Read Me File

There are three files along with this read me file

1. cat_NTC6_enu.pdf -- Brief NTC6 module description
2. ntc6_enu.pdw -- NTC6 sample ladder program
3. NTC_TABLE_enu.xls -- Sample spreadsheet for creation of conversion table.

How to use NTC_TABLE_cht.xls spreadsheet

The content of the sample spreadsheet is based on the 10KΩ NTC characteristic table provided by one of the NTC manufactures.

	A	B	C
1	**TemperatureX10**	**Resistance**	**Measurement Value**
2	1490	174	437
3	1480	178	447
4	1470	182	456
5	1460	186	466
6	1450	191	478
7	1440	196	490
8	1430	201	502
9	1420	206	515
10	1410	210	524
11	1400	215	536
12	1390	221	551
13	1380	227	565

In this spreadsheet, there are three columns as following descriptions :

.The first column is temperature value, ranging from 149.0℃ thru -50.0℃ in 1℃ step

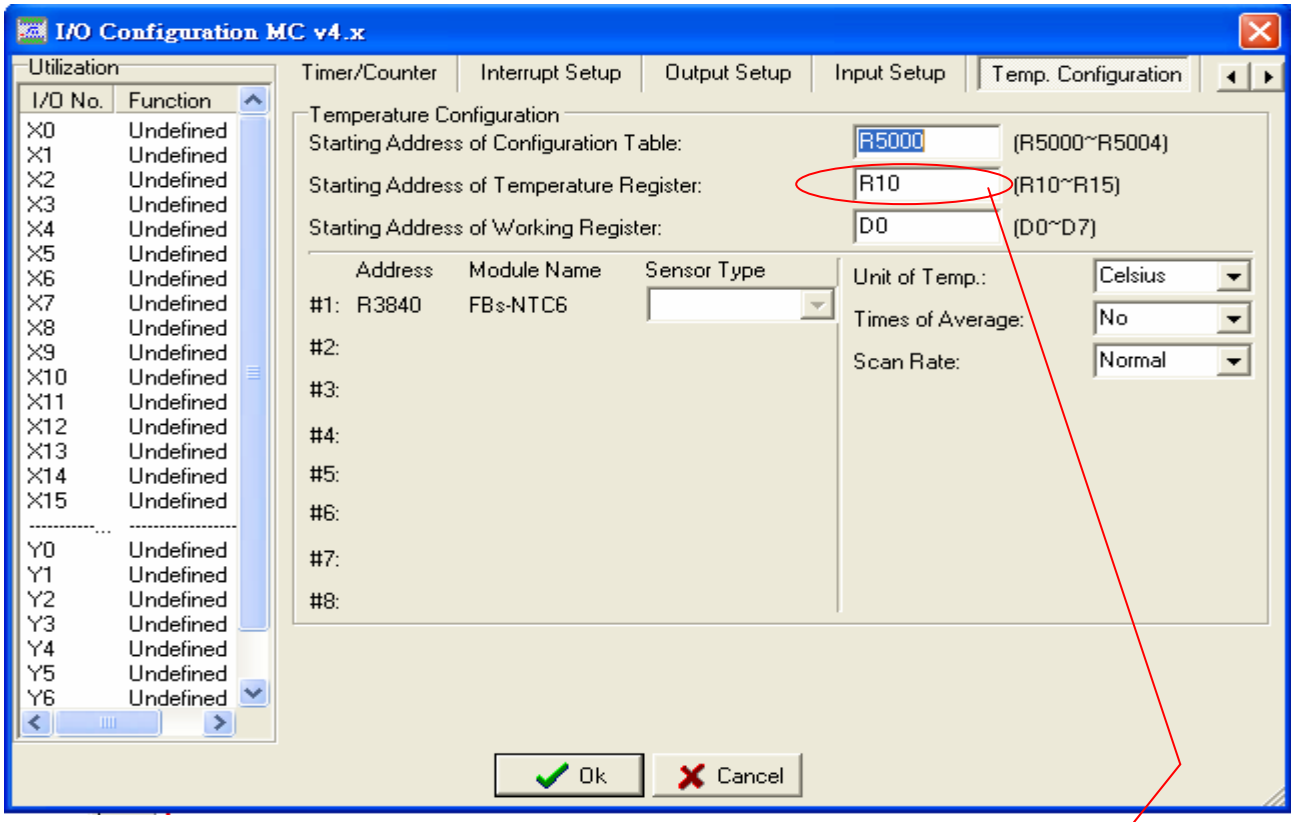
.The center column is corresponding resistance value looked up from the characteristic table of the NTC sensor

.The right most column is derived from the resistance value column by automatic calculation while entering the resistance value

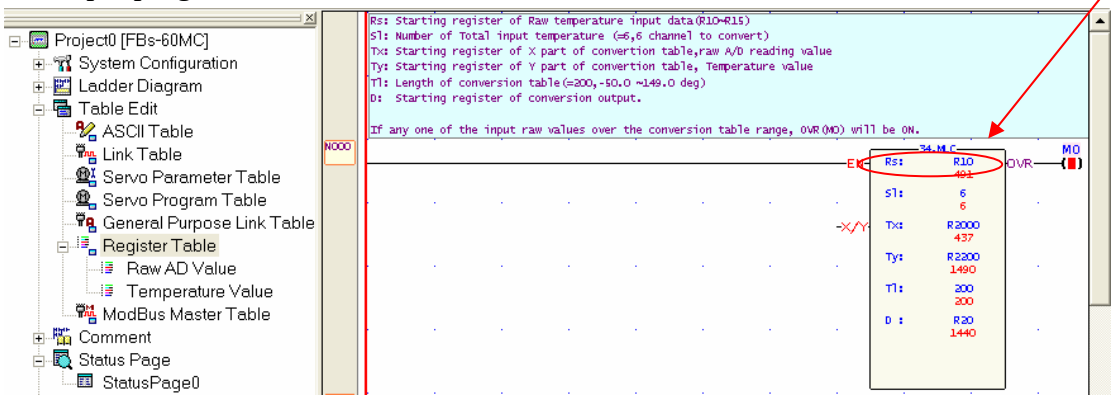
Procedures to create your own conversion table:

1. Narrow down the real application temperature range. The wider the temperature range the bigger the register table for conversion will be. Besides the consideration of conserved register space, small table also can shorten the execution time. Remove the unnecessary temperature cell and save to another file before proceeding to next step.
2. Look up the characteristic table and fill in the resistance value at the cell in Resistance row according to the adopted sensor.
3. Create two register tables by WinProladder through Register Table Editing, and fill in the temperature and measurement values into each register table(As the sample program ntc6_enu.pdw, R2000~R2199 is the first register table, it needs o be filled with the measurement values; R2200~R2399 is the second register table, it needs to be filled with the temperature values).

. I/O Configuration for Temperature module



.Example program



Description: The MLC (Multiple-segment Linear Conversion, FUN34) function instruction should be used to convert the raw reading value into the final temperature value when using this module, and also two register tables are necessary for proper operation with this instruction.

By executing WinProladder utility, and through Register Table Editing, the first register table R2000~R2199 should be filled with the raw measurement values; the second register table R2200~R2399 should be filled with the temperature values.

When it comes the measurement value out of range (Less or greater than the minimum or maximum value in table), the output M0 will be ON; this output can be used as the alarm indicator to tell open circuit of sensing loop.