CRESTRON
FUSION

ENTERPRISE MANAGEMENT PLATFORM

Crestron Fusion™ software provides complete visibility of every device in every room, in every building, around the campus, or around the world. That's Enterprise Building Management.

Crestron control platforms integrate various systems and technologies that typically operate in silos so they work together as a single system. Audio, video, voice and data, lighting, security, digital signage, Building Management Systems (BMS), shades, and heating & cooling systems can be managed remotely and globally. Crestron software adds a layer of intelligence to turn an integrated building into a "smart" building, enabling complete Enterprise Building Management.

The **Crestron Fusion Enterprise Management** software suite monitors, manages, and controls all the devices and systems in all the rooms throughout a building. In fact, Crestron Fusion can connect all the buildings around the campus or around the world to provide complete visibility to the entire enterprise. Crestron Fusion provides more data points and connects them in ways that no other software can. Robust usage reports supply the intelligence needed to make informed data-driven decisions about purchasing, staffing, scheduling, resource allocation, and workspace design. With Crestron, you're not merely monitoring systems and controlling devices; you're managing the enterprise.

Crestron Fusion:
Save Money
Increase Productivity
Anticipate Issues
Save Energy

One world view

Other management software suites provide visibility into just one system, letting you know if specific devices are "online" or "offline". They may even turn the building "on" in the morning and "off" at night. Crestron Fusion does that and a lot more.

Crestron Fusion RV™ (RoomView®) is the AV and technology management component of Crestron Fusion. It enables you to seamlessly monitor and manage all of the technology in boardrooms, classrooms, lecture halls, video teleconferencing rooms, and more so you can maximize room usage and availability and minimize equipment downtime.

Crestron Fusion EM™ is the energy management component of Crestron Fusion. It enables you to monitor, measure, manage, and control lighting, HVAC systems, and energy usage in every room and area.

With Crestron Fusion you can take control of individual rooms and collect detailed data on how they – and all the devices in them – are being used. It provides insight into exactly how the systems are performing, who's using them, when, where, and how often. It delivers building technology automation capabilities that save energy and improve productivity by intelligently integrating with building occupants.
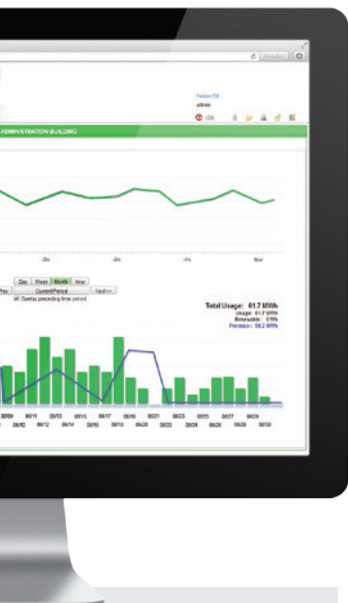
FUSION RV®

Crestron Fusion RV Software enables you to centrally monitor, manage, and maintain AV resources in every room. You can track equipment usage to schedule preemptive routine maintenance, reducing tech support cases. When issues arise, you can provide real-time remote technical support and receive instant alert notifications on any web-enabled computer, mobile device, or touch screen, minimizing downtime.

Robust reporting features in Crestron Fusion RV provide data to help you make more effective AV purchasing decisions, as well as maximize efficient room usage and availability. Built-in room scheduling empowers end-users to schedule meetings and book rooms.

Fusion RV – Monitoring

rvsecorp01/RoomViewSEWC/Monitoring/pages/Tabs.html?sp=&rr=15

FUSION RV

Monitoring
3/6/2013
Jo AV Smith

(4) (1)

| My RoomView | Assets | Rooms | Schedule | WebCam | e-Control | Instant Messaging | Capture | + |

Apply Action

Crestron Worldwide Offices
- 1. World Headquarters Campus
  - 15HQ
    - 15 Volvo Conference Room 230
    - 15 Volvo Conference Room 260
    - 15 Volvo Marketing Conference
    - 15 Volvo Tech Support
    - 15 Volvo Training Room 240
    - 15 Volvo Video Conference Roo
  - 15HQ_Experience_Center
    - 15 Volvo Experience Center
    - 15 Volvo Experience Center Cor
    - 15 Volvo Experience Center Hor
    - 15 Volvo Experience Center Lyr
    - 15 Volvo Experience Center Pre
    - CEC Bathroom
    - CEC Head End
    - CEC Interactive lab
    - CEC PC Racks
  - 22 Link Research Center
    - 1st Floor
    - 2nd Floor
    - Backlogged Historic Data 1
    - Backlogged Historic Data 2
    - Rooftop
  - Administration 7 Volvo
    - 7 Volvo Conference Room 147
    - 7 Volvo Conference Room 154
    - 7 Volvo Conference Room 171
    - 7 Volvo Conference Room 200 I
    - 7 Volvo Conference Room 201 (
    - 7 Volvo Conference Room 202 I

Select Attributes: Conference Room   Filter: None

Crestron Worldwide Offices

| Name	Online Status	Display Power	Display Usage	Error Alert	Error Message	Free Busy Status
15 Volvo Experience Center Conference Room	✓	✓		✓		2013-03-10T00:00:0
Canada Training Room 101	⚠	✓		✓	Server connect error	
15 Volvo Video Conference Room 251	✓	✓		✓	Exiting upload	–
San Rafael Training Room 101	✓	✗		✓	Exiting upload	2013-03-06T09:00:0
15 Volvo Experience Center Home Theater	✓	✗		✓		
Southwest Training Room 101	✓	✗		✓	Exiting upload	
Chicago Conference Room 102	✓	✗		✓		
Canada Conference Room 102	✓	✗		✓	Exiting upload	–
Southwest Video Conference Room 103	✓	✗		✓	Exiting upload	
Denver Training Room 101	✓	✗		✓	Exiting upload	
Southwest Conference Room 102	✓	✗		✓		
15 Volvo Experience Center	✓	✗		✓		
Chicago Video Conference Room 103	✓	✗		✓	Exiting upload	
Chicago Conference Room 104	✓	✗		✓		
Production Cresskill						
CEC Bathroom	✓			✓		
Kor Office HVAC	✓			✓		
Mid-Atlantic Conference Room 202					Exiting upload	2013-03-10T00:00:0

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Room scheduling

Crestron Fusion RV integrates with Microsoft® Exchange Server for scheduling and with SQL Server® for direct database integration. This enables building occupants to conveniently book rooms based on location, capacity, and assets. Crestron Fusion RV also enables network room scheduling from IBM® Notes®, R25®, Google Calendar™, the RoomView add-in for Outlook®, and from a touch screen conveniently wall-mounted outside each room.

Network room scheduling provides intelligent management of resources for increased productivity and efficiency. Schedule meetings with Outlook and the calendar also appears on the Crestron touch screen outside the room. If no one shows up for a scheduled meeting, Fusion RV automatically clears it from the calendar and the touch screen to indicate the room is available for use. The RoomView add-in for Outlook displays the appropriate rooms for each meeting based on the number of participants and technology needed, ensuring efficient resource allocation.
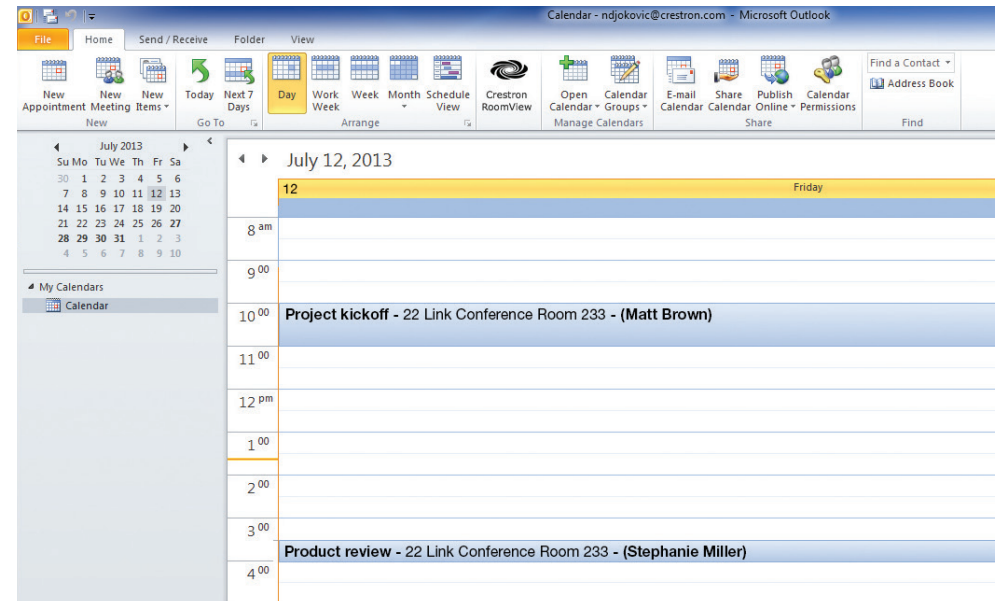
Control and automation

Preset and automate events, such as end-of-day shutdown, with minimal effort or overhead. Anticipate issues before they arise and schedule routine maintenance at convenient times. Monitor room occupancy to automatically turn AV devices "on" and "off" throughout the day. Automatic email scheduling can be used to send reports to a group of recipients on a recurring basis.

Remote help desk

Provide real-time remote assistance and chat with room occupants via the built-in help desk. Literally gain visibility into any room from the Web cam tab. Take control of AV devices to provide optimal technical support in all rooms throughout a campus or global enterprise, even with limited staff. This practically eliminates downtime.
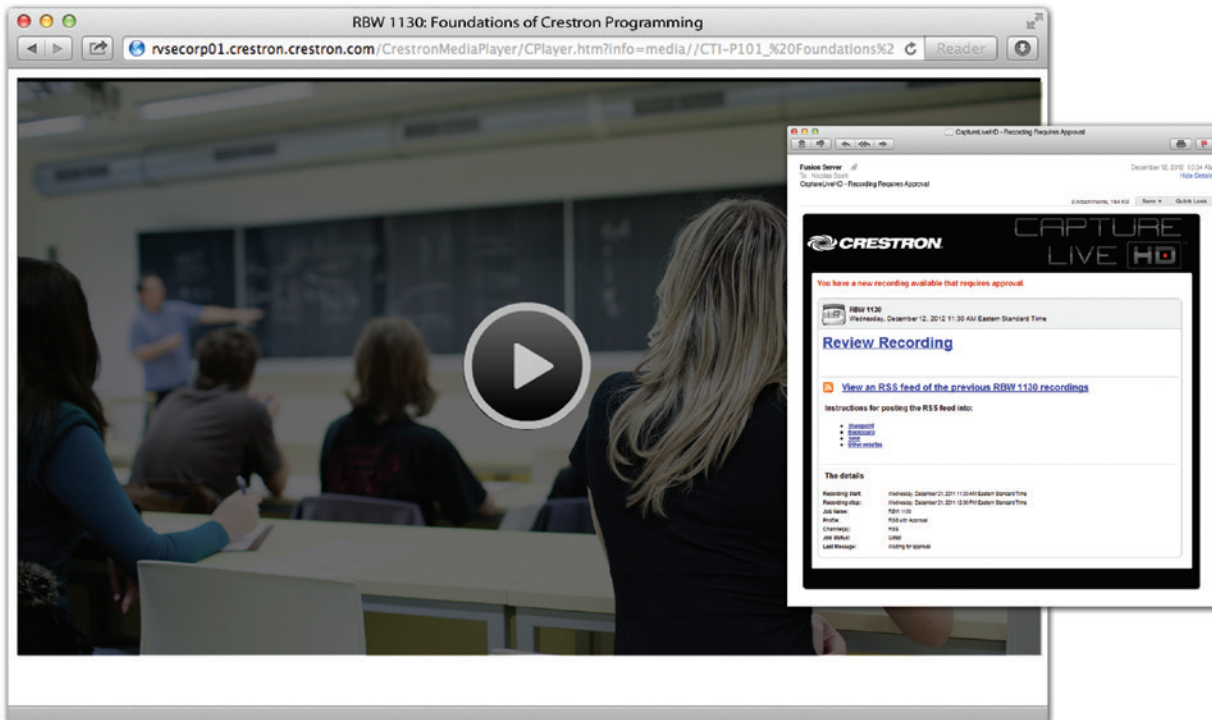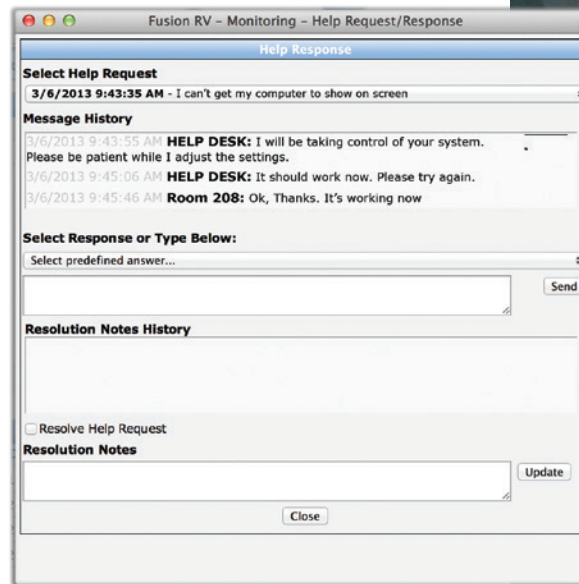

Capture

Crestron Fusion RV provides the workflow engine for Crestron CaptureLiveHD™ to deliver a streamlined solution for full-motion HD recording and online distribution of classes, meetings, and presentations. View all scheduled capture sessions; monitor all sessions in progress; display a list of open issues; approve and automatically post captured content to an RSS feed, website, SharePoint®, or Blackboard. The entire process, from scheduling to recording, encoding, reviewing, and uploading, is seamless and automated.

Broadcast messaging

Crestron Fusion provides the platform to increase your emergency preparedness. You can create and store instructions, safety protocols, images, and animations that can be reviewed, evaluated, and perfected before critical situations arise. Custom directions can be distributed and displayed on a room-by-room basis. In the event of an emergency, broadcast messages will automatically override presentation content on Crestron Connected™ displays and on Crestron scheduling touch screens.
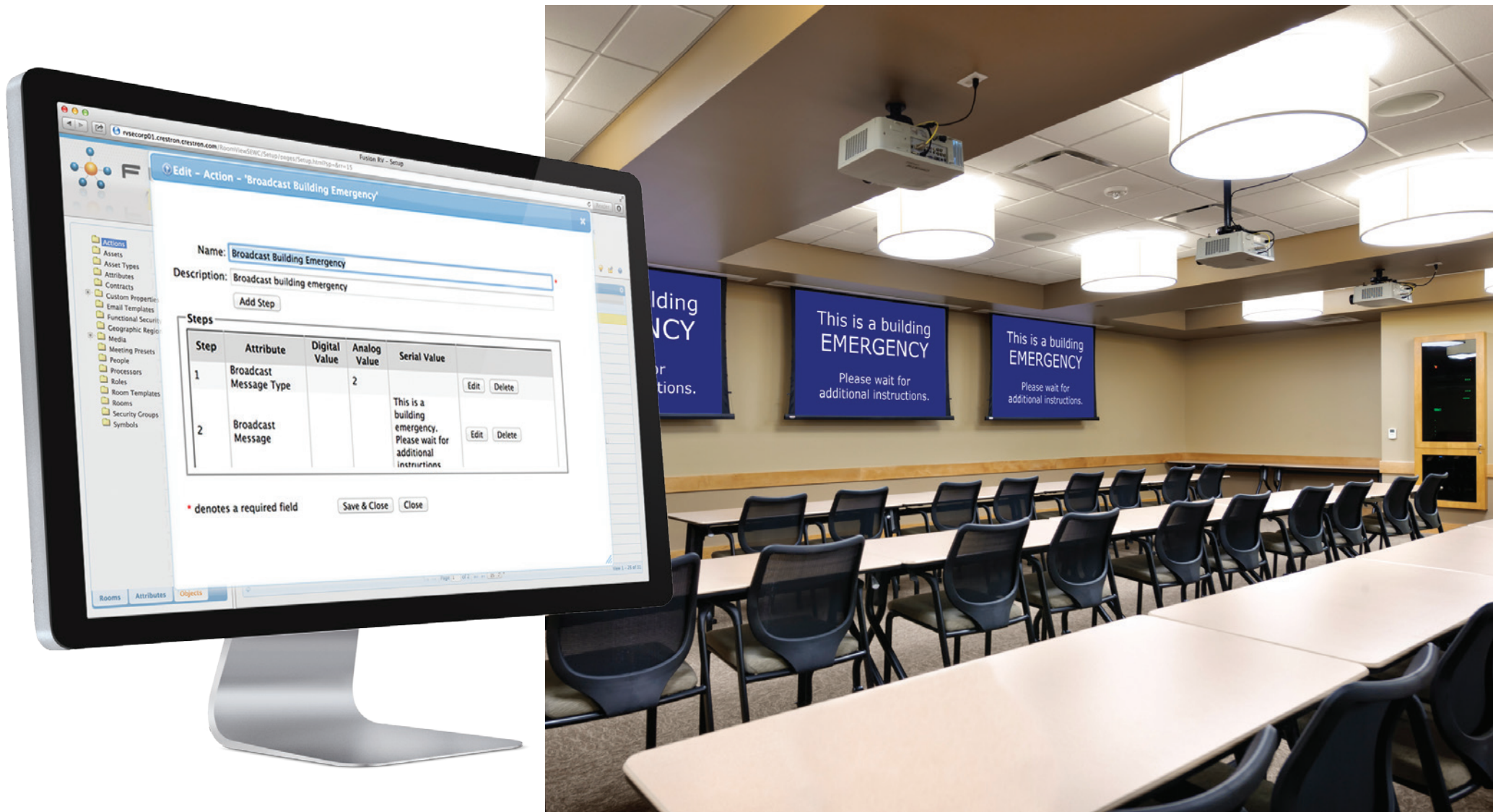
FUSION EM™

Fusion EM is a complete enterprise-wide energy management software solution for any size organization. From college campuses and school districts to corporate offices and hotels, Fusion EM enables you to easily analyze energy consumption and manage your facility.

rvsecorp01/RoomViewSEWC/Monitoring/pages/Tabs.html?sp=&rr=15

FUSION EM

Fusion EM
admin

(33)

Refresh

- Company X
  - Northeast Facilities
  - Southeast Facilities
  - Northwest Facilities
  - Southwest Facilities
  - Midwest Facilities
    - Administration Building
    - Manufacturing Buildings
    - Midwest Warehouse
  - Demo Center

ADMINISTRATION BUILDING

Summary View | Automation | Energy Usage

Show Energy Type
- ● Electricity
- ○ Natural Gas
- ○ Steam
- ○ Petroleum
- ○ Solar

Data
- ● Energy (kWh)
- ○ Cost($)

Real-Time Energy Tracker

Energy Usage
3.6 kW
3.2 kW
2.8 kW
2.4 kW
2 kW
1.6 kW
1.2 kW
800 W
400 W
0 W
-5m   -4m   -3m   -2m   -1m   Now

Historical Energy Usage

Day | Week | Month | Year
<< Prev | Current Period | Next >>
☑ Overlay preceding time period

06/01/2012 to 06/30/2012

Total Usage: 61.7 MWh
Usage: 61.7 MWh
Renewable : 0 Wh
Previous : 58.2 MWh

Energy Usage
6 MWh
5 MWh
4 MWh
3 MWh
2 MWh
1 MWh
0 Wh

06/01 06/03 06/05 06/07 06/09 06/11 06/13 06/15 06/17 06/19 06/21 06/23 06/25 06/27 06/29
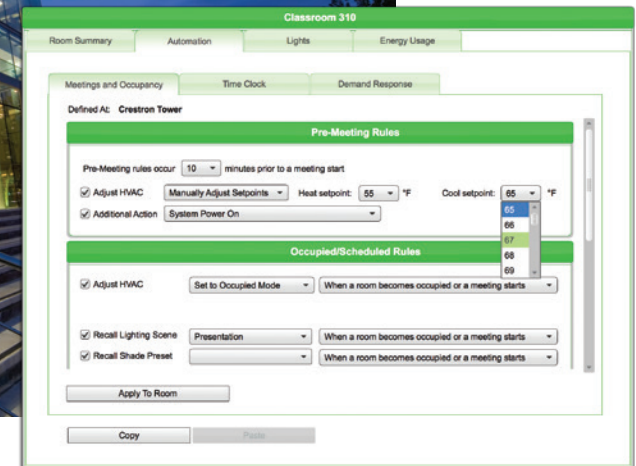06/02 06/04 06/06 06/08 06/10 06/12 06/14 06/16 06/18 06/20 06/22 06/24 06/26 06/28 06/30

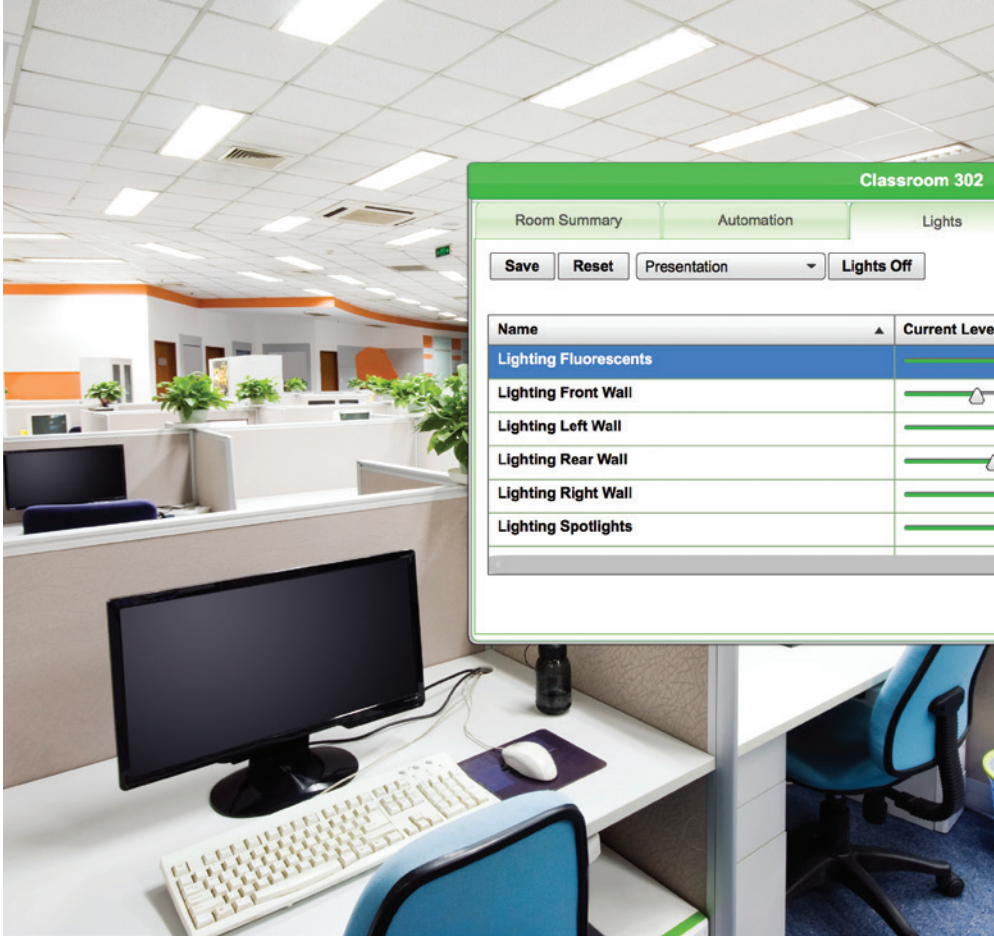# Monitor renewable and sustainable energy sources

Crestron Fusion EM gives you the power to make informed energy decisions. You can track all energy usage and sources using charts and graphs that show real-time and historical consumption. By monitoring and reducing energy consumption you can also qualify for sustainability credits.

As part of an integrated energy management solution, Crestron Fusion EM displays usage data from the Crestron Power Meter Control Unit and lighting control products. Combined with a Crestron 3-Series™ control system, Crestron Fusion EM also provides visibility into the BMS, other building systems, and all energy sources on a single dashboard.

Automation

Crestron Fusion EM reduces your energy consumption by automatically turning off lights and reducing HVAC use in unoccupied spaces. It prepares rooms for meetings, so they're comfortable and ready to do business. Adjusting pre-meeting settings is simple from 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 returns to the vacated state.

Control

With Crestron Fusion EM you can anticipate events and tailor rooms based on patterns of usage. It gives you the ability to easily change and schedule temperature set points, lighting levels, and demand response settings. The rich graphical user interface organizes each room in a hierarchy tree based on building and region. You can quickly and easily pinpoint specific sources of waste in real-time and take immediate action.

Manage

Fusion EM tracks energy usage and organizes all of your lighting loads. Click on a group or individual room to view a bar graph showing real-time and historical energy consumption. View by day, week, month, or year and compare numbers to the previous time period. Data collection and reporting enable intelligent data-driven decisions based on benchmarking and trend analysis, leading to more effective planning and forecasting.
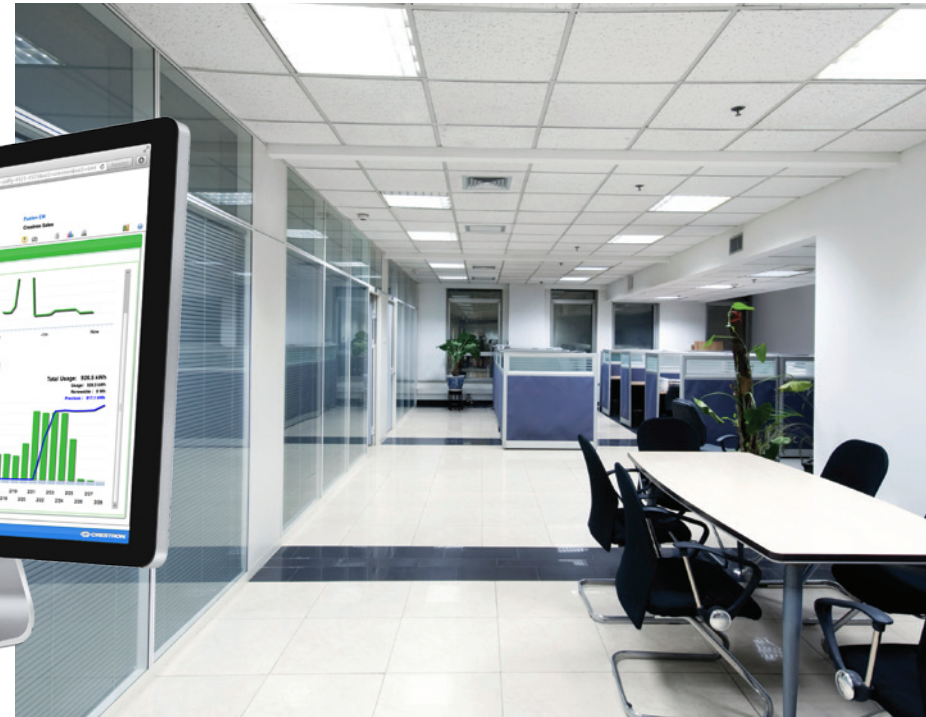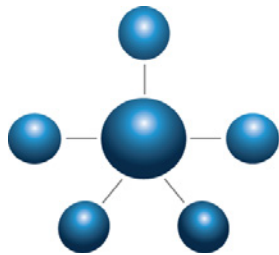
Crestron Fusion Enterprise Management Platform

Whether you're using Crestron Fusion RV, Crestron Fusion EM, or both, you have access to the most powerful features of Crestron Fusion Enterprise Management. You can integrate popular management platforms, customize settings, receive instant alerts, track and report usage, and maximize productivity, efficiency, and cost savings.

FUSION RV

Monitoring
5/26/2011
Joe Smith

My RoomView | Assets | Rooms | Schedule | WebCam | eControl | Instant Messaging

Select Attributes: All Attributes   Filter: None

InfoComm 2010 University

...omm 2010 University
...mpus Rooms
...assrooms
...xecutive Rooms
...aculty Rooms

Name	Online Status	Load 1	Humidity	Load 3	Volume	Load 4
VTC Room	✓					
Video Conference Room	✓					
Training Room	✓					
Team Room 300	✓					
Team Room 222	✓					
Team Room 101	✓					
Meeting Room	✗					
Faculty Conference Room	✓					
Executive Briefing Room	✓					
Classroom 2	✓					
Classroom 1	✓					
Auditorium	✓					

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FUSION EM

Fusion EM
admin

ADMINISTRATION BUILDING

Summary View | Automation | Energy Usage

Company X
Northeast Facilities
Southeast Facilities
Northwest Facilities
Southwest Facilities
Midwest Facilities
  Administration Building
  Manufacturing Buildings
  Midwest Warehouse
Demo Center

Show Energy Type
○ Electricity
○ Natural Gas
○ Steam
○ Petroleum
○ Solar

Data
○ Energy (kWh)
○ Cost($)

Real-Time Energy Tracker

3.6 kW
3.2 kW
2.8 kW
2.4 kW
2 kW
1.6 kW
1.2 kW
800 W
400 W
0 W

-6m   -4m   -3m   -2m   -1m   Now

Historical Energy Usage

Day Week Month Year
<< Prev   Current Period   Next >>
☑ Overlay preceding time period

06/01/2012   to   06/30/2012

Total Usage: 61.7 MWh
Usage: 61.7 MWh
Renewable: 0 Wh
Previous: 58.2 MWh

6 MWh
5 MWh
4 MWh
3 MWh
2 MWh
1 MWh
0 Wh

06/01 06/02 06/03 06/04 06/05 06/06 06/07 06/08 06/09 06/10 06/11 06/12 06/13 06/14 06/15 06/16 06/17 06/18 06/19 06/20 06/21 06/22 06/23 06/24 06/25 06/26 06/27 06/28 06/29 06/30
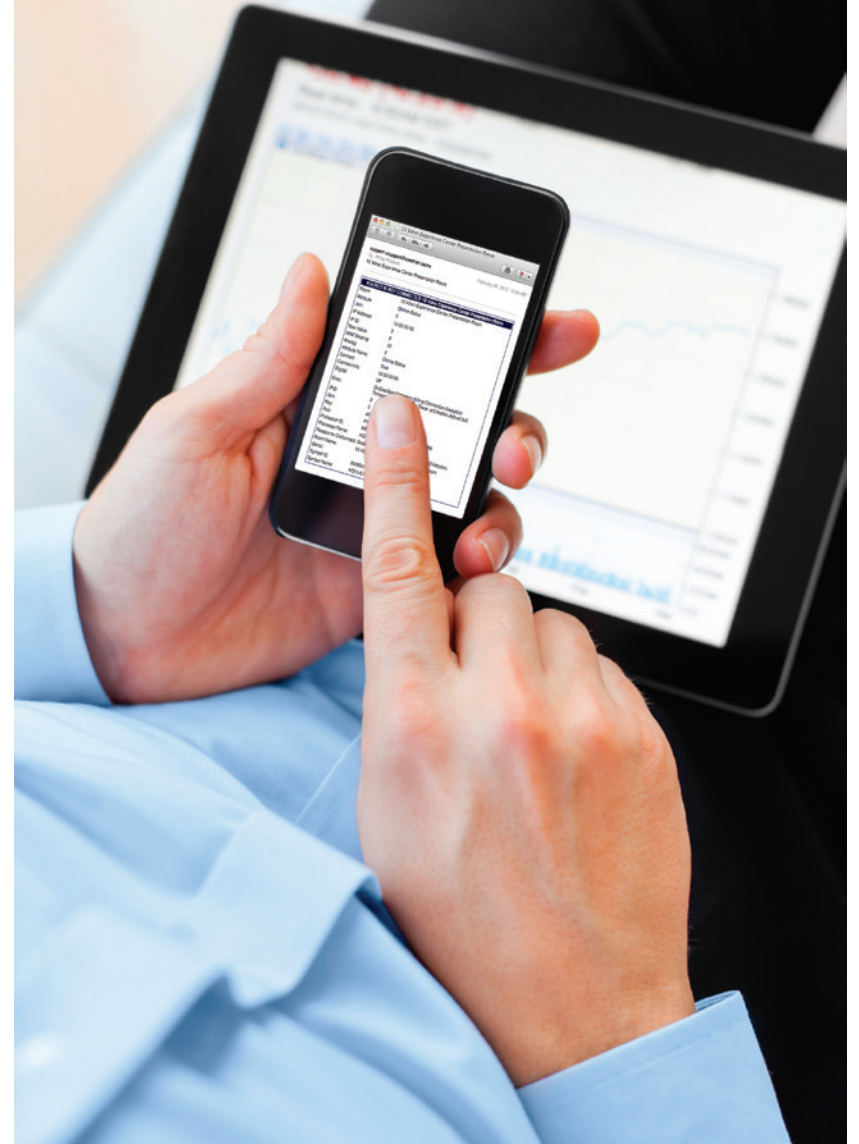
Alerts

Receive instant alert notifications on any web-enabled computer, mobile device, or touch screen when issues arise. Resolve them before anyone even notices. For example, email alerts can be sent to support staff when a display is offline. This prevents meeting disruptions, thereby increasing worker productivity.

Adaptive and Event Scheduling

Automatically shut down displays at the end of the day, turn lights on and off, and lower shades based on natural light levels. Track room usage to identify sources of energy waste and then develop a sustainable energy management plan to increase efficiency and lower costs. Use historical data collected and reported by Crestron Fusion to more accurately predict usage patterns. Customized, automatic environmental settings can then be implemented based on variables such as date/time, season, occupants, and room. Integrating with Micros® OPERA, hotel rooms can be pre-set to personal preferences when guests check-in and then revert to "vacant" settings after they check-out.

micros®

API

Applications that you may already be using can be seamlessly integrated with Crestron Fusion. The Crestron Fusion API provides both support for and integration with popular scheduling and resource management applications. Crestron Fusion doesn't replace these applications; it adds a layer of intelligence, providing greater visibility and control of the entire enterprise.

Tracking and reporting

Knowledge is power, which leads to increased savings and productivity. By seeing which rooms are used most, you can maximize their usage and more effectively plan budgets and forecast staffing needs. Assets can be auto-discovered upon deployment for improved tracking, and built-in templates make it easy to run quick reports. Custom reports can quickly be added dynamically and scheduled reporting automatically sends any report to a group of recipients on a recurring basis.

Prior to implementing Crestron Fusion, a global company identified a problem. Its video conference rooms were constantly booked. Staff wasted time looking for meeting space and often postponed meetings. The solution was to build more video conference rooms. Further analysis of data collected by Crestron Fusion revealed that the video conference system was rarely used during those meetings, and that most of the meetings involved four people or less. Instead of large video conference rooms, smaller huddle rooms were needed. This realization, and the implementation of the new plan, saved the company millions of dollars and significantly increased productivity.

Flexible pricing

+ Connect up to five rooms: FREE

+ Unlimited connectivity for
  enterprise deployment
  (more than five rooms):
  $5,000 MSRP

+ Unlimited usage -
  no per seat license fees

+ Special pricing available
  for Enterprise Partners

Maximizing return on facilities investment

Facility managers at world-leading companies, such as Microsoft, SAS®, Jeppesen®, Revel®, American Water®, and Salix Pharmaceuticals, use reports generated by Crestron Fusion software to make data-driven decisions rather than rely on intuition and established assumptions about workflows and technology purchases. By standardizing on Crestron hardware and software solutions across their global enterprises, these companies realized millions of dollars in savings in many areas, including programming charges, AV equipment costs, negotiated hardware pricing, construction, maintenance, and personnel.