

'CR1000

'Created by Short Cut (2.9)

'////////// Declare Variables and Units //////////

Public BattV

Public PTemp_C

Public WS6_10Meter_ms

Public WS5_5Meter_ms

Public WS4_2andahalfMeter_ms

Public WS3_1andhalfMeter_ms

Public WS2_1Meter_ms

Public WS1_HalfMeter_ms

Public WindDir

Public Temp_10m

Public Temp_4m

Public Temp_2m

Public RH_4m

Public Rain_mm

Public Sensit

Public SenSec

Public Flag As Boolean

Public Switch12 As Boolean

Public CellPower As Boolean

Dim BattMin = 11.5

Dim BattMax = 12.0

Units BattV=Volts

Units PTemp_C=Deg C

Units WS4_2andahalfMeter_ms=meters/second

Units WS3_1andhalfMeter_ms=meters/second

Units WS2_1Meter_ms=meters/second

Units WS1_HalfMeter_ms=meters/second

Units WS6_10Meter_ms=meters/second

Units WindDir=degrees

Units WS5_5Meter_ms=meters/second

Units Temp_10m=Deg C

Units Temp_2m=Deg C

Units Temp_4m=Deg C

Units RH_4m=%

Units Rain_mm=mm

Units Sensit=Counts/Hz

'////////// Define Data Tables //////////

DataTable(Table1,True,-1)

DataInterval(0,60,Sec,10)

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CardOut(0,-1)
Sample (1,Switch12,Boolean) : FieldNames("Switch 12v status")
Average(1,Temp_10m,FP2,False): FieldNames("AvgTemp_10M_DegC")
Average(1,Temp_4m,FP2,False): FieldNames("AvgTemp_4M_DegC")
Average(1,Temp_2m,FP2,False): FieldNames("AvgTemp_2M_DegC")
Average (1,RH_4m,FP2,False):FieldNames("AvgRH_4m_%")
Totalize(1,Rain_mm,FP2,False): FieldNames("Total_Rain_mm")
WindVector (1,WS6_10Meter_ms,WindDir,FP2,False,0,0,3):FieldNames("WindDir_deg")
Maximum(1,WS6_10Meter_ms,FP2,False,False): FieldNames("MaxWS6_10M_m/s")
Maximum(1,WS5_5Meter_ms,FP2,False,False): FieldNames("MaxWS5_5M_m/s")
Maximum(1,WS4_2andahalfMeter_ms,FP2,False,False): FieldNames("MaxWS4_2.5M_m/s")
Maximum(1,WS3_1andhalfMeter_ms,FP2,False,False): FieldNames("MaxWS3_1.5M_m/s")
Maximum(1,WS2_1Meter_ms,FP2,False,False): FieldNames("MaxWS2_1M_m/s")
Maximum(1,WS1_HalfMeter_ms,FP2,False,False): FieldNames("MaxWS1_0.5M_m/s")
StdDev(1,WS2_1Meter_ms,FP2,False): FieldNames("StdDevWS2_1M_m/s")
Average(1,WS6_10Meter_ms,FP2,False): FieldNames("AvgWS6_10M_m/s")
Average(1,WS5_5Meter_ms,FP2,False): FieldNames("AvgWS5_5M_m/s")
Average(1,WS4_2andahalfMeter_ms,FP2,False): FieldNames("AvgWS4_2.5M_m/s")
Average(1,WS3_1andhalfMeter_ms,FP2,False): FieldNames("AvgWS3_1.5M_m/s")
Average(1,WS2_1Meter_ms,FP2,False): FieldNames("AvgWS2_1M_m/s")
Average(1,WS1_HalfMeter_ms,FP2,False): FieldNames("AvgWS1_0.5M_m/s")
Totalize(1,Sensit,FP2,False)
Sample(1,SenSec,FP2)
EndTable

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DataTable(Table2,True,-1)
  DataInterval(0,5,Min,10)
  Minimum(1,BattV,FP2,False,False)
EndTable

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'////////// Main Program //////////
BeginProg
'Main Scan
CellPower=True
Scan(1,Sec,1,0)
'Default Datalogger Battery Voltage measurement 'BattV'
Battery(BattV)
'Default Wiring Panel Temperature measurement 'PTemp_C'
PanelTemp(PTemp_C,_60Hz)
'03101 Wind Speed Sensor measurement 'WS4_ms' on the LLAC4
PulseCount(WS4_2andahalfMeter_ms,1,11,0,1,0.75,0.2)
If WS4_2andahalfMeter_ms<0.21 Then WS4_2andahalfMeter_ms=0
'03101 Wind Speed Sensor measurement 'WS3_ms' on the LLAC4
PulseCount(WS3_1andhalfMeter_ms,1,12,0,1,0.75,0.2)
If WS3_1andhalfMeter_ms<0.21 Then WS3_1andhalfMeter_ms=0
'03101 Wind Speed Sensor measurement 'WS2_ms' on the LLAC4

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PulseCount(WS2_1Meter_ms,1,13,0,1,0.75,0.2)
If WS2_1Meter_ms<0.21 Then WS2_1Meter_ms=0
'03101 Wind Speed Sensor measurement 'WS1_ms' on the LLAC4
PulseCount(WS1_HalfMeter_ms,1,14,0,1,0.75,0.2)
If WS1_HalfMeter_ms<0.21 Then WS1_HalfMeter_ms=0
'03002 Wind Speed & Direction Sensor measurements 'WS6_ms' and 'WindDir'
PulseCount(WS6_10Meter_ms,1,1,1,1,0.75,0.2)
If WS6_10Meter_ms<0.21 Then WS6_10Meter_ms=0
BrHalf(WindDir,1,mV2500,1,1,1,2500,True,0,_60Hz,352,0)
If WindDir>=360 Then WindDir=0
'03101 Wind Speed Sensor measurement 'WS5_ms'
PulseCount(WS5_5Meter_ms,1,2,1,1,0.75,0.2)
If WS5_5Meter_ms<0.21 Then WS5_5Meter_ms=0
'107 Temperature Probe measurement 'T107_C8'
Therm107(Temp_10m,1,2,Vx2,0,_60Hz,1,0)
'107 Temperature Probe measurement 'T107_C1'
Therm107(Temp_2m,1,3,Vx3,0,_60Hz,1,0)
'HC2S3 (constant power) Temperature & Relative Humidity Sensor measurements 'AirTC4'
and 'RH4'
VoltSe(Temp_4m,1,mV2500,4,0,0,_60Hz,0.1,-40)
VoltSe(RH_4m,1,mV2500,5,0,0,_60Hz,0.1,0)
If RH_4m>100 AND RH_4m<103 Then RH_4m=100
'TE525/TE525WS Rain Gauge measurement 'Rain_mm'
PulseCount(Rain_mm,1,15,2,0,0.254,0)

'Pulse measurement for Sensit
PulseCount(Sensit,1,16,0,0,1,0)
If Sensit>0 Then SenSec+=1

'Modem 12V Failsafe Instruction (will keep modem off if power drops below 11.5V and allow
to turn on above 12V)
If BattV < BattMin Then
  CellPower = False
Else
  If BattV > BattMax Then CellPower = True

'Modem Power instructions (power on @:50min of hour, power off @:10min of hour)

If CellPower =True AND TimeIntoInterval (50,60,Min) Then PortSet (9,1)
If Flag=false Then
  If TimeIntoInterval (10,60,Min) Then PortSet (9,0)
  EndIf
EndIf
Switch12 = status.sw12volts(1)

'Call Data Tables and Store Data

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CallTable(Table1)
CallTable(Table2)
If IfTime(0,60,sec) Then SenSec=0
NextScan
EndProg
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