

# Three PC Control Solutions using Think & Do

**1** **Studio**

Powered by **Visio**

## Think & Do Studio

- PC-ENT-SDD-USB <---> Studio Development/run-time license
- Runtime licenses
- PC-ENT-SDR-USB <---> Studio Runtime License
- PC-ENT-SRN-USB <---> Remote Screen Node

### Includes:

- Advanced Visio graphics
- Flowchart logic
- Superior HMI features
- Easy SQL interface
- Linked flowchart libraries
- Remote screen development
- Importing screens
- Project Sync, multi-user development environment support
- 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
- Productivity analysis tools
- WinPLC support
- Supports Windows 2000 and XP

### Choose Studio when you need:

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

**2** **Live!**

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]

**3**

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.

PLC Overview

DL05/06 PLC

DL105 PLC

DL205 PLC

DL305 PLC

DL405 PLC

Field I/O

Software

C-more HMIs

Other HMI

AC Drives

Motors

Steppers/Servos

Motor Controls

Proximity Sensors

Photo Sensors

Limit Switches

Encoders

Current Sensors

Pushbuttons/Lights

Process

Relays/Timers

Comm.

TB's & Wiring

Power

Circuit Protection

Enclosures

Appendix

Part Index

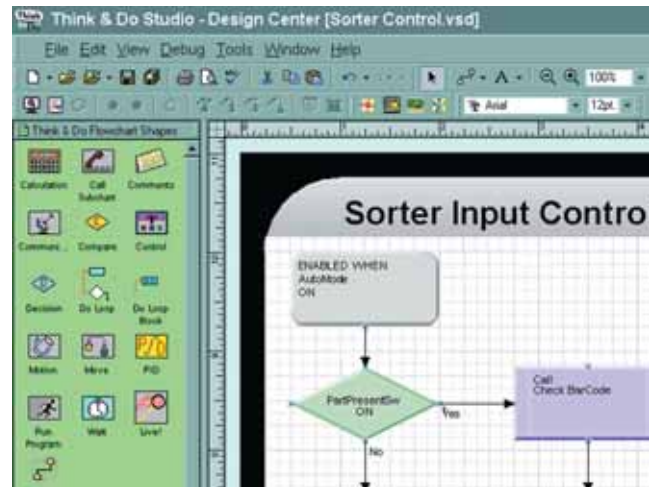
# Think & Do Studio Overview



Think & Do Studio is a comprehensive control and Human Machine Interface (HMI) development tool powered by Visio. A common tag database and rich development tools separate Studio from any other automation software on the market. Studio, based on Microsoft Visio 2002, contains three key components:

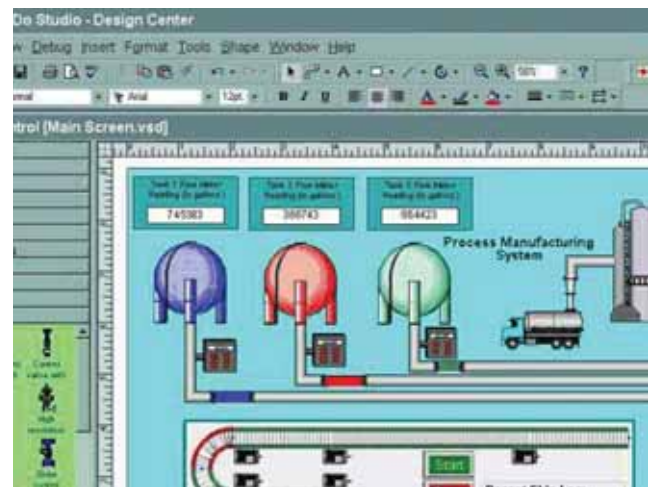
## 1. Studio Control Logic

A flowchart development tool for fast, intuitive control logic. The Studio Control Logic runtime engine executes the flowcharts on Windows 2000, Windows XP or Windows CE platforms (such as the AUTOMATIONDIRECT WinPLC and the CECIP panels from Phoenix Contact).



## 2. Studio HMI

A full-featured HMI development tool that also utilizes the power of Visio to create rich, data-powered screens, graphics and operator interface panels, with the same tag database used in the Control Logic component. Studio now includes over 3,500 smart shapes in 77 stencils with tools to help locate the shape you want. Universally display buttons or indicators across all HMI screens using background animations. Add Think & Do Remote Screen Node (PC-ENT-SRN) and turn a PC networked to the controller PC into a remote HMI.

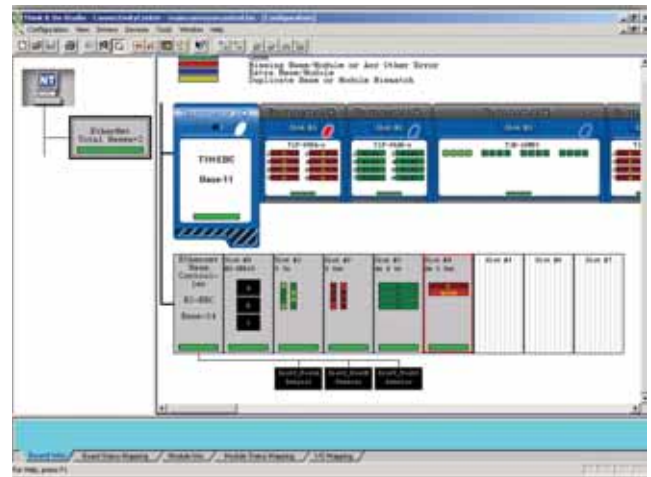


## 3. Studio Connectivity Center

A sophisticated network configuration and management tool that allows you to easily identify and instantly connect to system hardware.

- Re-use flowcharts across many projects from flowchart libraries with version control
- Add remote HMI screens anywhere on your network\*
- Over 3,500 new or improved smart shapes in HMI stencils
- Faster development with accelerated project builds
- Support screen background animations
- Supports SQL arrays

\*Remote PCs require Remote Screen Node (PC-ENT-SRN) package



# Think & Do Studio Overview

## Think & Do Studio Products:

### Think & Do Studio Development & Runtime PC-ENT-SDD-USB <---->

The complete development product. It includes a Studio development, runtime and Screen Node license. Use this license to develop or modify a Think & Do Studio project on a PC or WinPLC. A development station can run not only the control portion of the project but also any remote HMI screens developed for the project.

### PC-ENT-SDD-USB-E <---->

Studio Development/Runtime License with 1-year ESS (Extended Service Subscription)

### ESS-ENT-SDD <---->

Studio Development/Runtime 1-year ESS (Extended Service Subscription) only

### UPG-ENT-SDD <---->

Studio Development/Runtime upgrade to most current version

### Think & Do Studio Runtime License PC-ENT-SDR-USB <---->

A run-time-only license for operating systems. Once a project has been developed, the run-time license is required for each PC acting as a controller with the project. A runtime station can run local HMI screens but not those designated as remote screens. Stacking a development parallel port key on a runtime key will allow complete development capabilities for modifications/debugging on a runtime-only PC controller.

### PC-ENT-SDR-USB-E <---->

Studio Runtime License with 1-year ESS (Extended Service Subscription)

### ESS-ENT-SDR <---->

Studio Runtime 1-year ESS (Extended Service Subscription) only

### UPG-ENT-SDR <---->

Studio Runtime upgrade to most current version

### Think & Do Studio Remote Screen Node PC-ENT-SRN-USB <---->

Runtime License for remote HMI screens. Remote screens are developed under Think & Do Studio (PC-ENT-SDD-USB). This license allows one PC to attach across a LAN to the remote screens from one or more Studio projects running on a PC or WinPLC. Remote screens may be identical copies of local screens or entirely new HMI screens.

### PC-ENT-SRN-USB-E <---->

Studio Remote Screen Node License with 1-year ESS (Extended Service Subscription)

### ESS-ENT-SRN <---->

Studio Remote Screen Node 1-year ESS (Extended Service Subscription) only

## Think & Do Studio Features:

### Enhanced from Think & Do Live!

- Superior HMI features—now a best-in-class HMI creator
- SQL Interface — easy, direct ODBC communication integration
- Linked flowchart libraries
- Remote screen Development
- Includes screen Node Runtime License\*
- Importing screens
- Project Sync, multi-user development environment support
- Modbus Plus, Modbus TCP and Modbus RTU communication
- Integrated vision control
- Context sensitive Help

\*Remote Screen Node (PC-ENT-SRN) required on each remote HMI PC.

### Retained from Think & Do Live!

- Common database for HMI, logic and motion
- Integrated motion control — support for multiple motion vendors
- Powerful debugging tools — debug your program in real-time
- Offline logic testing — debug your logic wherever you are
- Integrated serial communication — built-in serial block easily captures serial data
- Supports Fieldbus I/O using Ethernet, Modbus TCP, Modbus RTU, DeviceNet, Profibus and more
- PID (64 loops) — easy fill-in-the-blank loop control
- Productivity analysis tools — easy tools to improve your profitability
- Develop unlimited applications for the WinPLC
- Includes Runtime License

## Think & Do Studio system requirements:

### Recommended:

700+MHz PIII CPU, 256 MB RAM, 32 MB VRAM, 2.56 GB (W2K) UDMA/SCSI HDD [560 MB (Studio & Visio), 740 MB (for install) not including OS] Microsoft Visio 2002 Windows NT, 2000 or XP (Vista not yet supported)

### Minimum:

128 MB RAM, 4 MB VRAM

All Studio packages include a USB port hardware key.

Let Phoenix Contact show you how Studio can work for you. Call them at 1-800-PC CNTRL, or visit their Web site at [www.phoenixcon.com/software](http://www.phoenixcon.com/software) for application testimonials and more detailed product information. For details on product support and upgrades, check out Extended Support Subscription (ESS) at <http://www.phoenixcon.com/software>

**Our customers report they have reduced their development time by 30-70% when compared to traditional solutions.**

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