# Three PC Control Solutions using Think & Do



Studio Development/run-time license

Think & Do Studio

PC-ENT-SDD-USB

**Runtime licenses** 

PC-ENT-SDR-USB

PC-ENT-SRN-USB

· Flowchart logic

Includes:

Studio Runtime License

Remote Screen Node

Advanced Visio graphics

Linked flowchart libraries

Remote screen development

Project Sync. multi-user development

Modbus TCP, Modbus RTU and Modbus

Integrated serial communication

Superior HMI features

Easy SQL interface

Importing screens

Plus support

environment support

Integrated motion control

Integrated vision control

Powerful debugging tools

· Productivity analysis tools

Offline logic testing

and motion

WinPLC support

**Choose Studio** 

when you need:

PID process control (64 loops)

· Common database for HMI, logic

Supports Windows 2000 and XP

1. to communicate to a SQL database

2. a superior HMI with animation and

advanced Visio graphics



**Completely compatible with original Think&Do Development Software applications** 

### Think & Do Live!

PC-ENT-LIVE <---> Development/run-time license PC-WPLC-LIVE <---> WinPLC programming pack (HMI creator and external I/O drivers not incl.)

#### Includes:

<--->

<--->

<--->

- · Flowchart logic
- HMI creator
- Reuseable subcharts
- Integrated serial communication
- Integrated motion control
- OPC Client and Server
- Modbus TCP & Modbus RTU Support
- PID process control (64 loops)
- Powerful debugging tools
- Offline logic testing
- · Common database for HMI, logic and motion
- Productivity Analysis tools
- WinPLC support
- Supports Windows 2000 and XP

#### Choose Live! when:

- 1) HMI requirements are moderate
- 2) No SQL is required
- 3) Projects are created by a single developer
- 4) Costs must be minimal

#### System requirements:

Recommended: Microsoft Visio 2002 Windows NT, 2000 or XP (Vista not yet supported) Pentium 133 MHz CPU, 2 MB VRAM, 64 MB (32 MB min with NT) RAM, 500 MB(NT)/2.31 GB (W2K) UDMA/SCSI HDD [300 MB (additional 130MB during install) for Live!, not including OS



#### The WinPLC is our lowest cost PC control solution

### The WinPLC, a hybrid PC/PLC solution

The WinPLC is a truly unique hybrid solution providing Think & Do PC control programming benefits on a PLC-style device. Develop applications with either Think & Do Studio or Think & Do Live! and download them to the WinPLC.

- Use a WinPLC when you need:
  - 1. The advantages of PC control: complex math, data manipulation and connectivity
  - 2. A PLC's rugged industrial form, non-volatile memory and standard PLC I/O
- Or when:
  - 1. A standard OI will suffice for your HMI
  - 2. You don't need a full power or priced PC

#### WinPLC CPU Modules

For both Think & Do Studio and Think & Do Live!				
WPLC	Memory	Price		
H2-WPLC2-EN	4 MB ROM/2 MB RAM	<> (100MHz)		
H2-WPLC3-EN	8 MB ROM/8 MB RAM	<> (100MHz)		

### Think & Do Live! for WinPLC Programming Pack (PC-WPLC-LIVE)

This package gives you just the programming features needed for the WinPLC at a low price. Includes flowchart logic, reusable subcharts, PID functions, serial drivers, Modbus TCP/IP and a free OPC/DDE server.

### Think & Do DataPak (PC-ENT-DAP) <--->

Think & Do Data Acquisition Pack toolkit enables programmers to create applications that acquire real-time data from a runtime system. Interfaces include OPC, DDE, and VB/C++ programming control. For the WinPLC (or other CE-based platform), this kit allows monitoring, starting/stopping a station, and up/downloading existing project files. No runtime licenses required. The PC-ENT-DAP is compatible with all versions of Think & Do Studio, Think & Do Live!, and Think & Do version 5.2 or later. See http://www.phoenixcon.com/software for more details.

3. multiple developers on same projects or sharing flowcharts on many projects System

### requirements:

**Recommended:** Microsoft Visio 2002 Windows NT, 2000 or XP (Vista not yet supported) 700+MHz PIII CPU, 256 MB RAM, 32 MB VRAM, 625 MB(NT)/2.56 GB (W2K) UDMA/SCSI HDD [560MB (additional 180 MB during install) for Studio & Visio, not including OS] Minimum: 128 MB RAM, 4 MB VRAM

#### Software

8 - 31

Other HMI
AC Drives
Motors
Steppers/ Servos
Motor Controls
Proximity Sensors
Photo Sensors

PLC Overview

DL05/06 PLC DL105

PLC DL205 PLC

DL305 PLC

DL405

Field I/O

C-more HMIs

P S

Limit Switches

Encoders

Current

Sensors

Process

Relays/ Timers

Comm.

TB's & Wiring

Power

Circuit Protection

Enclosures

Appendix

Part Index

Pushbuttons/ Lights

PLC

## **Think & Do Live! Overview**



# For control, HMI, motion, PID, and serial communications

Chances are you think your application out in flowcharts, so why not use them to program the control logic? Think & Do Live! is completely compatible with original Think & Do Development Software applications.

Think & Do Live! (PC-ENT-LIVE) is a full-featured control and Human Machine Interface (HMI) development tool. A common tag database and built-in HMI make Live! a great low cost PC-based control solution. Live! contains these features:

### Choose Live! when:

- HMI requirements are moderate
- Hardware costs must be kept low
- SQL communications are not required

#### Flowcharts for control

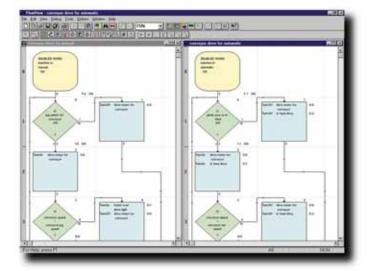
- Easy-to-use and easy-to-read flowcharts for control let you program like your machine or process operates, rather than one device at a time
- Subcharts (subroutine flowcharts) let you develop your logic once and reuse it on multiple projects
- Online changes are supported with graphical debugging to simplify troubleshooting your application
- Develop for Windows 2000, Windows XP and Windows CE platforms in the same environment

#### Built-in HMI with same database

- Full screen editor with over 2,000 bitmapped graphic symbols, such as buttons, lights, pumps, motors, conveyors, and tanks
- Single database for HMI and control functions means there are no communication errors
- Text, numeric display, messaging, and trend charts
- Import any bit map or metafile format graphics to display CAD drawings, company logos, or digital photographs
- Function key and touch screen support to give you flexibility in design

## Communicate to business systems

- OPC (OLE for process control) support allows easy connectivity to other standard software applications at host and ERP levels
- DCOM/COM for communications to other programs or for network communications
- OCX allows direct connections to Visual Basic®and C++ user programs
- Easy serial communication and string manipulation





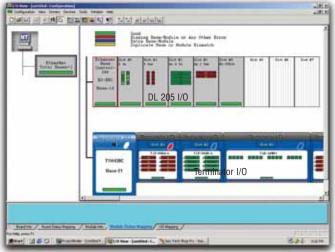
#### System requirements Windows NT, 2000 or XP

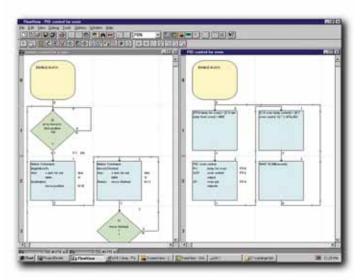
Windows NT, 2000 or XP (Vista is not supported) Pentium 133 MHz CPU or better 64 MB RAM 260 MB HDD (not including OS)

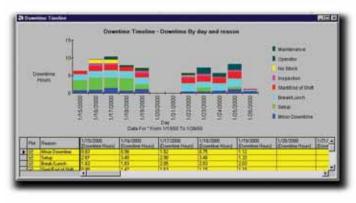
## Think & Do Live! Overview



## Lots of features for a little price







	Think & Do Live! Development & Runtime Lice	511303
	PC-ENT-LIVE	<>
	Includes one Live! development and	
	runtime license. Use to develop or modify	
	a Think & Do Live! project on a PC .	
	PC-ENT-LIVE-E	<>
	Live! Development/Runtime License with	
	1-year ESS (Extended Service Subscription)	
	ESS-ENT-LIVE	<>
	Live! Development/Runtime 1-year ESS	
	(Extended Service Subscription) only	
L	Note: This subscription cannot be purchased online.	
E.	Call us at (800)633-0405 to order. New keycode will be	
E.	Valid software serial number required at time of purchas	se.
L	UPG-ENT-LIVE	<>
E.	Live! Development/Runtime ugrade to	
E.	most current version	
L		<>
L	PC-WPLC-LIVE	<>
l	PC-WPLC-LIVE Live! programming pack for DL205 WinPLC	
	<b>PC-WPLC-LIVE</b> Live! programming pack for DL205 WinPLC CPUs. Includes one development license withou	
	PC-WPLC-LIVE Live! programming pack for DL205 WinPLC CPUs. Includes one development license withou PC-WPLC-LIVE-UPG	
	PC-WPLC-LIVE Live! programming pack for DL205 WinPLC CPUs. Includes one development license withou PC-WPLC-LIVE-UPG Upgrades from PC-WPLC-LIVE to the full	it HMI.
	PC-WPLC-LIVE Live! programming pack for DL205 WinPLC CPUs. Includes one development license withou PC-WPLC-LIVE-UPG Upgrades from PC-WPLC-LIVE to the full PC-ENT-LIVE Development/Runtime package	it HMI.
	PC-WPLC-LIVE Live! programming pack for DL205 WinPLC CPUs. Includes one development license withou PC-WPLC-LIVE-UPG Upgrades from PC-WPLC-LIVE to the full	it HMI.

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DL205 PLC DL305 PLC

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PIC

### Easy connection to I/O and serial devices

#### devices

- All I/O drivers are included, with virtually no limit on I/O tags including Ethernet, Profibus, DeviceNet and SDS
- Built-in serial communication block within the flowchart environment allows easy communication to barcode readers, drives, and other smart devices
- All motion drivers are included for both serial and PC-card based motion

## Integrated motion and PID control with easy-to-use flowchart blocks

- Common flowchart language for motion control independent of the motion card you choose
- All motion parameters accessible to flowcharts and screens
- Several motion drivers supported; check the Phoenix Contact Web site for the latest list
- Easy to synchronize motion and control with your flowchart logic
- 64 full function PID loops
- Advanced PID functions like cascaded loops, bumpless transfer, anti-windup and wildflow variables allow you to perform complex process control applications

#### Productivity analysis tools

- Downtime analysis monitor machine downtime by reason codes to identify production bottlenecks
- Cycletime analysis View machine cycle time by hour, shift or operator to enable you to increase machine and production yield
- Capacity analysis compare production yield versus maximum capacity to determine maintenance schedules, identify supply problems, or to justify new equipment purchases

#### Also includes

Powerful debugging and offline logic testing tools

Check out: www.phoenixcon.com/software for full details