



```

PPPPPPPP      RRRRRRRR      EEEEEEEEEEE      FFFFFFFFFFF      IIIIIII      XX      XX
PPPPPPPP      RRRRRRRR      EEEEEEEEEEE      FFFFFFFFFFF      IIIIIII      XX      XX
PP      PP      RR      RR      EE      FF      II      XX      XX
PP      PP      RR      RR      EE      FF      II      XX      XX
PP      PP      RR      RR      EE      FF      II      XX      XX
PP      PP      RR      RR      EE      FF      II      XX      XX
PPPPPPPP      RRRRRRRR      EEEEEEEEEEE      FFFFFFFFFFF      IIIIIII      XX      XX
PPPPPPPP      RRRRRRRR      EEEEEEEEEEE      FFFFFFFFFFF      IIIIIII      XX      XX
PP      RR      RR      EE      FF      II      XX      XX
PP      RR      RR      EE      FF      II      XX      XX
PP      RR      RR      EE      FF      II      XX      XX
PP      RR      RR      EE      FF      II      XX      XX
PP      RR      RR      EEEEEEEEEEE      FFF      IIIIIII      XX      XX
PP      RR      RR      EEEEEEEEEEE      FF      IIIIIII      XX      XX

```

```

RRRRRRRR      EEEEEEEEEEE      QQQQQQ
RRRRRRRR      EEEEEEEEEEE      QQQQQQ
RR      RR      EE      QQ      QQ
RR      RR      EE      QQ      QQ
RR      RR      EE      QQ      QQ
RRRRRRRR      EEEEEEEEEEE      QQ      QQ
RRRRRRRR      EEEEEEEEEEE      QQ      QQ
RR      RR      EE      QQ      QQ
RR      RR      EE      QQ      QQ
RR      RR      EE      QQ      QQ
RR      RR      EE      QQ      QQ
RR      RR      EEEEEEEEEEE      QQQQ      QQ
RR      RR      EEEEEEEEEEE      QQQQ      QQ

```



Version: 'V04-000'

```

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MODULE: PREFIX.REQ

FACILITY: LINKER

ABSTRACT:

REQUIRE FILE TO DEFINE LOCALLY SOME INTERESTING GENERAL SYMBOLS, STRUCTURES AND MACROS

HISTORY:

AUTHOR: T.J. PORTER 15-DEC-76

MODIFICATIONS:

V03-001 JWT0099            Jim Teague            14-Mar-1983  
 Add useful macros "sd" and "dynamic\_descriptor".

--

++

## FUNCTIONAL DESCRIPTION:

THIS REQUIRE FILE DEFINES SOME GENERAL, LOCAL VALUES AND MACROS WHICH CANNOT OR ARE BEST NOT DEFINED GLOBALLY.

--

## MACRO

```
sd [a] = bind %name('sd_',a) = $descriptor(a)%,
dynamic_descriptor = block [dsc$c_s_bln,byte] preset ( [dsc$w_length] = 0,
                                                    [dsc$b_class] = dsc$k_class_d,
                                                    [dsc$a_pointer] = 0 )%,
```

```
SHORT = UNSIGNED(6)%,           ! SHORT LITERAL ATTRIBUTE
BYTLIT = UNSIGNED(8)%,         ! UNSIGNED BYTE ATTRIBUTE
WORDLIT = UNSIGNED(16)%,       ! UNSIGNED WORD ATTRIBUTE
```

## MACRO THAT DESCRIBES A STRING

```
STRINGDESC(STRING) = %CHARCOUNT(STRING), UPLIT(%ASCII STRING)%,
```

## MACRO TO GENERATE A QUADWORD STRING DESCRIPTOR

```
DESCRIPTOR(STRING) = VECTOR[2] INITIAL(STRINGDESC(STRING))%,
```

## MACRO TO GENERATE A POINTER TO A COUNTED STRING

```
CSTRING(STRING) = UPLIT BYTE(%CHARCOUNT(STRING),STRING)%,
```

## MACRO TO ALLOCATE AN N-CHARACTER STORAGE VECTOR

```
CH$SEQUENCE(N) = VECTOR[CH$ALLOCATION(N)]%,
```

## MACRO TO INITIALIZE SUCCESSIVE LOCATIONS WITH A COUNT FOLLOWED BY A STRING

```
COUNTEDSTRING(STRING) = BYTE(%CHARCOUNT(STRING),%ASCII STRING )%;
```

## Define VMS block structures

## STRUCTURE

```
BBLOCK [O, P, S, E; N] =
  [N]
  (BBLOCK+0)<P,S,E>;
```

## LITERAL

```
PROGRAM_REGION = %X'200',           ! DEFAULT BASE OF PROGRAM REGION
CONTROL_REGION = %X'40000000',      ! START OF CONTROL REGION
SYSTEM_SPACE = %X'80000000',        ! START OF SYSTEM SPACE
MAX_ADDRESS = %X'C0000000',         ! MAXIMUM VIRTUAL ADDRESS
FALSE = 0,                          ! THE LOGICAL VALUES TRUE
TRUE = 1;                            ! AND FALSE.
```

## LINKAGE

```
JSB_3 = JSB (REGISTER = 0, REGISTER = 1, REGISTER = 2),
```

```
JSB_2 = JSB (REGISTER = 0, REGISTER = 1),  
JSB_1 = JSB (REGISTER = 0) : NOPRESERVE(1) PRESERVE(2,3,4,5,6,7,8,9,10,11),  
JSB_FAST = JSB (REGISTER = 0, REGISTER = 1);
```

```
STRUCTURE  
  QUADVECTOR[1:N] =           ! A VECTOR OF N QUADWORDS  
    [ N * 8 ]  
    (QUADVECTOR + 8*1);
```

