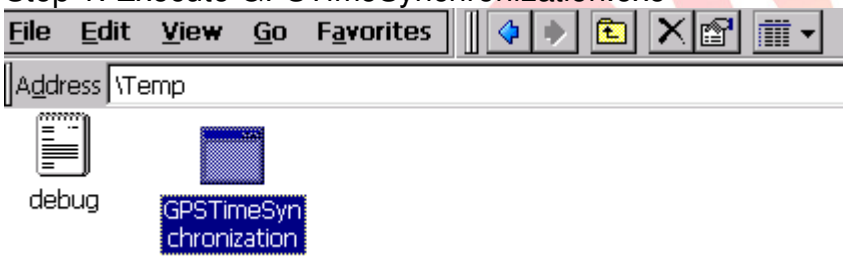
How to Synchronize the system time by GPS data

Applies to:

Platform	*OS version*	*WinPAC/ViewPAC utility version*
WP-8x2x	*All versions*	*Do not matter with the utility.*
WP-9x2x		
WP-523x		
WP-224x		
VP-x231		
VP-x201		

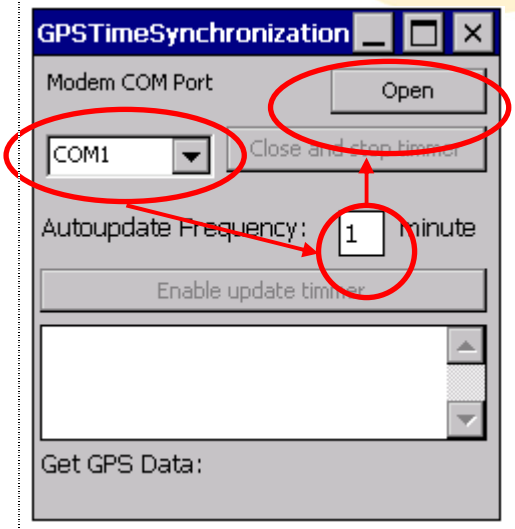
Demo program locate at:
CD:\WinPAC_AM335x\Wp-5231\demo\3g_modem\gpstimesynchronization\
http://ftp.icpdas.com/pub/cd/winpac_am335x/wp-5231/demo/3g_modem/gpstimesynchronization

Step 1: Execute GPSTimeSynchronization.exe

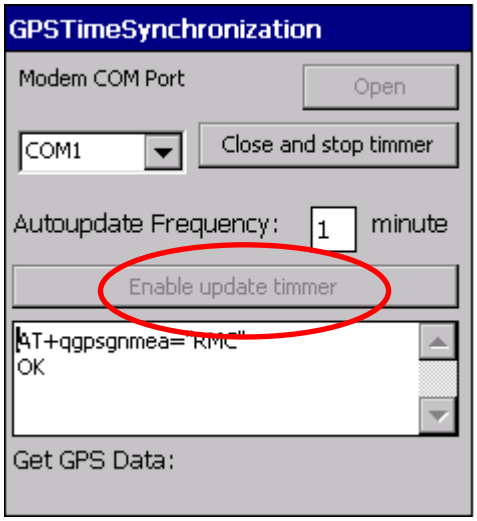


Step 2: Select the COM port to recive the GPS data. Set the period for synchronization system time , and then clock the ”Open” button.

Note: The "COM port" has COM1、COM8、COM9, but the COM9 usually used by GPRS network. At the same time, if the COM8 to receive GPS data, the GPRS network connection will have error happen. So, we suggested you to using the COM1.



Step 3: Click the “Enable update timer” button to synchronize system time.



Note: The demo program uses the GPS RMC data to find the time now, and then synchronize the system time.

GPS RMC data format: "RMC" => Recommended minimum data for GPS
$--RMC,hhmmss.ss,A,llll.ll,a,yyyyy.yy,a,x.x,x.x,xxxxxx,x.x,a*hh
($GPRMC,<1>,<2>,<3>,<4>,<5>,<6>,<7>,<8>,<9>,<10>,<11>)

Example description：
$GPRMC,055148,A,2407.8945,N,12041.7649,E,000.0,000.0,061196,003.1,W*69
1) 055148 :Time Stamp （UTC time: hhmmss）
2) A :validity - A-ok, V-invalid
3) 2407.8945 :current Latitude（ddmm.mmmm）
4) N :North/South
5) 12041.7649 :current Longitude（ddmm.mmmm）
6) E : East/West
7) 000.0 :Speed in knots
8) 000.0 : True course
9) 061196 : Date Stamp（ddmmyy）
10) 003.1 : Variation 000.0 to 180.0
11) W : East/West
12) *hh : Checksum.