

DLIST

.TITLE TSTSDTPREFIX - PREFIX MODULE FOR DTS/DTR
.IDENT 'V04-000'

TS
VO

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* FACILITY: DTS/DTR DECNET TEST PACKAGE
* ABSTRACT: PREFIX ASSEMBLY MODULE FOR DTS/DTR.
* ENVIRONMENT: DTS/DTR RUN IN USER MODE AND REQUIRE NETWORK PRIVILEGE.
* AUTHOR: JAMES A. KRYCKA,      CREATION DATE: 23-JAN-78
* MODIFICATIONS:

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.SBTTL DECLARATIONS

INCLUDE FILES:

.LIBRARY \LIBDS:[DTS/DTR.OBJ]DTS/DTR.MLB\

MACROS:

NONE

EQUATED SYMBOLS:

K_LIST_MEB=0 ; .LIST MEB OPTION: 1=YES; 0=NO

OWN STORAGE:

NONE

.LIST

.TITLE TST\$DTMACROS - MACRO DEFINITIONS FOR DTS/DTR
.IDENT 'V04-000'

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◆◆ FACILITY: DTS/DTR DECNET TEST PACKAGE

ABSTRACT: MACRO DEFINITIONS USED BY DTS/DTR MODULES.

ENVIRONMENT: DTS/DTR RUN IN USER MODE AND REQUIRE NETWORK PRIVILEGE.

AUTHOR: JAMES A. KRYCKA, CREATION DATE: 11-AUG-77

MODIFICATIONS:

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TS
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;++
: QBLOCK GENERATES A QUADWORD DESCRIPTOR BLOCK FOLLOWED BY THE
: CHARACTER STRING AND/OR ALLOCATED SPACE.
:--

```
.MACRO QBLOCK TEXT,SPACE=0,BUFADR,?LABEL1,?LABEL2
.LONG LABEL2-LABEL1
.LONG LABEL1
.IF NB BUFADR
BUFADR==.
.ENDC
LABEL1:
.IRP STR,<TEXT>
.ASCII \STR\
.ENDR
.IF NE SPACE
.BLKB SPACE
.ENDC
LABEL2:
.ENDM QBLOCK
```

;++
: SSB SETS A SINGLE BIT IN A FIELD.
:--

```
.MACRO SSB POS,BASE,?DISPL
BBSS POS,BASE,DISPL
DISPL:
.ENDM SSB
```

;++
: CSB CLEARS A SINGLE BIT IN A FIELD.
:--

```
.MACRO CSB POS,BASE,?DISPL
BBCC POS,BASE,DISPL
DISPL:
.ENDM CSB
```

;++
: FILLBUF FILLS A BUFFER WITH A SPECIFIED CHARACTER. ON COMPLETION
: R3 CONTAINS THE ADDRESS OF ONE BYTE BEYOND THE FILLED BUFFER. NOTE
: THAT THIS MACRO USES THE MOVCS INSTRUCTION WHICH DESTROYES R0 - R5!
: THE DEFAULT IS TO ZERO 512 BYTES (1 PAGE) AT THE SPECIFIED ADDRESS.
:--

```
.MACRO FILLBUF DST=,SIZE=#512,CHAR=#^X00
MOVCS #0,,CHAR,SIZE,DST
.ENDM FILLBUF
```

;++
: CHECK_SS BRANCHES TO A SUBROUTINE THAT CHECKS THE STATUS CODE IN R0
: FOLLOWING A CALL TO A SYSTEM SERVICE.
:--

```
.MACRO CHECK_SS
BSBW TST&CHECK_SS
.ENDM CHECK_SS
```

;++
: CHECK_RMS BRANCHES TO A SUBROUTINE THAT CHECKS THE COMPLETION CODE IN R0

```

: FOLLOWING A CALL TO RMS.
:--

```

```

.MACRO CHECK_RMS
BSBW  TST$CHECK_RMS
.ENDM CHECK_RMS

```

```

:++
: CHECK_IOSB BRANCHES TO A SUBROUTINE THAT CHECKS THE STATUS CODE OF THE
: SPECIFIED I/O STATUS BLOCK FOLLOWING A CALL TO THE QIO SYSTEM SERVICE.
:--

```

```

.MACRO CHECK_IOSB ADDRESS
MOVAQ ADDRESS,RO
BSBW  TST$CHECK_IOSB
.ENDM CHECK_IOSB

```

```

:++
: $CASEB, $CASEW, AND $CASEL GENERATE A CASEB, CASEW, CASEL INSTRUCTION,
: RESPECTIVELY, FOLLOWED BY THE CASE DISPLACEMENT TABLE. THE PARAMETERS
: FOR EACH MACRO ARE:
:   SELECTOR= THE SELECTOR OPERAND
:   BASE    = THE BASE OPERAND
:   (THE LIMIT OPERAND IS CALCULATED FROM THE # OF ENTRIES IN DISPL)
:   DISPL   = THE CASE DISPLACEMENT LIST
: NOTE THAT THE MACRO DEFINITIONS PLACE BASE AFTER SELECTOR AND DISPL
: SO THAT BASE CAN BE OMITTED WHEN KEYWORDS ARE NOT USED IN THE MACRO
: INVOCATION.
:--

```

```

.MACRO $CASEB,SELECTOR,DISPL,BASE=#0
$CASE SELECTOR,<DISPL>,BASE,TYPE=B
.ENDM $CASEB

```

```

.MACRO $CASEW,SELECTOR,DISPL,BASE=#0
$CASE SELECTOR,<DISPL>,BASE,TYPE=W
.ENDM $CASEW

```

```

.MACRO $CASEL,SELECTOR,DISPL,BASE=#0
$CASE SELECTOR,<DISPL>,BASE,TYPE=L
.ENDM $CASEL

```

```

:++
: $CASE IS A LEVEL 2 MACRO USED BY $CASEB, $CASEW, AND $CASEL.
: $CASE GENERATES A CASE[B/W/L] INSTRUCTION FOLLOWED BY THE CASE
: DISPLACEMENT TABLE. THE PARAMETERS FOR THE MACRO ARE:
:   TYPE    = OPERAND DATATYPE OF B, W, OR L
:   SELECTOR= THE SELECTOR OPERAND
:   BASE    = THE BASE OPERAND
:   (THE LIMIT OPERAND IS CALCULATED FROM THE # OF ENTRIES IN DISPL)
:   DISPL   = THE CASE DISPLACEMENT LIST
: NOTE THAT THE MACRO DEFINITION PLACES SELECTOR AND DISPL AHEAD OF BASE
: AND TYPE SO THAT THE LATTER CAN BE OMITTED WHEN KEYWORDS ARE NOT USED
: IN THE MACRO INVOCATION.
:--

```

```

.MACRO $CASE,SELECTOR,DISPL,BASE=#0,TYPE=B,?TABLE
$$COUNT=0
.IRP EP,<DISPL>
$$COUNT=$$COUNT+1
.ENDR
.IF EQ,$$COUNT
.ERROR ; ***** CASE DISPLACEMENT LIST IS NULL ***** ;

```

```
.MEXIT  
.ENDC  
CASE TYPE          SELECTOR,BASE,#<$$COUNT-1>
```

TABLE:

```
.IRP      EP,<DISPL>  
.WORD     EP-TABLE  
.ENDR  
.ENDM     $CASE
```

```

:++
: EFNDEF DEFINES THE USE OF EVENT FLAGS BY DTS/DTR.
: NOTE: MANY OF THE FLAG VALUES SERVE A DUAL PURPOSE; THEY ARE ALSO USED
: A FUNCTION/INDEX CODES THAT ARE MAPPED INTO THE APPROPRIATE QIO REQUEST
: SYSTEM SERVICE CALLS.
:--

```

```

.MACRO EFNDEF GBL
$DEFINI EFN,GBL
SEQULST EFN,K,GBL,,<-
: EFN [AND FUNCTION/INDEX CODE] FOR:
: READ ASSOCIATED MAILBOX
: NSP CONNECT INITIATE
: NSP CONNECT ACCEPT (CONFIRM)
: NSP CONNECT REJECT
: NSP SYNCHRONOUS DISCONNECT
: NSP DISCONNECT ABORT
: NSP TRANSMIT DATA MESSAGE
: NSP TRANSMIT INTERRUPT MESSAGE
: NSP RECEIVE DATA MESSAGE
: TIMER AST
: SIGNALLING AN EVENT FROM AN AST
:
<READ_MAIL,0>-
<CONN_INIT,1>-
<CONN_ACCE,1>-
<CONN_REJE,2>-
<DISC_SYNC,3>-
<DISC_ABRT,4>-
<XMIT_DATA,5>-
<XMIT_INTE,6>-
<RCV_DATA,7>-
<TIMER,8>-
<SIGNAL,9>-
>
$DEFEND EFN,GBL
.ENDM EFNDEF

```

```

:++
: FLGDEF DEFINES OFFSETS AND MASKS FOR COMMAND PARSE STATUS FLAGS.
:--

```

```

.MACRO FLGDEF GBL
$DEFINI FLG,GBL
_VIELD FLG,0,<-
: MEANING:
: PARSE ERROR DETECTED
: COMMAND LINE IS CONTINUED
: COMMAND PARAMETER FOUND
: COMMAND DELIMITER FOUND
:
<PARSEERROR,,M>-
<MULTILINE,,M>-
<PARAMETER,,M>-
<DELIMITER,,M>-
>
$DEFEND FLG,GBL
.ENDM FLGDEF

```

```

:++
: CMDDEF DEFINES COMMAND LANGUAGE SYMBOLS.
:--

```

```

.MACRO CMDDEF GBL
$DEFINI CMD,GBL
:
: DEFINE COMMAND PARAMETER VALUES (TST$GB_TEST).
:
SEQULST VAL,K,GBL,,<-
: TEST FUNCTION CODE:
: CONNECT TEST
: DATA TEST
: DISCONNECT TEST
: INTERRUPT TEST
: MISCELLANEOUS TEST
:
<TEST_CONN,0>-
<TEST_DATA,1>-
<TEST_DISC,2>-
<TEST_INTE,3>-
<TEST_MISC,4>-
>

```

```

: DEFINE /[NO]PRINT QUALIFIER VALUES (TST$GB_PRINT).
:

```

```

SEQULST VAL,K,GBL,,<-
: FUNCTION MODIFIER CODE:
: NOPRINT
<PRIN_NO,0>-

```



```

> <PRIN_YES,128>- ; PRINT (BIT7 = 1)
>
:
: DEFINE /TYPE QUALIFIER VALUES (TST$GB_TYPE).
:
: SEQUALST VAL_K_GBL...<- ; TEST SUBFUNCTION CODE:
: <TYPE_REJE,0>- ; CONNECT REJECT
: <TYPE_ACCE,1>- ; CONNECT ACCEPT (CONFIRM)
: <TYPE_SINK,0>- ; SINK (NO CHECKING)
: <TYPE_SEQU,1>- ; SEQUENCE CHECK
: <TYPE_PATT,2>- ; SEQUENCE AND PATTERN CHECK
: <TYPE_ECHO,3>- ; ECHO MESSAGE
: <TYPE_SYNC,0>- ; SYNCHRONOUS DISCONNECT
: <TYPE_ABRT,1>- ; DISCONNECT ABORT
: <TYPE_NAME,0>- ; INVALID NODENAME
>
:
: DEFINE /[NO]RETURN QUALIFIER VALUES (TST$GB_RETURN).
:
: SEQUALST VAL_K_GBL...<- ; SUBFUNCTION MODIFIER CODE:
: <RETU_NO,0>- ; NORETURN USERDATA
: <RETU_STAN,2>- ; RETURN STANDARD USERDATA
: <RETU_RECE,4>- ; RETURN RECEIVED USERDATA
>
:
: DEFINE /[NO]FLOW QUALIFIER VALUES (TST$GB_FLOW).
:
: SEQUALST VAL_K_GBL...<- ; FLOW CONTROL VALUE:
: <FLOW_NO,0>- ; NOFLOW CONTROL
: <FLOW_SEGM,1>- ; SEGMENT FLOW CONTROL
: <FLOW_MESS,2>- ; MESSAGE FLOW CONTROL
>
:
: DEFINE /[NO]STATISTICS QUALIFIER VALUES (TST$GB_STAT).
:
: SEQUALST VAL_K_GBL...<- ; STATISTICS VALUE:
: <STAT_NO,0>- ; NOSTATISTICS
: <STAT_YES,1>- ; STATISTICS
>
:
: DEFINE /[NO]BACK QUALIFIER VALUES (TST$GB_BACK).
: DEFINE /[NO]DISPLAY QUALIFIER VALUES (TST$GB_DISPLAY).
: DEFINE /[NO]NAK QUALIFIER VALUES (TST$GB_NAK).
: EACH OF THESE ALSO TAKE EXPLICIT NUMERIC VALUES.
:
: SEQUALST VAL_K_GBL...<- ;
: <BACK_NO,0>- ; NO BACK PRESSURE CONTROL
: <DISP_NO,0>- ; NO DISPLAY
: <NAK_NO,0>- ; NO NAK CONTROL
>
:
: DEFINE DEFAULT QUALIFIER VALUES.
:
: SEQUALST DFT_K_GBL...<- ; DEFAULT QUALIFIER VALUE FOR:
: <BACK,VAL_K_BACK_NO>- ; BACK PRESSURE CONTROL
: <DISPLAY,VAL_K_DISP_NO>- ; DISPLAY SIZE IN BYTES
: <FLOW,VAL_K_FLOW_MESS>- ; FLOW CONTROL
: <NAK,VAL_K_NAK_NO>- ; NAK CONTROL
: <PRINT,VAL_K_PRIN_NO>- ; PRINT
: <RETURN_CO,VAL_K_RETU_NO>- ; RETURN USERDATA (CONNECT)
: <RETURN_DI,VAL_K_RETU_NO>- ; RETURN USERDATA (DISCONNECT)
: <QUEUE_DA,1>- ; DTR QUEUE (DATA)
: <QUEUE_IN,1>- ; DTR QUEUE (INTERRUPT)

```

```

                                N 13
<SIZE_DA,128>-                : MESSAGE SIZE IN BYTES (DATA)
<SIZE_IN,16>-                  : MESSAGE SIZE IN BYTES (INTERRUPT)
>
SEQULST DFT K ,GBL ,,-<-      : DEFAULT QUALIFIER VALUE FOR:
<SPEED,1000000>-             : LINE SPEED IN BAUD
<SQUEUE_DA,1>-               : DTS QUEUE (DATA)
<SQUEUE_IN,1>-               : DTS QUEUE (INTERRUPT)
<STAT,VAL K STAT_YES>-      : STATISTICS
<TIME_DA,030>-               : TIME IN SECONDS (DATA)
<TIME_IN,030>-              : TIME IN SECONDS (INTERRUPT)
<TYPE_CO,VAL K TYPE_ACCE>-   : TYPE (CONNECT)
<TYPE_DA,VAL K TYPE_SINK>-   : TYPE (DATA)
<TYPE_DI,VAL K TYPE_ABRT>-   : TYPE (DISCONNECT)
<TYPE_IN,VAL K TYPE_SINK>-   : TYPE (INTERRUPT)
<TYPE_MI,VAL K TYPE_NAME>-   : TYPE (MISCELLANEOUS)
>

```

```

: DEFINE MAXIMUM QUALIFIER VALUES FOR THOSE QUALIFIERS THAT ACCEPT NUMERIC
: QUALIFIER VALUES.

```

```

SEQULST MAX K ,GBL ,,-<-    : MAXIMUM QUALIFIER VALUE FOR:
<BACK,128>-                : BACK PRESSURE CONTROL
<DISPLAY,38>-              : DISPLAY SIZE IN BYTES
<NAK,128>-                 : NAK CONTROL
<RQUEUE_DA,8>-            : DTR QUEUE (DATA)
<RQUEUE_IN,8>-            : DTR QUEUE (INTERRUPT)
<SIZE_DA,4096>-           : MESSAGE SIZE IN BYTES (DATA)
<SIZE_IN,16>-             : MESSAGE SIZE IN BYTES (INTERRUPT)
<SPEED,1000000>-         : LINE SPEED IN BAUD
<SQUEUE_DA,8>-           : DTS QUEUE (DATA)
<SQUEUE_IN,8>-           : DTS QUEUE (INTERRUPT)
<TIME_DA,360000>-        : TIME IN SECONDS (DATA)
<TIME_IN,360000>-       : TIME IN SECONDS (INTERRUPT)
>
$DEFEND CMD,GBL
.ENDM  CMDDEF

```

```

: **
: VLDDEF DEFINE OFFSETS AND MASKS FOR VALID (PERMITTED) QUALIFIER FLAGS
: IN TST$GL_VALID.
: --

```

```

.MACRO VLDDEF GBL
$DEFINI VLD,GBL
_VIELD VLD,0,<-
<BACK,,M>-      : QUALIFIER:
<DISPLAY,,M>-   : BACK
<FLOW,,M>-      : DISPLAY
<HOURS,,M>-     : FLOW
<MINUTES,,M>-   : HOURS
<NAK,,M>-       : MINUTES
<NOBACK,,M>-    : NAK
<NODENAME,,M>- : NOBACK
<NODISPLAY,,M>-: NODENAME
<NOFLOW,,M>-    : NODISPLAY
<NONAK,,M>-     : NOFLOW
<NOPRINT,,M>-   : NONAK
<NORETURN,,M>- : NOPRINT
<NOSTAT,,M>-    : NORETURN
<PRINT,,M>-     : NOSTATISTICS
<RETURN,,M>-    : PRINT
<RQUEUE,,M>-    : RETURN
<SECONDS,,M>-  : DTR QUEUE
                : SECONDS

```

<SIZE,,M>-
<SPEED,,M>-
<SQUEUÉ,,M>-
<STAT,,M>-
<TYPE,,M>-

: SIZE
: SPEED
: DTS QUEUE
: STATISTICS
: TYPE
:

>
\$DEFEND VLD,GBL
.ENDM VLDDEF
.END

