UNITRONICS®

spectra
Industrie-PC & Automation

PLC +HMI
ALL IN ONE™

Powerful Software
Outstanding Support
Complete Range of PLCs

UniStream®

Powerful Software

Single, intuitive, feature-rich programming environment & utilities suite

Unitronics provides a powerful solution; our software is more than a match for any requirement. Ladder programming, hardware configuration, HMI design and communications are all programmed in an single, intuitive software environment. This all-in-one approach reduces the time and effort needed to program a unit. Not only is our software user-friendly, all of Unitronics software and utilities are provided at no extra cost.

Outstanding Support

Expert support without fees or tiers

"The support, both via telephone, email and the Unitronics forum, is among the best in the industry" says Jose Padro, President of Alpha Systems, Inc. Unitronics offers best-of-breed technical support to every user without added fees, tiers, or hoops to jump through. Every question we receive is answered by an experienced member of our support team. The same team of experts is available at every step of the project.

About Unitronics

Complete Range of PLCs

A range of product lines to match your exact requirements

With 25 years of experience in automation, Unitronics has established several PLC lines with options to meet a diverse range of requirements. Our R&D strategy is to stay close to the market; we listen to our customer›s current needs and future plans and develop new solutions accordingly. This strategy enables us to offer simple tried-and-true solutions alongside cutting edge innovations.

PLC +HMI

ALL IN ONE™

Modular All-in-One

All-in-One, simple configuration–saves on cabinet space and wiring costs

The UniStream® platform comprises a versatile and powerful CPU, a variety of elegant HMI touch-panels, I/O modules and communication modules that are very easy to install and require minimal wiring.

Integrate third-party devices via EtherNet/IP™, CANbus or RS232/485 using MODBUS or CANopen.
Use the UniLogic® Message Composer to adapt UniStream to any protocol.

Audio Out

microSD

2xUSB (Host)

USB (Programming)

2x Ethernet
(for daisy-chaining)

Supports

EtherNet/IP™

I/O or Communication modules: Simply snap to the back of the HMI panel- no need to move any of the neighboring units.
Use “Wide” I/O modules for a denser I/O arrangement (their model numbers comprise a “W”).

CPU

Slim I/O

Wide I/O

COM module

Remote Access

Access your PLC from anywhere at anytime

Access UniStream®
from anywhere at any time

Connect directly via Ethernet or USB, or use VNC to connect mobile phone, tablet, or PC. Use your browser to surf to UniStream's built-in webserver.

UniLogic® Top Features

UniLogic® Studio provides a unified environment for hardware and communication configuration, Ladder, and HMI applications.

All-in-One …
Ladder, HMI & Web Server, Hardware & Communications, Data Trends & Recipes, Alarms and more

Build-it-Once …
Reuse Library: Functions, HMI & Webpages

Context-sensitive…
Toolbox for Ladder, HMI & Web Elements

Power from C …
Structs & C Functions

No Searching …
Everything is visible

All-in-One Ergonomic Design - Everything is Visible

The Solution Explorer shows it all: Hardware Configuration, Ladder functions, HMI and Webserver screens, Actions, Data Tables, Data Samplers, Communication protocols, SMS, and emails. Context-sensitive toolboxes display only relevant options and functions.

Structs - Tag Database on Steroids

You create Structs - groups of data tags of different types organized into a single, logical unit - and reuse them across programs, especially with UDFBs (User Defined Function Blocks). UniLogic' built-in Structs enable you to configure and control hardware and complex functions such as Communications and PID.

Speed Ladder Programming – plus "C" Power

Build your Ladder: drag & drop elements that snap into place, error-free. Use the built-in C Function editor to write C functions. UniLogic means you 'write-it-once': create code to use, reuse, and export across projects. Create UDFBs (User Defined Function Blocks) - self-contained functions for tasks such as oven control.

Power Data Tools - Data Sampler, Data Tables, Recipes

Data Samplers record dynamic application data, such as output values, at fixed intervals into files; display it as Trend graphs on the HMI.
Data Tables are a unique power feature: organize and manipulate data via Ladder, create data logs, implement Recipes, import/export values from/to Excel, allow users to enter/edit data into Data Tables via the panel, and more.

Web Server: Easily create web pages

You do not need to know any HTML at all to design elegant web pages: the drag & drop interface is identical to the HMI editor. A rich graphic library is at your disposal. The Web Page toolbox offers user controls and widgets, enabling the end user to view and enter application data via any web browser.

Design Beautiful HMI Displays - Stream Video, Audio, Pdf

HMI screens appear as if they were designed by a graphic artist, when you use UniLogic's extensive free graphic library and HMI widgets. The simple HMI editor supports layers, image transparency, overlap, and rotation.
Video and audio player widgets, complex trend graphs and gauges for the display of run - time values, and data table display, are visible in the HMI toolbox - just drag & drop them onto your screen.

Build-it-Once, then Reuse - the Ultimate Time Saver

Add your UDFBs, HMI screens, and Web Pages to the Library. Then, drag & drop them where you need them - UniLogic takes care of the tags.
You can import your Library into any project, and share it with others.

Languages: from Italian to Chinese at the touch of a button…

UniLogic supports any language that you can type - including Asian languages such as Chinese, Japanese, and Korean. You simply enter translated text into the Language Table Translation. Instantly switch HMI language via user actions or program events.

Built-in Alarms - Easily Boost Application Safety

Accords with ISA 18.2 standard guidelines for Alarm Management systems in the process industries. Intuitive features allow operators to detect Alarms, analyze them, and take action. Export your Alarm Log via FTP, send it via email, or copy it directly from the controller via a DOK. Alarms feature full multi-language support.

Communications: Configuration not Programming

Incredibly fast, easy to configure and implement, UniStream data communications function independently of Ladder. A single PLC can contain multiple slave definitions - and multiple master definitions. Communicate with any device via plug-and-play for protocols such as MODBUS, CANopen, SNMP, and EtherNet/IP. Use Message Composer for data communications with devices such as frequency converters and bar-code readers via any Ethernet, CANbus or serial 3rd -party protocol. UniStream also supports CAN Layer 2, FTP Client/Server, SMS, email, and communications via GSM/GPRS modem.
Remotely Access your UniStream via VNC from PC, cellphone, or tablet. Plus, the built-in Web Server enables secure remote monitoring and data editing.

Completely modular in architecture, UniStream® enables you to create a compact control device that comprises the optimal configuration for your specific application.

	CPU + 7" HMI Panel	CPU + 10.4" HMI Panel	CPU + 15.6" HMI Panel
Part Number	USC-P-B10 and USP-070-B08/ USP-070-B10	USC-P-B10 and USP-104-B10	USC-P-B10 and USP-156-B10
Number of I/Os per CPU (On-board, local and remote)	Up to 2,048		
On-board Uni-I/O™ or Uni-COM Modules (All-in-one configuration)	Snap up to 3 slim or 2 wide modules (1)	Snap up to 5 slim or 3 wide modules (1)	
Local Uni-I/O™ Expansion	Use Local Expansion Adapters to add up to 80 slim modules or 50 wide modules (1)		
Remote I/O Expansion	Use EX-RC1 adapters to further extend the number of I/Os (4)		
Bit Operation	0.13 µs		
Ladder Memory	1 MB		
External Memory	microSD and USB Flash drive		
Video	Show MPEG-4 videos on the HMI screen		
Audio	Play MP3 audio files via internal speaker, or external speakers via audio-out jack		
Power Supply	12/24VDC		
Backup Battery	CR2032 Back-up RTC values, system data and retained tags		
Communication			
Ports	2 Ethernet • 1 RS485 • 1 CANbus 2 USB host ports • 1 USB device port for programming		
Protocols	MODBUS, EtherNet/IP™, CANopen, SNMP, FTP, BACnet(2), RTSP, VNC, UniCAN, GSM (SMS, GPRS), KNX, Message Composer for 3rd party protocols		
HMI Panel			
Type	TFT, LCD, Touch HMI Panel		
Size	7"	10.4"	15.6"
Resolution	800x480 (WVGA)	800x600 (SVGA)	1366x768
Viewing Area Height x Width (mm)	USP-070-B08: 152.4 x 91.44 USP-070-B10: 154.08 x 85.92	211.2 x 158.4	344.23 x 193.53
Colors	65,536 (16bit)		16M (24bit)
Display Backlight Illumination	White LED		
Environment			
Protection	IP66, IP65 and NEMA4X when panel-mounted (3)		
Operating Temperature	-20°C to 55°C (-4°F to 131°F)		0°C to 50°C (32°F to 122°F)

Local Expansion Adapters

UAG-XK125	Short Range Kit, 125 cm
UAG-XKP125	Short Range + embedded Power Supply Kit, 125 cm
UAG-XK300	Short Range Kit, 300 cm
UAG-XKP300	Short Range Kit + embedded Power Supply, 300 cm
UAG-XKPLXXXX	Long Range + embedded Power Supply, lengths: 600, 1200, 1500, 2000, 3000cm

Uni-COM™ Communication Modules

UAC-01RS2	1x RS232
UAC-02RS2	2x RS232
UAC-02RSC	1x RS232 port and 1x RS485 port

(1) Uni-I/O™ module series are "Slim" & "Wide". "Wide" I/O modules offer a denser I/O arrangement; their model numbers comprise a "W". In width, one "Wide" module = 1.5 "slim" module.
(2) Using a gateway module: GW-BAC1
(3) UniStream complies with IP66 and NEMA4X only with the audio seal installed, please refer to the installation guide of the HMI panel for information.
(4) EX-RC1: via CANbus, integrate standard Unitronics' I/O modules at distances of up to 1000m. Refer to website for more information.

Expandability On-Board, Local, & Remote I/Os

Select the perfect combination of Uni-I/O™ modules and configure them to fit your application. Snap up to 5 modules on a 10.4" or 15.6" HMI panel, up to 3 on a 7" panel. Expand further either locally or remotely.

		Inputs				Outputs			
	Articles Number	Digital (Isolated)	HSC/Shaft-encoder [4]	Analog	Temperature Measurement	Transistor [5] (Isolated)	PWM/ HSO [5]	Relay	Analog
Digital	UID-1600	**16** Sink/Source	—	—	—	—	—	—	—
	UID-0808T	**8** Sink/Source	—	—	—	**8** Source(pnp)	—	—	—
	UID-W1616T [3]	**16** Sink/Source	—	—	—	**16** Source(pnp)	—	—	—
	UID-0808THS [1]	**8** Sink/Source	**2** 250kHz 32-bit	—	—	**8** Source(pnp)	**2** [2] 250kHz **2** 3kHz	—	—
	UID-0016T	—	—	—	—	**16** Source(pnp)	—	—	—
	UID-0808R	**8** Sink/Source	—	—	—	—	—	**8**	—
	UID-W1616R [3]	**16** Sink/Source	—	—	—	—	—	**16**	—
	UID-0016R	—	—	—	—	—	—	**16**	—
Analog and Temperature	UIA-0006	—	—	—	—	—	—	—	**6** 0-10V 14-bit ±10V 13-bit+sign 0-20mA, 4-20mA 13-bit
	UIA-0402N	—	—	**4** 0-10V, 0-20mA, 4-20mA 13-bit	—	—	—	—	**2** 0-10V 14-bit ±10V 13-bit+sign 0-20mA, 4-20mA 13-bit
	UIA-0800N	—	—	**8** 0-10V, 0-20mA, 4-20mA 13-bit	—	—	—	—	—
	UIS-04PTN	—	—	—	**4** PT100/NI100/NI120	—	—	—	—
	UIS-08TC	—	—	—	**8** Thermocouple	—	—	—	—
Digital/Analog	UIS-WCB1 [1,3]	**10** Sink/Source	**2** 10kHz 32bit	**2** (Isolated) 0-10V, 0-20mA, 4-20mA 14-bit	**2** (Isolated) Thermocouple, PT100/NI100/NI120	**2** [6] Sink (npn)	**2** 250kHz	**8**	**2** 0-10V 14-bit ±10V 13-bit+sign 0-20mA, 4-20mA 13-bit
	UIS-WCB2 [1,3]	**10** Sink/Source	**2** 10kHz 32bit	**2** (Isolated) 0-10V, 0-20mA, 4-20mA 14-bit	**2** (Isolated) Thermocouple, PT100/NI100/NI120	**8** Source (pnp) **2** [6] Sink(npn)	**2** 250kHz (Sink outputs only)	—	**2** 0-10V 14-bit ±10V 13-bit+sign 0-20mA,4-20mA 13-bit

1. This module utilizes two high speed blocks that can each be assigned either to the inputs or to the outputs.
2. 2 outputs are high-speed, up to 250KHz: function as normal or high-speed PWM (same freq. and different duty-cycles). 2 outputs are normal speed: function as normal-speed PWM outputs (same freq. and same duty cycle).
3. Width: 1 'wide' I/O module = 1.5 'slim' I/O modules
4. Note that the high-speed inputs are included in the total number of digital inputs.
5. Note that the high-speed outputs are included in the total number of digital outputs.
6. Not isolated

DIN Rail Power Supplies

UAP-24V24W	24W 24V 1A
UAP-24V60W	60W 24V 2.5A
UAP-24V96W	96W 24V 4A

Modems

GSM-KIT-41J	Enfora GSM1318 Q. Band Modem, 2G
GSM-KIT-17J-3G	Cinterion GPRS modem, EHS6T, 3G
GSM-KIT-16J	Cinterion GPRS modem, EHS6T BGS2T, 2G

Configure your Network

Collect & communicate data. Display, access, and remotely control your application.

USB

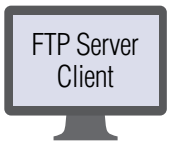
Mouse

Flash Drive

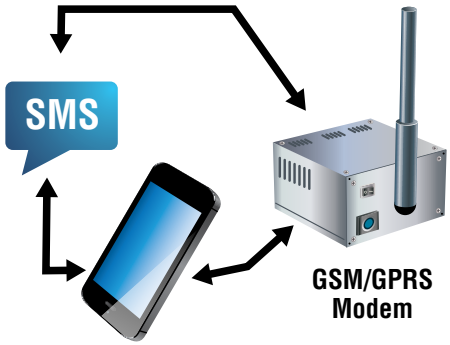
USB to Serial

Prolific 2303

FTP



RS232



GSM/GPRS Modem

Devices examples

CANbus

CANopen

CANopen Slave

CAN Layer2

CAN Device

Remote High Speed I/O

UniCAN

Up to ∧ Remote I/O adapters

Devices examples

This image is for illustrative purposes only. Features and capabilities vary according to model.

Ethernet

ESMTP

Sending emails

HTTP

Web Server

SNMP

SNMP v1 v2, v2c, v3

VNC

VNC Server & Client

EtherNet/IP
(Scanner & Adapter)

FB Protocol IP

BACnet

Via Gateway

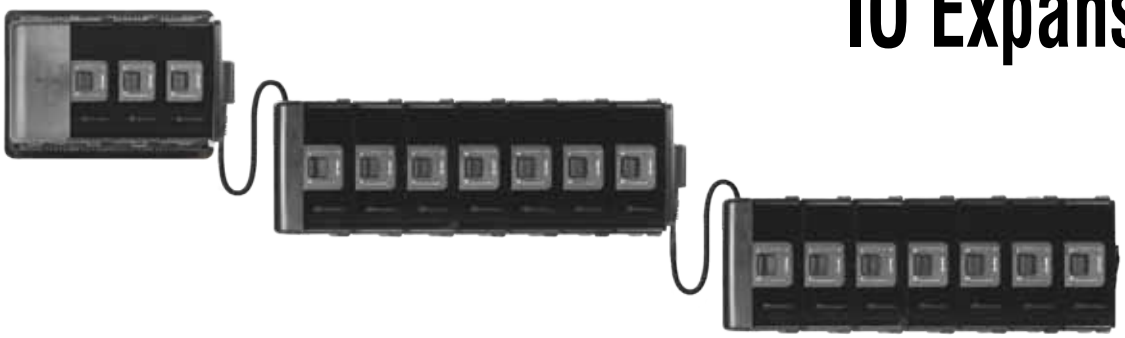
MODBUS IP
(Master & slave)

MODBUS IP Slave

MODBUS IP Slave

Devices examples

IO Expansion



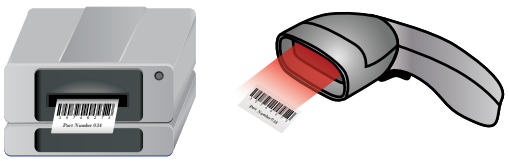
RS485

MODBUS RTU
(Master & slave)

MODBUS RTU Slave

MODBUS RTU Slave

Open Protocol
(Message composer)



Devices examples

CE/UL

powered by individuality

Spectra GmbH & Co. KG
Mahdenstr. 3
72768 Reutlingen
Germany
Phone +49 (0) 7121 14321-0
E-Mail spectra@spectra.de
Web www.spectra.de

Sales offices

North	PC 06, 10-31, 38-39	Phone +49 (0) 7121 14321-48
Center	PC 32-37, 40-54, 56-59	Phone +49 (0) 7121 14321-23
Southwest	PC 55, 60-69, 72, 75-79, 87-88	Phone +49 (0) 7121 14321-55
	PC 70-71, 73-74, 89	Phone +49 (0) 7121 14321-80
Southeast	PC 01-04, 07-09, 80-86, 90-99	Phone +49 (0) 7121 14321-54

Spectra GmbH & Co. KG
Gewerbepark Ost 1
4621 Sipbachzell (Wels)
Austria
Phone +43 (0) 7240 20190
E-Mail info@spectra-austria.at
Web www.spectra-austria.at

Spectra (Schweiz) AG
Flugplatzstr. 5
8404 Winterthur
Switzerland
Phone +41 (0) 43 27710-50
E-Mail info@spectra.ch
Web www.spectra.ch

spectra
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