CM-2 CONSOLE

Web-based data consolidator and manager for up to 100 CM-2 units devices. Shows sensor data, cameras, and device configuration. Single-page video shows all video images and status on one web page.

- Camera images on single web page
- Up to 100 units monitored
- Low cost, simple to install
- Camera images on single web page
- Consolidated graphs
- Video thumbnails show alarm state
- No SNMP setup required
- Easy firmware updating
- Auto detects sensor additions
- Produces HIPAA logs

Multiple Server Room Monitoring

Each CM-2 monitoring device can be used with a variety of popular monitoring packages such as What's Up Gold, Nagios, IP Sentry, OpenView and other SNMP-based monitors. Each IT WatchDogs device internally contains the SNMP data known as the MIB.

However, where specific monitoring equipment and single web page presentation of multiple video cameras is desired, the CM-2 Console is a good alternative. Installation is fast and simple; the user simply types in the IP addresses of the devices to be monitored. No SNMP experience is required. Setup takes minutes.

The problem of updating firmware for dozens of devices has been solved. Users can selectively upgrade firmware multiple devices by a single mouse click and receive affirmation of the upgrade.

The software can be installed on almost any Windows PC and can be accessed using only a Web browser - no client software is required.

Devices are monitored continuously and data is available in various formats including tables, graphs, and on-disk CSV log files.

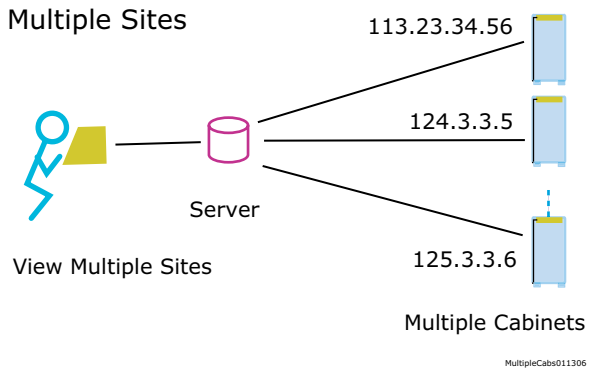
A security camera view consolidates video from remote server rooms. The video consolidation page give the user a visual summary of the device condition.

View Data from One Web Site

Specific data consolidation features include:

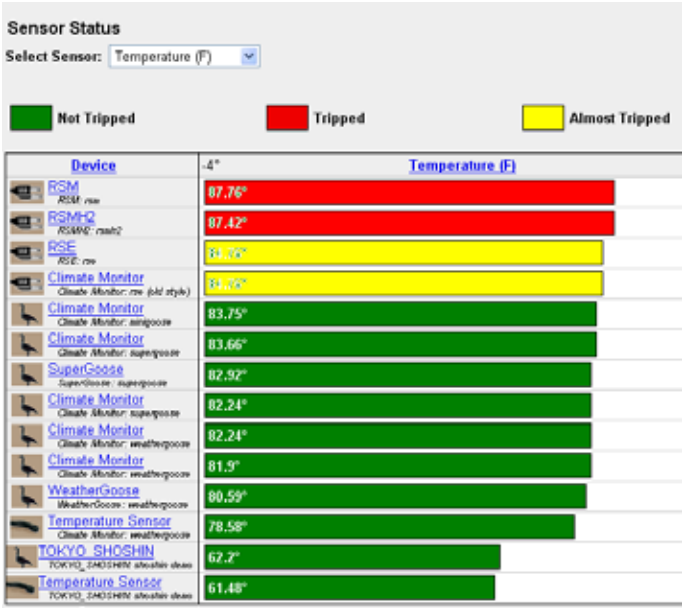
- Continuously log all sensor readings to on-disk Excel (tm) and database-compatible CSV files. Packages data by day, week, or month.
- Compare sensor readings across devices with a stacked-bar view.
- Graph sensor readings across devices with

Easily Monitor Dozens of Sites



Monitor and control multiple mixed-type devices from one web-based application. Easily upgrade remote devices.

Consolidates Climate Monitors and Remote Sensors



Graph views consolidate sensor data from multiple and mixed device types. Colors indicate which devices are in or close to an alarm state.

overlapped line-graph view.
- Security Cam view displays thumbnail array of all web-cams.
- Color-coded bars indicate when devices are currently in or close to an alarm state.

Logging Data to Excel Files

Devices are monitored continuously and data is available in various formats including tables, graphs, and on-disk CSV log files. Excel or other database tools can be used wit the data.

Variety of Devices Monitored

The web-based Console 2.1 device manager lets you remotely manage multiple, heterogeneous (mixed type) devices. View all device types and current firmware versions.

Most devices and sensors are supported:

CM-1
CM-2
Mini CM
PowerEggs
All remote sensors
All web-based and USB cameras
Many OEM devices

Sensor Consolidation and Graphing

The CM-2 Console continuously records data from all internal and external sensors from each configured device. Sensor data can be viewed and processed in several ways.

The "Graph" view superimposes sensor values from multiple devices. The user can pick which type of sensor to graph (e.g. temperature, air flow, amperage) and all applicable values are displayed. The user can also select from several time intervals.

The "Status" view displays a table of sensor values from multiple devices. Colored bars show values visually; the color is red if the value indicates an alarm condition, yellow if the value is close to an alarm condition, or green if the value is well within the alarm threshold. Sort by values or by device. Click any device

If any devices are currently off-line they are displayed at the bottom with an appropriate error message to assist the operator in diagnosing unexpected failures.

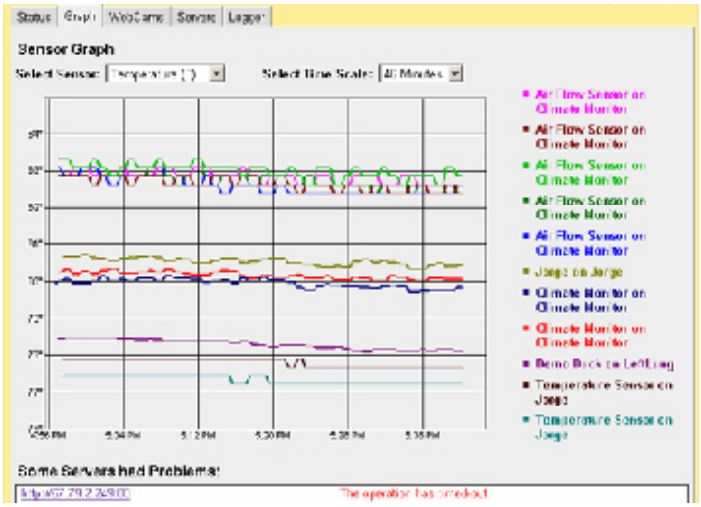
The console automatically detects all sensor types, valid ranges, and units of measurement. When new devices or sensor types are added, this meta-data is detected automatically. This means you don't need to upgrade your Console installation even when we produce brand new types of sensors.

Security Camera View

A security camera view consolidates video from remote server rooms.

Watch all your remote server rooms at once and in real time with the "Security Camera View." USB and web-enabled cameras connected to monitored devices are

Consolidated Graphing



Superimpose sensor values from multiple devices. Quickly call out suspicious values. Devices that cannot be contacted are displayed at the bottom.

Security Camera View

Monitor and control multiple heterogeneous devices from one web-based application. Upgrade devices remotely.

automatically detected and arranged on the security camera web page.

Colors clearly call out devices in or near alarm conditions. Click an image to visit the website for that device.

Additional web-enabled cameras can be added to the view even if they are not attached to an CM-2 device. A form at the bottom of the page lets you enter additional devices which are displayed at the end of the list.

Data Logging - HIPAA Logs Created

All sensor data can be logged to on-disk files for long-term storage, analysis, and process compliance. Values are stored in the industry-standard CSV format compatible with Excel and most databases.

Each log entry contains a date/time stamp taken from the host Windows server and a reading from every sensor on every attached device. The administrator controls how often log entries are made.

The administrator set the on-disk directory that should contain the log files. Sensor data is packaged into files by day, week, or month.

Simplified Remote Device Upgrades

Selectively upgrade multiple devices simultaneously for new device firmware releases. See which of your devices are currently down.

The CM-2 Console can remotely and simultaneously upgrade heterogeneous devices.

The "Push Firmware" view displays all devices with their type and currently installed firmware version. The administrator can quickly see which devices are not on the desired version.

New firmware is placed in a directory on the local hard drive. The Console automatically associates these firmware versions with each device according to its type.

The administrator indicates which versions should be applied to which devices using a drop-down box. Then, with the push of an "Update" button, firmware is pushed out to the remote devices. While the upgrades are in progress or devices are rebooting after upgrade, the console shows percent complete or "rebooting."

For even faster upgrades, the Console displays a list of versions at the bottom of the screen which the administrator can use to upgrade all units to the same version. Any units already on that version are left alone.

If the network connection is interrupted during an upgrade, the Console will continue to retry upgrades until they are complete.

Device Configuration

Each device is configured by supplying its IP address or host name and the port on which its web server is running. If a read-only username and password is in effect, that must also be supplied to the console.

Automatic Data Logging

Log for Demo Duck

Time	Airflow	Humidity	IO1	IO2	IO3	Light	Sound	TempC	TempF
Jan 5, 2006 3:12:19 PM	7	24	99	99	99	11	14	26.81	80.25
Jan 5, 2006 3:13:14 PM	6	24	99	99	99	11	1	26.83	80.29
Jan 5, 2006 3:14:09 PM	5	24	99	99	99	7	5	26.85	80.33
Jan 5, 2006 3:15:04 PM	7	24	99	99	99	11	8	26.88	80.38
Jan 5, 2006 3:15:59 PM	8	24	99	99	99	11	1	26.92	80.45
Jan 5, 2006 3:16:54 PM	8	24	99	99	99	11	5	26.94	80.49
Jan 5, 2006 3:17:49 PM	9	25	99	99	99	11	0	27.01	80.61
Jan 5, 2006 3:18:44 PM	7	24	99	99	99	11	0	27.01	80.61
Jan 5, 2006 3:19:39 PM	6	24	99	99	99	11	1	27.04	80.67
Jan 5, 2006 3:20:34 PM	5	24	99	99	99	11	1	27.05	80.69
Jan 5, 2006 3:21:30 PM	5	24	99	99	99	11	5	27.07	80.72
Jan 5, 2006 3:22:25 PM	7	24	99	99	99	11	1	27.10	80.78
Jan 5, 2006 3:23:20 PM	4	25	99	99	99	11	8	27.14	80.85
Jan 5, 2006 3:24:15 PM	6	24	99	99	99	11	5	27.18	80.92
Jan 5, 2006 3:25:10 PM	5	24	99	99	99	11	3	27.20	80.96
Jan 5, 2006 3:26:05 PM	7	25	99	99	99	11	1	27.22	80.99
Jan 5, 2006 3:27:00 PM	7	24	99	99	99	11	0	27.24	81.03
Jan 5, 2006 3:27:55 PM	11	25	99	99	99	11	0	27.25	81.05
Jan 5, 2006 3:28:50 PM	10	25	99	99	99	11	0	27.29	81.12
Jan 5, 2006 3:29:45 PM	5	24	99	99	99	11	2	27.33	81.19
Jan 5, 2006 3:30:40 PM	6	24	99	99	99	11	0	27.35	81.23
Jan 5, 2006 3:31:35 PM	11	25	99	99	99	11	0	27.40	81.32
Jan 5, 2006 3:32:30 PM	15	25	99	99	99	10	1	27.42	81.35
Jan 5, 2006 3:33:25 PM	22	25	99	99	99	11	1	27.39	81.30
Jan 5, 2006 3:34:20 PM	19	25	99	99	99	11	1	27.37	81.26
Jan 5, 2006 3:35:15 PM	20	25	99	99	99	11	7	27.33	81.19
Jan 5, 2006 3:36:10 PM	19	25	99	99	99	11	4	27.27	81.08
Jan 5, 2006 3:37:05 PM	26	25	99	99	99	11	8	27.20	80.96
Jan 5, 2006 3:38:00 PM	30	25	99	99	99	11	2	27.13	80.83
Jan 5, 2006 3:38:56 PM	26	25	99	99	99	11	1	27.09	80.76

Keep permanent logs of all sensor data for analysis or compliance. CSV format is readable by Excel and databases.

Each device also gets a short description in addition to the friendly names configured inside the device.

Configuration inside each device is picked up automatically and used by the Console. For example, all friendly names for devices and external sensors are used for tables, graphs, and logging.

Devices can be configured even if they are not yet available on the network. Whenever devices become unavailable, they are displayed at the bottom of the web page with a descriptive error message.

Configuration data is stored as an XML file and can be backed up or generated by another system.

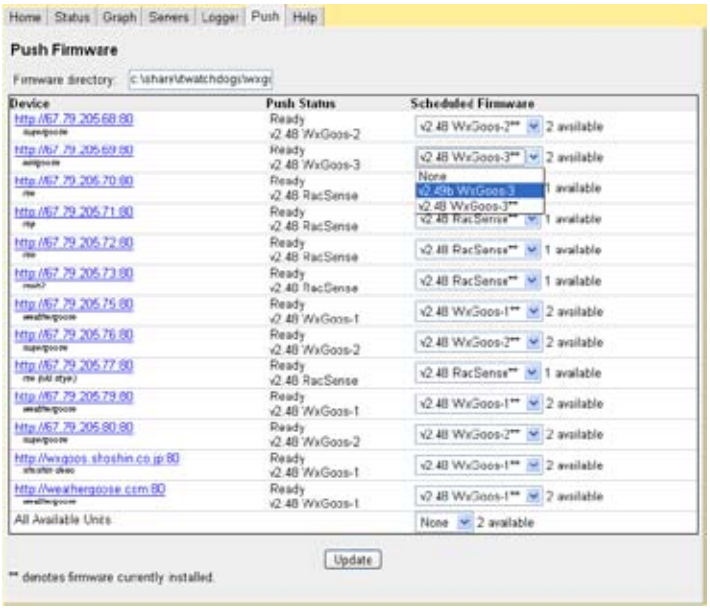
Server Requirements

Runs as Windows service. Can be started and stopped remotely. Supported on Windows 2000/XP/2003 Server platforms. Requires 100Kbytes of memory, 10M bytes of disk excluding log files. Processor loading is minimal.

Fact Sheet

- All functions available from web-based interface.
- Supports hundreds of devices.
- Automatically detects changes in remote sensors attached to devices.
- Automatically supports new sensor and device types without being upgraded.

Upgrade Heterogeneous Devices



Push new firmware releases onto multiple devices simultaneously. Upgrade firmware even across heterogeneous types of devices.

Upgrading devices in the field is easy. Shows current versions and updates in real time with upgrade status.