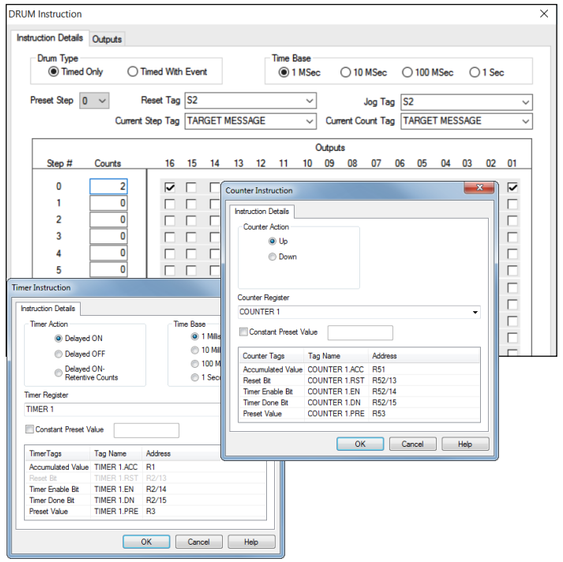
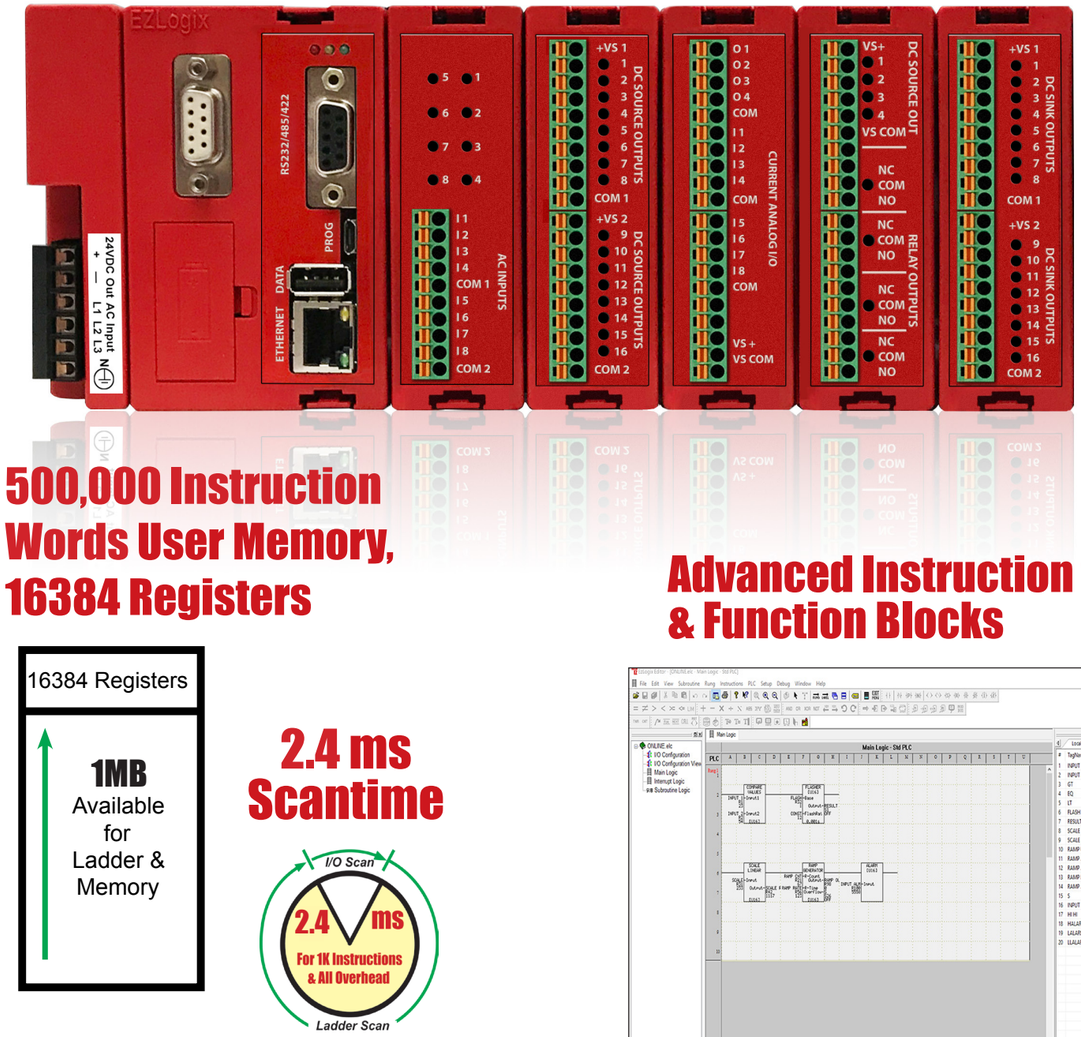
EZRackPLC™ No Frustration, EZ to Program

Free PLC Programming Software!!

Timers, Counters, Scaling, Drum Sequencer, Math Equations, Statistical Functions (avg, min/max, etc.)





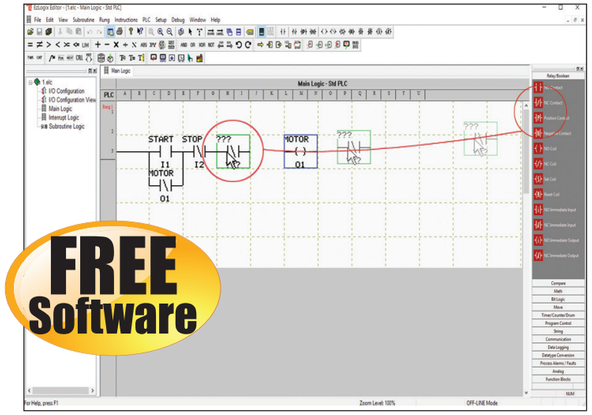
500,000 Instruction Words User Memory, 16384 Registers

2.4 ms Scantime

Advanced Instruction Set & Function Blocks

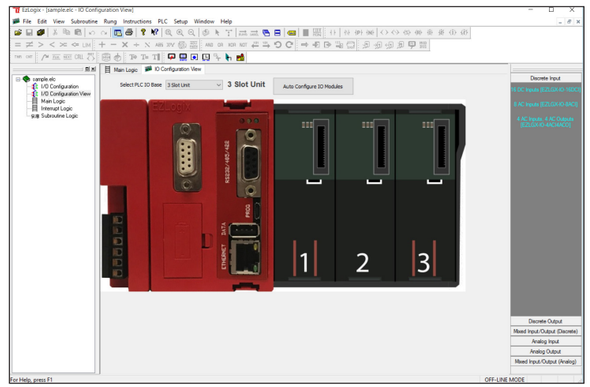
EZLogix has powerful instructions & Advanced function blocks found only in much more expensive PLCs

Simple Drag-n-Drop Ladder Logic Software



- **Flexible, powerful and easy to use instructions designed to simplify programming**
- **Free Flow Ladder Logic**
- **Each Rung Commented**
- **User friendly dialog boxes**

Automatic I/O Configuration



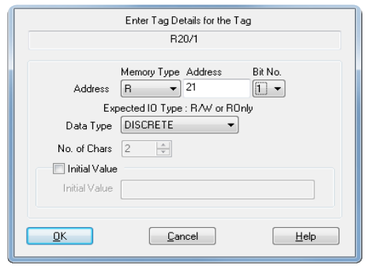
Connect to the EZLogix & automatically detect your I/O modules and addresses in the local base

Built-in Simulator

Creates a virtual PLC so you can test your logic without any hardware.

Bit Level Addressing

Access each bit within a register



Break-point Ladder Logic Execution

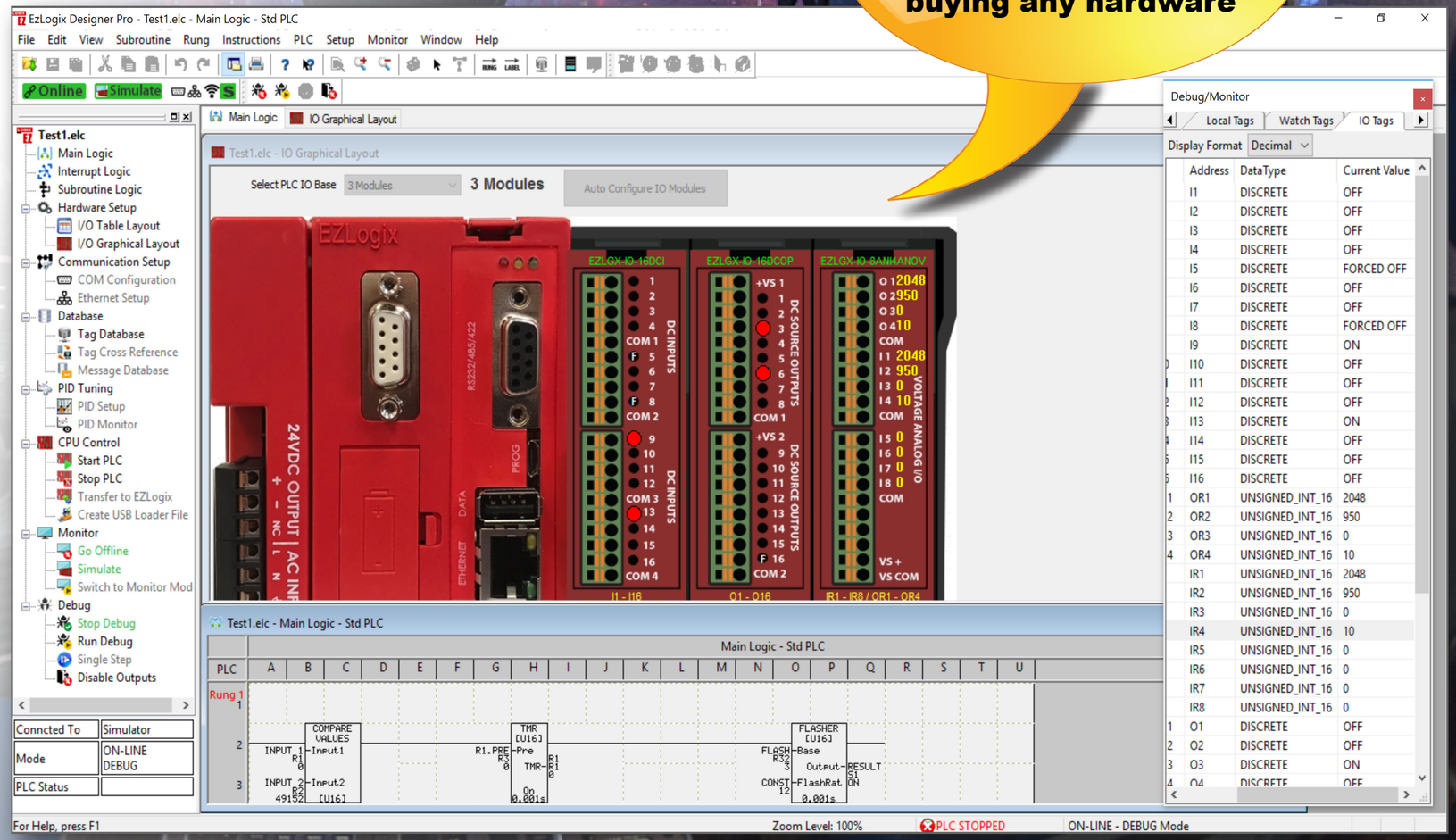
Debug Ladder Logic by executing rung-by-rung

EZRackPLC™ Built-in Simulator

The built-in simulator creates a virtual PLC so you can test your ladder logic without any PLC hardware present.

- Visually see on the virtual PLC, LED indicators light up dicrete inputs & outputs based on your ladder logic simulation.
- See register values within simulator to test out proper ladder logic instructions.
- View LED Indicators and Ladder Logic rungs simultaneously in Simulation mode.
- Simulates discrete and analog I/O with access to timers, counters, control bits, etc.
- Force discrete I/O "On" or "Off" to troubeshoot ladder logic
- Break-point debugging while in simulation mode to test certain portions of the ladder program
- Our Windows application uses the same code as the EZLogix CPU firmware for the most accurate simulation.

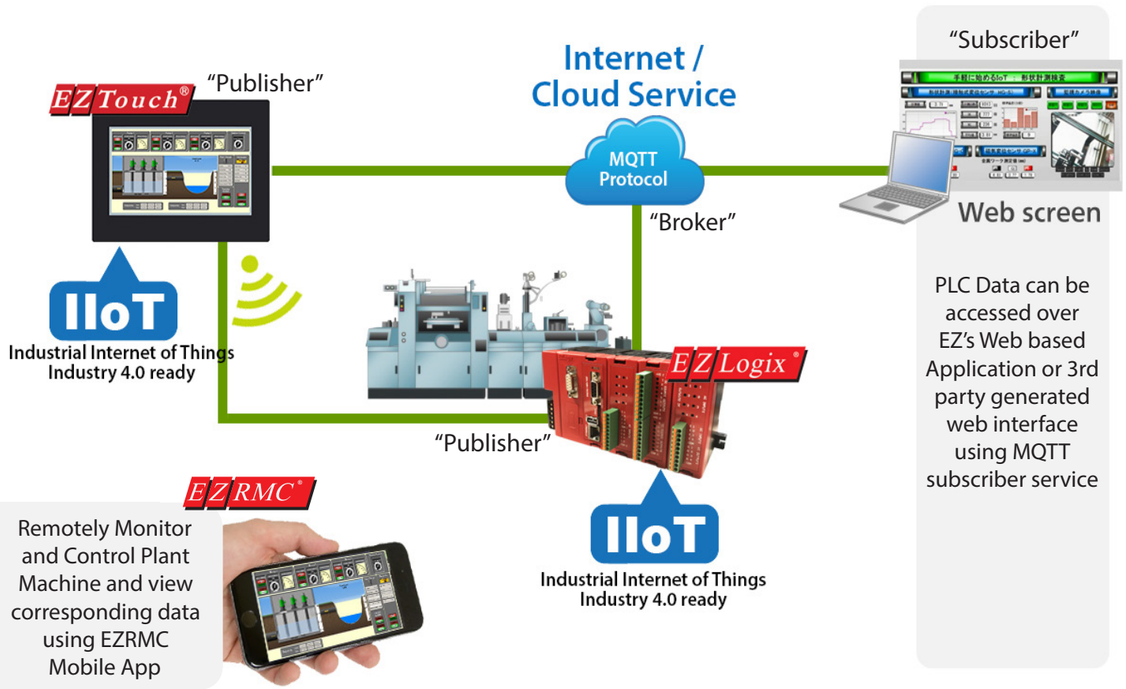
Virtually see how your EZLogix ladder program performs for FREE before buying any hardware



Built-in Simulator

Creates a virtual PLC so you can test your logic without any hardware.

EZRackPLC™ IIoT/ Industry 4.0 Ready

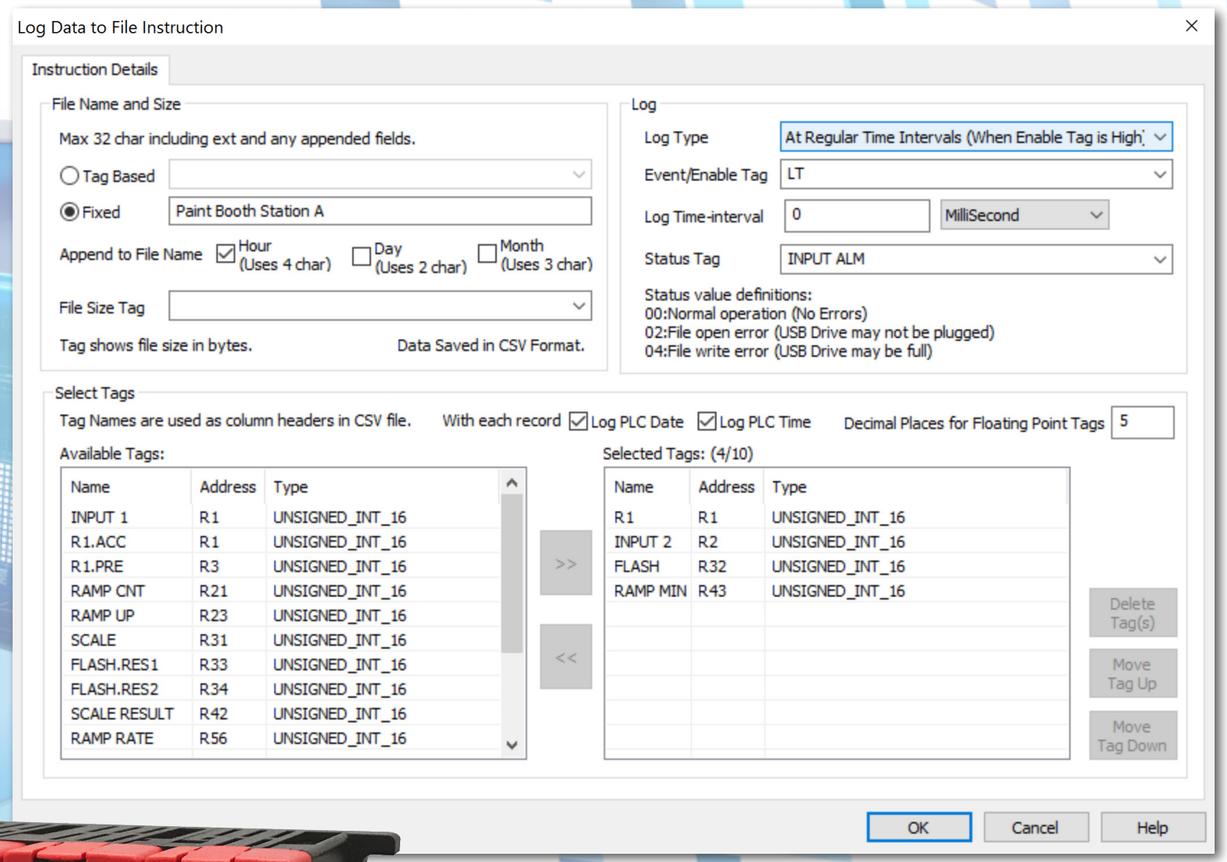


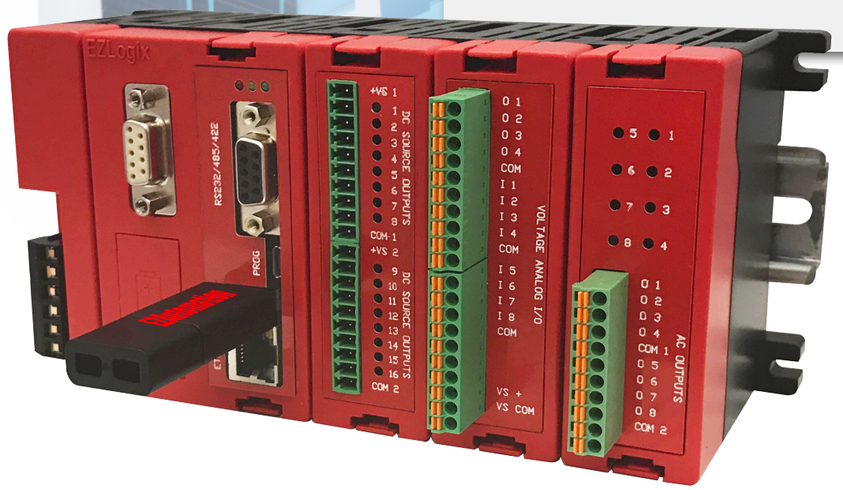
Remotely Monitor and Control Plant Machine and view corresponding data using EZRMC Mobile App

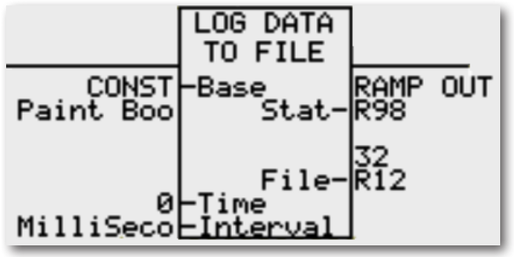
PLC Data can be accessed over EZ's Web based Application or 3rd party generated web interface using MQTT subscriber service

EZRackPLC™ Data Logging Instruction on USB

- ***Store up to 64GB of valuable PLC data on EZLogix built-in USB port***
- ***Stay connected from anywhere in real-time with plant production and maintenance data using EZLogix secure IIoT / MQTT protocol for data transfer***
- ***Store real-time PLC data based on tag event and time intervals in .csv format***
- ***Remotely access PLC data using Free EZIIoT utility with integrated messsage queuing telemetry transport (MQTT) protocol***



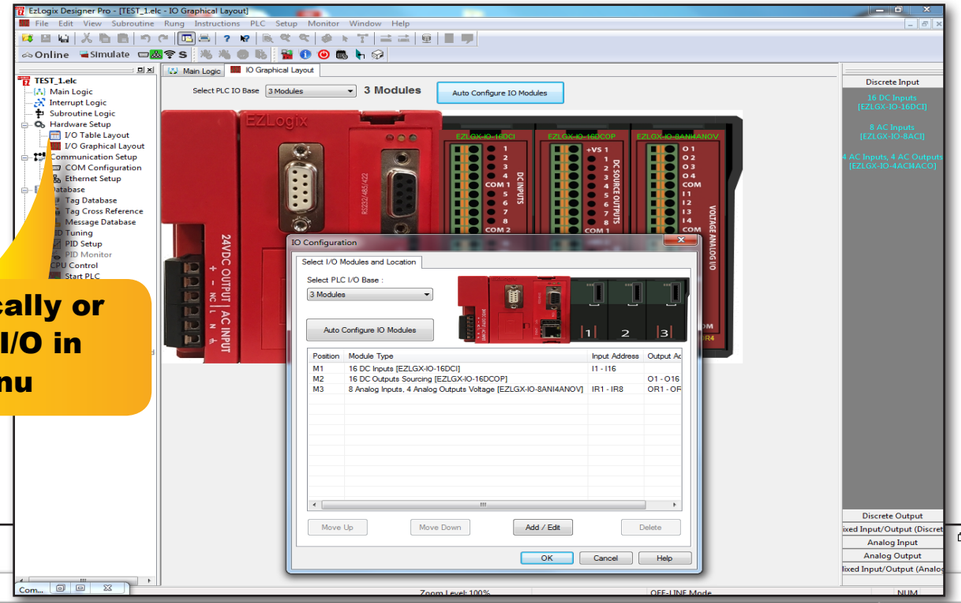




EZRackPLC™ Automatic I/O Configuration

Configure your EZLogix I/O modules automatically when you are connected over USB, Ethernet, EZ WiFi or Serial programming ports.

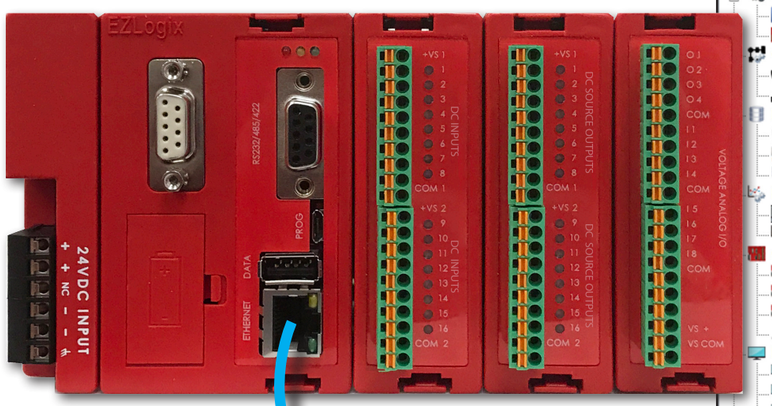
- Auto detect discrete, analog, and speciality modules within EZLogix Designer Pro.
- Automatically assigns respective tag address range.

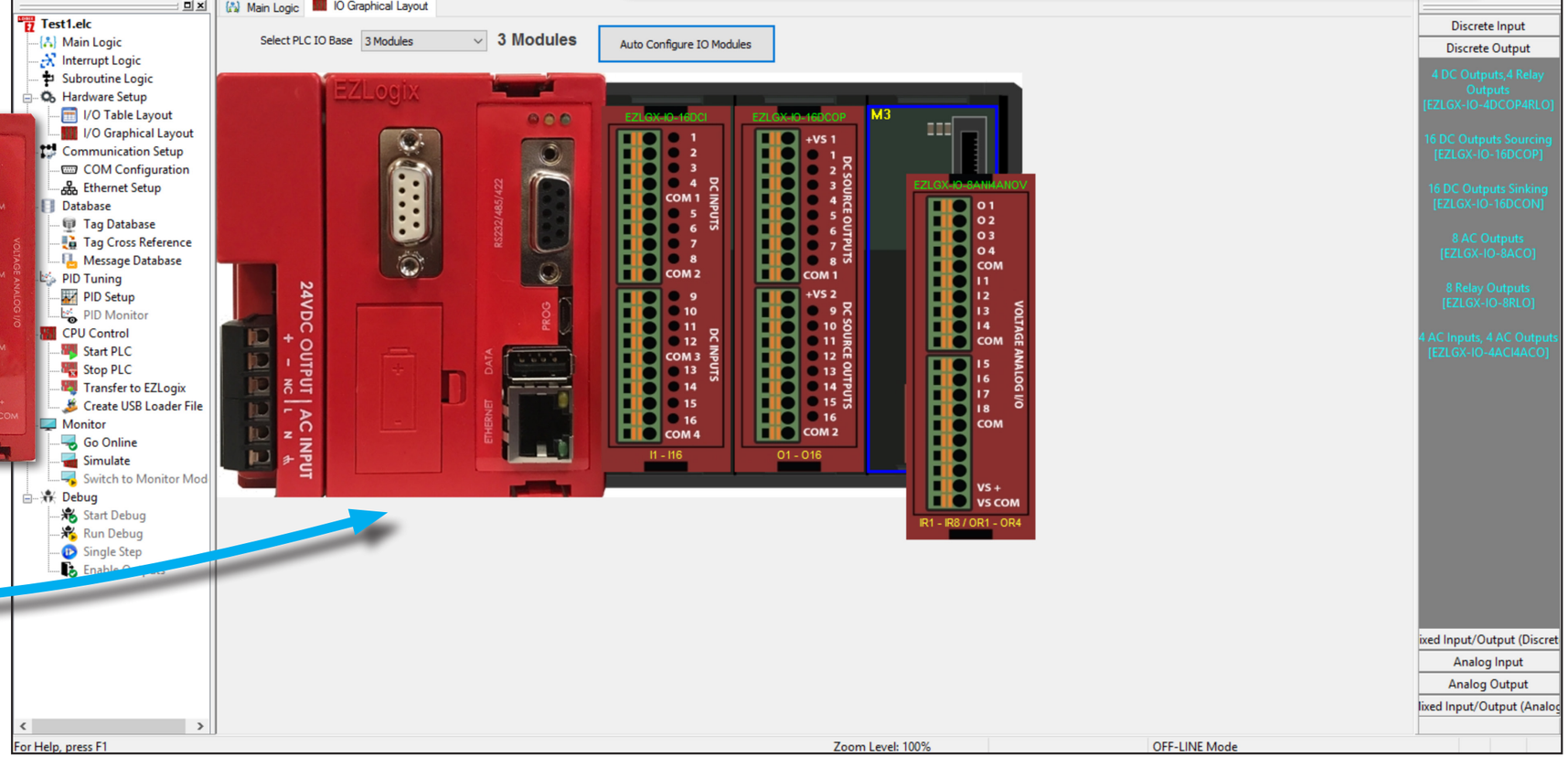


Option to automatically or manually configure I/O in hardware setup menu

Automatic I/O Configuration

Connect to the EZLogix & automatically detect your I/O modules and addresses in the local base

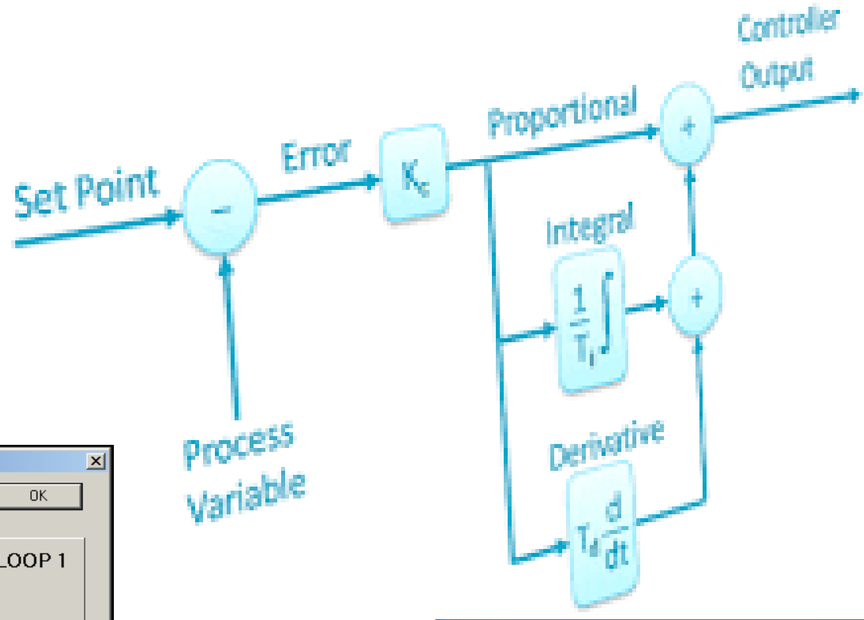




EZRackPLC™ Auto-tuned PID Loops

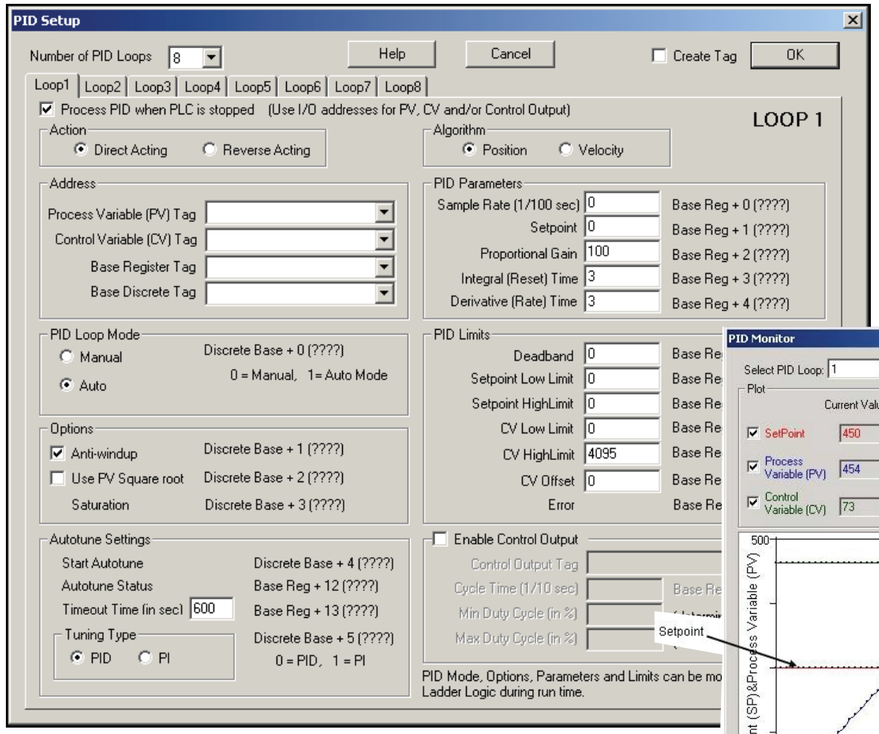
What is PID?

PID is one of the most popular control algorithms used in the industry to control the variables involved in an industrial manufacturing process for the proper operation of the process. PID stands for Proportional, Integral and Derivative control algorithm. With a proper choice of P, I, and D settings, a user can maintain a process value very close to the setpoint. In addition, if the setpoint changes, the PID algorithm can quickly bring the process back under control. EZLogix supports up to 8 auto-tuned PID loops. For each loop you have to define several parameters, as shown below in the PID Setup window. You may change most of these parameters during run time, using EZLogix Designer Pro in online mode.



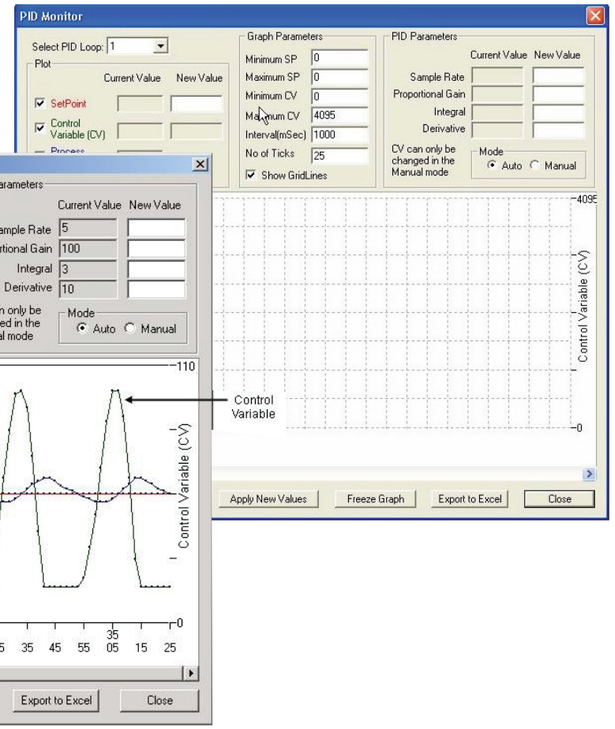
PID Loop Auto Tuning

To achieve a stable and responsive process control, it is very important to select the proper PID parameters. Experienced users can estimate good starting values for these parameters and later tweak them to optimize the PID loop performance. This is called as the manual tuning of the process. Whereas, those who want help in estimating the starting values of the parameters like P, I, and D coefficients, EZLogix provides an Autotune feature.



PID Monitor

You can use the PID Monitor function to monitor and make real-time changes to your PID Loop. In order to use it, you must be connected to the PLC and select Main Menu > EZLogix > PID Monitor. A PID Monitor window will show up. Here you can change the current values of the parameters by entering a value in the New Value field. Once all of the parameters are defined, press the Apply button and then the Start Monitoring button at the bottom, to begin monitoring your PID Loop. A graph will begin to appear as shown in the image below.

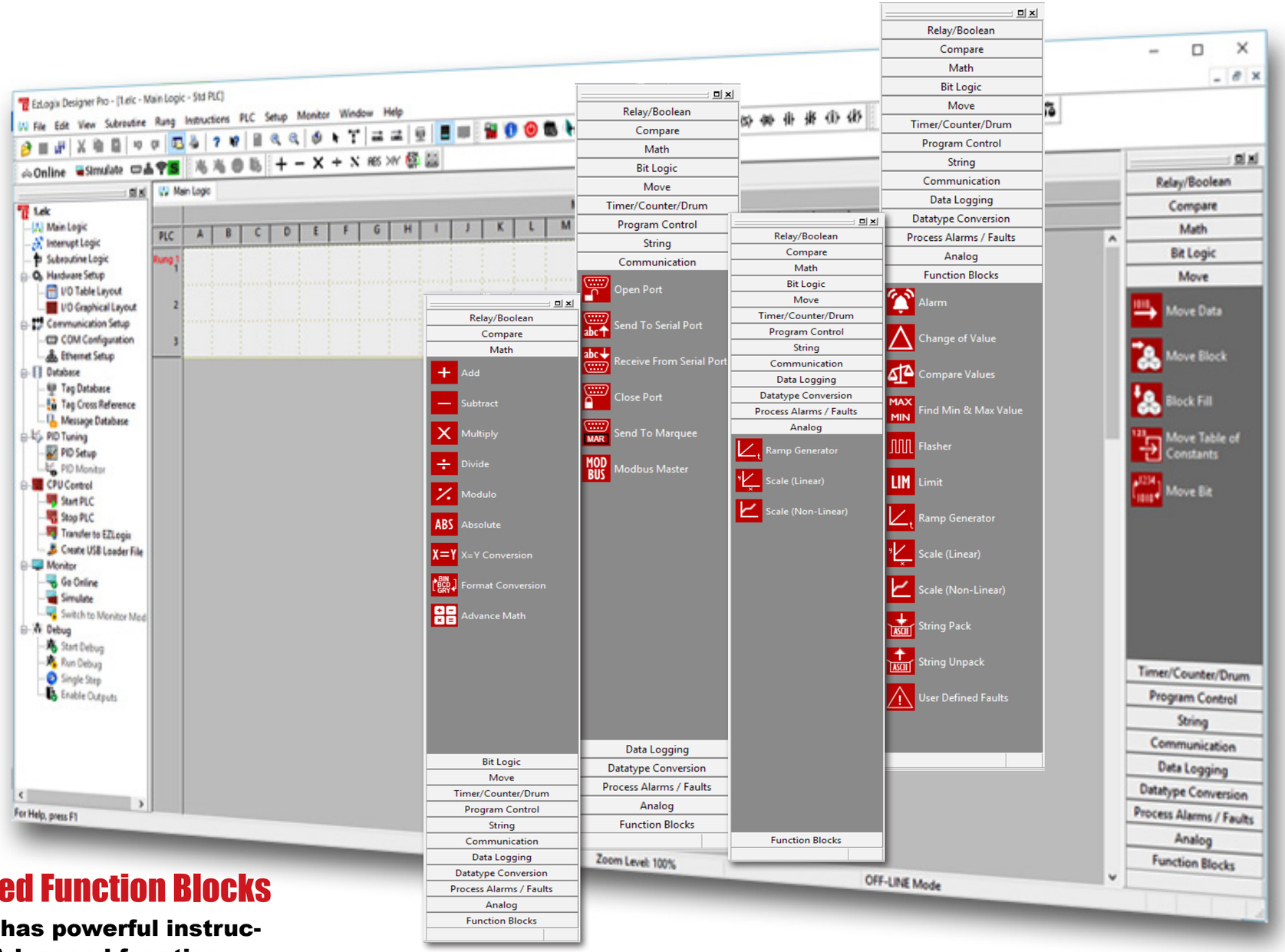


EZRackPLC™ Advanced Function Blocks

EZLogix Designer Pro comes with a library of pre-defined function blocks such as scaling, compare, hi/low alarm, averaging, min/max, ramp generator, advanced math and many more, found typically in much more expesive PLCs.

The Free EZLogix Designer Pro software has been designed to provide our customers a more flexible and easy to use PLC programing experience. The EZLogix function blocks will continue to grow with customer requests at no additional costs to upgrade.

- Alarm
- Advanced Math
- Change of Value
- Compare Values
- Find Min and Max
- Flasher
- Limit
- Ramp generator
- Scale (Linear)
- Scale (Non-linear)
- String Pack
- String Unpack
- User defined faults
- IIoT (MQTT Publish)



Advanced Function Blocks

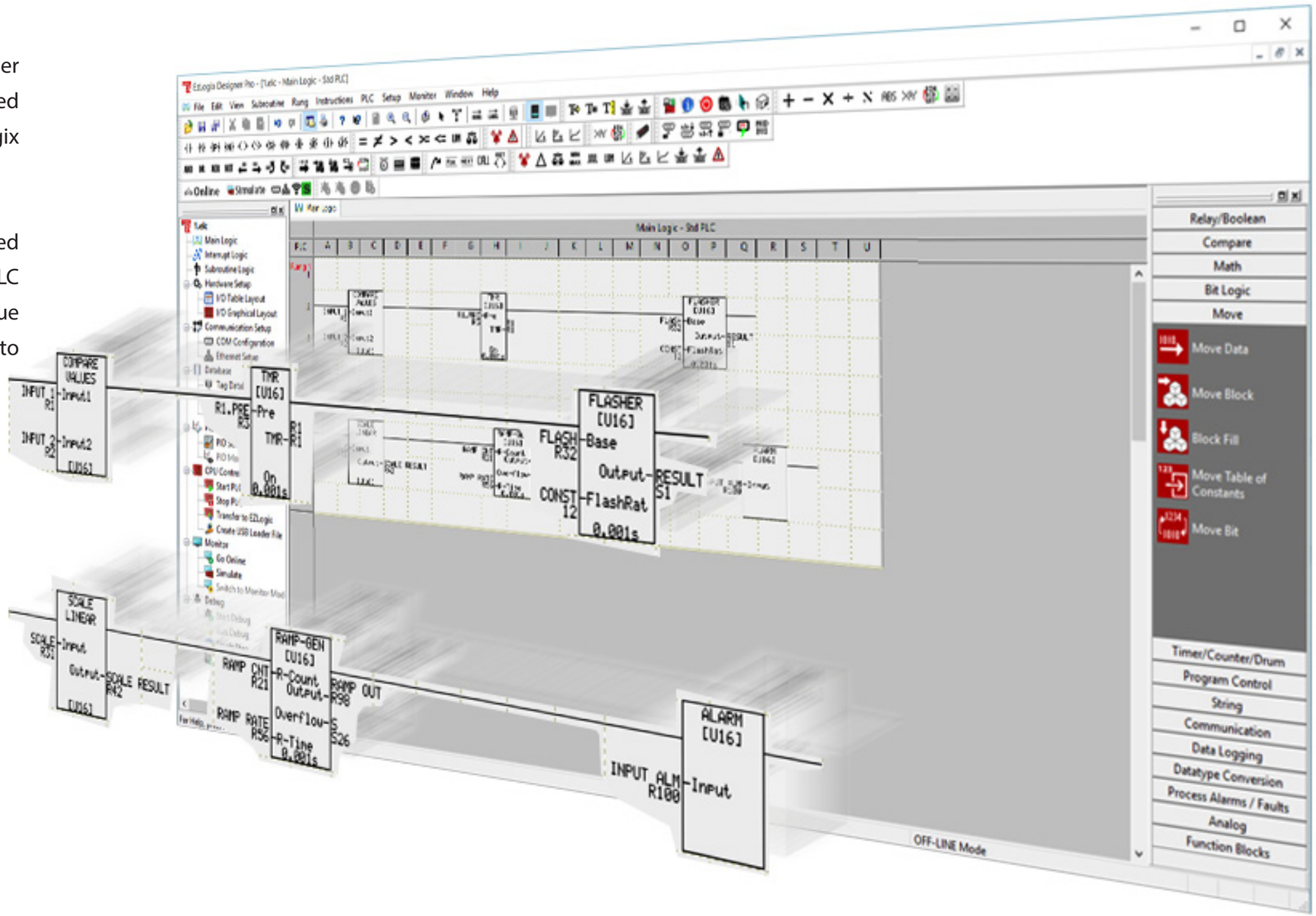
EZLogix has powerful instructions & Advanced function blocks found only in much more expensive PLCs

EZRackPLC™ Rich Instruction Set

With optimized instruction sets whether it be simple ladder relay, boolen, move, bit logic instructions etc... or advanced math instructions for complex algorithm, the EZLogix Designer Pro has it all.

The Free EZLogix Designer Pro software has been designed to provide our customers a more flexible and easy to use PLC programing software. The EZLogix functions will continue to grow upon customer requests at no additional costs to upgrade.

- Relay/Boolean
- Compare
- Advanced Math
- Bit Logic
- Move
- Time, Counter, Drum
- Program control
- String
- Communication
- Data Logging
- Datatype conversion
- Process alarms/ Faults
- Analog
- IIoT



EZRackPLC™ Force Inputs/Outputs (Great Troubleshooting Tool)

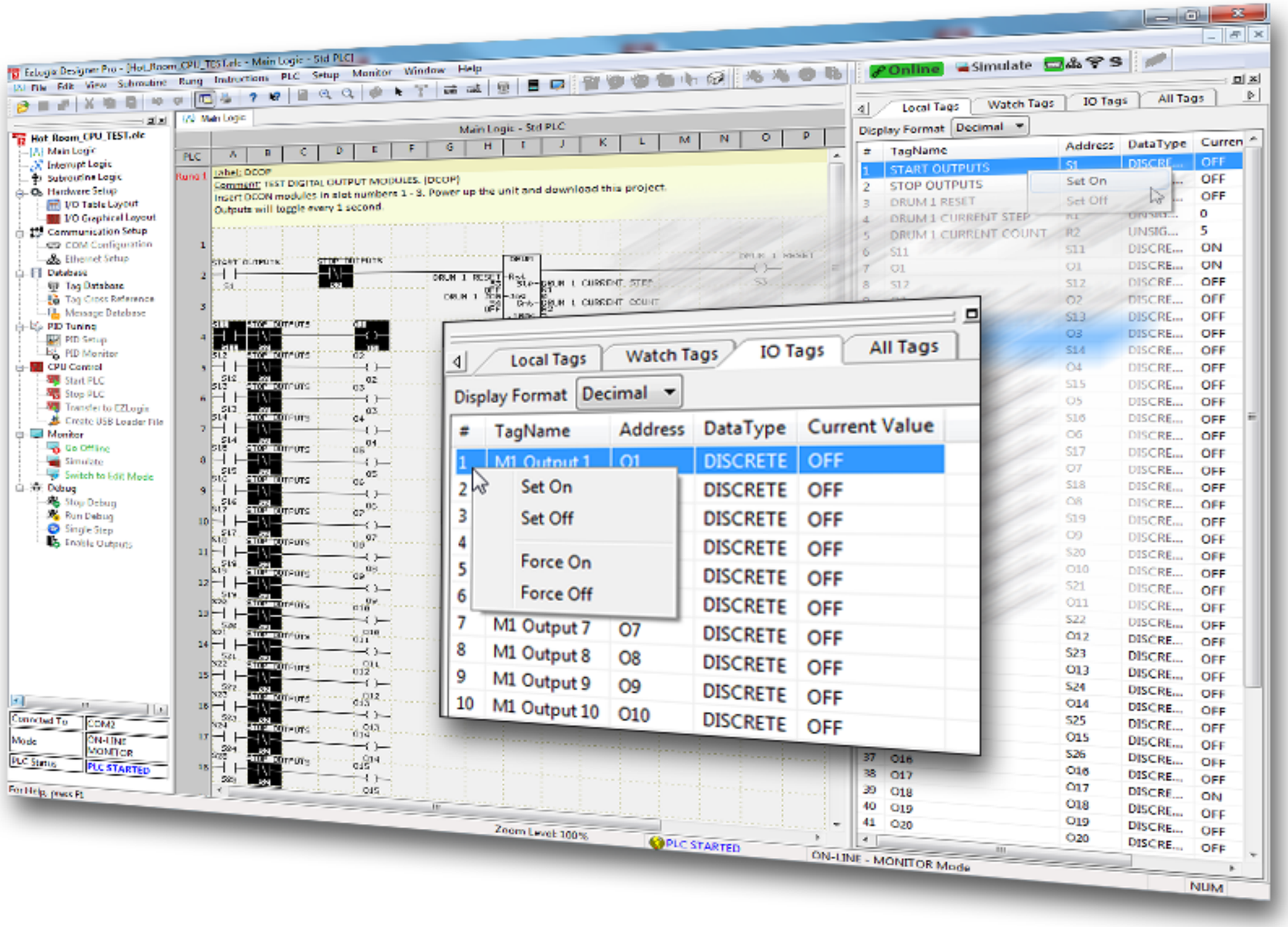
EZLogix CPU supports true Forcing of I/O and internal memory elements. Discrete I/O can be forced to either an ON or OFF state. Analog I/O points can be forced to constant values.

The forcing of numeric and bit memory elements simple means the CPU sets the element to the forced value and does not permit any additional update to the memory element as long as it is forced.

What is Forcing I/O?

The ability to Force I/O allows you to troubleshoot particular sections of your ladder program by "forcing" a state, in the case of a discrete I/O, or value, in an analog I/O, to make sure you are getting the expected result.

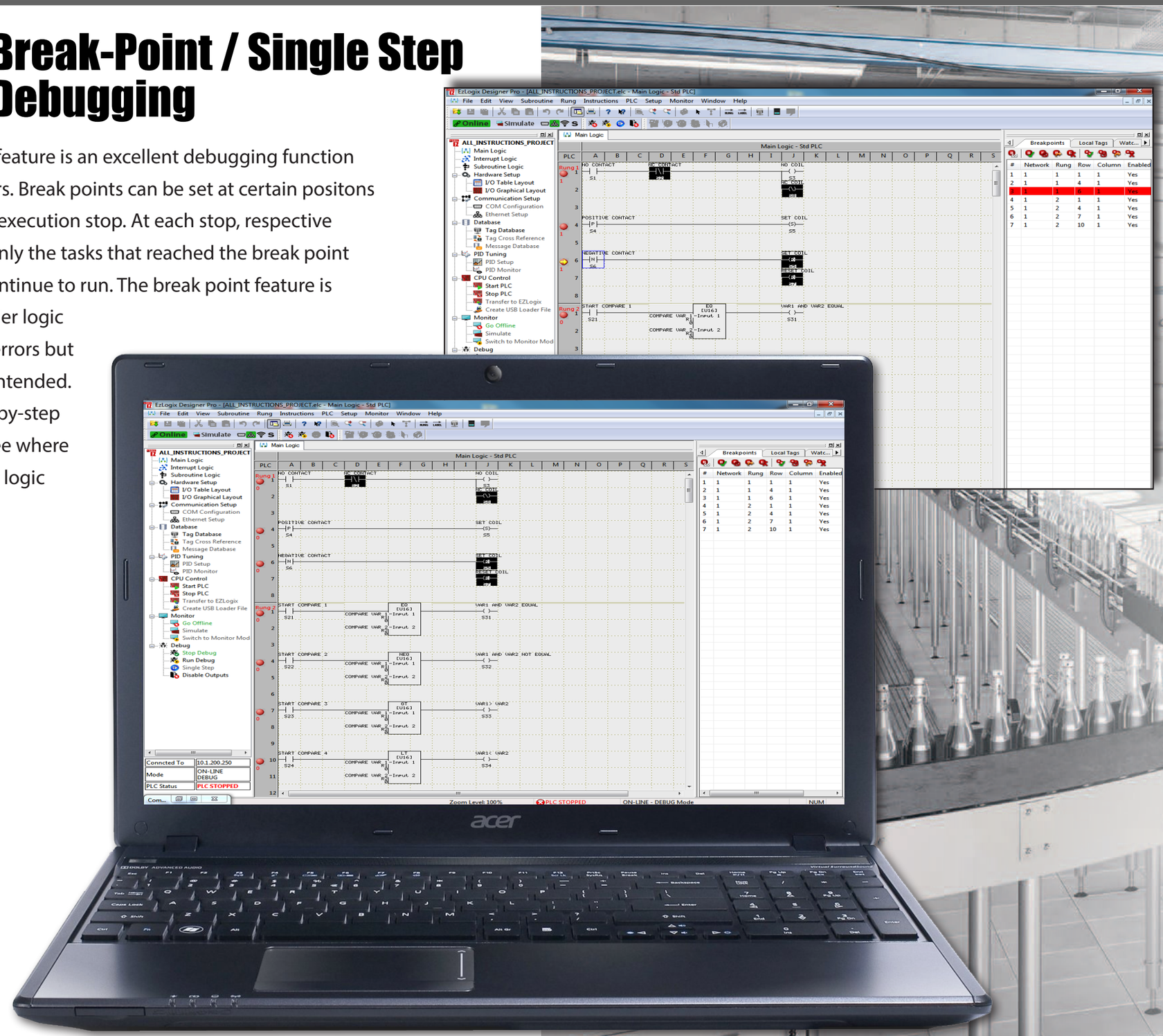
In order to comprehend the benefit of Forcing I/O, one must first distinguish the difference between the physical I/O of a PLC, called the "field side", and the internal status of that physical I/O within the ladder program, called the "logic side". In regular operation of a PLC, the status of the physical inputs is copied to the logic side at the top of the PLC scan, and the logic side of the outputs is copied to the fields side at the bottom of each scan. Forcing I/O interrupts the normal processing of the inputs and outputs. Instead, when an I/O is forced, the "logic side" is set to the forced value, and any change in the physical I/O is ignored, and any attempt to change the value or state in the logic is also ignored until the force is released.



EZRackPLC™

Break-Point / Single Step Debugging

EZLogix Designer Pro's Break Point feature is an excellent debugging function to troubleshoot programming errors. Break points can be set at certain positons in the program in order to force an execution stop. At each stop, respective variable values can be examined. Only the tasks that reached the break point are stopped while all other tasks continue to run. The break point feature is ideal for troubleshooting large ladder logic programs that do not have syntax errors but are not performing in the manner intended. It provides the programmer a step-by-step execution of variables in order to see where the potential bugs are in the ladder logic code.



Single Step Debugging

Takes you step-by-step to debug the rung from the start of your break-point