MPC-1000 MPC-2000 MPC-2100 MPC-2100L

SELECT_CASE のバグについて

(1.12_45 2010/05/21 で修正済み)

平成 22 年 5 月 24 日

CASE_ELSE 中で GOTO もしくは、RETURN の記述がある場合、上位の SELECT_CASE を誤作動させます。こうした記述を避けるか、12_45 にバージョンアップしてください。

- SELECT_CASE がネスト(二重以上)を持たない場合は問題はありません。
- CASE_ELSE 中に GOTO もしくは、RETURN 記述が無く、これによる飛び出しが無ければ問題ありません。(END_SELECT を通過していれば問題はおこらない)

●GOSUB で SELECT_CASE が二重化されている場合

```
A=1 :  B=1
SELECT_CASE   A
   CASE   1
   PRINT   1 : GOSUB   *aa
   CASE   2
   PRINT   2 : : GOSUB   *bb
   CASE_ELSE
    PRINT   "CASE_ELSE" 3
  END_SELECT
  PRINT   4
  END
*aa
  SELECT_CASE   B
   CASE   2
   RETURN
   CASE_ELSE
    GOTO   *AA
  END_SELECT
*AA
  RETURN
*bb
  SELECT_CASE   B
   CASE   2
   RETURN
   CASE_ELSE
    RETURN
  END_SELECT
*AA
RETURN
```

GOSUB *aa で、*aa 中の SELECT_CASE で CASE_ELSE に入り、END_SELECT をスキップして GOTO や RETURN で親ルーチンに戻ったあと、
親ルーチンの CASE_ELSE が実行されてしまう。

```
#run

 1
 CASE_ELSE 3
 4
#
```

●SELECT_CASE そのものが二重化されている場合

```
A=1 :  B=1
  SELECT_CASE   A
   CASE   1
   PRINT   1
   SELECT_CASE   B
    CASE   2
    CASE_ELSE
     GOTO   *AA
   END_SELECT
*AA
   CASE   2
   PRINT   2
   CASE_ELSE
    PRINT   "CASE_ELSE" 3
  END_SELECT
  PRINT   4
  END
```

```
#run

 1
 CASE_ELSE 3
 4
#
```

The Bug report (MPC-1000 MPC-2000 MPC-2100 MPC-2100L)
The special descriptions in the "CASE_ELSE" cause an unexpected processing.

(This problem has been fixed after the version 1.12_45 2010/05/21)

May 24th 2010

When there are descriptions of GOTO or RETURN in the CASE_ELSE , they causes irregular executing of the statements of the CASE_ELSE in the upper SELECT_CASE. To avoid this problem , you should update the MPC-2000's firmware into 1.12_45 already uploaded, or you should not use "RETURN" or "GOTO" in the CASE_ELSE.

- When there is no nests of SELECT_CASE, this case does not cause any problem.
- When there are no descriptions of GOTO or RETURN in CASE_ELSE, this case does not cause any problem.

●Case1: There is a NEST of SELECT_CASE with using GOSUB

```
A=1 :  B=1
SELECT_CASE   A
   CASE   1
   PRINT   1 : GOSUB   *aa
   CASE   2
   PRINT   2 : : GOSUB   *bb
   CASE_ELSE
    PRINT   "CASE_ELSE" 3
  END_SELECT
  PRINT   4
  END
*aa
  SELECT_CASE   B
   CASE   2
   RETURN
   CASE_ELSE
    GOTO   *AA
  END_SELECT
*AA
  RETURN
*bb
  SELECT_CASE   B
   CASE   2
   RETURN
   CASE_ELSE
    RETURN
  END_SELECT
*AA
RETURN
```

"PRINT "CASE_ELSE" 3" is executed, when GOTO *AA in the subroutine *aa has been executed .

```
#run
 1
 CASE_ELSE 3
 4
#
```

●Case2: SELECT_CASE has a NEST.

```
A=1 :  B=1
  SELECT_CASE   A
   CASE   1
   PRINT   1
   SELECT_CASE   B
    CASE   2
    CASE_ELSE
     GOTO   *AA
   END_SELECT
*AA
   CASE   2
   PRINT   2
   CASE_ELSE
    PRINT   "CASE_ELSE" 3
  END_SELECT
  PRINT   4
  END
```

```
#run
 1
 CASE_ELSE 3
 4
#
```