

# SCADA HMI SOFTWARE

## GENERAL DESCRIPTION

Winlog Pro is an easy to use, flexible and convenient software package for the development of SCADA HMI applications with a Web Server support. An integrated development environment provides a set of tools for the easy and intuitive creation of multilanguage applications. Development tools include the popular libraries Symbol Factory 2.5 (static graphical symbols) and Industrial Gadgets ActiveX (animated graphical objects). An extensive library of drivers supports most communication protocols (OPC, Siemens, Omron, Allen Bradley, Modbus RTU, Modbus TCP, KNX, etc.) with electronic devices such as PLCs, controllers, indicators, etc. History files in CSV format and ODBC support provide an interface to the most common Windows applications (Excel, SQL, etc.). A simple programming language allows application enhancement and customization. Winlog Pro makes it possible to set up distributed Client/Server architectures on Intranet/Internet networks or to create web applications accessible from Internet Clients with a simple browser.

WINLOG

## MAIN FEATURES

- MULTI-LANGUAGE SCADA HMI APPLICATIONS
- THOUSANDS OF SYMBOLS AND ANIMATED OBJECTS
- PROTOCOLS MODBUS, SIEMENS, OMRON, KNX, ETC.
- OPC CLIENT INTERFACE AND ODBC SUPPORT
- HISTORY FILES EXPORTABLE IN CSV FORMAT
- INTEGRATED PROGRAMMING
   LANGUAGE
- DISTRIBUTED CLIENT/SERVER
   ARCHITECTURES
- APPLICATIONS WITH WEB
   SERVER SUPPORT

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Development tools include Symbol Factory 2.5, the popular library of graphic symbols for industrial automation with over 5,000 manufacturing and industrial objects such as pumps, valves, motors, tanks, PLCs, piping, ISA symbols, etc; an integrated editor allows resizing and changing colour, scheme and orientation of objects (bitmap or metafile). Development tools also include two libraries of animated graphic objects: Industrial Gadgets ActiveX Basic Edition, with animated objects both digital (buttons, switches, leds) and numeric (pointer indicators, potentiometrs, led displays) and Industrial Gadgets ActiveX PRO Edition, with complex animated objects such as motors, pumps, valves, tanks, pipes..

### **CLIENT/SERVER ARCHITECTURES & WEB SERVER SUPPORT**

## **OVERVIEW**



Distributed Client/Server architectures can be set up on Intranet/ Internet networks; several Winlog Pro applications installed on remote stations can communicate to each other via a TCP/IP protocol. Multi-master structures can be defined so as to allow both reading and writing between the various stations. It is also possible to create supervisory applications with a Web Server support, hence accessible from any Internet Client with a simple browser. Two different solutions are provided to allow you to access the Server application: Web Client solution to access the Server from fix devices supporting Java technology, and Smart Client solution to access the Server from mobile devices such as Smartphones and Tablets equipped with iOS, Android or Windows Phone.



Each menu item, template, tag, etc., can be protected assigning the groups authorized to access it and those who can modify it. A name, password, and membership of one or more groups can then be defined for an unlimited number of operators. Every operator's action that has produced a data modification is recorded in a history file by date, time, event description and operator's name. This makes it possible to determine the causes of any irregularity in the operation of the system resulting from an operator action.

### **EVENTS & ALARMS**



Events and alarms are types of gates activated or deactivated in relation to the value of an associated reference tag. A dedicated area of the screen allows an instantaneous display of alarms. Access to online information (active or not managed events) and historical (event beginning and end) is organized according to capability). In addition to date and time, any event can be associated with the value of multiple gates in order to provide a picture of the state of the system at the time of the onset of the event. Simple code routines allow sending of emails or SMSs on the occurrence of particular events.

RECIPES



Recipes are sets of characteristic values of a particular working process or a specific setting of the machine. It is possible to create several recipe models, each of which refers to a set of process variables (gates). Variables can be grouped together to allow application of joint actions. For every recipe model, it is then possible to create several recipes, each of which is made of a set of values assigned to the process variables defined in the recipe model. You can create, rename or delete both recipes and recipe models. You can also create new recipes by importing values directly from the process. You can send a recipe to the process manually (on operator request) or automatically (on software start-up), or following a trigger condition (e.g. in batch processes).



Reports contain a collection of historical information (production data, process quality, alarms) to be directly examined by production managers or imported and processed later by other Windows applications (e.g. Excel). In the first case reports are explanatory documents, drawn up in a predefine format, available different freely assignable classes (e.g. priority, location, on screen, printed or saved on disk as pdf files. In the second case, reports consist of files in a CSV format with data records registered at predefined time intervals. Reports can be either requested by the operator, or automatically generated on a cyclic basis (time interval, day of the week, etc.), or triggered by a specific condition (e.g. production end).





Trends give a graphical representation of monitored and recorded tags over time. It is possible to display simultaneously up to 10 trends relating to tags of different types, each with its own colour and scale. Various display options are available for trends (grid, line thickness, type of interpolation), backgrounds (colour, font) and positioning of the various elements (legend, buttons, cursor coordinates). It is possible to shift backwards and forwards the time axis, change scale, zoom the image or display the values of all tags plotted according to time coordinates.



# **SCADA** HMI SOFTWARE



**GATE BUILDER** 

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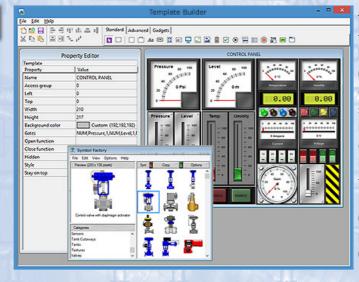
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### Finestra Guida **PROJECT MANAGER**



Project Manager is the integrated development environment that provides different tools (Gate Builder, Template Builder, Code Builder, Application Builder) for the easy and intuitive creation of any Winlog Pro application.

### TEMPLATE BUILDER



Template Builder is the tool for an easy and intuitive creation of templates and display pages; all you have to do to build a template is to arrange on the screen the objects (bitmaps, metafiles, text, values, status bars, leds and control icons) and to define their properties (dimensions, styles, associated tags, etc.). Each object of the template can be assigned to a control that allows access only by the class of operators with a specific password level. Template Builder includes graphical libraries for industrial automation with thousands of static symbols (pumps, valves, motors, tanks, PLCs, piping, ISA symbols), animated objects both digital (buttons, switches, leds) and numeric (pointer indicators, potentiometrs, led displays) and complex animated objects (motors, pumps, valves, tanks, pipes).

# TOOLS

# (sampled from external devices such as PLCs, controllers, indicators, etc.) or internal. The sampling method can be configured for each gate or set of gates to obtain a satisfactory update frequency without using too much disk mem

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123	Functions (API)	84		
124	Structures >	Date and time		
115 FilePath=GetProjectPath()+		Devices	•	DeviceEnableCommunication
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Gate Builder is a tool for creating and managing the

gates (tags) database. Different types of gates can be

defined (numeric, digital, string, compound, event, alarm)

and properties assigned (name, description, address,

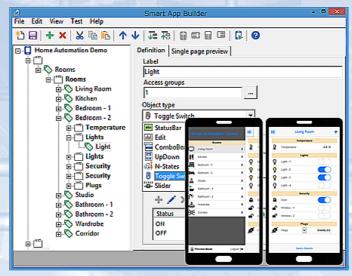
measurement unit, scale factor). Gates can be external

Code Builder is the integrated development environment that gives the possibility to enrich and customize the application; a simple C-like programming language allows the programmer to interact with all the components of Winlog Pro (tags, templates, recipes, reports, etc.), to define loops or "if-then-else" conditions, to create functions (Macro) that can be executed automatically or under operator control. The editor allows an easy recalling of all functions and language structures and provides a series of syntactic controls.

### **APPLICATION BUILDER**

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### **SMART APP BUILDER**

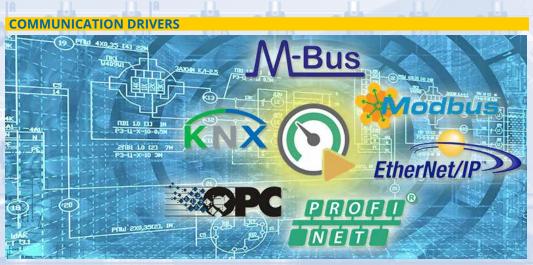


Application Builder is a powerful tool that allows the automatic creation of SCADA applications, resulting in a dramatic reduction in development timescales. You can create a software application by simply taking up from a library and putting together objects relating to various automation instruments such as PID controllers, indicators, I/O modules, etc. In addition to tags and protocols, objects may include supervisory and configuration templates (front panel, trends, etc.) and a list of events and alarms with their management procedures. Objects can be built using the Multilanguage option to allow the automatic creation of Multilanguage applications.

Smart App Builder is the visual development tool for the quick creation of web applications (Smart Apps) that allow mobile devices (iOS, Android, Windows Phone) to interact with the Server application, in order to monitor and modify the variable values of the supervisory process (SCADA). After defining the project variables, you can assign each of them a category and the display mode (item). For each item, you can display and set data using a series of standard graphical controls including: Label, StatusBar, Bitmap UpDown, Edit Box, Slider, Combo Box, N-States Box, Switch. The final structure of a Smart App consists of a menu composed of categories and their items and sub-items; browsing through the items is similar to that provided by all popular mobile devices

# **SCADA** HMI SOFTWARE





Winlog Pro supports communication with most of electronic instruments available on the market (PLCs, controllers, indicators, I/O modules, etc.) thanks to an extensive library of communication drivers (Siemens, Omron, Allen Bradley, Modbus RTU, Modbus TCP, KNX, etc.) and to the OPC Client interface. Both communication drivers and OPC Client interface are included in the basic Winlog Pro package. OPC Client driver supports data access (DA) to OPC servers DA 1.0, 2.0 and 3.0; it can interface both local OPC Servers located on the same PC (through COM objects) and remote OPC Servers (through DCOM objects) located on different PCs linked to the same LAN.

# SCADA HMI SOFTWARE

### LICENSES

Winlog Pro licenses are supplied with a DVD box containing a CD with Winlog Pro software and a hardware protection key (USB dongle).

- Web development licenses allow creation and execution of both standard and web applications.
- Standard runtime licenses allow execution of standard applications.
- Web runtime licenses allow execution of both standard and web applications.

MAX SAMPLED TAGS	WEB DEVELOPMENT LICENSES	STANDARD RUNTIME LICENSES	WEB RUNTIME LICENSES
32	W-NET/SS-USB+	W-R/SS-USB	W-RW/SS-USB
64	W-NET/S-USB+	K	
128	W-NET/S1-USB+	W-R/S1-USB	W-RW/S1-USB
256	W-NET/I-USB+		
512	W-NET/I1-USB+		
1024	W-NET/I2-USB+		
2048	W-NET/M-USB+		
65536	W-NET/X-USB+	W-R/X-USB	W-RW/X-USB

SYSTEM REQUIREMENTS

- Microsoft Operating System
- Windows 10 (32/64 bit)
- Windows 8.1 (32/64 bit)
- Windows 8 (32/64 bit)
- Windows 7 (32/64 bit)
- Windows Embedded 7
- Windows Server 2016
- Windows Server 2012
  Windows Server 2008
- USB port for the license key

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