## **SW-FUSION-EM**

# **Energy Management Software**

- > Track real-time energy usage
- > Generate historical energy reports and baseline building performance
- > View historical energy consumption for the day, week, month, or vear
- > Control lighting levels and shades and adjust climate setpoints in real-time
- > Define pre-meeting temperature set points, lighting levels and shade levels
- > Change settings for occupied and unoccupied states
- > Adjust demand response rules for lighting and HVAC
- > Configure building time clock rules to pre-defined holiday and events calendar
- > Schedule end-of-day shutdown
- > View room statuses at-a-glance view for the entire facility
- > Enjoy the benefits of server-based scalable redundant architecture with load balancing
- > Develop custom applications to interface with Fusion EM® with the Crestron Fusion API provided web service
- > Works with the GLS-EM-MCU Crestron Green Light® Power Meter Control Unit for tracking of actual energy consumption

Fusion EM® is a complete energy management software solution for organizations of any size. From school districts to corporate enterprises, Fusion EM tracks your organization's carbon footprint while giving you the control to easily change and schedule temperature set points, lighting levels, and demand response settings. Fusion EM even saves you energy by automatically turning off lights and reducing HVAC use in unoccupied spaces.

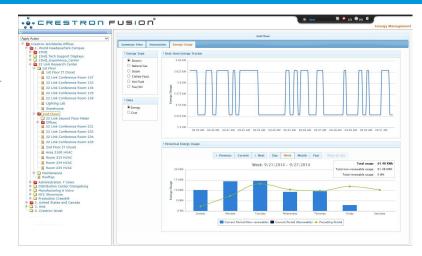
## **Complete Control**

Fusion EM controls lighting, shades, heating, and cooling for every room in each facility. The rich graphical user interface organizes each room in a hierarchy tree based on building and region — and also features a unified help interface. Users can further customize groups to reflect the logical order of their organization. Change scheduled events such as end of day shut down, edit rules for meeting times, or change climate set points, lighting scenes, and shade levels for the occupied and vacated states in one or more rooms.

In addition, Fusion EM includes a Time Clock calendaring interface with the automation rules that govern how your building operates every day of the year. The result – Fusion EM manages the rules separately from the calendar, simplifying modifications to building operations at the end of the year and during special events.

## **Energy Tracking**

Fusion EM tracks all your lighting loads and provides a bar graph showing real-time and historical energy consumption. For a full picture of how energy is used in a facility, Fusion EM takes advantage of its ability to assess real, measured usage data or simulated energy calculations based on usage information when this data is not available. Click on a group or individual room to view real-time and historical energy usage. View by day, week, month, or year and compare numbers to the previous time period.



In addition, renewable energy sources are listed out and displayed so the user can see how much energy has been saved. Project future consumption by simply viewing future periods. Fusion EM estimates energy-use data based on lighting fixture information, or it takes advantage of real data collected by the GLPP, GLPAC, GLS-EM-MCU, and other energy metering devices.

## **Demand Response Control**

Demand response settings call upon predetermined rules that are followed during peak consumption to cut down energy usage by a facility. Fusion EM makes it easy to set these rules. Quickly adjust heating and cooling set points, change the timeout setting for an unoccupied room, and edit maximum brightness of lighting levels. When the demand response mode is activated, Fusion EM ensures that each room's rules are overridden according to the demand response settings.

## **Meeting Automation**

Fusion EM prepares rooms for meetings, [1] so they are comfortable and ready for business. Adjusting pre-meeting settings is simple with the intuitive GUI. Dropdown menus provide temperature set points and lighting presets. Simply make a selection and then choose how many minutes before the meeting you want it to take effect. If the meeting is cancelled, there's no need to tell the room. Once occupancy is undetected after the timeout period, it automatically returns to the vacated state.

## Reporting

Fusion EM reports on historical energy consumption by source and by day, week, month, or year in a way that clearly reveals the peak energy consumption to the space/room and energy category level Compare data to previous time periods and energy baselines. Crestron® Fusion reports enable intelligent data-driven decisions, leading to more effective planning and forecasting. Custom reports may be added upon request.

## **Global Control**

Make global adjustments to every room in your facility with Fusion EM. Choose a group and change the occupied/vacant settings, pre-meeting rules, end of day events, and demand response for the floor, building, or the entire campus.



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Furthermore, alarms are sent to the facility manager to alert them of a failure condition, enhancing the way a network is managed.

#### **SPECIFICATIONS**

## **Minimum Client Requirements**

Platform & Operating System: Mac® running OS X®; or PC running

Windows® XP SP2, Windows Vista®, or Windows 7 or later **Memory (RAM):** 512 MB RAM (2 GB recommended)

Network Interface: 10/100 Ethernet Screen Resolution: 1024 x 768 or higher

Minimum Server Requirements[2]

Operating System: Microsoft Windows Server® versions 2008 R2, 2012,

or 2012 R2

Processors: (2) Dual-Core Intel® Xeon® 2. 8 GHz

Memory (RAM): 8 GB

Disk Drive: 250 GB or as recommended by Microsoft® for the chosen

operating system

Network Interface: Gigabit Ethernet
Display Resolution: 1024 x 768 or higher

Minimum Database Server Requirements[3]

Operating System: Windows Server versions 2008 R2, 2012, or 2012 R2

SQL Server Version: SQL Server® 2008 R2

Processor: (1) Quad-Core 3 GHz

Memory (RAM): 16 GB

## **Control System Compatibility**

Crestron® 3-Series® or 2-Series with Ethernet interface

## Language Support

Chinese (Simplified);

Chinese (Traditional);

Danish;

Dutch (Netherlands);

English (US);

English (UK);

French;

German:

Hebrew;

Italian;

Japanese:

Korean;

Norwegian;

Portuguese;

Russian;

Spanish;

Swedish

## **MODELS & ACCESSORIES**

#### Available Models

SW-FUSION-EM: Fusion EM® Energy Management Software

#### Available Accessories

CEN-FUSION-EMS-R320: Pre-configured Fusion EM® Server System CEN-FUSION-RVEMS-R320: Pre-configured Fusion RV® & Fusion EM® Server System

#### Notes:

- 1. See Crestron Fusion RV for supported scheduling providers.
- The Crestron CEN-FUSION-EMS-R320 server, sold separately, is preconfigured with all necessary software including Fusion EM.
- 3. The SQL Server must be separate from the Crestron Fusion server.

This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at <a href="https://www.crestron.com/salesreps">www.crestron.com/salesreps</a> or by calling 800-237-2041.

If you are a current owner of CRESTRON FUSION RV or ROOMVIEW SERVER software and need assistance with FUSION EM download and setup, please call the Fusion Support Group: 888-273-7876, Option 1 or email fusionem@crestron.com.

If you are a new customer for CRESTRON administrative software products and need assistance with product choices, system design, hardware & software requirements please contact Crestron Inside Sales Support at 855-604-2127 or email techsales@crestron.com.

The specific patents that cover Crestron products are listed online at: patents.crestron.com.

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