

# Intelligent Operator Panels

Enabling Flexible Connectivity through Powerful Solution-oriented Software

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- ／ WebOP Designer Features
- ／ Successful Applications



**ADVANTECH**

*Enabling an Intelligent Planet*

[www.advantech.com/eA](http://www.advantech.com/eA)

# WebOP

## 2000 Series

To satisfy the stringent standards required in the automation market, Advantech offers the WebOP-2000 series for different applications involving the use of PLCs, motion/thermal controllers, inverters and sensors. WebOP Designer 2.0 is a software development kit which helps create application solutions for labor-saving, improved efficiency of manufacturing and easy control of every machine in the factory. WebOP-2000 series is bundled with WebOP Designer 2.0 offering an outstanding price performance ratio for various markets such as conventional operator panels, HMI + Low mini SCADA systems, and HMI + communication gateways.



WebOP-2040T

WebOP-2050T

WebOP-2070T

### Industrial Applications

- Focuses on textile, packaging and pharmaceutical applications
- Wide market coverage in Building Automation, with BACNet MSTP/TP support

### Hardware & Communication

- Compact, flat-sealed with NEMA4/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



WebOP-2080T

WebOP-2100T

### 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 Series Selection Guide



Model Name	WebOP-2040T		WebOP-2050T		WebOP-2070T		WebOP-2080T		WebOP-2100T		
Ordering Information	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		
CPU	RISC 32bits, 200MHz										
Battery Backup Memory	128KB										
Working Memory	32 MB SDRAM				64 MB SDRAM						
Flash Memory	8MB NOR Flash										
	-	128M NAND flash	128M NAND flash	-	128M NAND flash	-	128M NAND flash	-	128M NAND flash		
Operating System	HMI RTOS, WebOP Designer 2.0										
Display	Type	WQVGA(16:9) TFT LCD		Similar QVGA TFT LCD		WVGA(16:9) TFT LCD		SVGA TFT LCD		Similar WSVGA TFT LCD	
	Size	4.3"		5.6"		7"		8"		10.1"	
	Max. Resolution	480 x 272		320 x 234		800 x 480		800 x 600		1024 x 600	
	Max. Colors	65,536 colors									
	Luminance (cd/m2)	400		330		300		250		250	
	Viewing Angle (H/V°)	100/95		130/110		140/130		140/130		140/110	
	Backlight Life (hur)	LED, 20,000		LED, 20,000		LED, 20,000		LED, 30,000		LED, 20,000	
	Dimming	Adjustable									
Touchscreen	4 wires Analog resistive										
Power-On LED	Yes										
Communication LED	No										
Front USB Access	No										
Communication Interface	COM1	RS232/422/485(DB9 Female )									
	COM2	RS422/485 (5 Pin Plug Connector)									
	COM3	RS232 (Com1: Pin5,7,8)									
	Ethernet (RJ45)	-	10/100-BaseT	-	-	10/100-BaseT	-	10/100-BaseT	-	10/100-BaseT	
I/Os	USB Client	Yes									
	USB Host	Yes									
	Micro-SD Slot	-	Yes	Yes	-	Yes	-	Yes	-	Yes	
Power Supply Voltage	24V <sub>DC</sub> ±10%										
Power Consumption	5W		10W		10W		10W		10W		
Dimension W x H x D (mm)	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")		
Cut-out Dimension W x H (mm)	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")		
Front Panel thickness (mm)	5 mm		6 mm		6 mm		6 mm		6 mm		
Net Weight	0.3 kg		0.51kg		0.6kg		0.93 kg		1.2 kg		
Operating Temperature	0 ~ 50°C (32 ~ 122° F)										
Storage Temperature	-20 ~ 60°C (-4 ~ 140° F)										
Humidity	10% ~ 90% RH @ 40° C, non-condensing										
Ingress Protection	Front panel: NEMA4, IP66										
Certification Approval	CE / FCC / BSMI / CCC / UL										



WebOP-2035V		WebOP-2057V		WebOP-2070V	WebOP-2080V	WebOP-2104V	WebOP-2121V
WOP-2035V-S1AE	WOP-2035V-N1AE	WOP-2057V-S1AE	WOP-2057V-N1AE	WOP-2070V-N4AE	WOP-2080V-N4AE	WOP-2104V-N4AE	WOP-2121V-N4AE
RISC 32bits, 70MHz				RISC 32bits, 200MHz			
128KB							
1 MB SDRAM		1 MB SDRAM	2 MB SDRAM	64 MB SDRAM			
4MB				16MB			
-							
HMI RTOS, WebOP Designer 2.0							
QVGA TFT LCD		QVGA TFT LCD		WVGA TFT LCD	SVGA TFT LCD	SVGA TFT LCD	SVGA TFT LCD
3.5"		5.7"		7"	8"	10.4"	12.1"
320 x 240		320 x 240		800 x 480	800 x 600	800 x 600	800 x 600
256 colors				65,536 colors			
350		400		300	350	300	350
120/100		100/95		140/130	140/130	140/120	130/110
LED, 20,000		LED, 20,000		LED, 20,000	LED, 30,000	LED, 30,000	CCFL, 30,000
Adjustable							
4 wires Analog resistive							8 wires Analog resistive
Yes							
No	COM1 and COM2			No	COM1, COM2 and COM3		
No						Yes	No
RS-232/422/485 (DB9 Female)							
RS-422/485 (5-Pins Plug Connector)							
-					RS-232 (6-Pins Plug Connector)		
-	10/100-BaseT	-	10/100-BaseT	10/100-BaseT			
-							
Yes							
-							
24V <sub>DC</sub> ±10%							
10W	15W		25W	25W	25W	25W	
130 x 106.2 x 45mm (5.11" x 4.18" x 1.77")	187 x 145.7 x 45mm (7.36" x 5.73" x 1.77")		188 x 143.3 x 40mm (7.4" x 5.64" x 1.57")	232.5 x 175.8 x 42.9mm (9.15" x 6.92" x 1.69")	297 x 224 x 52mm (11.6" x 8.8" x 2.04")	315 x 241 x 54.5mm (12.4" x 9.48" x 2.14")	
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")	285.5 x 210.5mm (11.24" x 8.28")	301.5 x 228mm (11.87" x 8.97")	
6 mm	6 mm		6 mm	6 mm	6 mm	6 mm	
0.27 kg	0.65 kg		1.0 kg	1.0 kg	1.55 kg	1.55 kg	
0 ~ 50°C (32 ~ 122°F)							
-20 ~ 60°C (-4 ~ 140°F)							
10 ~ 95% RH @ 40°C, non-condensing							
Front panel: NEMA4, IP65							
CE / FCC / BSMI / CCC / UL							

# WebOP-2000 Series Features

With ARM9-based RISC processors up to 200MHz and 128MB flash memory, the WebOP-2000 series supports a variety of LCD sizes from 3.5" to 12.1" 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-2000 series can easily connect to a variety of equipment. The monitors boast SVGA TFT LCDs with 64K colors and 1024 x 600 resolution for clear displays in any factory setting. Furthermore, these products include NEMA4/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-2000 series and WebOP Designer 2.0 provide an outstanding price/performance ratio for a variety of factory automation needs.



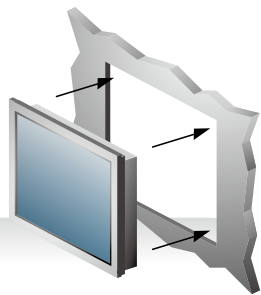
## Complete Range of LCD Sizes From 3.5" to 12.1"

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



## Front USB Access

Front USB port accessible in 10.4" HMI which provides excellent convenience for operators and technicians



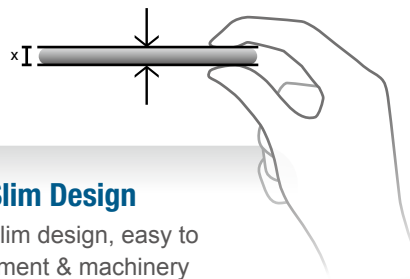
## Panel Mounting

Easy to install into machines with special panel mounting design



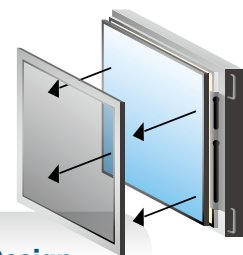
## RTC Battery Backup

Backup sequence programs such as history, alarm, and receipt to keep systems safe in case of PLC failure



## Compact & Slim Design

Compact and slim design, easy to mount in equipment & machinery



## Customized Front Panel Design

Advantech can provide customized front panels with optional labels to service any customer's request



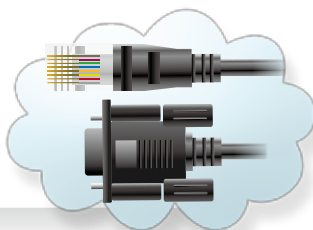
### Horizontal & Vertical Screen Orientation

Portrait mode selection to allow two different display modes



### Waterproof / IP66 Protection

All models support NEMA 4/ IP66 protection and 0 ~ 50°C operating temperatures



### Rich 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.

## 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.



## ■ 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.



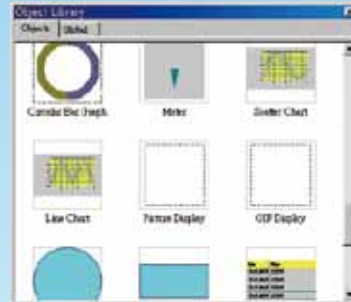
Simple

Easy

Innovative

Object Toolbar

Registered Components Display



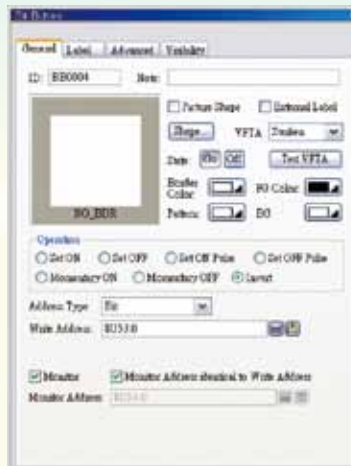
Designing screens is made easy by selecting components from the image list and putting them on the drawing screen.

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.



- 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.

- Support 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 import/export 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 followings 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.

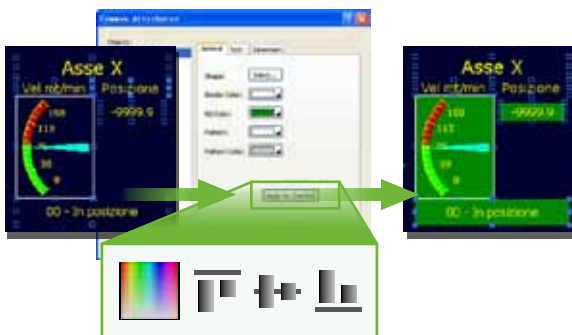


## User Friendly Tools to Make Customized Designs Easier and More Efficient

### 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.

### Auto Resizing, Rotating & Tone



## Smart Screen Management

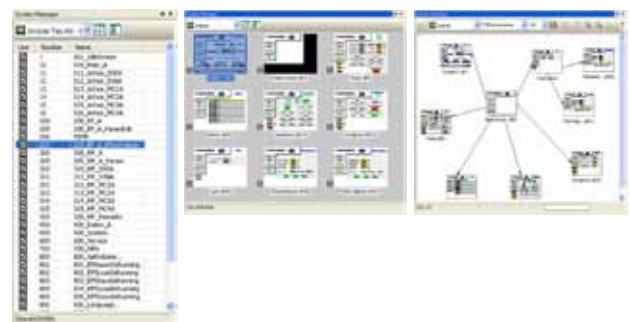
### Screen manager

- 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.

### List View

### Thumbnail View

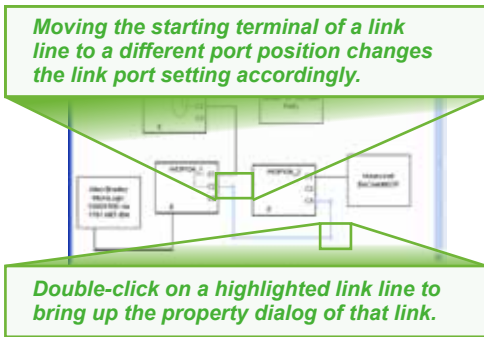
### Screen Overview



## A Graphical Tool for Defining Communication Configuration

### Link overview

- Depict the communication links of all the panel applications in a project. You can easily know 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.



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

### Object list

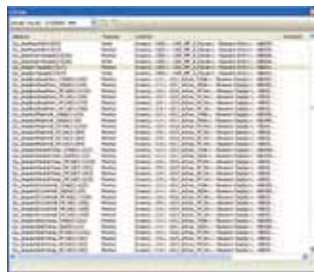
- Show all the objects of a screen with their types, IDs, and associated I/O addresses. You can edit the I/O addresses in the list directly.



## 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.



## 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)

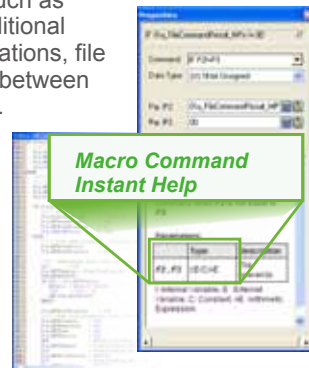
## Easy-to-use Macro Editor and Commands

### 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	CMD	Type	CMD	Type
Number	*	BCD		
	+	BIN		
	-	DO		
	MOV	IO		
	SET	BCD		
	AND	IO2B		
	XOR	CONV		CONV
	OR	ADK		
	AND	XDA		
	OR	DDP		
	AND	DDP		
	AND	DDI		
	AND	DDO		
	AND	DDI		
	AND	DDO		

Macro Commands

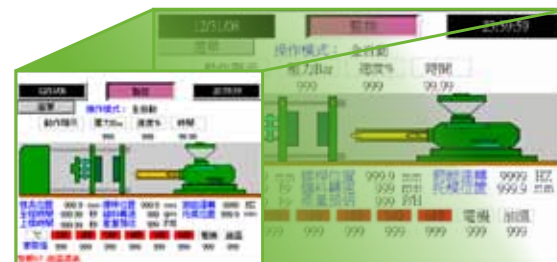


Macro Editor

## 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

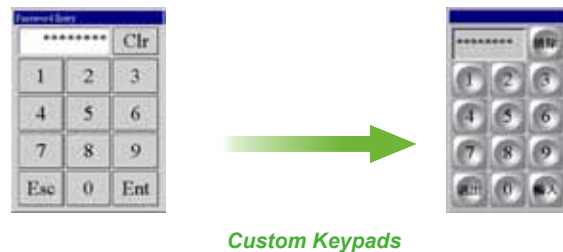
- Text database tables have multiple columns to contain strings for all supported languages with import/export functions, you can use Microsoft Excel to edit strings and import them for an application.



## 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 a special requirement.
- Using on-screen keypads instead of pop-up keypads is 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

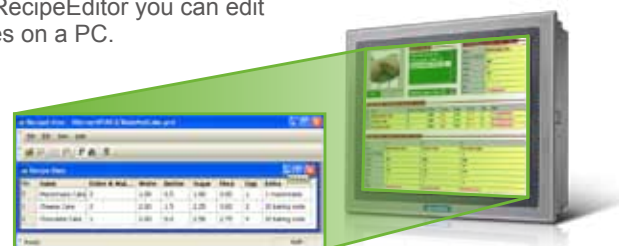
- With the support of dynamic range, a screen object can adapt its display to the current range settings to show information more readable and precise.



## Provide Complete Recipe Handling Functions

### Recipe blocks

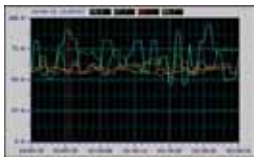
- Support up to 16 different groups of recipes.
- Transfer of recipes between WebOP and PLCs/files is supported.
- With RecipeEditor you can edit recipes on a PC.



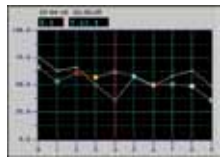
## Easy to Configure Data Collections and Historic Data Displays

### 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.

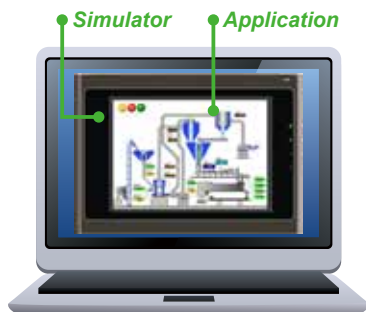
Date	Time	Message
31/08/09	16:56:53	Scrolled the slide switch. (637)
31/08/09	16:56:49	Inputted a new value (996.7)
31/08/09	16:56:33	Button is clicked. (OFF)
31/08/09	16:56:32	Scrolled the slide switch. (318)
31/08/09	16:56:29	Inputted a new value (5.0)
31/08/09	16:56:25	Button is clicked. (ON)
31/08/09	16:56:19	Cleared the operation history

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 an USB memory stick or MicroSD card.



# Successful Applications



## Batch Operation Control in Food and Beverage Market

*APAX-5570 : PC-based Controller with Intel® Celeron M CPU*

*WebOP-2070T : 7" WVGA Operator Panel with WebOP Designer 2.0 Software*

Automated mixing and blending systems are designed to provide accurate proportions of ingredients with quick recipe changes when necessary. The WebOP-2070T and Advantech's APAX Controllers can operate as batch controllers, providing strong computational power for temperature, pressure and sequential functions in the field. Not only can the APAX-5570 easily link with different devices, its wide operating temperature range and robust design allow it to control all day long while maintaining system stability. The WebOP-2070T supports flexible connectivity controls through powerful solution-oriented software which can easily execute functions such as recipe selection and storage.



## Packaging & Label Slitting Machinery Process Control

*WebOP-2050T : 5.6" QVGA Operator Panel with WebOP Designer 2.0 Software*

Delivering a high degree of durability with a low total cost of ownership is a key factor for efficient packaging. Therefore, to provide accurate and on-time information, food and beverage targeted controllers need to be able to connect to standard Ethernet networks with high reliability to provide continuous transmissions. For the data transmission, we need an interface which can connect different devices to make the entire process easier for the end user. WebOP-2050T was highly recommended for this application bundled with WebOP Designer HMI Development software, to create application solutions for labor-saving, improved efficiency of manufacturing and easy control of every machine in the factory.



## Car Wash Control System

*WebOP-2080T : 8" SVGA Operator Panel with WebOP Designer 2.0 Software*

*ADAM-5550 : 8-slot Programmable Automation Controller*

There are a few different steps in a car washing sequence, first is the pre-wash, second is a soap process, and finally the brushing to remove all the dirt off the vehicle. The horizontal brush needs to follow the contour of the vehicle. To control these steps and functions, we need a touch operator panel and controller. For this requirement, WebOP-2080T attached to an ADAM-5550 controller provides the perfect combination to optimize systems for long-term use. This architecture ensures high reliability for critical control tasks and satisfies users in need of high performance solutions for complex control applications.



### Automatic Quality Inspection in Electronic Manufacturing

*WebOP-2100T : 10.1" SVGA Operator Panel with WebOP Designer 2.0 Software*  
*AMAX-2050KW: GX2-400 Machine Control Box with AMONet and CAN Interface*  
*ADAM-5550KW: 8-slot Programmable Automation Controller*

Inspection is a must in quality control to ensure the safety or reliability of structures or machinery. Also, quality inspection can be used by the customer with the objective of reducing risk and total cost of ownership. Inspection of raw material and components can assure and monitor the quantity being produced. The integrated solution consists of an operator panel attached to an ADAM-5550KW and AMAX-2050KW, to provide the data acquisition and analysis, and direct orders to devices. As the main interface for this solution, the WebOP-2100T with flat-panel display was installed near the inspection station and the results can be viewed on the touchscreen monitor.



### Temperature Control Test Chamber

*WebOP-2121V : 12.1" SVGA Operator Panel with WebOP Designer 2.0 Software*

During the process of quality control, temperature and humidity are the necessary tests. Therefore the required chambers need to ensure precise, reliable service in an array of various applications. To meet the requirements, WebOP-2121V is the perfect choice for operating and checking data through graphic expression, all settings can be done in WebOP-2121V with flow and pressure settings.



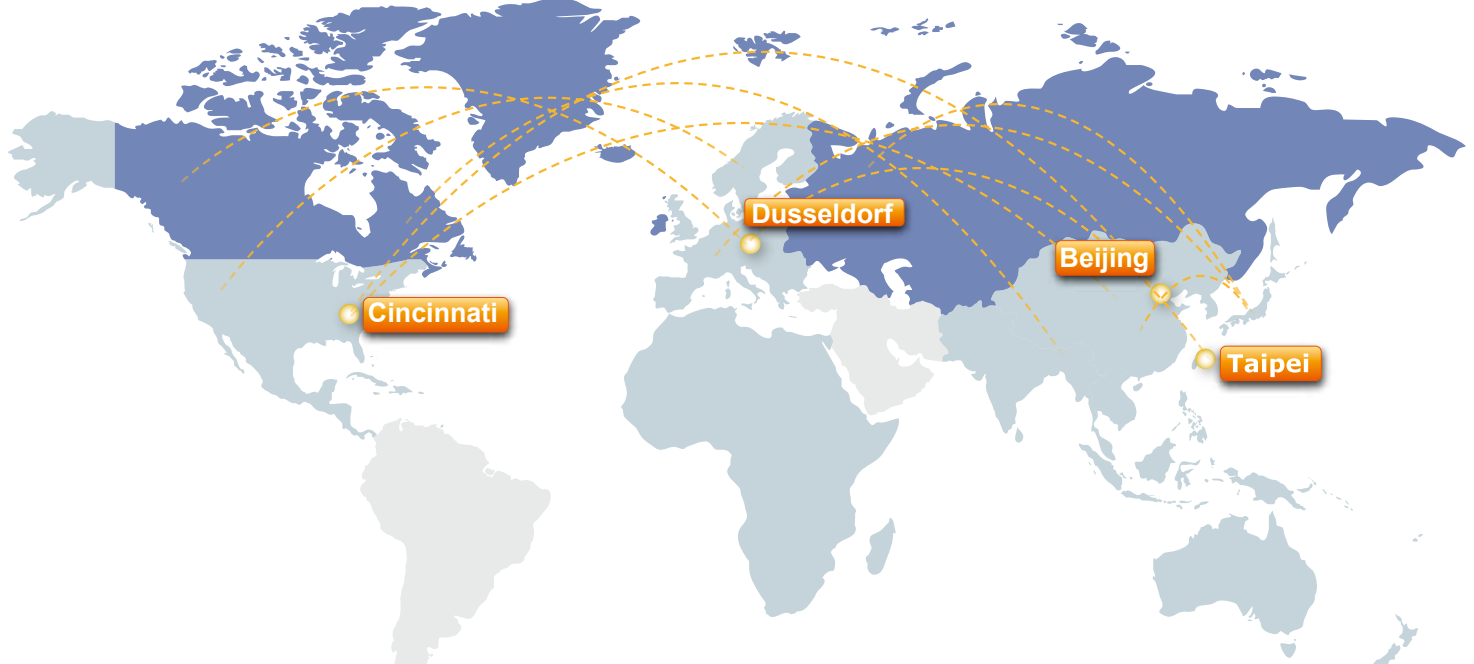
### HVAC Control System in Building Automation

*WebOP-2040T : 4.3" QVGA Operator Panel with WebOP Designer 2.0 Software*

More and more HVAC systems can interface to building automation systems which makes the building owners have more control over the heating or cooling units. The building owner can monitor the system and respond to alarms generated by the system from local or remote locations. The system can be scheduled for occupancy or the configuration can be changed from the Building Automation Solution, depending on the different interfaces can be used. As the main interface of this solution, WebOP-2040T is highly recommended. Not only can it easily link with the control system server, its WebOP Designer software supports data from many devices with various methods.

# 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

**Contact Us**  
Global technical contact information

# Supported PLC Controllers

## Communication Port (COM)

Brand	Model	Driver
A&D Company Ltd.	AD-4401 Weighing Indicator	CAD401
ABIDO Automation Co., Ltd.	ACR420 984 Device/Slave (RTU)	C2C032
ADLEE POWERTRONIC CO., LTD.	MS/AP/AS Series Inverter (RTU)	CAPINV
	BL/D305 Series (RTU)	CAPIPM
Advantech	Null PLC	C00000
	ADAM (Modbus RTU)	C2C031
	ADAM-4012 (ASCII)	CM4012
	ADAM-4017 (ASCII)	CM4017
	ADAM-4018+ (ASCII)	CM4018P
	ADAM-4021 (ASCII)	CM4021
	ADAM-4050 (ASCII)	CM4050
	ADAM-4052 (ASCII)	CM4052
	ADAM-4053 (ASCII)	CM4053
	ADAM-4056 (ASCII)	CM4056
ADAM-4060 (ASCII)	CM4060	
AIGO Technologies Corporation	SE500 Series (Modbus RTU)	C87001
Allen Bradley	Micrologix 1000/1500	C10001
	SLC 5/03, 5/04	C10002
	DH-485 (COM)	C10003
	PLC-5	C10005
	SLC 5/03, 5/04 (CRC)	C10006
ARICO Technology	FC Type(Modbus)	Carfc01
Astraada HMI	Modbus Master (RTU)	C2C021
	Modbus Device/Slave (RTU)	C2C031
	Modicon Device/Slave (RTU, Quantum)	C2C081
	Modbus Master (RTU; Non-volatile slave data)	C2C121
Automation Technology Co., Ltd.	BLDC NLV/KLV Series	CAK200
Banner Engineering Int'l Inc.	BSP01 Series	C51011
CAPAC	TC	CCAP01
CHINO Corporation	DB1000 Digital Indicating Controller (ASCII)	CCDB1k
CMZ Sistemi Elettronici	NFO Controllers	CCMZ051
	FCT Controllers	CCMZ151
	SD Drivers	CCMZ251
	SDS Drivers	CCMZ351
	MDM Drivers	CCMZ451
CTB Technologies Corporation	IMS Servo Controller	CAA001
Danfoss Group	VL 2800 Series (FC Protocol)	CDAVLT
DEIF A/S	Modbus RTU (COM port)	C2C082
Delta Corporation	DVP-ES/SS/EP/EH	C16001
	DVP-ES/SS/EP/EH (No block read)	C16001
	VFD-M Inverter (ASCII)	C16011
	VFD-B Inverter (ASCII)	C16021
	DTC1000/2000 Temperature (ASCII)	C16031
	ASDA-A Servo Controller (ASCII)	C16041
	ASDA-B Servo Controller (ASCII)	C16051
	ASDA-A2 Servo Controller (ASCII)	C16061
Dirise Electric Technology Co.,Ltd.	DRS2000 Series Inverter	C15101
	DRS2800 M Series Inverter	CFDSR01
Emerson Network Power	EC Series (RTU)	C81001
	EV1000 Series Variable Speed Driver	C81011
Epson Corporate	Epson LQ Matrix Printer	CEPSON0
Eura Drivers Electric Corp.	Eura EF1S/1N	C2B001
	Eura EF2N	C2B041
	Eura Inverter (Modbus RTU)	C2C051
	Eura Inverter (Modbus ASCII)	C2C093
Fatek Automation Corp.	FATEK FBs/FBe	C1A001
Festo Corporation	FPC/FEC Series	C1C001
Fuji Electric Corporation	NB Series	C1D001
	PXR Series Temperature (RTU)	C1D011
	FRENIC-VP (RTU)	C1D021
	FRENIC5000G11/P11 (Fuji)	C1D031
	FRENIC-Mini/Eco/Multi/Mega(RTU)	C1D051
FKV Automation Co., Ltd.	F Series Inverter	CFDSR01
GE Corporation	90 Series SNP	C1E001
	90 Series CCM	C1E011
Gigarise Technology Co., Ltd.	SE5000	C87002
	GA400 Temperature (RTU)	C90012
GOFAST Corporation	NC Series	C42001
Haiwell Technology Co., Ltd	HW Series (RTU)	CHW001
Hanbell Precise Machinery Co., Ltd.	Air Screw Compressor	CHANASC
Hitachi Industrial Equipment Systems Co., Ltd	SJ200 Inverter	C1F001
	H/EH Series	C1F020
	EHV Series (Procedure 1)	C1F021
	H-252C	C1F022
	AD Series Servo Drives	CHA04LS
Hitech	Computer as Slave (COM)	C02001
	Computer as Master (COM)	C02011
	Computer as Slave V2 (COM)	C02021
	Computer as Master V2 (COM)	C02031
HOLIP ELECTRONIC TECHNOLOGY CO., LTD	HLP-C+/CP	CHLP01
Honeywell	BACnet/MSTP	cbacmst
	BACnet	cbacnet

Brand	Model	Driver
Hunjoen Electronic Co., Ltd.	H_Tech PID CONTROLLER	Chtech1
HUST Automation Inc.	CNC Controller	CHCNC01
Idec Corporation	FC Series	C22001
IECCO	Sinus Penta Inverter (RTU)	Ciecco
Inovance Control Technology Co., Ltd.	H2u (CPU Port)	C2B041
	MD Series Inverter (RTU)	C2C051
	MD Series Inverter (RTU-1)	C2C051
	IS Servo (RTU)	C2C051
Integrated Flow Systems	iPurge Source Controller	C1F001
JETTER	NANO Series	C24001
JETTER	JetControl 24x Series	C24011
	KV Series	C25001
Keyence Corp.	KV-1000	C25011
	KV-L20V	C25021
	PS4-201-MM1	C26001
Klockner Moeller Corporation	SUCONET K	CSUK01
	K Sequence Series	C27001
Koyo Electric Corp.	Direct Logic Series	C27011
	Direct 06 Series (K Sequence)	C27021
	Direct 06 Series (DirectNET)	C27031
	93xx Servo Controllers (LECOM A/B)	CLZ001
Lenze Drive Systems GmbH	Master-K Series CNet	C28001
	K120S CPU Port	C28011
	Master-K Loader	C28011
	GLOFA GM Series CNet	C28021
	XBM-DR16S	C28031
LG Industrial Systems	GLOFA GM Loader	C28041
	XEC/XGI CNet	C28051
	LGA Series(as Slave)	CLGLGA
LG System	LGA Series (as Master)	CLGLGB
	EX Series (CPU Port)	C2B141
Liyan Electric Industrial Ltd.	LustBus Servo/C/DE Series	Clust1
Lust Antriebstechnik GmbH	LustBus CDD Series	Clust1
	FP Series Computer Link	C29001
Matsushita Electric Works	VF0C Series Inverter	C29011
	VF100 Series Inverter	C29011
	MC2 PID Controller	C85001
Maxtech	MC 5738 (RTU)	C86001
Mean Well Enterprises Co., Ltd.	PRETA	CMSMTN
Megmeet	MC Series (RTU)	C81002
Micro Trend Corporation	UTC Servo Controller	C91001
Mirle Automation Corporation	nDX Controller	C2A001
Mitsubishi Electric Corp.	Melsec-FX (CPU Port)	C2B001
	Melsec-Q/QnA (Link Port)	C2B011
	Melsec-Q00/01 (CPU Port)	C2B012
	Melsec-Q02H (CPU Port)	C2B021
	Melsec-Q00J (CPU Port)	C2B031
	Melsec-FX2n (CPU Port)	C2B041
	Melsec-FX3U (CPU Port)	C2B051
	Melsec-FX3U (Link Port)	C2B052
	Melsec-AnN/AnS (Link Port)	C2B061
	FX2n-10GM/20GM	C2B071
	Melsec-A1S/A2S (CPU Port)	C2B081
	FR-E500 Series (485)	C2B091
	Melsec-A3N/A1SH (CPU Port)	C2B0A1
	Melsec-AnA/AnU (Link Port)	C2B151
	Servo Amplifier MR-J2S-A	C2B161
	Melsec-A2A/A2AS (CPU Port)	C2B171
	Melsec-Q06H (CPU Port)	C2B181
	Melsec-Q12H (CPU Port)	C2B182
	Melsec-Q00U (CPU Port)	C2B191
	GOT-F900 Emulator (1:1 Format 1 & 2)	C2B201
Melsec-Q01U (CPU Port)	C2B191	
Mitutoyo Corporation	EV Linear Gage Counter (ASCII)	CMITDEV
Modicon Corp.	Modicon 984 Master (RTU)	C2C021
	Modicon 984 Master (RTU; Little Memory)	C2C022
	Modicon 984 Device/Slave (RTU)	C2C031
	Modbus Master (ASCII)	C2C061
	Modbus Master (ASCII; Little Memory)	C2C062
	Modbus Device/Slave (ASCII)	C2C071
	Modicon Device/Slave (RTU, Quantum)	C2C081
	TSX Premium (Uni-Telway)	C2C0A1
	TSX Quantum (Uni-Telway)	C2C0B1
	Twido (Modbus RTU)	C2C0C1
MTC	Modbus Master (RTU; Non-volatile slave data)	C2C121
	Modbus Master (ASCII; Non-volatile slave data)	C2C161
	MTC96 Controller (Modbus ASCII)	C93001
Muscle Corporation Inc.	Cool Muscle CM1-17L30	CCM117L
MyTech	VL-CX; Melsec-FX2n (CPU Port)	CN2B41

Brand	Model	Driver	
Newtop Co., Ltd.	PSTC (Temperature Controller)	C2C051	
	PSBD (Brushless Driver)	C2C051	
	PSSD (Stepping Driver)	C2C051	
	PSMC (Motion Controller)	C2C051	
	PSNC (Embedded NC)	C2C051	
Omron Corporation	Sysmac C Series Host Link	C2D001	
	Sysmac CV Series Host Link	C2D011	
	Sysmac CS/CJ Series Host Link	C2D021	
	Sysmac CS/CJ Series (FINS)	C2D021	
	Sysmac CP Series (FINS)	C2D021	
	E5CN Temperature (CompoWay/F)	C2D041	
	E5CN Temperature (Modbus RTU)	C2D051	
	EJ1 Temperature (CompoWay/F)	C2D061	
	KM100 (CompoWay/F)	C2D071	
	3G3MV Inverter (RTU)	C2D081	
Pan-Globe Corp.	E9 Temperature Series	C90001	
	E904 Temperature (RTU)	C90011	
	HT Series Temperature Controller	C90021	
PanelMaster	Null PLC	C00000	
	N-to-1 Master (COM)	C01001	
	Multi-drop Client (COM)	C01011	
	N-to-1 Master (Ethernet)	C01021	
	General Device (COM)	C01051	
	2-to-1 Server (COM)	C01061	
	2-to-1 Transparent Server (COM)	C01062	
	2-to-1 Client (COM)	C01071	
	Serial Gateway Server	C010C1	
	Data Sharer (RS485)	C01S01	
	Modbus Master (RTU)	C2C041	
	Modbus Master (RTU; Little Memory)	C2C042	
	Modbus Master (RTU; Non-volatile slave data)	C2C043	
	Modbus Device/Slave (RTU)	C2C051	
	Modbus Device/Slave (Word order in big-endian)	C2C052	
	Modbus Device/Slave (RTU; No block read)	C2C051	
	Modbus Device/Slave (RTU, 30Words)	C2C051	
	Modbus Device/Slave (ASCII)	C2C093	
	Modbus Device/Slave (ASCII; No block read)	C2C093	
	Barcode Scanner	cbcode	
	Epson Matrix Printer	CEPSON0	
	PC Series PLC Module	C1A001	
	PORIS	XC Modbus RTU	C2C031
	RICH Electric Co., LTD.	EI-500 Series (RTU)	CEI500
		EI-9001 Series (RTU)	CEI9001
RKC Instrument Inc.	MA900/CB900 Series (RTU)	C82001	
	CD/CH Series (ASCII)	C82002	
Saia Burgess	PCD Series (S-Bus PGU)	C31001	
	PCD Series (S-Bus, Data Mode)	C31003	
Samwon Technology	NOVA Series (RTU)	C88001	
Schneider Electric	ATV31 Inverter (RTU)	C2C051	
	Lexium 23 Servo Controller (ASCII)	C16041	
Sharp Corporation	JW10/20 Series	CSJW10	
Shenzhen Step Servo Ltd.	Kinco Servo Controller	C50001	
Shihlin Electric&Engineering Corp.	SH Inverter	CS5H01	
SHIMAX CO., LTD.	MAC3 Series (RTU)	CSHI01	
Shinko Technos Co., Ltd.	CPT-20A MODBUS DEVICE/SLAVE (ASCII)	CSCCT1	
	JCS-33A-R/M (Shinko Protocol)	CSJCS01	
	JCS-33A-R/M (Modbus ASCII)	CSJCS11	
Siemens AG	Simatic S7-200 (PPI; 1-to-1)	C39001	
	Simatic S7-200 (PPI; Network)	C39011	
	Simatic S7-300 (MPI Port)	C39021	
	Simatic S7-300 (PC Adaptor)	C39031	
	Simatic S5 3964R	C39041	
	Simatic S5	C39051	
Taian Automation Co.,Ltd.	TP03 Series (Modbus RTU)	C51011	
	TP02 Series	C51021	
Taiwan Instrument & Control Co., Ltd.	TAIE FY100/900 Series (RTU)	CFY001	
	TAIE FY100/900 Series (TAIE)	CFY002	
	FY series DIGITAL PID CONTROLLER	CTAIEFY	
Teco Electric & Machinery Co.,Ltd.	TSDA Series AC Servo	C51001	
	TP03 Series (Modbus RTU)	C51011	
	TP02 Series	C51021	
	TSTA Series AC Servo	C51031	
TESHOW ELECTRONIC.	MY90V/MY40V Series (RTU)	CMY901	
Texas Instruments Incorporated	Ti505	CTI505	
Thinget Electronic Co., Ltd.	XC Series Controller (RTU)	C89001	
Tieon Electronics Co., Ltd.	IPC-03 Series (RTU)	C83001	
TOHO Electronics Inc.	TTX-700 (Modbus RTU)	C3D001	
	TTM-000 Series (TOHO Protocol)	C3D002	
	TTM-200 Series (TOHO Protocol)	C3D003	

Brand	Model	Driver
TOKY ELECTRCIAL	DW8-CD18B	CTDW80
Toshiba Schneider Inverter Corporation	TOSVERT VF Series(Modbus RTU)	C84001
Unitronics	Vision 120 Series (Modbus RTU)	C4A001
Vertex Technology Co., Ltd	VT26/30 Series Controllers (RTU)	CVVT26
Vigor Corporation	M/VB Series	C42001
Wanfeng Electric	WF Series	C42001
YAMAHA MOTOR CO., LTD.	Single-axis Robot Controller ERCD	CYAERCD
Yamatake Corporation	SDC35/36 Temperature (RTU)	C44001
	SDC35/36 Temperature (ASCII)	C44011
	MA500 FA Controller (ECL Host)	C44021
	DMC10 Controller (RTU)	C44031
	DMC10 Controller (ASCII)	C44041
	MX30	CYAMX30
	MX50	CYAMX50
	Yaskawa Corporation	Σ-ⅡSGDM/H Series AC Servo
Yaskawa Corporation	MP Series Controller (Memobus)	C45011
	V7 inverter (Memobus)	C45021
	NS600 Servo Controller	C45031
YE-LI ELECTRIC & MACHINERY Co., Ltd.	YPV Servo Controller	cyeli1
	YJD Servo Controller	cyeli2
Yokogawa Electric Corporation	FA-M3 Series (CPU Port)	C46001
Yudian Automation Technology Ltd.	AI-7048 (AiBus)	C47001
	AI518/708/808/518P/708P/808P Controller (Albus)	C47011
Zhuhai Motion Control Motor Co., Ltd.	BP Series PSDA driver (RTU)	C2CBP1

## Communication Port (Ethernet)

Brand	Model	Driver
Allen Bradley	MicroLogix 1000/1500 via 1761-NET-ENI	C10E01
Astraada HMI	ModBus Master (TCP/IP)	C2C001
	ModBus Device/Slave (TCP/IP)	C2C011
	ModBus Master (TCP/IP; Type 2)	C2C101
	ModBus Device/Slave (TCP/IP; Type 2)	C2C111
CMZ Sistemi Elettronici	FCT Controllers(TCP/IP; Type 2)	Cmz111
DEIF A/S	TCP/IP Modbus (Ethernet port)	C2C112
EasyIO	EasyIO-30 (RTU)	C2C211
Fatek Automation Corp.	Fatek FBs/FBe (TCP)	C1A011
	SRTP Ethernet	C1E101
GE Corporation	SRTP Ethernet (Micro)	C1E102
	Hitachi Industrial Equipment Systems Co., Ltd	EH/EHV Series (Ethernet; TCP)
	EH/EHV Series (Ethernet; UDP)	C1F007
Honeywell	BACnet/IP	cbacip
JETTER	JetControl 24x Series (Ethernet)	C24012
Lenze Drive Systems GmbH	E94AYCEN GCI(TCP/IP) Protocol	CLZ003
Mirle Automation Corporation	Fama SoftPLC Ethernet	C19E01
	ModBus Device/Slave (TCP/IP)	C2C011
Mitsubishi Electric Corp.	Q Ethernet	C2BE11
	ModBus Master (TCP/IP)	C2C001
	ModBus Device/Slave (TCP/IP)	C2C011
Modicon Corp.	ModBus Master (TCP/IP; Type 2)	C2C101
	ModBus Device/Slave (TCP/IP; Type 2)	C2C111
	Omron Corporation	Sysmac CS/CJ Series FINS/TCP
PanelMaster	N-to-1 Slave (Ethernet)	C01031
	TCP/IP Gateway Server	C010B1
	Data Sharer (UDP)	C01E01
	Modbus Device/Slave (TCP/IP)	C2C211
PORIS	XC ModBus TCP	C2C011
Saia Burgess	PCD Series (Ether-S-Bus)	C31007
Siemens AG	Simatic S7-300 Ethernet Module (CP343)	C39E01
	SIMATIC S7 (Ethernet)	C39E02
TPM	EPC-1000	CTEPC0
Yaskawa Corporation	ModBus Device/Slave (TCP/IP)	C45012
	Extended MEMOBUS	C45013

Note:

- The listing brand names are in alphabetical order.
- Driver Programs may be updated at any time, please contact with your Advantech representative at any time to confirm latest information.

### Key Features:

- High-performance discrete drive to support high data acquisition.
- The Communication speed of Simatic S7-300 (MPI port) can reach 187.5 kbps without adapter.

**ADVANTECH**

*Enabling an Intelligent Planet*

[www.advantech.com/eA](http://www.advantech.com/eA)

Please verify specifications before quoting. This guide is intended for reference purposes only.

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