Control Technology Corporation

Control TechNotes

Using the Real-Time Clock Feature within 2700 Series Controllers

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The 2700 Series Controllers include a real-time clock (RTC) feature. The clock is preset at the factory to Eastern Standard Time. The registers listed below are used to read the current time or set the clock to local time:

- **Register 13014** - seconds
- **Register 13015** - minutes
- **Register 13016** - hours (24 hour clock)
- **Register 13017** - day of month
- **Register 13018** - month of year (1-12)
- **Register 13019** - year (two fields)
- **Register 13020** - day of week (1-7, where Sunday=1)

Note

All registers are read/write.

Examples

In this example, when the RTC reaches five minutes past the hour, the program goes to the next step.

```
[10] Clock_Test
    ;;;
    ————————————————————-
    <No Change in Digital Outputs>
    ————————————————————-
    if Minutes = 5 goto next
```

In this example, the program goes to the next step at 12:59:59 p.m. on December 31, 1999.

```
[20] Clock_Test
    ————————————————————-
    <No Change in Digital Outputs>
    ————————————————————-
    if Seconds <> 59 goto CLOCK_TEST
    if Minutes <> 59 goto CLOCK_TEST
    if Hours <> 23 goto CLOCK_TEST
    if Day <>31 goto CLOCK_TEST
    if Month <>12 goto CLOCK_TEST
    if Year <> 99 goto CLOCK_TEST
    goto HAPPY_MILLENIUM
```

In this example, when a specific event occurs it activates an input and the controller moves to the next step.

```
[50] Time_Stamp
    ————————————————————-
    <No Change in Digital Outputs>
    ————————————————————-
    monitor Event_Trap goto next
[51] Save_Data
    ————————————————————-
    <No Change in Digital Outputs>
    ————————————————————-
    store Seconds to Saved_Seconds
    store Minutes to Saved_Minutes
    store Hours to Saved_Hours
    store Day to Saved_Day
    store Month to Saved_Month
    store Year to Saved_Year
```