

# 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.



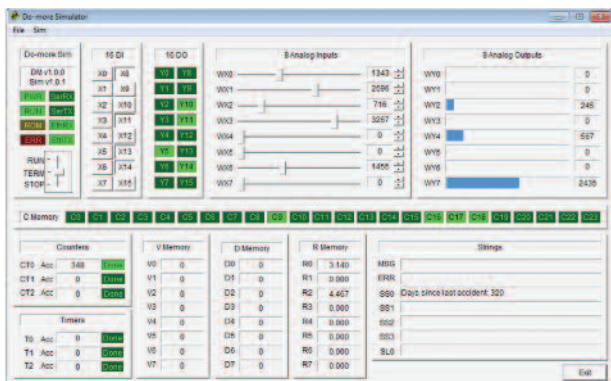
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about this topic:

<http://n2adc.com/domoresim>

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

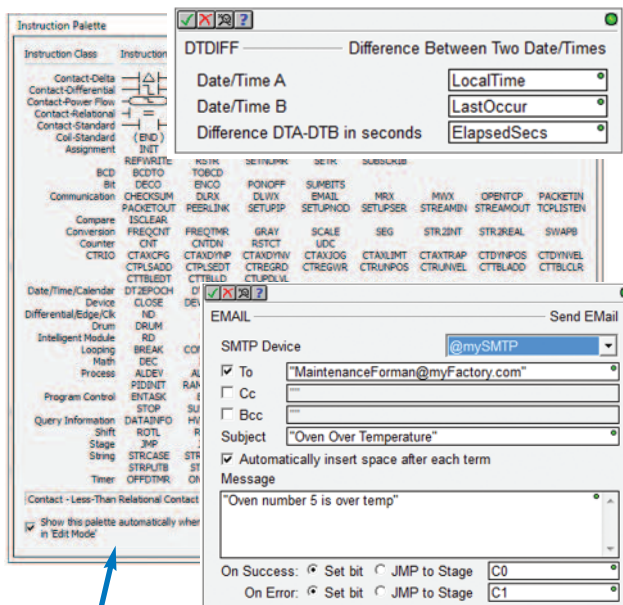
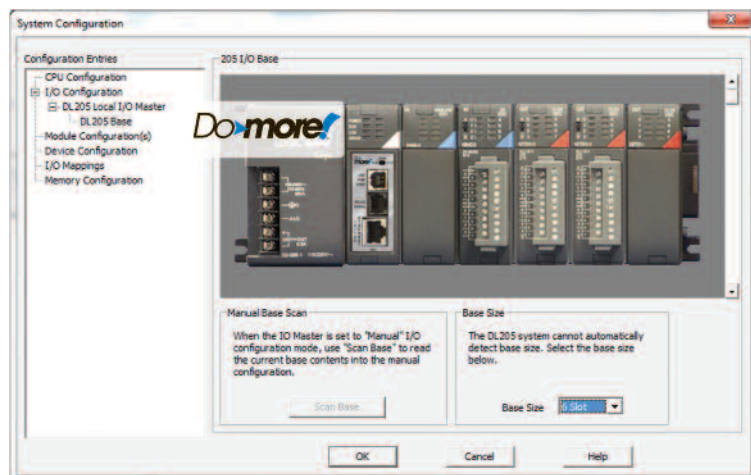
Simulates discrete and analog I/O with access to timers, counters, control bits, etc.

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

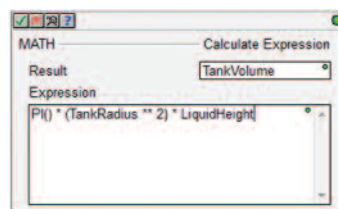
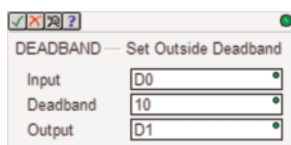


## Local I/O is automatically configured

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



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.



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<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.

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

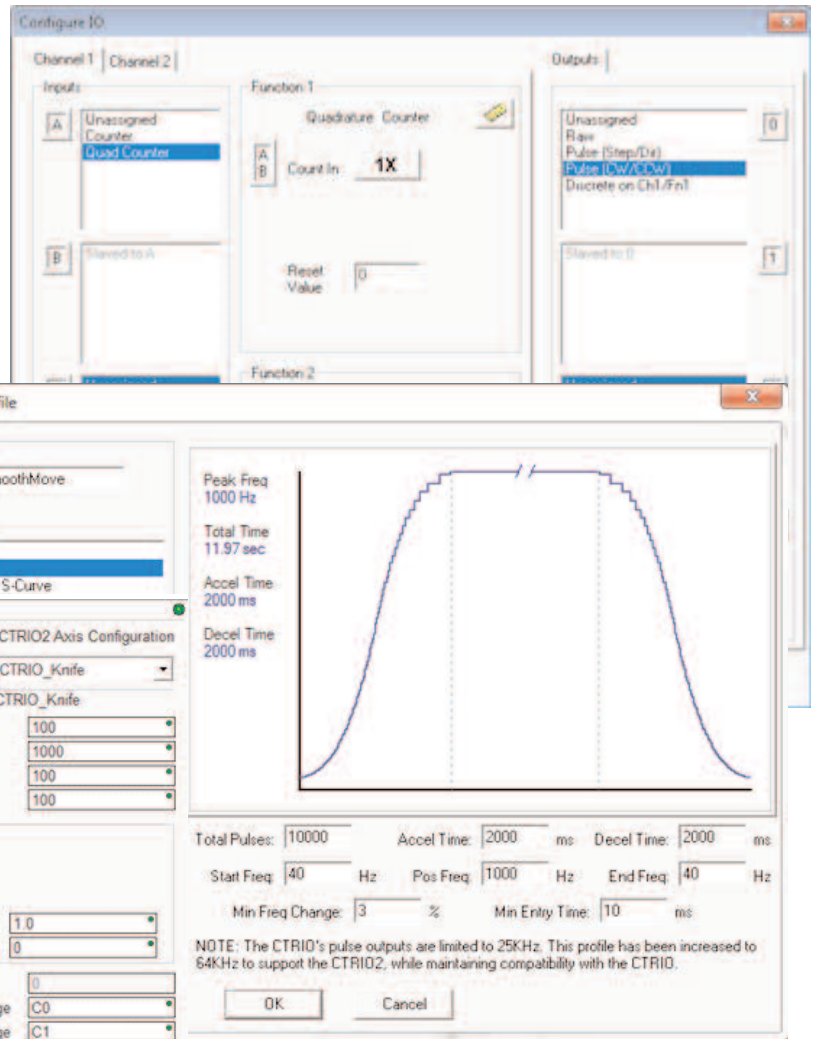
All configuration parameters and profiles are stored in the CPU module – if a High Speed Module needs to be replaced, just drop it in and reboot. (There is no separate CTRIO Workbench application.)

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!



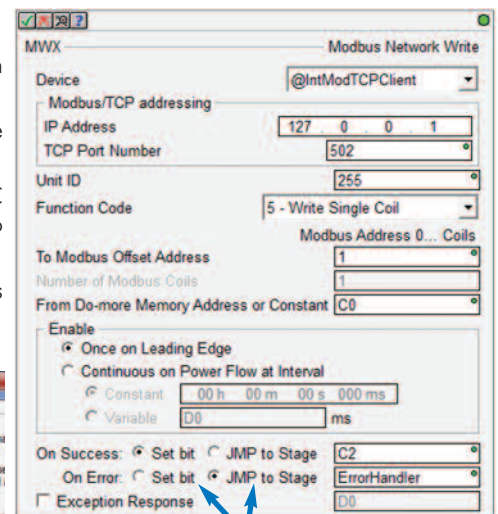
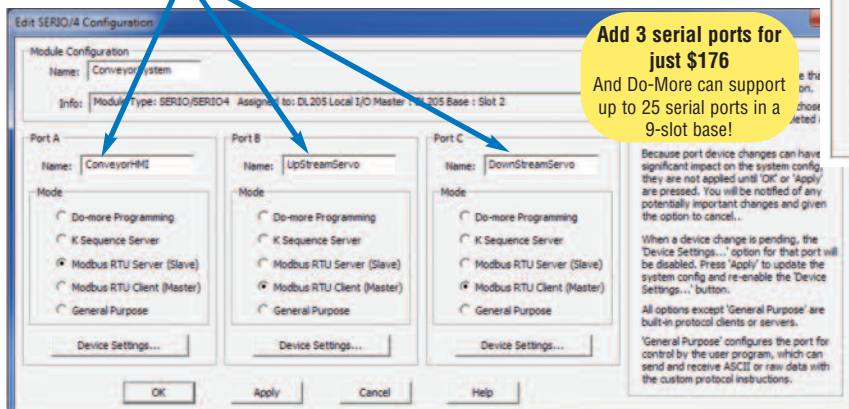
## Communications are easy to define, troubleshoot

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!

## Insightful monitoring and troubleshooting tools

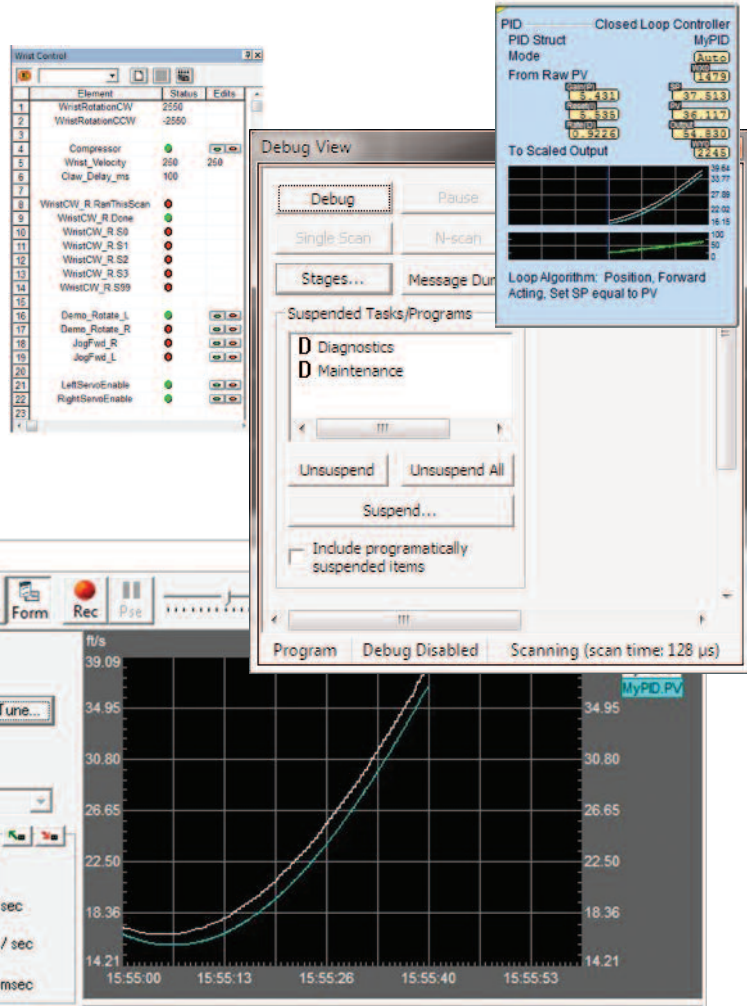
View Trend Data in its own view and within specific ladder instructions like PID, RAMP-SOAK, and High/Low Alarm.

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).



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<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.

#	Name	Data Type	Range	Radix	Ret Range	Owner
1	ST	Bit	0 - 1023	Dec	768 - 1023	Built-In
2	DST	Signed DWord	0 - 511	Dec	384 - 511	Built-In
4	SDT	Date/Time Struct	0 - 7	Dec	0 - 7	Built-In
5	X	Bit	0 - 2047	Dec	0 - 2047	Built-In
6	Y	Bit	0 - 2047	Dec	0 - 2047	Built-In
7	WX	Signed Word	0 - 255	Dec	0 - 255	Built-In
8	WY	Signed Word	0 - 255	Dec	0 - 255	Built-In
9	C	Bit	0 - 2047	Dec	0 - 2047	Built-In
10	V	Unsigned Word	0 - 4095	Dec	0 - 4095	Built-In
11	N	Signed Word	0 - 4095	Dec	0 - 4095	Built-In
12	D	Signed DWord	0 - 4095	Dec	0 - 4095	Built-In
13	R	Real	0 - 4095	Dec	0 - 4095	Built-In
14	T	Timer Struct	0 - 255	Dec	0 - 255	Built-In
15	CT	Counter Struct	0 - 255	Dec	0 - 255	Built-In

Name	Data Type	Retentive	Owner	Extended Info
\$Main	Program Struct	Yes	System	
\$FirstScan	Task Struct	Yes	System	
\$1Second	Task Struct	Yes	System	
\$100ms	Task Struct	Yes	System	
\$10ms	Task Struct	Yes	System	
\$1000Scan	Task Struct	Yes	System	
\$BottomOfScan	Task Struct	Yes	System	
\$Safety	Program Struct	Yes	User	
\$Diagnostics	Program Struct	Yes	User	
\$ProprietaryCode	Program Struct	Yes	User	
\$Sequencer	Program Struct	Yes	User	
\$DataLogger	Task Struct	Yes	User	
\$ShiftCalcs	Task Struct	Yes	User	
\$WeeklyReport	Task Struct	Yes	User	

## 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

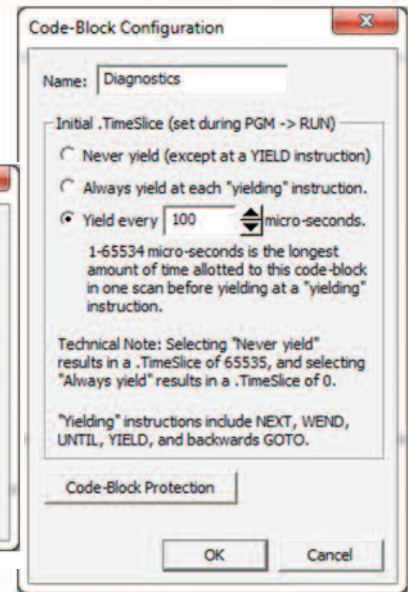
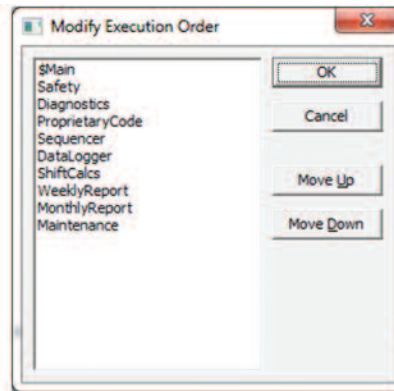
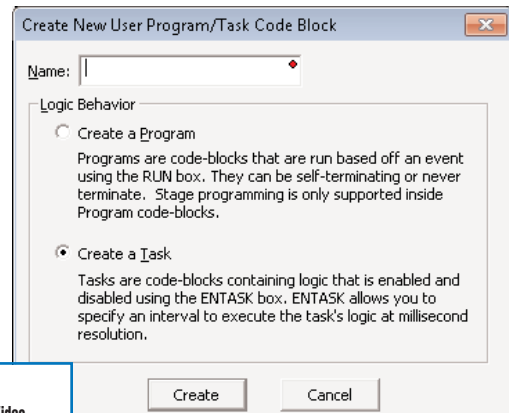
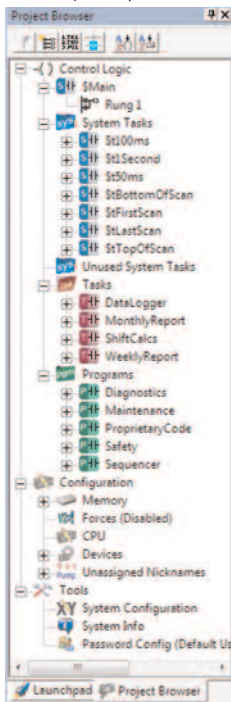
## Project management

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.

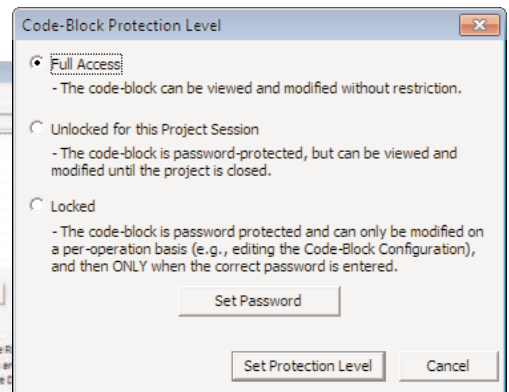
The Do-more Designer software even supports “restore points”, which are basically previous versions of your program that you saved at known good operation. It's nice to know that you can easily “roll back” your project if your development goes awry.



## 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).



## ‘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.