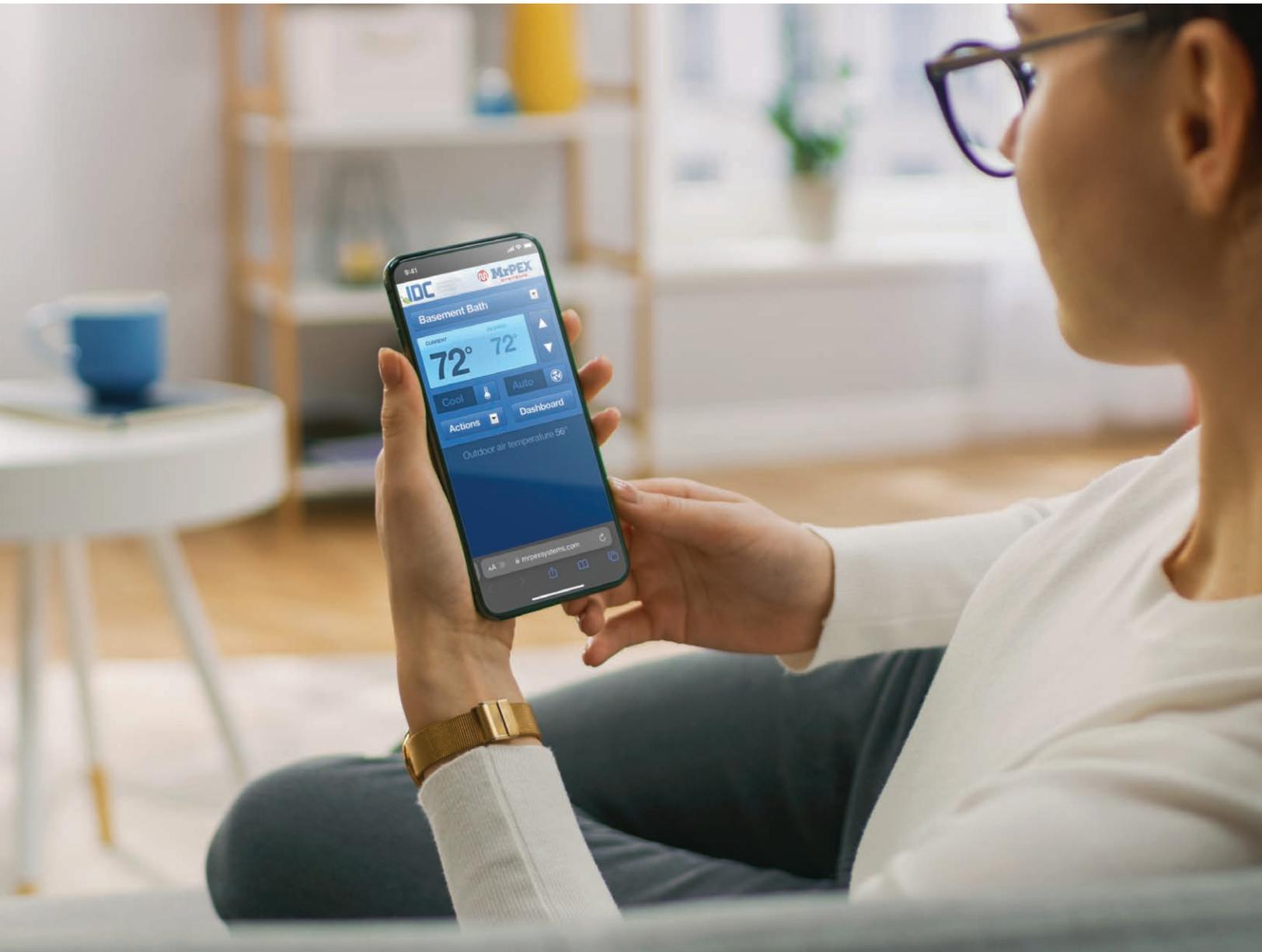




# The Future In Indoor Comfort & Energy Control





## INTELLIGENT CONTROL

A lot of HVAC control systems can monitor environmental conditions and energy usage. They can even let you turn thermostats up and down. With IDC you have this entire capability and more. **IDC proactively reacts to changing weather conditions before they happen and without user input** to keep the living space comfortable. Saying it more simply, IDC manages the living environment by itself. It even lets you know if there is a problem within the system.



IDC can monitor and adjust system based on forecasts from the **National Oceanic and Atmospheric Association (NOAA)**.



## BROWSER-BASED

IDC is a browser-based management system that can be **securely controlled in-house or remotely** from virtually any web-browser enabled device able to connect to the internet.



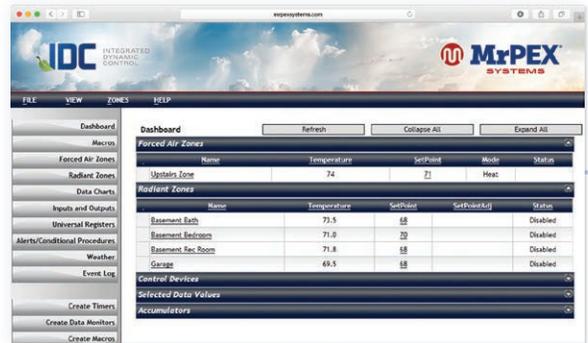
## NO PROPRIETARY HARDWARE

IDC does not require the use of any proprietary hardware. **It can be used with virtually any type of HVAC system** including those mixing hydronic and air heating and cooling as well as multiple types of heat sources from geothermal heat pumps to boilers to traditional furnaces.



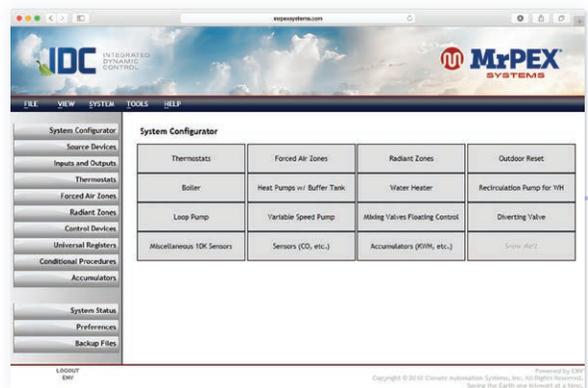
## FULL FEATURES & LOW COST

IDC is the first system of its kind delivering full-fledged intelligent climate control and energy management capabilities to the residential and small commercial HVAC marketplace **at a fraction of the cost of commercially available systems**.



**IDC Control Center** – From any web-enabled device, the user can access the control center software for an overview of their current operating conditions and, if they desire, can make adjustments to the system settings including:

- Adjustments to system or system devices based on temperature, humidity, kWh usage, or CO/CO2 levels.
- Turn water heater on or off
- Set-point temperatures for individual zones



**IDC Configurator** – Using this software, the programmer integrates the HVAC system with the unique and specific controls solution as defined by the homeowner. Some of the configuration options include:

- Defining virtual thermostat thresholds for each zone
- Defining sensors and relays to monitor and control HVAC system components
- Defining operating parameters for various conditions including temperature, humidity, kWh usage, CO2 levels, etc.
- Setting up the outdoor reset curve

# IDC Intelligent climate control delivers full-fledged climate control and energy management to the residential and small commercial user.



**IDC I/O Blocks** – Many of the devices in the IDC system are connected through the input/output blocks. The I/O blocks allow these devices to be controlled by the software.

## HVAC System Components

- › Geothermal Heat Pump
- › Boiler
- › Gas/Oil Furnace
- › Snow & Ice Melt System
- › Zone Controls
- › Forced Air Heating & Cooling Equipment
- › Radiant Heating & Cooling Systems
- › Solar Thermal
- › Hot Water Production & Recirculation Equipment
- › HRV/ERV Equipment

**IDC Control Panel** – The IDC control panel acts as the central wiring hub for all sensors, equipment, and any input or output devices in the system. It simplifies installation and future maintenance while providing organization and protection for the communication components of the system.

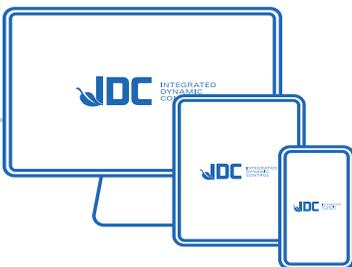


**IDC Computer** – The IDC software resides on a dedicated computer equipped to run this powerful and highly flexible database software platform. The homeowner has complete authority over access to the system.

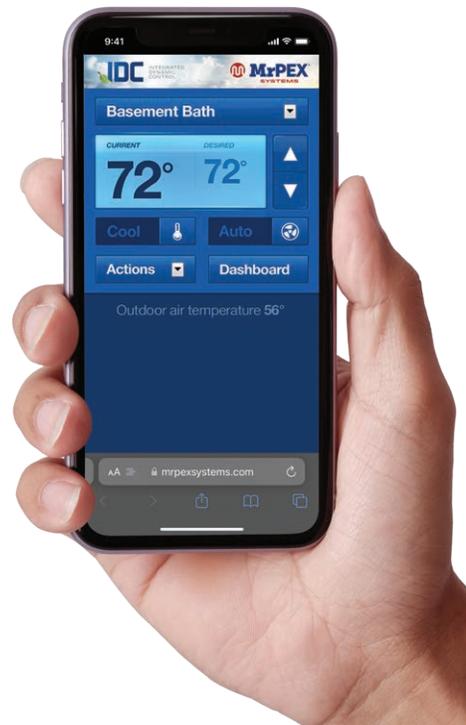


## IDC Sensors and Communicating Thermostats

Strategically placed sensors, meters, or other communicating devices such as thermostats, provide the necessary feedback from the conditioned areas being controlled by the IDC system.



**Internet Access** – Users can view and manage system parameters in their IDC system via most web-enabled devices including their smart phone, tablet PC, or other device.





## NO PROPRIETARY PROGRAMMING CODE

From the simplest to the most complex combination of HVAC hardware and Sequence of Operations (SOP), IDC can manage it all without any proprietary programming.



## SNOW & ICE MELT

IDC has one of the most advanced snow melt systems ever developed. The system can control an unlimited number of zones and can manage energy for priority areas while maintaining overall system performance.



## VIRTUAL THERMOSTATS

The trend today in high end homes is to minimize wall clutter by eliminating the thermostat. IDC makes that possible via a virtual thermostat.



## ALERTS

Alerts can be established based not only on a single event but on a complex set of conditions and will reduce the time to troubleshoot and minimize expenses for the home owner.



## BACNET OR MODBUS

IDC supports devices that communicate using BACnet, Modbus, Z-Wave, or Zigbee protocols.



## WEB-BASED

All functionality in IDC is implemented via a web interface with access from any device including smartphones, tablets, and Microsoft Windows or Mac OS.



## OUTDOOR RESET ADJUSTED BY TEMPERATURE FORECAST

By combining the forecasts from NOAA or Environment Canada with the current outdoor temperature, the outdoor reset curve is adjusted to compensate for a rapid increase or decrease of current conditions.



## CUSTOMER CARE

Our server constantly monitors all of the IDC installations across North America via a handshake heartbeat.



## COMMISSIONING TOOLKIT

Using a combination of the real time visualizer, the IDC simulator, and data monitors, the sequence of operations defined in the IDC database can be verified long before all of the equipment is actually installed.



## HOME AUTOMATION INTERFACE

IDC provides an open interface for any Home Automation System (HAS). This expands the user's access to the various IDC facilities from not only a browser device but also the HAS devices.



## VIRTUAL CONTROL DEVICES

Functionally, a control device is similar to the "box on the wall" that is normally used to control one specific function, like a set point controller. IDC includes over 23 virtual control devices.



## DATA MINING

By using a very robust database, SQL server, IDC can store massive amounts of data in real time. This data can be reviewed via trend charts, real time graphic monitors, Excel spreadsheets, and animated graphical visualizers.



## MACROS

Macros can be used to instantaneously alter conditions in the home or building or to run commands on a custom schedule.



## VOICE CONTROL

The user has the ability to control every aspect of the system using Amazon Echo®.



## THE TEAM

MrPEX® Systems brings decades of experience in the world of HVAC system applications to our programming capabilities. By partnering with the owners team, we will not only go beyond satisfying the control requirements, but also deliver functionality that will **save the owner money, maintain their comfort, protect the environment, save time and increase your profits** to put you heads and shoulders above your competition.

## CONTACT US FOR MORE INFORMATION

(800) 716-3406  
sales@mrpexsystems.com  
mrpexsystems.com

