

Automation Software

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To view all of Advantech's Automation Software, please visit www.advantech.com/products.



Advantech WebAccess

Browser-based
HMI/SCADA Software



Features

- Remote engineering and support with WebAccess Cloud Architecture
- Business Intelligence Dashboard - cross-browser, cross-platform WebAccess HMI based on HTML5
- Open Interfaces - Web Services, Widget Interfaces and WebAccess APIs
- Excel Report integration for report format customization
- Multi-touch gesture support
- Google Maps and GPS location tracking integration
- WebAccess Express - The auto-configuration tool for various devices
- Distributed SCADA architecture with central database server and Multi-layer inter-operable SCADA nodes
- Supports ample drivers, including Advantech I/O, controllers and major PLCs
- Redundant SCADA, ports and devices - High availability
- Web-enabled video, audio and animation in WebAccess View
- Open data connectivity by providing industrial protocol and ODBC integration
- Advanced SCADA Function - Alarm, Schedule and Real-time database

Introduction

Advantech WebAccess is a web browser-based software package for human-machine interfaces (HMI) and supervisory control and data acquisition (SCADA). All the features found in conventional HMI and SCADA software including Animated Graphics Displays, Real-time Data, Control, Trends, Alarms and Logs, are available in a standard web browser. WebAccess is built around the latest internet technologies. The basic components are:

1. SCADA Node: it communicates in real-time with automation equipment and controls the equipment via serial, ethernet or proprietary communication via multiple built-in device drivers. Not only does it run local controls and monitoring, but also provides real-time data to all remote clients.
2. Project Node: it is the development platform for WebAccess and is a web server for all clients to connect to the development project or remotely monitor and control the system. All system configuration, project database files and graphics are stored here.
3. Client node: through the ActiveX control inside Microsoft Internet Explorer, it monitors and controls the SCADA Node. The client connects to the Project Node and get the address of the SCADA Node, then communicates directly with the SCADA Node using proprietary communications over a TCP/IP connection. Data is displayed in real-time with dynamically animated graphics along with real-time, historical trending and alarm information. Users can acknowledge alarms and change set-points, status and other data.
4. Mobile Client: the Mobile Client interface is intended for use with smart mobile devices, such as iOS, Android; and Windows. In the mobile client users can browse graphics, data-log trends, and tag information in real-time. Setting the value to tag or acknowledge alarms can also be supported via an intuitive interface.

WebAccess 8.0 releases a new generation of WebAccess HMI. Business Intelligence Dashboard, provides users with cross-platform, cross-browser data analysis and user interface based on HTML5 technology. WebAccess 8.0 can also act as an IoT Platform by providing open interfaces for partners to develop IoT applications for different vertical markets.

Feature Details

WebAccess Cloud Architecture

WebAccess is a 100% web based HMI and SCADA software with private cloud software architecture. WebAccess can provide large equipment vendors, SIs, and Enterprises to access and manipulate centralized data and to configure, change/update, or monitor their equipment, projects, and systems all over the world using a standard web browser. Also, all the engineering works, such as: database configuration, graphics drawing and system management and the troubleshooting can be operated remotely. This can significantly increase the efficiency of maintenance operations and reduce maintenance costs.

HTML5 Business Intelligence Dashboard

WebAccess 8.0 provides an HTML5 based Dashboard as the next generation of WebAccess HMI. System integrators can use Dashboard Editor to create the customized information page by using analysis charts and diagrams which are called widgets. Ample widgets have been included in the built-in widget library, such as trends, bars, alarm summary, maps...etc. After the dashboard screens have been created, end user can view the data by Dashboard Viewer in different platforms, like Internet Explorer, Safari, Chrome, and Firefox for a seamless viewing experience across PCs, Macs, tablets and smartphones.

Open Interfaces

WebAccess opens three kinds of interfaces for different use. First, WebAccess provides a Web Service interface for partners to integrate WebAccess data into APPs or application system. Second, a pluggable widget interface has been opened for programmer to develop their widget and run on WebAccess Dashboard. Last, WebAccess API, a DLL interface for programmer to access WebAccess platform and develop Windows applications. With these interfaces, WebAccess can act as an IoT platform for partners to develop IoT applications in various vertical markets.

Excel Report

WebAccess provides Excel Reports for fulfilling the requirements of self-defined report functionality. Users can build self-defined Excel templates and generate daily/weekly/monthly/yearly or on demand reports automatically in Microsoft EXCEL format. The Excel Report function is also web-based. Excel reports can be generated and viewed in a Web browser from wherever is needed.

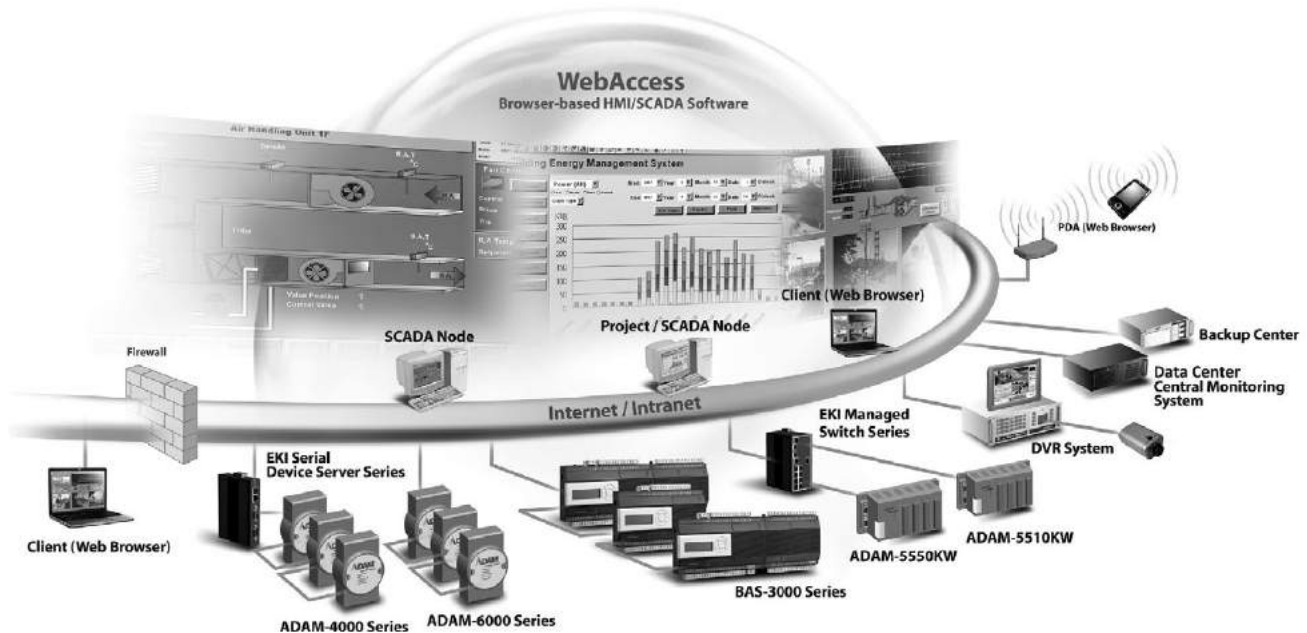
Multi-touch Gesture Support

WebAccess supports multi-touch functionality with various pre-set gestures, such as flick to change pages, zooming in and out of the display and 2-handed operation maximizing operating safety, increasing usability and decreasing training time due to the more intuitive handling. In addition, multi-touch also supports multi-finger tap, multi-finger grab, and multi-finger spread gestures to operate pre-defined actions.

Google Maps and GPS Tracking Integration

WebAccess integrates real-time data on each geographical site with Google Maps and GPS location tracking. For remote monitoring, users can intuitively view the current energy consumption on each building, production rate on each field or traffic flow on the highway together with alarm status. By right-clicking on Google Maps or entering the coordinate of the target, users can create a marker for the target and associate the real-time data of three sites with a display label. Furthermore, this function also integrates with GPS modules to track the location of the marker in Google Maps and allows it to be used in vehicle systems.

1	WebAccess+ Solutions
2	Motion Control
3	Power & Energy Automation
4	Automation Software
5	Intelligent Operator Panel
6	Automation Panels
7	Panel PCs
8	Industrial Wireless Solutions
9	Industrial Ethernet Solutions
10	Industrial Gateway Solutions
11	Serial communication cards
12	Embedded Automation PCs
13	DIY-Rail IPCs
14	CompactPCI Systems
15	IoT Wireless I/O Modules
16	IoT Ethernet I/O Modules
17	RS-485 I/O Modules
18	Data Acquisition Boards



Auto-Configuration - WebAccess Express

Advantech WebAccess Express is an automated graphical remote control application program with 1-click to bring device information online. It automatically discovers the ADAM and EKI modules on the network and serial ports, generates a database and brings real-time data online with prebuilt monitoring graphics. Express also provides remote monitoring functions and allows users to communicate and exchange data with SNMP, DiagAnywhere Server or SUSI 4.0 APIs and then check the health of the CPU, memory, temperature, and voltage of the target machine as device monitoring platform. With SNMP, DiagAnywhere, or SUSI API Driver integration, users can configure the alarm function if any abnormal or suspicious data is detected in WebAccess.

Distributed SCADA Architecture with Central Database Server

SCADA nodes run independent of any other node. Each SCADA node communicates to automation equipment using communication drivers supplied with Advantech WebAccess. The Project Node is a centralized database server of configuration data. A copy of the database and graphics of all SCADA nodes is kept on the Project Node. The historical data is also stored in the database in project node.

Ample Driver Support

WebAccess supports hundreds of devices. In addition to Advantech I/Os and controllers, WebAccess also supports all major PLCs, controllers and I/Os, like Allen Bradley, Siemens, LonWorks, Mitsubishi, Beckhoff, Yokogawa etc. WebAccess can easily integrate all devices in one SCADA. All of these device drivers are integrated into WebAccess and free of charge. For a complete list of WebAccess drivers, refer to webaccess.advantech.com.

Redundant SCADA, COM Ports and Devices

Advantech WebAccess assures continuous, reliable communication to automation equipment. WebAccess Backup node activates when the Primary node is down. WebAccess device drivers communicate with backup ports or devices if the primary connection is lost and automatically restores to the primary item when it becomes available.

Alarm Management System

WebAccess advanced Alarm Management System (AMS) delivers alarm messages via SMS, email or audio announcement to multiple receivers by predefined alarm group, user groups, time schedule and priority setting.

Web-enabled Video, Audio, Animation

WebAccess allows operators and users to monitor equipment and facilities directly using web-enabled full-motion video cameras, audio, and web cams. It also supports the use of live video cameras that are IP-enabled via ActiveX control, Windows Media Player, JPEG and other formats supported by Microsoft Internet Explorer 8.0 (or later). The video image appears in the same display area as graphics, animation, alarms and trends displays. With vector-based graphics, WebAccess graphics can be built at any resolution and displayed at any resolution. It also has the options to allow users to define the aspect ratio, 16:9, 16:10 or 4:3, to view their graphics to avoid distortion when displaying in certain aspect ratio display.

Open Data Connectivity

Advantech WebAccess exchanges online data with 3rd party software in real-time by supporting OPC UA/DA, DDE, Modbus and BACnet Server/Client. It supports SQL, Oracle, MySQL, and MS Access for offline data sharing.

Real-Time Database

WebAccess Real-Time Database (RTDB) is designed to meet industrial high speed and large quantity data access requirements. With the fully integrated design, users do not need to learn how to operate this database. Just by enabling the usage of RTDB in WebAccess configuration page, WebAccess SCADA node can serve data processing (collection and retrieval at the same time) at a rate of millions of records per second. Also, the RTDB maintenance feature can automatically archive and delete obsolete data.

Gateway with WebAccess Installed

With open real-time data connectivity and hundreds of device drivers, WebAccess can integrate all devices and a selected hardware platform with pre-installed WebAccess becomes the perfect protocol gateway or data concentrator. With intuitive setup, WebAccess converts field device data to Modbus, OPC DA, OPC UA or BACnet protocol, so other software, such as ERP and MES can gain access without knowing the field device protocol. WebAccess+ Solution Products, a bundle of WebAccess Professional 8.0 and Windows 7 Embedded built in to Advantech's robust hardware platform, can be used as a high performance, low cost data gateway solution.

WebAccess Scheduler

WebAccess Scheduler provides on/off control and setpoint changes based on the time of day, day of the week and the calendar. Users can control lights, temperature and equipment for saving energy during work days. WebAccess Scheduler allows the definition of up to 16 periods per day and preserved functions for setpoints.

Software Specifications

Advantech WebAccess Professional

▪ I/O Tag Number	75/150/300/600/1500/5000/20K/64K
▪ Internal Tag Number	75/150/300/600/1500/5000/20K/64K
▪ Web Client	1024
▪ Alarm Logs	5000
▪ Action Logs	5000

Graphics

▪ Number of Graphic Pages	Unlimited (limited by H/D size)
▪ Variables per Graphic Pages	4000
▪ Tag Source	Global
▪ Multi-touch Gesture	Yes

Dashboard

▪ Cross Browser and Platform	Yes
▪ Number of Built-in Widget	37
▪ Open Widget Interface	Yes

Group Trend Log

▪ Number of Data Logging	Number of I/O tags license x 2
▪ Alarm Groups per SCADA	9999

Receipt

▪ Recipes per Project	Unlimited (limited by H/D size)
▪ Unit per Recipe	999
▪ Item per Unit	999

Scheduler

▪ Holiday Configuration Group	9999
▪ Time Zone Group	9999
▪ Device Loop Group	9999
▪ Equipment Group	9999
▪ Scheduler Reservation Group	9999

Web-enabled Integration

▪ Video	Yes
▪ Google Maps and GPS Location Tracking	Yes

Open Connectivity

▪ Modbus Server	Yes
▪ BACnet Server	Yes
▪ ODBC and SQL Query	Yes
▪ OPC DA/UA Server	Yes
▪ DDE Server	Yes

Others

▪ Centralized logs on project	Yes node via ODBC
▪ SCADA Redundancy	Yes
▪ Script language	TclScript/VBScript/JScript
▪ Data Transfer	Yes
▪ Reporting / Excel Reporting	Yes
▪ Device Redundancy	Yes
▪ Supports IPv6	Yes
▪ WebAccess Express	Yes

Minimum Requirements

Project Node \ SCADA Node

▪ Operating System	Windows XP (SCADA Node Only), Windows 7 SP1 Professional, Windows 8 Professional, Windows Server 2008 R2 or later Net Framework 4.5 or later version
▪ Hardware	Intel Atom or Celeron. Dual Core processors or higher recommended 2GB RAM minimum, more recommended 30GB or more free disk space
▪ Display Resolution	1024 x 768 or higher (recommended) Lower resolutions also supported
▪ USB Port	USB port for License Hardkey on SCADA node

Ordering Information

Professional Versions

▪ WA-P80-U075E	WebAccess V8.0 Professional Software with 75 tags
▪ WA-P80-U150E	WebAccess V8.0 Professional Software with 150 tags
▪ WA-P80-U300E	WebAccess V8.0 Professional Software with 300 tags
▪ WA-P80-U600E	WebAccess V8.0 Professional Software with 600 tags
▪ WA-P80-U15HE	WebAccess V8.0 Professional Software with 1,500 tags
▪ WA-P80-U50HE	WebAccess V8.0 Professional Software with 5,000 tags
▪ WA-P80-U20KE	WebAccess V8.0 Professional Software with 20,000 tags
▪ WA-P80-U64KE	WebAccess V8.0 Professional Software with Unlimited tags

Version Upgrade*

▪ WA-X80-U000E	WebAccess Upgrade to Version 8.0
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* Upgrade the WebAccess Version from V.7.X to V8.0.

Upgrade*

▪ WA-X80-U075E	WebAccess software license, 75 Tags upgrade
▪ WA-X80-U300E	WebAccess software license, 300 Tags upgrade
▪ WA-X80-U600E	WebAccess software license, 600 Tags upgrade
▪ WA-X80-U15HE	WebAccess software license, 1,500 Tags upgrade
▪ WA-X80-U50HE	WebAccess software license, 5,000 Tags upgrade

* Original serial number from WebAccess Professional version is required to purchase WebAccess upgrade. The serial number can be found on the USB dongle.

WebAccess+ Bundled Products

▪ WA-TPC1771-T600E	17" Touch Panel Computer, 600 tags WebAccess with Traditional Chinese
▪ WA-TPC1771-T50HE	17" Touch Panel Computer, 5,000 tags WebAccess with Traditional Chinese
▪ WA-TPC1771-C600E	17" Touch Panel Computer, 600 tags WebAccess with Simplified Chinese
▪ WA-TPC1771-C50HE	17" Touch Panel Computer, 5,000 tags WebAccess with Simplified Chinese
▪ WA-TPC1771-E600E	17" Touch Panel Computer, 600 tags WebAccess with English
▪ WA-TPC1771-E50HE	17" Touch Panel Computer, 5,000 tags WebAccess with English
▪ WA-UNO2178-T600E	Automation Computer, 600 tags WebAccess with Traditional Chinese
▪ WA-UNO2178-T50HE	Automation Computer, 5,000 tags WebAccess with Traditional Chinese
▪ WA-UNO2178-C600E	Automation Computer, 600 tags WebAccess with Simplified Chinese
▪ WA-UNO2178-C50HE	Automation Computer, 5,000 tags WebAccess with Simplified Chinese
▪ WA-UNO2178-E600E	Automation Computer, 600 tags WebAccess with English
▪ WA-UNO2178-E50HE	Automation Computer, 5,000 tags WebAccess with English

Dashboard Viewer

▪ Hardware	PC: Intel Core I3 or higher; 4GB RAM or higher iPhone: iPhone 5 or later version Android: 1.5GHz Quad Core or higher; 2GB RAM or higher Windows Phone: 1.5GHz Quad Core or higher; 2GB RAM or higher
▪ Browser	Internet Explorer: Version 9 or later version Chrome: Version 37 or later version Firefox: Version 31 or later version Safari: Version 7 or later version

WebOP Designer Panel Express

HMI Runtime Software



Software Features

- Allows users to manage multiple HMI applications in one project
- Allows users to switch multi-language UI dynamically, with Unicode and multilingual screen text supported
- Provides password protection of designs, macros and upload/download operations
- Running various applications on Open Platform with different O.S. - RTOS/WinCE and Windows O.S.
- Link and Control automation controller directly from platform
- Provides index registers for modifying device addresses at runtime
- Collects data from many devices with various methods
- Supports various data acquisition and trend presentation
- Operation log helps the review and investigation of important events
- Flexible runtime download through serial / Ethernet and memory cards.
- Allows to use the USB Memory Sticker for the trouble-free update of the application
- Supports over 300 industrial communication protocols such as SIMATIC S7-1200, BACNet MSTP/BACNet IP etc. and the driver list is growing

Introduction

WebOP Designer is powerful yet intuitive software to create total solutions for WebOP series Human Machine Interface products. WebOP Designer is proven in many application fields and is an easy to use integrated development tool. The features include solution-oriented screen objects, high-end vector graphics, Windows fonts for multi-language applications, recipes, alarms, data loggers and operation logging. WebOP Designer also includes online/offline simulation and other utility programs such as Data Transfer Helper (DTH); recipes editors and text editors.

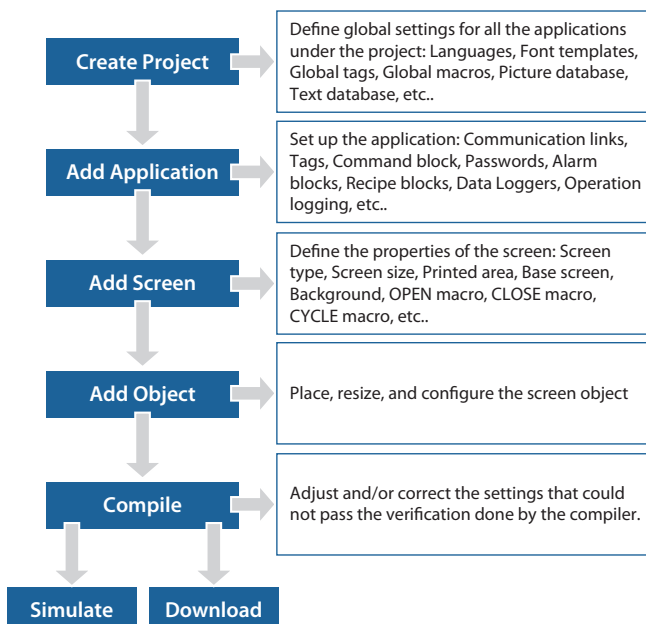
Panel Express runtime, a part of WebOP Designer, guarantees reliability and performance of Open Platform because of the minimum system overhead, high communication data rates, sub-second screen switching, and 24/7 operation. Our fast response software team adds new functions, communication drivers and solutions to the software all the time to meet dynamic needs.

System Requirements

Minimum OS Requirements:

- Windows XP SP2 (for all flavors of XP such as Home, Media Center, Tablet PC)
- Windows Server 2003
- Windows Vista
- Windows 7

Project Development Steps



Feature Details

Global Settings and Resources Sharable to all Applications of the Same Project

- Multi-languages (up to 10 languages)
- Font templates (up to 20 fonts for each language, TrueType fonts supported)
- Picture database (+PNG & SVG), Sound database (WAV), Text Database
- Global Tags
- Global Macros

Plenty of Solution-oriented Screen Objects

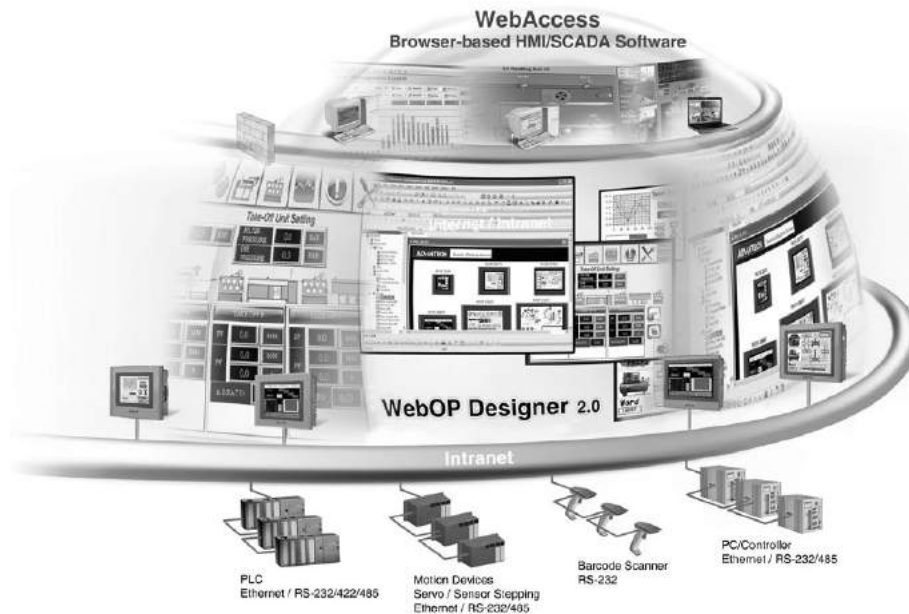
- For common HMI needs: Buttons, Lamps, Message displays, Numeric displays, Numeric entries, Character displays, Character entries, Time displays, Date displays, Bar Graphs, Meters, etc.
- For animation: Pictures displays, GIF displays, Animated graphics, Dynamic rectangles, Dynamic circles, Pipelines, Circular bar graph, etc. Color of basic graphic objects (text, lines, rectangles, circles, etc.) changeable. Shape and color of buttons and lamps changeable.
- For advanced functions: Line chart, Scatter chart, Recipe selector, Recipe table, Alarm history display, Active alarm display, Alarm count display, Historic trend graph, Historic data table, Historic event table, Historic line chart, Operation log display, Sub-link table, etc.

Communication Links

The WebOP series HMI products can have at most 4 built-in communication ports. The WebOP Designer software allows you to create up to 4-links and 255 sub-links for one application. More than 400 communication drivers allow 1-to-N (one panel to a wide variety of industrial devices) or N -to-1 (multiple panels to one device) connections.

The Panel Express can have at most 16 built-in communication ports. It also allows you to create up to 16-links for 255 sub-links with serial port & 128 sub-links with Ethernet ports in one application.

- 1 WebAccess+ Solutions
- 2 Motion Control
- 3 Power & Energy Automation
- 4 Automation Software
- 5 Intelligent Operator Panel
- 6 Automation Panels
- 7 Panel PCs
- 8 Industrial Wireless Solutions
- 9 Industrial Ethernet Solutions
- 10 Industrial Gateway Solutions
- 11 Serial communication cards
- 12 Embedded Automation PCs
- 13 DIN-Rail IPCs
- 14 CompactPCI Systems
- 15 IoT Wireless I/O Modules
- 16 IoT Ethernet I/O Modules
- 17 RS-485 I/O Modules
- 18 Data Acquisition Boards



One Design for all Models

The WebOP Designer software provides the auto resizing function to resize all the objects so they can fit the new screen size when you change the HMI model. It makes the HMI model changes done in seconds.

Easy to Accumulate/Reuse Design Achievements

- Import/Export Function
The WebOP Designer software provides the simple method for importing and exporting data between applications or projects. The data includes Language setting, Font templates, Pictures, Sounds, Text, Tags, Macros, Application, Screen, Alarm messages, Control block and status word settings, etc.
- Object Library
The object library makes configuring, managing and sharing user-defined objects easier. It contains default objects, common objects, object groups and global objects.

Enhanced Intellectual Property (IP) Protection

WebOP Designer strengthens the IP protection by password with different levels. You can set the password to protect project, password table and global macros. You can also use up to 9 levels of passwords to secure the operations and restrict access to the objects. You can choose to prohibit uploading and copying of the panel application stored in the HMI unit.

Recipe

Distinguish from the conventional recipe operations, the WebOP Designer provides complete solutions to deal with recipes:

- Supports up to 16 recipe blocks
- Provides recipe selector for selecting a recipe and recipe table for displaying and modifying recipe data at runtime
- Provides Recipe Editor, an independent executable program, to view and edit recipe data saved in a binary file on PC
- Able to notify a bit when the recipe operations are performed successfully to prevent data loss

Data Collected into a CSV/TXT file

Allows to save/load collected data to/from CSV or TXT files. Those two standard file formats allow the easy manipulation data on PC.

Alarm

The WebOP Designer supports up to 16 discrete alarm blocks and up to 16 analog alarm blocks. It provides alarm history display, active alarm display, alarm count display and alarm marquee to display alarms in the application.

Macros, an easy-to-learn language with simple syntax

Application developers may program their own solutions using the macro commands for:

- Operations that are not supported in a standard object or feature of WebOP Designer
- Sequential, Interactive, Conditional and File operations
- Non-linear data conversions
- Data exchange between two controllers
- Simple communication drivers
- Hard-to-implement tasks in controllers
- Offloading the burden of controllers to boost their performance

Simplified Architecture

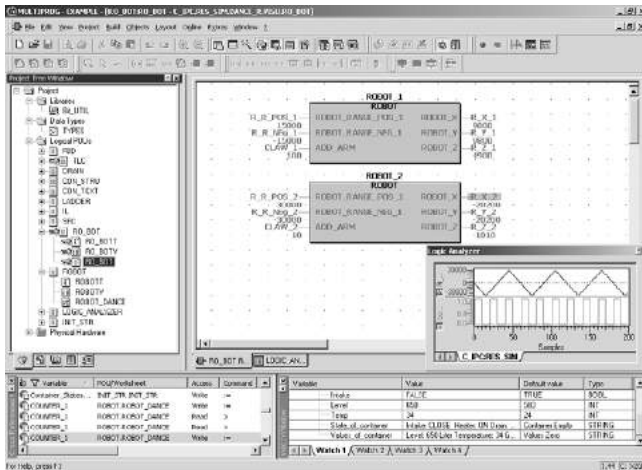
- Real time WYSIWYG screen editor, 8 toolbars and screen manager
- Screen overview that shows the relations among screens of the current application
- Link overview that shows the relations among links of the current application
- Object list that shows the screen objects and the associated I/O address of the current screen
- I/O list that shows all the I/O addresses of the project and their owners
- Compiler to verify, optimize, and build the designs
- Online/offline simulation for design verification
- Data Transfer Helper (DTH), an independent executable program, to help you get/update application data through serial port or Ethernet port
- Text Editor for editing all screen texts in multi-languages

Ordering Information

- | | |
|---------------|---|
| ▪ 968WEXP015E | PanelExpress V2.0 1500 tags S/W license (WinCE) |
| ▪ 968WEXP050E | PanelExpress V2.0 5000 tags S/W license (WinCE) |
| ▪ 968WEXP003X | PanelExpress V2.0 300 tags S/W license |
| ▪ 968WEXP015X | PanelExpress V2.0 1500 tags S/W license |
| ▪ 968WEXP050X | PanelExpress V2.0 5000 tags S/W license |
| ▪ 968WEXP1USB | PanelExpress V1.2 S/W USB dongle |
| ▪ 968WEXP2USB | PanelExpress V2.0 S/W USB dongle |

KW MULTIPROG®

IEC 61131-3 SoftLogic Control Software



Features

- IEC 61131-3 programming languages
- Intuitive programming with a clear project structure
- Cross-compiling: FBD, LD and IL can be cross-compiled to each other
- Multi user functionality shortens programming time
- Management of distributed controls
- Network variables: Easy and powerful configuration of distributed communication
- Powerful debugging tools: Online changes, PLC simulation, overwriting & forcing, breakpoints, watch windows & recipes, logic analyzer, and cross reference
- Online program download
- Download Change Function
- Advantech FBs Support (Auto-Tuning PID, Batch Control)

Introduction

Advantech's Programmable Automation Controllers (PAC) leverage KW-Software's Multiprog and ProConOS as a single development tool with the SoftLogic control kernel. Requiring only a one-time design, users can easily leverage the control know-how into different control platforms to meet versatile automation projects needs. KW SoftLogic also creates single tagging database and HMI Software, such as WebAccess and other 3rd party SCADA software, all the features can help users to save the visible and invisible cost.

Multiprog supports all IEC 61131-3 programming languages. Depending on the task to be handled, your experience and company standards, you may choose one of the five standardized programming languages. The use of Multiprog offers you many advantages. Our long-term experience in the automation industry guarantees you a sophisticated software product.

Specifications

Hardware Requirements

Device	Recommended
IBM compatible PC with Pentium Processor	Pentium 4, 2 GHz or above
System RAM	Windows XP : 512 MB Windows Vista : 1 GB Windows 7 : 1 GB
Hard Disk	1 GB free memory space
VGA Monitor Color Settings Resolution	True color 1024 x 768
RS-232 interface	Optional
Mouse	Recommended

Advantech Hardware Supported

- APAX-6000 Series
- APAX-5000 Series
- ADAM-55X0KW Series

Software Requirements

- Microsoft Windows 7
- Microsoft Windows Vista (SP2)
- Microsoft Windows XP (SP3)
- Microsoft Internet Explorer 6.0 or higher

IEC 61131-3 Programming Languages

- Instruction List (IL)
- Structured Text (ST)
- Function Block Diagram (FBD)
- Ladder Diagram (LD)
- Sequential Function Chart (SFC)
- All programming languages can be mixed within one project

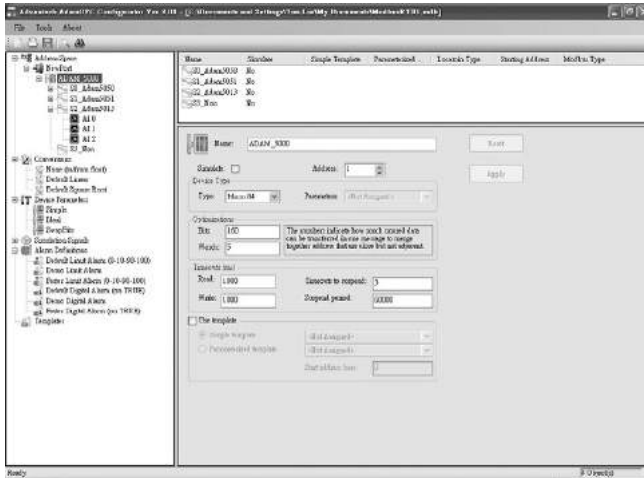
Ordering Information

- MPROG-PRO535E** KW Multiprog Pro v5.35
(128k bytes I/O, Win7 32-bit support)



OPC Server

OPC Server for ADAM & Modbus Devices



Features

- Supports Microsoft Windows 8/7/XP/2000/NT/98
- Supports Advantech ASCII, MODBUS/RTU, and MODBUS/TCP protocol
- Compliant with the latest OPC Data Access 1.0, 2.04 and 3.0 standards
- Compliant with the latest OPC Alarm and Events 1.0 and 1.2 standards
- OPC DA and AE Client for rapid testing of your OPC data connections

Introduction

The Industrial Automation Group of Advantech introduces a standardized interface for industrial device servers, the OPC (OLE for process control) Server. An OPC server provides devices, such as an I/O device, to communicate with a wide range of HMI/SCADA software packages residing on a host. Any software system with OPC client capabilities can access the Advantech OPC server drivers.

Key Features of the OPC Servers

- Supports Microsoft Windows 8/7/XP/2000/NT/98
 - Supports Windows 7 / 8 both 32-bit and 64 bit versions
- Supports Advantech ASCII, MODBUS/RTU, and MODBUS/TCP protocol.
- Compliant with the latest OPC Data Access 1.0, 2.04 and 3.0 standards.
 - Compliant with the latest OPC Alarm and Events 1.0 and 1.2 standards.
 - Built-in OPC tag simulation and value conversion.
 - Wizards to create OPC Server tags about ADAM series quickly.
- Compatible with OPC client compliant application software.
- Provides OPC custom interface.
- Online configuration capability; add new signals and tags during runtime.
- Tag Multiplier let you create tags quickly.
- OPC DA and AE Client for rapid testing of your OPC data connections.

Specifications

Supported Hardware

- All ADAM-4000 series modules
- All ADAM-5000 series modules
- All ADAM-6000 series modules

Ordering Information

- **PCLS-OPC/ADM30** OPC Server for ADAM ASCII protocol
- **PCLS-OPC/MTP30** OPC Server for Modbus/TCP protocol
- **PCLS-OPC/RTU30** OPC Server for Modbus/RTU protocol

DAQNavi

Software Development Package for Advantech DAQ Products



Features

- Supports multiple operating systems including Windows (32-bit and 64-bit), Linux
- Supports common-used development environment including Visual C/C++, Borland C Builder, Visual Basic .NET, Visual C#, Delphi, Java, VB, LabVIEW
- Supports Advantech PCI Express, PCI, PC/104, PCI-104, USB DAQ devices
- Integrated utility environment (Advantech Navigator) for device functionality testing without programming
- Able to generate a simulator device in utility to program and run application without real hardware device
- Pre-defined scenario application examples with source code to shorten programming learning and development time
- Express VI and Polymorphic VIs for both beginner and advanced programming in LabVIEW environment
- Complete documentations and tutorials for hardware specifications, wiring, example code and SDK programming

Introduction

DAQNavi is a completed software package, for programmers to develop their application programs using Advantech DAQ boards or devices. This integrated software package includes drivers, SDK, tutorial and utility. With the user-friendly design, even the beginner can quickly get familiar with how to utilize DAQ hardware and write programs through the intuitive "Advantech Navigator" utility environment. Many example codes for different development environment dramatically decrease users' programming time and effort.

You can go to <http://www.advantech.com/dagnavi> for more information about Advantech DAQNavi.

Feature Details

Multiple Operating System Support

DAQNavi supports many popular operating systems (OS) used in automation applications. For different OSs, API functions will be the same, so users can simply install the driver without modifying their program again when migrating between two different OSs.

DAQNavi supports latest Windows 7/Vista/XP and Windows CE (both 32-bit and 64-bit). Besides Windows operating system, Linux is famous for its openness and flexibility. DAQNavi software package also supports Linux OS distributions including Ubuntu, Fedora, Debian and, Susi. For other distributions, contact with Advantech local branch or dealer in your area, for more information.

.NET Support

DAQNavi offers a series of .NET Component objects, that you can benefit from platform-unified feature with the latest .NET technology. Users can simply drag and drop the .NET Components within .NET programming environment, such as Microsoft Visual C# and VB .NET. An intuitive window (called "DAQNavi Wizard") will pop-up, and user can perform all configurations by sequence. Then, related source code will be generated automatically. Programmers also can choose writing code manually with the .NET Component, to have a more flexible object calling. With Advantech CSCL technology, engineers can do the similar programming in Native environment such as Visual C++.

LabVIEW Support

LabVIEW is one popular graphical development environment used for measurement and automation. For LabVIEW user, DAQNavi offer two options for programming: Express VI and Polymorphic VI. DAQNavi Express VI for LabVIEW helps user quickly complete his LabVIEW without extra wiring. When the user drags the Express VI on LabVIEW Block Diagram, a pop-up intuitive wizard window will appear and user can perform hardware parameter configurations. After that, the programming is done. So it is similar to the .NET control used in Microsoft Visual Studio environment, suitable for programming beginners. As for the Polymorphic VI, users can use several VIs and wiring to build more complex program.

C++, Delphi, ActiveX and Java Support

DAQNavi also offers C++ Class Library (for VC++ and Borland C++ Builder) and ActiveX (for Visual Basic, Delphi and BCB) for Native programming environment with the same calling interface as .NET Class Library. With DAQNavi Java Class Library, user can develop Java program to across different platforms (including Windows and Linux) by means of Java engine.

Support Modules

DAQNavi supports all Advantech PCI Express, PCI, PC-104, and PCI-104 cards, as well as all USB DAQ devices.

Intuitive Utility

DAQNavi delivers one integrated easy-to-use and powerful utility, called Advantech Navigator. Within the Navigator, engineers can quickly start configuration and function testing for all Advantech DAQ devices, without any programming. Related user manuals are also displayed in the same environment. Besides, to help shorten development time, Advantech offers a series of DAQ applications examples (called "scenarios" in the Advantech Navigator). So programmers can refer to its source code and develop their own application based on it, as well as the wiring information. Without a DAQ device at hand, engineers can generate a simulated device and use that device for programming and testing. Except device testing, Navigator also offers complete documentation to describe how to use DAQNavi SDK to program in various development environments. Moreover, a video tutorial for how to create an application program in a different development environment is available.

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