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INTRO(f)   **INTRO(f)**

INTRODUCTION TO MERT UNIX SYSTEM CALLS

Section F of this manual lists all of the additional entries into the UNIX system over and above those described in section II. These entries are only supported by the MERT system. These additional entries into the UNIX system can be categorized as follows:

(1) support of multi-environment features
(2) physical and asynchronous I/O into user area
(3) use of system message facilities
(4) sharing of segments between processes
(5) Support of contiguous files in MERT file manager

In most cases two calling sequences are specified, one of which is usable from assembly language, and the other from C. Most of these calls have an error return. From assembly language an erroneous call is always indicated by turning on the c-bit of the condition codes. The presence of an error is most easily tested by the instructions *bes* and *bec* ("branch on error set (or clear)"). These are synonyms for the *bcs* and *bcc* instructions.

From C, an error condition is indicated by an otherwise impossible returned value. Almost always this is −1; the individual sections specify the details.

In both cases an error number is also available. In assembly language, this number is returned in r0 on erroneous calls. From C, the external variable *errno* is set to the error number. *Errno* is not cleared on succesful calls, so it should be tested only after an error has occurred. There is a table of messages associated with each error, and a routine for printing the message. See *perror (III)*.

The possible error numbers are not recited with each writeup in section F, since many errors are possible for most of the calls. See the introduction to section II for a list of all the possible error numbers.