

```

VAR
ClockSet : BOOL; (* Clock set command *)
Second : BOOL := 0; (* Define the second value (Range from 0 to 59) *)
Day : USINT := 13; (* Define the day of month (Range from 1 to 31) *)
Hour : USINT := 8; (* Define the hour value (Range from 0 to 23) *)
Minute : USINT := 0; (* Define the minute value (Range from 0 to 59) *)
Month : USINT := 2; (* Define the month of the year (Range from 1 to 12) *)
Year : UINT := 2014; (* Define the year value (Range from 1970 to 2099) *)
ClockAdj : UDINT := 1000000; (* Clock adjust (uS) *)
ETime : UDINT; (* Epoch time *)
JitterTime : UDINT; (* Jitter time (uS) *)
TimeBf : UDINT; (* Time buffer (uS) *)
ToETime : SysDateToETime; (* To ETime conversion *)
ToDate : SysETimeToDate; (* To Date/Time conversion *)
TimePsd : UDINT; (* Time passed (uS) *)
END_VAR

```

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1 (* ***** *)
2 (* PROGRAM "RTCBySoftware" *)
3 (* ***** *)
4 (* Viene gestito un orologio da software. *)
5 (* ----- *)
6
7 (* ----- *)
8 (* PRESET VALORE DATA/ORA *)
9 (* ----- *)
10 (* Calcolo valore di Epoch time con Data/Ora definita su comando. *)
11
12 IF (SysFirstLoop OR ClockSet) THEN
13     ClockSet:=FALSE; (* Clock set command *)
14     JitterTime:=0; (* Jitter time (uS) *)
15     TimeBf:=SysGetSysTime(TRUE); (* Time buffer (uS) *)
16
17     ToETime.Year:=Year; (* Year value *)
18     ToETime.Month:=Month; (* Month value *)
19     ToETime.Day:=Day; (* Day value *)
20     ToETime.Hour:=Hour; (* Hour value *)
21     ToETime.Minute:=Minute; (* Minute value *)
22     ToETime.Second:=Second; (* Second value *)
23     ToETime(); (* To ETime conversion *)
24     ETime:=ToETime.EpochTime; (* Epoch time *)
25 END_IF;
26
27 (* ----- *)
28 (* GESTIONE EPOCH TIME *)
29 (* ----- *)
30 (* Eseguo incremento valore di Epoch time. *)
31
32 TimePsd:=SysGetSysTime(TRUE)-TimeBf; (* Time passed (uS) *)
33 IF (TimePsd < (ClockAdj-JitterTime)) THEN RETURN; END_IF;
34 TimeBf:=SysGetSysTime(FALSE); (* Time buffer (uS) *)
35
36 JitterTime:=TimePsd-(ClockAdj-JitterTime); (* Jitter time (uS) *)
37 ETime:=ETime+1; (* Epoch time *)
38
39 (* ----- *)
40 (* CONVERSIONE VALORE DATA/ORA *)

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PROGRAM : RTCBySoftware	
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PROGRAM RTCBySoftware

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41      (* ----- *)
42      (* Conversione Epoch time in Data/Ora. *)
43
44      ToDate(EpochTime:=ETime);
45
46 (* [End of file] *)
47
48
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