


```

NN      NN  PPPPPPP  AAAAAA  MM      MM  AAAAAA  CCCCCCCC
NN      NN  PPPPPPP  AAAAAA  MM      MM  AAAAAA  CCCCCCCC
NN      NN  PP      PP  AA      AA  MMMM   MMMM  AA      AA  CC
NN      NN  PP      PP  AA      AA  MMMM   MMMM  AA      AA  CC
NNNN    NN  PP      PP  AA      AA  MM  MM  MM  AA      AA  CC
NNNN    NN  PP      PP  AA      AA  MM  MM  MM  AA      AA  CC
NN  NN  NN  PPPPPPP  AA      AA  MM      MM  AA      AA  CC
NN  NN  NN  PPPPPPP  AA      AA  MM      MM  AA      AA  CC
NN      NNNN  PP      AAAAAAAAAA  MM      MM  AAAAAAAAAA  CC
NN      NNNN  PP      AAAAAAAAAA  MM      MM  AAAAAAAAAA  CC
NN      NN  PP      AA      AA  MM      MM  AA      AA  CC
NN      NN  PP      AA      AA  MM      MM  AA      AA  CC
NN      NN  PP      AA      AA  MM      MM  AA      AA  CC
NN      NN  PP      AA      AA  MM      MM  AA      AA  CCCCCCCC
NN      NN  PP      AA      AA  MM      MM  AA      AA  CCCCCCCC

```

```

MM      MM  AAAAAA  RRRRRRRR
MM      MM  AAAAAA  RRRRRRRR
MMMM   MMMM  AA      AA  RR      RR
MMMM   MMMM  AA      AA  RR      RR
MM  MM  MM  AA      AA  RR      RR
MM  MM  MM  AA      AA  RR      RR
MM      MM  AA      AA  RRRRRRRR
MM      MM  AA      AA  RRRRRRRR
MM      MM  AAAAAAAAAA  RR  RR
MM      MM  AAAAAAAAAA  RR  RR
MM      MM  AA      AA  RR      RR
MM      MM  AA      AA  RR      RR
MM      MM  AA      AA  RR      RR
MM      MM  AA      AA  RR      RR

```

Version: 'V04-000'

```

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```

.MACRO NPADFS

NPARSE function code definitions

```

NPAS_IMAGE = 0
NPAS_WORD = 1
NPAS_MASK = 2
NPAS_BYTE = 3
NPAS_EOM = 4
NPAS_NULL = 5
NPAS_SBE XP = 6
NPAS_ERROR = 7
NPAS_MATCH = 8
NPAS_LOOK = 9
NPAS_EXTZV = 10

```

NPARSE matching codes

```

NPAS_EXIT = 0           : Done
NPAS_FAIL = -1         : Fail the parse
NPAS_ADVANCE = 1       : Advance pointers

```

NPARSE flag bit definitions

```

NPASM_EXT      = ^X01
NPASM_PARAM    = ^X02
NPASM_ACTION   = ^X04
NPASM_STATE    = ^X08
NPASM_MASK     = ^X10

```

```

NPASM_MSKADR = ^X20
NPASM_OFFSET = ^X40
NPASM_LAST = ^X8000
.ENDM
.MACRO NPADFS
IMSGS STTBL DEBUG
.PSECT NPASSTATE,NOWRT,NOEXE,BYTE
STTBL::
  .IF IDENTICAL <DEBUG>,<$DEBUG>
  .MACRO DBGTPS
  .LIST
  .NLIST
  .ENDM
  .IF FALSE
  .MACRO DBGTPS
  .ENDM
  .ENDC
NPADFS
FLG$$$ = -1
NXT$$$ = 0
.PSECT
.ENDM
.MACRO IMSGS
FIELDS,LABEL
.PSECT NPASSTATE
FLG$$$ = FLG$$$!NPASM_LAST
NTRANS
  .IF NOT_BLANK <LABEL>
  .ENDC
FLG$$$ = -1
.PSECT
.ENDM
.MACRO FIELDS
NTRANS
.PSECT NPASSTATE
  .IF EQUAL FLG$$$+1
  FLG$$$ = 0
  .MEXIT
  .ENDC
  TYP$$$
  .WORD FLG$$$
  .IF NOT_EQUAL FLG$$$&NPASM_EXT
  EXT$$$
  .ENDC
  .IF NOT_EQUAL FLG$$$&NPASM_PARAM
  PRM$$$
  .ENDC
  .IF NOT_EQUAL FLG$$$&NPASM_ACTION
  ACT$$$
  .ENDC
  .IF NOT_EQUAL FLG$$$&NPASM_MASK
  BIT$$$
  .ENDC
  .IF NOT_EQUAL FLG$$$&NPASM_STATE
  STAS$$$
  .IF_FALSE

```

```

      .IF EQUAL FLGSS$N?ASM_LAST
      .IF EQUAL NXTSS$
      .ERROR ; BAD DEFAULT TRANSITION
      .ENDC
      .ENDC
      .ENDC
      FLGSS$ = 0
      NXTSS$ = 0
.ENDM
.MACRO ITRANS,LABEL,ACTION,MASK,ADDR,PARAM
      .IF NOT BLANK <PARAM>
      FLGSS$ = FLGSS$!NPASM_PARAM
      .MACRO PRMSS$
      .ADDRESS PARAM
      .ENDM PRMSS$
      .ENDC
      .IF NOT BLANK <ACTION>
      FLGSS$ = FLGSS$!NPASM_ACTION
      .MACRO ACTSS$
      .ADDRESS ACTION
      .ENDM ACTSS$
      .ENDC
      .IF NOT BLANK <MASK>
      FLGSS$ = FLGSS$!NPASM_MASK!NPASM_MSKADR
      .IF BLANK <ADDR>
      .ERROR ; MASK ADDRESS NOT PRESENT
      .ENDC
      .MACRO BITSS$
      .LONG MASK
      .ADDRESS ADDR
      .ENDM BITSS$
      .ENDC
      .IF NOT BLANK <LABEL!>
      FLGSS$ = FLGSS$!NPASM_STATE
      .MACRO STASS$
      .ADDRESS LABEL
      .ENDM STASS$
      .ENDC
.ENDM
.MACRO $IMAGE,SIZE,LABEL,ACTION,MASK,ADDR,PARAM
      .PSECT NPAS$STATE
      NTRANS
      DBGTP$
      .MACRO TYPSS$
      .WORD NPAS_IMAGE
      .ENDM TYPSS$
      .MACRO EXTSS$
      .LONG SIZE
      .ENDM EXTSS$
      FLGSS$ = FLGSS$!NPASM_EX!
      ITRANS LABEL,ACTION,MASK,ADDR,PARAM
      .PSECT
.ENDM
.MACRO $WORD,VALUE,LABEL,ACTION,MASK,ADDR,PARAM
      .PSECT NPAS$STATE
      NTRANS

```

```

DBGTPS
.MACRO TYPSSS
.WORD NPAS WORD
.ENDM TYPSSS
.MACRO EXTSSS
.ADDRESS VALUE
.ENDM EXTSSS
FLGSSS = FLGSSS!NPASM EXT
ITRANS LABEL,ACTION,MASK,ADDR,PARAM
.PSECT
.ENDM $WORD
.MACRO $BYTE,VALUE,LABEL,ACTION,MASK,ADDR,PARAM
.PSECT NPASSTATE
NTRANS
DBGTPS
.MACRO TYPSSS
.WORD NPAS BYTE
.ENDM TYPSSS
.MACRO EXTSSS
.ADDRESS VALUE
.ENDM EXTSSS
FLGSSS = FLGSSS!NPASM EXT
ITRANS LABEL,ACTION,MASK,ADDR,PARAM
.PSECT
.ENDM $BYTE
.MACRO $EOM,DUMMY,LABEL,ACTION,MASK,ADDR,PARAM
.PSECT NPASSTATE
NTRANS
DBGTPS
.MACRO TYPSSS
.WORD NPAS EOM
.ENDM TYPSSS
ITRANS LABEL,ACTION,MASK,ADDR,PARAM
.PSECT
.ENDM $EOM
.MACRO $MASK,BITMSK,LABEL,ACTION,MASK,ADDR,PARAM
.PSECT NPASSTATE
NTRANS
DBGTPS
.MACRO TYPSSS
.WORD NPAS MASK
.ENDM TYPSSS
.MACRO EXTSSS
.LONG BITMSK
.ENDM EXTSSS
FLGSSS = FLGSSS!NPASM EXT
ITRANS LABEL,ACTION,MASK,ADDR,PARAM
.PSECT
.ENDM $MASK
.MACRO $SBEXP,RTN,LABEL,ACTION,MASK,ADDR,PARAM
.PSECT NPASSTATE
NTRANS
DBGTPS
.MACRO TYPSSS
.WORD NPAS SBEXP
.ENDM TYPSSS

```

```

.MACRO EXT$$$
.ADDRESS      RTN
.ENDM
.ENDM
.MACRO EXT$$$
FLG$$$ = FLG$$$!NPASM_EXT
ITRANS LABEL,ACTION,MASK,ADDR,PARAM
.PSECT
$SBEXP
.MACRO $NULL,DUMMY,LABEL,ACTION,MASK,ADDR,PARAM
.PSECT NPAS$STATE
NTRANS
DBGTP$
.MACRO TYP$$$
.WORD NPAS NULL
.ENDM
ITRANS LABEL,ACTION,MASK,ADDR,PARAM
.PSECT
.ENDM
.MACRO $NULL
$LOOK VALUE,LABEL,ACTION,MASK,ADDR,PARAM
.PSECT NPAS$STATE
NTRANS
DBGTP$
.MACRO TYP$$$
.WORD NPAS LOOK
.ENDM
.IF NOT BLANK <VALUE>
.MACRO EXT$$$
.LONG VALUE
.ENDM
FLG$$$ = FLG$$$!NPASM_EXT
.ENDC
ITRANS LABEL,ACTION,MASK,ADDR,PARAM
.PSECT
.ENDM
.MACRO $EXTZV,FLD,LABEL,ACTION,MASK,ADDR,PARAM
.PSECT NPAS$STATE
NTRANS
DBGTP$
.MACRO TYP$$$
.WORD NPAS EXTZV
.ENDM
LIST$ FLD
FLG$$$ = FLG$$$!NPASM_EXT
ITRANS LABEL,ACTION,MASK,ADDR,PARAM
.PSECT
.ENDM
.MACRO $EXTZV
LIST$,VAL,POS,SIZ,FLG
.MACRO EXT$$$
.IF NOT BLANK VAL
.BYTE VAL ; Field value
.IF FALSE
.ERROR ; $EXTZV - FIELD VALUE NOT SPECIFIED
.ENDC
.IF NOT BLANK POS
.BYTE POS ; Field position
.IF FALSE
.ERROR ; $EXTZV - FIELD POSITION NOT SPECIFIED

```

```

.ENDC
  .IF NOT_BLANK SIZ
  .BYTE SIZ ; Field size
  .IF FALSE
  .ERROR ; $EXTZV - FIELD SIZE NOT SPECIFIED
  .ENDC
  .IF NOT_BLANK FLG
  .BYTE FLG ; Flags
  .IF FALSE
  .BYTE 0 ; No flags
  .ENDC
  .ENDM EXTSS$
.ENDM
.MACRO $ERROR,ERR,LABEL,ACTION,MASK,ADDR,PARAM
  .PSECT NPAS$STATE
  NTRANS
  DBGTP$
  .MACRO TYPSS$
  .WORD NPAS_ERROR
  .ENDM TYPSS$
  .MACRO EXTSS$
  .LONG ERR
  .ENDM EXTSS$
  FLGSS$ = FLGSS$!NPASM_EXT
  ITRANS NPAS_FAIL,ACTION,MASK,ADDR,PARAM
  .PSECT
.ENDM
.MACRO $MATCH,NBR,LABEL,ACTION,MASK,ADDR,PARAM
  .PSECT NPAS$STATE
  NTRANS
  DBGTP$
  .MACRO TYPSS$
  .WORD NPAS_MATCH
  .ENDM TYPSS$
  .MACRO EXTSS$
  .LONG NBR
  .ENDM EXTSS$
  FLGSS$ = FLGSS$!NPASM_EXT
  ITRANS LABEL,ACTION,MASK,ADDR,PARAM
  .PSECT
.ENDM
.MACRO $NEXT
  NXTSS$ = -1
  NTRANS
  DBGTP$
  FLGSS$ = -1
.ENDM
  $NEXT

```


