



## Features

- Extends MAX IV or MAX 32 BIOS to access PC files
- ASCII and binary files
- Supports multiple PCs
- Up to 15 files open concurrently per PC
- Sequential and direct access
- Communicates over asynchronous communications links
- ASCII data conversion and compression for faster throughput
- Error correcting protocol interleaves with ASCII text traffic
- Program, Job Control file management of PC files
- Transparent to most standard software
- Allows data exchange with PC applications
- Compatible with, but does not require, TSX or TSX/32
- Compatible with PC MYNAH™ and similar PC communications software

# PC File Support

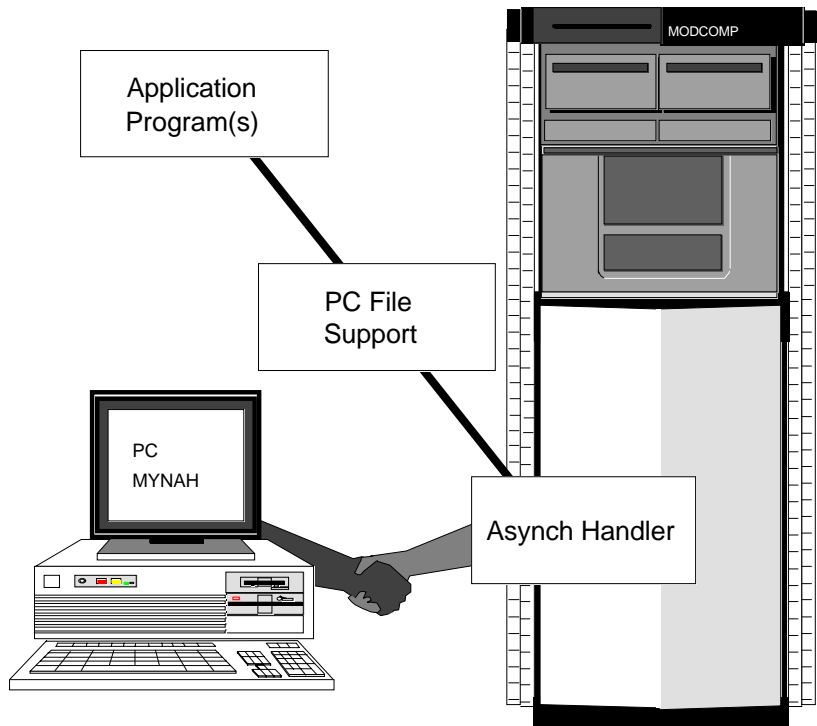


Figure 1: PC File Support Enhances Communications to PCs

PC File Support provides file management and processes logical I/O operations between programs on a MODCOMP<sup>+</sup> Classic or Tri-Dimensional computer and one or more IBM<sup>+</sup> PC, AT, PS/2 or compatible personal computers connected using asynchronous communication links. A compatible communications program, such as Logical Data Corporation's PC MYNAH software, must be installed on each microcomputer. Versions of PC File Support are available for MAX IV and MAX 32 systems with or without TSX.

In this environment, PC File Support can handle all stand-

ard MODCOMP I/O operations to PC disk files as though they were to local MODCOMP disk partitions. This allows application programs and MODCOMP system processors (editors, compilers, etc.) to read and write transparently to the PCs in both binary and ASCII modes using standard MODCOMP BIOS I/O services.

PC File Support processes file transfers at a speed from 3 to 8 times faster than is currently obtainable with typical PC communications programs alone. Additionally, PC File Support provides automatic error checking on each transfer to assure data integrity.

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## File Management

PC File Support includes sub-routines and Job Control directives to perform the following functions: create, open, close, rename, or delete a PC file; create or remove a PC sub-

directory; change the current PC disk drive; and change the current PC directory. The MODCOMP user can also submit command text to the DOS command shell as a command line (if done via a Job Control directive, the user can continue to process directives in parallel to PC operations). Alternatively, program execution can be transferred to DOS for as long as desired, then returned to the MODCOMP via the DOS EXIT command.

### File Attributes

Because each computer system has its favorite standards for storage of information, transferring data from one system to another usually requires some translation for compatibility. Even when both systems use the same format, such as ASCII text, there still may be differences in the way the text is stored. PC File Support is able to handle these differences if told which type of data to expect and the desired format for the target system. This is accomplished by appending one of the following file attribute codes to the command used when opening or creating the file.

**TEXT** - PC File Support translates and writes MODCOMP uncompressed ASCII text to a PC file as sequential, tab-compressed text; it reads PC tab-compressed or uncompressed text and translates it back to uncompressed ASCII text.

**CT** (Default) - On a write operation, PC File Support transfers data in its MODCOMP compressed or uncompressed ASCII text format--the PC communications program converts it to the PC tab-compressed format. On a read, the PC communications program converts the data to MODCOMP compressed format prior to transmission. PC File Support delivers the compressed data to the calling program.

**NOTAB** - an optional modifier of TEXT and CT (compressed) formats to suppress tabulation on PC disks and during TEXT data transmission.

**BINARY** - Binary format defines all PC file records to be 256 bytes regardless of what is written. Null words pad records that are shorter than 256 bytes. This provides a nearly exact emulation of the MODCOMP disk. Both random and sequential access are supported. Read operations transfer a maximum of 256 bytes per record without any conversion.

**VL** - Variable length data is not supported on normal MODCOMP disk operations. To interface with PC programs, the variable length attribute allows exact byte count I/O to be performed sequentially without any data conversion. Variable length records may be any length up to a maximum of 256 bytes.

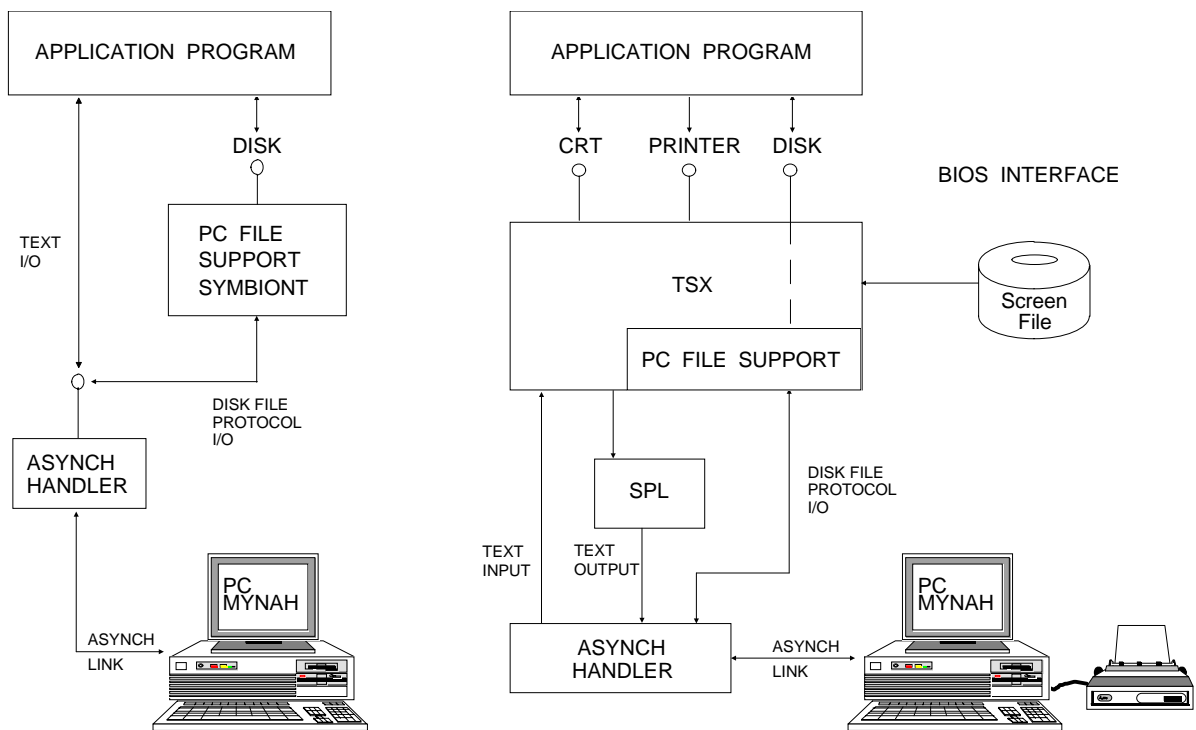


Figure 2: PC File Support Without and With TSX

## System Architecture

PC File Support is supplied in two configurations, one for systems with TSX and a symbiont task for systems without TSX. The symbiont version of PC File Support processes all file and I/O operations to all PCs. Communications occur by sharing the asynchronous link using Take and Give functions.

TSX systems already have a symbiont interface with considerable control over asynchronous communications links. PC File Support is linked with the TSX task and coordinates line usage internally. The TSX configuration

is preferred for more complex systems and dial-up due to better link coordination in abnormal situations.

The user interface and protocol is identical for either configuration.

## Example of Usage

Using Job Control, a file on a USL can be copied to a file created on a PC using the MODCOMP Source Editor (SED) and PC File Support, as shown in the following example:

```
$JOB
$PCCREATE SO MAXIV.ASM CT
$EXE SED
```

```
ASSIGN SI USL
POSITION MAXIV
TRANSFER
EXIT
$PCCLOSE SO
$EOF
```

In the previous example, the \$PCCREATE command created a file name MAXIV.ASM on the current disk directory with a compress text attribute. The sequence of commands to SED positioned the file and copied it to the PC via the logical file SO. (Transfer copies from SI to SO). Then the PC file was closed using \$PCCLOSE. The PC is assumed to be running PC MYNAH, and the user is typing the command on the PC's keyboard.

# ADDENDUM

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The following provisions have been established for Software Licensing, Installation, and Maintenance for PC File Support.

## Documentation

Each PC File Support license includes two reference manuals. Additional copies can be purchased.

## Licensing

PC File Support is a licensed software product and requires receipt of a completed, written LOGICAL DATA CORPORATION PROGRAM LICENSE AGREEMENT prior to shipment. This Agreement provides in part that the software and any part thereof may be used on only the single CPU on which the software is first licensed (provision is made for a backup system), and it may be copied in whole or in part (with the inclusion of the Logical Data Corporation copyright notice and proprietary notice(s) on the software) only for use on such CPU.

## Code Availability

PC File Support is provided to customers in object code format.

## Software Release Media

The standard release of PC File Support is provided on either 9 track 800 or 1600 BPI magnetic tape. Software can be provided on alternate media subject to additional media and labor charges.

## Installation

Software may be installed by the customer or by Logical Data Corporation. Installation is configuration dependent and requires a SYSGEN. Logical Data Corporation provides telephone support without additional charge to assist customers during installation. On-site installation assistance can be provided by Logical Data Corporation at additional charge. Specific information and fees regarding

on-site installation may be obtained by consulting the LOGICAL DATA CORPORATION SOFTWARE PRODUCT CATALOG or by contacting LDC.

## Maintenance

Each PC File Support license includes one year of software maintenance, which consists of telephone support for on-site product problems, software corrections, and all enhancements. After the first year the customer may continue maintenance under the LOGICAL DATA CORPORATION SOFTWARE MAINTENANCE AGREEMENT.

## Customer Service

Logical Data Corporation supplies a complete range of services including consulting, configuration design, site planning, installation, training, and support.

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