TD240

Touch-screen HMI 3,5" 256colors, integrated PLC

HMI with soft-PLC, available in two different versions. Basic model HMI + soft-PLC requires external modules MCM260 or other Modbus devices (controllers-actuators-sensors) as I/O. A compact version features analogue and digital resources already on board, integrating HMI and PLC in a single device (expansion modules MCM260 may be used if additional I/O are required).

Development environments Pixsys PLprog and TDdesigner allow to program both the logic by ladder diagram as well the graphics. Memory Cards are available to download firmware and programs, enabling also the upgrade of devices already installed.

Ordering codes

TD240-AD	HMi 3,5" with soft-plc, 2 serial RS232/RS485 - Modbus
TD240-11AD	HMi 3,5" with soft-plc + 16 digital I / O + 4 Universal analogue inp. + 4 analogue out 0...10Volt + 2 serial RS232/RS485

Main features

Box	140x100 (front panel) x 40 mm (-AD) or 65mm (-11AD)
Power supply	12...24Vac/Vdc ±15% 50/60 Hz
Consumption	8W
Display	Display LCD TFT 3,5" - 256 Colours, Integrated Touch-screen
Operating conditions	Temperature 0-45 °C, humidity 35..95 uR%
Material	Front panel: aluminium with polycarbonate coverage; Box: chromed steel
Weight	Approx. 690gr code-AD, approx. 750gr code-11AD
Sealing	IP54 (Front panel) , IP20 (Box and Terminal bloks)
Quick set-up options	SLOT Memory Card (MMC) for programs download (Ladder+graphics)
Expansions	Modules MCM260-1/2/3/4/5 or other Modbus devices

Inputs

Analogue	4 Selectable for TC, K, J, S, R, T, E, PT100,PT1000, PT500, Ni100, NTC10K, (B 3435K), PTC1K (kty1000) 0/4..20 mA, 0/1..10V

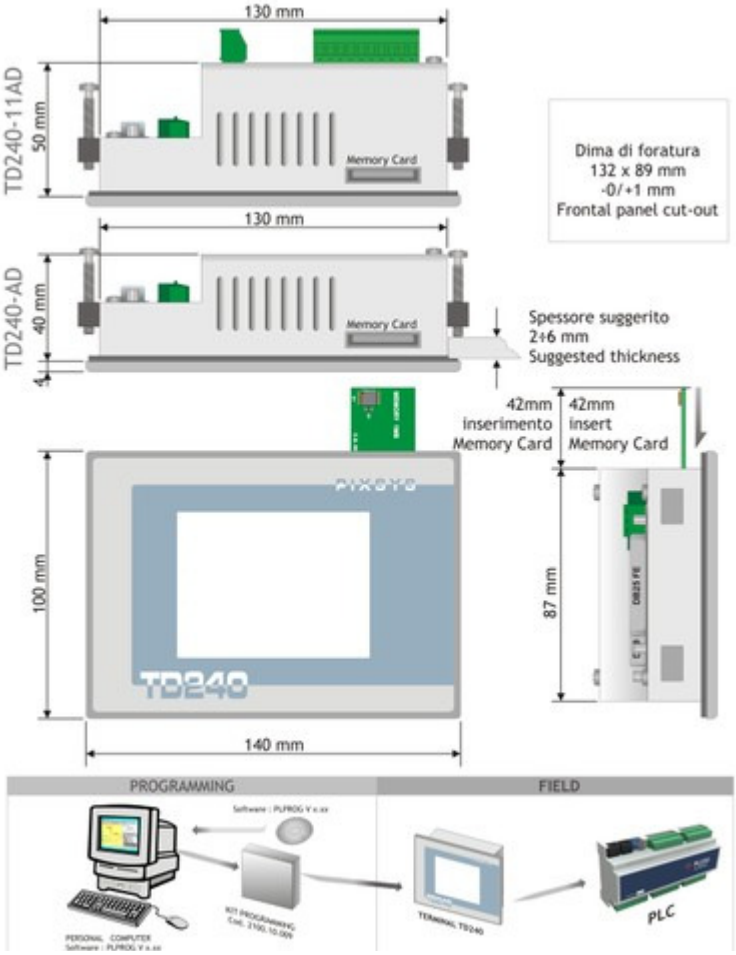
Outputs

Digital	16 Selectable as static outputs 700mA or digital inputs (code TD240-11AD)
Analogue	4 outputs 0...10Volt (code TD240-11AD)
Serial ports	2 serial ports RS232/RS485

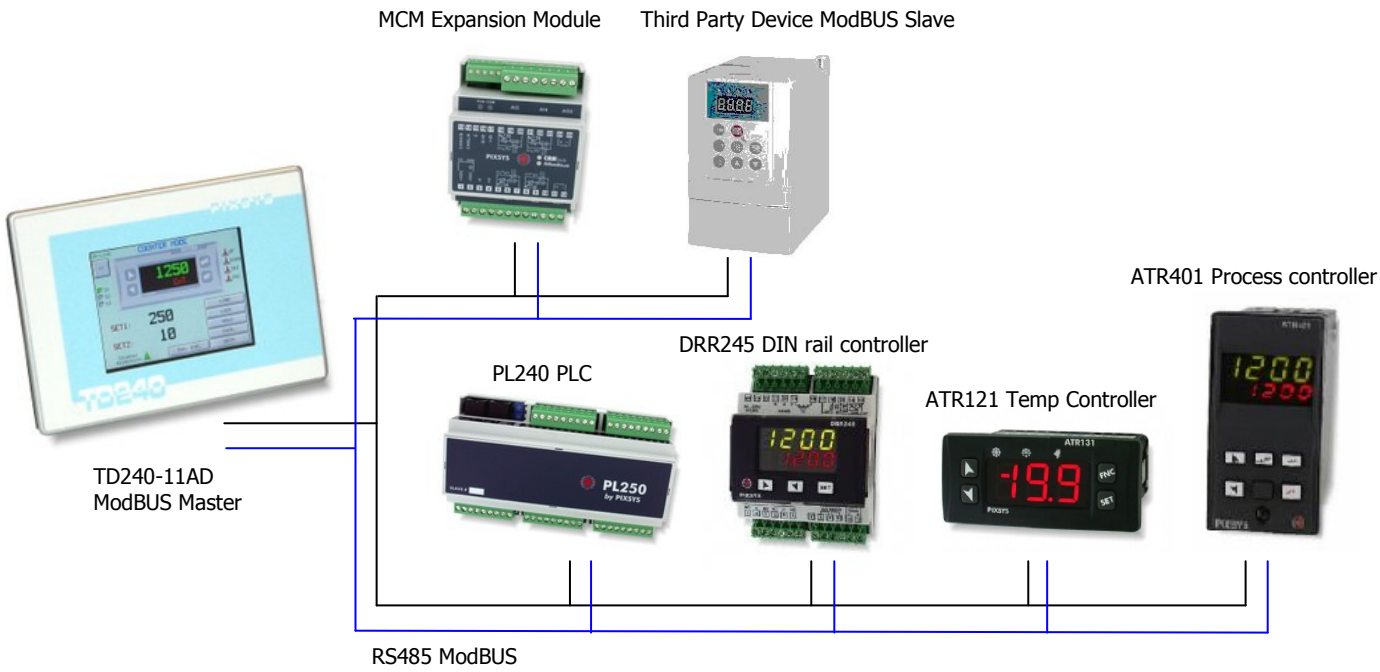
Software features

Programming	Pixsys PLprog software, Ladder diagrams; 10Kword variables VW, 800 marker (logic relays), 128 bistables, 128 timer 16 bit, 64 up-down counters, mathematic and logic functions, rescale function, contact on bit
Graphic interface programming	Pixsys TDdesigner software
Communication protocols	Modbus RTU master / slave; Free-Port mode for Modem protocols or proprietary devices.
Memory	384Kbyte Flash for programming, 20Kbyte non-volatile Ram (6 months), 62Kbyte EEprom
Clock	Real-Time clock, Back-up battery
Analogue inputs control algorithms	P, PI, PID, PD

Size and installation



TD240-11AD system possibilities



Key hardware Features of TD240-11AD

16 Digital input or output assignable max 700mA (expandable)
1 RS485 port
1 RS232 Port
4 Universal 16 bit analogue inputs accepts thermocouples, RTD sensors, PTC, mA , mV or V directly
4 0-10V 10 bit analogue outputs
240 x 320 pixel 256 colour touch screen

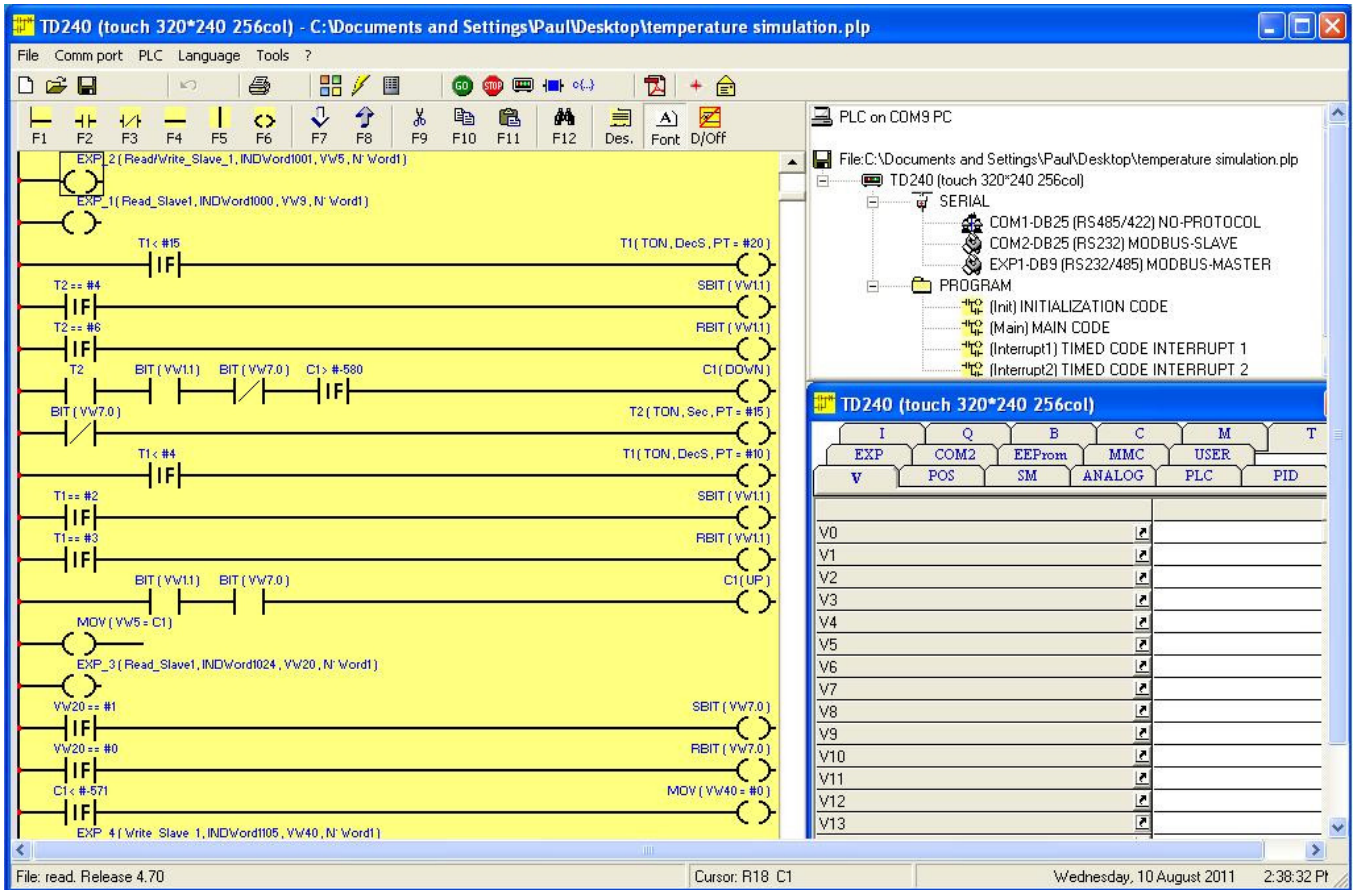
Software capabilities of TD240-11AD

64 Up/down counters
128 Timers
800 Support marker relays
128 Bistable relays
Mathematic, logic & rescale functions
Real time clock
Set/Reset bits
PID blocks
ModBUS Master/Slave; Free port mode for modem protocols or proprietary devices
10,000 variable words 6 months retention via battery
Up to 30,000 registers 6 months retention via battery
Up to 1000 registers retained via EEPROM

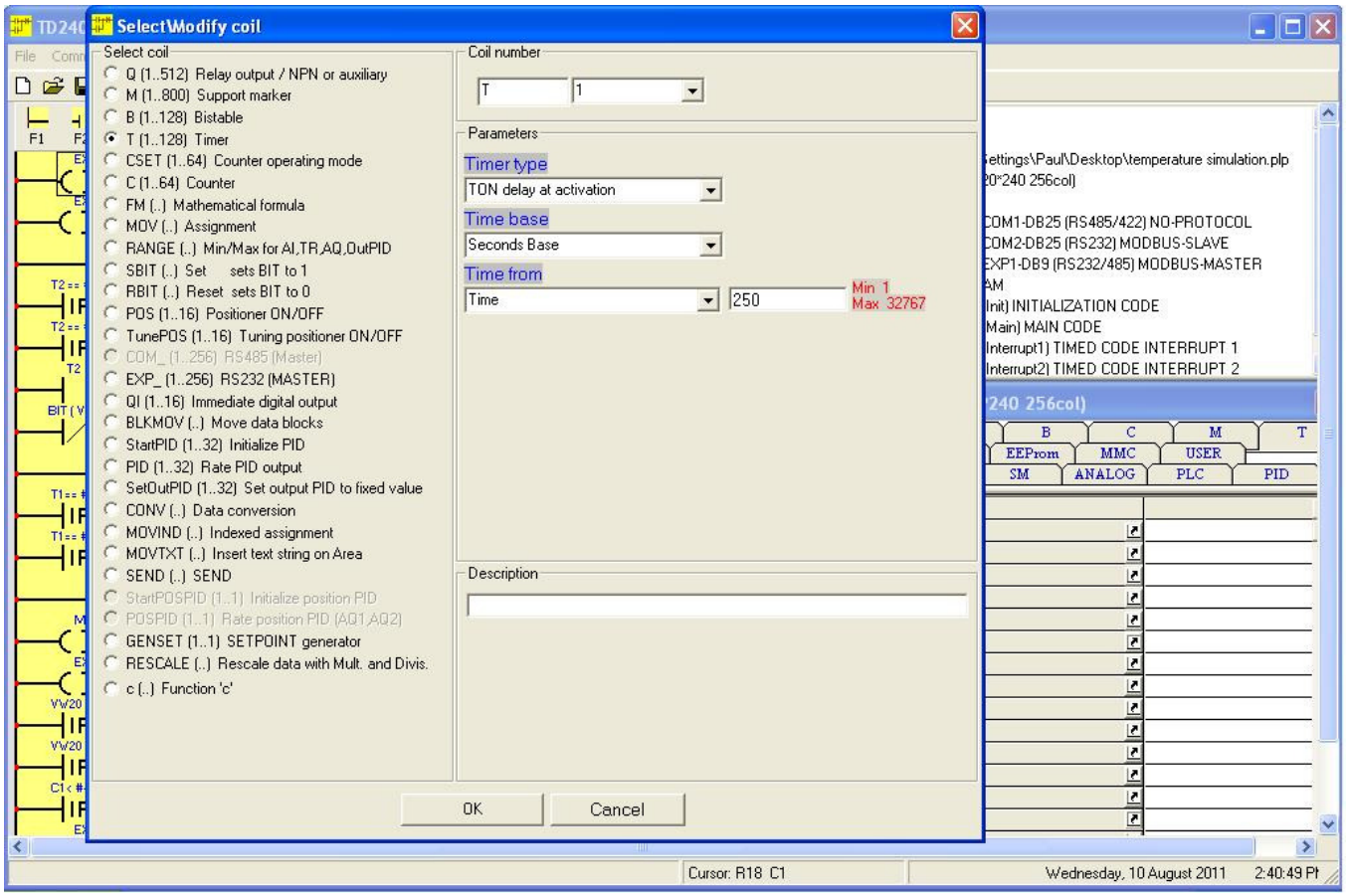
PLProg Program Software

Development environment PLProg is ladder based software structured in contacts and coils that allows construction in a simple and immediate way, all the resources of the Pixsys PLCs.
Compatible IEC notation of memory areas helps the understanding of the diagram.
Direct action on memory areas, debug-on-line, variables table and interactive diagram index are conceived to simplify PLC programming.
Development environment now enhances its capacity with the new software tool Td-Designer, which allows programming of the TD240 & 320 graphics in a fast and simplistic way. Simple operation allows the customer to configure visualized pages with colours and background images, targets and graphic objects, connect text and numeric fields to memory areas and buttons matched to changing page functions or modifying variables.

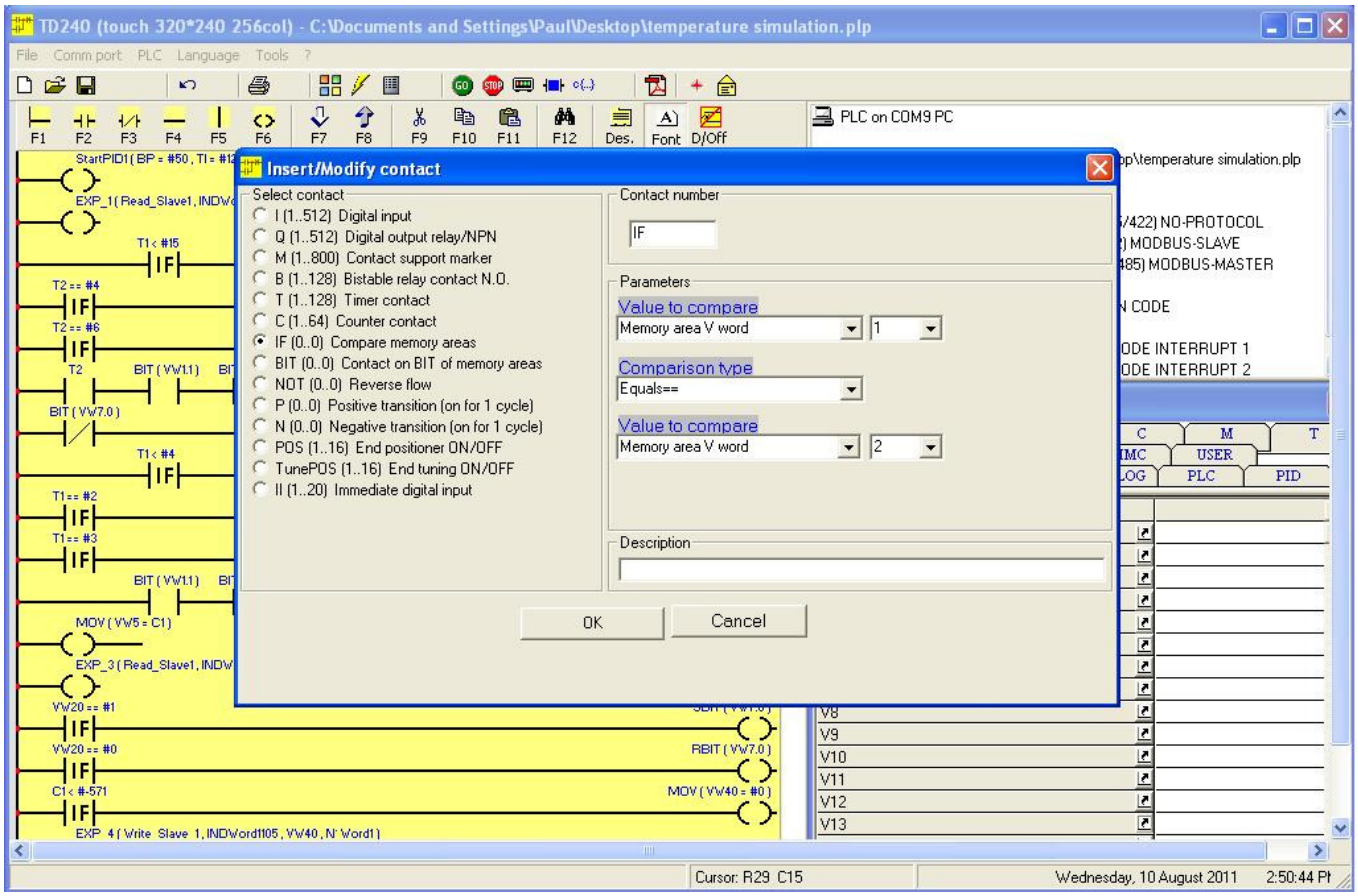
Simple ladder based format



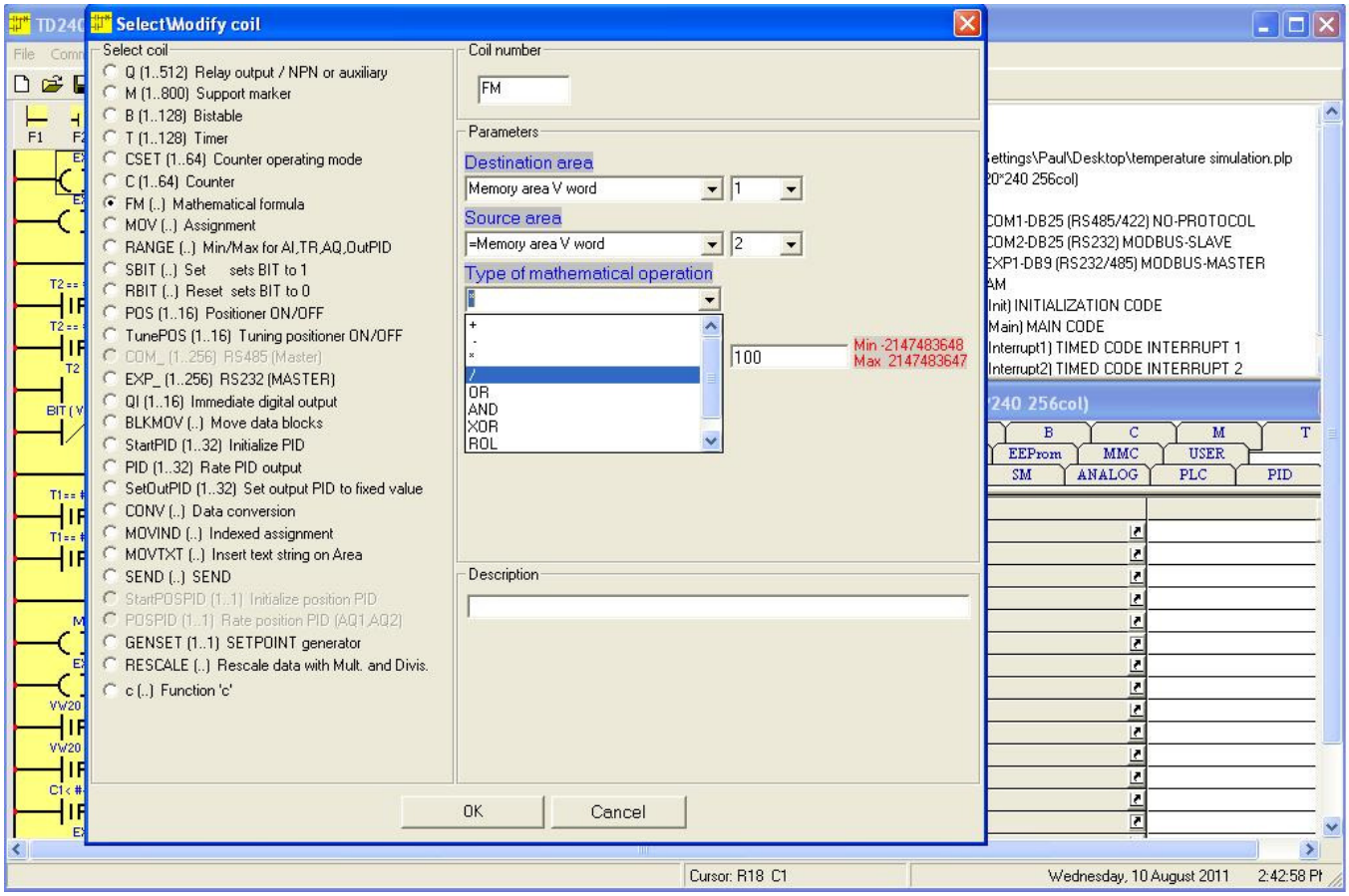
128 Timers On delay, off delay or one shot with memory



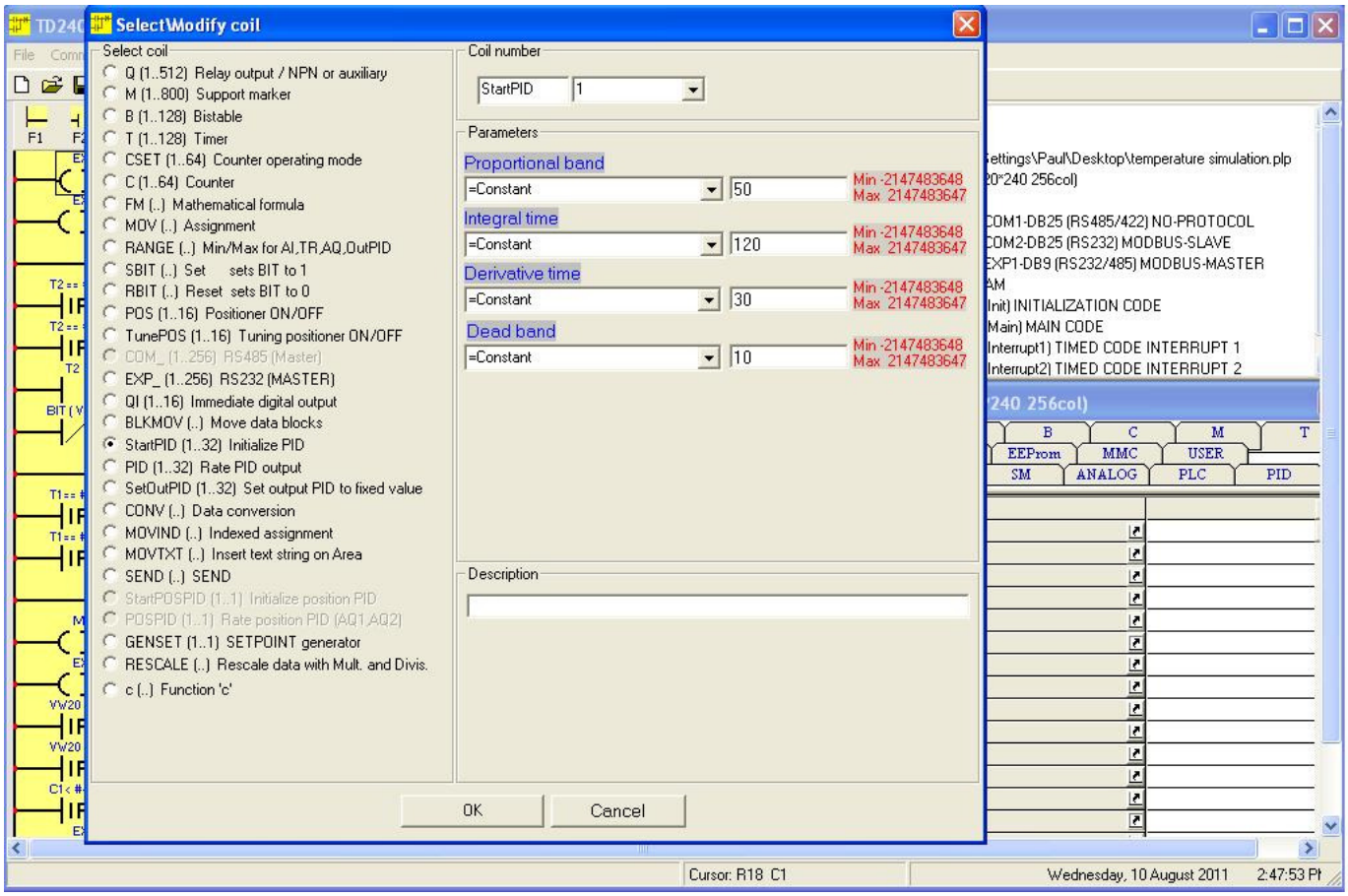
Compare memory areas =, >=, <=, >, < or different to



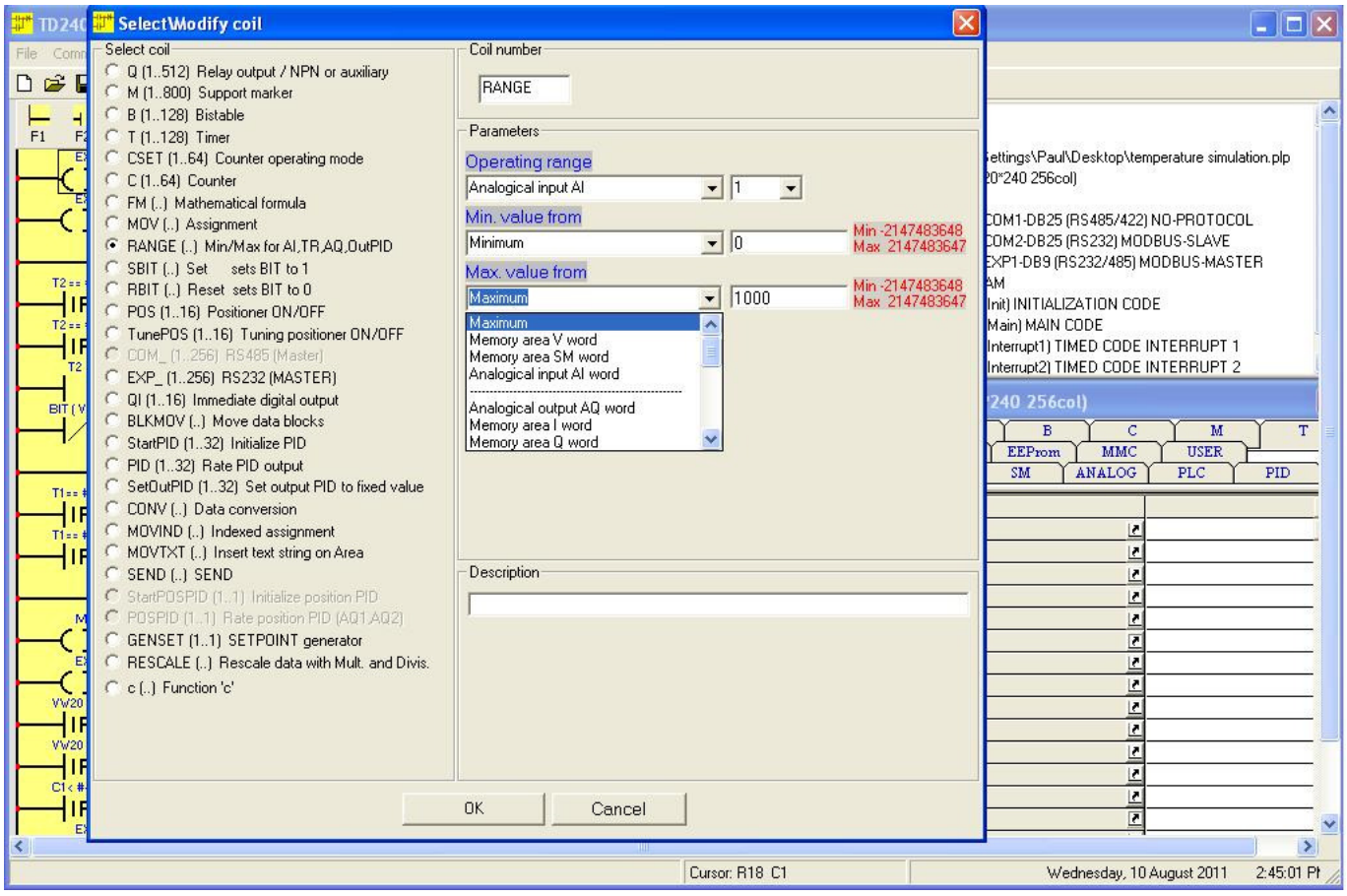
Maths calculation +, -, *, /, OR, XOR, AND functions



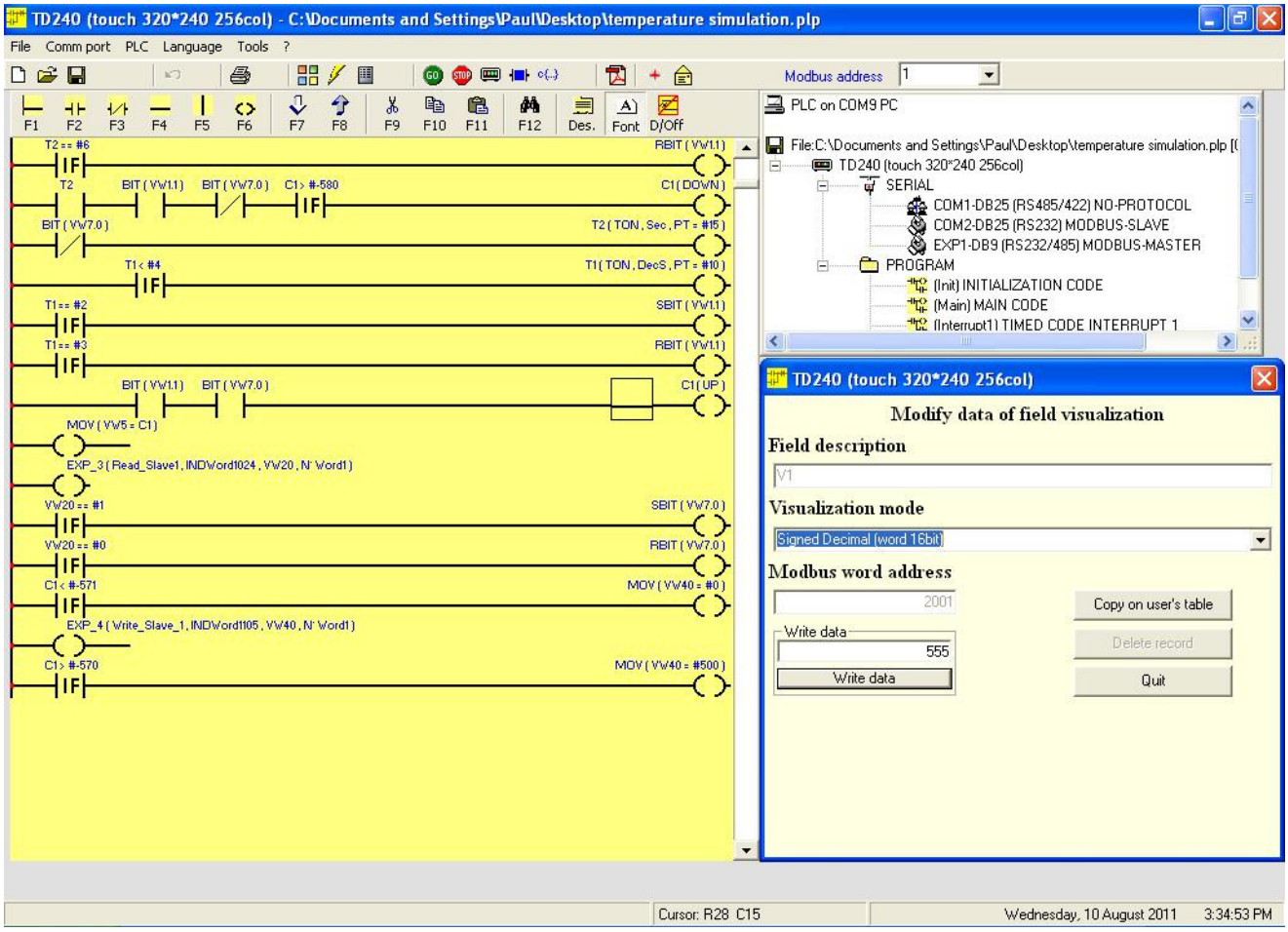
PID Block Proportional, Integral, derivative time constants with dead band



Scale function Max & Min Inputs can equal constants or variables



Read & write variables online. Debug function; monitor state of contact, coils and variables in real time.



TD Designer Tool
Insert buttons, text & numeric fields, import bitmaps, drawing tools, map variables to existing or new registers onscreen