

SERIES-III PL/M-86 X19B COMPILATION OF MODULE TRANSMITTASK
OBJECT MODULE PLACED IN :F1:XMITSK.OBJ
COMPILER INVOKED BY: PLM86.86 :F1:XMITSK.P86 XREF

```
1      TRANSMIT$TASK:
      DO;
      /*      ptr/selector redefinition schtick      */
2      1      declare pointer_overlay literally 'structure(
      base selector,/* selector part */
      offset word /* offset part */
      )' ;
      /*      specific declarations      */
3      1      DECLARE DCL LITERALLY 'DECLARE';
4      1      DCL TOKEN LITERALLY 'SELECTOR';
5      1      DCL FOREVER LITERALLY 'WHILE 1';
6      1      DCL XMIT$PORT LITERALLY '0';
7      1      DCL RCV$PORT LITERALLY '1';
8      1      DCL E$CK LITERALLY '0';
9      1      DCL INFINITE LITERALLY 'OFFFPH';
10     1      DCL (MMX$RESPONSE$MAILBOX,
      CONNECTIONSID ) TOKEN;
11     1      dcl segment$ptr pointer ;
12     1      dcl segment$ptr pointer_overlay at(@segment$ptr) initial(0,0);
13     1      DCL (RESPONSE$PTR,
      EXCEPTION$PTR) POINTER;
14     1      DCL (EXCEPTION, FULL$DELVR) WORD;
15     1      DCL RESPONSE$WORD WORD;
16     1      DCL MESSAGE$TEXT BASED SEGMENT$ptr (16) BYTE;
17     1      DCL INDEX BYTE;
18     1      DCL MESS$BUFF (16) BYTE;
19     1      DCL TH$INPUT$MB (12) BYTE DATA (10,'RQTHNORMIN',0);
20     1      DCL TH$OUTPUT$MB (13) BYTE DATA (11,'RQTHNORMCUT',0);
21     1      DCL (CO,CI,ROOT$JOB) TOKEN;
22     1      dcl th$seg$ptr pointer ;
23     1      dcl th$seg$token pointer_overlay at(@th$seg$ptr) initial(0,0);
24     1      DCL TH$SEGMENT BASED TH$SEG$ptr STRUCTURE (
      FUNCTION WORD,
      COUNT WORD,
      XCEPT WORD,
      ACTUAL WORD,
      MESSAGE (16) BYTE);
25     1      DCL TH$WRITE LITERALLY '5';
26     1      DCL TH$READ LITERALLY '1';
27     1      DCL TH$RESPONSE$MAILBOX TOKEN;
28     1      DCL LF LITERALLY '0AH';
29     1      DCL CR LITERALLY '0DH';
30     1      DCL SIGNON (13) BYTE DATA (' MMX TESTER',LF,CR);
```

```

/*****
*
* TITLE:          MMX INTERFACE EXTERNAL DECLARATIONS:
*                FOR COMPILER WITH SELECTOR TYPE SUPPORT.
*
* DATE:           07-12-81
*
* REVISION:       1.0
*
* LANGUAGE:       PLM/86
*
*****/

31  1  CQFIND: PROCEDURE (system$port$name,
                       status$pointer)
        SELECTOR
        EXTERNAL;
32  2  DECLARE system$port$name WORD;
33  2  DECLARE status$pointer POINTER;
34  2  END CQFIND;

35  1  CQCLOSE: PROCEDURE (connection$id,
                          status$pointer)
        EXTERNAL;
36  2  DECLARE connection$id SELECTOR;
37  2  DECLARE status$pointer POINTER;
38  2  END CQCLOSE;

39  1  CQACTV: PROCEDURE (system$port$name,
                          status$pointer)
        SELECTOR
        EXTERNAL;
40  2  DECLARE system$port$name WORD;
41  2  DECLARE status$pointer POINTER;
42  2  END CQACTV;

43  1  CQDACT: PROCEDURE (system$port$name,
                          status$pointer)
        EXTERNAL;
44  2  DECLARE system$port$name WORD;
45  2  DECLARE status$pointer POINTER;
46  2  END CQDACT;

47  1  CQXFER: PROCEDURE (connection$id,
                          message$token,
                          xfer$flag,
                          message$length,
                          status$pointer)
        EXTERNAL;
48  2  DECLARE connection$id SELECTOR;
49  2  DECLARE message$token SELECTOR;
50  2  DECLARE xfer$flag WORD;
51  2  DECLARE message$length WORD;
52  2  DECLARE status$pointer POINTER;
53  2  END CQXFER;

```

```
/*      rmx86 primitive calls      */

54  1      RQ$CREATE$SEGMENT: PROCEDURE (size,excpt$ptr)
        SELECTOR EXTERNAL;
55  2          DECLARE size WORD;
56  2          DECLARE excpt$ptr POINTER;
57  2      END RQ$CREATE$SEGMENT;

58  1      RQ$DELETE$SEGMENT: PROCEDURE (segment,excpt$ptr)
        EXTERNAL;
59  2          DECLARE segment SELECTOR;
60  2          DECLARE excpt$ptr POINTER;
61  2      END RQ$DELETE$SEGMENT;

62  1      RQ$CREATE$MAILBOX: PROCEDURE (mailbox$flags,excpt$ptr)
        SELECTOR EXTERNAL;
63  2          DECLARE mailbox$flags WORD;
64  2          DECLARE excpt$ptr POINTER;
65  2      END RQ$CREATE$MAILBOX;

66  1      RQ$DELETE$MAILBOX: PROCEDURE (mailbox,excpt$ptr)
        EXTERNAL;
67  2          DECLARE mailbox SELECTOR;
68  2          DECLARE excpt$ptr POINTER;
69  2      END RQ$DELETE$MAILBOX;

70  1      RQ$SEND$MESSAGE: PROCEDURE (mailbox, object, response, excpt$ptr)
        EXTERNAL;
71  2          DECLARE (mailbox,object,response) SELECTOR;
72  2          DECLARE excpt$ptr POINTER;
73  2      END RQ$SEND$MESSAGE;

74  1      RQ$RECEIVE$MESSAGE: PROCEDURE (mailbox,time$limit,response$ptr,excpt$ptr)
        SELECTOR EXTERNAL;
75  2          DECLARE mailbox SELECTOR;
76  2          DECLARE time$limit WORD;
77  2          DECLARE (response$ptr,excpt$ptr) POINTER;
78  2      END RQ$RECEIVE$MESSAGE;

79  1      RQ$GET$SIZE: PROCEDURE (segment,excpt$ptr)
        WORD EXTERNAL;
80  2          DECLARE segment SELECTOR;
81  2          DECLARE excpt$ptr POINTER;
82  2      END RQ$GET$SIZE;

83  1      RQ$END$INIT$TASK: PROCEDURE
        EXTERNAL;
84  2      END RQ$END$INIT$TASK;

85  1      RQ$LOOKUP$OBJECT: PROCEDURE (job,
        name,
        time$limit,
        excpt$ptr)
        SELECTOR
        EXTERNAL;
86  2          DECLARE job SELECTOR;
87  2          DECLARE name POINTER;
```

```
88 2    DECLARE time$limit WORD;
89 2    DECLARE excpt$ptr POINTER;
90 2    END RQ$LOOKUP$OBJECT;

91 1    RQ$GET$TASK$TOKENS: PROCEDURE (selection,
                                     excpt$ptr)
                                     SELECTOR
                                     EXTERNAL;
92 2    DECLARE selection BYTE;
93 2    DECLARE excpt$ptr POINTER;
94 2    END RQ$GET$TASK$TOKENS;

95 1    RQ$CREATE$REGION: PROCEDURE (flag,
                                    excpt$ptr)
                                    SELECTOR
                                    EXTERNAL;
96 2    DECLARE flag WORD;
97 2    DECLARE excpt$ptr POINTER;
98 2    END RQ$CREATE$REGION;

99 1    RQ$RECEIVE$CONTROL: PROCEDURE (region,
                                      excpt$ptr)
                                      EXTERNAL;
100 2    DECLARE region SELECTOR;
101 2    DECLARE excpt$ptr POINTER;
102 2    END RQ$RECEIVE$CONTROL;

103 1    RQ$SEND$CONTROL: PROCEDURE (excpt$ptr)
                                     EXTERNAL;
104 2    DECLARE excpt$ptr POINTER;
105 2    END RQ$SEND$CONTROL;
SEJECT
```

```
/*
  CALL ENDSINITSTASK TO RESTART ROOT JOB
*/
106 1 CALL RQSEND$INITSTASK;

/*
  GET TOKENS FOR TERMINAL HANDLER MAILBOXES
*/
107 1 ROOT$JOB = RQ$GET$TASK$TOKENS (3, @EXCEPTION);

108 1 CO = RQ$LOOKUP$OBJECT (ROOT$JOB, @TH$OUTPUT$MB, INFINITE, @EXCEPTION);
109 1 CI = RQ$LOOKUP$OBJECT (ROOT$JOB, @TH$INPUT$MB, INFINITE, @EXCEPTION);
/*
  CREATE TH MESSAGE SEGMENT AND RESPONSE MAILBOX
*/
110 1 th$seg$tokn.base = RQ$CREATE$SEGMENT (32, @EXCEPTION);
111 1 TH$RESPONSE$MAILBOX = RQ$CREATE$MAILBOX (0, @EXCEPTION);

/*
  SEND SIGNON MESSAGE
*/
112 1 TH$SEGMENT.FUNCTION = TH$WRITE;
113 1 TH$SEGMENT.COUNT = 13;
114 1 CALL MOV3 (@SIGNON, @th$segment.message, 13);

115 1 CALL RQ$SEND$MESSAGE (CO, th$seg$tokn.base, TH$RESPONSE$MAILBOX, @EXCEPTION);

/*
  FIND THE PORT FOR THE DEVICE ON WHICH THE RCVR TASK RUNS
*/
116 1 CONNECTION$ID = CQFIND ( RCV$PORT, @EXCEPTION);

/*
  ACTIVE THIS DEVICES PORT
*/
117 1 MMX$RESPONSE$MAILBOX = CQACTV (XMIT$PORT, @EXCEPTION);

/*
  CREATE MMX MESSAGE SEGMENT
*/
118 1 segment$t.base = RQ$CREATE$SEGMENT (32, @EXCEPTION);

/*
  LOOP READING CONSOL AND SENDING MESSAGES TO THE RECEIVER TASK
*/
119 1 DO FOREVER;
/*
  WAIT FOR CONSOL MESSAGE RESPONSE
*/
120 2 th$seg$tokn.base = RQ$RECEIVE$MESSAGE (TH$RESPONSE$MAILBOX, INFINITE,
      @RESPONSE$WORD, @EXCEPTION);
/*
  READ CONSOL FOR MESSAGE TO SEND
*/
121 2 TH$SEGMENT.FUNCTION = TH$READ;
122 2 TH$SEGMENT.COUNT = 12;
```

```
123 2 CALL RQ$SEND$MESSAGE (CI, th$seg$tokn.base, TH$RESPONSE$MAILBOX, @EXCEPTION);
124 2 th$seg$tokn.base = RQ$RECEIVE$MESSAGE (TH$RESPONSE$MAILBOX, INFINITE,
      @RESPONSE$WORD, @EXCEPTION);
125 2 CALL MOV8(@TH$SEGMENT.MESSAGE, @MESSAGE$TEXT, TH$SEGMENT.ACTUAL);
      /*
      SEND CONSOL MESSAGE TO RCV TASK AS MMX MESSAGE
      */
126 2 FULL$DELVR = 0;
127 2 CALL CQXFER (CONNECTION$ID, segment$t.base, FULL$DELVR, OFFFFH, @EXCEPTION);
      /*
      WAIT FOR RETURNING MMX MESSAGE
      */
128 2 segment$t.base = RQ$RECEIVE$MESSAGE (MMX$RESPONSE$MAILBOX, INFINITE,
      @RESPONSE$WORD, @EXCEPTION);
      /*
      ECHO RETURNING MMX MESSAGE TO CONSOL
      */
129 2 CALL MOV8(@MESSAGE$TEXT, @TH$SEGMENT.MESSAGE, 16);
130 2 TH$SEGMENT.FUNCTION = TH$WRITE;
131 2 TH$SEGMENT.COUNT = 16;
132 2 CALL RQ$SEND$MESSAGE (CO, th$seg$tokn.base, TH$RESPONSE$MAILBOX, @EXCEPTION);
133 2 th$seg$tokn.base = RQ$RECEIVE$MESSAGE (TH$RESPONSE$MAILBOX, INFINITE,
      @RESPONSE$WORD, @EXCEPTION);
      /*
      SEND LF,CR AND THEN READ NEXT LINE
      */
134 2 TH$SEGMENT.FUNCTION = TH$WRITE;
135 2 TH$SEGMENT.COUNT = 2;
136 2 TH$SEGMENT.MESSAGE(0) = CR;
137 2 TH$SEGMENT.MESSAGE(1) = LF;
138 2 CALL RQ$SEND$MESSAGE (CO, th$seg$tokn.base, TH$RESPONSE$MAILBOX, @EXCEPTION);
139 2 END; /* FOREVER LOOP */
140 1 END TRANSMIT$TASK;
```

DEFN	ADDR	SIZE	NAME, ATTRIBUTES, AND REFERENCES
21	0012H	2	CI SELECTOR 109* 123
21	0010H	2	CO SELECTOR 108* 115 132 138
48	0000H	2	CONNECTIONID SELECTOR IN PROC (CQXFER) PARAMETER 48
36	0000H	2	CONNECTIONID SELECTOR IN PROC (CQLOSE) PARAMETER 36
10	0002H	2	CONNECTIONID SELECTOR 116* 127
39	0000H		CQACTV PROCEDURE SELECTOR EXTERNAL(2) STACK=0000H 117
43	0000H		CQDACT PROCEDURE EXTERNAL(3) STACK=0000H
31	0000H		CQFIND PROCEDURE SELECTOR EXTERNAL(0) STACK=0000H 116
35	0000H		CQLOSE PROCEDURE EXTERNAL(1) STACK=0000H
47	0000H		CQXFER PROCEDURE EXTERNAL(4) STACK=0000H 127
29			CR LITERALLY 'ODH' 30 136
3			DCL. LITERALLY 'DECLARE' 3 4 5 6 7 8 9
			10 11 12 13 14 15 16 17 18 19 20 21
			22 23 24 25 26 27 28 29
8			EOK. LITERALLY '0'
14	000AH	2	EXCEPTION. WORD 107 108 109 110 111 115 116 117 118 120
			123 124 127 128 132 133 138
13	0008H	2	EXCEPTIONPTR POINTER
104	0000H	2	EXCPTPTR POINTER IN PROC (RQSENDCONTROL) PARAMETER 104
63	0000H	2	EXCPTPTR POINTER IN PROC (RQCREATEMAILBOX) PARAMETER 64
86	0000H	2	EXCPTPTR POINTER IN PROC (RQLOOKUPOBJECT) PARAMETER 89
75	0000H	2	EXCPTPTR POINTER IN PROC (RQRECEIVEMESSAGE) PARAMETER 77
67	0000H	2	EXCPTPTR POINTER IN PROC (RQDELETEMAILBOX) PARAMETER 68
55	0000H	2	EXCPTPTR POINTER IN PROC (RQCREATESEGMENT) PARAMETER 56
96	0000H	2	EXCPTPTR POINTER IN PROC (RQCREATERECTION) PARAMETER 97
100	0000H	2	EXCPTPTR POINTER IN PROC (RQRECEIVECONTROL) PARAMETER 101
59	0000H	2	EXCPTPTR POINTER IN PROC (RQDELETESEGMENT) PARAMETER 60
92	0000H	2	EXCPTPTR POINTER IN PROC (RQGETTASKTOKENS) PARAMETER 93
80	0000H	2	EXCPTPTR POINTER IN PROC (RQGETSIZE) PARAMETER 81
71	0000H	2	EXCPTPTR POINTER IN PROC (RQSENDMESSAGE) PARAMETER 72
96	0000H	2	FLAG WORD IN PROC (RQCREATERECTION) PARAMETER 96
5			FOREVER. LITERALLY 'WHILE 1' 119
14	000CH	2	FULLDELVR. WORD 126* 127
17	001AH	1	INDEX. BYTE
9			INFINITE LITERALLY 'OFFFFH' 108 109 120 124 128 133
86	0000H	2	JOB. SELECTOR IN PROC (RQLOOKUPOBJECT) PARAMETER 86
28			LF LITERALLY 'OAH' 30 137
75	0000H	2	MAILBOX. SELECTOR IN PROC (RQRECEIVEMESSAGE) PARAMETER 75
71	0000H	2	MAILBOX. SELECTOR IN PROC (RQSENDMESSAGE) PARAMETER 71
67	0000H	2	MAILBOX. SELECTOR IN PROC (RQDELETEMAILBOX) PARAMETER 67
63	0000H	2	MAILBOXFLAGS WORD IN PROC (RQCREATEMAILBOX) PARAMETER 63
48	0000H	2	MESSAGELENGTH. WORD IN PROC (CQXFER) PARAMETER 51
16	000CH	16	MESSAGETEXT. BYTE BASED(SEGMENTP) ARRAY(16) 125 129
48	0000H	2	MESSAGETOKEN SELECTOR IN PROC (CQXFER) PARAMETER 49
18	001BH	16	MESSBUFF BYTE ARRAY(16)
10	0000H	2	MMXRESPONSEMAILBOX SELECTOR 117* 128
			MOV3 BUILTIN 114 125 129
36	0000H	2	NAME POINTER IN PROC (RQLOOKUPOBJECT) PARAMETER 87
71	0000H	2	OBJECT SELECTOR IN PROC (RQSENDMESSAGE) PARAMETER 71
2			POINTER_OVERLAY. LITERALLY 'structure(base selector, /* selector part */
			-ffset word /* offset part */)' 12 23
7			RCVPORT. LITERALLY '1' 116

100	0000H	2	REGION	SELECTOR IN PROC (RQRECEIVECONTROL) PARAMETER	100
71	0000H	2	RESPONSE	SELECTOR IN PROC (RQSENDMESSAGE) PARAMETER	71
13	0006H	2	RESPONSEPTR	POINTER	
75	0000H	2	RESPONSEPTR	POINTER IN PROC (RQRECEIVEMESSAGE) PARAMETER	77
15	000EH	2	RESPONSEWORD	WORD 120 124 128 133	
21	0014H	2	ROOTJOB	SELECTOR 107* 108 109	
62	0000H		RQCREATEMAILBOX	PROCEDURE SELECTOR EXTERNAL(7) STACK=0000H	111
95	0000H		RQCREATEREGION	PROCEDURE SELECTOR EXTERNAL(15) STACK=0000H	
54	0000H		RQCREATESEGMENT	PROCEDURE SELECTOR EXTERNAL(5) STACK=0000H	110 118
66	0000H		RQDELETEMAILBOX	PROCEDURE EXTERNAL(8) STACK=0000H	
58	0000H		RQDELETESEGMENT	PROCEDURE EXTERNAL(6) STACK=0000H	
83	0000H		RQENDINITTASK	PROCEDURE EXTERNAL(12) STACK=0000H	106
79	0000H		RQGETSIZE	PROCEDURE WORD EXTERNAL(11) STACK=0000H	
91	0000H		RQGETTASKTOKENS	PROCEDURE SELECTOR EXTERNAL(14) STACK=0000H	107
85	0000H		RQLOCKUPOBJECT	PROCEDURE SELECTOR EXTERNAL(13) STACK=0000H	108 109
99	0000H		RQRECEIVECONTROL	PROCEDURE EXTERNAL(16) STACK=0000H	
74	0000H		RQRECEIVEMESSAGE	PROCEDURE SELECTOR EXTERNAL(10) STACK=0000H	120 124 128
				133	
103	0000H		RQSENDCONTROL	PROCEDURE EXTERNAL(17) STACK=0000H	
70	0000H		RQSENDMESSAGE	PROCEDURE EXTERNAL(9) STACK=0000H	115 123 132 138
59	0000H	2	SEGMENT	SELECTOR IN PROC (RQDELETESEGMENT) PARAMETER	59
80	0000H	2	SEGMENT	SELECTOR IN PROC (RQGETSIZE) PARAMETER	80
11	0004H	2	SEGMENTP	POINTER 12 125 129	
12	0004H	4	SEGMENTT	STRUCTURE AT INITIAL	
	0000H	2	BASE	SELECTOR 118* 127 128*	
	0002H	2	OFFSET	WORD	
92	0000H	1	SELECTION	BYTE IN PROC (RQGETTASKTOKENS) PARAMETER	92
30	0019H	13	SIGNON	BYTE ARRAY(13) DATA 114	
55	0000H	2	SIZE	WORD IN PROC (RQCREATESEGMENT) PARAMETER	55
48	0000H	2	STATUSPOINTER	POINTER IN PROC (CQXFER) PARAMETER	52
44	0000H	2	STATUSPOINTER	POINTER IN PROC (CQDACT) PARAMETER	45
40	0000H	2	STATUSPOINTER	POINTER IN PROC (CQACTV) PARAMETER	41
36	0000H	2	STATUSPOINTER	POINTER IN PROC (CQLOSE) PARAMETER	37
32	0000H	2	STATUSPCINTER	POINTER IN PROC (CQFIND) PARAMETER	33
44	0000H	2	SYSTEMPORTNAME	WORD IN PROC (CQDACT) PARAMETER	44
40	0000H	2	SYSTEMPORTNAME	WORD IN PROC (CQACTV) PARAMETER	40
32	0000H	2	SYSTEMPORTNAME	WORD IN PROC (CQFIND) PARAMETER	32
19	0000H	12	THINPUTMB	BYTE ARRAY(12) DATA 109	
20	000CH	13	THOUTPUTMB	BYTE ARRAY(13) DATA 108	
26			THREAD	LITERALLY '1' 121	
27	0018H	2	THRESPONSEMAILBOX	SELECTOR 111* 115 120 123 124 132 133 138	
24	0000H	24	THSEGMENT	STRUCTURE BASED(THSEGPTR)	
	0000H	2	FUNCTION	WORD 112* 121* 130* 134*	
	0002H	2	COUNT	WORD 113* 122* 131* 135*	
	0004H	2	XCEPT	WORD	
	0006H	2	ACTUAL	WORD 125	
	0008H	16	MESSAGE	BYTE ARRAY(16) 114 125 129 136* 137*	
22	0016H	2	THSEGPTR	POINTER 23 114 125 129	
23	0016H	4	THSEGTOKN	STRUCTURE AT INITIAL	
	0000H	2	BASE	SELECTOR 110* 115 120* 123 124* 132 133* 138	
	0002H	2	OFFSET	WORD	
25			THWRITE	LITERALLY '5' 112 130 134	
86	0000H	2	TIMELIMIT	WORD IN PROC (RQLOOKUPOBJECT) PARAMETER	88
75	0000H	2	TIMELIMIT	WORD IN PROC (RQRECEIVEMESSAGE) PARAMETER	76
4			TOKEN	LITERALLY 'SELECTOR' 10 21 27	
	0000H	476	TRANSMITTASK	PROCEDURE STACK=000CH	


```
48 0000H      2  XFERFLAG . . . . . WORD IN PROC (CQXFER) PARAMETER      50
6             XMITPORT . . . . . LITERALLY '0'          117
```

MODULE INFORMATION:

```
CODE AREA SIZE      = 01DCH      476D
CONSTANT AREA SIZE = 0026H      38D
VARIABLE AREA SIZE = 002BH      43D
MAXIMUM STACK SIZE = 000CH      12D
295 LINES READ
0 PROGRAM WARNINGS
0 PROGRAM ERRORS
```

END OF PL/M-86 COMPILATION