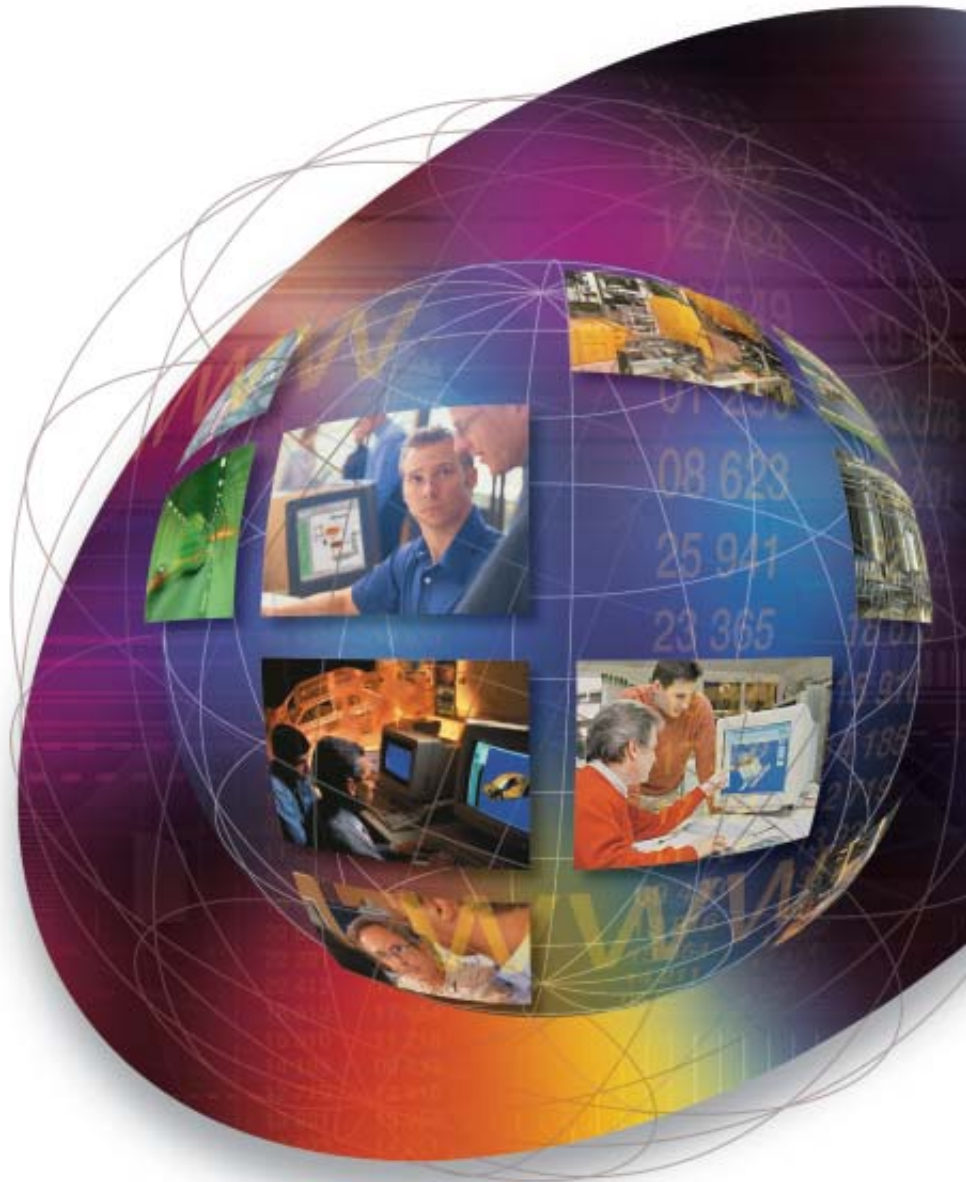


For your automation solutions
Collaborative Automation
Are you ready to take the
next step?



> Collaborative Automation

The new approach...



Welcome to the world of *Simply Smart** from Telemecanique.
 To meet customer requirements for performance, simplicity, modularity, openness and cost, Schneider Electric has drawn on its expertise to develop Unity.
 Discover Telemecanique's new range of automation software based on openness and collaboration at all stages in the life cycle of your applications. Used with *Transparent Ready*, Unity takes you into a new world of automation: *Collaborative Automation*.
 Exchanging data, freely connecting software tools, automating repetitive tasks, accessing information in real time anywhere in the architecture... the aim of *Collaborative Automation* is to maximize your productivity!

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

...automation solutions

Schneider Electric is at the leading edge of new technologies in automation and is committed, through *Unity* and *Transparent Ready*, to supplying and bringing you all the benefits of the best open standards from the worlds of software and communication.
 For all users and partners, this means unrivaled freedom and greater scope for development.

Transparent Ready

PLCs work together with total consistency...

Transparent Ready products operate on the universal Ethernet TCP/IP network, providing unlimited access to information on the web. Each product (whether PLC, distributed I/O, variable speed drive, HMI, energy manager, robot, etc) is capable of exchanging data in a coherent system of shared information based on Internet standards.

Unity

All participants share their expertise...

With Schneider Electric's range of Unity software, you can reap the benefits of new technologies at every stage of your automation project. Each expert shares data with others involved in the project (mechanical engineers, device engineers, electrical engineers, climate engineers, communication network architects, operator interface designers, etc).
 All participants in a project are able to focus on their own task rather than having to look for information and present it in a coherent format, thereby improving productivity.

Open to partners

An active partnership...

Make your preferred tools work together and benefit from interactive information sharing. Use the products available from Schneider Electric's partners and add your own functions to meet your specific requirements. Let XML and COM/DCOM standards optimize your solutions and boost your productivity.



> Collaborative Automation

Working together on the universal Ethernet TCP/IP network...



With Transparent Ready, the number of products that can be connected on the Ethernet TCP/IP Internet network is increasing all the time. Unity Studio, your new tool, can be used to structure your distributed automation applications on the basis of this very network.

Transparent Ready

Ethernet TCP/IP of course...

Ethernet TCP/IP is available as standard in Schneider Electric's PLC processor modules.

Their extended memory capacity is ideal for storing distributed data. From now on, open communication really will be at everyone's fingertips. It has been adapted to the realtime limitations of industrial automation using appropriate network services such as Modbus TCP messaging, I/O scanner, global synchronization variables, passband and network management, etc.

Unity Studio

The simplicity of Ethernet TCP/IP architectures...

Choose Unity Studio and in just a few clicks you can set up your project.

Use its graphic view to quickly position various stations in your Ethernet TCP/IP network (PLCs, HMIs, variable speed drives, PCs, 2.5 switches, hubs, etc), whether they are Schneider Electric or third-party products. Network IP addresses can be assigned without the risk of error. The various applications (PLC program, HMI parameter settings) are then assigned to these stations.

Global variables

Synchronize your applications automatically...

Variables shared by different automation applications in a single process can be exchanged efficiently on Ethernet using the global variables service.

The Unity Studio global variables editor enables you to declare, from a single source, public and subscribed variables and make them available to other stations on the network. And there is no need to worry about inconsistencies - Unity configures each station automatically.



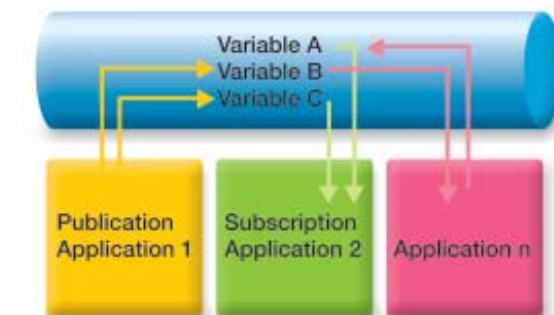
Ethernet in Premium and Quantum processors

The new Premium and Quantum PLC processors have a built-in Ethernet TCP/IP 10/100 Mbps connection and web pages ready for use in remote diagnostics.



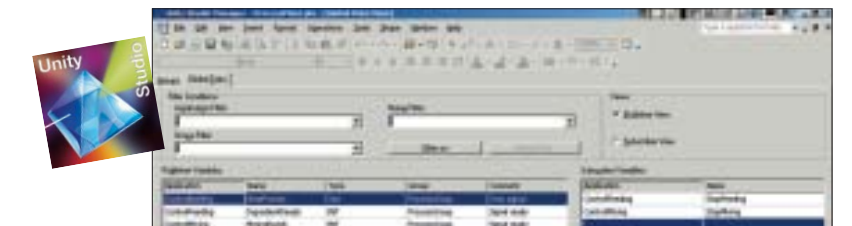
Principle of global variables

An application publishes synchronization variables and makes them available on the network. Data is exchanged in standard multicast mode, which limits the network load on Ethernet TCP/IP.



Unity Studio: Global variables editor

- Creation of groups of variables
- Single declaration of subscribed or public variables for each application
- Automatic generation in Unity Pro station files



> Collaborative Automation

Integrated openness for more productive development projects!



Enjoy the benefits of the new world of automation with Unity's inherent openness. Sharing data between those involved in the project is easy. Automate complex tasks and create your own functions.

Unity: The new way of working for increased user-friendliness and productivity!

Unity

Designed for openness...

Unity, Unity Studio (for structuring applications) and Unity Pro (for programming PLCs) software programs are inherently open. You can define hyperlinks for access to other computing tools or documents at any time. You can launch VBA macros to automate complex tasks, or exchange data in total freedom with other tools by means of standard format XML imports/exports.

Unity Studio

A warm welcome for your devices...

Add your own devices to the Unity Studio object catalog. These might be objects representing process functions (valves, cylinders, etc), automation components or network infrastructure elements. If you wish, you can create a simple XML description of the rules for these objects.

Unity Studio, Unity Pro

An active partnership...

No longer tied down by your tools, you will be free to concentrate solely on your application. Based on Microsoft Visio, Unity Studio is an open window on your usual tools (mechanical CAD, electrical CAD, supervisor, production management, process simulator, drive, etc). During the design phase, Unity Studio provides an interactive link between these tools, preventing duplicate data entry and ensuring consistency of the overall concept by means of shared views. Whether during operation or maintenance, Unity Pro allows you to access the right information, or the right person. The application browser includes the option of creating links to any document or tool, in either local or remote mode, thus providing access to diagnostic help texts or a database in real time.



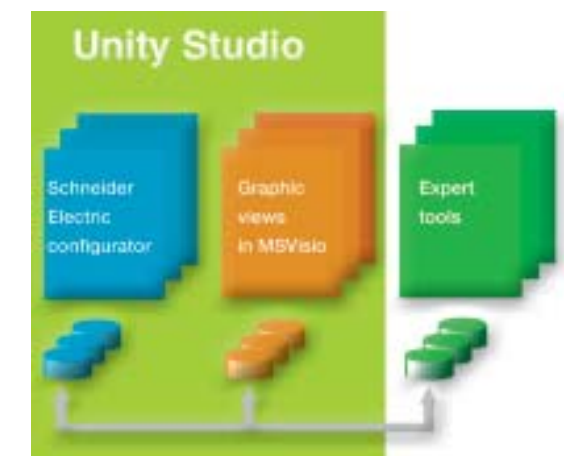
XML, the source application format

XML (eXtensible Markup Language) is the most common format for "eBusiness" transactions on the Internet. It supports the integration of third-party tools into Unity software. Its standardization on the Internet is guaranteed by the international organization W3C.

Unity Studio: A collaborative tool

Each tool and each function manages its own data:

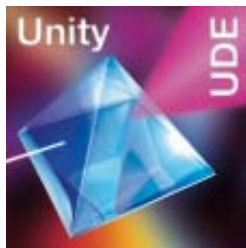
- Importing diagrams and objects from a CAD-CAM
- Exporting the functional tree structure to XML format
- Generating global variables from the Unity Studio editor to Unity Pro applications





> Collaborative Automation

Advanced openness for IT engineers



Unity Developer's Edition, a range of products and services designed for openness

Schneider Electric's Unity Developer's Edition software includes all the support and service you will ever need and has been developed to help you integrate tools or develop functions.

Unity is the common software platform for designing and managing automated processes.



Freedom of choice...

Unity Developer's Edition can provide you with a made-to-order solution. Your IT engineers can use this product to develop interfaces between Unity and your expert tools as well as specific functions, for increased productivity in design and optimum quality of the end result.

Unity Developer's Edition...

Unity Developer's Edition is open to partners.

It's up to you! Tools can be interfaced by the supplier in partnership with Schneider Electric (CAD for mechanics or electrics, supervisor software, application generation tools, MES and ERP, batch manager, etc), or you can take ownership of the design and implementation of interfaces and special functions.

IT development engineers who are familiar with C++ or Visual Basic, client/server applications, XML and COM/DCOM technologies as well as with database synchronization will find that Unity Developer's Edition provides them with access to all the Unity software object servers, training, documentation and any other sources of support they may require.

Using these very same mechanisms for its own requirements, Unity thus ensures the stability and durability of all interfaces developed.

Tools to match your imagination...

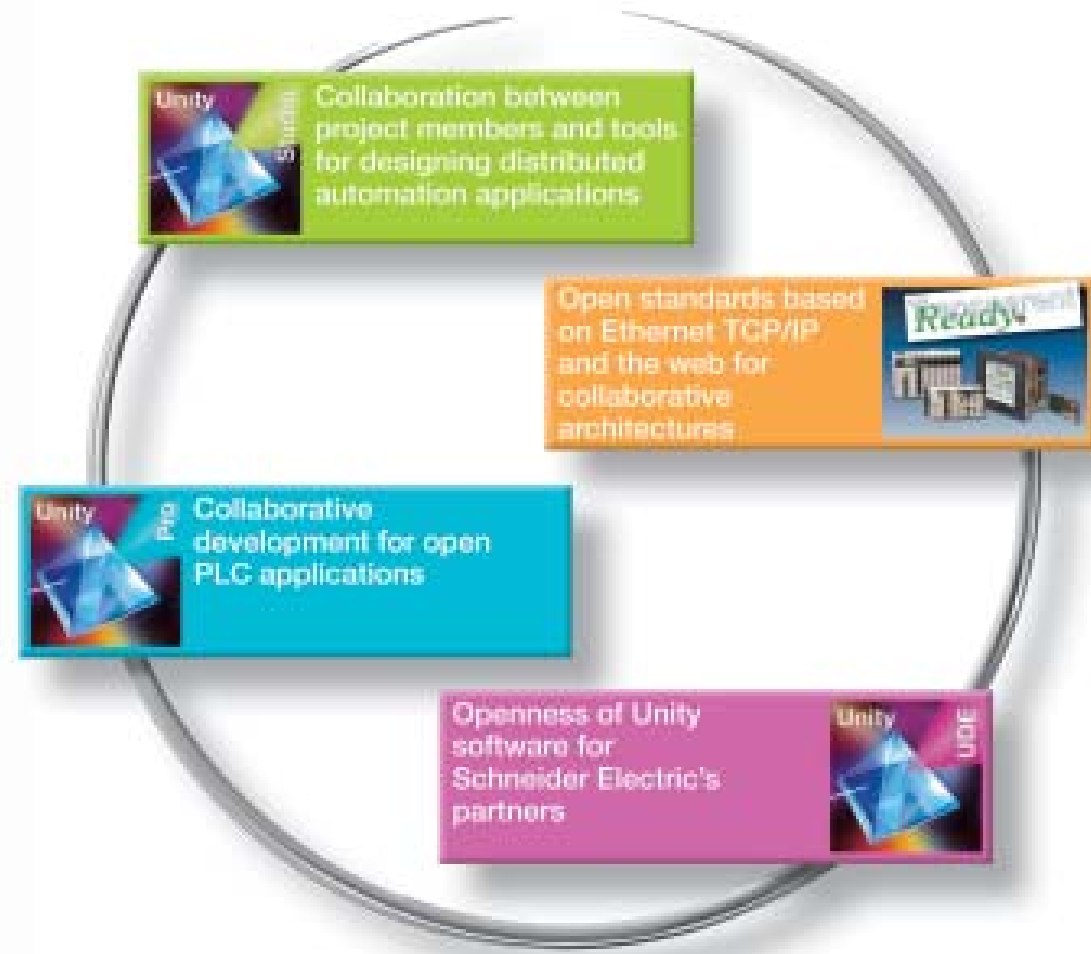
Examples of concepts set up with Unity Developer's Edition:

- Interface for an electrical CAD software program with Unity Pro (access to PLC I/O data)
- Special function for creating PLC codes and variables (using a valve in the P&ID view enables DFBs and PLC variables to be generated as well as supporting graphic animation of the user interface)
- Development of an application program integrated into Unity (a dedicated solution for water treatment)

> Collaborative Automation

For a more productive world

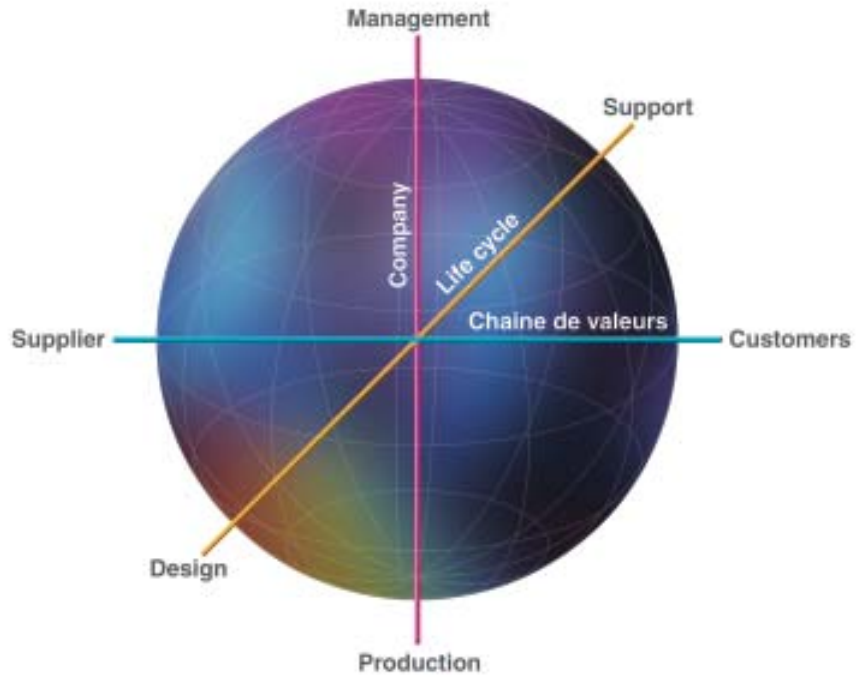
Exchanging data, freely connecting software tools, automating repetitive tasks, accessing information in real time anywhere in the architecture... the aim of Collaborative Automation is to maximize your productivity!



Collaborative Automation

A world without restrictions





ARC* “Collaborative Manufacturing Model”

Transparent Ready makes it possible to exchange data in real time between control system applications, anywhere in the company or its environment.

Unity and its Partner program encourage collaboration throughout the life cycle of your project.

**Advisory Group*