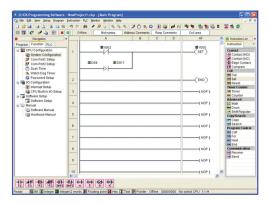


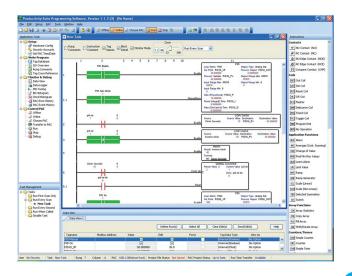
## **Choose Your (programming) Weapon!**



## Do-more with intuitive software (yes, FREE!)

The Do-more Designer software supports our newest generation of micro PLCs, the Do-more family. We listened to you to create a powerful, easy-to-use programming environment with all the features you expect - mix of ladder logic, program block and stage that simplifies code, support for 2,000 PID loops, spreadsheet-style math, efficient data typing, true bumpless run-time editing, and even a full program simulator built in.

For more details on Do-more software, see the Do-more Overview Section



## DirectSOFT6 Programming Software for DirectLOGIC PLCs

DirectSOFT6 (PC-DSOFT6 \$395.00 is our full-featured 32-bit Windows®-based programming software for the entire DirectLOGIC PLC family. This includes all DL05, DL06, DL105, DL205, DL305 and DL405 PLC product families.

The FREE version of DirectSOFT6 (PC-DS100), available for download from our Web site, allows you to program and download a project size of up to 100 words.

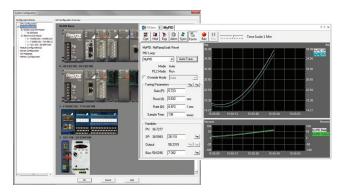
For more details on DirectSOFT6, see the DirectLogic Overview Section

### CLICK for simple programming, FREE!

CLICK micro-brick PLCs with stackable discrete and analog modules and free programming software are the lowest cost and easiest-to-use high-quality machine controllers on the market today. It is designed for first-time PLC customers as well as experienced users.

The free CLICK PLC programming tool simplifies the programming process to make it easier to learn, faster to program, and capable of completing most of your simpler application needs with only 21 instructions!

For more details on CLICK PLC software, see the Click PLC Section



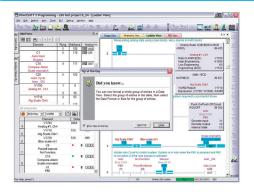
## ProductivitySuite offers advanced tools that make your life easier (still ....FREE!)

A powerful controller needs a powerful programming package. With Productivity Suite for the Productivity series of Automation Controllers, we've created advanced yet transparent processes in the programming environment to reduce your development time.

Timesavers include combined ladder logic and function block programming; tag name database for easier documentation; task management that minimizes scan time; advanced instructions that simplify complex tasks, and an exhaustive HELP file that covers both hardware and software topics.

Run-time editing, hot-swappable I/O modules and onboard program documentation help you commission and troubleshoot your system more quickly and conveniently. ProductivitySuite is available FREE as an online download.

For more details on Productivity Suite, see the Productivity3000, Productivity2000, or Productivity1000 Sections





## **Easy Data Acquisition & Design**



### DataWorx™: Connect Ethernetenabled controllers for data collection

DataWorx easily connects your Ethernet-enabled DirectLOGIC PLCs, Think & Do v8.0 or Live! WinPLC controllers to standalone PCs or network servers for simple data logging. Collect data without the need for special PC programming or any 3rd party HMI, SCADA, or DAQ software application.

DataWorx<sup>™</sup> is discontinued. The software is now available directly from the vendor at: http://www.bizwaredirect.com/

### Should I use DataWorx or KEPServerEX?

DataWorx is for simple data logging. The PLC pushes data to DataWorx, DataWorx records the data to a file on the PC. If you just need to log your PLC variables to a file, this is the easiest way. It puts the controller in full control of database activities.

KEPDirect is an OPC server for AutomationDirect PLCs. What you connect on the other side of the server is up to you, the possibilities are wide open. The OPC client you choose controls when data moves to or from the PAC/PLC.

### KEPDirect OPC Server for easy data acquisition or control

KEPDirect OPC Server connects your favorite Windows client software to AutomationDirect I/O through our EBCs (Ethernet Base Controllers), to our DirectLOGIC PLCs through ECOM modules or serial ports, or the Productivity series Ethernet connectivity.

Any industrial HMI, SCADA, data historian, MES or ERP software package that includes an OPC client interface (most do) can connect to our PLC hardware for costeffective data acquisition or control. You can even use Visual Basic® to create data logging or simple HMI screens. (Requires OPC DA Client Tool Kit to use OPC with Visual Basic.)

# PC Control with Think & Do



Think & Do Version 8 software products, America's leading PC control software, bring you all the tools you need to easily handle complex applications. With intuitive flowcharting, powerful graphics tools, higher math functions and data types, serial and Ethernet communications and interfaces to specialty control modules, Think & Do software is right for applications that PLCs just can't handle alone. Think & Do Version 8: Advanced PC-based control with enhanced HMI development software and an SQL interface for more complex applications.

ADC will no longer be selling the KEPDirect software. As a replacement KEPSeverEX may be purchased from Kepware and will support any existing applications. It is recommended if you have a new application, you use KEPServerEX. ADC will continue to support license resets for a period of 1 year from 7/22/2019.

**tSTW-2** Software 1 - 8 0 0 - 6 3 3 - 0 4 0 5

## PC Control: The Smart Way to a Complete Solution

## Why should I use PC control?

PLCs provide a great solution for many applications, but when your application goes beyond straight-forward ladder logic controlling simple I/O, PC control can be the smarter way to go.

When you have a PLC system that includes an HMI with motion control and/or a vision system, you not only spend time developing and debugging each system independently, you also have to spend significant effort integrating the separate controllers. The result is often difficult to support. Even small changes require editing multiple databases and complex debugging. Add coprocessor modules for communications, complex math algorithms or string/array data manipulation and you start to wonder why there isn't an easier way.

Well, there is, and it's called Think & Do PC Control. Think & Do, America's leading PC control software, brings you all the tools you need to easily handle complex applications.



# If your application requires:

- · HMI as well as control
- Advanced data manipulation (even string arrays) and advanced math functions
- Data exchange with business applications (from spreadsheets to ERP systems)
- One or more third-party PC cards, such as those for motion control or vision systems
- Communication with serial or networked field devices
- Storage or access to large amounts of data
- · Large number of PID loops (up to 64)
- Open architecture for C/C++ or VisualBasic

## It requires Think & Do PC Control!

# Why is Think & Do PC control so much easier?

With Think & Do, your HMI and control share the same database, so there is no duplication. Intuitive flowcharting makes coding the control logic as easy as sketching out the control algorithm. The powerful graphics tools and readilyaccessible data tags enable you to create a quality HMI so fast you'll have to experience it to truly believe it. Think & Do includes the math functions and data types found in high-level programming languages, so complex algorithms and data management are a snap. PC architecture allows Think & Do to seamlessly support a variety of specialty motion, vision systems, and field network interface PC cards. The PC and Windows allow Think & Do to provide simple communication links on serial or Ethernet networks. Think & Do simplifies connecting everything from SQL databases to barcode readers with your control application.



## **PC Control Solutions Using Think & Do**



### Think & Do 8.0

PC-TD8-USB

\$2,170.00

Keyless Development and USB Runtime key; non-keyed environment provides free WinPLC programming.

PC-TD8-WEB4-USB

\$2,565.00

Full development package plus four concurrent runtime sessions with USB key; Web viewing capability

**ESS-BASIC** 

\$230.00

Extended service and support;

Basic 1 year

**ESS-PREMIUM** 

\$802.00

Extended service and support;

Premium 1 year

#### Includes:

- Flowchart logic
- Superior HMI features
- Easy SQL interface
- Web view capable (requires web view

version)

- Importing screens
- Integrated serial communication
- Modbus TCP, Modbus RTU and Modbus Plus support
- Integrated motion control
- Integrated vision control
- PID process control (64 loops)
- Powerful debugging tools
- Offline logic testing
- Common database for HMI, logic and motion

## Choose Think & Do 8.0 when you need

- 1. to communicate to an SQL database
- 2. a superior HMI with animation and advanced graphics



tSTW-4 Software

## Think & Do 8.0 Overview



Think & Do™ Version 8.0 (PC-TD8-USB) is an integrated control environment that lets you do more with a given PC platform. It supports development, deployment and operation of high-value automated control systems for material handling and manufacturing. Think & Do 8.0 provides an intuitive, open-architecture environment that readily integrates with hardware and software components from virtually all major suppliers.

Projects created with Think & Do 8.0 integrate seamlessly with enterprise information systems to provide valuable data about system operation. Major components of Think & Do 8.0 are:

- ProjectCenter: Provides ready access to all project elements and the fully integrated tagname database using the Data Item Explorer.
- FlowView: For creating control logic.
- ScreenView: For creating HMI screens.
- I/O View: For configuring project I/O.
- AppTracker: For fast, graphical debugging.
- Runtime Engine: Provides a robust, deterministic project execution environment.

Think & Do 8.0 makes it easy to target your project to the Microsoft Windows platform that best suits your needs Whether you create a project for a Certified PC or CE, scaling for a different platform requires only minor adjustment. There are four USB key versions available, so selecting the

product that best meets your needs is easy. There are two USB key development packages, one with and one without Web viewing capabilities.

# Extended Software Service and Support (ESS) Products

We offer two extended support products, a basic package and a premium package. The basic ESS package, **ESS-BASIC** (\$230.00), is a one-year subscription and includes:

- 8 AM to 5 PM EST telephone support directly from Phoenix Contact
- · E-mail support
- USB-Parallel key swaps
- · Defective or damaged key replacements
- Software maintenance updates

The premium ESS package, **ESS-PREMIUM** (\$802.00), is also a one-year subscription. It contains everything in the basic package, plus:

- · Webex training seminars
- A 50% discount on training seats
- Major software platform updates
- Upgrade from Think & Do Live! version
   5.x to Think & Do 8.0 plus hardware key
- Or an upgrade from Think & Do Studio version 7x via a hardware key field upgrade or replacement.

Note: ESS products cannot be purchased online. The order must be phoned in (800-633-0405) and a valid software serial number is required.

## Conversion from Think & Do Studio and Live!

Studio: Flowcharts developed in Studio can be converted to Think & Do 8.0, but HMI screens cannot be converted.

Live!: Flowcharts and HMI screens developed in Live! cannot be converted to Think & Do 8.0.

### Think & Do 8.0 PC-TD8-USB

\$2,170.00

Includes keyless development and USB runtime key. Use to develop or modify a Think & Do v8 project on a PC. Non-keyed environment provides free WinPLC programming.

PC-TD8-WEB4-USB \$2,565.00
Full development package plus four concurrent runtime sessions with USB key; Web viewing capability

#### **Demo Mode**

To see if Think & Do 8.0 is right for you, you can install and use it for up to 40 hours within a 30-day time period at no cost.

### System requirements

#### Development System or Windows Runtime Target

Windows 2000, XP (32-bit), Vista (32-bit) or Windows 7 (32-bit),
Pentium IV compatible processor 256 MB RAM (512 MB or higher recommended),
750 MB available hard disk space,
CD-ROM drive,
64 MB or higher video adapter,
Color monitor (min resolution 800x600),
Ethernet adapter

### **Training**

Phoenix Contact offers training courses led by certified Phoenix Contact Solution Providers at their headquarters in Ann Arbor, MI.

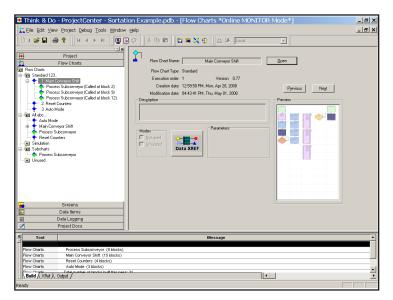
Check **www.phoenixcon.com/software** for training dates. Training is half price for subscribers to Premium **E**xtended **S**ervice and **S**upport, ESS-PREMIUM.

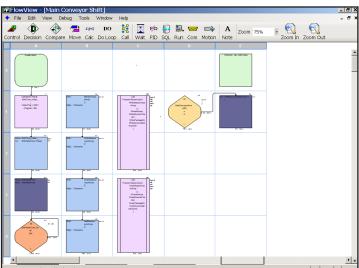
### Think & Do 8.0 Overview

### **Features**

# ProjectCenter for creating your project

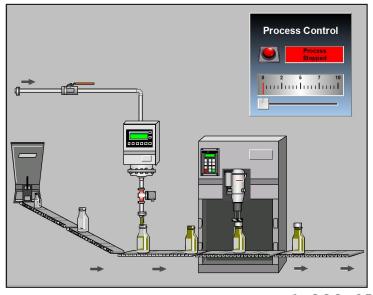
ProjectCenter is the starting point for developing your project and provides access to all Think & Do development tools, such as menus, project information and runtime settings. It provides ready access to all project elements and the fully integrated tagname database.





# ScreenView for creating and editing HMI screens

The most dramatic improvement in this revision of Think & Do is the HMI screen tool. ScreenView appears in an independent window that provides a complete HMI screen development environment. The graphical capabilities and functionality in v8.0 far surpass any previous screen tools we have employed for this PC-based control environment.



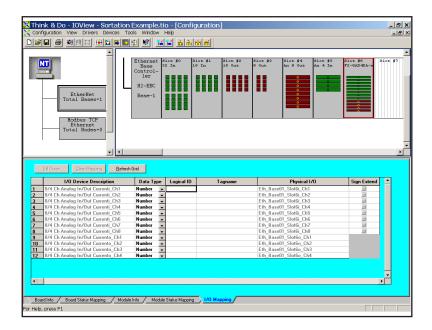
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## Think & Do 8.0 Overview

### I/OView for configuring your project I/O

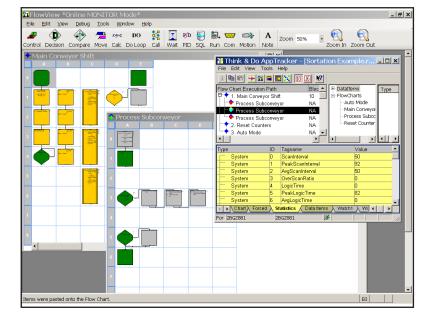
Use IOView to easily:

- Specify inputs, outputs, and data items
- · Configure I/O
- · Add I/O drivers and devices
- Map I/O
- Scan and monitor I/O
- · Use a watchdog timer



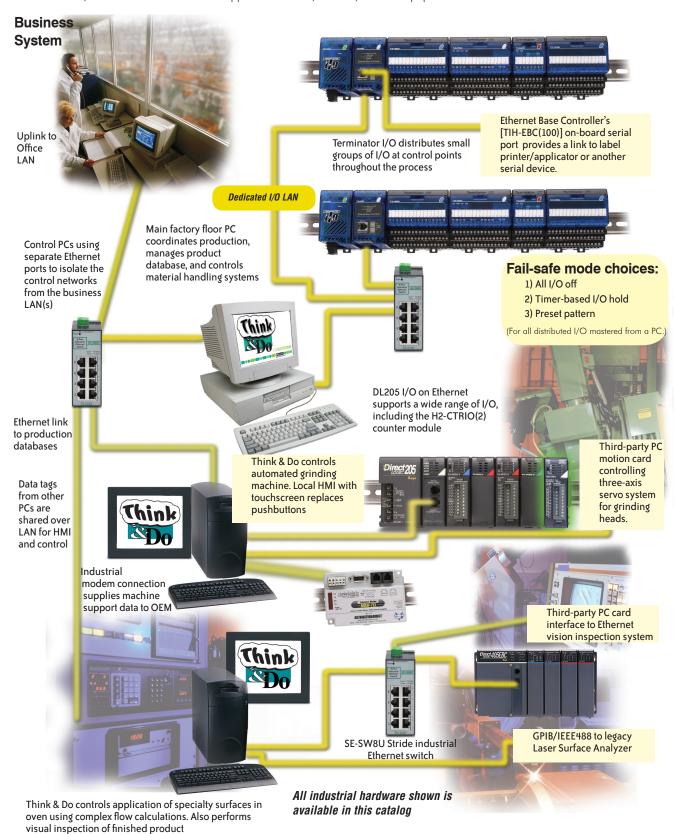
### AppTracker provides a fast, graphical debugging tool

AppTracker is a stand-alone application. It can run even if the development tools in ProjectCenter are not running and can help identify problems easily during development.



## PC Control with Field I/O

Think & Do, with your choice of I/O, is a powerful, flexible solution for all your automation needs. The example below uses Ethernet, but Think & Do PC Control supports DeviceNet, Profibus, and other popular fieldbus networks as well.



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### **Serial Communications via EBC**



### H2-SERIO / H2-SERIO-4

In addition to the built-in serial port on the EBC, you can also add as many as nine additional serial ports for Think & Do applications. Install up to eight modules into an H2-EBC(100) base (limits are power budget and number of slots in the base). These modules have "PC-like" serial ports to communicate to multiple serial devices, such as barcode scanners, scales, printers and modems.

The H2-SERIO has three RS-232C ports, while the H2-SERIO-4 has two RS-232C ports and one RS-422/485 terminal.

All Think & Do products include advanced string and array functions that make manipulating serial data a snap. Both Think & Do and Think & Do Live! support easy point-&-click access to set baud rate, parity, data bits, and stop bits for each port. Think & Do allows each port to be designated as a Modbus slave or a generic serial device. Each port on the H2-SERIO(-4) module is capable of full hardware handshaking.

See the DL205 PLC section for H2-SERIO and H2-SERIO-4 specifications and wiring information.

Note: While the H2-SERIO(-4) will support virtually any serial device, processing large amounts of serial data will increase system response time. This is important to consider when using multiple H2-SERIO(-4) modules.

Due to the large amount of data inherent with serial devices, the H2-SERIO(-4) module is not supported across an H2-ERM - H2-EBC link. The H2-SERIO(-4) module is only supported in H2-EBC/H2-EBC100 bases connected to a PC system master.

# I/O Selection Guide for PC Control Our PC-based control architecture allows you to choose I/O from our most complete and flexible I/O families. AUTOMATION DIRECT

Our PC-based control architecture allows you to choose I/O from our most complete and flexible I/O families. AUTOMATIONDIRECT I/O also supports the most popular control networks, such as Ethernet, Profibus and DeviceNet. Check out this chart to see most of the available options. Refer to I/O specifications in the PLC or Field I/O section for a complete list.

DL205 Discrete Input Modules			DL405 Discrete Input Modules			DL405 Temperature Modules		
D2-08ND3	8-pt 12-24VDC sink/source	\$57.00	D4-08ND3S	8-pt 12-24VDC source	retired	F4-08RTD	8-ch RTD	\$562.00
D2-16ND3-2	16-pt 24VDC sink/source	\$96.00	D4-16ND2	16-pt 12-24VDC source	\$128.00	F4-08THM	8-ch thermo F/type, (J,E,K,R,S,T,B,N,C)	\$709.00
D2-32ND3	32-pt 24VDC	\$132.00	D4-16ND2F	16-pt 12-24VDC input, fast response	\$128.00			ļ ·
D2-32ND3-2	32-pt 5-15VDC	\$132.00	D4-32ND3-1	32-pt 24VDC sink/source	\$199.00	DL40	<b>5 Specialty Module</b>	es
D2-08NA-1	8-pt 110VAC	\$81.00	D4-32ND3-2	32-pt 5-12VDC sink/source	retired	D4-HSC	DL405 high speed counter	retired
D2-08NA-2	8-pt 170-265VAC, 2 commons	\$103.00	D4-64ND2	64-pt 20-28VDC source	\$261.00	D4-16SIM	8/16 pt input simulator	retired
D2-16NA	16-pt 110VAC	\$142.00	D4-08NA	8-pt 110-220VAC	\$116.00	Termin	ator I/O Discrete In	put
DL205 Discrete Output Modules			D4-16NA	16-pt 110VAC	\$161.00		Modules	1
D2-04TD1	4-pt 12-24VDC sink	\$71.00	D4-16NA-1	16-pt 220VAC	retired	T1K-08ND3	8-pt 12-24VDC sink/source	\$75.00
D2-08TD1	8-pt 12-24VDC sink	\$60.00	D4-16NE3	16-pt 12-24VAC/VDC sink/source	\$128.00	T1K-16ND3	16-pt 12-24VDC sink/source	-
D2-08TD2	8-pt 12-24VDC source	\$60.00	F4-08NE3S	8-pt 90-150VAC/DC sink/source isolated	retired	T1K-08NA-1	8-pt 110VAC	\$96.00
D2-16TD1-2	16-pt 12-24VDC sink, 0.1A/pt 1.6A/mod	\$105.00	DL	405 Discrete Output Module	S	T1K-16NA-1	16-pt 110VAC	\$155.00
D2-16TD2-2	16-pt 12-24VDC source, 0.1A/pt 1.6A/mod	\$105.00	D4-08TD1	8-pt 12-24VDC sink	retired	Termina	ator I/O Discrete Ou Modules	itput
D2-32TD1	32-pt 24VDC sinking	\$135.00	F4-08TD1S	8-pt 24-150VDC sink/source isolated out	retired	THE OUTDA	T. Company	40C 00
D2-32TD2	32-pt 24VDC sourcing	\$135.00	D4-16TD1	16-pt 5-24VDC sink	\$166.00	T1K-08TD1	8-pt 12-24VDC sink	\$86.00
D2-08TA	8-pt 18-220VAC	\$115.00	D4-16TD2	16-pt 12-24VDC source	\$166.00	T1K-08TD2-1	8-pt 12-24VDC source 8-pt 12-24VDS isoated sink/	\$86.00
D2-12TA	12-pt 18-110VAC	\$142.00	D4-32TD1	32-pt 5-24VDC, sink	\$220.00	T1H-08TDS	Source	\$163.00
D2-121A D2-04TRS	4-pt isolated relay 5-30VDC or 5-250VAC	\$72.00	D4-32TD1-1	32-pt 5-15VDC, sink	retired	T1K-16TD1	16-pt 12-24VDC sink	\$130.00
D2-04TR3 D2-08TR	8-pt relay, 5-30VDC or 5-240VAC	\$72.00	D4-32TD2	32-pt 12-24VDC, source	\$220.00	T1K-16TD2-1	16-pt 12-24VDC source	\$126.00
	8-pt relay, 10A/com, 5-30VDC or		D4-64TD1	64-pt 5-24VDC sink	\$311.00	T1K-08TA	8-pt 110-240VAC	\$147.00
F2-08TR	5-240VAC	\$87.00	D4-08TA	8-pt 18-220VAC	\$205.00	T1K-08TAS	8-pt 110-240VAC isolated commons	\$152.00
F2-08TRS	8-pt relay 12-28VDC, or 12-250VAC	\$117.00	D4-16TA	16-pt 18-220VAC	\$243.00	T1K-16TA	16-pt 110-240VAC	\$172.00
D2-12TR	12-pt relay, 5-30VDC or 5-250VAC	\$116.00	D4-08TR	8-pt relay 5-30VDC or, 5-250VAC	\$139.00		'	
DL205	<b>Combination Discrete Modu</b>	les	F4-08TRS-1	8-pt relay 12-30VDC or, 12-250VAC	\$190.00	T1K-08TR	8-pt relay 5-30VDC or 5-240VAC	\$94.00
D2-08CDR	Combo 4-pt 24VDC in and, 4-pt relay out	\$69.00	F4-08TRS-2	8-pt relay 12-30VDC or, 12-250VAC	\$216.00	T1K-16TR	16-pt relay 5-30VDC or 5-240VAC	\$162.00
	DL205 Analog Modules		D4-16TR	16-pt relay 5-30VDC or, 5-250VAC	\$210.00	TAL OUTDO		#10E 00
F2-04AD-1	4-ch input, 4-20mA 12 bit res	\$232.00		ork Bus Interfaces and I/O Ba		T1K-08TRS	8-pt isolated relay 5-30VDC or 5-240VAC	\$125.00
F2-04AD-2	4-ch input, voltage 12 bit res	\$255.00	DL205 and DL405 bases. Terminator I/O power supplies and terminal bases, Bus adapter modules for PC control: DL205 (Ethernet, Profibus, DeviceNet, SDS); DL405 (Ethernet); Terminator I/O (Ethernet, Profibus, DeviceNet)			Terminator I/O Analog Modules		
F2-08AD-1	8-ch input 4-20mA, 12-bit res	\$286.00	SDS); DL405 (Ethernet); Terminator I/O (Ethernet, Profibus, DeviceNet)			T1F-08AD-1	8-ch analog input 4-20mA 14-bit res	\$341.00
F2-08AD-2	8-ch input voltage, 12-bit res	\$304.00		DL405 Analog Modules				<u> </u>
F2-02DA-1	2-ch output 4-20mA, 12-bit res	\$183.00	F4-04AD	4-ch analog input voltage/current	\$493.00	T1F-08AD-2	8-ch analog input voltage 14-bit res	\$341.00
F2-02DA-2	2-ch output voltage, 12-bit res	\$191.00	F4-04ADS	4-ch isolated analog voltage/current	\$707.00	T1F-08DA-1	8-ch analog output 4-20mA 12-bit res	\$436.00
F2-02DA-1L	2-ch 4.20 mA out 12-bit, ext 12VDC pwr	retired	F4-08AD	8-ch analog input, voltage/current	\$619.00	T1E 00DA 0	8-ch analog output	¢460.00
F2-02DA-2L	2-ch voltage out 12-bit, ext 12VDC pwr	retired	F4-16AD-1	16-ch analog input, current, 12-bit	\$683.00	T1F-08DA-2	voltage 12-bit res	\$469.00
F2-02DAS-1	Isolated, 2-ch 4-20mA 16-bit out	\$255.00	F4-16AD-2	16-ch analog input, voltage, 12-bit	\$714.00	T1F-16AD-1	16-ch analog input 4-20mA 14-bit res	\$479.00
F2-02DAS-2	Isolated, 2-ch voltage 16-bit out	\$277.00	F4-04DA-1	4-ch analog output, current, 12-bit	\$417.00	T1F-16AD-2	16-ch analog input	\$480.00
F2-08DA-1	8-ch, 4-20mA, 12-bit out	\$347.00	F4-04DA-2	4-ch analog output, voltage, 12-bit	\$456.00		Voltage 14-bit res	
F2-08DA-2	8-ch, 0-5VDC or 0-10V, DC, 12-bit out	\$312.00	F4-04DAS-1	4-ch isolated, 16-bit analog out, 4-20mA	\$639.00	T1F-16DA-1	16-ch analog output 4-20mA 12-bit res	\$673.00
F2-4AD2DA	4-ch in /2-ch out., 4-20mA 12-bit res.	\$327.00	F4-04DAS-2	4-ch isolated 16-bit analog output, voltage	retired	T1F-16DA-2	16-ch analog output voltage 12-bit res	\$723.00
-	8-ch in/4-ch out, current, 16-bit	\$410.00	F4-08DA-1	8-ch analog output, current	\$679.00	THE HATLINA		фС10.00
	8-ch in/4-ch out, voltage, 16-bit	\$406.00	F4-08DA-2	8-ch 0-5VDC or 0-10VDC, 12-bit analog out	\$690.00	T1F-14THM	14-ch thermocouple 16-bit res	\$618.00
F2-04RTD	4-channel RTD, 0.1 DEG C res	\$349.00	F4-16DA-1	16-ch analog output, current	\$819.00	T1F-8AD4DA-1	I/O 8-ch analog input 4-ch analog output, current	\$413.00
F2-04THM	4 ch thermocouple or, 16-bit volt. input	\$343.00	F4-16DA-2	16-ch 0-5VDC or 0-10V DC 12-bit analog out	\$833.00	T1F-8AD4DA-2	I/O 8-ch analog input 4-ch analog output, voltage	\$413.00
	DL205 Specialty Modules							
H2-CTRIO2	DL205 high speed counter with pulse out	\$326.00				Terminat	or I/O Specialty Mo	dules
F2-08SIM	8-pt input simulator	\$69.00				T1H-CTRIO	High-speed counter with pulse out	\$346.00
H2-SERIO(-4)	3-port serial for Win PLC	\$181.00					puist out	1,

**tSTW-10** Software 1 - 8 0 0 - 6 3 3 - 0 4 0 5