Magelis *(Operator Terminal)*

...... Integrates perfectly into your automation systems

Introduction - Magelis Operator Terminal

XBT-H/P/E display units and terminal with alphanumeric screen are used to represent messages and variables. Various keys can be used to modify variables, control the device or browse in a dialogue application.

For models which have a printer output, the display units and terminals can also be used to print alarm messages and printout form pages. XBT-HM/PM terminals with matrix screen can also be used to display bitmap images and animated bar chart and gauge objects.

Control under all conditions

DNV · REGISTRO ITALIANO NAVALE · BUREAU VERITAS · Lloyd's Register · CE · CSA · UL

Class1

Selection Guide

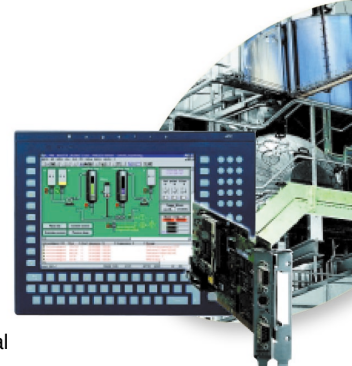| Terminals	Display units with alphanumeric screen	Terminal with alphanumeric screen		Display units with matrix screen	Terminal with matrix screen	Terminal with graphic screen	
Display Type	Fluorescent green matrix (5 x 7 pixels), height 5mm or Back-lit LCD (5 x 7 pixels), height 9mm	Fluorescent green matrix (5 x 7 pixels), height 5mm or Back-lit LCD (5 x 7 pixels), height 5mm		Back-lit monochrome matrix LCD (240 x 64 pixels) height 5.3 or 10.6mm	Back-lit monochrome LCD (240 x 64 pixels) height 5.3 or 10.6mm	Back-lit monochrome LCD (320 x 240 pixels) or 256 colours LCD STN with touch-sensitive screen (320 x 240 pixels)	Back-lit monochrome LCD (640 x 480 pixels) or Back-lit 256 colour TFT LCD (640 x 480 pixels)
Capacity	2 lines of 20 characters	2 or 4 lines of 40 characters		4 or 8 lines of 20 to 40 characters	4 to 8 lines of 20 to 40 characters	5,7"	9,5" (monochrome) (XBT-F02 only) 10,4" (colour)
Data entry	Display only or keypad with 4 function keys + 1 service key or 5 service keys	Keypad with 8 function keys + 9 service keys or keypad with 12 function keys + 10 service keys or 12 numeric keys	Keypad with 24 function keys + 10 service keys + 12 alphanumeric keys	Display only or Keypad with 4 function keys + 1 service key or 5 service keys	Via keypad 12 function keys 10 service keys 12 numeric keys 4 dynamic function keys	Via touch-sensitive screen 4 touch-sensitive keys (XBT-FC) / Via keypad 10 static function keys 8 dynamic function keys 12 service keys 12 alphanumeric keys	Via touch-sensitive screen 8, 12 and 16 touch-sensitive keys (XBT-FC) (1) / Via keypad 10 static function keys 10 dynamic function keys 12 service keys 12 alphanumeric keys
Memory capacity Application	128 Kb/256 Kb EPROM	256 Kb Flash EPROM	384 Kb Flash EPROM	384 Kb Flash EPROM	256 Kb Flash EPROM	8 Mb flash EPROM (by PCMCIA type II card)	
Extension using PCMCIA type II	_	_	_	_	_	8 Mb or 16 Mb	
Function Maxmium number of pages	100/200 application pages 128/256 alarm pages 256 printout form pages(1)	400 application pages 256 alarm pages 256 printout form pages(1)	800 application pages 256 alarm pages 256 printout form pages(1)	600 application pages 256 alarm pages 256 printout form pages(1)	400 application pages 256 alarm pages 256 printout form pages (1)	50 to 720 application, alarm, help and printout form pages depending on memory card used (512 alarms maxi)	30 to 480 application, alarm, help and printout form pages depending on memory card used (512 alarms maxi)
Variables per page	40	50			50	64	
Representation of the variables	Alphanumeria			Alphanumeric, bargraph, gauge	Alphanumeric	Alphanumeric, bitmap, bargraph, gauge, potentionmeter, selector	
Recipes	-				-	Maximum 125 records with maximum 5000 values	
Curves	-				-	16	
Alarm logs	Depending on model				Depending on model	Yes	
Realtime Clock	Access to the PLC realtime clock	Built-in		Access to the PLC realtime clock	Access to the PLC realtime clock	Access to the PLC realtime clock	
Alarm relay	No	Yes		No	No	Yes	
Communication Asynchronous serial link	RS 232 C / RS 485 / RS 422					RS 232 C / RS 485 / RS 422	
Downloadable protocols	Uni-Telway, Modbus, AEG and protocols for the following brands of PLC: Allen Bradley, GE Fanuc, Omron, Siemens					Uni-Telway, Modbus, AEG and protocols for the following brands of PLC: Allen Bradley, GE Fanuc, Omron, Siemens	
Buses and networks	AS-i with module at 22.5 intervals	_		AS-i with module at 22.5 intervals	-	Modbus Plus, Fipio/Fipway with optional type III PCMCIA card	
Printer link	RS 232 C asynchronous serial link (depending on model)				RS 232 C asynchronous serial link (depending on model)		
Design software	XBT-L1000/L1003/L1004			XBT-L1003/L1004 (under Windows 95 and NT4.●)	XBT-L1000/L1003/L1004	XBT-L1003/L1004(under Window 95 and NT 4.●)	
Operating System	Magelis			Magelis	Magelis	Magelis	
Dimensions	W202 x H102 x D57mm	W253 x H152 x D62.4mm	W292 x H202.5 x D65mm	W202 x H114.5 x D57.6mm	W253 x H155 x D62.4mm	W220.3 x H 265 x D84/ W197 x H147 x D92/W197 x H 147 x D96.6	W 296 x H 322 x D84/ W 296 x H222 x D84/W296 x H 222 x D95
Reference	**XBT-H**	**XBT-P**	**XBT-E**	**XBT-HM**	**XBT-PM****	**XBT-F01/F03/FC**	**XBT-F02/F03/FC**

(1) Depending on model

Remark: Graphic station for operator dialogue applications with combined processing, please contact Schneider Electric (HK) Ltd.

P13

Magelis *(IPC)*

...... An open window to control your automation systems

Introduction - Magelis IPC

Magelis IPC is a full and scalable range of rugged industrial
PCs offering a wide choice of:
- Panel PCs
- Box PCs
- Bundle package

The modular Control box (except the model without extension slot) comprises 3 main sub-assemblies:
- The processor board (2 models)
- The power supply with AC or DC current output
- The extension lots for PCI/ISA cards (3 or 6 slots)

Magelis IPC, pre-installed with Windows 2000 operating systems, can run Schneider Electric software tools such as:
- PLC programming: PL7, and Concept, etc.
- SCADA (Supervision Control And Data Acquisition), Vijeo Look, Monitor Pro or OFS Server (OPC factory Server) ,etc.

Architectures
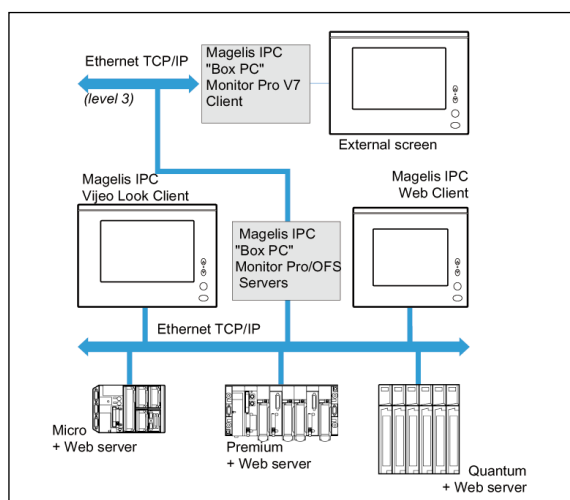
Serial link connections
Magelis IPC industrial PCs integrate 2 serial links complying with RS 232 (point to point link) and RS 422/485 (multiplink) standards. Using Uni-Telway and Modbus protocols ensure the straight forward implementation of communication with Schneider Electric PLCs.

Connection of Transparent Factory Ethernet architectures
The built-in Ethernet 10/100 Mbps port of Magelis IPCs (3) allows them to be integrated into"Full Ethernet" architectures such as Transparent Factory®, and thus ensures the links between levels 1, 2 and 3 for TCP/IP architectures.
Open to COM/DCOM, OPC standards (OLE for Process Control) and Web standards, the Magelis IPCs facilitate implementation of Client/Server solutions of the following types:
- Monitor Pro
- OPC Factory Server
- Web Client, in conjunction with FactoryCastWeb server modules embedded in the PLCs.
  Connection to mixed bus/network architectures
  - Fipway, Modbus Plus and Ethernet TCP/IP
  - Magelis IPC and PLC combined offer

Front panel screens

The Majelis IPC front panels for mounting on a Control box include:
- A 12" or 15" TFT active-matrix back-lit colour LCD screen, tactile or non-tactile depending on the model.
- An infrared irDA-compatible port
  A connector for the keyboard or mouse port complying with PS/2 standard and protected by a plug

  with the keybord model:
- A 70-key standard IBM Keyboard
- 2 x 10 user-configurable keys
- A tactile pointing device

Control boxes

The Magelis IPC Control boxes with either a 12" or 15" MPC N•2/N •5 front panel are equipped with:
- An Intel processor
- A minimum 200Mb hard disk
- 128Mb of RAM as standard extendable to 256Mb
- Removable CD-ROM drive (except on MPC AN0 2N • A 00N)
- A removable 3/12" floppy disk drive (optional for MPC AN0)
- A 10baseT/100baseTX Ethernet 10/100M bits/s TCp/IP port, (RJ45 connector)
- Two 12 Mbits/s USB ports
- Two COM serial ports (2RS 232 and/or 1 RS 422/485)
- One parallel port
- Pre-installed Windows 2000 operating system

Selection Guide

Screen size	Type of screen	Data entry by	Reference
12"	SVGA (800 x 600)	Keyboard	MPC NA2 0NNN 00N
		Tactile screen	MPC NT2 0NNN 00N
		Keyboard and tactile screen	MPC NB2 0NNN 00N
15"	XGA (1024 x 768)	Keyboard	MPC NA5 0NNN 00N
		Tactile screen	MPC NT5 0NNN 00N
		Keyboard and tactile screen	MPC NB5 0NNN 00N

Type	Processor	Slots for extension cards	Supply voltage	Reference
Small	Celeron 566 MHz	None	∼ 115...230V	MPC AN0 2NAA 00N (1)
			⎓ 24 V	MPC AN0 2NDA 00N (1)
Medium	Celeron 566 MHz	3 slots	∼ 115...230V	MPC BN0 2NAA 00N
			⎓ 24 V	MPC BN0 5NDA 00N
	Pentium III 850 MHz	3 slots	∼115...230V	MPC BN0 5NAA 00N
			⎓ 24 V	MPC BN0 5NDA 00N
Large	Celeron 566 MHz	6 slots	∼ 115...230V	MPC CN0 2NAA 00N
			⎓ 24 V	MPC CN0 2NDA 00N
	Pentium III 850 MHz	6 slots	∼ 115...230V	MPC CN0 5NAA 00N
			⎓ 24 V	MPC CN0 5NDA 00N

(1) Optional CD-ROM drive

Vijeo Look *(SCADA)*

...... Take a look at the HMI of tomorrow

Introduction - Vijeo

Vijeo Look is a SCADA (Supervision Control And Data Acquisition) Software package for stand-alone stations. It is based on open and standardized technologies.

Structure of the offer

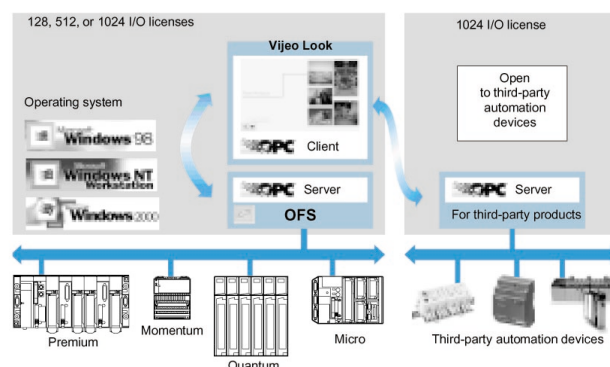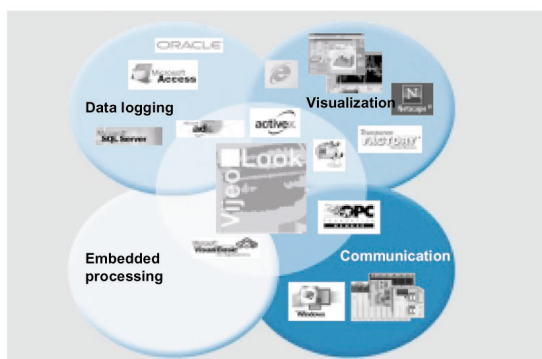Two types of software license are available for Vijeo Look:

- **"Build Time/Run Time"** for application development and execution.
- **"Run Time"** for the execution of applications created with a "Build Time"/"Run Time" license

The functions of Vijeo Look supervision software can be used for:

- Acquisition of PLC tags
- Visualization of these tags
- Process supervision and control
- Recording of the values of the PLC tags or internal tags of the process in a database
- Embedded software processing
  The Inputs/Outputs are tags from the OPC Server and are used for visualization and embedded processing
  Simple and innovative, Vijeo Look offers optimal solutions, while also opening the way, after migration of the application, to the use of Monitor Pro SCADA software.

Structure of the Software

Benefits

Development and visualization function

Tags can be visualized as:

- Values
- Animated color graphics
- Historical and real-time trend curves
  Process supervision and control are executed by the PLCs by performing:
- Updates of certain PLC data
- Diagnostics
- Acknowledgement of alarms

Diagnostics function

The diagnostics function enables the visualization and acknowledgement of alarms, whether these be alarms from the Premium platform's "Diag Buffer" or alarm-type OPC tags

Embedded processing function

It is possible to embed processing associated with certain steps in the process by using VBA *(Visual Basic for Application)* programs

Logging and traceability functions

The values of the PLC tags selected in the databases are recorded so as to meet process traceability requirements

Standard built into Vijeo Look

Vijeo Look is based on the following standards:

- ActiveX controls (including the WEB brower) (2)
- Java Bean component (2)
- OPC interface and OFS Data Server software for communication and exchange of data between PLCs and application (3)
- Mircrosoft Visual Basic for Application software for Data processing
- ActiveX Data Object interface for linking to the majority of databases on the market
- Laplink GOLD software for application transfer and maintenance

Selection Guide

Designation	No. of Inputs/Outputs	References
Type of Vijeo Look software license		
"Build Time/Run Time"	128 I/O	VJL SMD BTS V10M
	512 I/O	VJL SMD BTM V10M
	1024 I/O	VJL SMD BTL V10M
"Run Time"	128 I/O	VJL SMD RTS V10M
	512 I/O	VJL SMD RTM V10M
	1024 I/O	VJL SMD RTL V10M
"Build Time/Run Time" software upgrades	128 to 512 I/O	VJL UPG BTS 2M V10M
	128 to 1024 I/O	VJL UPG BTS 2L V10M
	512 to 1024 I/O	VJL UPG BTM 2L V10M
"Run Time" software upgrades	128 to 512 I/O	VJL UPG RTS 2M V10M
	128 to 1024 I/O	VJL UPG RTS 2L V10M
	512 to 1024 I/O	VJL UPG RTM 2L V10M

Software subscriptions for one year (1)		
Designation	No. of Inputs/Outputs	References
Vijeo Look "Build Time/Run Time" License	128 I/O	VJL CSP BTS M
	512 I/O	VJL CSP BTM M
	1024 I/O	VJL CSP BTL M
Vijeo Look "Run Time" License	128 I/O	VJL CSP RTS M
	512 I/O	VJL CSP RTM M
	1024 I/O	VJL CSP RTL M

Software subscriptions for one year (expired) (2)		
Designation	No. of Inputs/Outputs	References
Vijeo Look "Build Time/Run Time" License	128 I/O	VJL CSE BTS M
	512 I/O	VJL CSE BTM M
	1024 I/O	VJL CSE BTL M
Vijeo Look "Run Time" License	128 I/O	VJL CSE RTS M
	512 I/O	VJL CSE RTM M
	1024 I/O	VJL CSE RTL M

(1) Subscriptions intended for new users or users who wish to renew their subscription before the expiry date.
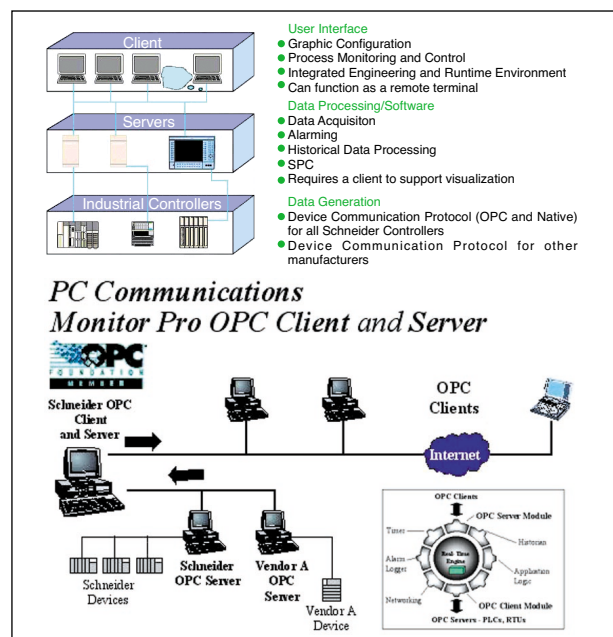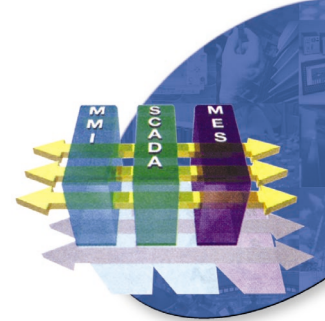(2) Subscriptions intended for users who hold an expired subscription.
Remark: For further information, please contact Schneider Electric (HK) Ltd.

Monitor Pro *(SCADA)*

...... Total integration between PLC & HMI

User Interface
- Graphic Configuration
- Process Monitoring and Control
- Integrated Engineering and Runtime Environment
- Can function as a remote terminal

Data Processing/Software
- Data Acquisiton
- Alarming
- Historical Data Processing
- SPC
- Requires a client to support visualization

Data Generation
- Device Communication Protocol (OPC and Native) for all Schneider Controllers
- Device Communication Protocol for other manufacturers

Introduction - Monitor Pro v7

Monitor Pro is a market leading software for object based Client/Server SCADA applications designed for today's open systems standards. It is built on USDATA's FactoryLink product foundation. MonitorPro has additional functionality added to the core to better meet the needs of Schneider Automation's customers.

Structure of the offer:
Servers: 256 I/O Server, 1024 I/O Server & Enterprise Server
Clients: "Development and Run Time" Client, "Run Time" Client & "Run Time" 1024 Client

Monitor Pro V7 software packages:
The version V7 Server bases are supplied in three languages (French, English and German) on 3 CD-ROMs comprised of standard software functions, Microsoft SQL V7.0, and the software options.
Server base functions include:
- Real-time database
- Alarm logging, Alarm server, scaling, hysteresis, math and logic functions.
- OPC client, DDE, FL-LAN, PAowerNet.
- Data logging (database logger and datapoint logger), Database Browser, dBase IV, ODBC, and SQL Server 7.0 database interfaces.
- File management, report generator, report management.
- Event and time interval management, print manager (print spooler), programmable counters.
- Drivers for communication port, "Adapter services", DigiBoard.
- Communication driver interfaces for Schneider Electric PLCs

Selection Guide

Base Software

MP SVR ENT	Mpro Enterprise Svr (Unlimited I/O & Tags)
MP SVR 1024	Mpro Server 1024 (1,024 I/O - 16,384 Tags
MP SVR 256	Mpro Server 256 (256 I/O - 4,096 Tags)

System Integrator Package

MP SYS	MONITOR PRO v7 SYSTEM INTEGRATOR PACKAGE

Demo Packages

MP DEMO	MONITOR PRO v7 DEMONSTRATION PACKAGE FOR SALES AND SUPPORT USE
MP C DEMO	MONITOR PRO v7 DEMONSTRATION PACKAGE FOR CUSTOMER USE

Upgrades

MP V7UPGS1	From a MPSVR256 server to a MPSVR1024 server. This upgrade allows an increase in the number of I/Os up to 1024.
MP V7UPGS2	From a MPSVR256 server to a MPSVRENT server. This upgrade will allow an increase in the number of I/Os to an unlimited number.
MP V7UPGS3	From a MPSVR1024 server to a MPSVRENT server. This upgrade will allow an increase in the number of I/Os to an unlimited number.
MP V7UPGC4	From a Runtime client linked to a 256 or 1024 size I/O server to a Runtime client linked to an unlimited size server. This upgrade will allow the connection of a Runtime client to a MPSVRENT server. This reference can accompany a MPV7UPG2 or MPV7UPG3 reference.
MP V7UPGC5	From a Runtime client linked to a 256 or 1024 size I/O server to a BuildTime client MPCAL. This upgrade will allow to convert a RunTime client to a BuildTime client.
MP V7UPGC6	From a RunTime client linked to an unlimited size server to a BuildTime client MPCAL. This upgrade will allow to convert a RunTime client to a BuildTime client.
MP FUPG 4	UPGRADE 4: 256I/O SYSTEM TO 1024 I/O SYSTEM This upgrade will increase the number of I/O from 256 to 1024 I/O.
MP FUPG 5	UPGRADE 5: 256 I/O SYSTEM TO UNLIMITED I/O - ENTERPRISE SYSTEM This upgrade will increase the number of I/O from 256 to Unlimited I/O.
MP FUPG 6	UPGRADE 6: 1024 or 4096 I/O SYSTEM TO UNLIMITED I/O - ENTERPRISE SYSTEM This upgrade will increase the number of I/O from either 1024 or 4096 to Unlimited I/O.

Options

MP CAL	MONITORPRO V7 NEW GRAPHIC CLIENT
MP ORC	NATIVE ORACLE INTERFACE FOR MONITOR PRO - SERVER SIDE OPTION
MP SYB	NATIVE SYBASE DATABASE INTERFACE FOR MONITOR PRO - SERVER SIDE OPTION
MP SPC	POWER STATISTICAL PROCESS CONTROL FOR MONITOR PRO - SERVER SIDE OPTION
MP CML	COMPILED MATH AND LOGIC FOR MONITOR PRO - SERVER SIDE OPTION
MP PSQ	POWERSQL ADVANCED BROWSER FOR MONITOR PRO - SERVER SIDE OPTION
MP PAK	PROGRAMMER'S ACCESS KIT LIBRARY (PAK, EDIPAK, CFGPAK) FOR MONITOR PRO - SERVER SIDE OPTION
MP ECI	ENHANCED COMMUNICATION INTERFACE (ECI) FOR MONITOR PRO - SERVER SIDE OPTION
MP ETM	EVENT TIME MANAGER (ETM) FOR MONITOR PRO - SERVER SIDE OPTION

MP DBT	DATABASE TERMINAL (DBT) FOR MONITOR PRO - SERVER SIDE OPTION
MP CALRT	MONITOR PRO V7: RUNTIME VERSION FOR NEW GRAPHICS CLIENT
MP 5CALRT	MONITOR PRO V7: RUNTIME VERSION FOR 5 NEW GRAPHICS CLIENTS
MP CAL1024RT	MONITOR PRO V7: RUNTIME VERSION FOR NEW GRAPHICS CLIENT
MP 5CAL1024RT	MONITOR PRO V7: RUNTIME VERSION FOR 5 NEW GRAPHICS CLIENTS
MP VRN	VIRTUAL REAL-TIME NETWORK (VRN) FOR MONITOR PRO - SERVER SIDE OPTION
MP VRR	VIRTUAL REAL-TIME NETWORK, REDUNDANT FOR MONITOR PRO - SERVER SIDE OPTION (REQUIRES VRN)
MP PSV	PROCESSVIEW FOR MONITOR PRO - SERVER SIDE OPTION
MP LNKR	OFS LINKER FOR MONITOR PRO - SERVER SIDE OPTION
MP MMI	MAN-MACHINE INTERFACE - REQUIRES MONITOR PRO CLIENT - CLIENT SIDE OPTION
MP DOC	BASE MANUAL SET FOR MONITOR PRO V7

Communications Drivers

MP ABA	ALLEN-BRADLEY ASYNC
MP ABR	ALLEN-BRADLEY DEVICE INTERFACE - RSLinx 2.00.97.30 Software and RSLinx Master Key included
MP ABT	ALLEN-BRADLEY DEVICE INTERFACE: RSLinx 2.00.97.30 (not included).
MP ABU	ALLEN-BRADLEY DEVICE INTERFACE -Upgrade to RSLinx 2.00.97.30 included.
MP ADT	ALLEN-BRADLEY NETDTL
MP AKT	ALLEN-BRADLEY KTDTL
MP BNT	BAILEY DCS
MP BRK	OPTO MISTIC BRICK
MP BRS	BRISTOL BABCOCK
MP DAN	DANIELS 2350
MP ESG	EAGLE SIGNAL
MP FLG	FL GEM SEMICONDUCTOR INTERFACE
MP IBI	EUROTHERM INTERNATIONAL
MP ROC	FISHER CONTROLS ROC
MP GEM	GEM 80
MP GEF	GENERAL ELECTRIC FANUC
MP LDN	LEEDS AND NORTHRUP
MP MEE	MITSUBISHI MECOM SERIAL AND ETHERNET
MP MES	MITSUBISHI MECOM SERIAL
MP MOR	MOORE APACS -REQUIRES MOORE API 4.0 OR HIGHER
MP ICI	MOORE ICI
MP OMR	OMRON HOSTLINK
MP OMV	OMRON V600
MP OPT	OPTO 22 OPTOMUX
MP PRO	PROFIBUS (INCLUDES IOXLATOR)
MP REL	RELIANCE AUTOMATE
MP SIR	SIEMENS 396R (INCLUDES IOXLATOR)
MP SH5	SIEMENS H1 S5
MP SIE	SIEMENS CP525
MP SGS	SECS WITH GW LIBRARIES RS232/SERIAL
MP SGW	SECS WITH GW LIBRARIES HSMS/ETHERNET
MP TIW	TEXAS INSTRUMENTS TIWAY
MP TI4	TEXAS INSTRUMENTS 305/405
MP SH7	SIEMENS H1 S5/S7(INCLUDES IOXLATOR)
MP S7D	SIEMENS S7 DRIVER
MP DRV SIE	ALL SIEMENS DRIVERS
MP DRV AB	ALL ALLEN-BRADLEY DRIVERS
MP DRV OMR	ALL OMRON DRIVERS

Remark: For further information, please contact Schneider Electric (HK) Ltd.

Programming Software

...... For IEC 61131-3 & 984 ladder logic development environment

PL7

Software	PL7 Micro	PL7 Junior	PL7 Pro
P/N	CDPL7MP42M	CDPL7JP42M	CDPL7PP42M
PLC Platform	Micro	Micro/Premium	Micro/Premium
Programming	Yes	Yes	Yes
Debugging	Yes	Yes	Yes
Adjustment	Yes	Yes	Yes
Instruction list	Yes	Yes	Yes
Ladder language	Yes	Yes	Yes
Grafcet language	Yes	Yes(with macro-steps for Premium)	Yes (with macro-steps for Premium)
Structured text language	No	Yes	Yes
DFBs function blocks	No	Use (for Premium)	Creation/use for Premium
Functional view	No	No	Yes (Premium)
Import/export of function modules	No	No	Yes (Premium)
Diagnostic DFBs	No	No	Yes (Premium)
Runtime screens	No	No	Creation/use

PL7 Selection Guide

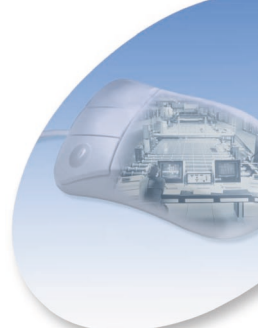| Reference	Description
TLXCDPL7MP42M	Programming Software PL7 Micro V4.2 for Micro.
TLXCD3PL7MP42M	Package for 3 Programming Software PL7 Micro V4.2 ror Micro.
TLXCDPL7JP42M	Programming Software PL7 Junior V4.2 for Micro AND TSX Premium.
TLXCD3PL7JP42M	Package for 3 Programming Software PL7 Junior V4.2 for Micro and TSX Premium.
TLXCDPL7PP42M	Programming Software PL7 PRO V4.2 for Micro AND TSX Premium.
TLXCD3PL7PP42M	Package for 3 Programming Software PL7 PRO V4.2 for Micro and TSX Premium.
TLXOTPL7PP42M	Software license PL7 Pro Open Team V4.2, including one year software subscription.
TLXOSPL7PP42M	The Team license authorizes the PL7 Pro installation on PC both locally from CD either remotly from one server through a network.*TLXOSPL7PP42M Software license PL7 Pro Open Site V4.2, including one year of software subscription.The Site license allows two exclusive modes of use :Mode 1 - PL7 Pro installation on PC both locally from CD either remotly from one server through a network. Mode 2 - PL7 Pro integration in a customer CD Master used in one site.
TLXSPL7PP42M	Software license PL7 Pro Served V4.2, including one year of software subscription. The PL7 Pro Served license allows exclusively the PL7 Pro Software installation on a server and the use in a Client-Server architecture.

Concept

IEC 61131-3 Programming Software from Schneider Electric is the key to all the benefits of Integrated Automation solutions. This applies to every sector of industry and to every application. Concept is Schneider's universal programming system that is designed to minimize your configuration, programming and maintenance costs.

Feature set	
- 5 IEC 61131-3 editors (FBD, SFC, LD, ST, IL)	- Online help
- 984 Ladder Logic	- Powerful search functions
- Industry leading free-form graphic editors	- Symbolic addressing
- IEC Program Upload	- Variable editor
- IEC Hot Standby Engine	- Debugging support
- Code encapsulation	- Built in communications
- Re-use of code/programs	- Data visualization
- Derived Data Types	- Diagnostic HMI
- Easy-to-use interfaces	- Integration of 3rd party devices

Concept Selection Guide

Reference	Description
372SPU47101V25	Concept S - Platform support: Momentum CPU's and Atrium CoPro. Programming language support: FBD, LD, ST, IL, and 984LL
372SPU47201V25	Concept M - Platform support: Same as Concept S plus: Compact CPU's Programming language support: Same as Concept S plus: SFC Additional features: Includes Concepts security tool
372SPU47401V25	Concept XL - Platform support: Same as Concept M plus: Quantum CPU's Programming language support: SFC, FBD, LD, ST, IL, and 984LL Additional features: Same as Concept M plus a programming library for fuzzy logic and a diagnostics library
332SPU47001V25	Concept EFB Toolkit - Software development kit for the creation of user defined function block libraries. English only.
Multi-User Packages	Please consult Schneider Electric sales representative about our "Multi User" packages.

ProWORX 32

Schneider Electric's new ProWORX 32 is the latest generation 984 Ladder Logic editor. It offers a comprehensive suite of PLC programming and configuration tools, providing everything an engineer needs to develop, maintain, and support a Schneider Electric Modicon PLC.

System Requirements The requirements for PC hardware and software are as follows:	
Operating Systems	ProWORX is compatible with the following operating systems for a PC; Windows 98, Windows NT 4.0 (service pack 5 or greater), Windows 2000, Windows ME, Windows XP Note: 98 and NT require IE 5.0 in addition
Minimum requirements for PC	P200 or greater CPU 128 Mb RAM 200 Mb free HDD space CD Rom drive SVGA
Hardware Compatibility	
Quantum	113/02, 113/03, 213/04, 113/02 rev 2 , 113/03 rev 2, 213/04 rev 2, 424/xx, 424/xx rev 2, 434, 434 12A, 534, 534 14A
Momentum	CPU's 700 00, 700 10, 760 00, 760 10, 780 00, 780 10, 960 20, 960 30, 980 20, 980 30
Compact	TSX/A120 CPU 120, 130, 131, 141, 145, 241, 245, 251, 255, 275, 285
Modicon Micro	CPU 311 00, 311 01, 311 02, 411 00, 411 01, 411 02, 411 03, 512 00,
Other	512 01, 512 02, 512 03, 612 00, 612 03, 612 04 Chassis Mount 984 A,B,X, Slot Mount 984 380,381,385, E385,480,485, E485,680,685, E685,780, 785, E785, 584 level 3 and 4, Atrium Controllers, AT Controllers, VME controllers and 484 replacement 984- 351, 984-455 CPU's

ProWORX 32 Selection Guide

Reference	Description
372 SPU 780 01 PSEV	ProWORX 32 SERVER
372 SPU 780 01 PSSV	ProWORX 32 SERVER SUITE (includes Client)
372 SPU 780 01 PDEV	ProWORX 32 OFFLINE/ONLINE Client
372 SPU 781 01 PONL	ProWORX 32 ONLINE Client
372 SPU 710 01 PLDV	ProWORX 32 LITE OFFLINE/ONLINE Client
372 SPU 784 01 LPUP	LEGACY PRODUCT UPGRADE TO NX32 Client
372 SPU 780 01 PSTH	ProWORX 32 - 3 MULTI-USER Client LICENSE
372 SPU 780 01 PSTE	ProWORX 32 - 10 MULTI-USER Client LICENSE
372 SPU 710 01 PLTH	ProWORX 32 LITE - 3 MULTI-USER Client LICENSE
372 SPU 710 01 PLTE	ProWORX 32 LITE - 10 MULTI-USER Client LICENSE
372 SPU 784 01 LPTH	LEGACY PRODUCT UPGRADE TO NX32 - 3 MULTI-USER Client LICENSE
372 SPU 784 01 LPTE	LEGACY PRODUCT UPGRADE TO NX32 - 10 MULTI-USER Client LICENSE
372 SPU 780 01 SITE	ProWORX 32 - Site USER Client LICENSE

Application Software Operating System Compatibility

Product	Operating System							
	MS DOS	Windows 3.1	Windows 95	Windows NT	Windows 98	Windows 2K	Windows ME	Windows XP
Modsoft 2.62	✓							
ProWORX	✓							
ProWORX Plus v2.0	✓							
ProWORX Nxt v2.2		✓	✓	✓	✓	✓		
ProWORX 32				✓	✓	✓	✓	✓
Concept v2.5				✓	✓	✓		
PL7 v4.3				✓	✓	✓	✓	✓
Vijeo Look 1.0				✓	✓	✓		
Monitor Pro 7.0				✓	✓	✓		
XBTL 1000 3.8			✓		✓		✓	
PanelMate 4.2		✓	✓	✓		✓		
OSG 1.5				✓		✓		
OFS v2.5				✓		✓		

Remark: For further information, please contact Schneider Electric (HK) Ltd.

Transparent Ready®

...... Internet-based technologies for the building/factory floor

Transparent Ready®

Q: "Why do I need Transparent Ready®?"
A: "With Transparent Ready® you can:

■ Use a common Ethernet infrastructure from manufacturing to MES
■ Gain competitive advantage through proven real-time performance
■ Reduce downtime through Web-based diagnostics
■ Create secure inter-plant communication worldwide
■ Cut training costs with everyday tools
■ Contain costs through open standards

■ Browse directly to your PLC
  Integrated Web server includes the following fixed home pages
  - PLC Configuration
  - Ethernet Statistics
  - Read 4X Registers
  - Read controller personality
  - Configured drops
  - Configured DIO
■ Use a standard Web browser
  - Netscape Netvigator
  - Microsoft internel Explorer
■ TCP/IP provides a seamless architecture for information exchange on the factory/building floor
■ Object-oriented software will organize inforamtion, regardless of run-time platform
■ Embedded servers will be the interface which allows the convergence of information technologies and PLC real time environments on the factroy/building floor

● Quantum NOE Module
  - 10/100 Mbps with autosensing (STP RJ45)
  - Fiber Optic (ST)
  - System diagnostics via Web server
  - SNMP Agent (standard MIB II)
  - Ethernet I/O Scanning without programming
  - BOOTP - System IP address management

● Premium TSX ETY
  - 10/100 Mbps with autosensing (FSTP RJ45)
  - Support of legacy protocols on TCP/IP-UNI-TE-MODBUS
  - I/O Scanner service
  - System diagnostic Web server
  - SNMP Agent (standard MIB II)

● ConneXium Switch
  - DIN rail mounting
  - No Fan (moving parts)
  - Signaling contacts for function control
  - RJ-45 shielded connectors for twisted-pair connections
  - Certifications
  - Connect up to five 10/100BaseTX auto-sensing devices

● Momentum ENT V2 Ethernet Communication Adapter
  - High speed communication rate-10/100 Mbps with auto-sensing
  - Support IEEE 802.3, Ethernet II, and Auto-detect framing
  - Support (SNMP) for device management over network
  - Auto-set half-duplex/full-duplex port operation
  - Automatic faulty Device Replacement(FDR)
  - Embedded HTTP Web Server with Password Protection
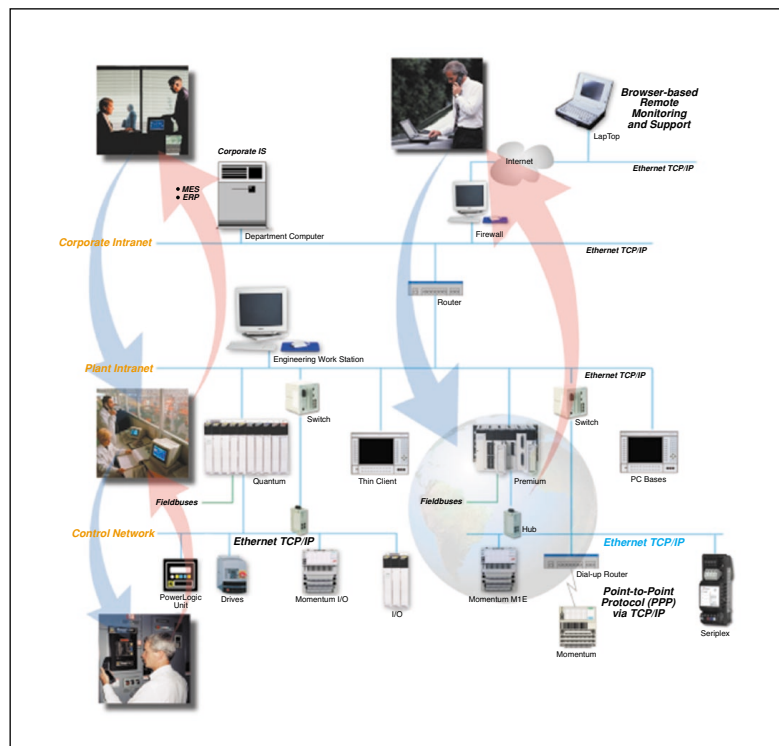 - Web Page based Configuration and Monitoring

Transparent Factory combines products from Schneider Electric along with other open, commercially available technologies.

Transparent Factory® Enabled Product Portfolio	
Servers	FactoryCast Servers for Quantum FactoryCast Servers for Premium FactoryCast Software OPC Factory Server
Ethernet TCP/IP Communication	ETY Module for Premium NOE Module for Quantum MODBUS Plus - Ethernet Bridge MODBUS - Ethernet Bridge
Ethernet Input/Output	Momentum Family
Programming Software	Concept PL7

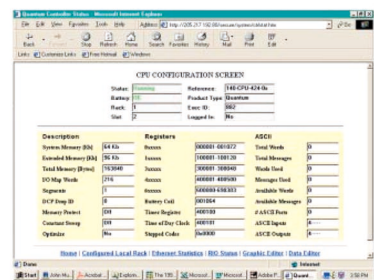Visit **www.schneiderautomation.com** for specific part numbers

Remark: For the information of ConneXium™ Hubs, Transceivers, Bridges, Repeater & Cables, please contact Schneider Electric (HK) Ltd.

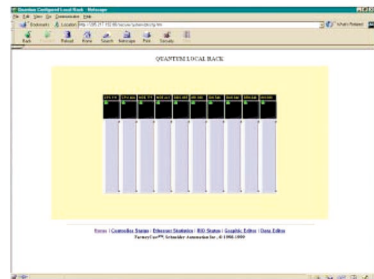## Accessing information in the Transparent Factory®/Building®

Transparent Factory®/Building®
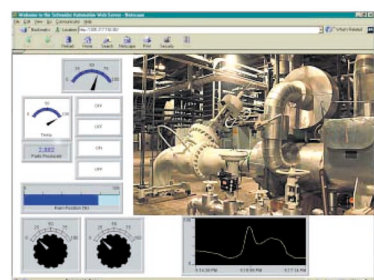Flexible view for monitoring and controlling your system

■ Access real time data for diagnostic purpose using predefined embedded web pages

■ Selecting a module in the predefined graphical representation of your controller provides another window into real time data

■ Custom design your own browser views into live data and controls using off-the-shelf web design software

COMMUNICATION STANDARDS

Schneider Automation uses an open data communications network called Modbus/Modbus Plus as the basis for the exchange of information among products on the factory floor.

The common language used by all Telemecanique Modicon Controller is the Modbus protocol. Modbus is the industry standard, with support from over 500 industrial suppliers. On-line programming or data acquisition applications are easily supported directly from the serial port of any computer. Modbus can be used in either a simple point-to-point manner with a pair of devices or in a network architecture with up to 247 slave devices.

Schneider also applies Ethernet to the factory floor by integrating two key communication functions into the PLC, for brower-based access to PLCs. The web functions include access to the controller's web page with standard Browsers, plus the ability to log into pre-configured device diagnostics, I/O configurations, on-line data templates and library tools.

Ethernet/TCP   The Ethernet network is a local-area network (LAN) protocol uses a bus or star topology, and supports data transfer rates of 10 Mbps (standard) or 100 Mbps (using the newer 100Base-T version). The Ethernet specification served as the basis for the IEEE 802.3 standard, which specifies the physical and lower software layers. It is one of the most widely implemented LAN standards.

Modbus   In a typical Modbus network, Modbus messages are sent over an RS232 asynchronous serial communication link (EIA standard). This makes it perfect for modem communications and ratio application where many others formats fall down. This link inputs and outputs data alternately rather than concurrently. The two modes of communication within Modbus are 10-bit ASCII and 11-bit RTU.

Modbus Plus   In a typical Modbus Plus network, embedded Modbus messages are sent over an RS485 communication link on a peer-to-peer, token-exchange type network.

Modbus/ TCP   Modbus TCP/IP is a variant of the MODBUS family of simple, vendor-neutral communication protocols intended for supervision and control of automation equipment. Specifically, it covers the use of MODBUS messaging in an 'intranet' or 'Internet' environment using the TCP/IP protocols. The most common use of the protocols at this time are for Ethernet attachment of PLC's, I/O modules, and 'gateways to other simple field buses or I/O networks. The MODBUS/TCP protocol is being published as automation standard.

Uni-Telway bus   The Uni-Telway bus is a standard means of communication between control system components (PLCs, MMI terminals, supervisors, variable speed drives, numerical controller, weighing equipment, etc)
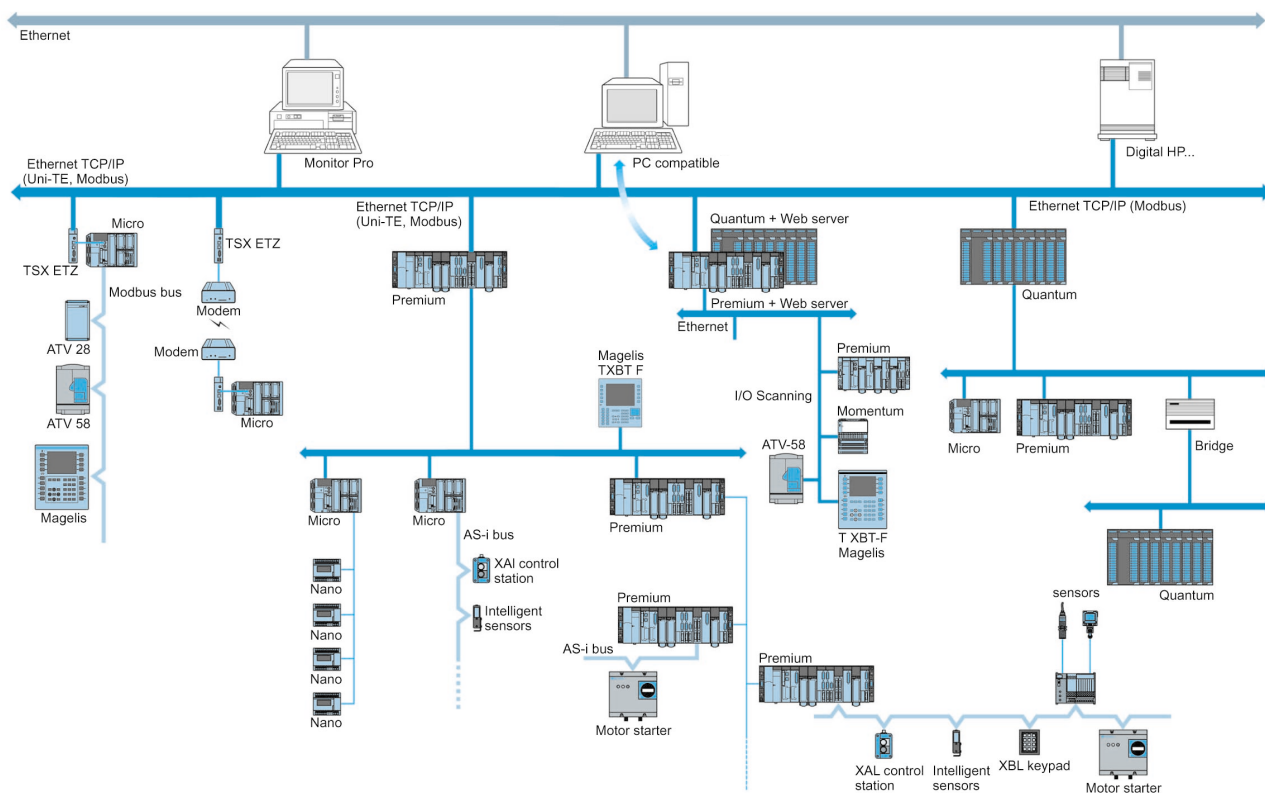
OTHER FIELDBUS NETWORK

As-i   Actuator Sensor Interface is a master/slave bus accepts up to 31 slaves. All the new components developed by Schneider Electric incorporate the latest AS-i functions and are compatible with previous versions.

CANopen   The CANopen bus conforms to the ISO 11898 international standard.

Fipio Fieldbus   The Fipio Fieldbus is a standard means of communication between different control system components. It enables 127 devices to be connected at the connection point integrated in the processor.

Interbus   Interbus is an open communications standard currently supported by over 200 equipment manufacturer with many devices products. Interbus-s is a high speed network designed to connect sensors, actuator, and control devices with programmable controllers and computer systems

Profibus DP   ProfiBUS DP is an open industry standard for integrated communications for a serial fieldbus that connects sensor, actuators, and I/O modules distributed on the plant floor to higher level control systems. ProfiBUS DP is the performance-optimized version of ProfitBUS.