PC control with a WinPLC

The WinPLC provides a Windows® CE operating system environment in our DL205 CPU hardware. The small size and low cost of DL205 products is desirable, but the operating systems of the 250-1 and 260 CPUs are proprietary (like most PLCs). The WinPLC provides a hybrid PC-PLC solution that brings the best of the PLC and PC control worlds together. A WinPLC system is the best solution if your applications require:

- Complex math
- Heavy serial communications (can use the H2-SERIO module)
- Advanced data manipulation
- Advanced handling of string or array data
- Up to 64 PID loops

Here’s how it works

The WinPLC module is plugged into the CPU slot of the DL205 base. It uses Windows CE, a real-time operating system combined with the advantages of open standard software such as OPC, ActiveX and other Microsoft communications tools. The WinPLC offers both deterministic control and open communications. It uses advanced software development tools for control, data management, communication and integration with business systems. The WinPLC supports the following DL205 modules only:

- All discrete and analog modules
- Temperature input modules
- H2-SERIO serial communications module
- H2-ERM100 module for Ethernet remote I/O (limited to one ERM and one EBC slave per system)
- H2-CTRIO2 Counter I/O module

DL205 specialty modules not listed above are not supported by the WinPLC.

Built-in Ethernet port

The WinPLC is programmed via a built-in 10 MB Ethernet port. WinPLCs can use OPC or DDE to link to an HMI or other application using this high-speed port; or, share tags with any controller running Think & Do software for coordinated control with a PC system. The built-in Ethernet port can also be used for peer-to-peer communications between multiple WinPLCs.

Built-in serial port

A built-in RS-232 serial port lets you connect a C-more or other operator interfaces to the WinPLC. You can also connect to devices such as barcode readers, weight scales or serial modems to the serial port. Unlike most RLL programming, the Think & Do programming method is designed for easy communication programming and string manipulation. Up to nine additional serial ports can be added to a WinPLC system by using the H2-SERIO serial communication module. For more information on the H2-SERIO module see “Additional Serial Ports for the WinPLC” later in this section.

Programming the WinPLC

Develop flowchart programs for the WinPLC with the FREE PC-TDB-USB Think & Do Demo download, which operates as a fully functioning software with no restrictions or timed limitations when targeting the WinPLC. When you compile your project, the PC automatically downloads the flowcharts into the WinPLC. Then at runtime (or at power-up), the WinPLC will run the flowchart program.

CE-only version WinPLC

This version of the WinPLC is not preconfigured with any control software. It’s for qualified OEMs or software developers who want to develop their control code in VB or C++. AUTOMATIONDIRECT does not sell this version of the WinPLC. If you are interested in the CE-only version, visit www.hosteng.com for details.