD
port pin 9	>--output->	pin 20 DTR

Figure 1. Alpha Micro to Modem Cable

If the communications interface of the Alpha Micro uses a DB-25 (twenty-five pin) connector instead of a DB-9 (nine pin) connector, the DTR output will usually be found on port pin 6. On some interfaces the only controllable output is RTS (pin 5) and this signal is used in the same manner as DTR.

If the cable is wired to control the DTR signal of the modem, the DTR signal can be used to hang-up the phone, or to prevent the modem from answering a call. If DTRHANGUP is ON (the default) VersiCOMM will automatically pulse DTR low when a QUIT is executed in VersiCOMM Command mode, or when a Direct Exit is requested from Conversational mode.

VersiCOMM's DTRLOW command can also be used to briefly lower 'DTR' to hang-up modems controlled in this manner.

Error correcting modems or modems that support "baud adjust" or "speed conversion", such as the Multi-Tech 224E, 696E, MT932, and MT1432, or the UDS FasTalk V.32/5 and V.32/42, require that hardware flow control be selected and that (typically) pin 5 of the modem be connected to pin 4 of the modem port on the computer. If input flow control is to be used, you must connect pin 5 of the modem port to (typically) pin 4 of the modem.

### Alpha Micro to Alpha Micro Cable

The cable used for connecting two Alpha Micro's so VersiCOMM can be used for communicating between them is nearly identical to the Alpha Micro to Modem cable.

Alpha 1 side	Direction	Alpha 2 side
port pin 2	<--input--<	pin 3
port pin 3	>--output->	pin 2
port pin 4	<--input--<	pin 5
port pin 5	>--output->	pin 4
port pin 7	-----	pin 7

Figure 2. Alpha Micro to Alpha Micro Cable

## Alpha Micro to ????? Cable

Refer to the documentation for the device to which your trying to communicate. Don't forget that the Alpha Micro port is configured as DCE.

## ❑ Install and Configure the Modem



Not all applications of VersiCOMM require a modem. The most common involve a direct link to another computer, or to a device such as a protocol converter.

High speed data/fax modems have become commodity items. Numerous implementations are available, some at a very modest cost. Based on discussions with users of our communication products, many of these modems can be used successfully on the Alpha Micro.

For optimal performance, the modem *must be properly cabled and configured*. Modem options are a minefield of "gotcha's" that can reduce VersiCOMM's performance, or even halt communications in its tracks. Fortunately, factory settings are migrating towards more forgiving initial configurations, making unusable configurations less likely.

Suggested settings and configuration information for a Multi-Tech MT1432-BA modem have been included in the Appendix. This modem is representative of current Multi-Tech high speed modems and is similar in operation to other high speed modems. If you have difficulty configuring your modem to work with VersiCOMM please contact Valley Programming Service for assistance.

## The Computer Connection

In most cases the modem cable should be constructed as described in the preceding section, "Alpha Micro to Modem Cable."

## The Phone Connection

Most modems connect to the phone system using a standard RJ-11 modular jack. A single or multiple line tap can be used to connect to a phone line that is part of a multi-line system.



**BE SURE TO FOLLOW THE MANUFACTURER'S RECOMMENDATIONS WHEN CONNECTING YOUR MODEM TO YOUR COMPUTER AND PHONE LINE!!**

## Configuration Guidelines

As modems have increased in speed and capability, correct configuration has become more and more important for efficient operation. Configuration of the modem may require changing a parameter's value using modem commands, setting external or internal DIP switches, changing jumper positions, or using a modem control panel.

To achieve maximum throughput, VersiCOMM-Plus's *FasTrans* file transfer software uses all 256 characters that can be represented by 8 bits. Other file transfer protocols also use all eight bits. As a result, if you are installing VersiCOMM-Plus, two conditions must be met by each and every device used in the communications link:

- All serial ports involved in the link *must* be set to 8 data bits and no parity and preserve all 8 bits of data.
- All 256 codes are reserved for data. *None* of the 256 characters may be used for control purposes by any device. This includes XON/XOFF flow control and "Normal Mode" flow control.

Any device involved in the link, such as a PBX, ISN, modem, multiplexer, security equipment or other communications equipment, must adhere to these requirements. Failure to do so is the most common reason for file transfer problems.

Following are some guidelines for configuring a modem for use with VersiCOMM-Plus:

- Echoing of modem commands should be disabled. If the modem is set to auto answer it may also be necessary to disable modem result codes or responses.
- If available, modem error correction should be enabled. Note that if a connection is achieved without error correction and modem to port speed conversion is used, communication errors could result.
- XON/XOFF flow control *must* be disabled and the XON and XOFF control characters passed through.
- "Normal mode" flow control, or any inband flow control used by the modem when there is no error correcting link, *must* be disabled.
- Full hardware flow control should be enabled and the modem cable constructed to support hardware flow control. To configure the modem for hardware flow control may involve several modem settings. For an example, see the discussion regarding Multi-Tech modems.
- If it is desired to use the DTR signal to hang-up the modem in VersiCOMM, it is necessary to include the DTR signal as indicated in Figure 1. and to set the modem to do the equivalent of an "ATZ" reset command when DTR is toggled. DTR must not be forced high.
- If it is desired to use the carrier abort functions in the VersiCOMM-Plus software, the cable must include the DCD signal as illustrated in Figure 1.
- Generally, the modem "speed conversion" feature should be enabled. If modem compression is enabled, speed conversion must be used if compression is to be effective. Note that Adaptive or *FasTrans* compression may exceed the intrinsic compression of the modem.

## ❑ Before Installing the Software

### If Updating VersiCOMM

If a previous release of VersiCOMM or VersiCOMM-Plus is being updated be sure to rename or archive all files, such as script files or modem control files, that may have been modified or customized.

The file VCOMMP.DIR lists the names of the files in the current release and the accounts in which they reside. VCOMMP.DIR can be found in [1,2] of the release.

### **If This is a New Installation**

If VersiCOMM has *not* been previously installed on your system, using the "/NOD" switch with VCRRES or COPY will prevent accidentally overwriting files that may have the same names as VersiCOMM files and already exist on your system. Note, however, that using the "/NOD" switch may also prevent essential files from being restored or copied.

If you would like to check for possible file name conflicts, refer to the file listing that accompanies VersiCOMM-Plus, or restore only the file VCOMMP.DIR[1,2] from the tape and use the VERIFY command to check for conflicts by entering the command line "VERIFY VCOMMP". If there are no conflicts the "?File not found" message will be displayed for all listed files .

### **□ Copy the Software to DSK0:**

The VersiCOMM-Plus software is organized in such a manner that it can be restored directly into the accounts in which it must reside for proper operation.

### **If Copying from AlphaCD**

If restoring the software from AlphaCD, log to the operator account (DSK0:1,2) and enter the following command:

```
COPY []=ACD15:[] 
```

### **If Restoring From VCR Tape**

If restoring the software from VCR tape, log to the operator account (DSK0:1,2) and enter the following command:

```
VCRRES []=ALL:[] 
```

If you are unsure about how to copy files from VCR tape to your system, refer to the Alpha Micro document "AMOS Video Cassette Recorder Backup Software" for information on the VCRRES command.

### **Verify the Installed Files**

After the files have been restored to DSK0:, the command

```
VERIFY VCOMMP 
```

can be used to check that the files were copied accurately.

### **□ Generate the PIC File**

A "PIC" file must be generated for VersiCOMM to operate properly. This is done by logging into the operator account DSK0:[1,2] and running the SSD installation program ICOMM.RUN and then entering the Product Installation Code as prompted. The required PIC code can be obtained from your Alpha Micro dealer. It will be necessary for you to supply your Software Security Device number.

After the PIC file has been generated, it should be moved to the system's library (LIB:) account by entering the command:

```
COPY DSK0:[7,0]=COMM.PIC  (VersiCOMM-Plus)
```

or

```
COPY DSK0:[7,0]=COMMR.PIC  (VersiCOMM)
```



NOTE: YOU SHOULD NOT HAVE BOTH COMM.PIC AND COMMR.PIC IN [7,0] AT THE SAME TIME. IF YOU ARE KEYING VERSICOMM, ANY EXISTING COMM.PIC FILE SHOULD BE RENAMED OR ERASED. IF YOU ARE KEYING VERSICOMM-PLUS, ANY COMMR.PIC FILE SHOULD BE RENAMED OR ERASED.

## Generate the Modem Control Files

Associated with each modem terminal definition are several special script files. These files are used to control the modem and are generated from the Modem Setup Screen of the DIALER.

To generate the modem control files for MODEM1, the following procedure would be used. (To generate modem control files for a port other than MODEM1, substitute its TRMDEF name instead of MODEM1, e.g. MODEM2, REMOTE, etc.)

1. Start up the DIALER by entering the command "DIAL" from the AMOS command level, or by invoking the DIAL command via your menu system. If DIALER cannot locate its database in the account in which you are logged (local) or in DSK0:[7,0] (global), it will ask you to select either a G)lobal or L)ocal database. Usually "G" will be specified.
2. Press the <F8> function key (or the "8" key) to **access the Modem Setup Screen**.
3. Press the <F9> function key (or <ESC> and then "9") to **display the default values** for the various modem parameters.
4. In the Name field, **fill in the TRMDEF name of the modem** for which you are generating control files, e.g. enter "MODEM1".
5. **Check the validity of each field** for your particular modem. While the default parameters will work for many AT compatible modems, there may be differences. Be sure to check the codes for requesting error correction, as they are often different for each brand of modem. If your modem is setup to use error correction as a default, error correction will be used whether requested or not.
6. Press the <F5> function key (or <ESC> and then "5") to **save the screen**.
7. Press the <F2> function key (or <ESC> and then "2") to **build the control files** for the specified modem.

## Files Generated

The files generated in this step include:

trmdef.AT0 - Is used to "get the modem's attention," make sure it is active and properly configured for communications. Invoked using the ATTENTION command.

trmdef.AT1 - Same function as trmdef.AT0, but enables error correction or other special capabilities as part of the attention process.

trmdef.AT2 - Slightly modified version of trmdef.AT0 used by the DIALER when dialing a number for voice communication.

trmdef.DL0 - Is used to dial the modem and to connect to a remote host without requesting error correction or other special capability. Invoked using the DIAL command.

trmdef.DL1 - Identical to trmdef.DL0 except that error correction or other special capabilities are requested.

trmdef.DL2 - Dial module used by the DIALER when dialing a number for voice communication.

trmdef.HU0 - Is used to hang-up the modem. Automatically executed upon exiting VersiCOMM. Can also be invoked using the HANGUP command.

trmdef.HU1 - Identical to trmdef.HU0, but is used when error correction or other special capabilities have been requested

trmdef.HU2 - Identical to trmdef.HU0, but is used when a number has been dialed for voice communication.

These files reside in the default USING file account [7,121].

Note that "trmdef" is the name associated with the modem port by a TRMDEF statement in the system initialization command file. In most instances the files will be MODEM1.AT0, MODEM1.DL0, MODEM1.HU0, MODEM1.AT1, etc. For each modem connected to the system there will normally be a set of AT, DL and HU files.

## For Additional Information

Refer to the *DIALER* chapter of the VersiCOMM OPERATION Manual for more information on the Modem Setup Screen and its parameters. More information on the ATTENTION, DIAL, and HANGUP commands will be found in the *Commands* chapter of that manual.

## Review the Default INI.TIW File

VersiCOMM has the capability to check a list of "approved" programs in the file DSK0:INI.TIW[7.0] and automatically detach a terminal in a Terminal Input Wait (TIW) or Sleep (SLP) state *if* the attached job is running a program on the list. This allows

VersiCOMM to use a modem attached to a job running a LOGIN program, but otherwise inactive.

Approved programs are listed by name (six characters maximum), one name per line, in the file. The INI.TIW file must reside in DSK0:[7,0].

A default INI.TIW file is included in the VersiCOMM release. It contains the following program names:

```
MATCH
LOGIN
IDLE
SIGNIN
SECURE
SIGNON
SAFE
```

If you do not the want VersiCOMM to borrow the modem from these programs when the program is not active, remove the name from the file.



## Recommended For All Installations

---

The following steps are recommended for more efficient operation.

### Install the VersiCOMM Clock

Since its "tick" has a resolution of one second the hardware real-time clock that is used for the time of day on AMOS/L systems is not appropriate for much of the timing necessary in communication programs.

To optimize performance and guarantee accurate timing on heavily burdened systems, a clock has been implemented in the VPS communications system. The clock is incorporated into the module RCLOCK.SYS. It adds very little overhead to the system and, if installed, is used by several of our communications programs. AMOS/L 1.2 or later is required to use the clock.

As VersiCOMM has evolved the scope of the RCLOCK.SYS module has expanded to include other important functions. While VersiCOMM can operate without it installed, we recommend its installation.

Among other functions, the module is used to implement a "semaphore" that regulates the modem selection process. This insures that only one user may be in the process of selecting a modem at any particular instant in time. It is also used for implementing flow control and supporting the use of the AM350 interface when operating in user partitions beyond 8Mb.

There are several VersiCOMM commands that cannot be used unless RCLOCK is installed. These include:

FLOW	Invokes hardware or software input flow control.
IDLEOUT	Sets COMM inactivity timer to a specified value.
JWAIT	Conserves use of CPU.
RECZ	ZMODEM receive program.
SENDZ	ZMODEM send program.

Also if RCLOCK is not installed, RETRV and RZVA cannot achieve optimal performance on 68000 and 68010 based systems when link rates of 9600 bps or higher are used.

## Adding RCLOCK to the INI File

The VersiCOMM clock is implemented by adding two statements to the AMOS initialization file:

```
SYSTEM RCLOCK.SYS
  ..
SYSTEM
RCLOCK
```

RCLOCK.SYS must be added to system memory using a SYSTEM statement, and then RCLOCK.LIT must be run by placing the command RCLOCK AFTER the final SYSTEM command in the INI file. AS ALWAYS, ITS A GOOD IDEA TO MODIFY A TEST.INI COPY OF THE INI FILE AND TEST IT ON YOUR SYSTEM USING THE MONTST COMMAND.

If you put RCLOCK.SYS in system memory the RCLOCK command *must* be included in the INI file following (not necessarily immediately following) the last SYSTEM command. If this is not done software will try to use a clock that is not running.

## Create the VersiCOMM Initialization File

VersiCOMM's various operational parameters and defaults have been set to help assure operation in a minimal installation. The resulting configuration is not optimal and should be modified in most cases.

VersiCOMM has the capability to override internally defined defaults through the use of the initialization script file INI.TLK.

Whenever VersiCOMM executes it checks to see if there is an INI.TLK file in the user account or in DSK0:[7,0]. If found the VersiCOMM commands in the file are processed. Many, but not all, VersiCOMM commands can be used in this file.

If RCLOCK has been installed the following INI.TLK file entries are recommended:

```
$FLOW ON
$JWAIT ON
```

The FLOW command turns hardware based flow control on. This is essential for proper operation with most high speed modems.

The JWAIT command enables VersiCOMM to conserve CPU time when it is idle.

A \$STRIP ON command can be added to the file if you prefer this setting as the default.

For more information refer to the VersiCOMM OPERATION Manual.

## □ Enable FastQ Character Input (VersiCOMM-Plus)

*FastQ* enables VersiCOMM-Plus to transfer files to small or heavily burdened systems with *dramatically* faster throughput and fewer retries. Originally incorporated into VersiCOMM-Plus's proprietary Alpha to Alpha file transfer software, the *FastQ* technology has now also been added to our ZMODEM software.

The following table lists data excerpted from comprehensive performance tests on our Alpha to Alpha file transfer software. Additional test results and information will be found in the September 1992 *Alpha Micro Technical Journal*.

(The "Number of CPU Bound Jobs" is the number of jobs running the BASIC program LOOP:GOTO LOOP.)

Tx System	Rx System	Number of CPU Bound Jobs	Window Size	Link Rate	FASTQ Throughput	Standard Throughput
AM2045 -->	AM1000	9	2	9600	7904	1461
AM2045 -->	AM1000	9	2	19200	8637	1437
AM1000 -->	AM2045	8	8	19200	12018	1120
AM3000M -->	AM3000	6	8	19200	20485	--
AM3000 -->	AM3000M	10	2	38400	18773	10393

Tests on our ZMODEM receive program RECZ also showed substantial performance gains.

Tx System	Rx System	Number of CPU Bound Jobs	Window Size	Link Rate	RECZ 1.1(107) with FASTQ	RECZ 1.1(106) standard
AM2045 -->	AM1000	0	na	19200	14970	9216
AM2045 -->	AM1000	2	na	19200	10760	2995
AM2045 -->	AM1000	4	na	19200	8651	1780
AM2045 -->	AM1000	8	na	19200	6107	--

*FastQ* also improves performance when downloading files from AMTEC+ to a small or burdened system. The following table lists the results of tests performed 10/7/92. The AMTEC+ hashcode file AMOS32.10D was downloaded to a stock AM1000 using a UDS FasTalk V.32/42 modem at a 9600 bps link rate and 9600 bps modem port baud rate.

Number of CPU Bound Jobs	Link Rate	RECZ 1.1(108) with FASTQ	RECZ 1.1(108) standard	RECZ 1.1(106) standard
0	9600	9075	7006	6778
1	9600	8587	5406	3154
2	9600	8551	3849	1569
4	9600	8500	1823	1560
6	9600	8308	1055	--
8	9600	7768	919	--

### Activating *FastQ*

RZVA.LIT is the remote component of the VersiCOMM-Plus TRANS command. When you TRANS a file from your system to a remote system, RZVA is run on the remote system and handles the reception of file data. The new RZVA uses *FastQ* if the file RZVA.INI exists (on the remote system) in the account from which RZVA is being run, or if RZVA.INI exists in DSK0:[7,0]. The single line "FASTQ ON" should be written in the file. If the file RZVA.INI is not found, *FastQ* is not used.

Similarly, RETRV will use *FastQ* if the file RETRV.INI exists (on the local system) in the account from which RETRV is being run, or if RETRV.INI exists in DSK0:[7,0].

RECZ will also use *FastQ* if the file RECZ.INI exists (on the local system) in the account from which RECZ is being run, or if RECZ.INI exists in DSK0:[7,0].

### Restrictions

The only restrictions regarding the use of *FastQ*, beyond those normally required for the use of VersiCOMM-Plus 3.1, is that *FastQ* cannot be used if the job running RZVA, RETRV, or RECZ is above the 8Mb memory boundary *and* an AM350 port is being used as the modem port.

## Review For All Installations

---

### ❑ Memory Requirements

The bare minimum needed to execute COMM.LIT is about 60K, but because VersiCOMM dynamically allocates memory for many operations, such as executing TRANS or RETRV, at least 100K of memory is recommended.

If you want to use *FasTrans* compression, approximately 375K is required by the job transmitting the files. If this amount of memory is not available, then Adaptive compression is used.

If VersiCOMM is used to execute other software via the X or AMOS commands the memory required to "run VersiCOMM" can increase dramatically because of the additional memory requirements of the programs being run.

### ❑ COMMCENTRE Access Parameter Definition

In order to use the COMMCENTRE the user must write required access numbers, passwords, etc. into appropriate files. To simplify this procedure for standard COMMCENTRE functions, a "SETUP Service Access" selection is found on the COMMCENTRE menu.

The COMMCENTRE menu can be run by typing "CENTRE" or "CENTER" at any AMOS command prompt. Selecting the SETUP function will run the Access Parameter Definition menu. This menu is identical in organization to the COMMCENTRE.

For each service listed it runs a program that prompts the user for all the information necessary to access a particular service and then writes the info in the required files.

## □ DIALER Access Parameter Definition

The DIALER system in VersiCOMM has been greatly enhanced over earlier versions. It is now a fully integrated system that enables the user to dial, connect, and log on to most computers and services without having to write script files.

You may prefer to use the DIALER for some communications and the COMMCENTRE for others. The DIALER provides a quick and easy way of automating access to a service or system that is not included on the COMMCENTRE.

The DIALER user interface is simple and easy to use. An entry can be dialed, added, modified or deleted at the press of a function key. Information is added to the database via a full-screen "fill-in-the-blank" form.

For more information and an example of how to create a DIALER entry to access the Compuserve Information Service, refer to the VersiCOMM OPERATION Manual.

## □ Modem Polling Files

By default, if MODEM1 is busy VersiCOMM will check MODEM2 through MODEM9 for an used modem. Similarly, if MODEMA is busy VersiCOMM will check (by default) MODEMB to MODEMZ for an unused modem.

"Modem polling files" enable the user to customize the sequence of modems that are to be used by a particular VersiCOMM application. These files have a default extension of "MPF" and reside in DSK0:[7,0]. They are specified in the COMM command line in the same manner as a modem. For example, suppose the file "SEQ1.MPF" contains the following:

```
MODEM1
FAX2
MISC1
```

When the command,

```
COMM SEQ1 USING CLIENT1 □
```

is executed, COMM will first try to use MODEM1, then FAX2, etc.

If a modem polling file has the same name as a modem, the modem polling file will be used. For example, consider the following command:

```
COMM USING CLIENT1 □
```

If the file "DSK0:MODEM1.MPF[7,0]" does *not* exist then VersiCOMM will try to use the default modem, MODEM1. However, if "DSK0:MODEM1.MPF[7,0]" *does* exist, then COMM will use the sequence of ports defined in that file. This provides a means for easily redefining the default modem. For example, if "DSK0:MODEM1.MPF[7,0]" lists MODEM9, then in effect MODEM9 becomes the default modem.

## Checking For Correct Installation

---

The following procedures should be used to check that:

- The VersiCOMM or VersiCOMM-Plus PIC was generated and entered correctly.
- VersiCOMM can communicate with the modem.
- VersiCOMM can DIAL and communicate with a remote computer.
- VersiCOMM-Plus can transfer files to a remote computer.

### ☐ Checking the PIC Installation

To do this check you will need to know the AMOS name of the communications port that is connected to your modem. Usually the name will be something like MODEM1, PHONE1 or a similar name. If in doubt check with the system administrator.

Before performing this check, be sure the VersiCOMM installation is complete, and that the software has been verified using the directory file VCOMMP.DIR.

To do the PIC check, log to DSK0:[7,121] and enter the following command:

```
COMM modem-name USING TSTCM1 
```

where "modem-name" is the AMOS TRMDEF name of the modem port. For example,

```
COMM PHONE USING TSTCM1 
```

Note that if the modem-name is omitted, MODEM1 is assumed.

If a VersiCOMM-Plus PIC has been installed the following message will be displayed:

```
The VersiCOMM-Plus PIC is correctly installed!
```

The following message will be displayed if a VersiCOMM PIC was installed:

The VersiCOMM PIC is correctly installed!

If you do not see this message or if the program does not return to AMOS command level, refer to the next section, "PIC Installation Errors."

## PIC Installation Errors

To date (approximately twelve years) there have been no software problems in the VersiCOMM SSD keying process. If you have a problem unlocking the software it is far more likely to be a procedural problem rather than a software problem.

If the message "?PIC file read error" is displayed you have not placed the file COMM.PIC (or COMMR.PIC) in account DSK0:[7,0].

If the program just returns to the AMOS dot prompt then it is likely that an error was made in entering a PIC code during the generation of the COMM.PIC file or the COMM.PIC file was generated for the wrong SSD.

By far the most common problem is that the SSD believed to be in the system is not actually the SSD in the computer. Please double check the SSD number by actually checking the number on the SSD in the computer.

If you are keying VersiCOMM-Plus, the file COMMR.PIC must not exist in DSK0:[7,0]. If you are keying VersiCOMM, the file COMM.PIC must not exist in DSK0:[7,0].

VersiCOMM will not read a PIC file from an account other than DSK0:[7,0]. Please be sure that the PIC file in DSK0:[7,0] is the correct and most recently generated version. This can be done by regenerating the PIC file and checking the hash total of the newly generated file against the file in DSK0:[7,0].

PIC codes differ depending upon whether you are installing "VersiCOMM" or VersiCOMM-Plus". Be sure the program level is correct when requesting a PIC. Also be sure you correctly specify VersiCOMM or VersiCOMM-Plus when running the installation program ICOMM.

The following messages indicate insufficient memory:

```
?Cannot load DSK0:COMM.LIT[1,4] - insufficient free memory
```

```
?Memory allocation failed
```

## □ Can We Talk?

After checking the PIC, next we want to be sure that we can talk to the modem using VersiCOMM.

Log to account DSK0:[7,121] and enter the following command,

```
COMM modem-name USING TSTCM2 
```

where "modem-name" is the AMOS TRMDEF name of the modem port. For example,

```
COMM PHONE USING TSTCM2
```

Note that if the modem-name is omitted, MODEM1 is assumed.

If the modem responds as expected, the following message will be displayed:

```
Modem responded with OK
```

Otherwise, the following message is displayed:

```
Modem did not respond
```

In either case the program should return to AMOS command level.

If the modem does not respond, turn the modem off and then back on and then try the test again. If you still get no response then one of the following "gotcha's" could be causing the problem:

1. Modem is not plugged in or is not turned on.
2. Modem cable is not connected to the modem properly or is not connected to the port defined in the COMM command line.
3. Modem cable is not made correctly.
4. Modem is set to ignore commands or is not in Command mode.
5. The modem has not been set to use "speed conversion" and the communications port is not at the correct baud rate.
6. The correct terminal name was not specified in the COMM command line.

If the modem did respond, then continue with "Dial In and Log On."

## **□ Dial In and Log On**

In this step you'll access and log onto another AMOS system and check the operating system version.

To dial the other AMOS system enter the command,

```
COMM modem-name USING TSTCM3 WITH phone-number
```

where "modem-name" is the AMOS TRMDEF name of the modem port and "phone-number" is the telephone number of the remote AMOS system. For example,

```
COMM PHONE USING TSTCM3 WITH 555-1212
```

As mentioned previously, if the modem name is omitted, MODEM1 is assumed.

When this command is entered you should see a dialing progress screen. If your terminal supports an addressable bottom status line, status information will also be displayed.

When a successful connection is achieved, the following messages will be displayed:

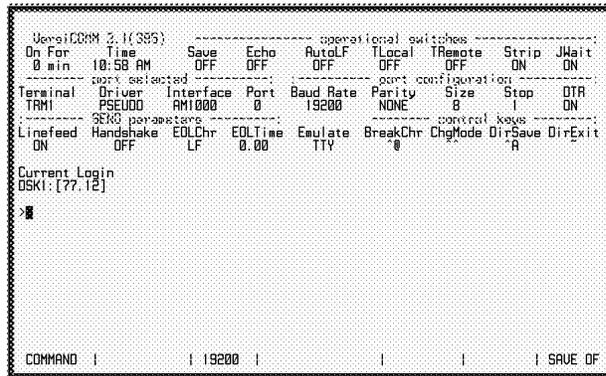
```
Successful Connection!
Entering conversational mode...
```

At this point you should be able to communicate with the remote system and enter access information, such as a user name and password.

Once you are at the AMOS command level and get an AMOS prompt in response to pressing the `␣` key, log to DSK0:[1,4] on the remote system and check the operating system version by entering the following command:

```
SYSTEM ␣
```

When the SYSTEM command has completed its output, use the <HOME> key to switch to VersiCOMM Command mode. The screen should appear similar to the following:



```

VersiCOMM 3.1(395)
-----
On For Time Save Echo AutoLF TLocal TRemote Strip JWait
0 min 10:58 AM OFF OFF OFF OFF OFF ON ON
-----
port selected port configuration
Terminal Driver Interface Port Baud Rate Parity Size Stop DTA
TAM PSEUDO AM1000 0 19200 NONE 0 1 ON
-----
SERK parameters control keys
Linefeed Handshake EDLChr EDLTime Emulate BreakChr ChgMode DirSave DirExit
ON OFF LF 0.00 TTY ^# ^A
-----
Current Login
DSK1:[77.12]
>#
-----
COMMAND | | 19200 | | | | SAVE OF

```

Figure 3. VersiCOMM Command Mode Screen

If you have redefined the "Change Mode" character to something other than Control-^ (ASCII 30) you need to press that key instead. If your terminal doesn't generate a Control-^ when you press the <HOME> key you can press the <CONTROL> and <^> keys simultaneously to generate the required character, or you can use the INI.TLK file to redefine the "Change Mode" character to a new key.

Once you have determined which key(s) to use to "Change Mode," toggle back and forth from Conversational to Command mode a few times. Note that Conversational mode is where you enter commands for the remote computer and Command mode is where you enter commands for VersiCOMM.

Next, toggle to Command mode and at the prompt type "HELP" followed by a <RET>. A table of VersiCOMM commands should be displayed. If instead a "I am sorry, I can't help you" message is displayed, the HCM files have not been properly restored to DSK0:[7,1].

Prior to disconnecting you should secure the system by switching to Conversational mode and entering the appropriate commands on the remote system. When done return to COMM Command mode and at the prompt enter the command:

```
>QUIT ↵
```

The modem should disconnect. When COMM has returned to the AMOS command level, physically confirm that the modem properly terminated the connection.

## ❑ File Transfer Precheck (VersiCOMM-Plus)

This VersiCOMM-Plus check is similar to the "Dial In and Log On" check just completed, except that you'll access and log onto another AMOS system and check the versions of the remote file transfer servers RZVA.LIT and TNZA.LIT. You'll need to know the phone number for the remote system and any access information that is required. Prior to calling the other system, check the current version of RZVA.LIT by entering the following command:

```
DIR/V SYS:RZVA.LIT ↵
```

The version reported should be 4.4(504) or later.

Make a note of the version and if you're not already there, log to account DSK0:[7,121].

To dial the other AMOS system enter the command,

```
COMM modem-name USING TSTCM3 WITH phone-number ↵
```

where "modem-name" is the AMOS TRMDEF name of the modem port and "phone-number" is the telephone number of the remote AMOS system. For example,

```
COMM PHONE USING TSTCM3 WITH 555-1212 ↵
```

As mentioned previously, if the modem name is omitted, MODEM1 is assumed.

When this command is entered you should see a dialing progress screen. If your terminal supports an addressable bottom status line, status information will also be displayed there.

When a successful connection is achieved, the following messages will be displayed:

```
Successful Connection!  
Entering conversational mode...
```

At this point you should be able to communicate with the remote system and enter any access information required, such as a user name and password.

Once you are at the AMOS command level and get an AMOS prompt in response to pressing the ↵ key, log to DSK0:[1,4] on the remote system and check the version of RZVA.LIT by entering the following command:

```
DIR/V RZVA.LIT ↵
```

Compare the version of the remote RZVA to the version info for your machine.

If RZVA.LIT needs to be updated, chances are TNZA.LIT also does. At this point you should still be in COMM Conversational mode. If you press the  key, the remote system should respond with the AMOS prompt. Assuming this is the case, press the <HOME> key to switch to COMM Command mode.

At the '>' prompt, enter the following command:

```
TRANS/D SYS:RZVA.LIT,TNZA.LIT 
```

When the file transfers are complete, press the <HOME> key to return to COMM Conversational mode, and then go on to "Transfer a Test File."

## Transfer a Test File (VersiCOMM-Plus)

If you didn't update RZVA and TNZA in the previous step, be sure that the remote versions are current, otherwise you may not be able to use *FasTrans* compression, or other features supported in later versions of the software.

In this step a test file is transferred to the remote system.

While still in Conversational mode and able to "talk" to the remote system, log to an unused account on the remote system. After this has been done, switch to COMM Command mode by pressing the <HOME> key.

At the '>' prompt, enter the following command:

```
TRANS FILTER.M68 
```

As the file is being transferred, look at the upper right hand corner of the file transfer screen. There, you will find an array of words indicating the state of various options. Options are highlighted if enabled, dimmed if not used or not activated. Refer to Figure 4. below.

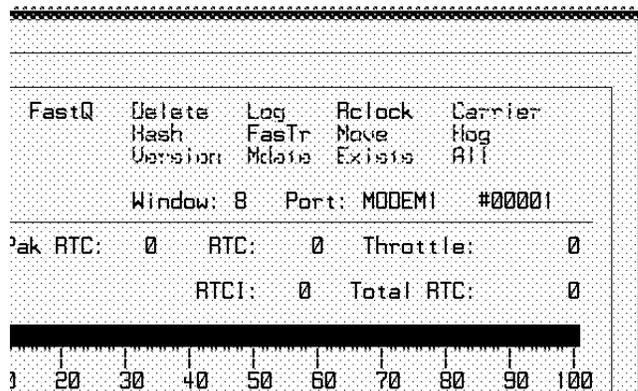


Figure 4. File Transfer Option Indicators

Note the word below **Log** and just to the right of **Hash**. This will be either **Adapt** or **FasTr**. If **FasTr** is displayed, then *FasTrans* compression was used for the transfer. If **Adapt** is

highlighted then Adaptive compression was used. If **Adapt** is dimmed then Run-length compression was used.

The default compression method is *FasTrans* compression. If there is not enough free memory (approximately 375K) then Adaptive compression used. If the remote server is quite old and does not support Adaptive compression then Run-length compression is used.

Also note the state of **FastQ** and **Rclock**. **FastQ** should be highlighted if the file RZVA.INI exists on the *remote* computer in DSK0:[7,0]. **Rclock** will be highlighted if installed according to the instructions in the *Recommended For All Installations* chapter.

When the transfer is complete, the following statistics are displayed.

- The number of files transferred.
- The total number of bytes in the files transferred.
- The percentage compression achieved for all files transferred.
- The number of bytes that did not need to be transferred as a result of data compression.
- The average transfer rate.

The average transfer rate is calculated by dividing the total bytes in the files transferred by the total time for the transfer. This rate may be understated when small files are transferred.

When you are done reading the file transfer statistics, press the  key to clear the screen and return to COMM Command mode.

Prior to disconnecting you should secure the system by switching to Conversational mode and entering the appropriate commands on the remote system. When done return to COMM Command mode and at the prompt enter the command:

```
>QUIT 
```

The modem should disconnect. When COMM has returned to the AMOS command level, physically confirm that the modem properly terminated the connection.

## Check the COMMCENTRE

Enter the command "CENTRE" (or "CENTER") followed by a <RET> at the AMOS dot prompt. The COMMCENTRE menu should be displayed.

If it does not, then check that CENTRE.CMD (or CENTER.CMD) is in account DSK0:[2,2] and that CENTRE.CMN is in account DSK0:[7,11].

Other menu systems can also chain to this command file. Note that files created while using the COMMCENTRE, such as SAVE files, will reside in whatever account the user is logged into while using the COMMCENTRE.

To exit the COMMCENTRE select 66, "Exit to AMOS."



## Program List

---

In this chapter is a list of the programs in release accounts [1,4], [1,6], [2,2], [7,0], [7,1], [7,6], [7,11], and [7,121], along with a brief description of what the program is used for. Account [1,2] contains the file VCOMMP.DIR, a release directory file that can be used with the VERIFY command to verify the hash codes and version numbers of all files.

### Program Files [1,4]

**BPXFER.LIT** - Module used to transfer files to, or from, the Compuserve Information Service using the B Plus protocol. Requires that the RCLOCK option be installed. Requires VersiCOMM-Plus PIC.

**BPXFER.RTI** - File required by BPXFER.LIT.

**CHGTDV.LIT** - Used by a remote user to change a terminal driver on the host system to a driver that supports their terminal. Requires that the terminal be defined in the system or loaded into system memory.

**CMM001.LIT** - VersiCOMM-Plus module used by the SELECT command. Requires VersiCOMM-Plus PIC.

**CMM002.LIT** - VersiCOMM-Plus module used by the SELECT command. Requires VersiCOMM-Plus PIC.

**COMM.LIT** - The program file that executes VersiCOMM.

**FILTER.LIT** - Used to filter unwanted characters from a sequential file. The M68 source for this file is included in account [7,121].

**MATCH.LIT** - Is used on a modem (or other) job for automatic matching to a connected terminal's baud rate. Baud rates supported include 300, 1200, 2400, 4800, 9600, 19200 and 38400 bps. An optional "system access" password can be defined, and a command can be specified in the MATCH command line that will be executed after the baud rate has been established and system access granted. See the VersiCOMM OPERATION Manual for additional information.

**MLOFF.LIT** - Clears the modem assigned bit for the job's terminal.

MLON.LIT - Sets the modem assigned bit for the job's terminal. Can be used to prevent a local user from trying to use a modem when it's already being used by a remote user.

RCLOCK.LIT - A module that initializes the real time clock module RCLOCK.SYS. RCLOCK is used for timing and other important COMM functions. See the ***Recommended For All Installations*** chapter for more information on RCLOCK. If used this file must reside in DSK0:[1,4]. It need not be placed in SYSTEM memory.

RCLOCK.SYS - The system module component of RCLOCK that, if used, it ***must*** reside in SYSTEM memory.

RECX.LIT - Receives a sequential file transmitted by another asynchronously linked computer equipped with an Xmodem compatible software package. Uses CRC16 or CHECKSUM error detecting protocols with auto block re-transmission. Requires VersiCOMM-Plus PIC.

RECZ.LIT - Receives sequential files transmitted by another asynchronously linked computer equipped with a ZMODEM compatible software package. Uses a streaming protocol with CRC32 or CRC16 error checking. Requires that the RCLOCK option be installed. Requires VersiCOMM-Plus PIC.

RECZ.RTI - File required by RECZ.

RETRV.LIT - Will retrieve any type of AMOS file from a remote Alpha Micro with CRC16 error detection and correction and Adaptive or ***FasTrans*** compression. RETRV requires the remote computer have resident a companion module, TNZA, to handle the remote end of the transfer. RETRV may be run as a stand alone program, or directly from VersiCOMM. Accepts wildcards. See the VersiCOMM OPERATION Manual for a detailed description of the operation of RETRV. Requires VersiCOMM-Plus PIC.

RX.LIT - This program is used by remote users, calling in to an Alpha Micro, to upload files to the Alpha Micro using an Xmodem compatible software package. Files residing on the Alpha Micro can be downloaded using the companion program SX.LIT. Uses CRC16 or CHECKSUM error detecting protocols with auto block re-transmission.

RZVA.LIT - This "receive" module must be resident on a remote computer in order for TRANS to be able to transmit files to that computer with error correction. This module is not SSD locked, and copies may be placed on one or more remote computers as the user's application requires.

SENDX.LIT - Transfers any sequential AMOS file to another asynchronously linked computer equipped with a Xmodem compatible software package. Uses CRC16 or CHECKSUM error detecting protocols with auto block re-transmission. Requires VersiCOMM-Plus PIC.

SENDZ.LIT - Sends sequential files to another asynchronously linked computer equipped with a ZMODEM compatible software package. Accepts wildcard file specifications. Uses a streaming protocol with CRC32 or CRC16 error checking. Requires VersiCOMM-Plus PIC.

SENDZ.RTI - File required by SENDZ.

SHWGEN - Plays a file recorded by the VersiCOMM-Plus RECORD command when the GEN emulation has been used. Requires that the GEN.TDV or GENBOX.TDV terminal driver have been used as the terminal driver on the remote system.

SHWLEX - Plays a file recorded by the VersiCOMM-Plus RECORD command when the LEX emulation has been used.

SHWVT1 - Plays a file recorded by the VersiCOMM-Plus RECORD command when the VT1 emulation has been used.

SHWV52 - Plays a file recorded by the VersiCOMM-Plus RECORD command when the V52 emulation has been used.

SX.LIT - This program is designed to be used by local work stations or remote computers to transfer files to the remote system using any Xmodem compatible software which has been properly implemented on the remote system. Files can be uploaded using the companion program RX.LIT. SX will use CRC16 or checksum error detection protocol with auto block re-transmission, depending upon the protocol selected by the receiving program.

TNZA.LIT - This "transmit" module must be resident on a remote computer in order for RETRV to be able to retrieve files from that computer with error correction. This module is not SSD locked, and copies may be placed on one or more remote computers as the user's application requires.

TRANS.LIT - Will transmit any type of AMOS file to a remote Alpha Micro with CRC16 error detection and correction and Adaptive or *FasTrans* compression. TRANS requires the remote computer have resident its companion module, RZVA, to handle the remote end of the transfer. TRANS may be run as a stand alone program, or directly from VersiCOMM. Accepts wildcards. See the VersiCOMM OPERATION Manual for a detailed description of the operation of TRANS. Requires VersiCOMM-Plus PIC.

TRMSTS.LIT - Displays the terminal status of a specified terminal and enables the user to modify selected terminal status bits or conditions.

VPSTRN.LIT - Creates or modifies standard or emulation keyboard translation files. Most often used to change the output of function keys in the VT100, and LEXIS terminal emulations.

X.LIT - The X COMMAND transforms selected non-wildcard commands into wildcard commands. Can be used with TYPE, COMPIL, VUE and other AMOS commands.

## Interface And Terminal Driver Files [1,6]

GEN.TDV - Used in combination with the GEN emulation, the GEN terminal driver provides terminal independent operation on an arbitrary remote Alpha Micro system. Refer to the Generic Terminal Emulation section of the *Terminal Emulation* chapter of the VersiCOMM OPERATION Manual for more information.

GENBOX.TDV - Same function as GEN.TDV, but is flagged to indicate that it is capable of performing box commands such as "Clear Box."

## Command Files [2,2]

Corresponding to each of the COMMCENTRE TLK files in [7,121] is a command file that executes COMM "USING" the appropriate TLK file:

AMTECP.CMD	AMUS.CMD	ATT.CMD	CIS.CMD
DELPHI.CMD	DI.CMD	DJNS.CMD	ELDIR.CMD
ELINK.CMD	ELMBX.CMD	FYI.CMD	FYINWS.CMD
FYISPT.CMD	GENIE.CMD	GRH.CMD	GRHMBX.CMD
GRHRT.CMD	LEXIS.CMD	MCI.CMD	MCIMBX.CMD
NETCOM.CMD	NWSNET.CMD	TELINF.CMD	TYMINF.CMD
WLINK.CMD			

Also included in this account are the files:

CAL.CMD - Runs the calendar program CAL.RUN.

CENTER.CMD - Runs the COMMCENTRE AlphaMENU.

CENTRE.CMD - Runs the COMMCENTRE AlphaMENU.

DIAL.CMD - Invokes the DIALER system.

ELQL.CMD - Creates an EasyLink QuikLetter.

ELQLR.CMD - Resends an EasyLink QuikLetter.

ESLS.DO - Used by the QuikLetter system.

MCIQL.CMD - Creates an MCI QuikLetter.

MCIQLR.CMD - Resends an MCI QuikLetter.

MCIS.DO - Used by the QuikLetter system.

PNTFIL.CMD - Runs the program PNTFIL.RUN.

VUEFIL.CMD - Runs the program VUEFIL.RUN.

## Emulation Files [7,0]

Contains the files used to implement the VT100, LEXIS and Generic terminal emulations. Included are:

GEN.EMU - Generic terminal emulation module.

LEX.EMU - A variation of the VT100 terminal emulation for LEXIS access.

VT1.EMU - VT100 terminal emulation module.

VT2.EMU - VT220 terminal emulation module.

V52.EMU - VT52 terminal emulation module.

MISVT1.M68 - Miscellaneous terminal VT100 keyboard translation module source code.

TVIVT1.M68 - Televideo terminal VT100 keyboard translation module source code.

62ALEX.M68 - Alpha terminal LEXIS keyboard translation module source code.

62ALEX.100 - Old format source module distributed with VersiCOMM 3.0A.

62AVT1.M68 - Alpha terminal VT100 keyboard translation module source code.

62AVT1.100 - Old format source module distributed with VersiCOMM 3.0A.

62AVT2.M68 - Alpha terminal VT220 keyboard translation module source code.

62AV52.M68 - Alpha terminal VT52 keyboard translation module source code.

ALPHA.VT1, AM\*.VT1 - Alpha terminal VT100 keyboard translation modules.

ALPHA.VT2, AM\*.VT2 - Alpha terminal VT220 keyboard translation modules.

ALPHA.V52, AM\*.V52 - Alpha terminal VT52 keyboard translation modules.

ALPHA.LEX, AM\*.LEX - Alpha terminal LEXIS keyboard translation modules.

TVI925.VT1, TVI950.VT1 - Televideo terminal VT100 keyboard translation modules.

WINDOW.VT1 - Alpha terminal VT100 keyboard translation module for use with MULTI.

WINDOW.VT2 - Alpha terminal VT220 keyboard translation module for use with MULTI.

WINDOW.V52 - Alpha terminal VT52 keyboard translation module for use with MULTI.

WINDOW.LEX - Alpha terminal LEXIS keyboard translation module for use with MULTI.

MISC.VT1 - Miscellaneous terminal VT100 keyboard translation module.

MISC.VT2 - Miscellaneous terminal VT220 keyboard translation module.

MISC.V52 - Miscellaneous terminal VT52 keyboard translation module.

MISC.LEX - Miscellaneous terminal LEXIS keyboard translation module.

INI.TIW - A file listing the names of programs from which VersiCOMM can "borrow" a terminal if the program is inactive.

## Help Files [7,1]

Contains the "HCM" help files for each VersiCOMM command and other selected topics. These may be VUEed directly or displayed by entering,

HELP command-name 

at the VersiCOMM command prompt. The following HELP files are included:

ADDFLG.HCM	ALL.HCM*	AMOS.HCM	ANDFLG.HCM	ANSWER.HCM
ATTENT.HCM	AUTOLF.HCM	BACKTO.HCM	BAUD.HCM	BAUTO.HCM
BPXFER.HCM	BREAK.HCM	BREAKC.HCM	CABORT.HCM	CCENDT.HCM
CHGMOD.HCM	CHGTDV.HCM	CLEAR.HCM	CLOSE.HCM	COMMAN.HCM
COMMEN.HCM	CSTATU.HCM	CTRLC.HCM	DECFLG.HCM	DIAL.HCM
DIALOG.HCM	DIREXI.HCM	DIRSAV.HCM	DISPLA.HCM	DOSCRI.HCM
DOTCRT.HCM	DRIVER.HCM*	DTR.HCM	DTRHAN.HCM	DTRLOW.HCM
ECHO.HCM	ELINK.HCM*	EMULAT.HCM	EOLCHR.HCM	EOLTIM.HCM
ESCAPE.HCM	EXIT.HCM	FKEY.HCM	FLOW.HCM	FLUSH.HCM
FYI.HCM*	GOTO.HCM	HANDSH.HCM	HANGUP.HCM	IDLEOU.HCM
INCFLG.HCM	INPARG.HCM	INPFLG.HCM	INPINC.HCM	INTERF.HCM*
INUSE.HCM	JWAIT.HCM	LABELC.HCM	LINEFE.HCM	LISTEN.HCM
LOCAL.HCM	LOOKUP.HCM	MCI.HCM*	MODEM.HCM	MOVCUR.HCM
MVER.HCM	NEWLIN.HCM	NOTELO.HCM	NOTESA.HCM	ORFLG.HCM
PARAMC.HCM	PARITY.HCM	PAUSE.HCM	PCHR.HCM	PORT.HCM*
PRESER.HCM	PRINT.HCM	PROMPT.HCM	PTIME.HCM	PWRITE.HCM
QUIT.HCM	RECEIV.HCM	RECORD	RECX.HCM	RECZ.HCM
REDIAL.HCM	REMOTE.HCM	RETRV.HCM	RTS.HCM	RTSLOW.HCM
RUN.HCM	SAVE.HCM	SELECT	SEND.HCM	SENDEP.HCM
SENDL.HCM	SENDTL.HCM	SENDX.HCM	SENDZ.HCM	SETARG.HCM
SETFLG.HCM	SIZE.HCM	SPARIT.HCM	STATUS.HCM	STOP.HCM
STRIP.HCM	SUBFLG.HCM	TALKTO.HCM	TALL.HCM	TERMIN.HCM*
TLOCAL.HCM	TRANS.HCM	TREMOT.HCM	TRMFLG.HCM	TSTARG.HCM
TSTDIA.HCM	TSTFLG.HCM	TYPE.HCM	TYPECR.HCM	TYPEFL.HCM
TYPEWA.HCM	VPSTRN.HCM*	WAIT.HCM	WAITIM.HCM	WASIT.HCM
WPAUSE.HCM	WPREFI.HCM	WRAP.HCM	WRITE.HCM	WRITEC.HCM
X.HCM	XORFLG.HCM	ZUTO.HCM	ZDLE.HCM	

A "\*" indicates additional HELP information not related to a specific VersiCOMM command. The file ALL.HCM contains a list of all VersiCOMM commands.

## BASIC RUN File And SBR Account [7,6]

For each TLK file used in the COMMCENTRE this account contains a BASIC RUN file that is run by the Access Parameter Definition program. These files have the suffix "SU" in their filenames:

AMTPSU.RUN	AMUSSU.RUN	ATTSU.RUN	CISSU.RUN
DELSU.RUN	DISU.RUN	DJNSSU.RUN	ESLSU.RUN
GENSU.RUN	GRHSU.RUN	LEXSU.RUN	MCISU.RUN
NETSU.RUN	NWSSU.RUN	TELSU.RUN	TYMSU.RUN
WLAWSU.RUN			

In addition, the following files are included:

CAL.RUN - A perpetual calendar program..

ICOMM.RUN - This program is used to generate the SSD file COMM.PIC or COMMR.PIC, depending upon whether you are installing VersiCOMM-Plus or VersiCOMM. If you have not already received it, contact your Alpha Micro dealer to obtain the 'PIC code' required to create this file. You will need to specify your system's SSD number, model, and whether you are installing VersiCOMM or VersiCOMM-Plus.

After the PIC code has been obtained, RUN the ICOMM program. It will prompt you for the PIC code. The PIC code is comprised of numbers, letters and dashes. *very carefully* enter the code as directed by the program. Be sure to include the dashes and be careful not to mix up 0 with O, 5 with S, etc. The completed COMM.PIC (or COMMR.PIC) file must be placed in account DSK0:[7,0] for proper operation.

COMM.PIC - This is a unique file that keys the VersiCOMM-Plus software to your system. It is generated by ICOMM.RUN and must be placed in account DSK0:[7,0] for proper operation. If there is a COMMR.PIC file in [7,0] it should be renamed to have an extension other than "PIC".

COMMR.PIC - This is a unique file that keys the entry level version of the VersiCOMM software to your system. It is generated by ICOMM.RUN and must be placed in account DSK0:[7,0] for proper operation. If there is a COMM.PIC file in [7,0] it should be renamed to have an extension other than "PIC".

CRTESL.RUN - Creates an EasyLink QuikLetter.

CRTMCI.RUN - Creates an MCI Mail QuikLetter.

DIALER.RUN - Phone/modem dialer program. The source for this program, DIALER.BAS, will be found in [7,121] in the self-extracting Z/Archive file SRCBAS.LIT.

PNTFIL.RUN - Prints a file.

SESL.RUN - Sends an EasyLink QuikLetter.

SMCI.RUN - Sends and MCI Mail QuikLetter.

VUEFIL.RUN - VUEs a file.

CNVHEX.SBR - Converts a binary word to a hex string.

GETPIN.SBR and SETPIN.SBR - Used to read or modify state of serial port signals.

INKEYC.SBR - Used by CAL.RUN to pickup keyboard characters.

TLKLOG.SBR - Used by "Setup" RUN files to store data in [7,121].

GCMARG.SBR - A subroutine that is used to pass information from a VersiCOMM USING file to AlphaBASIC.

PCMARG.SBR - A subroutine that is used to pass information from AlphaBASIC to VersiCOMM.

TREAD.SBR - Used to read data from the modem port used by VersiCOMM.

TWRITE.SBR - Used to write data to the modem port used by VersiCOMM.

TWAIT.SBR - Used to wait for specified string of data from the modem port used by VersiCOMM.

VPS100.SBR, VPS110.SBR, VPS200.SBR, VPS300.SBR, and VPS050.SBR are subroutines used by the DIALER.

## **COMMCENTRE Menu Files [7,11]**

CENTRE.MNU - The "VPS COMMCENTRE" Menu.

CENTRE.CMN - Executable version of APDMNU.

APDMNU.MNU - The "Access Parameter Definition" Menu.

APDMNU.CMN - Executable version of APDMNU.

## **General VersiCOMM Files [7,121]**

### **TLK Files**

TLK (a.k.a. "USING" files) contain the procedures necessary to dial and logon to a specific service or remote host. Corresponding to each of the following TLK files are a CMD file (in [2,2]) and in many cases an OFF file. The CMD file is used by the COMMCENTRE to execute VersiCOMM "USING" a specific TLK file. It also can be used to initiate a particular COMMCENTRE task from the AMOS dot prompt, or from other menu's.

AMTECP.TLK - Accesses Alpha Micro's AMTEC system.

AMUS.TLK - Accesses the Alpha Micro User's Society network computer.

ATT.TLK - Accesses AT&T Mail.

CIS.TLK - Accesses Compuserve Information Service via the Compuserve Network, Tymnet or Sprintnet.

DELPHI.TLK - Accesses Delphi Information Service via Delphi direct, Tymnet or Sprintnet.

DI.TLK - Accesses DIALOG Information Services via Tymnet or Sprintnet.

DJNS.TLK - Accesses Dow Jones News/Retrieval via MCI Mail, Tymnet or Sprintnet.

DIALER.TLK - Used by the DIALER system.

ELDIR.TLK - Accesses the AT&T EasyLink Directory

ELINK.TLK - Accesses EasyLink.

ELMBX.TLK - Accesses EasyLink, reads and saves any messages, returns to the Menu.

ESLS.TLK - Used in QuikLetter system to access EasyLink and send an EasyLink QuikLetter.

FILTER.TLK - File that can be included in user talk file to filter "garbage" characters.

FYI.TLK - Accesses Western Union's For Your Information service.

FYINWS.TLK - Accesses FYI, gets the latest news, returns to the Menu.

FYISPT.TLK - Accesses FYI, gets the latest sports, returns to the Menu.

GENIE.TLK - Accesses the Genie Information Service via the Genie Network.

GRH.TLK - Accesses Graphnet "Store and Forward" message service.

GRHRT.TLK - Accesses Graphnet "Real Time" telex service.

LEXIS.TLK - Accesses Lexis via Tymnet or Sprintnet using modified VT100 emulation.

LEXTTY.TLK - Alternate version of LEXIS.TLK that uses TTY emulation.

MCI.TLK - Accesses MCI Mail via MCI or Tymnet.

MCIMBX.TLK - Accesses MCI Mail, reads and saves any messages, returns to the Menu.

MCIS.TLK - Used in QuikLetter system to access MCI Mail and send an MCI Mail QuikLetter.

NETCOM.TLK - Accesses the Internet via Netcom Online Communications.

NWSNET.TLK - Accesses NewsNet via Tymnet or Sprintnet.

TYMINF.TLK - Accesses TYMNET for info on phone access.

TELINF.TLK - Accesses SPRINTNET for info on phone access.

TELLOG.TLK - File called by other USING files to log onto Sprintnet.

WLINK.TLK - Accesses Westlaw via WestLink or Sprintnet.

RCVFIL.TLK - Script file used by the example program RCVFIL.BAS. (RCVFIL.BAS is archived in SRCBAS.LIT.)

SNDFIL.TLK - Script file used by the example program SNDFIL.BAS. (SNDFIL.BAS is archived in SRCBAS.LIT.)

TSTCM1.TLK - Script file to test that PIC is correctly installed.

TSTCM2.TLK - Script file to test if VersiCOMM can communicate with the modem.

TSTCM3.TLK - Script file to dial another system.

## OFF Files

OFF files contains the command, or sequence of commands, necessary to log off the service accessed via a TLK file. It is used to automatically disconnect you from a service when you exit VersiCOMM. The following OFF files are included:

AMUS.OFF	ATT.OFF	CIS.OFF	DI.OFF
DJNS.OFF	ELDIR.OFF	ELINK.OFF	ELMBX.OFF
FYI.OFF	FYINWS.OFF	FYISPT.OFF	GENIE.OFF
LXTTY.OFF	MCI.OFF	MCIMBX.OFF	NWSNET.OFF
TELINF.OFF	TYMINF.OFF		

## Modem Control Files

Modem control files are now generated using the Build function of the DIALER's Modem Setup Screen. The following files are used as models for the actual files:

MODEL1.AT0	MODEL1.DL0	MODEL1.HU0
MODEL1.AT1	MODEL1.DL1	MODEL1.HU1
MODEL1.AT2	MODEL1.DL2	MODEL1.HU2



These files are model modem control files and cannot be used directly as actual modem control files. The DIALER Build function creates the actual files.

## Modem Initialization Files

MT1432.INI - A script file that can be used to initialize Multi-Tech 1432 Series modems.

UDSFAS.INI - A script file that can be used to initialize UDS V.32/5 and V.32/42 modems.

UDSV32.INI - A script file that can be used to initialize UDS V.3225 modems.

## VersiCOMMander Files

CMM\*.MNU - Files used by VersiCOMMander to create pop-up menus.

CMMSG1.MSG - Message file.

CMMSG1.M68 - Source file for message file.

## Selected Program Source Files

### BASIC Program Source Files

The following AlphaBASIC programs are Z/Archived in the self-extracting file SRCBAS.LIT.

DIALR5.BAS - AlphaBASIC source program for the DIALER system.

EXPDLR.BAS - AlphaBASIC source for DIALER data file sort and expansion utility program.

LSTMDM.BAS - AlphaBASIC source for DIALER utility program to list modems in modem data file.

PNTFIL.BAS - Source file for PNTFIL.RUN. Is used to print a file from within the COMMCENTRE Menu.

VUEFIL.BAS - Source file for VUEFIL.RUN. Is used to VUE a file from within the COMMCENTRE Menu.

GETPIN.BAS - Source file that illustrates the use of GETPIN.SBR.

SETPIN.BAS - Source file that illustrates the use of SETPIN.SBR.

RCVFIL.BAS - Program that illustrates a basic method to RETRV a list of files from another system.

SNDFIL.BAS - Program that illustrates a basic method to TRANS a list of files to another system. Also refer to the /FILE switch in the TRANS documentation.

## M68 Program Source Files

FILTER.M68 - VersiCOMM has the capability to filter or translate any single character it receives or transmits. (See the description of the LOCAL and REMOTE commands in the *Commands* chapter of the VersiCOMM OPERATION Manual.) The program FILTER.M68 has been included in order to handle a special case where it is desirable not to filter a character from a file until after the file has been received and closed. Such a situation occurs with linefeeds (^J) in files received from EasyLink. See the program listing for additional information. FILTER.LIT is now included in the COMMCENTRE account and is used to post-filter the EasyLink file ELMBX.TXT

MINREC.M68 - This is an assembly language source program file for a very simple receive program. Once MINREC.LIT is in place on a remote computer, it may be run by someone using VersiCOMM to receive a file that is transmitted with VersiCOMM's SEND command. The transfer is controlled by the person using VersiCOMM and no remote user intervention would normally be required. VersiCOMM need not be resident on the remote system. This program was written to be minimally sized so it could be entered onto a remote system using VUE.

MINSND.M68 - This is a send analog to MINREC.M68. Once MINSND.LIT is in place on a remote computer, it may be run by someone using VersiCOMM and used to transmit a file that is received with VersiCOMM's RECEIVE command. The transfer is controlled by the person using VersiCOMM and no remote user intervention would normally be required. VersiCOMM need not be resident on the remote system.



# Appendix

---

## Example Configuration: Multi-Tech MT1432

Following are guidelines for configuring Multi-Tech 1432 Series modems. Configuration of other Multi-Tech models is similar.

### Switch Settings

The switch settings for the Multi-Tech MT1432-BA is given in Figures 5. These settings assume the modem is cabled as suggested in Figure 1, and that the modem will be used on a dial line, not a leased line. This configuration corresponds to the factory defaults for dialup use, except for switches 3 and 7.

Switch	Position	Comment
#1	UP	DTR dependent on interface
#2	UP	Hardware Flow Control
#3	UP	Dumb Answer Mode Enabled
#4	UP	UUCP Spoofing Off
#5	UP	Auto-Answer On
#6	UP	Max Throughput On
#7	UP	RTS Functions Normally
#8	DOWN	Enable Command Mode
#9	DOWN	Remote Digital Loopback On
#10	UP	Dial-Up Operation
#11	DOWN	Multi-Tech Responses
#12	DOWN	Asynchronous Mode On

Figure 5. Multi-Tech MT1432-BA Switch Settings

### Modem Memory Configuration

The MT1432 can be configured automatically using the script file MT1432.INI, or manually by entering several modem commands.

## Automated Configuration



The modem DIP switches should be set as specified in Figure 5., prior to using the initialization script file to automatically configure the modem.

A script file, MT1432.INI is included in the VersiCOMM-Plus release to assist in configuring Multi-Tech modems as suggested in this section. To execute this script file enter the following command:

```
COMM modem-name USING MT1432.INI
```

## Manual Configuration

First use the following "AT" commands to reset the modem to the factory defaults. Each command should be followed by a .

```
AT&F8      &F will read factory default values and switch settings.
AT&F      Read defaults and switches.
```

Then enter the following commands:

```
AT&E7      XON/XOFF passed through
AT&E13     Pacing On
ATX4      Extended result codes.
ATE0      Command Echo Off.
AT%E5     OK in response to +++
```

Now use the command AT&W0 to save these parameters in non-volatile RAM. Be sure command echoing (E0) is off when you enter this command.

You can check if the modem accepted the commands by entering an ATZ command to reset the modem, and then using the ATL5 and ATL7 commands to check the configuration. If the modem did not accept the commands then check the setting of the &W0 Enable Jumper on the modem circuit board.

Other Multi-Tech models may require entering one or more of the following configuration commands:

```
AT&E4      CTS modem initiated flow control
AT&R1      Force CTS initially high
AT$BA0     Speed conversion on
AT&C1      Carrier Detect acts normally
AT&D2      DTR drop same as ATZ command
AT&RF1     CTS acts independently
```

Older Multi-Tech models, such as the 224E may require setting a 4-Position DIP switch as follows:

#1	DOWN	CTS Act Normal
#2	UP	Dial-Up Operation
#3	user preference	Wait for Dial Tone or Blind Dial
#3(new)	user preference	Hayes or Multi-Tech Responses
#4	DOWN	Asynchronous Operation

Even older models may require correctly setting internal jumpers in order to enable CTS flow control and pacing.



# Index

---

## A

- Access Parameter Definition, 27
- Access Phone Numbers
  - COMMCENTRE, 27
- AM350
  - Restrictions, 13
- AMOS INI File
  - Warning, 7
- AMOSL.INI File
  - Adding RCLOCK, 24
- AMTEC-Plus
  - USING File to Access, 44
- AMUS
  - USING File to Access, 44
- ATT
  - USING File to Access, 44

## B

- BPXFER.LIT
  - What it is used for, 37
- BPXFER.RTI
  - What it is used for, 37

## C

- Cable
  - Alpha Micro to Alpha Micro, 15
  - Alpha Micro to Modem, 14
- Changes in Operation, 8
- Checking Installation
  - COMMCENTRE, 35
- CHGTDV.LIT
  - What it is used for, 37
- CMM001.LIT

- What it is used for, 37
- CMM002.LIT
  - What it is used for, 37
- COMM.LIT
  - What it is used for, 37
- COMM.PIC
  - How to Generate, 43
  - What it is used for, 43
  - Where to Put, 43
- Command Recall, 9
- Commands
  - Requiring RCLOCK, 23
- COMMCENTRE
  - Access Parameter Definition, 27
  - Access phone numbers, 27
  - Checking installation, 35
  - Passwords, 27
- COMMCENTRE FILES
  - Description of, 44
- COMMR.PIC
  - How to Generate, 43
  - What it is used for, 43
  - Where to Put, 43
- Communication Subroutines, 8
- CompuServe
  - USING File to Access, 44
- D**
- Delphi
  - USING File to Access, 44
- DIALER
  - Expand and Sort, 9
- DIALER Access Parameter Definition, 27
- DIALOG
  - USING File to Access, 44
- DIALR5.BAS
  - What it is used for, 46
- Dow Jones
  - USING File to Access, 44
- E**
- EasyLink
  - USING File to Access, 45
  - USING File to Pickup Messages, 45
- EasyLink Directory
  - USING File to Access, 44
- Emulation, 9
- Enhancements, 8
- EXPDLR.BAS
  - What it is used for, 47

**F**

- FastQ, 24
  - Enabling, 26
- FasTrans Compression, 9
- File List Processing, 9
- FILTER.LIT
  - What it is used for, 37
- FILTER.M68
  - What it is used for, 47
- Forced Access, 9
- FYI
  - USING File to Access, 45
  - USING File to Pickup News, 45
  - USING File to Pickup Sports, 45

**G**

- GCMARG.SBR
  - What it is used for, 43
- GEN.TDV
  - What it is used for, 39
- GENBOX.TDV
  - What it is used for, 39
- Generating Modem Control Files, 19
- Generating PIC Files, 18
- Genie
  - USING File to Access, 45
- GETPIN.BAS
  - What it is used for, 47
- Graphnet
  - USING File for Real-Time Telex, 45
  - USING File to Access, 45

**I**

- ICOMM.RUN
  - What it is used for, 43
- INI.TIW File, 20
- INI.TLK File, 24
- Initialization File, 24
- Installation Check
  - Dial In and Log On, 31
  - File Transfer, 33, 34
  - PIC, 29
  - Talking to the Modem, 30
- Installation Overview, 7
- Installing the VersiCOMM Software, 18
- Internet Access Support, 8

**K**

- Keying problems, 30

## L

- Lexis/Nexis
  - USING File to Access, 45
- LSTMDM.BAS
  - What it is used for, 47

## M

- MATCH.LIT
  - What it is used for, 37
- MCI Mail
  - USING File to Access, 45
  - USING File to Pickup Messages, 45
- Memory Requirements, 27
- MINREC.M68
  - What it is used for, 47
- MINSND.M68
  - What it is used for, 47
- MLOFF.LIT
  - What it is used for, 37
- MLON.LIT
  - What it is used for, 38
- Modem
  - Configuration Guidelines, 16
  - Example Configuration, 49
  - Installation and Configuration, 16
  - Multi-Tech 1432 Configuration, 49
- Modem Control Files
  - Generating, 19
- Modem Guidelines
  - Phone Connection, 16
- Modem Job, 14
- Modem Polling Files, 28

## N

- Netcom
  - USING File to Access, 45
- NewsNet
  - USING File to Access, 45

## O

- Option Indicators
  - File Transfer, 34

## P

- Passwords
  - COMMCENTRE, 27
- Patches, 8
- PCMARG.SBR
  - What it is used for, 44
- PIC code problems, 30

- PIC Codes
  - Obtaining, 43
- PIC File
  - Generating, 18
- PIC file read error, 30
- PIC Files
  - Copying to [7,0], 19
- PIC Installation Errors, 30
- PNTFIL.BAS
  - What it is used for, 47
- Port
  - Definition via TRMDEF, 14
  - Selecting, 13
- PSEUDO Driver
  - As Default Driver, 14
- R**
- RCLOCK, 23
  - Adding to INI File, 24
- RCLOCK.LIT
  - What it is used for, 38
- RCLOCK.SYS
  - Adding to INI File, 24
  - What it is used for, 38
- RCVFIL.BAS
  - What it is used for, 47
- Recommended For All Installations, 23
- Record and Playback, 9
- RECX.LIT
  - What it is used for, 38
- RECZ.LIT
  - What it is used for, 38
- RECZ.RTI
  - What it is used for, 38
- Release
  - Organization, 10
- Required For All Installations, 13
- Restoring Software from AlphaCD, 18
- Restoring Software from VCR Tape, 18
- RETRV.LIT
  - What it is used for, 38
- RX.LIT
  - What it is used for, 38
- RZVA.LIT
  - What it is used for, 38
- S**
- SENDX.LIT
  - What it is used for, 38
- SENDZ.LIT
  - What it is used for, 38

SENDZ.RTI  
    What it is used for, 38  
SETPIN.BAS  
    What it is used for, 47  
SHWGEN.LIT  
    What it is used for, 39  
SHWLEX.LIT  
    What it is used for, 39  
SHWV52.LIT  
    What it is used for, 39  
SHWVT1.LIT  
    What it is used for, 39  
SNDFIL.BAS  
    What it is used for, 47  
SPRINTNET  
    USING File to Access, 45  
SSD Codes  
    Obtaining, 43  
SSD keying problems, 30  
STRIP, 8  
SX.LIT  
    What it is used for, 39

## T

Terminal Driver  
    PSEUDO driver, 14  
    Selecting, 14  
Terminal Emulation, 9  
Test File  
    Transferring, 34  
TNZA.LIT  
    What it is used for, 39  
TRANS.LIT  
    What it is used for, 39  
TREAD.SBR  
    What it is used for, 44  
TRMDEF  
    Example of, 14  
TRMDEF Statement  
    In System Initialization File, 14  
TRMDEF Terminal Name  
    Default, 14  
    Selection, 14  
TRMSTS.LIT  
    What it is used for, 39  
TWAIT.SBR  
    What it is used for, 44  
TWRITE.SBR  
    What it is used for, 44  
TYMNET  
    USING File to Access, 45

## U

### UDSFAS.INI

What it is used for, 46

### UDSV32.INI

What it is used for, 46

Updating RZVA and TNZA, 34

### USING File

Graphnet Real-Time Telex, 45

To Access AMTEC-Plus, 44

To Access AMUS, 44

To Access AT&T Mail, 44

To Access Compuserve, 44

To Access Delphi, 44

To Access DIALOG, 44

To Access Dow Jones, 44

To Access EasyLink, 45

To Access EasyLink Directory, 44

To Access FYI, 45

To Access Genie, 45

To Access Graphnet, 45

To Access Lexis/Nexis, 45

To Access MCI Mail, 45

To Access Netcom, 45

To Access NewsNet, 45

To Access Sprintnet, 45

To Access Tymnet, 45

To Access WestLaw, 45

To Pickup EasyLink Messages, 45

To Pickup FYI News, 45

To Pickup FYI Sports, 45

To Pickup MCI Mail, 45

## V

### VersiCOMM

HELP files, 32

Memory requirements, 27

Minimum configuration, 10

VersiCOMM Clock, 23

VersiCOMM vs. VersiCOMM-Plus, 11

VersiCOMMander File Manager, 9

### VPSTRN.LIT

What it is used for, 39

### VUEFIL.BAS

What it is used for, 47

## W

### WestLaw

USING File to Access, 45

**X**

X.LIT

What it is used for, 39