



**HMI - Basic Series** 

HMI - Advanced Series

**HMI - Smart Series** 

HMI + PLC

Panel PC - Light Industrial

Alphanumeric OIT

**Industrial Internet of Things** 

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### **Company Philosphy**

For more than three decades, Maple Systems has proudly provided solutions for the automation and industrial controls marketplace.

Maple Systems first began as a systems integrator, and in building systems for others, saw a great need for lasting

For more than 30 years, our focus has been on supplying innovative control solutions.

and innovative control products. We entered the marketplace by creating some of the first operator interface terminals for companies requiring embedded control systems.

Since then, our focus has expanded to supplying an array of control solutions: HMIs, Panel PCs, HMI + PLC units, and more. Our goal is to enable our customers to meet their diverse set of needs by providing them with quality products and a quality customer experience.

In 2015, Maple Systems became an employee-owned company. Five simple pillars influence every aspect of our organization:

- Quality in our job and the products we provide
- Respect for our customers and fellow owners
- Pride in our work and ability to meet customer needs
- Accountability for the results of our work
- Attitude of positivity and possibility

Because of this key foundation, each owner has a personal investment in providing the highest level of customer satisfaction. Many of our "new" owners have been with the company long-term, offering insight as to why quality has and will continue to endure at Maple Systems. Our employee ownership and governing management team will ensure that Maple Systems effectively supports our customers well into the future.

Our mission is to be recognized in the industrial market as the preferred supplier of industrial control and automation products. Maple Systems will continue to achieve this by implementing a philosophy of high-quality, affordable prices, and continuous improvement.





# Maple Systems, Inc. Your Industrial Control Solution



### **About Maple Systems**

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

At Maple, 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; whether you 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
- Smart HMIs for the IIoT
- HMI + PLCs
- Light Industrial Panel PCs
- Heavy Industrial Panel PCs
- Text-Based Alphanumeric OITs

#### **Best-Value Products**

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 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 support your automation and control needs:

Phone: 425-745-3229

Email: info@maplesystems.com Web: www.maplesystems.com









Maple Systems offers three versatile HMI lines to meet your control and budget needs: Basic, Advanced, and Smart HMIs.

All Maple HMIs feature bright displays, high quality enclosures, the latest microprocessors, and support nearly over 300 protocols.

Maple HMIs complement any machine design and are available in sizes ranging from 4.3 inches to 15 inches.

# Maple Systems HMI Series

Maple Systems offers three HMI lines designed to meet your control needs:

#### **Basic HMI Series**

Maple Systems Basic HMI series offers a great solution for organizations focused on cost-driven and OEM-related projects. Maple Basic HMIs provide standard HMI features and solid performance at the lowest price.

#### **Advanced HMI Series**

Our Advanced HMI series offers the BEST value in today's Human Machine Interface marketplace. Enjoy enhanced data handling features, trusted performance, affordable pricing, and unparalleled support.

#### Smart HMI Series

Our Smart HMI series of innovative and IIoT-ready solutions enable easy monitoring of your industrial environment. These smart factory and connected devices support many IIoT protocols including MQTT, OPC UA, and MySQL.

Maple's HMIs are used worldwide for diverse applications and are designed to meet your automation needs.



Maple Systems HMIs

### Maple HMIs

# Powerful, Easy-to-Use

Maple Systems Basic, Advanced, and Smart HMIs provide solutions to meet all your industrial control needs.

#### The Beginning of HMIs

It all started with push-buttons and flashing lights on the automation floor. Introducing simple switches to turn devices on/off in a factory setting revolutionized the manufacturing process years ago. As industries developed, manufacturers needed to maximize production and needed data in order to do so.

Enter the first generation HMI (Human Machine Interface). Initially a push-button replacer, this groundbreaking HMI would grow in capability and demand as the industry began to rely on collecting data to serve their bottom-line.

Though push-button replacer HMIs today offer more attractive touchscreen displays than decades ago, their desired capabilities are what keep them relevant in the industry. Maple Systems **Basic** 



**HMI series** is ideal for applications that require a central location for multiple control options all available on one LCD screen, eliminating the need for hundreds of push buttons or switches.

#### **Advances in Data Handling**

With rapid advances and growing technologies, features such as graphs, data logging, recipes, enhanced security, and alarms were soon sought-after features in new controllers. The industry called this next generation of HMIs "data handlers." Data handlers introduced bigger screen-sizes with larger-capacity memory that could display the variety of real-time data being collected.

Data handler HMIs are typically used in applications requiring constant feedback and monitoring. Maple Systems Advanced HMI series is an ideal solution to accommodate the demands of these applications.



#### **The Need for Smart Connections**

In today's world of interconnectivity, companies need data in real-time, and they need that data to mean something right now, without spending a lot of time analyzing it. Today's manufacturers essentially want the ability to predict the future. From anticipating machine maintenance to accounting for production spikes or identifying errors before down time occurs—these potential events require segments of data to be analyzed before any conclusions can be drawn.

The idea of the IIoT (Industrial Internet of Things) illustrates the story of the smart factory. All IIoT machines offer the ability to talk to each other in real-time—securely and remotely. This means you or your boss can log in from anywhere in the world to see the status of your factory floor.

For these IIoT applications, in addition to our Advanced HMI series, Maple Systems offers our **Smart HMI series**. Maple's Smart series is designed to meet the expanding need for new ways to connect to equipment,



while preserving the core functions of a fixed operator terminal. Our Smart HMIs make it easy to monitor/control industrial processes from remote devices such as PCs, smart phones, and tablets.

While technology will always continue to advance, Maple Systems is pleased to accommodate manufacturers at each point in their evolution. From the basics to the connected factory, Maple Systems is proud to offer options for every level and type of application in industrial automation.



Enjoy quality and affordable HMIs from Maple Systems



Maple Systems Basic HMIs are a great option for OEMs and end users looking for basic machine control that doesn't require UL or the enhanced software features available in our Advanced and Smart HMI products.

With hardware features comparable to Maple's Advanced and Smart HMIs, the Basic HMI series is a cost effective way for companies to upgrade their machines at a minimal cost.

# Maple Systems Basic HMI Series

Maple Systems Basic HMI series offers a cost effective way to add a touchscreen interface to any machine. Whether you're ready for factory upgrades or in need of an HMI for an original equipment design, Maple Basic HMIs provide standard HMI features and solid performance at the lowest price. You'll also receive Maple's outstanding and trusted technical support.

The Basic HMI series offers the following hardware features:

- 4.3", 7", and 10.1" models
- Ethernet and non-Ethernet models available
- 32-bit RISC Cortex A8, 600MHz CPU
- IP65/NEMA 4X protection rating
- · CE and RoHS certified
- Not UL-listed
- 1 year warranty

Designed with bulk and quantity purchases in mind, special discounts are available for the Basic HMI series.

Maple's Basic HMI series offers effective and affordable solutions for OEMs.



**Basic HMI Series** 

## **Basic HMI Series**

Maple Systems
Basic HMI series offers
essential functionality at
an affordable cost.

#### Benefits of Basic HMIs

Maple Systems Basic HMIs offer the BEST value in today's HMI marketplace and are easy to program using our HMI configuration software. Simply open a new project, assign the communication (PLC) drivers you wish to use, and begin. Pick-and-place your selected objects to create screens, then download to the HMI or test using simulation mode.

Maple's Basic HMIs make it easy to incorporate both a competent and affordable HMI into your project. This means OEMs can add value to new and existing product lines with their bottom line in mind.

#### Core Features of Basic HMIs

- Low HMI investment to replace push buttons and toggle switches
- Basic data handling HMI functions meet the project's needs

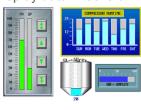


- Utilizes core HMI features in our easy-to-use configuration software
- Support for over 300 protocols
- Allow your customers to field update Basic HMIs by simply sending revised and compiled project files via email, then use our free Downloader Utility to update the HMI
- On models with a USB host port, project files can be sent on a USB flash drive for easy remote site updates, without the need for a PC

#### **Basic Data Handling and Display**

Basic HMIs offer the ability to display data in several

formats. PLC register content can be displayed in numeric or ASCII format and can send data to the PLC using these formats. Bits in the PLC can be displayed as buttons or lamps. Colors can be chosen



in the configuration software. The Basic HMI series can also display bar graphs, trend graphs, and analog meters and gauges. This allows for the display of speed, pressure, and temperature in a visual format the operator guickly understands.

#### **Simple Security**

Maple's HMI configuration software can secure project files to prevent unauthorized program changes. Basic security accounts can also be created within the program to prevent unauthorized access to password protected screens or objects.

#### **Protocols**

Maple's HMI configuration software possesses all of 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 including:

- Allen-Bradley
- Omron
- Modbus

- Siemens
- GF
- Kovo

- Mitsubishi
- Emerson
- Yaskawa

#### Communication

Maple System HMIs communicate with multiple devices and PLCs utilizing Ethernet, USB, and serial ports. RS485 2/4W and RS232 are supported.



Basic HMI Series: Core features for factory automation



Maple Systems Advanced HMIs offer robust features, high-quality components, fast processors, and affordable pricing.

These high functioning HMIs are perfect for any project or industry. Most Advanced HMIs are IIoT-Ready, making it easier to connect to factory equipment.

All Advanced HMIs are backed by our comprehensive technical support and a two year warranty.

# Maple Systems Advanced HMI Series

Maple Systems Advanced HMI series offers 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.

The Advanced HMI series offers the following hardware features:

- 4.3", 7", 9.7", 10.1", 12.1" and 15" models
- Single and dual-Ethernet models available
- All sizes offer cULus listing
- IP65/NEMA 4X protection rating
- CF and BoHS certified
- 32-bit RISC Cortex A8 and A9 CPUs.
- USB, SD card, and internal memory storage

Maple's Advanced HMIs are designed to meet your most demanding automation needs.



Advanced HMI Series

## **Advanced HMI Series**



Maple Systems Advanced HMIs provide a great balance of enhanced features and price for control in any industry.

#### Benefits of Advanced HMIs

Maple Systems Advanced HMIs take industrial automation and control to the next level by offering enhanced features to meet your most demanding automation needs. These units are used across many industries including packaging, food and beverage, oil and gas, medical, pharmaceutical, and more.

The Advanced HMI series uses the same HMI configuration software as Maple's Basic series, but with many enhanced software features for the Advanced series such as data handling, security, recipe management, email notifications, and more.

In addition, Advanced HMI users benefit from several additional features in the configuration software such as recipe management and email notifications.

#### Added Features in the Advanced HMI Series

- Extended 2 year warranty
- Support for the Industrial Internet of Things, including MQTT protocol
- Class I, Division 2 HMI options available
- Dual-Ethernet models available
- Wi-Fi option available
- Utilizes most HMI features in Maple's easy-to-use configuration software
- Most Advanced HMIs are UL listed
- All models are IP65/NEMA 4X, CE, and RoHS certified
- CANbus available on select models.
- Offers flow block animation, animated gifs, pie charts, and circular trend display

#### **Advanced Data Handling and Display**

In addition to the data functionality our Basic series offers, Maple's Advanced series includes data logging, sampling, and management. Data logging files can be created for a batch process, daily run, or multiple days.

 Capture data based upon time or triggered events





- Store data and screenshots in the HMI
- Display data as historical events, alarms, trends, and recipes

Data log files can be backed up from the HMI to a networked server, sent from the HMI via email, uploaded via the HMI's built-in FTP server, or saved to USB disk.

#### Security

Maple Systems configuration software offers complete operational and project security. Prevent unauthorized access to projects, screens, or objects using



alphanumeric passwords. Add/delete accounts, modify privileges, or reset passwords during HMI operation.

Utilize a USB security key to log in users when the key is connected to the HMI. USB security keys take the place of a mag strip or RFID reader.

#### **Recipe Management**

The recipe feature creates presets in the HMI for different batch processes. Manage batch processes and easily select different batch variables to download to the PLC. Multiple recipes or values can be used to attain desired results — all with one click of a button.

#### **Email and Text Notifications**

Critical alarm notifications can be sent from the HMI to key personnel via SMS text messages or email. An email can include the data log files or a screenshot of an HMI window showing relevant data.



Advanced features
& affordable prices
for any machine



Maple's innovative Smart HMI solutions are IIoT-Ready HMIs that enable easy monitoring of your industrial plant from a remote device.

Maple's Smart HMI solutions allow you to connect your factory equipment to the Internet, databases, smart devices, and analytic software.

Our Smart HMI series is IIoT-Ready and offers several versatile units to meet your smart factory needs.

# Maple Systems Smart HMI Series

Technological advances in the fields of IT, personal electronics, and manufacturing are expanding the role of the traditional Human Machine Interface (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. OEMs need to monitor and track equipment remotely and respond to problems without making onsite visits. And machine operators want to be free to walk the facility controlling their machines via tablets and smartphones.

Maple Systems Smart HMI products are designed to meet the expanding need for new ways to connect to equipment, while still preserving core functions of a fixed operator terminal. Enjoy excellent IIoT connectivity with support for many IIoT protocols including MQTT, OPC UA Server, MySQL Database, and more.

With Maple Systems Smart HMIs, it's control and monitoring *your* way.



Smart HMI Series

## **Smart HMI Series**



Maple Systems Smart HMIs offer everything you need for smart factory control and monitoring *today*.

#### Benefits of Smart HMIs

Smart HMIs make smart monitoring and control a reality. Use this series to gain better local machine control in your factory, add remote and mobile system displays, manage your system data, or establish an IIoT gateway.

Organizations can implement a flexible combination of Smart HMI products with different display devices according to your unique application and user needs.

The Smart HMI series can remotely serve screens to Apple and Android smart phones/tablets and remote PCs, such as our Light & Heavy Industrial Panel PCs.

#### **Smart HMI Features Include:**

- Built-in MQTT server functionality allows you to publish, subscribe, or host a broker on board
- OPC-UA Server on select models
- MvSQL Database Server
- Modbus TCP/IP Gateway feature
- cMT Viewer App
- Dual-Ethernet ports
- EasyAccess 2.0 for remote monitoring/control
- Extended 2 year warranty
- Programmed with our easy-to-usesoftware
- PDF Reader
- Built-in barcode scanner driver
- Dynamic Recipe Update
- Real-time clock synchronization
- Web streaming from a USB camera to a web browser on a PC or mobile device

#### **Smart Servers**

cMT-SVRs are an HMI without a built-in display. These Smart Servers are perfect for systems where a local visual interface is not required, this option provides all of the features of an HMI plus remote connectivity at an extremely affordable price.



Maple's cMT-SVR models connect to your PLC through a Wi-Fi router and connect wirelessly to PCs, Apple/Android tablets and smart phones to provide instant access to your industrial control system. Utilize the cMT-SVR model with OPC UA for IIoT applications.

If a local display is still needed, Maple's cMT-SVRs can be paired with our 9.7" panel-mounted smart display (cMT-D090), or any Maple Advanced HMI to provide a traditional touchscreen interface.

#### **Smart Display**

The cMT-D090 Smart Display boasts a 9.7" capacitive touchscreen with the ability to swipe, pinch, and zoom, making historical data, trending objects, and other data easier to see.



Durable tempered glass and UL, CE, RoHS, and NEMA 4 certifications ensure that the unit will thrive in tough industrial environments.

#### **Smart HMI**

The cMT5151 Smart HMI offers all the features and capabilities of Maple's Advanced HMIs, plus possesses a built-in cMT-SVR with EasyAccess 2.0 and OPC UA included, making it a complete all-in-one solution.



The cMT5151 has a large 15" resistive touchscreen display and an aluminum enclosure to easily accommodate even the most complex control systems.



Innovative smart
HMI solutions that
are IIoT-Ready



Utilized worldwide to employ diverse applications, our HMI + PLCs lower costs, save space, and feature options including: touchscreen and function key models, serial and Ethernet communication, support for Class I, Division 2 installations, and numerous I/O configurations.

What's more, HMI + PLCs provide an affordable combination of display and control in a single, easy-to-use package.

# Maple Systems HMI + PLC Series

Maple Systems HMC series of HMI + PLC units merge the functionality of a controller and an HMI into one unit. HMI + PLCs provide visual feedback and direct access of automation control systems on the factory floor, or anywhere an operator interface is needed.

HMI + PLCs also connect to various input devices (pushbuttons, proximity switches, sensors) and output devices (actuators, motors, valves) using modular or built-in I/O, all under internal program control. This all-in-one control solution eliminates the need to purchase a separate HMI and PLC, thus saving you space and money.

#### **Display Options**

Maple Systems HMC series of HMI + PLCs offers two display options to meet a variety of project needs:

- Tri-color function key only displays
- Touchscreen-only displays

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



**HMC Series** 

## **HMI + PLC Series**

**Build an HMI + PLC according** to your specifications by attaching plug-in modules to the unit's expansion ports.

#### **Tri-Color Function Key Models**

- 3" tri-color LCD display
- Twelve numeric keys for operator input
- Screen colors: red, green, and blue, or mix the primary colors on-screen to create yellow, purple, and white color options.



- Class I. Division 2 rated
- Independent LEDs

#### **Touchscreen Displays**

Touchscreen-only models have vivid displays with long-lasting touchscreens, making your screens visually engaging. Product features include:

- 4.3" & 7" displays
- Analog resistive touchscreens
- 32 thousand colors for bitmaps
- 50.000 hour LCD life at 25°C
- Class I. Division 2 rated



#### **USB**

Every HMI + PLC model has a USB port for uploading/ downloading projects from your computer. A flash drive can also be used. Some units possess an additional USB port to record important data, which can be stored on a flash drive.

#### Connectivity

The HMI + PLC itself is a single control solution. If you require communication to another PLC,



HMI, or motion controller, every HMI + PLC has a serial port to communicate to your favorite PLC or printer. Touchscreen models feature Ethernet connectivity and support Modbus TCP master/slave over Ethernet (10/100 Mb/s).

#### **Input/Output Expansion Modules**

HMI + PLCs offer many I/O module options including analog and digital inputs and outputs. You can mix and match digital modules with analog modules in the same unit. Each module contains its own processor in addition to the CPU of the unit.



Select any combination of modules to suit the unique requirements of your project. Some HMI + PLCs accept up to three modules while others accept up to five modules. Digital inputs are bi-directional (sink or source). Outputs support sink (NPN), source (PNP), or relay contacts. The analog I/O modules support voltage (-10V to +10V, or 0 to 10V) and current (0 to 20mA, or 4 -20mA) modes, as well as thermocouple or RTD inputs.

HMI + PLCs utilize easy-to-understand Ladder Logic to monitor the inputs and respond by changing the outputs to provide control and greatly reduce development time.

#### **Security Features**

Our HMI + PLCs offer the following security features:

- Password protection for project access
- Control access to a selected screen with a
- Hide key data with asterisks using a numeric display



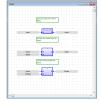
HMI + PLC = HMCYour all-in-one control solution



## Affordable. Versatile.

#### **Built-In Logic Editors**

Our HMC configuration software has two comprehensive logic editing modes to choose from: Native Ladder and IEC 61131-3



#### **IEC Programming Environment**

Accelerate your development cycle with an IEC 61131-3 compliant editor suite. Select from five easy-to-use, standardized logic editors to build flexible and maintainable control applications:

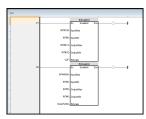
- Ladder Diagram (LD) A graphic editor in which instructions are placed and activated within a pseudo electro mechanical circuit.
- Function Block Diagram (FBD) A graphical logic editor based upon logic diagrams.
- Structured Text (ST) A text-based editor similar to text-based programming languages such as C/ C++ or Visual Basic.
- Instruction List (IL) A text-based editor, similar to assembly languages, using simple mnemonic instructions to express logical statements.
- Sequential Function Chart (SFC) A graphical logic editor in which machine operation is expressed in a flow chart format.

IEC 61131-3 offers several features that make building and maintaining control applications easier. Create customized, modular, and re-usable logic with User-Defined Function Blocks.

#### **Native Ladder**

Ladder Logic programming language offers more than one hundred Logic Block instructions (commands used to create complex routines) for a variety of tasks, such as:

- Inputs and Outputs
- **Data Transfers**
- Mathematical Operations
- Comparisions
- **Logic Instructions**
- **Complex Functions**



View the state of contacts and outputs in a logic diagram and watch the logic work as the data states change. Test how a change in one value impacts the network. View data in real time in a tabular format or track a larger block of data as it changes over time. Slow the execution of a ladder logic sequence down to a human time-scale to reveal what the HMI + PI C is doing one ladder instruction at a time.

# **Single Programming Environment**

Our single configuration software offers support for both the HMI and PLC functionality.

#### **Class I, Division 2**

Maple Systems offers many Class I, Division 2 certified solutions to keep operators and their environments safe. All HMI + PLCs are rated Class I, Division 2, for hazardous environments where



accidental exposure to gases, liquids, and vapors may occur. Maple HMI + PLC products are used in industries including: oil and gas, mining, painting, chemical and food processing, pharmaceutical, and more.

#### **Extensive Graphics Libraries**

Enjoy 1000+ industrial images and symbols to create customized screens for your projects. Can't find what you need? Create your own custom graphics. True type fonts are also supported.

#### **Data Entry**

Use the pop-up ASCII Keypad to input alphanumeric data or the pop-up Numeric Keypad to input numeric data into a register. Create custom keypads to meet your specific needs.



#### **Capture and Display Data**

- Display real-time and historical trends
- Store data to a flash drive or upload to a PC
- Log data based on timed or triggered events
- Simplify programming utilizing the Tag database

#### **Wide Selection of Custom Objects**

- Configure quick buttons or multi-task keys
- Real-time and historical alarms available
- Display meters or bar graphs for accurate data readings
- Program and customize your own recipes utilizing pop-up screens

#### **Program Complex Tasks with Ease**

- Assign multiple tasks to keys, buttons, or screens
- Simplifies complex steps for user



- Up to 50 programmable tasks
- Initiate tasks based on power-up, time, or event

#### **Real-Time Monitoring**

Maple Systems configuration software offers the ability to run your application in real-time on your HMI + PLC while simultaneously monitoring the ladder diagram on your PC. This important testing capability allows you to monitor and analyze the functionality of your application as it actually runs.

#### **Data Monitor Feature**

Display data values in the HMI + PLC's internal memory while your application is running. The entire internal memory of the unit is accessible using the Data Monitor feature, but you determine which areas of memory to monitor.

#### Offline Simulation Testing

Run your project in simulation mode, giving you the ability to test your project on the PC prior to downloading it to the unit. The computer displays a copy of the HMI + PLC unit on-screen, simulating how your project will look and operate in the HMI + PLC.





Does your automation process require specific capabilities and customization?

Maple's Light Industrial Panel PC series offers a Windows operating system with the flexibility of customized application programming.

Choose from a variety of software application programs like Web Studio, to help you achieve complex process goals. Unlock the potential of your process with Maple Light Industrial Panel PCs.

# Maple Systems Light Industrial Panel PC Series

Maple Systems Light Industrial Panel PCs are the perfect solution for OEMs requiring a lower cost, high-quality panel PC for custom applications. This series is affordably priced and offers the software flexibility of a Windows operating system. Add versatility by connecting an external keyboard, mouse, printer, barcode reader, or speakers for audio output. Series features include:

- 7", 10.1", 12.1", 15", 15.6", 17", 18.5", and 21.5" models
- Fanless cooling
- · High-resolution TFT LCD displays
- Intel® Atom, Celeron, and Core i3/i5 processor options
- 32GB, 64GB, and 128GB solid state drive (SSD) options available
- Base models include Microsoft Windows© Embedded Standard 7
- Microsoft Windows© 7 Pro for Embedded optional upgrade
- 2 Ethernet ports, 2 serial ports, and 2 USB host ports
- All units are UL-listed

Light Industrial Panel PCs are the perfect solution for quality custom applications.



Light Industrial Panel PC Series

# **Light Industrial Panel PC Series**



Affordably priced, Maple Systems Light Industrial Panel PCs offer the flexibility of a Windows Operating System.

#### **Durable Construction**

Maple Systems Light Industrial Panel PCs are built to withstand environments found on industrial sites. Durable aluminum enclosures help shield and protect the panel PC from external radiated noise. All units are UL listed and certified to meet European CE standards for noise emission/immunity. In addition, a compact design allows units to be installed in panels with less than 2" depth.

#### **High-Resolution Touchscreen**

All Maple Systems Light Industrial Panel PCs possess color TFTs with maximum resolution to display high-clarity screens. Four-wire analog resistive touchscreens have a touch accuracy of ±2% linearity



and a lifespan of over one million activations under normal use. LED backlight provides a lifespan over 50,000 hours.

#### Serial & Ethernet Ports

All Light Industrial Panel PCs have 2 Ethernet ports for connection to control networks and the Internet.



In addition, multiple serial ports (RS232 and RS422/485) can be used to connect to programmable logic controllers.

#### Versatile Communication

Insert an SD card to backup important data and easily remove it for safe keeping. USB ports allow the use of standard USB peripheral devices such as:

- Bar code readers
- · Mouse & keyboard
- Flash drives
- Printers



#### **Windows Operating System**

A Microsoft Windows OS comes preinstalled on all Light Industrial Panel PCs, allowing you to create custom applications. Options include:



- Microsoft Windows® Embedded Standard 7 (WS7P)
- Microsoft Windows© 7 Pro (FES 7 Pro)

#### **SCADA-Ready**

As a total industrial automation solution, the open-platform of our Light Panel PCs allows for easy integration with powerful SCADA software, including Maple recommended Web Studio by Indusoft:



- Intuitive user interface
- Create real-time applications
- Utilize trends, reports, recipes
- Excellent graphics
- Enhanced security features
- Intellectual property protection
- View and modify data remotely

You can also use programming languages such as Visual Basic, Python, and C++ to create custom applications based on your unique needs.



Customize your industrial control solutions today



Maple Systems Heavy Industrial Panel PCs exemplify cutting-edge touchscreen technology with high-quality components, impressive connectivity, fast processors, and clear, high-contrast TFT displays.

Expand the capabilities of your Maple Heavy Industrial Panel PC with extensive I/O ports and support for PCI or PCI-e.

# Maple Systems Heavy Industrial Panel PC Series

Maple Systems Heavy Industrial Panel PCs possess everything you need in an industrial computer and more. Offering versatility, affordability, and excellent connectivity options, our Panel PCs possess a thin, flat-panel design and mount securely to a panel or VESA 75/100 compatible mount. Additionally, Maple Systems Panel PCs can be configured to communicate with most PLCs and motion controllers for easy control system integration.

This product line includes:

- Intel® Pentium and Intel® Core i3, i5, and i7 processor options
- 500 GB shock-resistant hard drive, optional SSD available
- Support for PCI or PCI-e riser cards
- Larger quantities of Ethernet, serial and USB ports
- 16.7 million color TFT touchscreen display
- Microsoft Windows® 7 Pro operating system
- Industrial-strength metal enclosure
- · Fanless models available
- Non UI -Listed

Heavy Industrial Panel PCs are designed to expand with your automation needs.



Heavy Industrial Panel PC Series

# **Heavy Industrial Panel PC Series**

Maple Systems Heavy Industrial Panel PCs offer the scalability and flexibility you require for custom industrial applications.

#### Made for Industrial Environments

Maple Systems Heavy Industrial Panel PCs are durable computers designed to operate in most industrial environments. Constructed with rugged aluminum bezel and steel enclosures, our panel PCs are built to last and boast multiple certifications:

- CE
- NFMA4
- BoHS
- IP66
- IP65 (fanless version)



#### **Expansion and Scalability**

Every Heavy Industrial Panel PC comes with built-in riser card support via PCI or PCI-e



slots. This provides scalability and flexibility to meet your specific industrial automation needs such as motion control or machine vision operations.

In addition, you have the option to swap out RAM, upgrade the processor, increase the size of the hard drive, or even switch to a solid state drive (SSD).

#### **Windows Operating System**

Microsoft Windows 7 Professional operating system comes pre-installed, providing an open-platform to create your custom applications.



#### **SCADA-Ready**

As a total industrial automation solution, the openplatform of our Heavy Industrial Panel PCs allows for easy integration with powerful SCADA software such as Maple recommended Web Studio by Indusoft:

- Intuitive user interface
- Create real-time applications
- Utilize trends, reports, recipes



- Enhanced security features
- Intellectual property protection
- View and modify data remotely

You can also use programming languages such as Visual Basic, Python, and C++, to create custom applications based on your unique needs.

#### **Real-Life Applications**

Maple Systems Heavy Industrial Panel PCs are ideal for complex automation tasks in industrial manufacturing, processing, and fabrication environments including:

- Building Automation
- Water and Wastewater
- Oil and Gas
- Packaging Control and Automation
- Wind Power
- Solar Power
- Semi-Conductor/Electronics
- Food Processing







Because they are full-strength industrial computers, Maple Systems Heavy Industrial Panel PCs can be used with any Windows-based SCADA software, offering you the flexibility you require for custom projects.



Rugged and expandable industrial PCs



Maple Systems OITs are powerful and affordable operator interface terminals. Our units offer best-in-class features including user-definable keypads, and slide-in legends for a custom look. Enjoy linear scaling, horizontal scrolling, screen chaining, high/low limits, support for multiple languages, and more.

Easily create the perfect operator interface terminal for you application to communicate with PLC, motion controllers, temperature controllers, embedded controllers, and more.

# Maple Systems Operator Interface Terminals

Maple Systems OIT series consists of alphanumeric operator interface terminals (OITs). These easy-to-program text-based units are available in either backlit LCD or vacuum fluorescent models and are compatible with most major brand PLCs. Perfect for those who desire physical function keys, OITs offer truly cost effective replacements for push buttons, switches, displays, dials, and lamps.

#### **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 up to 65°C
- NEMA 4X, UL, and CE certified

Maple Systems OITs are Class I, Division 2 rated and compatible with most major PLC brands.



**OIT Series** 

# **Operator Interface Terminals**

With OITs, achieve a custom look at no extra cost by creating custom slide-in legends to match your specific application.

#### **Customizable Keys & Insert**

Most units in the OIT series have alphanumeric displays with membrane-style keys. Each key is programmable, allowing you to create a



unique keypad for your specific application. Achieve a custom look without paying extra for custom overlays.

Easily label keys with any combination of text, graphics, and colors. Simply slide-out the default legend and slide-in your custom legend for a custom look. Once installed, the legend is completely sealed and protected.

#### **Vacuum Fluorescent OITs**

Choose Vacuum Fluorescent OITs when you need a display that's easier to view in low-light environments. VFD OITs are also useful in situations where a crisp high-contrast display is desired.



#### Class I, Division 2

All OIT models carry a Class I, Division 2 rating, safe for use in hazardous environments where exposure to explosive gases, liquids, and vapors may occur.

#### **PLC Support**

Maple Systems OITs communicate with over 100 brands of PLCs and motion controllers, making them compatible with most major brands of PLCs and motion controllers on the market including: Allen-Bradley, Modicon, GE, Keyence, Galil, and Bristol Babcock.

#### **Key Types and Functions**

Enjoy 16 or 24 user-definable keys and a user-definable keypad legend to perfectly fit any application. Key types include global function keys, screen dependent function keys, numeric keys, and control keys.



#### **Recipe Screens**

Recipe screens allow the operator to download or upload preset values into PLC registers. Configure preset values upon programming the OIT or modify them at any time. With 500 user-definable screens, each recipe screen can include up to 20 preset values.

#### **Alarms**

Notify the operator regarding alarm conditions and real-time information via message display and audible alerts.

#### **User-Friendly Configuration Software**

Program your OIT with our configuration software to interface with PLC and motion control products or ASCII communication protocol. Our software offers easy-to-navigate controls, allowing application development from any Windows-based PC. Easily design screens, layout the keypad, setup function keys, and more.

#### **ASCII Controller Interface**

OITs support RS-232 and RS-422/485 communications. They can be configured as simple ASCII terminals using Maple Systems configuration software. For applications requiring multiple OITs, OITs support multi-drop networks of up to 255 units. Display text messages from the controller, ASCII character strings, or alternate user-defined messages on the OIT. You may also program keys to simulate momentary and on/off switches by sending ASCII character strings to the host controller.





The Industrial Internet of Things (IIoT) enables you to connect 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 profits. Many Maple Systems solutions come IIoT-Ready.

# Industrial Internet of Things

Maple Systems can serve as your partner for the IIoT, making your jump to a connected factory an easy one. Maple Systems 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 up a world of possibilities for your business.

#### Your IIoT Partner

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 maintenance and operations costs.
- A secure connection safely allows for advanced remote functionality such as email alarms, remote monitoring and programming.
- Reduce on-site visits, travel expenses, and costly downtime with off-site troubleshooting and configuration. Schedule predictive maintenance.

Maple Systems IIoT-Ready interfaces offer convenient remote access and control.



#### **Benefits**

# **Industrial Internet of Things**

The Industrial Internet of Things.
The concept generates a lot of buzz, but in simple terms it describes getting connected to the web.

#### **IIoT-Focused**

Beyond the immediate benefits, OEMs gain insight, and can design future machines according to data collected on how each feature is used, where a machine shines, and where it struggles. Knowing how customers actually use machines allows OEMs to better understand customers and highlight popular features in sales and marketing materials.

#### 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 Server**

Some Maple HMIs also support OPC UA (Unified Architecture), a simple and effective solution for users requiring communication between on-site machines and management level SCADA systems. OPC UA's technology is easy to implement, reduces system integration costs, is firewall-friendly, and allows for secure data transfer.

#### **MQTT Protocol**

MQTT protocol is a lightweight messaging IIoT protocol with established cloud compatibility for transporting large amounts of data securely. Many Maple Systems HMIs support MQTT protocol.

#### **MySQL**

MySQL is a powerful relational database system using SQL that can be used with Maple Smart HMIs to collect and display data for monitoring and analytics. Connect your Smart HMI to a MySQL database to collect, organize, and store data in a flexible and trusted database system. MySQL benefits include:

- Free, open-source, and secure
- · Well-supported and widely used
- Integrates with Maple Smart HMIs/Industrial Panel PCs

Combine MySQL with Maple Smart HMIs and unlock tools to:

- Synchronize data and event logs to a remote MySQL server on your local network
- Use third-party software (e.g. Microsoft Excel) to display that information
- Easily manage that data on your MySQL server

#### Are You IIoT Ready?

The IIoT is just a fancy way of saying you're connected. Connected to machines, connected to data, connected to the Web — worldwide, instantaneously. Maple Systems IIoT solutions ensure an OEM's



machines will be IIoT-Ready today, when customers request this functionality today, tomorrow, and well into the future.



Join the HoT with Maple Systems today



Maple Systems delivers the industry's best value in control products. For us, "best value" means high-quality products and outstanding service at a great price.

In addition, all products are backed by an outstanding team and complimentary technical support. How can we help meet vour control needs?

## **Support** 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 support to our valued customers. It is our promise to deliver quality, reliability, and value to help you achieve your business and process goals. We'll assist you every step of the way so you can get the job done on time and within budget.

#### We Make Partnerships Easy

At Maple Systems, our team strives to make doing business with us easy. We want you achieve a positive and enjoyable experience every time you use our products or services. When partnering with Maple Systems, know that our high-quality, competitively-priced products are backed by a dedicated team of professionals ready to assist you. We also lead our industry with:

- Over 30 years of industry experience
- Rugged products that are built-to-last
- A team dedicated to providing complimentary support

For us, "best value" means providing high-quality control products and outstanding service at a great price.



### **Support**

# **Quality Products & Customer Service**

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

#### **PLC Integration**

Maple Systems products integrate with programmable controllers from the biggest names in PLCs including Allen Bradley, Schneider Electric, GE, Siemens, Mitsubishi, and Omron.



Communicate with PLCs, motion controllers, temperature controllers, embedded microcontrollers, and more.

#### **HMI Configuration & SCADA Software**

Maple Systems offers easy-to-use configuration software specific to each HMI, HMI + PLC, and OIT product line. We also recommend and offer Web Studio SCADA software for use with our Light and Heavy Industrial Panel PCs.

Experience greater functionality at a fraction of the cost compared to other industrial control software solutions.

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

Our website's online support center provides customers with 24-hour answers to complex control automation needs. Explore tech notes, product specifications,



sample projects, drivers, and software upgrades. We also offer complimentary technical support to our customers via email and phone.

Visit us at maplesystems.com/support.

#### **Industry Accolades**

Maple Systems has received many favorable product reviews, readership, and editor awards from customers, media, and trade publications.

Our products have been featured in articles from major trade publications including Control Design, Control Engineering, and Packaging World. Maple Systems was also named one of America's fastest growing private companies for six years by Inc. 5000 Magazine.

#### **IIoT Ready**

Maple Systems interfaces are IIoT-ready with support of over 300 different communication protocols including MQTT, Profinet, and Ethernet IP. Maple Systems solutions can ensure an OEM's machines will be IIoT-ready today, when customers request this functionality today, tomorrow, and well into the future. With IIoT-ready products in a range of size and features, Maple Systems has the flexibility to meet a variety of needs.

#### **Reliability You Can Trust**

At Maple Systems, we want every customer to be a lifelong customer. This commitment has helped us consistently offer great value and support to customers at affordable prices.

We hope you will be a part of our future as we continue to lead and innovate the industrial controls marketplace. After all, the most important ingredient in "The Maple Standard" is you.

#### Contact Us

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

Phone: 425.745.3229

Email: info@maplesystems.com Website: www.maplesystems.com





# **Your Industrial Control Solution**

www.maplesystems.com

