Control Maestro

Suite Overview

The advanced automation software development platform for the monitoring and process control of site-wide automation.

Open
your
Supervision

SCADA/HMI: the next-generation
Control and automation rises to a higher level

[Productivity]	Object-oriented platform
[Mobility]	Wireless asset telemetry and control
[Web]	Desktop mode (the same feature as layouts), provides flexibility
[Security]	Strong authentication: LDAP, Advanced alarm management, tracking…
[Future-proof]	Compliant with last OS: Windows 7, Windows 2008 Server (32 & 64 bit) and Windows Mobile
[Enterprise integration]	Ease integration with enterprise systems (Centralized definitions, administration, and connection to 3rd party systems)

ELUTIONS

ControlMaestro is a state-of-the-art software platform for site-wide automation that is **open**, **complete** and **scalable**.

It builds upon 22 years of Wizcon SCADA application experience and Web expertise with the field-proven, time-tested and reliable **Wizcon Supervisor** (9 generations) and upon 17 years of ELUTIONS M2M enterprise asset management experience and wireless technologies.

ControlMaestro leverages customer investments already made in over 60,000 deployed **Wizcon Supervisor** applications through a seamless migration path.

ControlMaestro the Complete Offering

1. Site Automation Platform

ControlMaestro™

The Web-based SCADA & HMI software with built-in ability to publish real-time information for viewing in Web browsers. This powerful, Web-enabled SCADA tool delivers real time and historical information from the plant floor to the boardroom and beyond. It provides full SCADA/HMI functionality for operator display on Windows XP Professional Edition SP2, Windows 2003 Server, Windows Vista, Windows 7 or Windows 2008 Server, plus the ability to publish the same information to any Web browser using ELUTIONS' award-winning Internet technology.
ControlMaestro can be associated with an alarm module or a scheduler, as well as a vast set of high-value options.

ControlMaestro offers the following key functions:
- Object-oriented design
- The Enterprise data management with **Database Logger**
- Video surveillance integration for added perimeter and process security at facility management applications
- Enhanced security and traceability in mission critical processes thanks to a far-reaching audit trail, database protection, station access restriction, centralized user management using LDAP and Active Directory, and strong multi-factor user authentication using leading-edge smartcards and/or biometry with fingerprint readers
- User mobility with high-performance Web-enabled remote access from anywhere via Internet.

CoDeSys (standard and/or option)

ControlMaestro's CoDeSys is a complete soft logic and/or soft-control solution that supports all six languages of the **IEC 61131-3 standard** for programming Programmable Logic Controllers (PLCs) and Remote Terminal Units (RTUs), and enables creating scripts and enhanced process control programs in the **ControlMaestro** application.
CoDeSys can also be used to program the ELUTIONS **WLC™** (**Wireless Logic Controller**), the industry's premier all-in-one Wireless PLC with over-the-air programmability and configuration:

- **CoDeSys Soft Logic** products offer communications capabilities with internal **ControlMaestro** tags only
- **CoDeSys Soft Control** products offer communications capabilities with both internal tags and PLC I/Os.

This dynamic tool is an open, standards-based solution that runs on all Windows 32-bit operating systems from Windows 95/98 to Windows NT/2000/XP/Vista/Windows7. It enables developing PC-based discrete control logic programs.

Web Scheduler™ (option)

ControlMaestro's **Web Scheduler** is a module that adds advanced Web-enabled task scheduling, enabling the easy creation of daily, weekly or monthly schedules that cause actions to occur. It supports unlimited number of local, network tags and number of users. It automatically changes tag values, adjusts HVAC actuation, controls lighting of buildings or facilities, changes alarm status or initiates a variety of other tasks – right from any Web browser – thereby minimizing energy consumption and equipment wear and tear, while controlling costs.

Notifier™ and NotifierVoice™ advanced alarm modules (options)

Alarm modules enable routing of important alarms via many media to users throughout the enterprise.

They offer unmatched capabilities and flexibility: alarm notification can be provided through email, SMS, voicemail, HTML, cell phones and pagers, as well as via fax and remote printers. Additionally, each alarm, or group of alarms, can be associated to a user or a team of users linked with a diary function, enabling the **ControlMaestro** application to easily manage escalation to the appropriate on-duty personnel. Users with optional Web client(s) can configure the **Notifier** timetable and access **Notifier** functions via the Internet.

There are two advanced alarm management modules for ControlMaestro:

- **Notifier:** The base alarm module enables sending alarms to remote printers, faxes, pagers, or via SMS and email systems
- **NotifierVoice:** The premium alarm module enables the same, also adding Text-To-Speech (TTS) voice synthesis, with the leading-edge premium-quality Lernout & Hauspie Real Speak (new version 4). (IBM ViaVoice is also included.)

Toolkit (standard)

The **ControlMaestro** Toolkit offers a set of APIs allowing C++, VB or Java developers to build custom programs around the product for specific project needs.

2. ControlMaestro Network Capabilities

ControlMaestro's network capabilities include high-performance Web and PDA integration for full remote functionality, as well as built-in redundancy master-backup features for robust security.

Redundancy and Hot Backup (standard)

ControlMaestro includes hot backup capability as standard. This functionality consists of two identical SCADA stations connected to the same PLCs and/or I/Os. One **ControlMaestro** station runs in master mode and samples data while the other station remains in standby mode. If the master fails, the backup station automatically takes over all functions including communication over the network. Once the master recovers, the backup station stops sampling data and updates the historical files of the master. In normal operation, both stations can be used as operator stations. Any **ControlMaestro** model is able to run as a hot backup station, including runtime licenses. The only requirement is that the application running in the master and backup stations should be one and the same. There is no extra cost for this valuable feature.

Web Clients (option)

ControlMaestro can accommodate several hundred Web user clients to enable remote access to **ControlMaestro** monitoring, visualization and control, as well as alarm and shift management capabilities, through a standard Web browser, via the Internet. **Web Clients** are one of **ControlMaestro**'s key differentiators. To evaluate the full benefits of this high-value functionality, a 2-hour demo mode is available free of charge. To evaluate the powerful capabilities of the Web Clients, simply run **ControlMaestro** in demo mode (without the plug).

3. ControlMaestro connectivity

ControlMaestro's connectivity modules include the industry's most powerful BACnet implementation, versatile Oracle and SQL connectivity, over 160 drivers, an OPC DA Server and an OPC HDA Server, which can be complemented by various M2M hardware products such as communication modems, wireless controllers, telemetry/pulse meters, etc. from ELUTIONS.

BACnet suite™ (option)

ControlMaestro's leading-edge **BACnet integration** features a communication driver, an automated tag generator, a user-friendly management interface, and full integration with **Web Scheduler**. The module enables the upload, editing and download of time-switched programs for all BACnet devices (over 180 BACnet-compatible manufacturers), the complete object-oriented remote configuration/maintenance of a BACnet network and its deployed devices, and tag generation both online and offline from external *.EDE or *.CSV files.
ControlMaestro support natively all objects type and services related to the B-AWS class (**B**ACnet **A**dvanced **W**ork**s**tation). It supports BACstac 6.

Database Logger™

In standard, **ControlMaestro** enable storage of historical Tags and alarms data into SQL Server database. For specific needs and upon request, ELUTIONS can develop a specific tool allowing the export of these **ControlMaestro SQL historical data** to an external database with another format.

SQL™ (standard)

ControlMaestro's SQL is a module that enables you to develop any type of connection to standard database applications and simplifies the task of creating accurate, informative reports such as production or energy monitoring, quality analysis, etc. This module allows the development of SQL scripts to enable real-time exchange of real-time or historical data with any database service.

Drivers (standard or option)

More than 160 drivers enable **ControlMaestro** to be truly interoperable with hundreds of devices, new and legacy. And new drivers can be written, so **ControlMaestro** can universally connect to virtually all devices, current and future. The majority of drivers are free of charge, with a few exceptions offered for sale.

OPC DA and HDA Servers (options)

ControlMaestro's **OPC DA Server** enables making **ControlMaestro** act as a Data Access Server to provide application data to other external clients.
ControlMaestro's **OPC HDA Server** enables making **ControlMaestro** act as a Historical Data Access Server to provide application data to other external clients.

4. Security strengths

Video Surveillance Integration for single-application Facility Management (option)

ControlMaestro enables the integration of video surveillance streams for all-in-one Facility Management applications. This enables **ControlMaestro** to provide native support for video streams, an open distributed IT architecture, as well as the capability to display/manage a Virtual Matrix (up to 32 image streams), control the camera (PTZ pan/tilt/zoom), instant replay, record and access archive, and alarm management. Additionally, Video Analytics technologies enable detection of objects, humans, animals and abnormal activity.

Audit Trail (standard)

This module enables the development of applications that comply with **FDA 21CFR Part 11 security norms**. It is used to track user actions, user management actions, and group management actions. In **ControlMaestro**, its scope has been expanded four times to track more than 30 possible items.

LDAP connectivity to Active Directory (option)

This module is used to achieve secure, enterprise-level, centralized user management using a connection to a Microsoft Active Directory.

5. Application generators and Development facilitators

ControlMaestro's development facilitators are modules to accelerate development while reducing cost and human error. They were created to optimize engineering time, by ELUTIONS qualified and trained engineers. These development facilitators include application generators, tag importers/generators and application **Audit tools**.

CAD Converter™ (option)

ControlMaestro's **CAD Converter** is a very powerful tool to convert AutoCAD® and any *.DXF building drawings into **ControlMaestro** Facility Management applications (BMS/FMS) for Building Automation. The software automatically creates images, animations, tags and alarms in **ControlMaestro**, saving hundreds of hours of engineering. It is most valuable for the development of new BMS/FMS applications (e.g. a busy System Integrator can create multiple projects), and/or for the maintenance of constantly-evolving complex applications (e.g. airports, hospitals, etc.) which can be modified "on the fly".

DB Generator™ (standard)

ControlMaestro's **DB Generator** is a tool designed to accelerate application development by facilitating the process of object and database generation. It can be launched from the Application Studio. The **DB Generator** allows selecting data points in a driver with browsing capabilities (OPC and BACnet drivers) and defining mapping rules to import these data points into **ControlMaestro**, automatically converting them into **ControlMaestro** Objects. This module enables an application developer to quickly create PLC tags by browsing data items in a driver.

Audit Tool™ (standard)

ControlMaestro's Audit Tool is a useful cross reference tool that enables auditing of **ControlMaestro** applications and generating project documentation in various formats. It significantly enhances engineering and project efficiency. Developers seeking a deep understanding of an application can search for variables and their uses, using either of two modes: tag-oriented audits, or module-oriented audits.

6. Reporting tools

ControMaestro's reporting tools facilitate the flow of information inside an organization, timely and accurately. These include a simple **Web-based Activity Summary** and a full-featured Excel-based reporting engine.

Web Activity Summary™ (option)

ControlMaestro's **Web Activity Summary** enables creating secure, Web-based summaries of **ControlMaestro** application activity (from charts, tag values/history viewer, alarms/event summary, and **audit trail** records) over a chosen period of time.

Excel Reporter 8.0 (option)

ControlMaestro's **Excel Reporter** allows simple, fully-automated and cost-effective Microsoft® Excel®-powered reporting. **Excel Reporter** is the complete, professional reporting solution for **ControlMaestro**. It allows anyone, with just basic knowledge of Excel, to fully automate the report-generation process and the distribution (without Excel needed) of the right report to the right recipients, in the right format, at the right time.

ControlMaestro's **Excel Reporter** is a professional, comprehensive reporting solution that includes as standard features the options for which competitors often charge extra: sample reports by industry, real-time/historical/relational reporting, aggregate calculations, on-demand reporting and automated background scheduled reporting, iterator for re-using results of previous reports as input for other reports, data analysis and SPC, secure viewer for viewing reports without Excel, PDF publisher and PDF vieweemailedmated emailer, webpage publisher, automated report-website creator/director...

You want only the best...

Don't settle for anything less.

Discover ControlMaestro today!

Download ControlMaestro now and test it for yourself, in your own environment.
Free evaluation version runs full-featured for 2 hours.

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