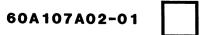# THE NEW
ATARI® 1030™ MODEM
SOFTWARE PACKAGE

INTRODUCTION

Three separate communication programs are featured in this new software package on the floppy disk provided with your new ATARI 1030 Modem.

AMODEM

Featuring the XMODEM protocol for file and program transfers, AMODEM is written in BASIC for easy customization by users.

TSCOPE

Used with COMPUSERVE A-Protocol for transferring files; i.e., downloading Public Domain ATARI programs, TSCOPE also contains autodial/ autolog-on features.

DISKLINK

Supporting file transfers between two ATARIs running either ASCII text or modified XMODEM protocol is DISKLINK.

You can run DISKLINK and TSCOPE directly from the ANTIC disk. We suggest a separate disk for each including the DOS 2 files. Since these programs will not run with DOS 3, DOS 2 is provided on the disk. Subsequent sections will describe the procedure. The BASIC cartridge must be inserted into the computer for AMODEM operation but should not be inserted for TSCOPE and DISKLINK.

To run TSCOPE and DISKLINK without the BASIC cartridge:

1. Insert the ANTIC disk into the disk drive.

2. Turn on the computer, and the system will display the DOS menu.

3. Type L <CR> for Binary Load (<CR> will means to press the RETURN key).

4. Type either TSCOPE.OBJ <CR> or DISKLINK.OBJ <CR> for your choice of programs.

5. To return to DOS

   ● From TSCOPE, press SELECT-CTRL-ESC.
   ● From DISKLINK, press RESET.

NOTE: The 800XL and 1200XL have built-in BASIC and do not need the BASIC cartridge. Leave the cartridge out if you are using a 400 or 800.

CREATING A SYSTEM DISK

1. Turn the T.V. set and disk drive on. Wait until
    the BUSY light is extinguished before inserting
    the ANTIC master Diskette.

2. Insert the BASIC cartridge into the computer
    console. (Omit this step if you have an 800XL or
    1200XL.)

3. Turn on the computer console and wait for the
    first page of ANTIC documentation to appear on
    the T.V.

4. Press RESET for the ready prompt. Type DOS <CR>
    to enter DOS 2. The DOS menu will appear.
    Replace the ANTIC diskette with a blank
    diskette.

5. To format the new disk, type I <CR>. Type 1
    <CR> to choose drive #1. Type Y <CR> to do the
    formatting process.

6. Create the System Disk by typing H <CR>. Type 1
    <CR> to choose drive #1. Type Y <CR> to copy
    the DOS files onto the new disk.

AMODEM Software
for the 1030 MODEM, VER. 4.2

by Jim Steinbrecher

CREATING AN AMODEM BOOTABLE DISK

1. Create a System Disk as described earlier.

2. Also copy RHANDLER.835 onto the new disk and rename it AUTORUN.SYS.

3. Copy AMODEM42.835 onto the new disk as well.

4. Turn off your computer. Insert the BASIC cartridge, put your new disk in the disk drive, turn on the modem and any other peripherals connected to your computer. Now you may turn the computer back on.

5. When the "835 MODEM" and "READY" prompts appear type RUN "D:AMODEM42.835" and press RETURN.

6. Read the following information for a description of AMODEM features.

AMODEM is a terminal program written in Atari BASIC which allows access to all public bulletin board systems (BBS) and time-sharing services, like CompuServe and The Source. AMODEM features the XMODEM protocol for easy uploading and downloading from many Atari and CP/M BBS. XMODEM is the only way to download non-ATASCII (tokenized BASIC and binary) files. Customization of this program is possible because the source code is on the disk.

A list of AMODEM commands follows.

R - RECEIVE

Use this function to download from another Atari or from a BBS that uses XMODEM protocol. If you are downloading from an Atari BBS that uses XMODEM, it will ask whether you are using XMODEM protocol. Answer "Y", then follow these instructions. If you and a friend are transferring files between your Ataris, you should both be using AMODEM. After you press [R], you are prompted for a file specification for the file to be downloaded. The file specification includes the device name and, if applicable, a file name. If you're using cassette, you need only type "C:". After you answer the prompt the file is opened immediately, so make sure your storage peripheral and media are properly prepared. Once you are back in terminal mode, press

[START] (as prompted by the BBS if everything is OK), and the rest of the download is automatic. The screen turns red, and the file is received in 128-byte blocks. When transfer is complete, the file is saved, the screen turns blue, and you're returned to terminal mode.

S - SEND

This function allows you to send files to another system that uses XMODEM protocol. The procedure is similar to that for downloading (see R above). After you press [SELECT] and [S], respond to the prompt for upload file specification. Then AMODEM reads the file from the peripheral. Once you are back in terminal mode, press [START], and the file is automatically transmitted.

C - CAPTURE

Used to download from a system that does not use XMODEM protocol or simply to save received text. After pressing [SELECT] and [C], type in a file specification. If you press [OPTION] now, the screen turns black, and the received data is printed on the screen and also saved in the capture buffer.

Toggling the capture feature on and off with the [OPTION] key saves selected portions of the transmitted text. If you want to clear the capture buffer while saving the file specification but not the text, press [START]. When you have finished capturing, press [SELECT] and then [D] which causes the data to be "dumped" into the file previously specified.

U - UPLOAD

Use this to upload to a system that does not use XMODEM protocol. After you press [SELECT] and [U], type in a file specification and wait for it to be loaded into the buffer. When you are ready to send, press [START].

T - TRANSLATION

This function toggles between ATASCII (no trans-lation) and ASCII (light translation) format. Use ATASCII with Atari BBS's and between two Atari computers, and ASCII with all other systems. You must be in ATASCII to transfer an Atari machine-language or tokenized BASIC file. This version of AMODEM, VER. 4.2 for the 1030 modem, boots up in ATASCII mode.

P - DUPLEX

Use half duplex between two Atari computers and full
duplex for all others. Press [P] for full-duplex
operation.

M - MENU

Use [M] to get a directory listing from all online
disk drives. For a directory from only one disk
drive, press the appropriate number (1-4).

B - BAUD

The default baud rate is 300 because your Atari 1030
modem is capable of operating only at this speed.
Pressing [B] will change this to 600 or 1200 baud.
With this modem, leave the baud rate at 300.

D - DUMP

This function is used to download from a system that
does not use XMODEM protocol, or to save received
text. See CAPTURE on the previous page.

TSCOPE Terminal Program
by Joe Miller

CREATING A TSCOPE BOOTABLE DISK

1. Create a System Disk as described earlier.

2. Copy the TSCOPE.OBJ file from your ANTIC disk provided onto the new disk. Rename it AUTORUN.SYS.

3. Turn off your computer. Remove the BASIC cartridge, put your new disk in the disk drive, turn on the modem and any other peripherals connected to your computer; then, turn back on your computer. Follow this procedure for the 800XL except there will be no BASIC cartridge to remove.

4. Boot up your system using the new disk.

5. As an alternate method, the TSCOPE.OBJ file can be loaded directly from the DOS mode using the L-Load Binary File command. To do this from BASIC, type DOS <CR> to get to the DOS menu. The TSCOPE.OBJ (or AUTORUN.SYS if a separate TSCOPE disk was made) program can then be loaded and run from the ANTIC disk.

INTRODUCTION

The TSCOPE terminal program will allow users of the 1030 modems to transfer (UPLOAD and DOWNLOAD) both ASCII and BINARY files to CompuServe's SIG*ATARI, then save them to disk.

TSCOPE will only support the CompuServe A-Protocol for transferring files. It will NOT work on an ATARI bulletin board system (BBS). TSCOPE does not support file transfers to cassette. To support the ATARI BBS, use the DISKLINK program also found on the disk.

COMMANDS

To see a menu of available commands, press the HELP key on XL models or the ATARI key on the 400/800 computers. When you see the key-combination "CON-6", hold down the SELECT key and press the number 6. The commands are self explanatory. To quit TSCOPE and return to the DOS menu, you must have a disk with DUP.SYS in disk drive 1. Simultaneously press the SELECT key, the CTRL key, and the ESC key. The BREAK key sends a CTRL-C to CompuServe when online. Be careful not to hit the BREAK key when you intend to press the BACKSPACE. The CTRL-C will abort most CompuServe operations.

While TSCOPE is not a full version of a CompuServe VIDTEX terminal program, it will support some of the VIDTEX functions. These include the UPL and DOW commands for file transfers and the ONLINE color graphics available on various parts of the system. However, you must also configure your CompuServe Information Services (CIS) terminal parameters to the VIDTEX standards. To do this, go to page CIS-9 and follow the menus. When asked for a terminal type, pick VIDTEX. If CIS, exit DEFAULT (item 6), and when prompted, choose to make this configuration PERMANENT FOR ALL FUTURE SESSIONS.

If you will be using other terminal programs in addition to TSCOPE, you should do the following:

1. Follow the same procedure as above, but when exiting, select to make these terminal defaults for the CURRENT SESSION ONLY.

2. Immediately upon exiting the DEFAULT program from any page of DISPLAY, type 'PRO' to get to the OK prompt. Then to define the current terminal settings as a unique file that can be invoked by a single name use the command: TER DEF VIDTEX.

3. When prompted for your USER ID: during a subsequent session using TSCOPE with CompuServe, enter your PPN with an '*' and the name of the terminal settings you wish to invoke. Here is an example of what it might look like:

   User ID:76703,254*VIDTEX

If you need assistance in defining alternate terminal configurations as in the example above, leave a message for the CompuServe System Operator (SYSOP).

FILE TRANSFER

TSCOPE will support file transfers ONLY on CIS using their ERROR-FREE A-Protocol. When you wish to upload (UPL) to, or download (DOW) from CompuServe, the following conventions apply:

1. Use the scan (S) or browse (BRO) commands in the XA's to determine the exact name of the file on CIS you wish to download to your ATARI and save to disk.

2. To initiate the file transfer, use the command: DOW filename (where filename is the name of the program on CompuServe).

3. After the system determines you are using TSCOPE or any VIDTEX compatible terminal program, it will ask you for a filename to be used by the ATARI when it saves the program. Enter a full, valid ATARI filespec (which does not need to be the same name as the file on CIS) in the form: D:FILENAM.EXT.

4. The system will then take over and write the program directly to your disk. You will be notified upon completion, or upon aborting the transaction for any reason.

To upload a file from your ATARI to CompuServe, you must:

1. Have the file available on your disk.

2. Use the command: UPL filename, where filename is a valid CompuServe filename up to 6 letters with a 3 character extension such as MYFILE.TXT.

   NOTE: CIS places special importance upon the 3 letter extension when you select a filename. If you are uploading a binary file, you must use the extender BIN.

3. The system will ask you for the filespec of the program as it is named on your disk.

4. When you upload a file to our XA's, you will be expected to provide a few meaningful KEYWORDS. Enter 2-4 single keys separated by a space. End KEYWORD input with <CR>.

5. You will be asked to provide a SHORT description explaining your program. Do not try to cram all the DOC into this space; it is better to upload a separate DOC file.

AUTODIAL/LOG ON

Frequent users of TSCOPE may wish to enable the autodial/log on feature of the program. To use this facility, a file must be created on your TSCOPE disk with the name 'AUTODIAL.SYS'. The information below describes how to create the file. Any text editor may be used. The format of the file should be:

    telephone number[
    logon information

TELEPHONE NUMBER LINE The telephone number may contain up to 18 digits. The vertical bar character **|** may be embedded within the telephone number to pause for three seconds between digits. You may wish to embed other special characters for readability, such as '-' or ' '; only the digits 0 through 9 will actually be dialed. The left bracket ('[') should be used to terminate the telephone

number. It is used as a pause character by the program, allowing you to start the actual dialing process by pressing <CR> after the disk has been booted. If you replace the '[' character with a <CR>, the program will start the dialing and log on sequence immediately after if has been loaded.

LOG ON INFORMATION LINE The log on information is the string of characters you would normally enter from the keyboard yourself to gain access to the information service of your choice. Typically, it will contain at least a 'username' and a 'password'. Usually the process of logging into a service is done in a series of steps; the host service prompts you for information along the way. In order for TSCOPE to do this automatically, you will need to describe this prompting sequence within your AUTODIAL.SYS file. The right bracket character (']') is reserved for just this purpose. When a ']' is found within the string, TSCOPE quits sending characters, reads the next character in the string, and waits until that matches a character sent by the host service. When it finds a match, it continues sending the string.

For example, if the information system uses this log on sequence:

            USERNAME:
            PASSWORD:

the log on string would look like:

            ]:myusername
            ]:mypassword

This instructs TSCOPE to look for the first ':', send 'myusername', then wait for another ':' and transmit 'mypassword'.

Control characters may be embedded in the log on string either by typing the actual control character (ASCII 0 through 31), such as a 'CTRL-C'. This is accomplished by holding the CTRL key down while pressing the C. (This is similar to the way a SHIFT-C would be used to send an upper case C).

EXAMPLE The following is an example of the entire contents of an AUTODIAL.SYS file which will dial the telephone, wait for the answering system to respond with a carrier signal, send a 'Control-C', wait for another ':', send the password, wait for a '!' character and, finally send the command 'GO PCS-132':

            555-1234[C]:76543,210   ('Control-C' is
            ]:MY*PASSWORD   represented by C.)
            ]!GO PCS-132

The EOL characters in the AUTODIAL.SYS are converted to carriage returns (HEX 13) and sent to the host service. The AUTODIAL.SYS file may contain a maximum of 256 characters.

DISKLINK Software

CREATING A DISKLINK BOOTABLE DISK

1. Create a System Disk as described earlier.

2. Also copy DISKLINK.OBJ onto your new disk and rename it AUTORUN.SYS.

3. Copy DISKLINK.HLP onto the new disk.

4. Turn off your computer. Remove the BASIC cartridge and put your new disk in the disk drive. Turn on the modem and any other peripherals connected to your computer; then, turn back on your computer.

5. Once the program has booted up, depress the "HELP" key to display the "HELP" file listed in the DISKLINK menu. Now you will be able to read the "HELP" file.

6. With the exception of HELP, once a menu item is chosen, that item is begun by depressing the "START" key.

7. More detailed information on DISKLINK's features are contained in the DLINK2.DOC file.

INTRODUCTION

DISKLINK is offered to 1030 modem owners as an example of what can be done with "Macintosh-like" features such as pop-up menus and screen bit-mapping. However, DISKLINK cannot replace AMODEM for all-around bulletin board system (BBS) use, nor TSCOPE for CompuServe use.

DISKLINK is a highly unusual program, and has not yet been thoroughly tested and documented. It is provided here to let you experiment with its operation. If you are a novice to telecommunications, caution should be exercised when using this program.

FEATURES

The two parts of DISKLINK consist of a 178 sector compiled terminal program and a 50 sector supplemental helptext file.

DISKLINK supports file transfers between two ATARI computers which run this program in either ASCII text or modified XMODEM protocol. As described in the DOC files, AMODEM and the AMIS BBS programs can be modified with DISKLINK. The necessary modifications for compatibility are available in CompuServe XA 2.

TECHNICAL DESCRIPTION

DISKLINK uses the well known and widely used file transfer protocol called XMODEM. (XMODEM is in the public domain and was specifically developed for sending files between CP/M systems.) The initial implementation of the XMODEM protocol lacked provisions for sending files which are not exact multiples of the normal 128 byte ATARI block. Fortunately, nearly all of the common ATARI implementations of XMODEM use the same general approach in solving this problem. They include a byte-count in the last 128-byte block of transmission. This byte-count is the amount of valid data in the last block of the transmitted file. Both the AMODEM terminal program and the AMIS BBS replicate the byte-count in the remaining, unused bytes of the last block.

DISKLINK replicates the byte-count in a similar manner. To determine the byte-count when receiving files, DISKLINK uses only the low order seven bits of the last block's final byte. Hence DISKLINK is compatible with CHAMELEON, AMIS, and AMODEM; however, DISKLINK is not able to receive from or send to CP/M systems. It is also incompatible with the XMODEM protocol in the current versions of AMIS and AMODEM.

As an aid to novice users, DISKLINK permits two users to type messages between each other during file transfers, although in a somewhat halting fashion. Consequently an experienced user can guide the novice through the first few file transfers. This enhances communication between users during long file transfers. However two problems exist. Normally XOFF must be sent after each typed message so the other user will know when to respond. Unfortunately, the current version of AMODEM, VER. 4.2, interrupts XOFF as if it were SOH which normally starts a transmission. So the XOFF starts receiving blocks prematurely. Secondly, the current version of AMIS fails to distinguish the XOFF from CAN which aborts the file transfer, so it gives up before communication begins.

Both of these problems are easy to fix. Updated versions of AMODEM and AMIS are available in XA2 AMIS-1.NEW which replaces AMIS-1.BBS. AMIS-2.BBS remains unchanged. The current versions of these programs (from CompuServe) can download only the changes from AMODEM.MOD and AMIS.MOD. These changes are entered over your existing versions to save time.

Being popular programs, there are quite a few copies of both these old versions floating around. If you try DISKLINK and like it, please take the time to pass one or both of these updated versions on to your favorite BBS.