

# Nematron Pointe Controller

The Pointe Controller defines a new breed of embedded control that advances beyond the shortcomings of traditional PLCs. Modern plant floor applications need controllers to do much more than perform simple bit-oriented logic. Controllers need to interface to a variety of 3rd party devices, efficiently manipulate data such as tables and strings, and communicate over the factory's Ethernet network.

The days of "islands of automation" are gone. With Nematron's new Pointe Controller, you get an incredible amount of power and flexibility for logic and data processing, as well as communications. The Pointe Controller supports remote monitoring and control applications through its set of powerful communication interfaces.



The Pointe Controller is DIN-rail mounted (standard 32 or 35 mm) and supports up to eight I/O modules. Pointe Controller does not require an operator interface, but supports Ethernet and serial connections to an HMI unit, or direct connection to an OptiLogic operator panel.



Pointe Controller using OptiLogic operator panel



Pointe Controller is fully compatible with all OptiLogic I/O modules and operator panels shown on the attached page.

## Pointe Controller Features

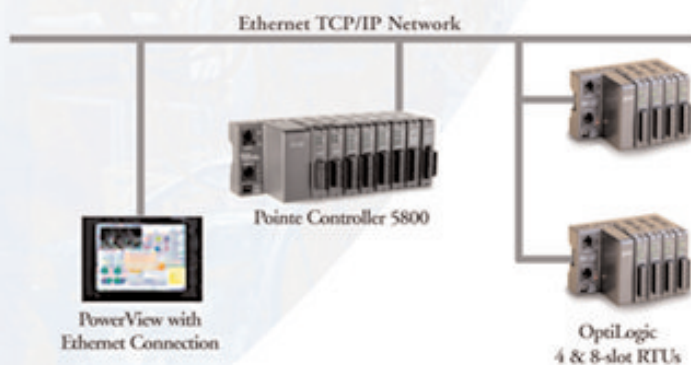
- High-speed 32-bit, 100 MHz processor
- 4 MB program Flash Memory with 2 MB SRAM
- Built-in 10 Base-T Ethernet port — Supports standard TCP/IP, Modbus TCP, Optilogic UDP, peer-to-peer, and user-defined protocols
- Built-in RS-232 port — Supports Modbus RTU and user-defined serial protocols
- Battery-backed real-time clock
- Supports all OptiLogic Ethernet I/O modules
- Easy cable connect to optional OptiLogic operator panels
- PointeControl programming software
  - Visual Flowchart Language (VFL) programming
  - Ladder Logic programming
  - Can use both VFL and Ladder Logic in same application
- Can also be directly programmed in Java
- CE Mark, UL, cUL and FCC Part 15 Class A

## Applications

- Real-time local control
- Node control within a larger control system
- Distributed I/O — supports up to four remote Ethernet-based OptiLogic RTUs
- Networked control with peer-peer communications

## Communications

- Built-in 10 Base-T Ethernet port for configuration downloads, I/O, HMI and peer-peer communications
- RS-232 port for interface to serial devices
- Additional communications ports via OptiLogic cards



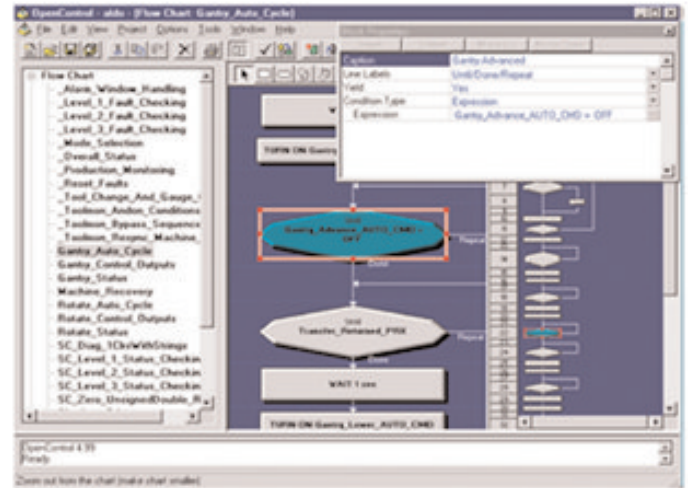
Pointe Controller with Distributed I/O



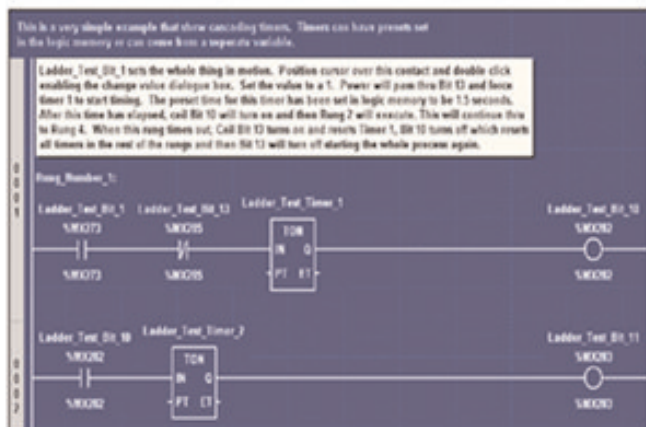
Nematron PointeControl — our development software for the Pointe Controller — offers a choice of programming languages to meet your control application needs. Whether you develop your application using Visual Flowcharts, Ladder Logic or Java, PointeControl has the programming tools for you

## Visual Flowchart Programming

PointeControl incorporates Nematron's patented Visual Flowchart Language (VFL™): using charts made up of logic blocks and decision trees, visual flowchart programming is easy to use and is self-documenting, simplifying the development process. Subcharts can be created and reused across different programs. Diagnostic and simulation tools are provided for development, such as single-stepping, breakpoints, tag cross-referencing, multiple chart views, diagnostic timers, watch windows, data viewers and highlighted logic sequencing during operation. Compared to Ladder Logic programming, customers report that Visual Flowchart programming is easier to use and provides as much as a 30% reduction in development effort.



## Ladder Logic Programming



For users who prefer to program in traditional Relay Ladder Logic (RLL), PointeControl also provides a fully integrated ladder editor that conforms to the IEC 61131-3 standard. This editor offers a comprehensive list of function blocks for logic, math, timing, flow control, string manipulation and special functions to meet the needs of even the most challenging control applications. PointeControl also allows you to intermix Ladder Logic and Visual Flowchart programming in a single application, using each language where it works best, thanks to a common tag database, project browser and diagnostic tools.

## Java Programming

PointeControl offers the option to develop some, or all, of your control application in Java. Java applets compiled for the Pointe Controller — or what we like to call "Peclets" — include the necessary interface into the tag database and communications architecture to allow users to perform nearly any conceivable logic or communication task. Typical Peclet applications run the gamut from logical operations that are outside what can reasonably be done with flowchart or ladder logic programming to XML messaging and web server applications. Java Peclets can be used in the same application with flow chart and ladder logic programs. Intended as a tool for advanced programmers, Java allows very powerful advanced applications to be built.



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