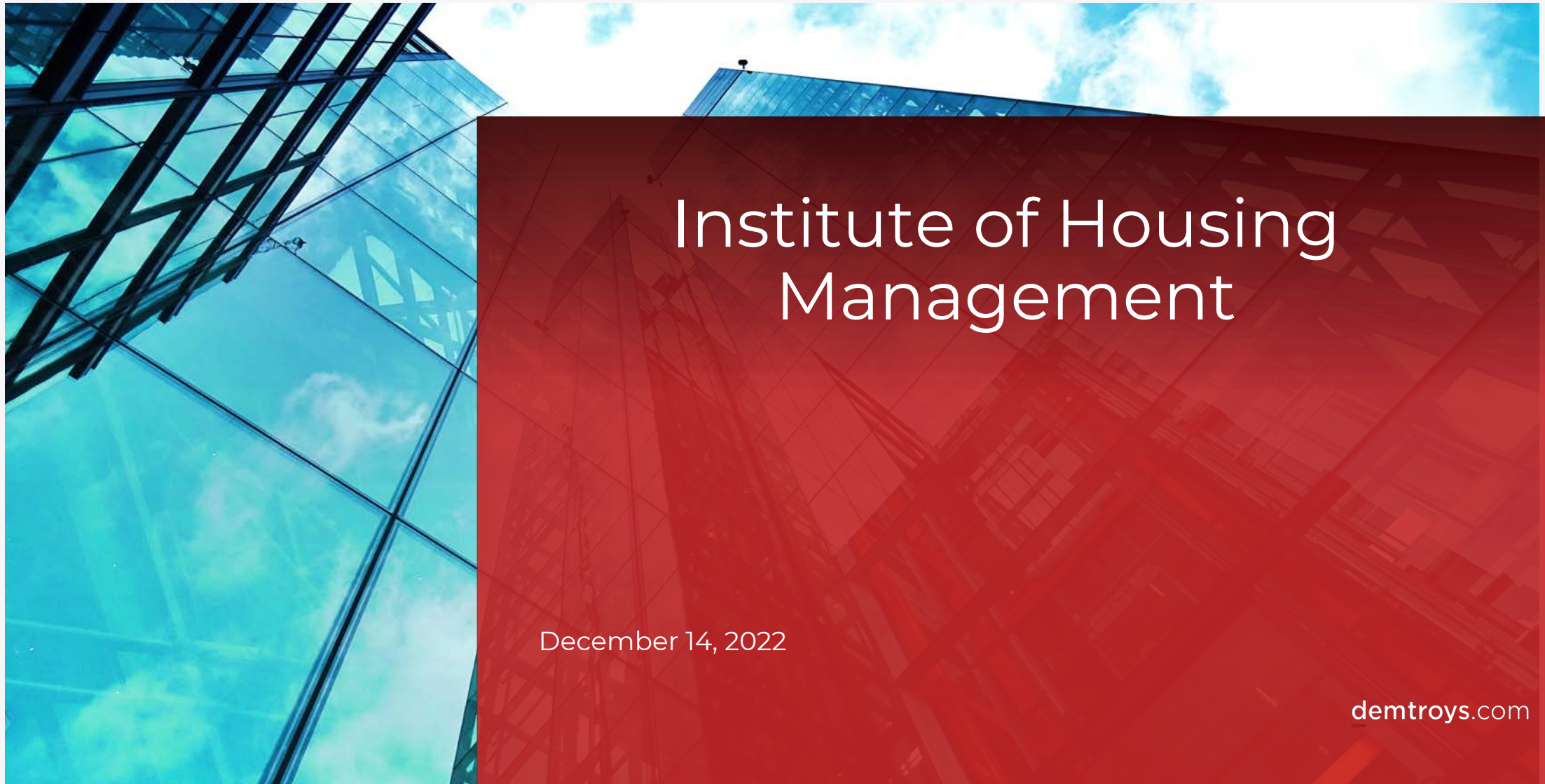
DEMTROYS
THE POWER OF CONTROL



Institute of Housing Management

December 14, 2022

demtroys.com

Who we are

Demtroys Technologies helps you take control of your buildings' energy consumption.

- We create smarter buildings thanks to our complete and adaptative technology.
- We eliminate energy waste by adding automation which optimizes your energy costs.

Saving on your energy costs has never been easier.
Our powerful and user-friendly portal makes you the master of the building…remotely.

The Power of Control is now in your hands!

Our Purpose

Reduce Energy

To reduce energy consumption in multi unit residential, commercial and institutional buildings

- We focus on cost savings from the **largest portion** of an energy bill
  - 65-85% of a gas bill
  - 50-65% of an electricity bill

Provide Solutions

Provide hardware and software solutions that are powerful, user friendly and insightful

Save Money

Save organizations money!

Demtroys' Heating Management Principles

Buildings have the heating capacity to resist extremely cold winters.
Current system designs allow for 100% of energy year-round, even though we only experience about 10 to 14 days of severe cold every year.

- **In other words, your building has overheating capacity for most of the year.**

By measuring the outside temperature, the Demtroys™ system's modulation algorithm adjusts the amount of energy required to maintain temperature in units. Energy losses are therefore limited. The comfort is maintained if under normal conditions

Zoning the building allows the control panel to provide the required amount of energy based on orientation and location (ground level, upper level etc.)

System Savings

CASE STUDY

Multi apartment building complex (in Toronto) installed with Demtroys system
** CMVP audited

Consumption savings

	Savings April 1 – April 15 2022	**Total Consumption Savings** (Sept 1, 2021 – April 15, 2022)
Building 1	60 439 kWh	**669 436 kWh**
Building 2	59 492 kWh	**731 925 kWh**
Building 3	57 276 kWh	**811 378 kWh**
TOTAL	177 207 kWh	**2 212 739 kWh**

System Functions

DEMTROYS' HEATING MANAGEMENT PRINCIPLES

Minimum & Maximum Setpoint

We can set the minimum & maximum temperature in units (based on the landlord specifications). Tenants keep control of their units up to the minimum & maximum setpoints.

We use our GreenVision Thermostat to read in-suite temperature in real time.

Summer Mode

Summer mode is automatically turned on from June 1st to September 1st. The dates are customizable. Once set, it will repeat year after year.

Vacancy Mode

Vacancy mode allows for reduced power (or no power) when the unit is vacant for a period of time.

System Functions

DEMTROYS' HEATING MANAGEMENT PRINCIPLES

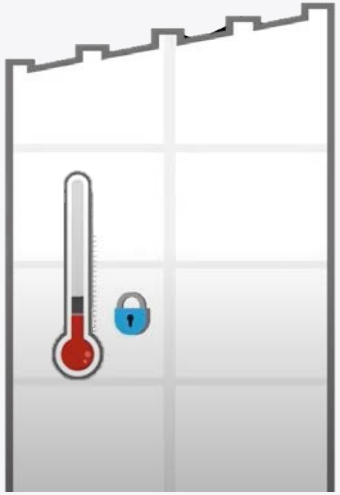
Period of Reduced Power (PRP)

Period of reduced power (or time of use) can be used in common areas, hallways, and stairways where heating is unnecessary during certain periods. Demtroys system can be programed to reduce power during those periods using a % of available power..

PRP can also be used in units (using a smaller % of reduction) so comfort is not compromised and is seamless to tenants.

Example: From 10pm to 5am, 5% reduction
Setpoint at 23°C -5% (1.2°C) = 21.8°C

Each degree saved = approx. 6% saving annually



Period of Enhanced Power (PEP)

A new feature to the Demtroys system will allow us to increase power (by a % of) the temperature in all zones.

For example, in the morning, before the day begins, we can increase the power, so a comfortable temperature is reached at the right time.

This is also beneficial when "time of use" metering is used. We can preload the system before higher energy costs come into effect.

Setback Period

Setback is a period where you define an offset in the setpoint.
A setback of -3° will change the current 24°C setpoint down to 21°C during the defined setback period.

Demtroys Hardware

Demtroys GreenVision Thermostat – GVT100

Line voltage RF Thermostat

Applications:

Compatible with **ALL** systems (24 volts, 120 / 240 volts)

- Electrical: rated 4000W @240Vac
- Fan Coil - (24 & 120 / 240 volts)
- PTAC - (24 & 120 / 240 volts)
- Gas system (Hydronic with 24 volt valves in units)
- Pneumatic Thermostat

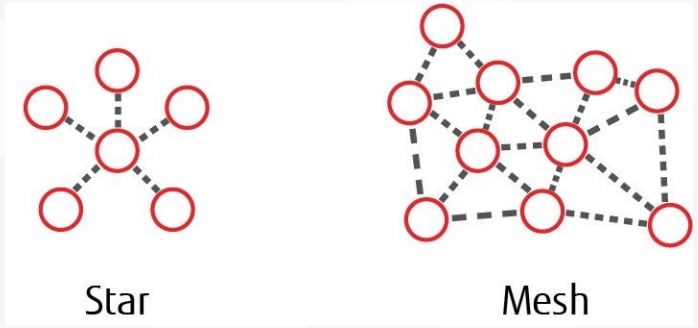
Main features:

- Temperature and humidity sensing
- Load sensing
- TFT display with 5-button interface
- Occupancy sensing
- Maximum setpoint
- Datetime display
- Setback periods

Technology

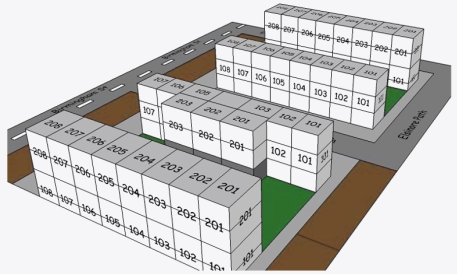
Wireless RF Technology:

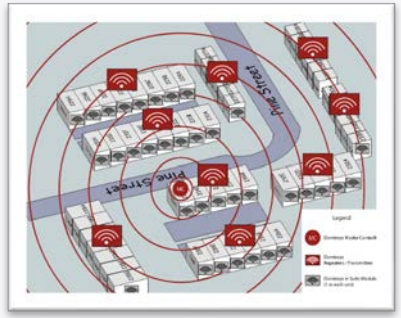
- ZigBee Mesh Network- Home automation version (before 3.0)
- 2.4GHz vs 900MHz (better transfer rate, shorter range)
- Independent of an internet connection
- Energy efficient (compared to Wi-fi)



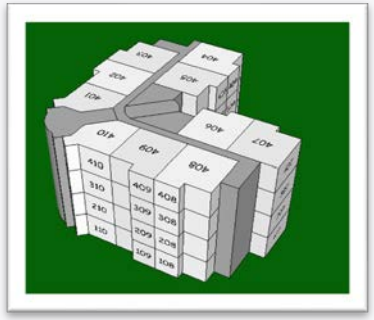
Main advantage of wireless: very cheap to install and replace (even better for retrofit projects)

LOW-RISE / COMPLEX / TOWNHOME

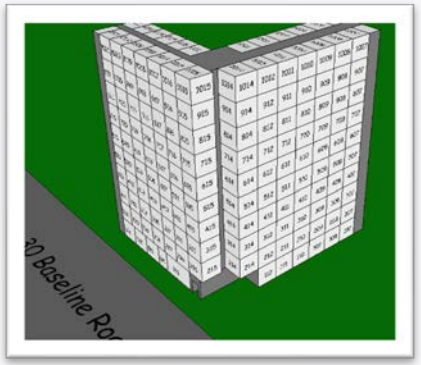




MID-RISE



HIGH-RISE



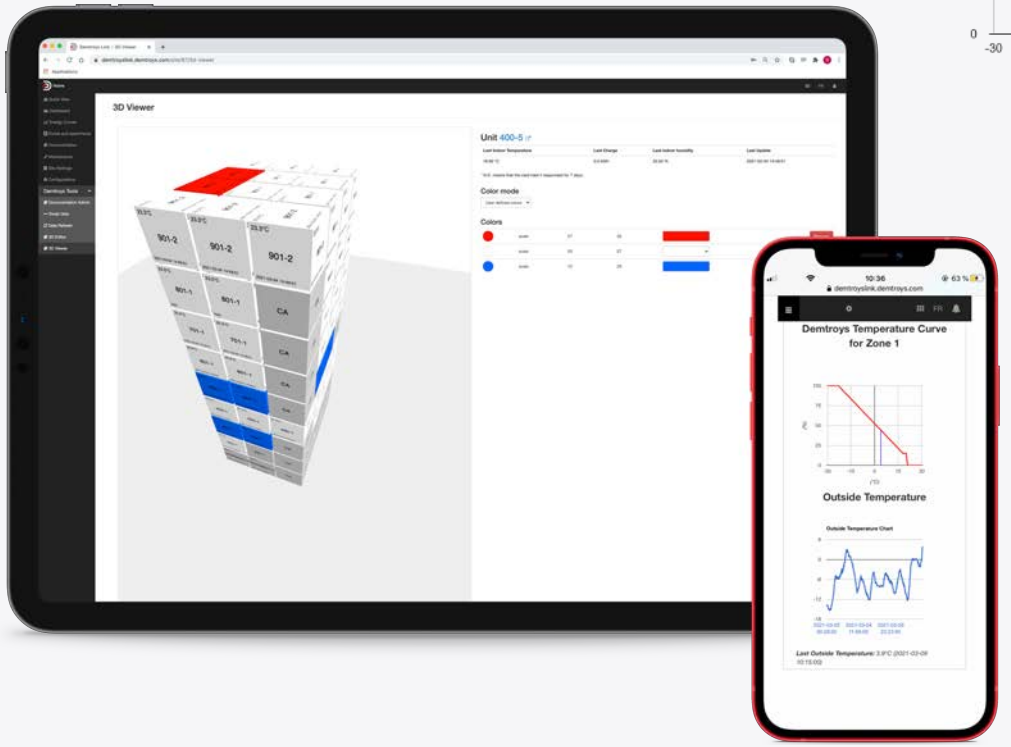
✓ **Demtroys RF Network is scalable**

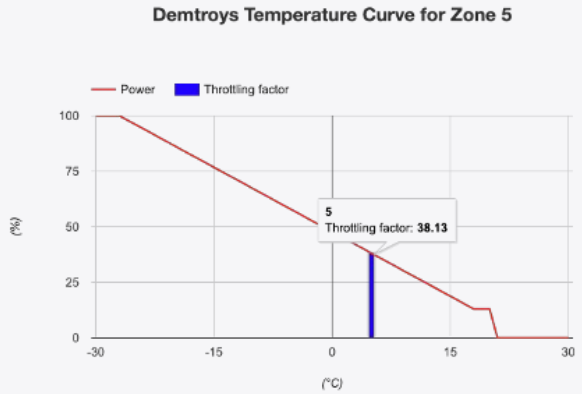
Demtroys Software

Portal

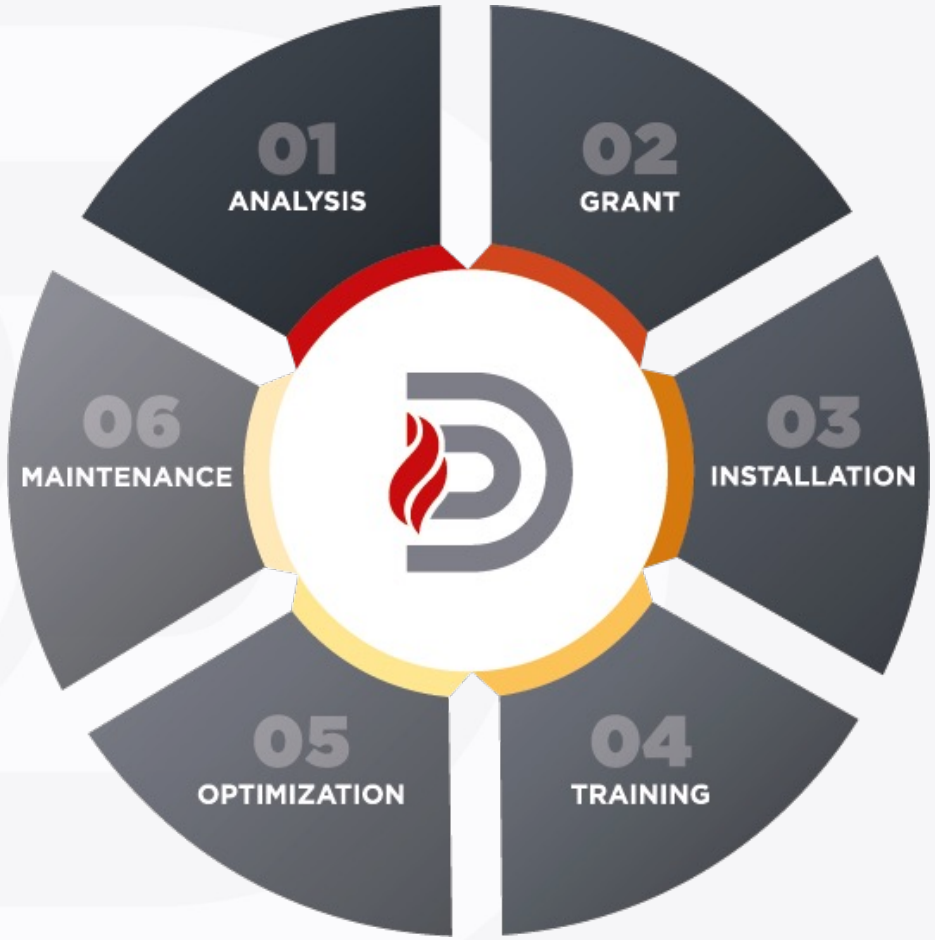
- All strategic information necessary for the management of energy consumption
- Optimization of Key parameters
- Remote access - Connect with your smartphone, computer, laptop or tablet

✓ Our experts help you generate maximum savings





Demtroys Customer Experience



01. ANALYSIS
    Free, economic and energy analysis of your building

02. GRANT
    Incentive program/ Management and financing options
    We take care of the documentation and process

03. INSTALLATION
    From system design to the installation - we take care of it!

04. TRAINING
    Training for you and your staff

05. OPTIMIZATION
    We help you optimize the system parameters to generate maximum savings

06. MAINTENANCE
    24/7 bilingual (ENG / FR) customer service available for any issues or questions

Contact – Mike Cadden
mcadden@demtroys.com
416-565-0435

Questions?

Thank you!