

# MAPLE SYSTEMS PRODUCT BROCHURE

**Powerful Industrial Control Solutions** 

HMIs • IIoT edge HMIs • HMI + PLCs • Industrial PCs & Monitors • Class 1, Div 2 Options • OITs



## MAPLE SYSTEMS

**POWERFUL INDUSTRIAL CONTROL SOLUTIONS** 

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## **ABOUT US**

### MAPLE SYSTEMS COMPANY PHILOSOPHY

#### **Maple Systems Specializes in Operator Interface Solutions**

We are committed to quality, reliability, and affordability. Our products deliver the quality you deserve, the reliability you demand, with a value that will drive your growth. Whether your customers are residential, commercial, or industrial; whetheryou create custom automation and integration solutions or manufacture products that require 21st century control, Maple Systems will add value and improve your user experience.

#### We Make Machine Control Easy

With modern touchscreens, unrivaled value and functionality, combined with intuitive software, Maple Systems provides a versatile offering of products to complement your machine's design:

- Touchscreen HMIs
- Headless HMIs
- IIoT edge-device HMIs
- HMI with built-in IO
- Class 1, Div 2 Options
- Industrial PCs
- Industrial Monitors
- Text-Based Alphanumeric OITs



Used and Trusted by Small Companies and Fortune 500 Companies

Our goal is to offer high-quality control solutions at affordable prices. We strive for continuous product improvement by being experts in our field, employing the latest technologies, and ensuring that every product is fully tested and inspected before leaving our facility. Paired with an outstanding support team and our comprehensive technical website, you'll see that Maple Systems truly is your industrial control solution.

#### **Contact Us Today**

We invite you to explore our product offerings and contact us to discuss how Maple Systems can help solve and supportyour automation and control needs:

Phone:425.745.3229Email:sales@maplesystems.comWebsite:www.maplesystems.com



## **HMI OVERVIEW**



#### HMI Solutions for Every Machine.

Companies around the globe rely on Maple Systems products to help ensure uninterrupted production of critical resources. Whether you're designing for a new application or updating an existing one, Maple Systems offers industrial automation and networking solutions that provide the connectivity, monitoring, and control required to get the job done. Our Human Machine Interfaces (HMI) make your automation, data monitoring, and networking easy with our user-friendly HMIs and IIoT ready edge-devices. Free, powerful HMI configuration software for our HMIs provides the flexibility to create and deploy custom control applications suited to your unique industrial process. With support for over 300 PLC & controller communication protocols, EBPro enables our HMIs to seamlessly integrate with your new or existing system.

Technological advances in the fields of IT, personal electronics, and manufacturing are expanding the role of the traditional HMI in the automation market. Today, there are many more ways in which humans can and want to interface with their machines. It is no longer just an operator physically standing in front of a machine using a touchscreen to control basic operations. HMIs must network to a central location where a plant manager can monitor operations efficiently and receive quick alerts to resolve maintenance issues. And, machine operators want to be free to walk around the facility controlling their machines via tablets and smartphones.



Maple Systems now makes this possible with innovative HMI touch screens, servers, and gateway products. These products are designed to meet the expanding need for the <u>IIoT and Industry 4.0 solutions</u> to connect to equipment, while still preserving the core function of a fixed operator terminal. Choose from touchscreen HMIs in display sizes of 4.3", 7", 9.7", 10", 12", 15", 15.6", as well as headless HMIs and edge-gateways. Our industry-leading HMIs include Resistive and Capacitive Touchscreens, Wi-Fi, Dual Ethernet, Remote Access, and Class 1, Div 2 rating options; PLUS support for IIoT protocols such as OPC UA, SQL Database integration, MQTT, Ignition, SparkPlug B, and more.

### MAPLE SYSTEMS Panel Mount HMIS



## Our HMIs offer robust features, high-quality components, fast processors, and affordable pricing.

These high-functioning HMIs are perfect for any project or industry. Our powerful HMIsare <u>IIoT-Ready</u>, making it easy to connect to factory equipment via the cloud. Our HMIs offer the best value in today's HMI marketplace with benefits including



modern touchscreens, intuitive software, and great functionality. Enjoy enhanced features, trusted performance, affordable pricing, and unparalleled support to meet your most demanding automation needs. All Maple Systems HMIs are backed by our comprehensive free technical support and a two-year free warranty.

- 4.3" to 16" models
- Class I, Division 2 available
- IP65/IP66/NEMA/4X, CE, and RoHS certified
- MQTT, OPC UA, & SQL Database
- Remote Access & EasyAccess 2.0

- · Easy-to-use configuration software
- Wi-Fi option available
- Aluminum enclosures available
- Data logging, recipes, and advanced security
- High-Resolution screen options

#### **Control Any Industry**

Maple Systems HMIs are used across many industries including packaging, food and beverage, oil and gas, medical, pharmaceutical, and more. Learn more about the <u>industries we serve</u> and the solutions we provide. Our HMIs come with <u>free\* HMI configuration software</u> that includes enhanced <u>software features</u> such as IIoT data handling, remote access, enhanced security features, recipe management, email notifications, and more.

#### **Protocols**

Our free\* HMI configuration software has the communication drivers you need. Unlimited tags and multiple protocols are supported at no extra cost, with no fees for runtime licenses. Maple HMIs support over 300 controllers (see list here), including:

- Allen-Bradley
- Siemens
- Mitsubishi
- Omron
- GE
- Emerson
- Modbus
- Koyo
- Yaskawa

\*Free software is EBPro Configuration Software

"The main reasons why we use the Maple Systems HMI is that we use a lot of different PLC's [and the Maple HMI is] produced to communicate with all of the different PLC manufacturers, that's one of the big benefits"



E.J. Daigle Dean of Robotics & Manufacturing Dunwoody College of Technology



### MAPLE SYSTEMS Headless HMIS





#### **Communication Gateways**

Designed to add new communications protocols to existing systems, our Communication Gateways will get your legacy systems talking to your management network in a low-cost, low effort way. Unlike other gateway products with limited connectivity, our Communication Gateways offer a vast selection of communications drivers and can communicate with over 300 brands of controllers and transmit that data to SCADA and ERP systems using the most popular IIoT protocols.



#### Headless HMIs

These powerful HMIs are DIN rail mounted HMIs without a built-in display that allow you to use an Apple or Android phone or tablet to access your industrial control system. These IIoT-ready HMIs are perfect for systems where a local visual interface is not needed at an extremely affordable price. These powerful HMIs can communicate with up to ten remote display devices at one time.

If a local display is still required, our Headless HMIs be paired with one of our Industrial Monitors, or any Maple Panel PC running the cMT Viewer application, to provide a traditional touchscreen interface.



#### HDMI-enabled Headless HMIs

Our HDMI-enabled headless HMI offers all the same great features and functionality as our panel-mounted HMIs PLUS, it allows you to connect any HDMI compatible display without size restrictions via a full HD 1080p HDMI output creating an Andon or Annunciator System.

Collect equipment and quality management data from the production line, process the data, and then send visualization and sound to a large screen monitor via HDMI, allowing real-time monitoring and control for onsite operators. Andon Systems are widely used in manufacturing plants for instant visual management. Alarm messages and key productivity indicators from the production line can be collected, displayed, and monitored in real-time. Overall Equipment Effectiveness (OEE) information can be displayed, and identifies the percentage of planned production time that is truly productive



### MAPLE SYSTEMS HMI SOFTWARE FEATURES



## Create and Deploy Custom Control Applications for Your Unique process.

Our <u>free\*, powerful HMI software</u> EBPro gives you the flexibility to design the screens you want quickly - pick and place graphical objects and assign communication (PLC) drivers easily. With support for over <u>300 communication protocols</u> including Allen-Bradley, Siemens, Omron, Emerson, GE, Panasonic, Mitsubishi, and many more, we can seamlessly integrate into your existing system. Visit our Support Center to <u>download your free version</u> or EBPro today.

Here are just a few of the features our HMIs support:

Alarm & Event Messages (Import/Export, Histories, Backup, Display)	Fonts	Recipe View	
Analog Meters	Graphics (Libraries, Bit Maps, Custom Libraries, Lamps, Pushbuttons, Multi-state Switches)	Remote Access (EasyAccess, cMT Viewer, VNC)	
Animation - Flow Block	Grid Display Scheduler		
Animation (Objects, Word Lamps, GIFs, Moving Shapes)	Languages (up to 24 languages supported) Security Levels (Simple)		
ASCII Characters	Library - Label, Picture, Shape	Security Levels (Enhanced)	
Bar Graphs	Library - Tag	Siemens PLC Pass-Through	
Circular Trend Display	Macros	String Table	
Combo Button	Meters & Gauges	Table	
Data Logging (Backup, Display, Historical Data Display)	Modbus	Text Object	
Data Sampling	Interlock, User Restriction, Safety Control	Time Synchronization	
Data Transfer (with Retentive Memory)	Objects (Grouping, Layering, Aligning, Flipping)	Timer Object	
Date/Time	Off-line Simulation on HMI	Trend Display	
Design up to 1,999 Screens	Pass-Through Mode	Trend Graphs	
Display (Numeric, Set Word, Multi-State Switch, Set Bit, Toggle Switch, Combo Button)	Picture Object/Viewer	USB Disk Download	
Dynamic Drawing	Pie Chart	USB Tethering	
Dynamic Scale	PLC Tag Embedded in Project	User-Defined Startup Screen	
Email	Project Password	Utility Manager	
Enhanced Security Mode	Project Protection	VNC Server/Viewer	
Event Alarm Log	Recipe Database	Windows Open/Cycle/Close Macro	
File Browser	Recipe Import/Export	XY Plot	

### INDUSTRIAL INTERNET OF THINGS



## The Industrial Internet of Things (IIoT) Enables Connection to Your Machines and Data Through the Internet.

The IIoT connects powerful data from a manufacturing environment to informational technologies onsite and in the cloud. It offers improved access to more data, better informed decision-making, increased productivity, and higher profits. Maple Systems offers <u>IIoT solutions</u> to meet your needs.

#### Your IIoT Partner

Maple Systems can serve as your partner in the IIoT, making your leap to a connected factory an easy one. Our interfaces offer a gateway access point to the IIoT, enabling operating equipment on the plant floor to connect to informational technologies of the world wide web, databases, smart phones, analytics software, and more. Achieve better access to invaluable data and open a world of possibilities for your business with the IIoT.

Maple Systems IIoT-Ready interfaces offer numerous benefits for OEMs and their customers:

- View how systems are performing and optimize production or machine use to automatically track operations costs.
- A secure connection that safely allows for advanced remote functionality such as push notifications, remote monitoring, and programming.

• Reduced on-site visits, travel expenses, and costly downtime with offsite troubleshooting and configuration. Schedule predictive maintenance based on operational data to stay ahead of maintenance issues. "We always have a few projects in the works, and we are always happy with Maple. The price point is great and Technical Support is an invaluable help. We find your product allows for a smooth integration."

> Nicholas Radley Project Manager NE Controls, LLC

## MAPLE SYSTEMS INDUSTRIAL INTERNET OF THINGS



### Get connected to the IIoT with Maple offerings.

The Industrial Internet of Things (IIoT) is here and it's changing the way manufacturers think about business. These days, everyone wants to be connected, synched up, wireless and remoted in. You name it, we want to be connected to it. Within the manufacturing industry there is a great need and desire for increased connectivity and access to valuable data from our factory machines.

- ~Faster transfer of information
- ~Reduced costs
- ~Easier system set up and management
- ~Email notifications for alarms and data backups ~Data logging for more informed operation and
- decision making
- ~Reduced network traffic due to eliminating the back and forth compared to traditional systems
- ~Automatically receive data updates
- ~Increased amount of open communication
- ~A system that is more responsive to change
- ~Remote access/monitoring/control functionality ~Enhanced network security thanks to physically
- separate dual Ethernet ports

#### EasyAccess 2.0

EasyAccess 2.0 is an IIoT remote access tool connecting users to factory equipment via the cloud. Update your Maple HMI or connected PLC from anywhere in the world. Enjoy easy installation, secure data transmission, and convenient off-site troubleshooting.

#### OPC UA

Open Platform Communications (OPC) Unified Architecture (UA) is a communication protocol supported by many SCADA, MES, and ERP software providers. OPC UA uses a Client/Server architecture. This protocol has built-in security with signed and encrypted data transfer using state-of-the-art encryption algorithms. OPC UA technology is easy to implement, reduces system integration costs, is firewallfriendly, and allows for secure data transfer.

#### **MQTT**

Designed to be light weight, open, and simple, MQTT is a subscriber/publisher messaging transport protocol that is considered a great solution for applications where a small code footprint is required and/or network bandwidth is scarce. It is particularly suitable for continuous monitoring of sensory data such as temperature, pressure, water level, energy monitoring...etc.

#### **SQL Database Integration**

Equipped with easy-to-use database integration, our headless HMIs and select panel-mounted HMIs can send machine metrics and production data or recipes to an SQL database system directly without any middleware system. That data can then be managed on a larger scale using batch database operations. Plus, the built-in database query viewer enables smooth operations using data on the databases. These features can simplify your processing work and save you precious time.

### **INDUSTRIAL PC OVERVIEW**



#### Made for Industrial Environments

Industrial PCs are designed to resolve your toughest automation challenges in manufacturing, processing, and fabrication environments. Our Industrial PCs come with Windows®10, Windows®7 or <u>Ubuntu® Linux®</u> OS installed, touch screens, and are full-strength industrial computers that can operate any Windows® Software, powerful SCADA software such as <u>AVEVA™ Edge</u> and Wonderware®, or configure them using programming languages such as Visual Basic, Python and C++, providing you with flexible options.

#### Our Industrial PCs are customizable and scalable

- Fully Customizable
- Panel, VESA, and DIN Rail Options
- Stainless Steel Panel PCs
- Extended Temperature & Class I, Div 2 Options
- High Brightness/Sunlight Readable PCs and Industrial Monitors
- Capacitive Touchscreen PC and Industrial Monitors

SCADA-Ready

- Wi-Fi options available
- Raid 0 and Raid 1 Support

#### all orders - projects are going well thanks to Maple Systems and we are pleased because Maple is always available at short notice to help." Don Mil

"I am happy across the board with

Don Miller General Manager JAC Manufacturing





<u>AVEVA Edge 2020</u>, formerly known as Indusoft Web Studio, is a powerful HMI/SCADA software package for a wide range of industrial applications. With easy-to-use commands/tool bars and a Microsoft Windows<sup>™</sup> environment, Aveva<sup>™</sup>Edge's feature-rich application puts you in the driver's seat of creating your industrial process. Or, use other 3<sup>rd</sup> party software, or programming languages such as Visual Basic, Python, and C++ to create custom applications.

Industrial PC Overview | 08

## MAPLE SYSTEMS STAINLESS STEEL INDUSTRIAL PANEL PC



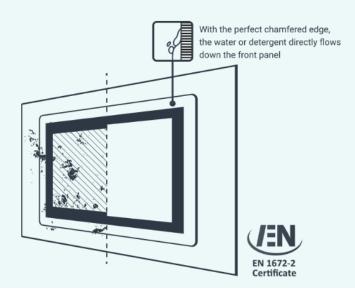


Non-Toxic	Green Material 100% Recycle	Wide Range Temperature Resistant
304 Anti-Oxidation	Easy to Clean	Comparison Cost
Anti-Corrosion	IP69K	Rugged Enclosure Long Life Cycle

#### High Performance, Low Cost

Rugged Stainless Steel Panel PCs with a SUS304 grade stainless steel front bezel. These PCs are IP66/IP69K waterproof when panel mounted into an enclosure, ideal for food & beverage, pharmaceutical, chemical industries, and consumer packaged goods processing operations.

Our <u>Stainless Steel Panel PCs</u> feature capacitive touchscreens that withstand even the toughest environments and are ready for high-pressure, high-temperature regular washdowns.



#### Rugged IP66/69K Capacitive Touchscreen

Rugged 10", 12", 15" and 21" PCs have a SUS304 Stainless Steel front panel with a IP66/IP69K compliant front bezel, making it the preferred choice in environments requiring frequent high pressure and high temperature washdowns.

Maple Systems stainless steel PCs meet the international food safety grade requirement, EN 1672-2 certification for optional, and DIN 42115 Part 2 for the durability of chemical substances and the sealing material meet FDA 21CFR 177.2600.

### MAPLE SYSTEMS HIGH BRIGHTNESS INDUSTRIAL PANEL PC







#### High-Brightness Touchscreen

These sunlight readable Industrial Panel PCs are the touchscreens you've been looking for. In bright environments it can be nearly impossible to see what is displayed on a standard 200-350 nit backlit screen. Our <u>Industrial High Brightness/Sunlight Readable</u> <u>Panel PCs</u> featuring a 1000 nit TFT SVGA LCD, touchscreens are designed for all your light intensive environments.

#### What are Nits?

Monitor Luminance is measured in candelas per square meter (cd/m<sup>2</sup>), sometimes referred to as "nits." Sunlight readable displays provide higher light output, sometimes double the nits of standard displays, and often feature special filters to reduce glare.

400-700 nits would be required for use in normal daylight conditions, and at least 1,000 nits are required for viewing in direct, bright sunlight. Our High Brightness/Sunlight Readable Industrial Panel PCs and Monitors come standard with 1,000 nits.



#### **Easy Installation IP65 Rated**

The High Brightness Display has a unique rubber (O-ring) on the front bezel's rear giving it IP65 rating. This design allows sealing the front bezel and the customer's fixture to prevent water and dust from entering the enclosure. Moreover, the display is easy to install inside a cabinet or a rack for various applications.

#### What is IP65?

- Complete protection from dust, oil, and other non-corrosive material
- Complete protection from contact with enclosed equipment
- Protection from water, up to water projected by a nozzle against an enclosure from any direction

### **MAPLE SYSTEMS EXTENDED TEMPERATURE INDUSTRIAL PC**



CLASS I, 304 316 **DIVISION 2** 

Industrial PCs solutions for applications that are exposed to wide operating temperature ranges from -20°C to 60°C. Designed to handle the harsh environments with hot or cold temperatures, its industrial grade components allow the device to function in temperatures ranging between -20°C to 60°C (-4°F to 140°F) ensuring that the device functions in various climates.

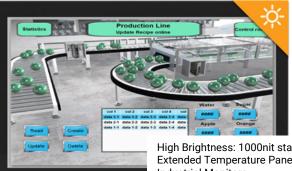
#### **Panel PC Options:**

- Extended Temperature, High-Brightness
- Extended Temperature, High-Brightness, Stainless Steel
- Extended Temperature, High-Brightness, Stainless Steel, Class I, Div 2

All our Extended Temperature Panel PCs feature a High Brightness/Sunlight Readable capacitive touchscreen. With 1000 nits, these Industrial PCs are designed for all your light intensive environments. They deliver a clear and viewable display under bright lighting conditions providing reliable solutions for a variety of commercial and industrial applications.

#### **Industrial Monitor Options:**

- Extended Temperature, High-Brightness
- Extended Temperature, High-Brightness, Stainless Steel. Class I. Div 2



High Brightness: 1000nit standard on all **Extended Temperature Panel PCs and** Industrial Monitors

## 4658 units Stainless Steel: Panel or Box PCs with a SUS304 grade stainless steel front bezel options are available.

#### **Box PC Option:**

Extended Temperature, Stainless Steel, Class I, Div 2 

High quality, wide temperature ranges, and configurations designed to be versatile and rugged for harsh environments in the smart energy industry.



## CLASS I, **DIVISION 2**

For those applications that require Class 1, Div 2, we have Panel PC, Box PC, and Industrial Monitor options

### MAPLE SYSTEMS CLASS I DIVISION 2 INDUSTRIAL PCs & MONITORS

### Paving the Way for the Oil and Gas Industry

#### CLASS I, DIVISION 2

Certifications

ANSI/ISA 12,12-01-2013 CSA Std., C22 No213-1987

Dc

Class III

CE /FCC Class A ATex / IECEX Zone2 Ex ec ic IIC T4 Gc

ATex / IECEx Zone 22 Ex tc IIIC T135°C

Class I, Division 2, Group A,B,C,D,T4 Class II, Division 2, Group F,G T135°C

Our AEx series is the preferred solution for hazardous environments. It is capable of withstanding vibration, shock, corrosion and can operate under the conditions of gas exposure, vapor, powder and dust.

- ✓ 15" TFT-LCD
- Intel 6th Gen. Core i5 Processor
- ✓ ATEX/IECEx Zone2
- ✓ Zone 22
- C1D2/C2D2/C3 Certified
- SUS 316 Stainless Steel
- High Brightness 1000nits
- Extended Temperature
- Total IP66 Grade with M12 Waterproof Connectors



#### Class I, Div 2 Panel PCs

- 15", 19", 21" IPC's
- 316 Stainless Steel
- Sunlight Readable, 1000 nits\*
- Optical Bonding
- Wide Temperature -20°C ~ 60°C (-4°F ~ 140°F)
- Intel N2930 or Intel i5 Processor Options
- Win 10 IoT Enterprise
- IP66 Rating All 6 Sides
- VESA or Panel Mount
- Comes Waterproof M12 Connectors/Cables

\*1000 nits only available on 15" and 19" units



#### Class I, Div Box PCs

- Fanless, 316 Stainless Steel
- Intel Celeron N2930 1.8GHZ
- Wide Temperature -20°C ~ 60°C (-4°F ~ 140°F)
- IP66 All 6 Sides
- Win 10 IoT Enterprise
- Comes with Waterproof M12
   Connectors/Cables



#### **Class I, Div 2 Industrial Monitors**

- 15", 19" Capacitive Touch
- Sunlight Readable, 1000 nits
- Wide Temperature -20°C ~ 60°C (-4°F ~ 140°F)
- 316 Stainless Steel
- IP66 All 6 Sides
- Comes with Waterproof M12
   Connectors/Cables

#### Industrial PC | 13

## INDUSTRIAL PC

#### **Industrial PC Hardware Features**

If you're looking for a powerful industrial PC, but don't need a display, our <u>Box Industrial PCs</u> are the perfect combination of performance and sturdy construction at a low-cost. These models can be paired with one of our Industrial Monitors. Class 1, Division 2, and Extended Temperature options available.

#### BPC2310A & BPC2311A

- Intel® Celeron N2930 1.83GHz processor
- 4 GB memory, optional upgrade to 8GB
  - 64~512 GB Solid State Hard Drive
- 2 or 3 Serial ports

- 6 USB ports
- 2 Ethernet LAN
- Aluminum bezel & enclosure
- Wall mount or DIN-rail mount options
- Optional Wi-Fi Kit available
- Fan-Less



#### BPC2330A

- Intel® Dual-Core or Quad-Core options
- Up to 32GB DDR4 SO-DIMM RAM
- Two 2.5" SSD bays, RAID 0 and RAID 1 support
- 4 Serial ports
- 6 USB ports
- 4 Ethernet LAN
- Aluminum bezel & enclosure
- Optional Wi-Fi Kit available
- Fan-less

#### Add-on an Industrial Monitor to your PC for added benefit

Industrial touch screen monitors are designed and tested for harsher environments making them much more rugged, compared to typical "office" monitors. They are designed to withstand prolonged shock & vibration, a wide temperature range, and protection from water and dust. All our industrial monitors can be panel mount, or VESA mounted, depending on your application. Class 1, Division 2, and Extended Temperature options available.

Our high brightness/sunlight readable monitors are ideal for applications in Industrial Automation, Healthcare, Finance/Banking, Education, Gaming/Entertainment, Home Automation, Retail, and Transportation, and pair easily with our Industrial Box PCs and Headless HMIs.

#### **Linux Industrial PC Options**

An industrial computer and GNU / Linux® Operating System brings a world of possibility to your fingertips. Our <u>Industrial PCs with a Linux OS</u> can act as a web server, an OEE dashboard, a SCADA hub and much more.





#### **MAPLE SYSTEMS**

## Linux OS INDUSTRIAL PC





#### **Linux Operating System**

Over the years the Linux® operating system has proven itself to be trusted and reliable. From its ancestor, Unix, as a mainframe OS, to dominance in the server environment with the popular LAMP web stack, to its ubiquitous deployment on countless IoT devices, Linux® is chosen by engineers as a dependable, secure, and flexible platform that gets the job done. Maple Systems offers the latest Long-Term Support (LTS) image from Ubuntu®. This comes with a large community to support it and a large application repository to select from.

Our Linux® Computers come with Ubuntu® Operating System (OS) installed to guarantee hardware-software compatibility. You can choose either Ubuntu® Desktop or Ubuntu® Server and take the guesswork out of a reliable PC to run your Linux® OS application. These options give you all the power and flexibility of the Free and Open Source Software (FOSS) world.



#### Industrial PCs

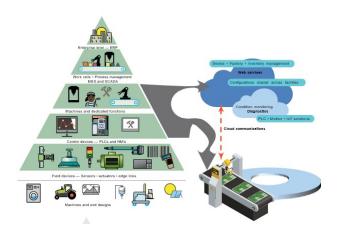
- Intel® Dual-Core i3-7101TE
   @ 34.GHz (upgrades available)
- Up to 32GB DDR4 SO-DIMM RAM
- Two 2.5" SSD bays, RAID 0 and RAID 1 support
- 4 serial ports
- 6 USB ports
- 4 Ethernet LAN
- Aluminum bezel & enclosure
- Optional Wi-Fi Kit available
- Fan-less

## Supervisory Control and Data Acquisition (SCADA)



#### What is a SCADA system?

Supervisory control and data acquisition (SCADA) is a control system architecture that uses computers (PCs), networked data communications, and human machine interfaces (HMI) for high-level process supervisory management but uses other peripheral devices such as programmable logic controllers (PLC). As you can imagine, this can take on a wide range of functionality, complexity, hardware, and software solutions.



Maple Systems offers all the components you need to create your own unique level of supervisory data acquisition and control, from the simplest stand-alone machine to sophisticated multi-device networked production line(s), all the way to enterprise-level operations and IIoT functionalities leveraging cloud connectivity.

Log data from your devices to aid in reporting, to gain efficiencies, reduce downtime, and plan for routine maintenance. Add additional IIoT functionality like MQTT, OPC UA, Ignition, SQL database integration, and more. Our products can help you standardize communications between devices, gluing different systems together for one source to your SCADA. No need to redesign your entire application.

Keep the components that are already working for you, just add Maple Systems components to grow your abilities to supervise, control, and acquire data.

#### **Cloud-hosted Apps**

Modern SCADA systems are implementing the latest technologies such as cloud computing, high-speed wireless connectivity, and Industrial Internet of Things (IIoT). Modern SCADA software is developing rapidly and requires modern hardware technologies to streamline the processes in an efficient and easy manner. The IoT SCADA system reduces infrastructural costs by controlling IoT devices through cloud management dashboards. Therefore, many of the latest SCADA architectures are increasingly replacing hardwired SCADA system infrastructure with the benefits of wireless communication technologies.





## **AVEVA Edge**

#### **Scada Software for Industrial Applications**

We are proud to offer award-winning <u>AVEVA<sup>™</sup> Edge 2020</u> as our powerful HMI/SCADA software package that enables you to create custom industrial control applications for your unique industry. With easy-to-use commands/tool bars and a Microsoft Windows® environment, AVEVA<sup>™</sup> Edge 2020's feature-rich application puts you in the driver's seat of creating your industrial process. Windows and Linux run-times are available.

AVEVA is a global leader in industrial software, offering solutions for Monitoring and Control, Asset Performance Management, Intelligent Performance, and other segments. The product brand name transition from InduSoft Web Studio to AVEVA Edge marks the adoption of the AVEVA brand but also introduces our customers to the broader AVEVA ecosystem and its benefits. Even though AVEVA Edge can still be used as a stand-alone solution (HMI, SCADA, IIoT gateway), the integration with the AVEVA portfolio enables our customers to access a much broader and sophisticated set of solutions for their needs. The brand alignment is just one factor that helps our customers realize the benefits of using AVEVA Edge as an integral part of the AVEVA portfolio.

#### Windows Support

Aveva Edge 2020 development software supports Windows Operating Systems and is used to create the project that resides on the operator interface and operates the target industrial system. In addition to the Panel PC and the user-created application project, each target system requires one Aveva Edge runtime license in order to operate the project.

#### IoTView (Linux)

AVEVA<sup>™</sup> Edge IoT View is the Linux® runtime for the popular AVEVA<sup>™</sup> Edge SCADA software package formerly known as Indusoft Web Studio. IoT View allows you to connect to your AVEVA<sup>™</sup> Edge project via HTML5 in any web browser. The Box PC is the perfect platform to run this application. Giving managers and operators access to the data they need when they need it.

#### Pair with a Maple Systems Industrial PC

<u>Maple Systems Industrial PCs</u> are ideal for complex automation tasks in industrial manufacturing, processing, and fabrication environments. And because they are full-strength industrial computers, Panel PCs can operate any Windows Software – providing you with flexible options. "I'll always pay more for a quality product that gives me enough extra power and flexibility to accommodate the inevitable increase in scope or performance our customers tend to need."

AVEVA

Ken Roach Senior Controls Engineer Fives Lund

## HMI + PLC OVERVIEW



## Maple Systems HMI + PLC line combines an HMI and PLC into one unit. Lower your costs while saving time and space.

Our series of <u>HMI + PLC</u> units merge the functionality of a controller and an HMI into one unit. HMI + PLCs lower costs, save space, and feature multiple touchscreen sizes, serial and Ethernet, and numerous I/O configurations to choose from.

With several HMI + PLC lines, and different I/O modules to choose from, finding a solution that meets your unique need is easy, making these units a favorable option for many customers.

#### Sizing & I/O Modules

These HMI + PLC models features touchscreen units with serial and Ethernet communications, support for Class I, Division 2 installations, high-speed counters and timers, and lets you choose either Native Ladder or IEC programming. Numerous I/O configurations available.

#### HMI + PLC Features

- Class I, Division 2 rated
- Numerous I/O Configurations
- Serial & Ethernet Ports
- MAPware-7000 Software
- IEC Programming
- Native Ladder Logic
- Timers & High-Speed Counters
- Extensive Graphic Libraries



- ASCII text
- Real-Time Monitoring
- Offline Simulation Testing
- Data Monitor Feature

### MAPLE SYSTEMS HMI + PLC SERIES

#### **Logic Editing Modes**

#### **PLC Logic Editing Tools**

MAPware-7000 minimizes software development time by making it easy to design & program all aspects of your project in one environment. Stop worrying about if your HMI and PLC are communicating to each other, MAPware-7000 was created to eliminate this frustration and provides one interface to interact with your whole control system. Our HMI + PLCs utilize IEC 61131-3 Programming.

#### IEC 61131-3 Editing Mode

Incorporates five logic editors and a familiar development environment for anyone familiar with the IEC 61131-3 standard.

Make logic reusable by creating User-Defined Function Blocks (UDFB). Use multiple instances of UDFBs throughout a project or export to another project. Online monitoring tools allow you to view the logic in action.

#### Which <u>HMI + PLC</u> is right for you?

Maple HMI + PLCs are Class I, Division 2 rated, support high-speed counters and timers, provide serial and Ethernet communications, and utilize IEC programming. They are programmed using our Free <u>MAPware-7000</u> software, which allows you to have web server functionality, data logging, recipes, graphs, alarms, trending, objects with multiple tasks, and more.

When deciding on which HMI + PLC to choose the number and type of I/O and display size are the key differentiators and factors. Consider how many inputs (analog/digital) your program requires. Do you need separate analog and digital modules, or would a module with both analog and digital best meet your needs? Select IO and then choose your display size.







### MAPLE SYSTEMS HMI+PLC CONFIGURATION SOFTWARE

#### **Powerful HMI and Control Software**

Programming with <u>MAPware-7000</u> software allows you to have web server functionality, data logging, recipes, graphs, alarms, meters, trending, create objects with multiple tasks, and more. Use Native Ladder Logic or IEC 61131-3 Programming Language.

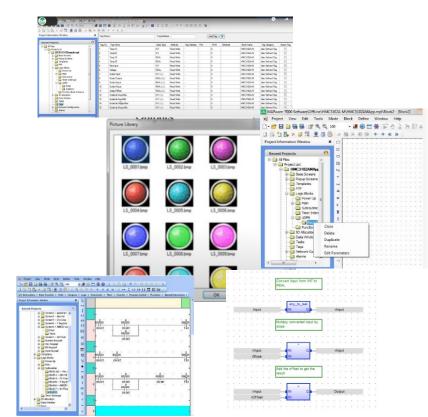
Capable of a variety of communication protocols, our HMI+PLCs will easily integrate with your preferred PLC brand Including Maple Systems, Allen-Bradley, Siemens, Omron, ABB, Keyence, Panasonic, and Mitsubishi, creating a powerful edge gateway at a great price has never been easier.

Ethernet capable HMI+PLCs are configured as a Modbus TCP Server by default and can easily be configured as a Modbus Client on serial or Ethernet networks.

#### MAPware-7000 Key Features:

- Real Time XY Plots
- Web Screens
- Data Logging
- Recipes
- Real-Time Alarms
- Security/Access Levels
- Bar Graphs
- Meters
- Offline Simulation
- Online Monitoring Tools

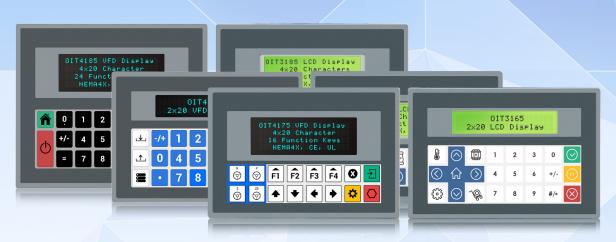




An HMC combines an HMI (display) and a programmable logic controller (PLC) into one functional unit



## **OIT SERIES**



#### Maple Systems OITs - Affordable Operator Interfaces

Maple Systems <u>Alphanumeric OITs</u> are powerful, affordable operator interface terminals. Our units offer best-in-class features including 2 and 4-line LCD and VFD Displays,16 and 24-key keypads, unique user-definable keypads, and slide-in legends.

With the ability to communicate with more than 100 brands of PLCs such as Emerson, GE, Koyo, Mitsubishi, Schneider, and many more; motion controllers, temperature controllers, and embedded microcontrollers, you can easily create the perfect operator interface terminal for your application.

All our OITs operate in temperature extremes ranging from -10°C up to 65°C and meets strict Class 1, Division 2 requirements. Made with a rugged aluminum enclosure in the USA, our LCD and VFD OITs are ideal for harsh environments.

#### **OIT Series Key Features:**

- 2 x 20 or 4 x 20 LED Backlit LCD
- 2 x 20 or 4 x 20 Light Emitting Vacuum Fluorescent (VFD)
- Class I, Division 2 rated
- Customizable slide-in keypad legends
- 16 or 24 programmable function keys
- Serial RS-232 / RS-485 ports
- Sturdy metal enclosure
- Operates in extended temperatures: -10°C to 65°C
- NEMA 4X, UL, and CE certified



## SUPPORT



## The Maple Standard represents our promise to deliver quality, reliability, and value to help you achieve your business and process goals.

#### The Maple Standard

Maple Systems is honored to be recognized as a leader in the industrial controls marketplace. The Maple Standard represents our dedication to delivering high-quality control products and unmatched support to our valued customers.



#### **Comprehensive Website and Support Center**

Our online Support Center allows our registered customers 24-hour access to all our technical documentation. Download tech notes, product specifications, sample projects, drivers, and software upgrades. We also offer live, complimentary technical support to customers via email and phone, as well as training videos, whitepapers, and controller information sheets on our website.

Visit us at maplesystems.com/supportcenter or email us at support@maplesystems.com for assistance.

#### Contact Us

How can Maple Systems help meet your control needs? Contact our industrial automation experts today.

Phone:425.745.3229Sales Email:sales@maplesystems.com





Maple Systems 808 134th St. SW Suite. 120 Everett, WA 98204



MAPLESYSTEMS.COM • (425) 745-3229