

C•CURE Building Management System (BMS)

Consolidated client view for access control
and BMS activity

Features That Make a Difference:

- Monitor and control simple to complex Building Automation Systems (BAS)
- Native management of BMS equipment using BACnet™, LonWorks®, Modbus®, OPC, SNMP, DALI, KNX, DNP3, and most PLC protocols
- Intuitive Webscheduler™ using standard browsers
- Powerful analytical tools for energy management
- Maintain building data history in Microsoft SQL Server
- Supports multiple role-based operator profiles
- Centralized operator rights management incorporating Microsoft Active Directory
- Advanced Configuration Environment (ACE) and smart generator import of building layouts from CAD
- Scalable standalone building operator workstations to high-reliable, multi-station deployments



C•CURE Building Management System (BMS) provides integrated supervision of all technological functions of a building or campus from a workstation, through Web access, or remotely from a mobile device. Supervision includes monitoring and control of Building Automation Systems (BAS) for safety, security, access control, fire detection and suppression, elevators and escalators, electrical distribution, and human comfort systems such as HVAC, lighting, blinds, and air quality.

Consolidated Monitoring for BMS and C•CURE 9000

Monitor C•CURE BMS alarm and event management with C•CURE 9000 security and event management system via a real-time web view of BASs through the C•CURE 9000 monitoring station. This provides a powerful way to manage individual facilities or campus complexes.

C•CURE BMS is able to dynamically filter, search, and sort alarms by current state, alarm level, and other customizable attributes. In a multi-station deployment, alarms may be filtered by operator station while alarm counters by value, level, and attribute allow operators to maintain overall situation awareness. Automatic and manual masking by user action keep operators from being overwhelmed by nuisance alarms.

Equipment Scheduling

C•CURE BMS scheduler engine supports the automatic control of events and external equipment status. Monitor and control simple to complex Building Automation Systems (BAS) based on the calendar. Tasks may be assigned to a specific date and time along with holidays and other calendar-based exceptions. Schedules may also be configured for a recurring period or cycle. Depending on the user-rights, the schedule may be modified by the operator during operation.

With Webscheduler™, you can visualize and control all tasks and events scheduled and stored in the system remotely using any standard web-browser with Java. Webscheduler supplies schedules for internal BMS tasks and all connected BACnet™ calendar objects.

Energy Management System

C•CURE BMS integrates with electrical distribution systems, and if present, the energy generation systems that are within the scope of Building Management.

The powerful energy management capability provides a building manager with the information necessary to minimize energy use, thus saving costs. It also enables the building to be smart grid-ready to participate in and benefit from demand reduction incentives that are increasingly available from the grid.

Features

The energy management capability also provides visibility into any power generation system such as solar, photo-voltaic, wind, or other renewable generation in order to keep them at optimal generation capacity.

If the building being managed is housing multiple tenants, or is a data center providing computing resources to a number of clients, the electrical management feature is able to record and provide detailed reports on energy using sub-metering connected to the data acquisition channels.

Electrical distribution in the building is enhanced by Bus Bar Coloring. This analytical feature provides voltage analysis across a single line diagram in order to highlight with color any voltage mismatch with connectivity of the configured circuits.

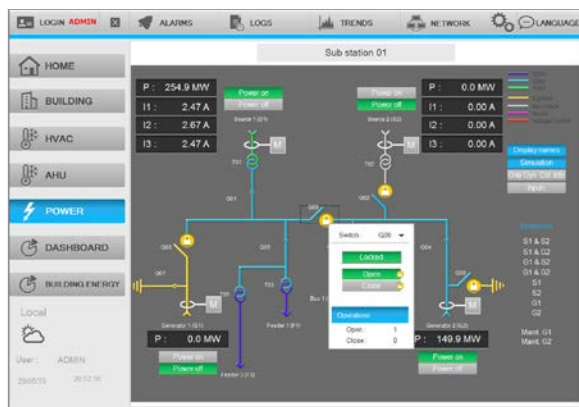


Figure 1: Powerful object oriented human machine interface advanced configuration environment

Building Historical Records for Future Analysis

C•CURE BMS provides a real-time view of the Building Automation Systems (BAS) that it manages. You can configure the system to store the history of the equipment over time, as well as the operator actions, and the alarms and events for future analysis. Recording the history of BAS data is essential for fault diagnosis, quality assurance, regulatory compliance, analysis of environmental trends, fiscal accounting, and more.

C•CURE BMS uses an archiving engine to record events and trends with mechanisms and formats depending on the data storage requirements of the project.

C•CURE BMS provides the Historical Data Server (HDS) component for easy setup and archiving to Microsoft SQL Server, but other DBMS may be used to log data via the ODBC connector. If there is a need to replay the data through the system as if it was happening in real time, for example a training system, a specific format may be used. In fact, the platform supports archiving in multiple formats simultaneously

Redundancy comes automatically to C•CURE BMS so when redundancy is required or even in the case of multi-station architectures there is a built-in mechanism for archives to support those functions.



Figure 2: Effective management of building energy and human comfort systems

Data Analysis for Quick Operator Decisions

Data Analysis is an essential tool for operator decisions. C•CURE BMS provides all the necessary tools for data extraction, statistical analysis, and reporting for data analysis.

The data export feature provides the capability for operators to select the data for export to an Excel spreadsheet and include statistical analysis of that data at a glance. The data can even be analyzed in a generalized XY chart format.

Operator Profiles and Access with Microsoft Active Directory

C•CURE BMS supports user profiles which are integrated with Microsoft Active Directory for management of operator access. These profiles give each user access to various controls and mimics. The system, for example, may define certain users as “view only” without the ability to change the configuration or schedules of equipment.

Automated Configuration for Quick Deployment

C•CURE BMS Advanced Configuration Environment (ACE) gives C•CURE BMS a competitive advantage over the competition with the ability to configure the system in a fraction of the time.

ACE is designed to maximize productivity by providing components within a single interface in which all configurations are done. With ACE, you can create object descriptions, mimics or graphical screens, equipment protocol network and frame definitions, user profiles, and more. It also provides advanced tools for creating the client/server architecture and deploying the BMS application across a distributed network.

Features

ACE includes the Application Explorer, an “all in one” configuration tool for configuration and diagnosis; the Application Architect to design object models, and create or represent BMS building blocks, and smart generators, a suite of import tools for mass configuration from third-party applications or metadata.

ACE includes an extensive library of predefined BMS graphical images and animated symbols for representing a wide variety of BAS equipment. There are more than 7,200 images and 1,500 symbols supporting over 60 animations. You can also create customized graphics for a particular project.

Integrated development and run-time environments allow changes to be made on-line without the need to compile or restart the BMS project. The same mimic or graphical screen can even be opened in both design mode and in run-time mode allowing modification with real-time feedback.

C•CURE BMS supports more than 50 common map providers such as Google Maps. Live data markers may be placed at geographical locations and become visible depending on the zoom level of the map. Selecting a marker can navigate to a drawing of the building, then to specific floors and related equipment.

The trend viewer allows the operator to see the history and current value of any data in C•CURE BMS. The trend viewer supports selection of a point or a zoom region to see an hour, a day, a month, or any predetermined window to the history of the point.

The alarm viewer supports the masking, filtering, and acknowledgement of alarms. The event viewer works similarly, but without acknowledgement. The controls support readable formatting, support of tool tips, and the ability to navigate to more detailed views by selecting on the alarm or event. Notification is done via email or SMS text message when the alarm or event is raised.

Flexible Architecture

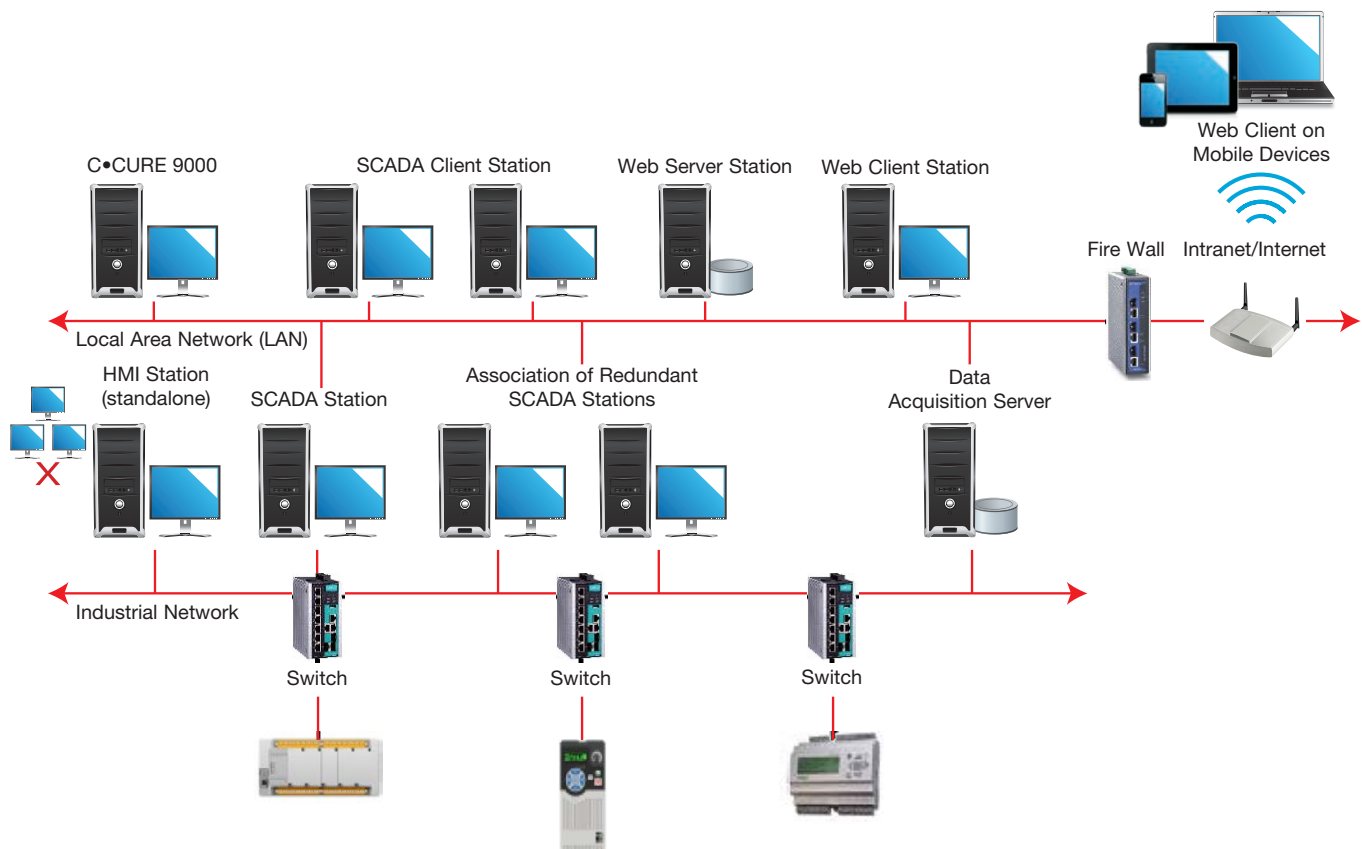
One of the most powerful features of C•CURE BMS is its ability to adapt to a wide range of computing architectures. When C•CURE BMS is deployed in a multi-station architecture the distribution of data servers and clients is fast and efficient, and managed with a simple network wizard.

C•CURE BMS works with a single standalone HMI station supporting a single remote web browser client or several associations of redundant data acquisition servers monitoring and controlling all of the facilities, power generation, and distribution elements of a campus on its own micro grid. No other platform on the market has this power of scalability under a single platform.

Specifications					
Functionalities	HMI Station	SCADA Station	CLIENT Station	NETWORK CLIENT Station	WEB CLIENT Station
2D Mimics	•	•	•	•	•
3D Mimics	•	•	•	No	No
Alarms & Events	•	•	•	•	•
Recipes	•	•	•	•	No
Historical Trending & Log	•	•	•	•	•
Scripting VBA & SCADA-Basic	•	•	•	•	No
Native Communication Drivers	•	•	No	No	No
OPC Client	•	•	No	No	No
OPC Server	•	•	•	•	No
Client-Server & Redundancy	No	•	•	•	No
Remote Desktop Server Environments	No	No	No	•	No
Development Option	•	•	No	No	No
Notes	<ul style="list-style-type: none"> A station without client and redundancy support Suitable for stand-alone applications 	A full functionality SCADA station for distributed and/or redundant architectures	<ul style="list-style-type: none"> Client without direct communication with equipment Requires a SCADA station or a communication server available on the network 	<ul style="list-style-type: none"> Client station without hardware protection dongle Works with remote desktop services on virtualized environments 	Provides remote display and control of the process using an Internet or Intranet connection

HMI and SCADA stations are provided in both a complete system with C•CURE or standalone. versions. Both versions are available in five sizes: 65,000, 5,000, 2000, 1,000 and 500 external tags. External tags are inputs/outputs located on building devices such as BACnet devices, Intelligent Electrical Devices (IED), or Programmable Logic Controllers (PLC). The internal tags are unlimited for each version.

Version	Supported Platforms	32-Bit (x86)	64-Bit (x64)
Version 11.1	Windows Vista Business, Enterprise and Ultimate Editions SP2 (or later)	Yes	No
	Windows 7 Professional, Enterprise and Ultimate Editions SP1	Yes	Yes
	Windows 8 and 8.1 Professional and Enterprise Editions	Yes	Yes
	Windows Server 2008 Web, Standard Datacenter or Enterprise SP2	Yes	Yes
	Windows Server 2008 R2 Web, Standard Datacenter or Enterprise SP1	N/A	Yes
	Windows Server 2012 Foundation, Essential, Standard, and Datacenter	N/A	Yes
	Windows Server 2012 R2 Foundation, Essential, Standard, and Datacenter	N/A	Yes
	SQL Server 2008 and SQL Server 2008 R2	Yes	Yes
	SQL Server 2012	Yes	Yes
	SQL Server 2014 (Not supported on Windows Vista)	Yes	Yes
Please refer to released versions notes for additional restrictions and clarifications			



Related Products



C•CURE 9000



C•CURE 9000 SiteServer



victor Unified SiteServer



iSTAR Controllers

Approvals

