

Automation platform

Unity

Reach *a higher state*
of automation



Simply Smart!*

At the very heart of Telemecanique's offer, Unity stands out as the new generation hardware and software automation platform. Its sheer **ingenuity** reduces development times and its processor **flexibility** offers greater execution performance. Based on **openness** and the collaborative use of tools, Unity has reached a higher level of software development and control system operation that puts your productivity first.

*Simply Smart: smarter and more intelligent, yet even easier to use

> **Develop**
Programming, debugging and operating software for automation applications.



Programming software

> **Collaborate**
VBA, VB, C++ programming interfaces.



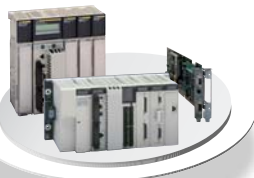
> **Generate**
Process design and applications generation.



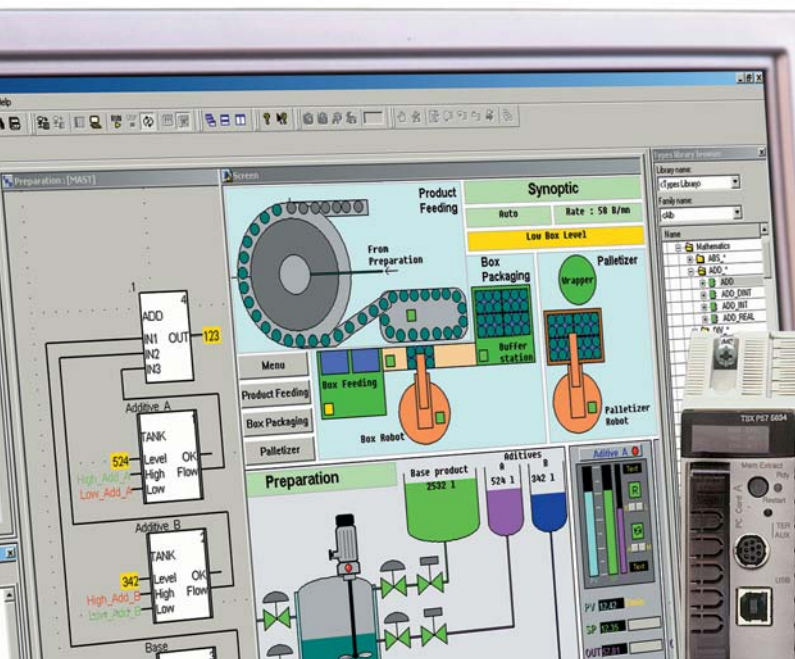
> **Orchestrate**
Projects management for "Collaborative Control" applications.

Specialized software

> **Operate**
Unity processors: Modicon Premium, Atrium and Quantum.



PLC





Schneider Electric is at the cutting edge of new technologies applied to the world of automation, and is committed, through Unity, to supplying the best open standards from the worlds of software and communication.



Premium, Atrium and Quantum

Telemecanique Modicon Premium, Atrium and Quantum PLC processors greatly increase their program and data memory capability when associated with Unity. They also provide the best program execution performance levels on the market, regardless of which IEC61131-3 language is used. A large majority of the existing set of I/O peripherals - application-specific modules, communication, fieldbuses - remain compatible. The Transparent Ready concept is optimized by integrating Ethernet TCP/IP and Web servers as standard.



Unity Pro

Unity Pro is the common IEC61131-3 programming, debugging and operating software package for Modicon Premium, Atrium and Quantum PLCs. Based on the acknowledged standards of PL7 and Concept, Unity Pro opens the door to a comprehensive set of new functions for achieving greater productivity and software collaboration. Its integrated converters re-use PL7 and Concept IEC applications. You can optimize your software investment, reduce training costs, and take advantage of Unity Pro's unparalleled potential in terms of compatibility and future development capability.



Unity Studio

Unity Studio is a multi-application project management software suite, incorporating Unity Pro, PowerSuite for drives and motor starters, XBT-L1000 for user interfaces and OFS for real-time communication. It offers application experts an engineering platform that can be easily adapted to their own development methodology. Microsoft Visio® is included for providing a graphic description of the process to be automated and the architecture topology. Unity Studio provides a high degree of productivity and consistency for synchronizing applications on Ethernet.



Unity Application Generator

For batch/process applications, Unity Application Generator (UAG) is the design and generation tool for PLC and HMI* integration. Based on a re-usable object approach (PID, motor, valve, etc) and compliant with standard ISA S88, UAG generates the PLC code and the elements required for the HMI system. Single entry of data ensures speed and consistency between the two systems. With this structured and modular design approach, UAG offers systems integrators a significant saving in terms of development costs and facilitates validation and maintenance of automation projects.



Unity Developer's Edition

With Unity Developer's Edition (UDE), Unity offers additional specialist software for IT development engineers in VBA, VB or C++. It provides access to all Unity Pro and Unity Studio object servers for developing made-to-measure solutions such as the creation of interfaces using an electrical CAD system or an automatic application generator.

*HMI: Human Machine Interface



Unity reliability

Reduce downtimes for optimum availability of your installation

Protect and control access to the application

- Operator profile defined from a list of functions
- Password-protected access
- Log of operator actions saved in a protected Windows® file

Direct access to process functions

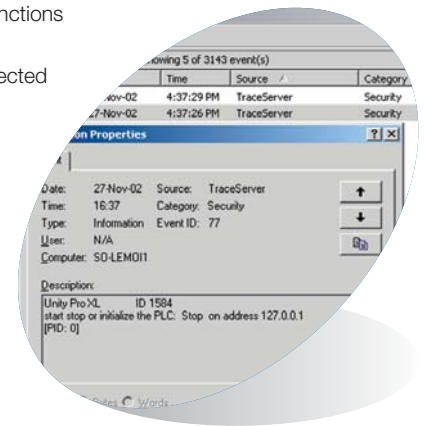
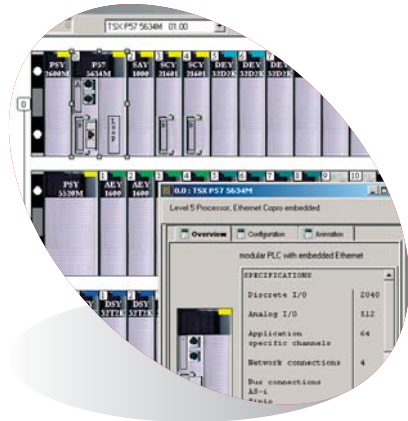
- Functional view of the application (process mapping)
- Animated graphic operator screens

Diagnose the origin of faults more quickly

- Search for missing conditions at source when faults appear
- Display application and system diagnostics with no additional programming
- Control and monitor the SFC program with Unity SFC View

High availability Modicon Quantum solution

- Hot Standby normal/standby configuration
- Event-based traceability
- Protection key
- Operating modes simplified by keypad screen integrated in the processor



Increased performance as a matter of course

Boost your productivity

Forget memory volume restrictions

- Greater program capacity (up to 7 MB)
- Program and data memory extension by PCMCIA cards
- Data storage up to 8 MB (traceability/recipe)

Better execution times

- Whichever IEC language is selected
- Multi-task system (master, fast, event-triggered and auxiliary)
- Shorter instruction processing and scan times
- Integration of diagnostics with no adverse effect on the scan time
- Exchange of all data in one PLC scan cycle for the Hot Standby redundancy solution





Directly from your field of expertise

Forget the PLC, just concentrate on the process

Structure and standardize your project

- Graphic description of the process using Microsoft Visio®
- Application-specific objects for PLC/HMI* integration and generation
- Functional tree structure of the project application
- PLC function modules containing program code, variables, operator screens and hyperlinks

Standardize your application-specific components for re-use in other applications

- Unlocated symbolic variables independent of memory
- Structured data and user function blocks
- Libraries with automatic program version and update management

Simplify operations from the design stage onwards

- Direct access to the application via functional views
- Hyperlinks for integrating specific documents and software
- Graphic operator screens that are animated by parameter entry

*HMI: Human Machine Interface



Automatically more productive

Spend less time programming, increase development efficiency and quality

An intuitive, customizable work environment

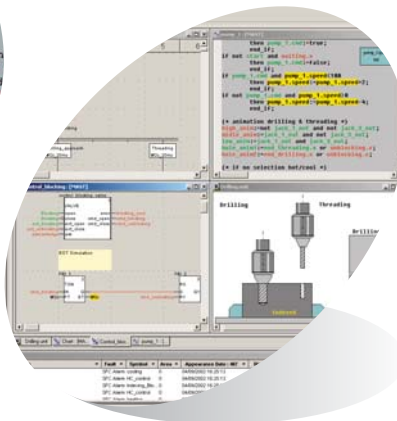
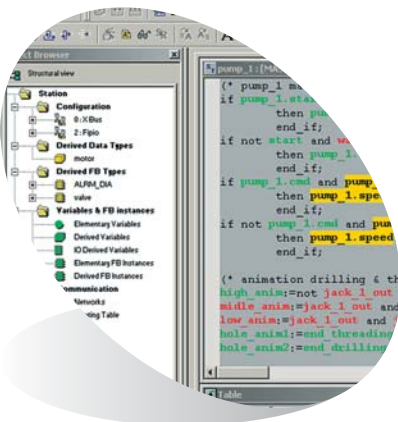
- Windows 2000/XP graphic interfaces
- Customizable icons and toolbars
- User profiles
- Graphic design of hardware configurations

Cut development times at all levels

- Integrated PL7 and Concept converters
- Automatic generation of synchronization variables on Ethernet (Global Data)
- 5 native IEC61131-3 languages
- Integration and synchronization of program editors, data, user function blocks
- "Drag & drop" reuse of library objects
- XML import/export and automatic data reassignment
- Automation of repetitive tasks using VBA macros
- "Plug & Play" Hot Standby redundancy system

Improved quality before installation on site

- Simulation of the PLC application program on PC
- All debugging tools are integrated and available during simulation
- Dynamic animation of the program and variables



Designed for openness

Unity, an open automation world without restrictions

The best open standards from the software world

- XML as application source format
 - Microsoft Visio® for project description
 - Visual Basic for Applications (VBA), VB and C++ programming interfaces

Transparent Ready architecture

- Integrated Ethernet TCP/IP link in Premium/Quantum
- Web server in the PLC
- USB link between the PC and the PLC
- E-mail transmission from the PLC (SMTP)
- SQL database access
- Time synchronization via Ethernet (NTP)

Integrated software openness

- XML import/export of all or part of the project
- Hyperlinks embedded in the application
- Customizable libraries of application-specific objects

“Collaborative Automation Partner Program” for developing solutions using Unity Developer’s Edition

- Creation of links between Unity and CAD tools
- Dedicated PLC variables and program generation function
- Dedicated Human/Machine Interface via Web browser

Effective solutions with the **Telemecanique** brand

The synonymous use of a combination of Telemecanique products offers you quality solutions capable of meeting all your application **control** and **automation** function requirements.



Schneider Electric Industries S.A.S.

Registered office

89, bd Franklin Roosevelt
F 92500 Rueil-Malmaison
Cedex FRANCE

www.schneider-electric.com
www.telemecanique.com

The products featured in this document are subject to change at any time with regard to appearance, performance or use. Their description can under no circumstances be deemed to be contractual in nature.
Design : Pema-Cohérents
Photos : Schneider Electric - Image bank

Simply Smart !