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Require file for the Library access routines

Version:

'V04-000'

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FACILITY: Library access procedures

ABSTRACT:

The VAX/VMS librarian procedures implement a standard access method to libraries through a shared, common procedure set.

ENVIRONMENT:

VAX native, user mode.

AUTHOR: Benn Schreiber, Tim Halvorsen

CREATION DATE: June-1979

MODIFIED BY:

```
Define VMS block structures
STRUCTURE
        BBLOCK [O, P. S, E; N] =
                 [N]
                 (BBLOCK+O)<P,S,E>:
  Define routine linkages
LINKAGE
    JSB_0 = JSB,

JSB_1 = JSB (REGISTER = 0),

JSB_2 = JSB (REGISTER = 0, REGISTER = 1),

JSB_3 = JSB (REGISTER = 0, REGISTER = 1, REGISTER = 2);
  Useful macros
MACRO
  Macro to generate a pointer to a counted string
    CSTRING(STRING) = UPLIT BYTE(%CHARCOUNT(STRING),STRING)%,
  Macro to describe a string
    STRINGDESC(STRING) = %CHARCOUNT(STRING), UPLIT(%ASCII STRING)%,
  Macro to generate a quadword string descriptor
    DESCRIPTOR(STRING) = BBLOCK [dsc$c_s_bln] INITIAL(STRINGDESC(STRING))%,
  Macro to generate a counted string
    COUNTEDSTRING(STRING) = VECTOR [XCHARCOUNT (STRING)+1, BYTE] INITIAL (BYTE(XCHARCOUNT(STRING), XASCII STRING))X,
  Macro to execute a given sequence of commands and return if any error
    perform (command, errorcode) =
        BEGIN
        LOCAL
             status:
        status = command:
         IF NOT .status
                                            ! If error detected,
         THEN
             XIF XLENGTH GTR 1
                                            ! If errorcode arg is present
                 XTHEN
                      SIGNAL (errorcode, %REMAINING, .status);
                 XELSE
                      RETURN .status:
                                                    ! then return with error
             XF I
        ENDX.
  Macro to execute a command which may have and RMS error return
  involving both a status and STV value
```

```
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PREFIX.REQ:1
     rms_perform (command, errorcode, rms_stv) =
    BEGIN
          LOCAL
               status;
          status = command;
IF_NOT .status
                                                  ! If error detected,
          THEN
              XIF XLENGTH GTR 1
                                                  ! If errorcode arg is present
                    SIGNAL (errorcode, %REMAINING, .status, rms_stv); %ELSE_
                         RETURN .status;
                                                            ! then return with error
          ENDX:
  Macros to ease typing
MACRO
     SHORT = UNSIGNED(6)%,
BYTLIT = UNSIGNED(8)%,
                                                  ! Short attribute
                                                    Unsigned byte attribute
     WORDLIT = UNSIGNED(16)%;
                                                  ! Unsigned word attribute
  Equated symbols
LITERAL
     SYMSC_MAXLNG = 31,
SYMSC_SHORTSYM = 15,
                                                 ! Max length of symbols in object/macro libs ! Max length of short symbols (help library) ! Boolean IRUE
     TRUE
                             0:
                    Ξ
                                                  ! Boolean FALSE
```

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