

Intelligent Operator Panels

Enabling Flexible Connectivity through Powerful Solution-oriented Software

- ／ Introduction
- ／ Product Portfolio
- ／ Features & Functions
- ／ Software Features
- ／ Successful Applications



ADVANTECH

Enabling an Intelligent Planet

www.advantech.com/eA

WebOP Series

To satisfy the stringent standards required in the automation market, especially packaging, label slitting, and motion-based robot dispensing, Advantech offers the Operator Panels which are designed with RISC platform. To fulfill different applications, Advantech provides Real-Time OS and built-in Microsoft® WinCE 6.0 OS platform which bundles WebOP Designer and lets the Operator Panels become a control HMI for flexible system integration. WebOP Designer 2.0 is a software development tool which involves the use of PLCs and helps create application solutions for labor-saving, improves efficiency of manufacturing and easy control of every machine in the factory. Advantech Operator Panels also support a variety of LCD sizes from 3.5" to 15" and are suitable for any PLC applications, and the use of different motion/thermal controllers, inverters and sensors.



Industrial Applications

- Focuses on textile, packaging and pharmaceutical applications
- Wide market coverage in Building Automation, with BACNet MSTP & BACNet TCP/IP

Hardware & Communication

- Compact, flat-sealed with IP66
- Support Ethernet-based operator data acquisition and bi-directional control
- Data acquisition and bi-directional control through real time communication
- Support various communication links

HMI Development Software

- Free software development kit
- Supports Windows XP/Vista/7
- Communicates with SCADA software to create a complete automation solution

Technical Support

- Supports PLC driver programming
- Online Web-based technical document sharing
- FAQ, Forum, Mini-site
- Web-based online training

WebOP-2000/3000 Series Selection Guide



Model	WOP-3070T	WOP-3100T	WOP-3120T	WOP-3150T
Ordering Information	WOP-3070T-C4AE	WOP-3100T-C4AE	WOP-3120T-C4AE	WOP-3150T-C4AE
CPU	RISC 32 bits, 600 MHz (ARM® Cortex™-A8)			
Backup Memory	FRAM 1M bit (=128K Byte, 64word)			
Working Memory	DDR2 256M Bytes			
Storage	512MB on board SLC type			
Operating System	Microsoft® Windows CE 6.0			
Display	Type	WVGA(16:9) TFT LCD	WSVGA(16:9) TFT LCD	XGA TFT LCD
	Size	7"	10.1"	12"
	Max. Resolution	800 x 480	1024 x 600	1024 x 768
	Max. Colors	65,536 colors	65,536 colors	65,536 colors
	Luminance (cd/m2)	500	550	400
	Viewing Angle (H/V°)	140/120	140/110	160/140
	Backlight Life (hr)	LED, 50,000	LED, 50,000	LED, 50,000
	Dimming	Adjustable	Adjustable	Adjustable
Touchscreen	5 wire Analog Resistive	5 wire Analog Resistive	5 wire Analog Resistive	5 wire Analog Resistive
Power-On LED	Yes	Yes	Yes	Yes
Communication LED	No	No	No	No
Front USB Access	No	No	No	No
Communication Interface	COM1	RS-232/RS-422/RS-485 (DB9)	RS-232/RS-422/RS-485 (DB9)	RS-232/RS-422/RS-485 (DB9)
	COM2	RS-422/RS-485 (Terminal 4pin+Ground)	RS-422/RS-485 (Terminal 4pin+Ground)	RS-422/RS-485 (Terminal 4pin+Ground)
	COM3	RS-485 (Terminal 2pin)	RS-485 (Terminal 2pin)	RS-485 (Terminal 2pin)
	CAN	Terminal 2pin	Terminal 2pin	Terminal 2pin
	Ethernet (RJ45)	10/100-BaseT	10/100-BaseT	10/100-BaseT
I/Os	USB Client	USB 2.0 Client x 1	USB 2.0 Client x 1	USB 2.0 Client x 1
	USB Host	USB 2.0 Host x 1 (Top)	USB 2.0 Host x 1 (Top)	USB 2.0 Host x 1 (Top)
	Micro-SD Slot	Yes	Yes	Yes
	SD Slot	-	-	-
	Audio	1 Lin out / 1 Mic in	1 Lin out / 1 Mic in	1 Lin out / 1 Mic in
	Power Isolation	Yes	Yes	Yes
	I/O Isolation	Yes	Yes	Yes
Power Supply Voltage	24VDC ± 10%	24VDC ± 10%	24VDC ± 10%	24VDC ± 10%
Power Consumption	7W Typical	9W Typical	12W	14W
Dimensions W x H x D (mm)	203.4 x 150 x 43.7 mm (8.01" x 5.91" x 1.72")	271.5 x 213.5 x 43.2 mm (10.69" x 8.41" x 1.7")	311 x 237 x 46.8 mm (12.24" x 9.33" x 1.84")	386 x 310 x 46.8 mm (15.20" x 12.2" x 1.84")
Cut-out Dimensions W x H (mm)	192 x 138.5 mm (7.56" x 5.45")	259.5 x 201.5 mm (10.22" x 7.93")	302.5 x 228.5 mm (12.1" x 9.14")	374.5 x 298.5 mm (14.74" x 11.75")
Front Panel thickness (mm)	6 mm	6 mm	6 mm	6 mm
Enclosure	Die-cast aluminum alloy front bezel	Die-cast aluminum alloy front bezel	Die-cast aluminum alloy front bezel	Die-cast aluminum alloy front bezel
Net Weight	1 Kg (2.20 lbs)	1.2 Kg (2.65 lbs)	2.5 kg (5.51 lb)	3 Kg (6.61 lbs)
Operating Temperature	-20 ~ 60°C (-4 ~ 140° F)	-20 ~ 60°C (-4 ~ 140° F)	-20 ~ 60°C (-4 ~ 140° F)	-20 ~ 60°C (-4 ~ 140° F)
Storage Temperature	-30 ~ 70°C (-22 ~ 158° F)	-30 ~ 70°C (-22 ~ 158° F)	-30 ~ 70°C (-22 ~ 158° F)	-30 ~ 70°C (-22 ~ 158° F)
Humidity	10% ~ 90% RH @ 40° C, non-condensing	10% ~ 90% RH @ 40° C, non-condensing	10% ~ 90% RH @ 40° C, non-condensing	10% ~ 90% RH @ 40° C, non-condensing
Ingress Protection	Front panel: IP66	Front panel: IP66	Front panel: IP66	Front panel: IP66
Certification Approval	CE / FCC / BSMI / CCC / UL / UL-508	CE / FCC / BSMI / CCC / UL / UL508	CE / FCC / BSMI / CCC / UL	CE / FCC / BSMI / CCC / UL

WOP-2040T		WOP-2050T	WOP-2070T		WOP-2080T		WOP-2100T	
WOP-2040T-S1AE	WOP-2040T-N1AE	WOP-2050T-S1AE	WOP-2070T-S2AE	WOP-2070T-N2AE	WOP-2080T-S2AE	WOP-2080T-N2AE	WOP-2100T-S2AE	WOP-2100T-N2AE
RISC 32bits, 200MHz		RISC 32bits, 200MHz	RISC 32bits, 200MHz		RISC 32bits, 200MHz		RISC 32bits, 200MHz	
128KB		128KB	128KB		128KB		128KB	
32 MB SDRAM		32 MB SDRAM	64 MB SDRAM		64 MB SDRAM		64 MB SDRAM	
8MB NOR Flash	8MB NOR Flash	8MB NOR Flash	8MB NOR Flash	8MB NOR Flash	8MB NOR Flash	8MB NOR Flash	8MB NOR Flash	8MB NOR Flash
-	128M NAND Flash	128M NAND Flash	-	128M NAND Flash	-	128M NAND Flash	-	128M NAND Flash
HMI RTOS, WebOP Designer 2.0		HMI RTOS, WebOP Designer 2.0	HMI RTOS, WebOP Designer 2.0		HMI RTOS, WebOP Designer 2.0		HMI RTOS, WebOP Designer 2.0	
WQVGA(16:9) TFT LCD		Similar QVGA TFT LCD	WVGA(16:9) TFT LCD		SVGA TFT LCD		Similar WSVGA TFT LCD	
4.3"		5.6"	7"		8"		10.1"	
480 x 272		320 x 234	800 x 480		800 x 600		1024 x 600	
65,536 colors		65,536 colors	65,536 colors		65,536 colors		65,536 colors	
400		330	300		250		250	
100/95		130/110	140/130		140/130		140/110	
LED, 20,000		LED, 20,000	LED, 20,000		LED, 30,000		LED, 20,000	
Adjustable		Adjustable	Adjustable		Adjustable		Adjustable	
4 wires Analog resistive		4 wires Analog resistive	4 wires Analog resistive		4 wires Analog resistive		4 wires Analog resistive	
Yes		Yes	Yes		Yes		Yes	
No		No	No		No		No	
No		No	No		No		No	
RS232/422/485 (DB9 Female)		RS232/422/485 (DB9 Female)	RS232/422/485 (DB9 Female)		RS232/422/485 (DB9 Female)		RS232/422/485 (DB9 Female)	
RS422/485 (5 Pin Plug Connector)		RS422/485 (5 Pin Plug Connector)	RS422/485 (5 Pin Plug Connector)		RS422/485 (5 Pin Plug Connector)		RS422/485 (5 Pin Plug Connector)	
RS232 (COM1: Pin5;7;8)		RS232 (COM1: Pin5;7;8)	RS232 (COM1: Pin5;7;8)		RS232 (COM1: Pin5;7;8)		RS232 (COM1: Pin5;7;8)	
-	-	-	-	-	-	-	-	-
-	10/100-BaseT	-	-	10/100-BaseT	-	10/100-BaseT	-	10/100-BaseT
Yes		Yes	Yes		Yes		Yes	
Yes		Yes	Yes		Yes		Yes	
-	Yes	Yes	-	Yes	-	Yes	-	Yes
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
24VDC ± 10%	24VDC ± 10%	24VDC ± 10%	24VDC ± 10%	24VDC ± 10%	24VDC ± 10%	24VDC ± 10%	24VDC ± 10%	24VDC ± 10%
5W		10W	10W		10W		10W	
130 x 106.2 x 36.4mm (5.11" x 4.18" x 1.43")		188 x 143.3 x 30mm (7.4" x 5.64" x 1.18")	188 x 143.3 x 30mm (7.4" x 5.64" x 1.18")		231.5 x 174.6 x 37mm (9.11" x 6.87" x 1.46")		269.8 x 212 x 37.4mm (10.62" x 8.35" x 1.47")	
118.5 x 92.5mm (4.66" x 3.64")		175 x 132.5mm (6.89" x 5.21")	175 x 132.5mm (6.89" x 5.21")		221 x 164 mm (8.70" x 6.46")		259.5 x 201.5 mm (10.22" x 7.93")	
5 mm		6 mm	6 mm		6 mm		6 mm	
PC + ABS	PC + ABS	PC + ABS	PC + ABS	PC + ABS	PC + ABS	PC + ABS	PC + ABS	PC + ABS
0.3 kg (0.66 lbs)		0.51 kg (1.12 lbs)	0.6 kg (1.32 lbs)		0.93 kg (2.05 lbs)		1.2 kg (2.64 lbs)	
0 ~ 50°C (32 ~ 122° F)		0 ~ 50°C (32 ~ 122° F)	0 ~ 50°C (32 ~ 122° F)		0 ~ 50°C (32 ~ 122° F)		0 ~ 50°C (32 ~ 122° F)	
-20 ~ 60°C (-4 ~ 140° F)		-20 ~ 60°C (-4 ~ 140° F)	-20 ~ 60°C (-4 ~ 140° F)		-20 ~ 60°C (-4 ~ 140° F)		-20 ~ 60°C (-4 ~ 140° F)	
10% ~ 90% RH @ 40° C, non-condensing		10% ~ 90% RH @ 40° C, non-condensing	10% ~ 90% RH @ 40° C, non-condensing		10% ~ 90% RH @ 40° C, non-condensing		10% ~ 90% RH @ 40° C, non-condensing	
Front panel: IP66		Front panel: IP66	Front panel: IP66		Front panel: IP66		Front panel: IP66	
CE / FCC / BSMI / CCC / UL		CE / FCC / BSMI / CCC / UL	CE / FCC / BSMI / CCC / UL		CE / FCC / BSMI / CCC / UL		CE / FCC / BSMI / CCC / UL	

WebOP Series Features

With RISC-based processors up to 600MHz, the WebOP series supports a variety of LCD sizes from 3.5" to 15" and are highly suited for applications involving the use of PLCs, motion/thermal controllers, and are highly suited for applications involving the use of PLCs, motion/thermal controllers, inverters and sensors. With various communication interfaces, including RS-232/422/485, Ethernet and USB ports, the WebOP series can easily connect to a variety of equipment. Furthermore, these products include IP66 protection and 0 ~ 50°C operating temperatures to ensure reliable performance in the most demanding environments. Compatible with over 300 of the most popular PLCs on the market, including: Allen Bradley Micrologix, Modicon, Quantum, GE 90, Siemens AG Simatic S7, Mitsubishi, FX/Q, Omron Sysmac C/CV/CS/CJ, and Yaskawa MP, the WebOP series and WebOP Designer 2.0 provide an outstanding price/performance ratio for a variety of factory automation needs.



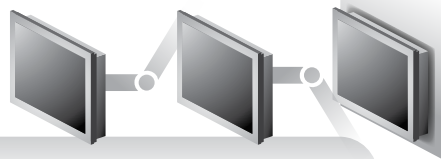
Complete Range of LCD Sizes

Supports a variety of LCD sizes from 3.5" to 12.1" and are highly suited for applications involving the use of PLCs.



Level 4 ESD Protection

Air Discharge 15KV Level 4; Contact Discharge 8KV Level 4.



VESA & Wall mounting kits

One kit for different applications.



Powerful Memory Design

512MB on board SLC type storage, 128KByte Backup FRAM and no battery issue concerns.



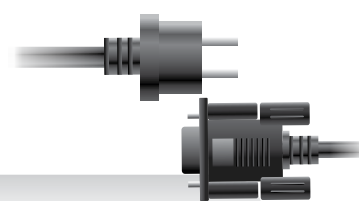
Micro SD Data Storage

All WebOP-T series products have built-in a standard Micro SD slot for static data storing use.



Waterproof / IP66 Protection

All models support IP66 protection and 0 ~ 50°C operating temperature range.



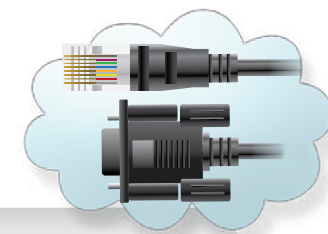
Independent isolation design

Outside inrush current & electronics noise protection.



Built-in CANBus function

Support for CANopen library registered by CiA 301 V4.02.



Multiple Communication Ports

With various communication interfaces, including RS-232/422/485, Ethernet and USB Host/Client ports.



PLC Connectivity

Compatible with over 300 of the most popular PLCs on the market for a variety of factory automation needs.

HMI Development Software - WebOP Designer

WebOP Designer is proven in many application fields and is an easy to use integrated development tool featuring 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. WebOP runtime, a part of WebOP Designer, guarantees reliability and performance because of the minimum system overhead, high communication data rates, sub-second screen switching and 24/7 operation.

Simple

Easy

Innovative

Shortcut & Execution Toolbar

Icon Display Improves Work Efficiency

- Shortcut icons designed to show objects, figure type, and operations improving work efficiency.
- Frequently used objects and figures can be registered as Favorites.

Project Workspace

An Intuitive Tree Display Makes Runtime Development Easy

Easy to create, develop, and manage project property efficiency by project-based management worksheets.

Screen Design Worksheet

Smart Screen Design

Easy to view screens during runtime development, adjustable based on user-oriented application.

Message Build List

Compile & Simulate Results

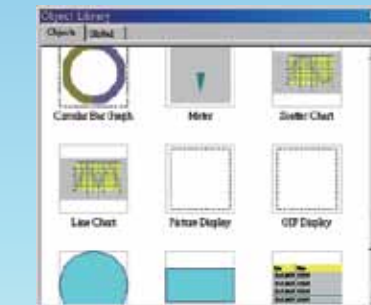
By double clicking on the error message after compilation it will automatically jump to the place where the problem is.

Draw Toolbar

A variety of drawing tools empower developers to create expansive applications.

Object Toolbar

Registered Components Display



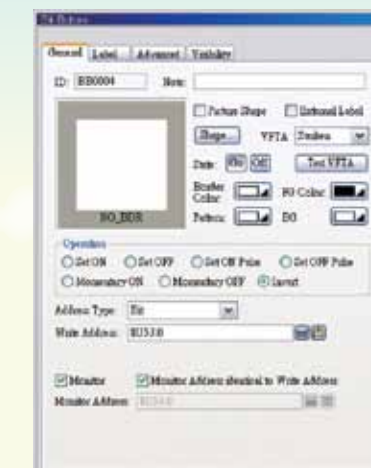
Designing screens is made easy by selecting components from the image list and putting them on the drawing screen.

Edit Toolbar

Dedicated Component Editing Screen

- A component editing screen appears by double-clicking a registered component within the library workspace.
- Editing registered components is quick and easy.

Dialog Box



- The attribute screen is displayed by double-clicking the object or figure.
- Figure changes are immediately reflected onscreen, thereby simplifying the process and reducing setting errors.
- Easy to set the properties through pop-up dialog box.



Software Features

- Allow users to switch multi-language UI dynamically, with Unicode and multilingual screen text supported.
- Provide password protection of designs, macros and upload/download operations.
- Provide index registers for modifying device addresses at runtime.
- Operation log helps the review and investigation of important events.
- Allow downloads of runtime data using serial port, Ethernet, USB and Micro-SD.
- Allow the use of USB memory sticks or Micro-SD for trouble-free application updates.
- Supports over 300 industrial communication protocols, such as SIMATIC S7-1200, BACnet MSTP/BACnet IP, and more.

WebOP Designer Software

Efficient Project-based Structure to Manage Multiple Applications

Project manager

- One project can have many applications.
- The project tree provides all you need to manage a project.
- Global settings and resources sharable to all applications in a project.
- You can make the most out of existing projects by importing / exporting functions for all kinds of settings.
- Containing entire project in one file makes the maintenance job easy.



Software Functions to Meet Various Machine Automation Needs

Possible to achieve a mini-SCADA system

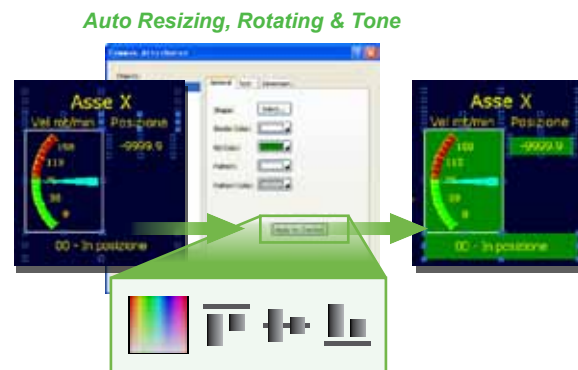
- You can have the following for an application:
 - 10 sets of text to support multiple languages.
 - 4 communication links with the option to add more
 - RS-485 and TCP/IP sub-links.
 - 7999 screens.
 - 1 startup macro; 1 main macro; 4 event macros, 4 time macros, no limitation on other kinds of macros
 - 16 discrete alarm, analog alarm, recipe block and data loggers. data logger
 - 1 operation logger.



User Friendly Tools to Make Customized Designs Easier and More Efficient

Screen editor and toolbars

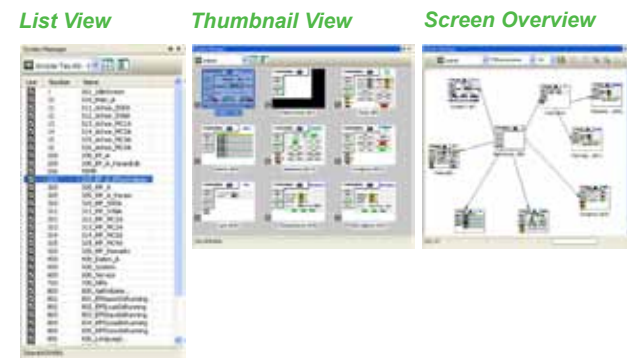
- Real-time WYSIWYG allows you to see the change of object appearance at any time.
- Property dialogs with semi-transparent features will not block your view to screen objects anymore.
- Automatic size adjustment of characters and pictures according to the object size is supported.
- Group a number of objects to move, resize, and modify the common attributes.
- Rotate a picture or change its tone to fit the needs of an object.



Smart Screen Management

Screen manager

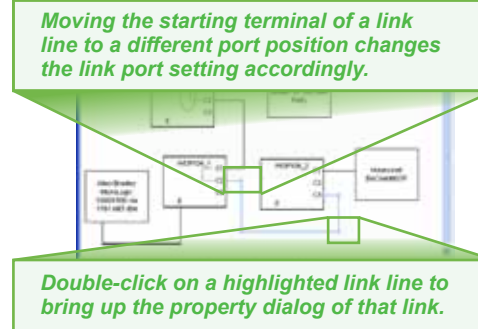
- Show the screen numbers and their names of an application in a traditional text list or a thumbnail list.
- Select screens from the list to edit, cut, copy, delete, or export them.
- Create new screens and import screens can be done through a pop-up menu.
- Click on a screen thumbnail to highlight the connections of that screen with others.
- Double-click on a screen thumbnail to open that screen's editing window or property dialog.



A Graphical Tool for Defining Communication Configuration

Link overview

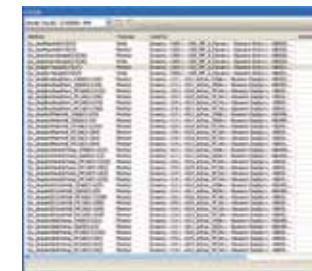
- Depicts the communication links of all the panel applications in a project. You can easily see the panel-device connections and the panel-panel connections.
- Edit the content of the link overview to make it more readable and meaningful.
- Create panel applications and communication links. This is a way of doing top-down design on communication level.



Show All I/O Points With Their Purpose in A Table

Screen editor and toolbars

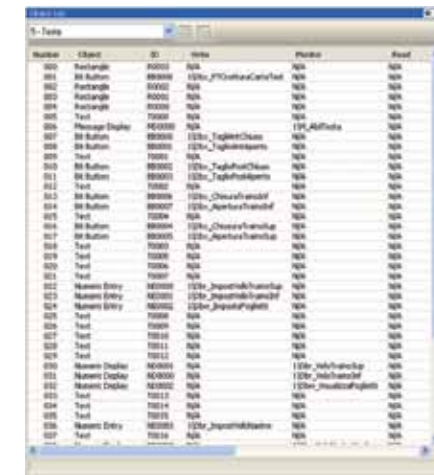
- Double-click on an I/O point to bring up the property dialog of that I/O point's user. It is a convenient way to view or modify the configuration of an entity associated with a certain I/O point.



Display All Objects With Associated I/O Points in a List

Object list

- Show all the objects of a screen with their types, IDs, and associated I/O addresses. You can edit the I/O addresses in the list directly.



Thousands of Professional Pictures to Make Screen Designs Easy and Outstanding

Picture libraries and picture database

- Famous industrial pictures from Symbol Factory are ready for use, so that making your own picture libraries is easy.



WebOP symbols (.BMP)

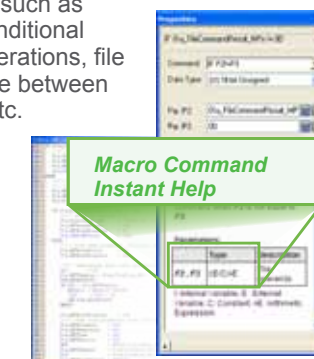
Easy-to-use Macro Editor and Commands

Macro editor and macro commands

- Macro editor and macro commands are useful for operations, such as sequential operations, conditional operations, interactive operations, file operations, data exchange between two connected devices, etc.

Type	ICMD	Type	ICMD	Type
Logic	==	Logic	==	Logic
Logic	!=	Logic	!=	Logic
Logic	>	Logic	>	Logic
Logic	<	Logic	<	Logic
Logic	>=	Logic	>=	Logic
Logic	<=	Logic	<=	Logic
Logic	AND	Logic	AND	Logic
Logic	OR	Logic	OR	Logic
Logic	NOT	Logic	NOT	Logic
Logic	IF	Logic	IF	Logic
Logic	ELSE	Logic	ELSE	Logic
Logic	ENDIF	Logic	ENDIF	Logic
Logic	FOR	Logic	FOR	Logic
Logic	NEXT	Logic	NEXT	Logic
Logic	DO	Logic	DO	Logic
Logic	UNTIL	Logic	UNTIL	Logic
Logic	WHILE	Logic	WHILE	Logic
Logic	ENDWHILE	Logic	ENDWHILE	Logic
Logic	REPEAT	Logic	REPEAT	Logic
Logic	UNTIL	Logic	UNTIL	Logic
Logic	ENDREPEAT	Logic	ENDREPEAT	Logic
Logic	CALL	Logic	CALL	Logic
Logic	RETURN	Logic	RETURN	Logic
Logic	STOP	Logic	STOP	Logic
Logic	END	Logic	END	Logic

Macro Commands

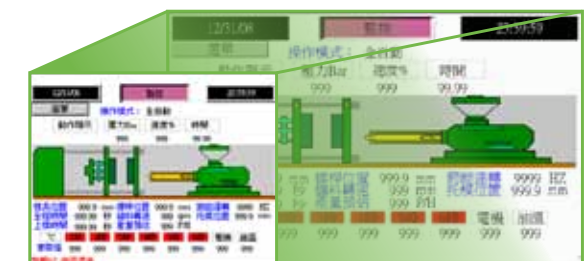


Macro Editor

Changing HMI Model Can Be Done in Seconds

Automatic size adjustment

- When changing the screen resolution, all the screen objects are automatically resized to maintain the relative positions and size ratios to the original screens.



5.7" 640x480

7" 800x480

WebOP Designer Software

Simple Text Mapping Table Fulfills The Needs for Multiple Languages

Text database and text editor

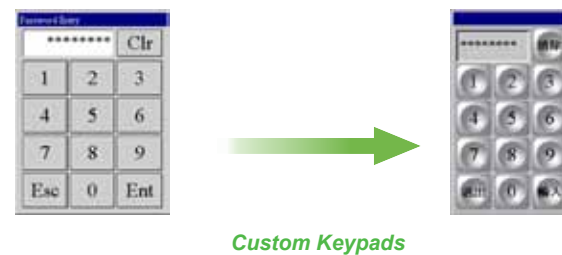
- Text database tables have multiple columns to contain strings for all supported languages with import/export functions, you can use Microsoft Excel to edit strings and import them for an application.



Customized Keypad Layouts and Designs

Custom keypads and on-screen keypads

- You can design your own keypad to make it more appealing or suitable for your requirements.
- Using on-screen keypads instead of pop-up keypads is also possible.



Secure Intellectual Properties

Design protection

- Project files, global macros, and password tables can be protected by different passwords.
- Copying and uploading of an application can be prohibited in advance.



Anti-Piracy Functions

Advanced object settings

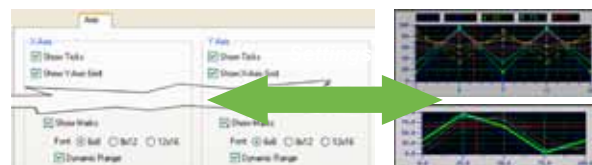
- An allowable input range can be set for a numeric data entry object.
- Buttons, switches, and data entry objects can be disabled or hidden dynamically by the current user level or the specified bits.
- Operator confirmation can be asked for a data entry.
- Minimum holding time can be required for a button/switch.
- Advanced Numeric Display can use a macro to check the user input.



Support Dynamic Data, Scale and Time Ranges for Complicated Applications

Dynamic range

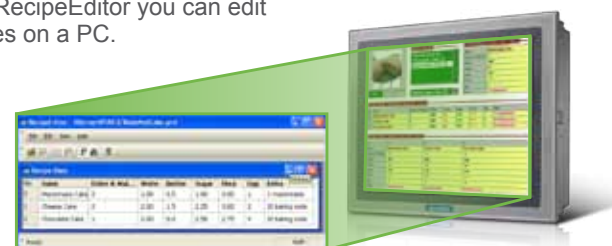
- With the support of dynamic range, a screen object can adapt its display to the current range settings to show information more readable and precise.



Provide Complete Recipe Handling Functions

Recipe blocks

- Supports up to 16 different groups of recipes.
- Transfer of recipes between WebOP and PLCs/files is supported.
- With RecipeEditor you can edit recipes on a PC.



Easy to Configure Data Collections and Historic Data Displays

Data loggers

- You can save/load collected data (up to 16 different data sources) to/from a file by a function button or macro program.
- Historic Event Table displays collected data and history of predefined events in tabular form.

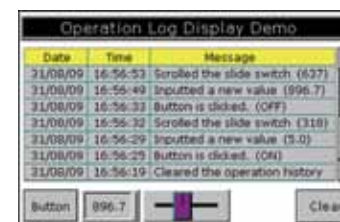


- Historic Trend Graph displays collected data in trend lines
- Single Record Line Chart displays the profile of one sample from a set of collected data.

Operations Can Be Recorded for Improving Quality and Efficiency

Operation logging

- The starting time and the stopping time of an application can be recorded.
- The failure of a communication link can be recorded.
- Operation Log Display lists the logged operations process for the operator to review.

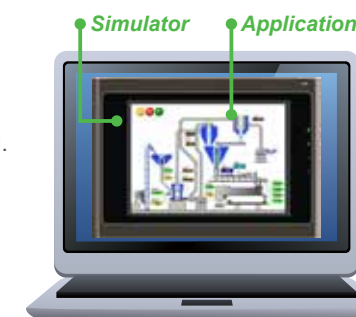


Operation Log Display

Reduce Time and Effort to Boost Performance through Advanced Simulations

Offline simulation and online simulation

- Offline simulation function can help to experience your design result even before decide to purchase this model.
- Evaluate the communication performance using online simulation before installation.



Offline Simulation

Versatile Alarm Monitoring and Display Capabilities

Alarm processing

- Up to 16 discrete alarm blocks and 16 analog alarm blocks can be monitored and recorded.
- Up to 8 data values can be read and recorded along with an alarm event.
- A global alarm marquee is supported.



Easy-to-Use Error Messages

Compiler

- Check the correctness and consistency of all settings and design to optimize the communications with connected devices.
- Translate macros into compact and ready-to-execute codes.
- Build runtime data to be executed by the WebOP.



Provide Various Choices for Application Runtime Data Transfers

Data Transfer Tool & Data Transfer Helper (DTH)

- Use WebOP Designer or DTH to transfer an application's runtime data to a WebOP through a serial port, an Ethernet port, or a USB port anytime when that WebOP is running.
- Without a PC, transfer an application's runtime data to a WebOP by using a USB memory stick or MicroSD card.



HMI Runtime Software - Panel Express

PANEL EXPRESS Designed for Convenience

PanelExpress is a Windows based HMI runtime. It enables you to utilize the resources of a PC, such as computation power, multimedia, and bigger screen, to realize a high-end sophisticated HMI. Its configuration software, WebOP Designer, is also the development tool for WebOP-2000 series RTOS based HMI products. Thanks to the cross platform flexibility offered by WebOP Designer, switching hardware for the consideration of cost and performance becomes an easy job.



General Features

- Cost effective Windows based HMI runtime
- Over 50 kinds of screen objects can fulfill all types of HMI operating and viewing needs for machine automation
- Supports 16 communication links for different application
- No limitation on the internal I/O points which used in an application
- Supports over 350 PLC communication protocols
- Supports data collection, alarm monitoring, recipe handling, and history of operation logging

Advanced Features

- Number of communication links can be set up to 128
- Monitors up to 64 discrete alarm blocks and 64 analog alarm blocks. Totally up to 65535 alarms can be defined
- Supports VNC(Virtual Network Computing)
- Supports Access, My SQL, and SQL databases
- Supports Visual Basic Script

Successful Applications

A Total Automation Solution for Fiberglass Textile Machine



Introduction

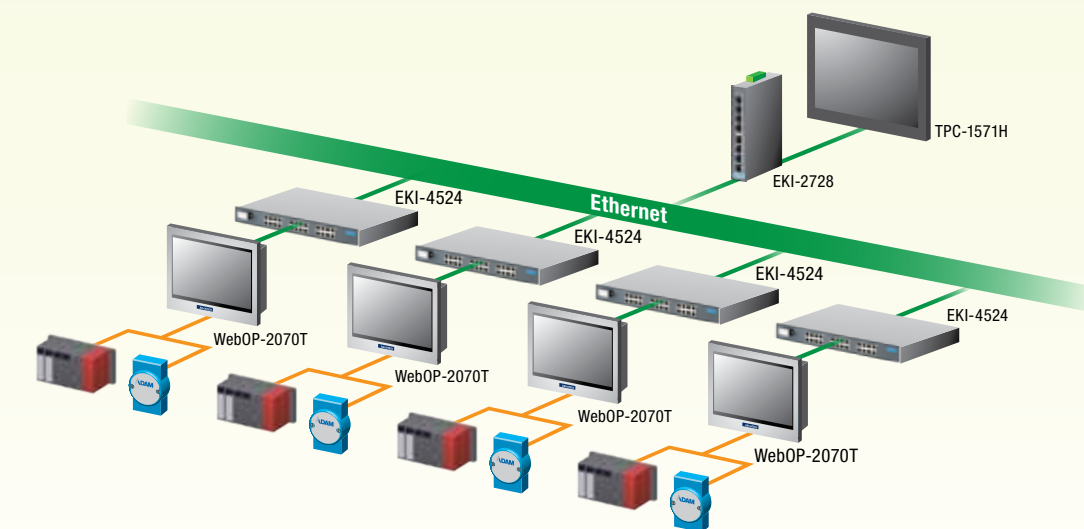
One of Southeast Asia's largest fiber glass manufacturers which is principally engaged in the manufacture and distribution of electronic-grade fiber glass yarns, industrial fiber glass yarns and electronic-grade glass fiber cloth for reinforcement and insulation materials in printed circuit boards (PCBs) was planning to raise the level of automation in production so that administrator can keep abreast of the production status while reducing handwriting errors.

System Requirements

In order to replace the original individual operating mode, the new system has to offer total solution, including a friendly terminal for textile machinery to easily control manufacturing processes, the reliable network connection to ensure accurate data transmission, a powerful computer for control center as a server to deal with large amounts of data. Apart from various devices, the HMI runtime development software to quickly design the suitable user interface for textile machinery and industrial panel PC is also a necessity for this case.

System Diagram

A total of 84 Advantech WebOP-2070T, 7" WVGA Operator Panels, were installed on the production lines to collect a variety of signals from on-site devices such as PLC, driver and stepper motor and this data can be transmitted to 15" Touch Panel Computers (TPC-1571H) in the control center via the two kinds of Ethernet Switches. The WOP-2070T provides an outstanding price performance ratio such as built-in ARM9-based RISC processors and up to 200MHz and 128MB flash memory as well as supporting hundreds of industrial communication protocols. They were bundled with WebOP Designer 2.0 which is a software development kit. The PanelExpress 2.0 is a Windows based HMI runtime and equips with the configuration software - WebOP Designer, enables users to utilize the resources of a PC and realize the high-end sophisticated HMI.



Conclusion

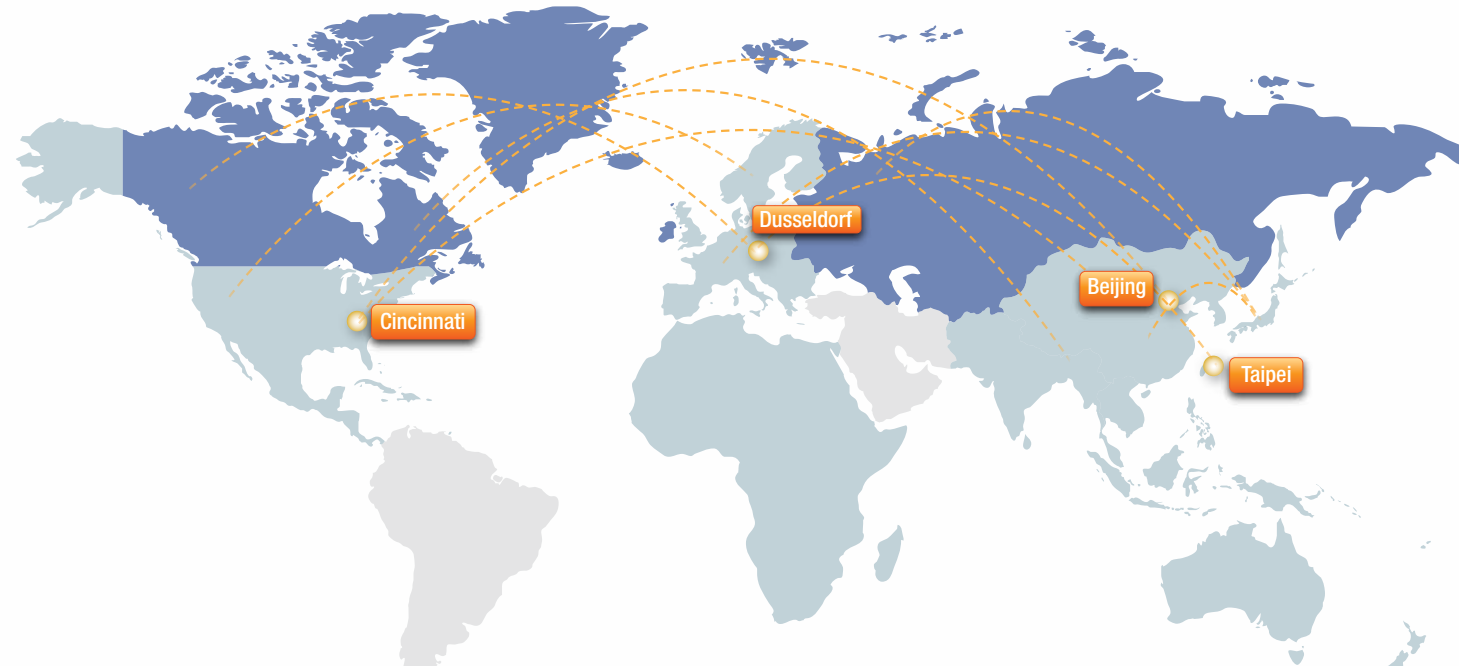
Advantech's total solution not only helps system integrators develop a brand new automation system from the stand-alone operation to an integrated solution but also allows users upgrade its management efficiency from passive maintenance to active management while reducing labor and management costs. Through the database, Advantech's solution even allows administrators to analyze its process work and quickly prioritize process improvement initiatives.

Project Implementation

Product	Description
WebOP-2070T	7" WVGA Operator Panel with WebOP Designer 2.0 Software
EKI-2728	8-port Gigabit Unmanaged Industrial Ethernet Switch
EKI-4524	24-port Ethernet Switch with Wide Temperature
TPC-1571H	15" XGA TFT LED LCD Intel Atom Dual-Core D525 Touch Panel Computer
Panel Express 2.0	Windows based HMI runtime Software

Global Technical Support Network

Providing superior self-support mechanisms is one of the most essential parts of being a top-tier automation company, and we take pride in the outstanding level of service that we offer. To best support our customers, we've created a suite of useful interactive online tools.



Integration Services

Flexible & Cost-Effective

Global, High Quality Support

Dedicated Professionals

Timely Service

Advantech's well-established technical support systems transform your ideas into reality and achieve highly adaptable, just-in-time response.

Local Support

With service teams in each major operating region, we support service through an extensive global network of offices and an industry-leading eBusiness infrastructure designed to provide responsive service that benefits customers anytime, anywhere.

Online Video Tutorials

This tutorial will take you step-by-step through the process and these video tutorials have been developed to help you to understand and make the best use of operator panels. Trainees get real-time integrated information.

Customized Driver Support

Even though WebOP Designer supports over 300 PLC controller drivers, some products may not be supported, but the driver list is growing everyday. Contact us for details on the driver you need.

Online Technical Support Services

WebOP Designer makes it easy to create applications with an intuitive and user-friendly interface, that is flexible and efficient between systems, machines and operators. Therefore, Advantech provides online technical support services for customers to reduce the total cost of ownership during the development and operation. Downloadable software tools and documentation makes it easy to get started. A wide selection of ready-made objects and functions make it easy to create applications through online function block example sharing. You can easily download from our web-site to shorten development time. Also, the forum community is established to encourage discussions which provides valuable information exchange.

The WebOP website contains various information which helps users to know more about WebOP. The complete range of products can be found in this website. The online community forum helps to solve the problems immediately. Tutorial video guides users to operate WebOP series products easily. The applications of the WebOP series can be found in a vertical solutions page. Users can download the latest software from the website. Users can find frequently asked questions on the webpage, or contact Advantech for helps through the WebOP mini-site. For more information, please go to official WebOP website <http://www.advantech.com/webop/>



Function Block Sharing

Categorized function block examples available for download

Online Community Forum

Free online forum makes your topics easy for discussion and response

Download

With latest software download and technical documentation, Advantech provides the latest technical updates and news

Online Mini-site

FAQ

FAQ for WebOP Designer

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