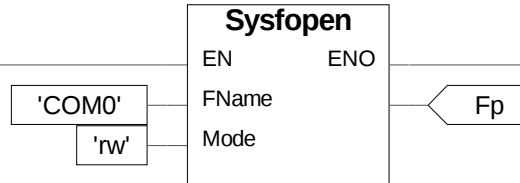


```
VAR
Fp : FILEP; (* File pointer *)
Dummy : BOOL; (* Dummy variable *)
SMode : SetSMode; (* Set serial mode *)
Fault : BOOL; (* RFiDInterface fault *)
RFiD : RFiDInterface; (* RFiD Interface *)
END_VAR
```

Open the serial COM

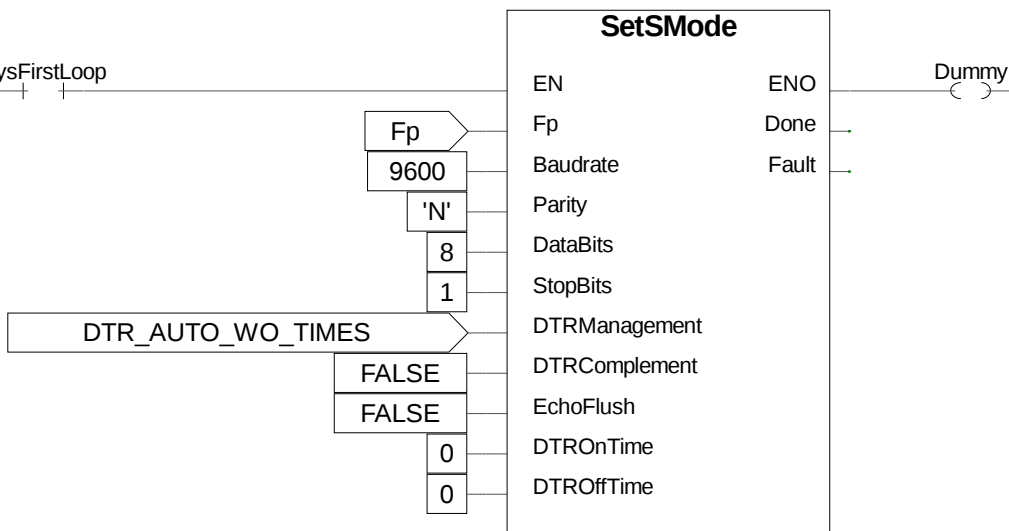
SysFirstLoop



Set communication mode

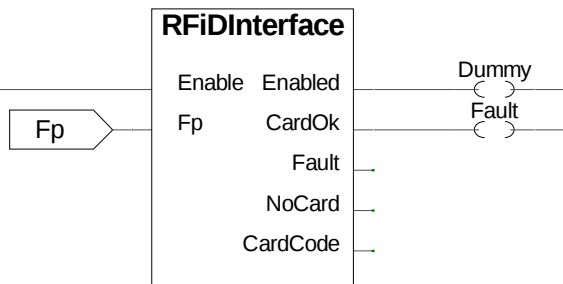
SMode

SysFirstLoop



RFiD

SysFirstLoop



RFiDInterface

Enable Enabled

Fp CardOk

Fault

NoCard

CardCode

Dummy

Fault

Project : RFiDInterface

PROGRAM : Communication

Release : SendDStat

Ver :1.00

Author :

Date:03/08/2015

Note :

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(SFR054B000) Set the serial communication mode
ENCRYPTED CODE

```
VAR_INPUT
Fp : FILEP;
Baudrate : UDINT; (* Baudrate *)
Parity : STRING[ 1 ]; (* Parity type *)
DataBits : USINT; (* Nr of data bits *)
StopBits : USINT; (* Nr of stop bits *)
DTRManagement : USINT; (* DTR management type *)
DTRComplement : BOOL; (* Complement the DTR signal *)
EchoFlush : BOOL; (* Flush the echo *)
DTROnTime : UINT; (* DTR On wait time *)
DTROffTime : UINT; (* DTR Off wait time *)
END_VAR

VAR_OUTPUT
Done : BOOL; (* Execution done *)
Fault : BOOL; (* Execution fault *)
END_VAR
```

1

	Project : RFidInterface	
	FUNCTION BLOCK : SetSMode	
	Release : SendDStat	Ver :1.00
	Author :	Date:03/08/2015
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VAR_INPUT

```
Enable : BOOL; (* FB Enable *)
Fp : FILEP; (* File pointer *)
END_VAR
```

VAR_OUTPUT

```
Enabled : BOOL := FALSE; (* FB Enabled *)
CardOk : BOOL; (* Carta presente *)
Fault : BOOL; (* Communication fault *)
NoCard : BOOL; (* Nessuna carta presente *)
CardCode : UDINT; (* Codice carta *)
END_VAR
```

VAR

```
CaseNr : USINT; (* Case gestione programma *)
Ch : INT; (* Rx/Tx character *)
RxCtr : USINT; (* Rx data counter *)
TimeBf : ARRAY[ 0..1 ] OF UDINT; (* Time buffer *)
i : INT; (* Auxiliary counter *)
RxData : ARRAY[ 0..15 ] OF BYTE; (* Stringa ricezione *)
Ptr : @USINT; (* Internal pointer *)
END_VAR
```

```

1 (* ***** *)
2 (* FUNCTION BLOCK "RfidInterface" *)
3 (* ***** *)
4 (* Interfaccia con lettore Rfid. *)
5 (* *)
6 (* Inviare al lettore stringa richiesta UID: "BA 02 01 B9" *)
7 (* Stringa ricevuta dal lettore senza card:"BD 03 01 01 BE" *)
8 (* Stringa ricevuta con card:"BD 09 01 00 xx xx xx xx 01 xx" *)
9 (* *)
10 (* I dati della card sono dal 4-5-6-7 iniziando da 0. *)
11 (* ----- *)
12
13 (* ----- *)
14 (* RESET BIT DI ONE SHOT *)
15 (* ----- *)
16 (* ESeguo reset bit di one shot. *)
17
18 (* NoCard:=FALSE; (* Nessuna carta presente *) *)
19 (* CardOk:=FALSE; (* Carta presente *) *)
20
21 (* ----- *)
22 (* FB ENABLE *)
23 (* ----- *)
24 (* Check if the FB is enabled. *)
25
26 IF NOT(Enable) THEN
27     Enabled:=FALSE; (* FB Enabled *)
28     CaseNr:=0; (* Case gestione programma *)
29     RETURN;
30 END_IF;
31
32 Enabled:=TRUE; (* FB Enabled *)
33
34 (* Gestione errore protocollo. *)
```

Project : RfidInterface

FUNCTION BLOCK : RfidInterface

Release : SendDlStat

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```

35
36 IF (Fault) THEN
37     Fault:=FALSE; (* Communication fault *)
38     CaseNr:=0; (* Case gestione programma *)
39 END_IF;
40
41 (* ----- *)
42 (* ESEGUO CONTROLLO SE TIMEOUT GESTIONE *)
43 (* ----- *)
44 (* Non è possibile restare in un case per tempo superiore al timeout. *)
45
46 IF (CaseNr = 0) THEN TimeBf[0]:=SysGetSysTime(TRUE); END_IF;
47 IF ((SysGetSysTime(TRUE)-TimeBf[0]) > 1000000) THEN
48     Fault:=TRUE; (* Communication fault *)
49     RETURN;
50 END_IF;
51
52 (* ----- *)
53 (* CASES GESTIONE *)
54 (* ----- *)
55 (* Cases gestione programma. *)
56
57 CASE (CaseNr) OF
58
59     (* ----- *)
60     (* GESTIONE INVIO FRAME RICHIESTA *)
61     (* ----- *)
62     (* Invio frame richiesta codice carta. Controllo spazio in buffer di *)
63     (* trasmissione. *)
64
65     0:
66     IF (SysGetOSpace(Fp) < 4) THEN RETURN; END_IF;
67
68     (* Invio stringa richiesta codice. *)
69
70     i:=SysFIBfClear(Fp); (* Clear Rx buffer *)
71     i:=Sysfwrite(ADR('$BA$02$01$B9'), 4, 1, Fp);
72     CaseNr:=CaseNr+1; (* Case gestione programma *)
73
74     (* ----- *)
75     (* Attesa invio stringa di richiesta. *)
76
77     1:
78     IF (SysGetOSpace(Fp) <> TO_INT(SysGetTxBSize(Fp))) THEN RETURN; END_IF;
79     CaseNr:=10; (* Case gestione programma *)
80
81     (* ----- *)
82     (* GESTIONE RICEZIONE FRAME RISPOSTA *)
83     (* ----- *)
84     (* Attesa ricezione caratteri. Controllo se ricevuto il carattere di *)
85     (* start frame "$BD". *)
86
87     10:
88     IF NOT(TO_BOOL(SysGetIChars(Fp))) THEN RETURN; END_IF;
89     Ch:=TO_USINT(Sysfgetc(Fp)); (* Rx/Tx character *)
90     IF (Ch <> 16#BD) THEN RETURN; END_IF;
91     TimeBf[1]:=SysGetSysTime(TRUE); (* Time buffer *)
92     RxCtr:=0; (* Rx data counter *)
93     RxData[RxCtr]:=16#BD; (* Carico dato in buffer ricezione *)
94     RxCtr:=RxCtr+1; (* Rx data counter *)

```

	Project : RfidInterface	
	FUNCTION BLOCK : RfidInterface	
	Release : SendDlStat	Ver :1.00
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	Note :	Page:2 of 3

FUNCTION_BLOCK RfidInterface

```

95     CaseNr:=CaseNr+1; (* Case gestione programma *)
96
97     (* ----- *)
98     (* La ricezione della stringa di risposta termina se non ricevo *)
99     (* caratteri per almeno 100 mS. *)
100
101     11:
102     IF ((SysGetSysTime(TRUE)-TimeBf[1]) > 100000) THEN
103         CaseNr:=20; (* Case gestione programma *)
104         RETURN;
105     END_IF;
106
107     (* Eseguo ricezione stringa risposta. *)
108
109     IF NOT(TO_BOOL(SysGetIChars(Fp))) THEN RETURN; END_IF;
110     TimeBf[1]:=SysGetSysTime(TRUE); (* Time buffer *)
111     RxData[RxCtr]:=TO_USINT(Sysfgetc(Fp)); (* Carico dato in buffer ricezione *)
112     RxCtr:=RxCtr+1; (* Rx data counter *)
113
114     (* Controllo di non sforare la dimensione del buffer ricezione. *)
115
116     IF (RxCtr > SIZEOF(RxData)) THEN Fault:=TRUE; RETURN; END_IF;
117
118     (* ----- *)
119     (* LETTURA CODICE UID RICEVUTO *)
120     (* ----- *)
121     (* Se non vi è carta presente frame ricevuto "BD 03 01 01 BE". *)
122
123     20:
124     IF ((RxData[1] = 16#03) AND (RxCtr = 5)) THEN
125         NoCard:=TRUE; (* Nessuna carta presente *)
126         CaseNr:=0; (* Case gestione programma *)
127     END_IF;
128
129     (* Se carta presente frame ricevuto "BD 09 01 00 xx xx xx xx 01 xx". *)
130
131     IF ((RxData[1] = 16#09) AND (RxCtr = 10)) THEN
132         CardCode:=RxData[4];
133         CardCode:=ROL(CardCode, 8);
134
135         CardCode:=CardCode OR RxData[5];
136         CardCode:=ROL(CardCode, 8);
137
138         CardCode:=CardCode OR RxData[6];
139         CardCode:=ROL(CardCode, 8);
140
141         CardCode:=CardCode OR RxData[7];
142
143         CardOk:=TRUE; (* Carta presente *)
144         CaseNr:=0; (* Case gestione programma *)
145     END_IF;
146
147     ELSE
148         Fault:=TRUE; (* Execution fault *)
149     END_CASE;
150
151 (* [End of file] *)
152
153

```

	Project : RfidInterface	
	FUNCTION BLOCK : RfidInterface	
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