

# Do-more Designer: FREE Software that actually does more!

Download the free software today and check out all these great features!

The Do-more Designer Software is a free download at [www.do-more.com](http://www.do-more.com)

To test your program, use the built-in simulator or connect to a Do-more PLC with your choice of a serial, USB or Ethernet connection.



## Built-in simulator

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

Windows application uses the same code as the CPU firmware - for the most accurate simulation.

Simulates discrete and analog I/O with access to timers, counters, control bits, etc.

Simulate PID - Use the Simulator coupled with the Trend View for outstanding visibility into your PID processes.

Watch the Video about this topic:  
<http://n2adc.com/domoresim>

The screenshot shows the 'Instruction Palette' on the left with various instruction classes like Contact-Delta, Communication, and Program Control. The main window displays the 'DTDIFF' instruction configuration, including Date/Time A (LocalTime), Date/Time B (LastOccur), and the difference in seconds (ElapsedSecs). Below it, the 'EMAIL' configuration window is visible, showing fields for SMTP Device, To, Cc, Bcc, Subject, and Message content.

Use the pop-up instruction "Palette" to quickly select an instruction and insert it into your ladder!

## Optimized instruction set

The Do-More instruction set was developed by listening to our customers' needs and requests, with flexibility and ease-of-use as our goals.

Download the free software today and take a look at these powerful and easy-to-use instructions.

The screenshot shows the 'DEADBAND' instruction configuration window. It includes fields for Input (D0), Deadband (10), and Output (D1).

The screenshot shows the 'MATH' instruction configuration window. It includes a 'Calculate Expression' field with the formula:  $P() * (\text{TankRadius} ** 2) * \text{LiquidHeight}$ .

Watch the Video about this topic:  
<http://n2adc.com/domoremath>

## Powerful, intuitive math

The Spreadsheet style MATH instruction allows mixing of data types\* and it accepts formulas and

variables. The MATH instruction also allows nesting with parentheses to 8 levels, plus:

- Ten 'Real' Functions, including Natural Log, Log, e, PI, Square Root, and conversions.
- All the standard Trig Functions
- Eight Statistical Functions, including Average, Min & Max, RANDINT and RANDREAL (to generate random values), Standard Deviation functions and more.
- Thirteen Conditional functions, including six CountIF, six SumIF, and If/Else expressions with a full complement of binary operators.

If that's not enough, how about Absolute Value, Time, Memory, and Indirect addressing? You even get access to system-level bits such as \$IndexError, \$OutOfRange, \$Overflow, etc.

\* Note about data types: integer and real types are really all you need but Do-more does include a few BCD and octal conversion instructions for legacy data types.

The screenshot shows the 'Do-more Simulator' interface. It features a 'Do-more Data' table with columns for DI, DO, AI, and AO. Below the data table are sections for 'I/O Memory' and 'Timers', each with a grid of status indicators (On/Off) for various modules.

## Local I/O is automatically configured

Connect to your PLC, and visit the I/O Configuration window for full Auto-Discovery of your modules in the local base.

The screenshot shows the 'System Configuration' window. It displays a tree view of configuration entries including CPU, I/O, and Memory. The main area shows a rack of PLC modules with their respective I/O specifications. A 'Manual Base Scan' button and a 'Base Size' dropdown are also visible.

## High-speed I/O and motion control: simplified

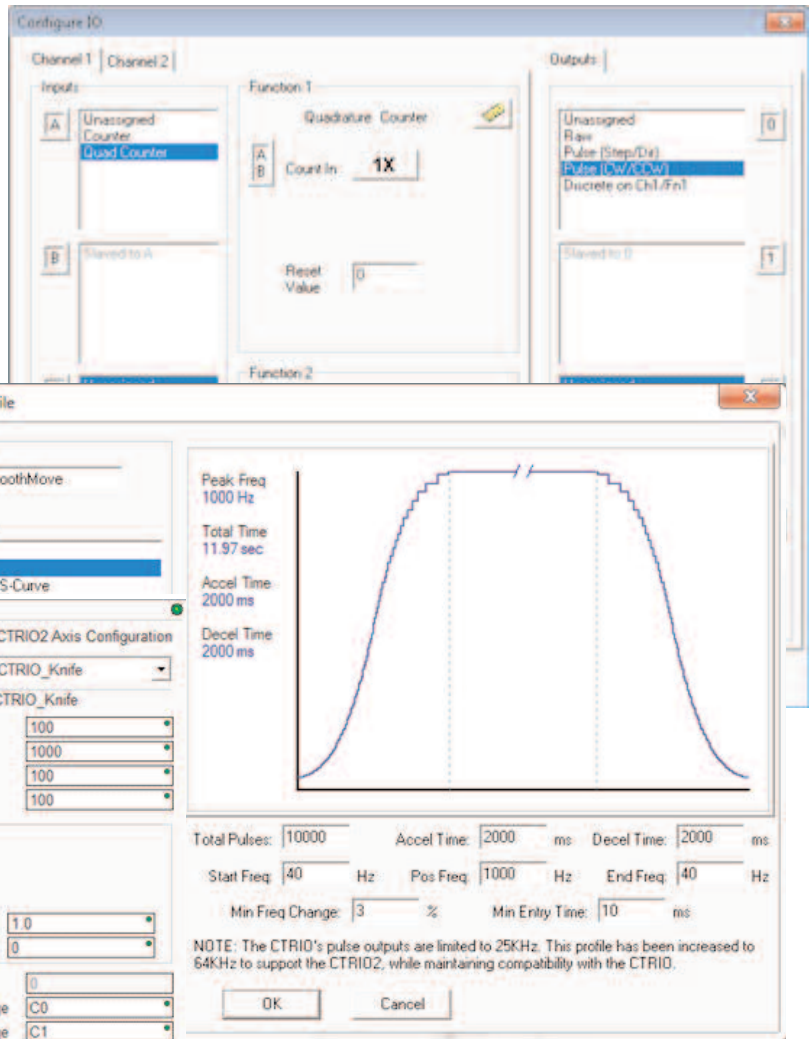
All configuration parameters and profiles are stored in the CPU module – if a High Speed Module needs to be replaced, just drop it in and reboot. (There is no separate CTRIO Workbench application.)

Dedicated instructions greatly simplify and improve functionality of the H2-CTRIO and H2-CTRIO2 modules.

Native support for the new H2-CTRIO2 take ease of use and power a step further, with fill-in-the-blank motion profiles and high-speed counter configuration.

Use the 'Axis Mode' instructions for dynamic positioning, jogging, and trapezoidal moves.

Assign a logical name to each axis, and use that name throughout your code!



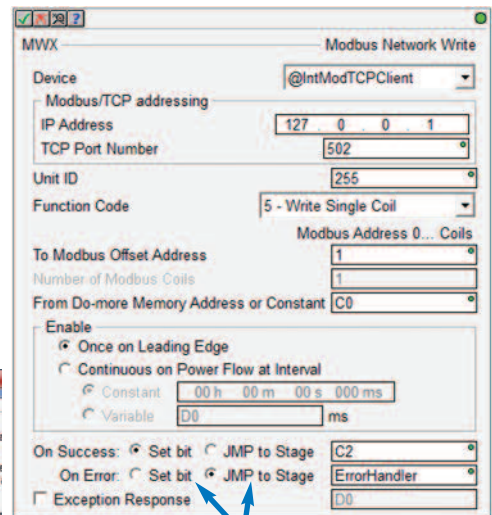
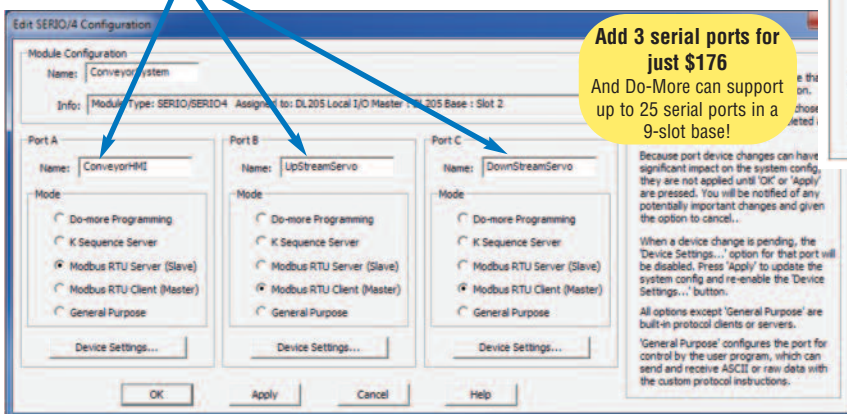
## Communications are easy to define, troubleshoot

The PEERLINK instruction makes it very easy to share data over Ethernet between Do-more CPUs, with transparent data sharing in a designated memory area.

Do-more supports the H2-SERIO and H2-SERIO-4 modules for easy, cost-effective addition of serial ports.

Do-more offers more security in communications - Modbus and DirectLOGIC transactions reference reserved "Guest Memory" (Modbus and DL memory) so there is no direct access to your I/O image registers from other devices.

Do-more lets you **name your devices** and reference those meaningful names throughout your program code.



All Communication instructions can either:

- Set a flag, OR
- Jump to Stage

"on success" or "on error". This can really simplify your code!

# The software story just gets better and better!

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- Limit Switches
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- Process
- Relays/ Timers
- Comm.
- Terminal Blocks & Wiring
- Power
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- Tools
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- Safety
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## Insightful monitoring and troubleshooting tools

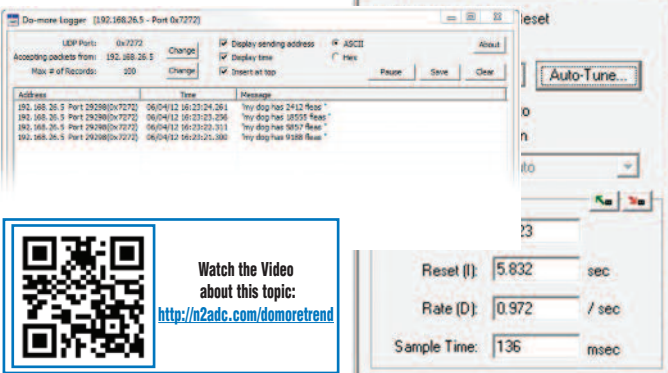
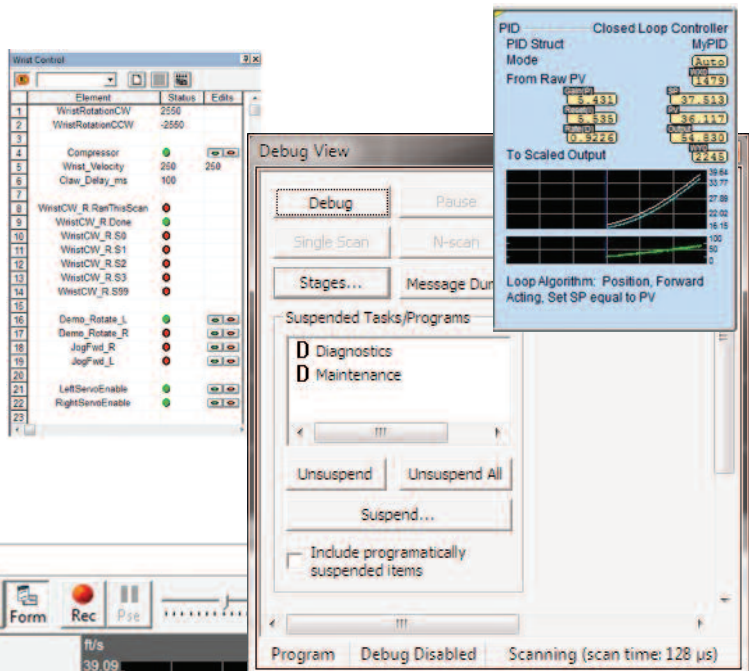
View Trend Data in its own view and within specific ladder instructions like PID, RAMP-SOAK, and High/Low Alarm.

Tasks and Programs can be suspended to isolate code; stages can be enabled or disabled.

The PID Monitoring window allows precise tuning of your PID loops.

Use the Data View to monitor program elements and Program Status Bits for behind-the-scenes visibility into PLC internal operations.

Turn on the Do-more Logger and receive custom error messages via the network message viewer (free Do-more Designer utility that runs on your PC).



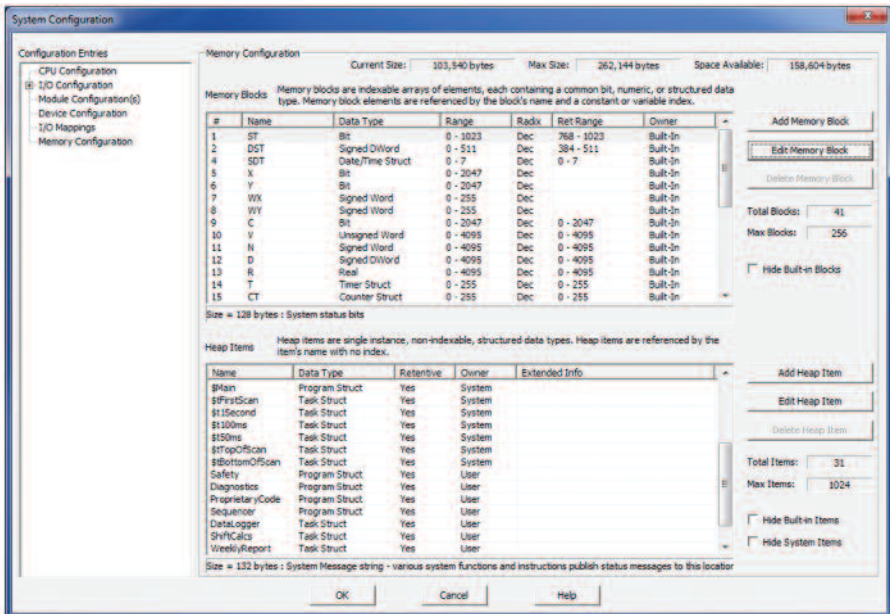
Watch the Video about this topic:  
<http://n2adc.com/domoretrend>

## Flexible memory management capabilities

Strong data typing keeps your data organized and protected. Data structures automatically put the important details at your fingertips.

Do-more can be as flexible as you need. You can allocate all that data memory the way you want it up to specific maximums (no more rigid, predefined blocks of wasted space!).

You can even define your custom memory addresses and assign a data type of your choice to improve the readability of your program.



## Organize your code with outstanding program management tools

Do-more supports a mix of stage and ladder for a best-of-both-worlds approach that simplifies your code and makes troubleshooting easier.

Code can be broken up into Tasks and Programs:

- Tasks run when called; once, continuously, or at a user defined interval
- Programs run based on events

Tasks and Programs can be suspended to isolate code; stages can be enabled or disabled.

Get flexible, powerful control over your program code execution:

- Assign tasks or programs a fixed timeslice
- Define “yield points” for logical pauses
- Define priorities and order of execution

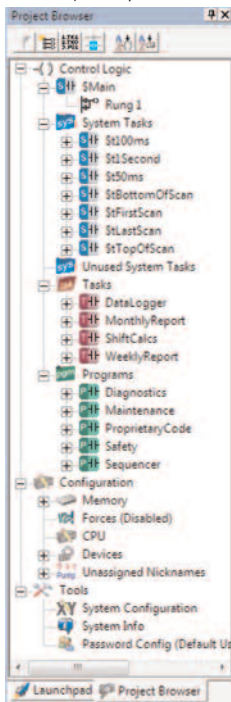
## Project management

All project files are stored onboard the CPU - no more searching for the old laptop with the most recent copy of the program before you can fix your machine!

You can also store your own files with the disk-based version of the project to aid future improvement or troubleshooting efforts. Store PDF, HTML or virtually any file format (up to 10Mb) that you want to keep with the project for reference, or information to assist your coworkers or customers whenever they open the project.

The Project Browser makes it easy to select the code block you want to view or edit. System tasks are predefined for many common actions. Jump directly to any part of your code with just a few clicks.

The Do-more Designer software even supports “restore points”, which are basically previous versions of your program that you saved at known good operation. It’s nice to know that you can easily “roll back” your project if your development goes awry.



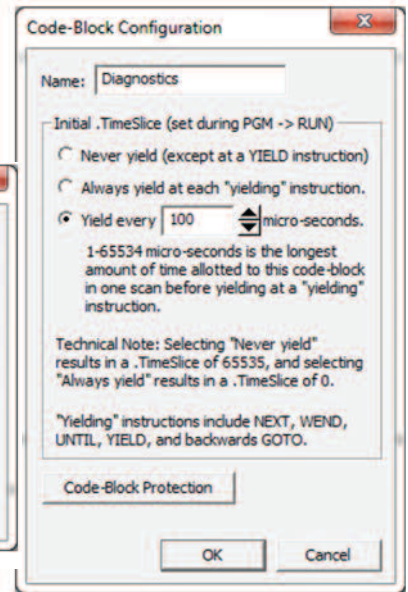
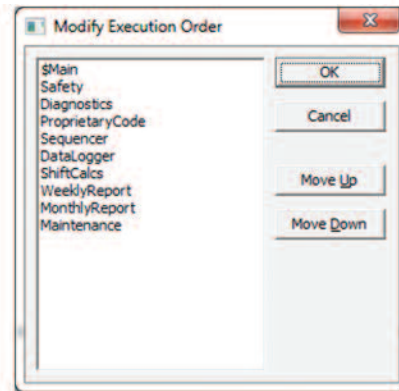
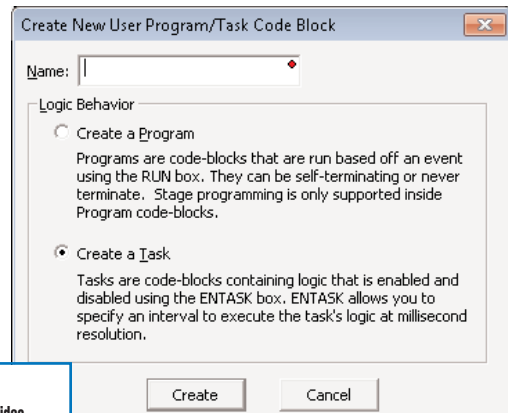
## ‘Bumpless’ Run-time Edits

Do-more Designer can download a new version of your code into the Do-more CPU and seamlessly switch to it **at the beginning of the next scan**. There is no need for any pause (however brief) that can wreak havoc on the operation of your machine or process.

Visit [www.do-more.com](http://www.do-more.com) for more details on all the hardware and software features, and to view all the videos.



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## Security for your code and your organization

Do-More Designer offers versatile password protection. Define multiple users, assigning combinations of privileges from the available options. Use code block password protection to allow customers to see enough of the program to allow basic troubleshooting, while keeping your proprietary code blocks hidden and secure.

External devices are relegated to “guest memory” areas; your program code controls all access to actual I/O points. There are separate reserved areas for Modbus and DL memory (DL memory is used for remote I/O racks).

