The **Heat Computer** boiler control system by Optimum Applied System, Inc. begins where most others end. Most multi-family buildings control the cycle of their boilers by restricting their sensor controls to the outdoor temperatures. This system is ineffective because it will cause the boiler to burn oil unnecessarily. The **Heat Computer** is the leader in Energy management Systems. Boiler efficiency is maximized by strategically using indoor sensors to trigger the boiler according to the pre-selected set point preferences. The indoor temperatures in conjunction with the outside readings increase the performance of the boiler.

Optimum Applied Systems, Inc. brings simplicity to what would otherwise be complex building controls. We have the ability to put the power into your hands through our web-based system (heatcomputeronline.com). This online tool will allow online reporting, analization of your boiler, and graphical reports of all buildings. The **Heat Computer** online will also allow the pre-selection offset point preferences and the access to change selections from any location where web access is available including a web able handheld device.
Features and Benefits of the Heat Computer

- Wireless Sensors ➔ Minimization of Boiler Run Time
- Unlimited Data Collection ➔ Comparison of Seasonal Performance
- Web Enabled Control ➔ Remote Access, Complete Control
- Boiler Diagnostics ➔ Scheduled Maintenance
- Monitoring ➔ Aquastat, Hot Water, Stack Temperatures

The Heatcomputeronline.com will allow the control and the monitoring of:

- Indoor Apartment Temperatures through wireless sensors
- Outside temperature
- Aquastat temperature
- Domestic hot water temperature
- Stack temperature (optional)
- Oil tank gauge monitoring (optional)
- Burner flame failure
- Boiler water make-up meter
- Supply temperature (used for hydronic systems)
- Return temperature (optional on steam systems; required on hydronic systems)

The Heatcomputeronline.com Real-time metrics:

- Current temperatures and status of all monitored points
- Record of all monitored temperatures since the date of installation
- Record of all heating burner on/off cycles, identified separately for heat and domestic hot water
- Flame failures, power failures, overrides, and key switch movements for the most recent 84 events
- Record of total burner run-time, heat time, boiler water consumption, high-low outside temperature, high/low aquastat temperature, high/low domestic hot water temperature, highest stack temperature
- Display of all setpoints including dial-out conditions

Output controls include whichever of the following are required for this particular steam/hydronic plant:

- Up to six burner control relays for multiple stages, high/low fire, or dual boilers
- One on/off zone valve relay or one on/off circulator relay (Up to two zones can be controlled using expansion boards)
- Up to two expansion boards can be added to control two fully modulating flame boilers
Building Overview

710 Warburton Ave.

<table>
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<th>Time</th>
<th>Apt.1</th>
<th>Apt.2</th>
<th>Apt.3</th>
<th>Apt.4</th>
<th>Apt.5</th>
<th>Apt.6</th>
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<td>68</td>
<td>74</td>
<td>76</td>
<td>74</td>
<td>75</td>
</tr>
</tbody>
</table>

Key Switch: Auto
Model: Winter
Burner Hours: 0:41
Bypass Hours: 0:00
Aquastart: 189
Cool Hot Water: 138
Domestic Hot Water: 123
Current Outside Temperature: 69
Flame failure hours: 0:00

Max Outside Temperature: 69
Min Outside Temperature: 57
Max Domestic Hot Water: 170
Min Domestic Hot Water: 96

Graphical Representation

Data Analysis

Building Statistics

Graphical Chart

Average Temperatures

537 Burnside Ave

Average Temperatures

Start Date: 09/22/2006
Ending Date: 09/24/2006

Generate Chart
Reset Fields


**Frequently Asked Questions**

*How much energy will the Heat Computer save?*

We guarantee 15% of energy savings. Our clients have reported a savings ranging from 30%-60%.

*How many boilers can you control?*

The **Heat Computer** 1000 can control a single boiler or a 5-stage hydrotherm-type system, a modular gas boiler that is staffed to provide the correct amount of hot water to the building. The **Heat Computer** 3500 can control a single boiler, two boilers in led-lag operation, or an 8-stage hydrotherm-type system.

*What kind of service support do you offer?*

OAS technicians are available via phone and email to answer all service-related questions. During off business hours, a technician is available 24 hours a day, 7 days a week. For local customers with a service agreement, OAS field service technicians are dispatched to handle any problems or installation issues and these customers receive emails periodically regarding the health of their boiler. In addition to on-call service, OAS offers regular workshops and training classes for installation technicians, field service technicians and sales personnel to teach the **Heat Computer** basics. Advance classes are also offered to those who are business partners or distributors.

*Do you need to be a certified technician to install the Heat Computer?*

No, but OAS recommends all customers be trained by our staff members and/or technicians to learn how to install and troubleshoot any problems that may occur during the installation period.

*How long does the Heat Computer last?*

The average life expectancy of the **Heat Computer** is 10-15 years, due to advances in technology that make some components obsolete over time.

*What kinds of energy resources are compatible with the Heat Computer?*

The **Heat Computer** is compatible with number 2, 4 and 6 oil, and gas or district steam.
As a distributor of our proprietary product, the **Heat Computer**, you will generate revenue among your existing customers, while building a new customer base with the added value only the **Heat Computer** can provide. OAS provides you with a business partner program that gives you the ability and the support to differentiate your business and set yourself apart from a crowded market. Your customers can have the tools to monitor and react to building conditions, producing additional annual income for you through installation, integration and maintenance of the complete system. Additional benefits include:

- **Differentiation in a competitive, evolving marketplace.**

- **New and long-term/residual streams of income resulting from vertical integration, a broader customer offering and incremental revenues from ongoing monitoring and maintenance of installed systems.**

- **Deeper, more loyal customer relationships from quickly delivering tangible savings, empowering clients with control and the metrics to help gauge results.**

- **Increased brand equity and solidified market share as you leverage OAS technology and sales/marketing support to better define your company as a one-stop solutions provider.**

- **Access to discounted distributor pricing and additional end-user savings generated from government subsidies of energy conservation initiatives.**

- **Top-notch support, including training, marketing, administrative and engineering (product customization to meet government specifications is available as well) from an established company with over 35 years of experience.**

- **OAS offers a profit margin upward 40%.**

We recognize that each and every individual partner’s success is our success. All of our distribution partners receive full and uncompromising support, in effect becoming virtual members of the OAS team. We provide access to expedited shipping and administrative support, engineering/service experts as well as sales and marketing support. Depending on the individual needs of a distributor, we’ll assign an account point person and develop a customized plan for ongoing training, support and monitoring that’s scalable as your business grows or fluctuates during different seasons.

Beyond our highly effective products, our support really sets us apart because we surpass expectations of standard product support with special training workshops and full sales/marketing services.
**Orientation:**

Optimum Applied Systems, Inc. is prepared to give full support to distributors. Distributors will be oriented on the company, our products, and our sales process. Our online seminars are one of many avenues we will utilize to promote communication with our distributors. For scheduling please call our Distributor Support Team at 914-741-0686.

**Training:**

We offer training for a full spectrum of our distribution partners. Everything from installation, operation, marketing, monitoring and ongoing support are covered by our various workshops, depending on the training each individual distributor requires.

The Heat Computer can easily be installed on steam, hydronic and multi-staged systems: At the time of installation, the user presets all monitored temperatures. A DSL line must be purchased from and installed by a local provider for the Heat Computer to communicate reports to the user. For scheduling please call our distributor support team at 914-741-0686.

**Marketing and Sales Support:**

Why start from scratch? We’ll help you generate sales and marketplace buzz in the short term. Our distribution partners enjoy access to a variety of intellectual property developed by OAS. OAS provides training to help you better understand our products’ value propositions and best practices gleaned by our internal sales and marketing team.
With over 35 years of experience developing advanced building controls, Optimum Applied Systems, Inc. has been providing customized solutions through value-added design engineering. Our roots run deep in the scientific community. One of our founders, Dr. Gary Latham, was a founding member of NASA; and two others, Dr. Ross Williams and Mr. Edward O’Neill, were both involved with the Manhattan Project. In addition to our focus on science and engineering, we are still able to respond to our customers’ immediate needs by providing unlimited product support.

OAS brings smart technology to building controls by offering customized solutions that puts the power into the hands of building owners and managers to run their buildings efficiently, resolve problems quickly and reduce fuel costs. Our mission is simple: to reduce energy costs and increase fuel efficiency; implement customized solutions for building controls; and offer solutions that put the power back in the hands of building managers.

Our clients call us the Control Freaks. We are engineers, scientists, technicians, and research analysts; and most importantly we are innovators.