**This Application Note is pertinent to our
Unidrive SP, Mentor MP and Commander SK Drive Family**

Setting up the Real Time Clock

Our Commander SK, Unidrive SP and Mentor MP can be outfitted with the SM-IO Timer Module which contains a Real Time Clock. This clock when properly set can provide both Time of Day plus Day of Week as well as Month and Year – **IF** the clock is properly set.
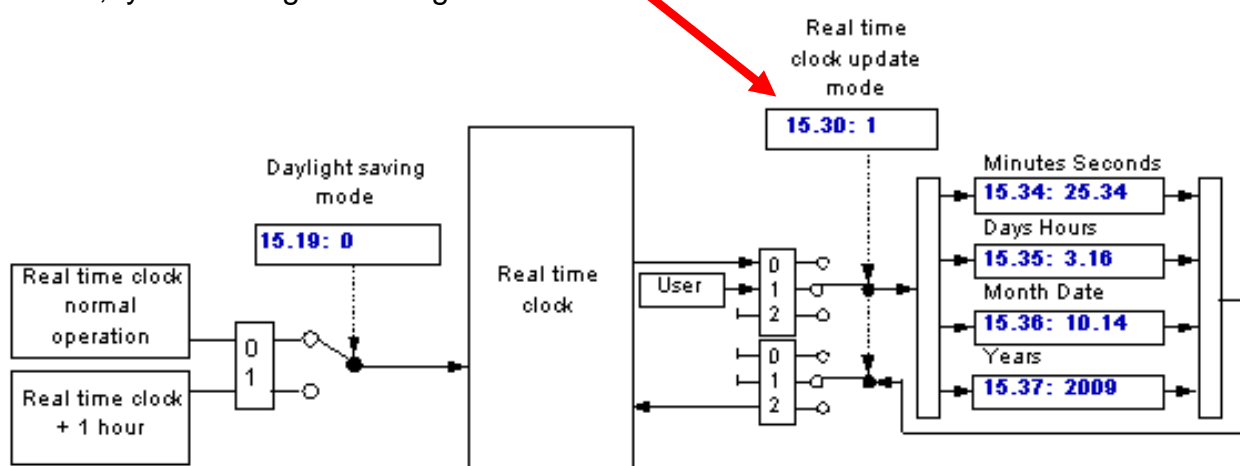
The screenshots illustrated in this App Note were taken from CTSoft, our free Configuration Software. To obtain your free copy click on the links below.

CTSoft

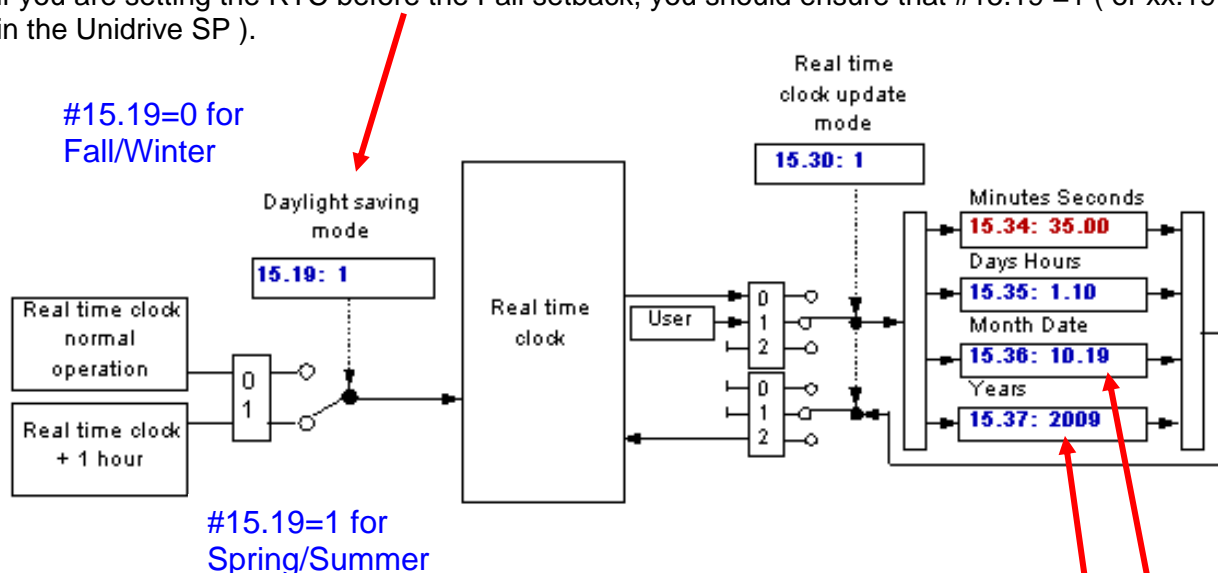### Computer Cables to utilize CTSoft

Using CTSoft

In order to set the RTC (Real Time Clock) one must put the clock into the Set Mode. This is accomplished by setting #15.30 in the Commander SK (or #xx.30 in the Unidrive SP or Mentor MP) to a 1- (where xx is slot dependent-see UnidriveSP Slot details at the rear of this App Note). Once the RTC is in the Set Mode, you can begin entering the Time and Date

Setting the Time

Daylight Savings Time

The RTC within the IO Timer has a convenience feature to allow one to advance the Hours by 1 to accommodate Daylight Savings time changes. In order to take advantage of this feature, if you are setting the RTC before the Fall setback, you should ensure that #15.19 =1 (or xx.19 in the Unidrive SP).

#15.19=0 for Fall/Winter

#15.19=1 for Spring/Summer

However you must enter the Hours field as your current Hour-1 if setting prior to the Fall setback.   For instance, if you current time is 11AM enter in 10.

Enter in the Year first   #15.37   - in my case 2009
Next enter in the Month.Date   #15.36   - in my case Oct 19th
Next enter in the Day of the Week and Hour   #15.35   - Monday 11AM (10)
Finally enter in the Minutes and Seconds   #15.34   - MM.SS

Hint: To be as accurate as possible, enter in the seconds or minutes as what it will be soon- not what it is right now. This will give you time to set #15.30 to Set/Run as soon as that time occurs.

On Your Mark

To finally set the Clock and cause it to Run, click on the circle after the 2 or place a 2 into #15.30 in Commander SK or #xx.30 on Unidrive SP-(where xx is slot dependent). After the 2 is placed, it will revert back to a 0 and the RTC will be running.   You should be able to see that at #15.34- *seconds of your life ticking away*.

Note: Since this date is before Fall setback, the Hours will revert to what you entered +1

When Daylight Savings Time Comes

Once you have the clock set as described previously,   instead of having to reset the Time, with this RTC all you need to do is to toggle (change the state) of parameter #15.19 or (xx.19 in UniSP's).   This will either advance or retard the hour automatically.

Day of the Week

The Day of the Week spans from 1-7.   Setting of this is actually arbitrary. For example one could decide:

> Day 1= Monday
> Day 2= Tuesday
> Day 3= Wednesday
> Day 4= Thursday
> Day 5= Friday
> Day 6= Saturday
> Day 7= Sunday

But someone else might decide that Sunday is Day 1. It just matters how you wish to interpret the 1-7 value in #15.35.
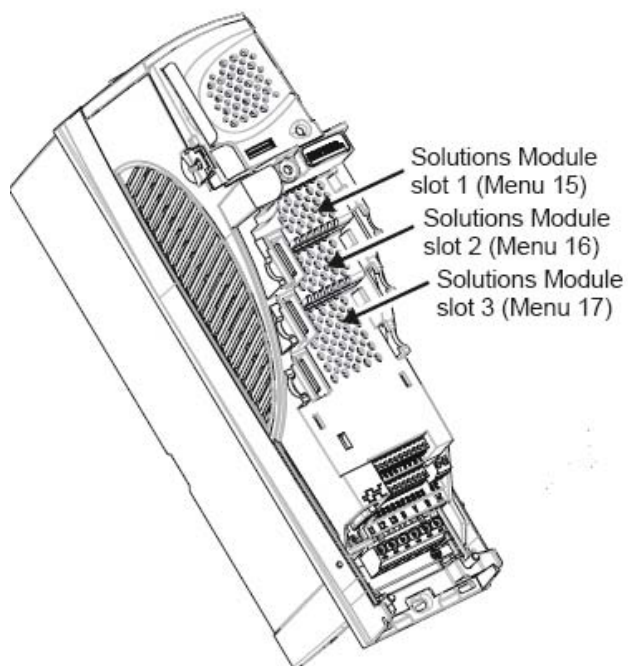
For more information on application of the Real Time Clock

Click→   **CTAN332**

Questions ??   Ask the Author:

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UnidriveSP
Option Slot Details

Solutions Module slot 1 (Menu 15)
Solutions Module slot 2 (Menu 16)
Solutions Module slot 3 (Menu 17)

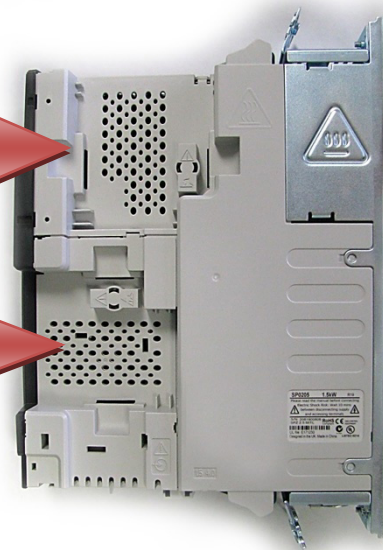## Size 0 Slot Location

Solution Module slot 2 (Menu 16)

Solution Module slot 1 (Menu 15)

Menu 15	=	Slot 1
Menu 16	=	Slot 2