









Structure declarations used for system defined structures to save typing.

```
STRUCTURE
  BBLOCK [O, P, S, E; N] =
    [N]
    (BBLOCK+O)<P,S,E>,
  BBLOCKVECTOR [I, O, P, S, E; N, BS] =
    [N*BS]
    ((BBLOCKVECTOR+I*BS)+O)<P,S,E>;
```

Macro to signal status message

```
MACRO
  $SIGNAL MSG [ ] =
    SIGNAL (MOMSK_SIG_CODE, %REMAINING)
  %;
```



Macro to generate Network ACP Control QIO (NFB) P1 buffer contents. The NFB describes SET, SHOW, CLEAR, and ZERO operations.

MACRO

```

$NFB (FUNC, FLAGS, DATABASE, SRCH_KEY_ONE, OPER_ONE,
      SRCH_KEY_TWO, OPER_TWO) =
  BYTE ( %IF %IDENTICAL (FUNC, 0)           ! QIO function code.
        %THEN 0
        %ELSE %NAME ('NFB$C_FC_',FUNC)
        %FI),
  BYTE ( %IF %NULL (FLAGS)                  ! Error Update and Process
        %THEN 0                             ! Multiple Entries flags.
        %ELSE FLAGS
        %FI),
  BYTE ( %IF %IDENTICAL (DATABASE, 0)       ! ACP database to update.
        %THEN 0
        %ELSE %NAME ('NFB$C_DB_',DATABASE)
        %FI),
  BYTE (%IF %NULL (OPER_ONE)                ! Oper1
        %THEN 0
        %ELSE OPER_ONE
        %FI),
  $SRCH_KEY (DATABASE, SRCH_KEY_ONE),       ! Search key one ID
  $SRCH_KEY (DATABASE, SRCH_KEY_TWO),       ! Search key two ID
  BYTE (%IF %NULL (OPER_TWO)                ! Oper2
        %THEN 0
        %ELSE OPER_TWO
        %FI),
  BYTE (0),                                 ! Spare
  WORD (0),                                 ! variable cell size

  %IF NOT %NULL(%REMAINING)
  %THEN $FIELD_ID_LIST (DATABASE, %REMAINING)
  ,LONG (NFB$C_ENDOFLIST) ! End delimiter for field ID list.
  %ELSE
  LONG (NFB$C_ENDOFLIST) ! End delimiter for field ID list.
  %FI
%,

```

Generate a Search Key ID for an NFB. If the Search key is null, use a wildcard search key ID.

```

$SRCH_KEY (DATABASE, SRCH_ID) =
  LONG ( %IF %NULL (SRCH_ID)
        %THEN NFB$C_WILDCARD
        %ELSE $FIELD_ID (DATABASE, SRCH_ID)
        %FI )
%,

```

Generate a list of longwords containing the NETACP field IDs for

! the parameters. This iterative macro will generate as many  
! field IDs as are supplied.

```
$FIELD_ID_LIST (DATABASE) [FIELD_ID] =  
  LONG (%FIELD_ID (DATABASE, FIELD_ID))  
  %,  
  
$FIELD_ID (DATABASE, FIELD_ID) =  
  %IF %IDENTICAL (FIELD_ID, NFBSC_WILDCARD) OR  
  %IDENTICAL (FIELD_ID, NFBSC_COLLATE)  
  %THEN  
    FIELD_ID  
  %ELSE  
    %IF %NULL (FIELD_ID)  
    %THEN 0  
    %ELSE %NAME ('NFBSC_', DATABASE, '_', FIELD_ID)  
  %FI  
  
%FI  
%:
```

! Macros to generate Network Control I/O request descriptors.

MACRO

! Declare the NFB buffer (use the number of input parameters to figure  
! out how big to make it) and set up a descriptor for it.

```
$NFBDESC (NAM) =  
  SWITCHES UNAMES;  
  OWN  
    _NFB : VECTOR [%NFB_ALLOCATION (%REMAINING)]  
          INITIAL (%NFB (%REMAINING));  
  BIND  
    %NAME (NAM) = UPLIT (%ALLOCATION(_NFB), _NFB);  
  UNDECLARE _NFB;  
  SWITCHES NOUNAMES  
  %,  
  
$NFB_ALLOCATION [] =  
  5+(MAX(0,%LENGTH-6))  
  %:
```



```
! I/O Status Block definition
FIELD
  IOSB_FIELDS =
    SET
    IOSSW_STATUS = [0, 0, 16, 0], ! Status field
    IOSSW_COUNT  = [2, 0, 16, 0], ! Byte count field
    IOSSL_INFO   = [4, 0, 32, 0] ! Device dependent information
  TES;

MACRO
  $IOSB =
    BBLOCK [8] FIELD (IOSB_FIELDS)
  %;

! Macro to create constant string descriptor
MACRO
  $ASCID [] =
    (UPLIT (%CHARCOUNT(%STRING(%REMAINING)),
    UPLIT BYTE (%STRING(%REMAINING))))
  %;

MACRO
  $ASCIC [] =
    UPLIT BYTE (%ASCIC %STRING (%REMAINING))
  %;

! Macro to declare frequently used externals in MOM
MACRO $MOM_EXTERNALS =
  EXTERNAL
  MOM$GL_LOGMASK:          BITVECTOR [32],
  MOM$GL_SVD_INDEX,
  MOM$AB_SERVICE_DATA:    BBLOCKVECTOR [0,SVD$K_ENTRY_LEN],
  MOM$GB_FUNCTION:        BYTE,
  MOM$GB_OPTION_BYTE:     BYTE,
  MOM$GB_ENTITY_CODE:     BYTE,
  MOM$AB_ENTITY_BUF:      BBLOCK [0],
  MOM$GQ_ENTITY_BUF_DSC:  VECTOR [0],
  MOM$GL_SERVICE_FLAGS:   BLOCK [1],
  MOM$AB_NPARSE_BLK:      $NPA_BLKDEF,
  MOM$AB_NICE_RCV_BUF:    BBLOCK [0],
  MOM$AB_NICE_XMIT_BUF:   BBLOCK [0],
  MOM$GQ_NICE_RCV_BUF_DSC:VECTOR [0],
  MOM$GL_NICE_RCV_MSG_LEN,
  MOM$GQ_NICE_XMIT_BUF_DSC:VECTOR [0],
  MOM$AB_MSGBLOCK:        BBLOCK [0],
  MOM$AB_ACPQIO_BUFFER:   BBLOCK [0],
  MOM$GQ_ACPQIO_BUF_DSC:  VECTOR [0],
  MOM$AB_CIB:             BBLOCK [0],
  MOM$AB_LOOP_CIB:        BBLOCK [0],
  MOM$AB_TRIGGER_CIB:     BBLOCK [0],
  MOM$AB_MOP_XMIT_BUF:    BBLOCK [0],
```

```
MOMSGQ_MOP_XMIT_BUF_DSC:VECTOR [0],
MOM$AB_MOP_RCV_BUF:BBLOCK [0],
MOMSGQ_MOP_RCV_BUF_DSC:VECTOR [0],
MOM$AB_MOP_MSG:BBLOCK [0],
MOMSGQ_MOP_MSG_DSC:VECTOR [0],
MOM$GW_EVT_CODE:BYTE,
MOM$GB_EVT_POPR:BYTE,
MOM$GB_EVT_PRSN:BYTE,
MOM$GB_EVT_PSER:BYTE;
```

## EXTERNAL LITERAL

```
SVDSGK_PCNO_ADD,
SVDSGK_PCNO_SDV,
SVDSGK_PCNO_CPU,
SVDSGK_PCNO_STY,
SVDSGK_PCNO_DAD,
SVDSGK_PCNO_DCT,
SVDSGK_PCNO_IHO,
SVDSGK_PCNO_NNA,
SVDSGK_PCNO_SLI,
SVDSGK_PCNO_SPA,
SVDSGK_PCNO_HWA,
SVDSGK_PCNO_SNV,
SVDSGK_PCNO_LOA,
SVDSGK_PCNO_SLO,
SVDSGK_PCNO_TLO,
SVDSGK_PCNO_DFL,
SVDSGK_PCNO_SID,
SVDSGK_PCNO_DUM,
SVDSGK_PCNO_SDU,
SVDSGK_PCNO_$HNA,
SVDSGK_PCNO_$HHW,
SVDSGK_PCNO_$FTY,
SVDSGK_PCNO_PHA,
SVDSGK_PCNO_$DA,
SVDSGK_PCNO_LPC,
SVDSGK_PCNO_LPL,
SVDSGK_PCNO_LPD,
SVDSGK_PCNO_LPH,
SVDSGK_PCNO_LPA,
SVDSGK_PCNO_LPN,
SVDSGK_PCNO_$LNA,
SVDSGK_PCNO_$LNH,
SVDSGK_PCNO_LAN,
SVDSGK_PCNO_$LNN,
SVDSGK_PCNO_$LAH,
SVDSGK_PCLI_STI,
SV$SC_ENTRY_COUNT;
```

%:

: NPARSE argument block structure definitions

```
MACRO
  $NPA_ARGDEF =
```



BUILTIN  
AP;

BIND NPARSE\_BLOCK = AP : REF \$NPA\_BLKDEF;

%;

NPASE argument block definition macro

MACRO

\$NPA\_BLKDEF =  
BBLOCK [NPA\$K\_LENGTH0]

%;



