

Keeling

EXECUTIVE REQUEST INSTRUCTIONS UNDER OS-3

<u>Code in Bl</u>	<u>Request</u>	<u>Action and Error Conditions</u>
0	DELETE	<p>Delete file name (in AQ) from file directory. File must be equipped as the specified logical unit.</p> <p><u>ERROR</u></p> <ul style="list-style-type: none"> <li>1 unit is not equipped</li> <li>2 file is protected</li> <li>3 unit is not a saved file</li> <li>4 name in AQ does not agree with name of file</li> <li>5 not enough scratch file space for file</li> </ul>
1	SAVE	<p>Save specified logical unit under name in AQ (put name in file directory).</p> <p><u>ERROR</u></p> <ul style="list-style-type: none"> <li>1 unit is not equipped</li> <li>2 there already exists a file with the name given in AQ</li> <li>3 unit is already a saved file</li> <li>4 unit is not a file</li> <li>5 not enough saved file space for file</li> <li>6 name is illegal (such as FILE, PUN, etc.)</li> </ul>
2	UNEQUIP	<p>Unequip the specified logical unit. AQ is ignored.</p> <p><u>ERROR</u></p> <ul style="list-style-type: none"> <li>1 unit is not equipped</li> <li>2 unit is a file which is protected and not saved</li> </ul>
3	EQUIP	<p>If A ≠ 0, equip specified unit as the saved file whose name is in AQ or as the hardware unit whose name is in AQ. See list below. If A = 0, equip specified unit as equivalent to the unit number specified is in Q(0 to 100).</p>

If no error occurs, A contains the status of the unit after equipping it.

**HARDWARE NAMES (in AQ):**

FILE create an empty scratch file  
LP line printer  
PR same as LP  
PUN card punch  
PLOT plotter  
RAF create an empty random access file  
TASK remote batch job  
NULL null (device absorbs and discards all outputs to it)  
MT (in A) magnetic tape  
no. (in Q) reel number in Q

ERROR

1 unit is already equipped  
2 there is no saved file with the name given in AQ (or, perhaps, file is busy)  
3 unit number (in Q) is not equipped  
4 saved file with name in AQ is busy (it is not protected and some other user has it equipped)  
5 not enough tape drives available  
6 illegal tape number or density  
7 not enough hardware available

4 RFP

Remove file protection from specified unit. If it is saved, its name must be given in AQ. If it is not save, AQ is ignored.

ERROR

1 unit is not equipped  
2 file is busy (some other user is equipped to it, too)  
3 name in AQ does not agree with the name of the file  
4 file is public (first character of name is an asterisk) and it belongs to some other user

5 FP

Protect the file which is equipped to the specified unit. AQ is ignored.

ERROR

- 1 unit is not equipped
- 2 unit is not a file

- 6 unused
- 7 ZEROPAGE Effective address (0 to 37<sub>8</sub>) specifies a page in memory, which is set to all zero. A page is 2048 words, and they are numbered from the low end of memory upward. Thus, page 0 extends from address 000000 to 003777, page 13 extends from 054000 to 057777, etc. AQ is ignored.
- 10 LIBCALL Call the library program whose name is in AQ. This involves copying the program into the pages of memory which it is to occupy and transferring control to it. If the library program needs a parameter string, this must have been defined previously by storing ASCII characters, using the ACI instruction. The effective address is ignored.

ERROR

If there is no library program by the name given in AQ, nothing is done and the computer executes the next instruction after the XREQ.

- 11 TIME SET This will set the upper limit on usable CPU time before a "TIME CUT" will result. The time, in seconds, should be placed in the A Register.
- 12 TIME REQ This will return, in the A Register, CPU time (in milliseconds) used since logging on. The Q Register will contain the maximum available CPU time (in seconds) at login.
- 13 MFBLK SET This will set the upper MFBLK limit. The request limit in file blocks should be put in the A Register.

- 14 MFBLK REQ This will return with the maximum file blocks used in the A Register and the current file blocks used in the Q Register.
- 15 SFBLK REQ Returns with the current number of saved file blocks in the A Register and the saved file block limit in the Q Register.
- 16 PURGE This will remove all existing characters from the parameter string.
- 17 SET MEM PROTECT This will enable the memory protect violation message if the low order bit in the address field of the XREQ is set. The message will be disabled if the bit is not set.
- A memory protect violation occurs when a "STORE" is attempted into a system pure page.
- The message is disabled after the user has been informed.
- 23 ASSIGN This will send a line printer (LUN in the address field of the XREQ) to a particular output device. The device number is specified in the A Register.
- ERROR
- 1 LUN is not equipped
- 2 LUN is not a unit record device
- 24 PAGE SIZE This will return, in the A Register, the number of print lines per page on the system standard line printer.
- 25 FILE SIZE This will return the file length (in blocks) in the A Register for the LUN specified by the address field of the XREQ. The Q Register contains the following information for each specified device listed:

<u>Device Type</u>	<u>Q Register</u>
Regular Files and RAFS	Garbage
Unit Record Equipment (LP, PUN, etc.)	Record Count
Magnetic Tape	Tape Device Number
MSF	Number of Seconds On- Line

- 26            DELAY REQ      This will suspend the running of a user program for the time (in seconds) specified by the lower six bits of the A Register.
- This XREQ is effective only from on-line terminals.
- Any attempt at "INPUT" will terminate the suspension. "INPUT" includes any teletype character, or "Send" from a CRT. The A Register will then contain the number of seconds left in the delay quantum.

ERROR

6            user was a batch terminal

- 27            CFBLK REQ      This will return the current number of file blocks used in the Q Register and the maximum number of usable file blocks in the A Register.