

CCCCCCCCCCCC	RRRRRRRRRRRR	FFFFFFFFFFFFFF
CCCCCCCCCCCC	RRRRRRRRRRRR	FFFFFFFFFFFFFF
CCCCCCCCCCCC	RRRRRRRRRRRR	FFFFFFFFFFFFFF
CCC	RRR	RRR
CCC	RRR	RRR
CCC	RRR	RRR
CCC	RRR	RRR
CCC	RRR	RRR
CCC	RRR	RRR
CCC	RRRRRRRRRRRR	RRR
CCC	RRRRRRRRRRRR	RRR
CCC	RRRRRRRRRRRR	RRR
CCC	RRR	RRR
CCC	RRR	RRR
CCC	RRR	RRR
CCC	RRR	RRR
CCC	RRR	RRR
CCC	RRR	RRR
CCC	RRR	RRR
CCC	RRR	RRR
CCCCCCCCCCCC	RRR	RRR
CCCCCCCCCCCC	RRR	RRR
CCCCCCCCCCCC	RRR	RRR

```
CCCCCCCC  RRRRRRRR  FFFFFFFFFF  MM  MM  AAAAAA  CCCCCCCC
CCCCCCCC  RRRRRRRR  FFFFFFFFFF  MM  MM  AAAAAA  CCCCCCCC
CC         RR      RR  FF         MMMM  MMMM  AA      AA  CC
CC         RR      RR  FF         MMMM  MMMM  AA      AA  CC
CC         RR      RR  FF         MM  MM  MM  AA      AA  CC
CC         RRRRRRRR  FFFFFFFF  MM  MM  MM  AA      AA  CC
CC         RRRRRRRR  FFFFFFFF  MM  MM  MM  AA      AA  CC
CC         RR  RR    FF         MM  MM  MM  AAAAAAAAAA  CC
CC         RR  RR    FF         MM  MM  MM  AAAAAAAAAA  CC
CC         RR      RR  FF         MM  MM  MM  AA      AA  CC
CC         RR      RR  FF         MM  MM  MM  AA      AA  CC
CC         RR      RR  FF         MM  MM  MM  AA      AA  CC
CCCCCCCC  RR         FF         MM  MM  AA      AA  CCCCCCCC
CCCCCCCC  RR         FF         MM  MM  AA      AA  CCCCCCCC
```

```
RRRRRRRR  EEEEEEEEE  QQQQQQ
RRRRRRRR  EEEEEEEEE  QQQQQQ
RR      RR  EE        QQ      QQ
RR      RR  EE        QQ      QQ
RR      RR  EE        QQ      QQ
RR      RR  EE        QQ      QQ
RRRRRRRR  EEEEEEEEE  QQ      QQ
RRRRRRRR  EEEEEEEEE  QQ      QQ
RR  RR    EE        QQ  QQ  QQ
RR  RR    EE        QQ  QQ  QQ
RR      RR  EE        QQ      QQ
RR      RR  EE        QQ      QQ
RR      RR  EEEEEEEEE  QQQQ  QQ
RR      RR  EEEEEEEEE  QQQQ  QQ
```

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Version 'V03-000'

♦♦
MODULE: CRFMAC.REQ

FACILITY: CROSS REFERENCE UTILITY INTERFACE

ABSTRACT: REQUIRE FILE WHICH DEFINES THE CRF INTERFACING MACROS
I.E. THOSE WHICH INITIALIZE THE FORMAT DESCRIPTION TABLES

HISTORY:

VERSION: 'V04-000'

AUTHOR: T.J. PORTER 24-MAY-77

MODIFICATIONS:

NO.	DATE	PROGRAMMER	PURPOSE
---	---	-----	-----
001	24-JUN-77	T.J. PORTER	CROSS REFERENCE KEY TYPES IN MACROS.
002	11-JUL-77	T.J. PORTER	ADD ERROR AND OUTPUT ROUTINE ADDRESSES TO CONTROL TABLE. INITIALIZE ENTRY AND NODE SIZES IN TABLE.
003	29-OCT-79	B.L. SCHREIBER	KEY TYPES ARE NOW EXTERNAL. DEFINE ALL LITERALS SO IT CAN GO INTO SYSTEM LIBRARIES.

! 004 11-DEC-79

B.L. SCHREIBER EXPAND CONTROL TABLE

!--

♦♦
FUNCTIONAL DESCRIPTION:

THIS REQUIRE FILE DEFINES THE BLISS MACROS TO BE USED BY A UTILITY WHICH USES THE CROSS REFERENCE UTILITY. THESE KEYWORD MACROS ARE THOSE FOR INITIALIZING THE TABLES REQUIRED BY CROSS REFERENCE FOR DESCRIPTION OF THE OUTPUT LINE FORMATS.

--
DECLARE TABLE AND ENTRY SIZES **NOTE** MUST CHANGE IF CRF CHANGES ***

LITERAL

```
CRFSK_TBLSIZE = 96,           ! SIZE OF LINE TABLE (BYTES)
CRFSK_FIELDSIZE = 12,        ! FIELD TABLE ENTRY SIZE (BYTES)

CRFSK_ASCIC = 0,             ! ASCII COUNTED STRING KEYS
CRFSK_BIN_U32 = 1,           ! 32 BIT UNSIGNED BINARY KEYS

CRFSK_VALUES = 0,            ! CROSS REFERENCE WITH VALUES
CRFSK_VALS_REFS = 1,         ! JUST REFERENCES
CRFSK_DEFS_REFS = 2,         ! FULL CROSS REFERENCE
CRFSK_DELETE = 0,            ! INDICATOR TO DELETE THE TABLES
CRFSK_SAVE = 1,              ! INDICATOR TO SAVE THE TABLES
CRFSK_REF = 0,               ! REFERENCE TO A SYMBOL
CRFSK_DEF = 1;               ! DEFINITION OF SYMBOL
```

GENERATE THE CROSS REFERENCE CONTROL TABLE

KEYWORDMACRO

```
$CRFCTLTABLE(KEYTYPE=ASCIC,ERROR=0,OUTPUT=0,
MEMEXP=50,
KEY1TABLE=0, KEY2TABLE=0,
VAL1TABLE=0, VAL2TABLE=0,
REF1TABLE=0, REF2TABLE=0)=
BLOCK[CRFSK_TBLSIZE, BYTE] ALIGN(0)
INITIAL(0,
LONG(0),
BYTE($NAME('CRFSK_', KEYTYPE), ! TYPE OF KEY
0,0,0),
THREE BYTES RESERVED
LONG(0),
NUMBER OF ENTRIES IN CROSS REFERENCE
LONG(0,0),
LIST HEAD FOR VIRTUAL MEMORY ALLOCATED
LONG(MEMEXP*512),
SIZE IN BYTES OF VA TO ALLOCATE
LONG(MEMEXP),
SIZE IN PAGES OF VA TO ALLOCATE
LONG(0,0,0,0,0,0,0,0), ! RESERVED FOR EXPANSION
ERROR,
ERROR ROUTINE ADDRESS
OUTPUT,
OUTPUT ROUTINE ADDRESS
KEY1TABLE,
POINTER TO PRIMARY KEY FIELD DESCRIPTION TABLE
KEY2TABLE,
POINTER TO SECOND KEY FIELD DESCRIPTION TABLE
VAL1TABLE,
POINTER TO TABLE DESCRIBING
THE KEY VALUE FIELD
VAL2TABLE,
POINTER TO SECONDARY
VALUE FIELD DESCRIPTION TABLE
```

```
REF1TABLE,      | POINTER TO PRIMARY  
                 | REFERENCE FIELD DESCRIPTION TABLE  
REF2TABLE)%,    | POINTER TO SECONDARY REFERENCE  
                 | FIELD DESCRIPTION TABLE
```

```
GENERATE AN ENTRY IN A TABLE DESCRIBING FORMATS OF A PARTICULAR  
FIELD OF THE LINE
```

```
SCRFFIELD(BIT_MASK=0,FAO_STRING,SET_CLEAR=1,FIELD_WIDTH)=  
BLOCK[CRFSK_FIELDSIZE,BYTE]  
  INITIAL(WORD(BIT_MASK OR %X'8000'),      | BIT PATTERN FOR MATCH  
    BYTE(SET_CLEAR),                       | MATCH ON SET OR CLEAR  
    BYTE(FIELD_WIDTH),                     | WIDTH OF FIELD  
    LONG(%CHARCOUNT(FAO_STRING)),         | LENGTH OF FAO STRING  
    LONG(UPLIT(FAO_STRING)))%,             | ADDRESS OF TEXT STRING
```

```
GENERATE A FIELD TABLE END INDICATOR
```

```
SCRFFIELDEND = WORD INITIAL(0)%;
```


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