



PRELIMINARY

ACS 8600 COMPUTER SYSTEM

ALTOS UTILITY PROGRAM SUPPLEMENT

First Release of this Publication

July 27, 1982

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SECTION 1**MP/M - XENIX FILE TRANSFER PROGRAM (FTP)****INTRODUCTION**

The file transfer programs described in this documentation are used to transfer ASCII text files or binary data files from an Altos-8000 MP/M system to an Altos-8600 XENIX system. These programs should be used only by those readers who are familiar with XENIX and MP/M. The programs do NOT convert MP/M programs to Xenix compatible programs. They simply allow the transfer of files between the two systems. Also, slight variations in program execution are required when transferring ASCII text files as opposed to binary data files. File transfer is unidirectional, that is, from the 8000 system to the 8600 system. While transfer from the 8600 to the 8000 is possible, it is not addressed in this document. In addition, the programs do not provide error detection or correction during file transfers.

DESCRIPTION

Two diskettes are included with this document. One of the diskettes is an MP/M single-density diskette (labelled TOXENIX.COM). This diskette contains the following files:

- TOXENIX.COM - This program passes commands to the 8600 before and after each file transfer. These commands are interpreted and acted upon by the cu program on the 8600 (see cu(1) section of the XENIX manual for more information).
- TOXENIX.C - This is the source for the TOXENIX program (it was compiled using Supersoft's 'C' compiler).
- FILETRAN.DOC - This is a copy of this document.

The second diskette is a XENIX double-density diskette, in tar format (labelled /usr/bin/decode). This diskette contains the following files:

/usr/bin/decode - This program is used to decode binary data files which were transferred using the -B option of the TOXENIX program. It is not used if only text files are transferred.

/usr/src/cmd/decode.c - This is the source for the decode program.

NOTE

If you have a hard disk MP/M system, use the PIP utility to copy the three MP/M files to the hard disk. For your XENIX system, use tar to copy the files to hard disk.

STEP BY STEP INSTRUCTIONS

1. Use a "null modem" cable to connect a terminal port on the 8600 to a port on the 8000 system. Any ports may be connected; however, in the discussion which follows, it is assumed that port 8 (i.e., the line printer port) on the 8600 is connected to console port 3 (JU) on the 8000. The following RS-232 pins must be connected in the cable between these two ports:

8000 end	8600 end
-----	-----
Pin 1	Pin 1
Pin 2	Pin 3
Pin 3	Pin 2
Pin 6	Pin 20
Pin 7	Pin 7
Pin 8	Pin 8
Pin 20	Pin 6

2. Connect your terminal to console port 1 (JX) of your 8000 system. Boot the 8000 system, and run the MPMSETUP program. Consult ALTOS MP/M documentation for a detailed description of this program and its operation. The baud rate of console port 3 (JU) must be set to 1200 baud. After a new copy of the operating system has been written to the disk, the system must be re-booted for the new baud rate to take effect.

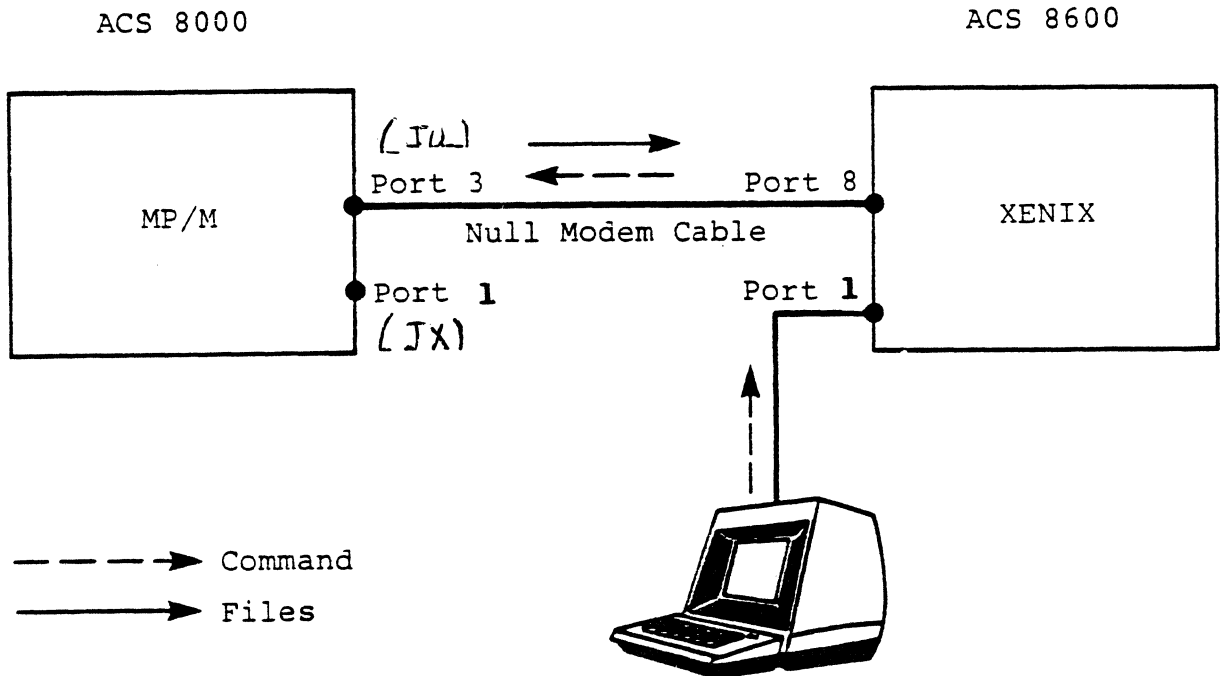


Figure 1. FILE TRANSFER CABLE CONFIGURATION

3. Insert the diskette labelled "TOXENIX.COM" into the floppy drive on the 8000 system, and use the PIP command to copy the program to your hard disk or to your master floppy.
4. Disconnect your terminal from the 8000 system, and connect it to port 1 on your 8600 system. Boot XENIX, and bring it up multi-user. (See the XENIX installation instructions if you don't know how to do this).
5. Enter the following commands on your XENIX system:

NOTE

You must enter commands exactly as they are shown below, with spaces where they are shown. In particular, you **MUST** use spaces to separate each of the parameters on the 'cu' command line. If spaces are not used, the 'cu' program will accept the command, but will not function properly. In addition, all system prompts are printed in lightface type and user input is printed in boldface type.

```
% su<CR>          Comment: This is super-user status so please be
                  careful.

                  Instruction: Insert the diskette labelled
                  "/usr/bin/decode" in the floppy drive immediately
                  before entering the next command.

# tar xv<CR>
# chmod 666 /dev/tty8<CR>
# <CTRL-D>
% cu -t -s 1200 -a /dev/null -l /dev/tty8<CR>
```

The message "Connected" should be displayed on your screen. Type the RETURN key. The standard MP/M connection message "3A>" should be displayed. If nothing happens, your cable is built incorrectly, or the cu command was not entered properly. If garbage is displayed, the baud rate was probably not set correctly.

NOTE

Every line that you type from this point onward is passed to the MP/M system through the XENIX system. Hence, you will see MP/M prompts displayed on your screen, even though your console is connected directly to the XENIX system. See figure 1.

6. To read files owned by a specific user you must enter the appropriate USER command. In the example given below the current user is changed from three to zero.

```
3A> USER 0
0A>
```

7. The TOXENIX.COM program can now be used to transfer one or more files from MP/M to XENIX. To send ASCII text files, use the MP/M command:

```
0A> TOXENIX file1 ... filen
```

File names are full MP/M file names, with spaces separating the files if there are more than one.

To send binary data files, use the command:

```
0A> TOXENIX -B file1 ... filen
```

All of the files mentioned on the command line will be transferred to the 8600. Each file will be saved in the current XENIX working directory, and will have the same name

as the original file on the 8000 system. Each character in a file will be displayed as it is sent except that the RETURN-LINEFEED at the end of each line will be converted to a single XENIX NEWLINE character before the file is sent. This prevents XENIX from converting each LINEFEED into an extra NEWLINE at the end of each line. Unfortunately, this causes the text to appear on the screen as if it were all on one line with no intervening carriage returns.

After all files from a command line are transferred you may continue to transfer additional files by issuing the appropriate command.

8. After all files have been transferred, enter the two character sequence "~." (i.e., curl, dot) at the beginning of a line, followed by a carriage-return. The message "Disconnected" will be displayed; it should then be followed by the normal XENIX prompt, indicating completion of the transfer.

In the unlikely event that the file being transferred contains the "~." sequence as the first 2 characters in a line, the transfer of the file will be terminated prematurely. "Disconnected" will be displayed at that point.

9. If the -B option has been used to transfer any binary files, each byte was encoded as two ASCII bytes before being sent. After you have completed your transfers and have exited from the File Transfer Program each binary file must be decoded by using the XENIX command:

```
% /usr/bin/decode filel ... filen
```