

# WatchDog Console v2.4 Instructions

How to install, set up, and monitor your IT Watchdogs climate and power monitoring devices including optional video camera images.

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## View Data from One Web Site

The WatchDog Console is installed on a Windows-based server. The Console automatically monitors up to 100 ITW devices. Uses access the Console Server through a browser to view the consolidated presentation of the monitoring devices. The Console accesses devices using their IP addresses.

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 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.

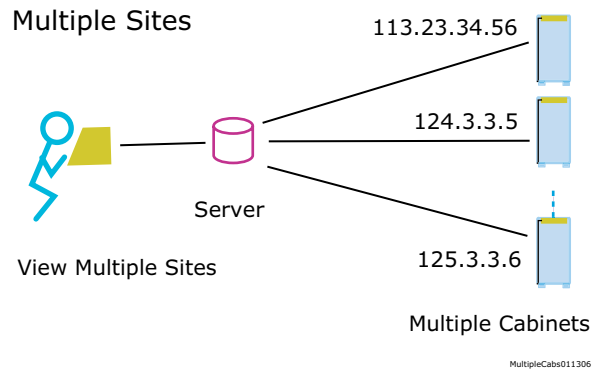
## Variety of ITW Devices Monitored

The web-based Console 2.4 device manager lets you remotely manage multiple, heterogeneous (mixed type) devices. View all device types and current firmware versions.

Most ITWatchDogs devices and sensors are supported:

- WeatherDuck
- WeatherGoose (WxGoos-1)
- SuperGoose (WxGoos-2)
- MiniGoose (WxGoos-3)
- PowerEggs
- All remote sensors
- All web-based and USB cameras
- Many ITW-based OEM devices

## Easily Monitor Dozens of Sites



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

## Using the Web Interface

By default the web interface is exposed on port 8090 of the machine on which the WatchDog Console is running. So if the machine is called barney, the address of the web application will be as follows.

`http://barney:8090`

The first time you log in the Console will not know about any existing ITWatchDogs products. You will need to tell the Console which products to monitor; the next section describes how this is done.

## Home Consolidated Overview

The 'Home Consolidated Overview' page gives the user a top-level view of all the units WatchDog Console knows of. There are two major modes for this page: Full and Terse.

### Full

Console displays any camera images associated with the unit.

### Terse

No camera images are displayed. Only the console description and status along with any alarm info is displayed.

Units are placed into one of three categories depending on their status: Alarm, Error, and Normal Notifications.

## Alarm Notifications

Units under this notification class either have tripped alarms, near-tripped alarms, or a combination of them.

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All tripped and near-tripped alarms are listed.

## Error Notifications

Units under this notification could not be contacted during their last refresh. The causes of this could be due to the unit itself not responding or the network path to the unit being down.

## Normal Notifications

Units under this notification responded normally during their last refresh and contained no tripped or near-tripped alarms.

## Status

The 'Status' page shows real-time data for a given sensor measurement. Examples of sensor measurements are: 'Air Flow', 'Temperature', 'Light', 'Watts', and 'Volts'.

You can select any measurement from the drop-down list at the top of the page. The list of possible measurements is determined automatically based on what units WatchDog Console knows of. An icon representing the sensor's host device is shown along with the user-defined label that was given to the unit the sensor is located on. Clicking on a sensor will take you to the webpage of sensor's host unit.

The color key at the top of the page can help you quickly determine whether a given sensor is in a normal, tripped, or near tripped condition. Sensors that are unplugged are also marked as 'UNAVAILABLE' along with their last known value.

The list can be sorted by measurement name or value by clicking on the corresponding column header.

## Graph

The 'Graph' page displays a historical view of all sensor measurement data.

As in the 'Status' page, you can select any sensor measurement from the drop-down menu at the top of the page. Additionally you can select a time period of 2, 4, or 6 hours or 2, 4, or 6 days. Note, you can only select as many hours/days as there is logged data points. Possible limiting factors are WatchDog Console having not aggregated sufficient data or the 'Log Clear Frequency' setting in the 'Config' page.

## Servers

The 'Servers' page lets you add units to WatchDog Console. A unit must be added from this page for WatchDog Console to know about it.

Use the "Add New Server" form at the bottom of the page to add new unit to the list. You may add a server even if it is currently not running. The "Server Description" field lets you add a custom label to this server. A typical label would be "Rack #4" or "Room 207." If you do not supply the correct username and password, the Console will still recognize the unit and will supply limited functionality. Use the "user" or "view-only" username and password for more functionality and the

"admin" username and password for maximum Console functionality. If the unit is not password-protected leave the username and password fields blank. The "Port" field defaults to 80.

The URL, Version, and Last Contacted Time is shown for each added server. The status description gives a message indicating any errors encountered the last time the server was refreshed. A server may be deleted by clicking the its respective 'Remove' button, which is located on the far most right of each row. The 'Details' link may also be clicked if you wish to see the recorded data pertaining to that server.

## Server Details

The 'Server Details' page lets you inspect console settings and recorded information pertaining to a specific server.

## Select Server and Console Information

Use the 'Select Server' box to quickly move to any server whose details you wish to inspect. The information WatchDog Console has associated with the server is also displayed here and may be easily updated.

## Climate History Information

This section allows you to inspect all the aggregated data WatchDog Console has recorded for the selected server.

A link is provided to download all the sensor data for just this server. Also provided is a record summary indicating the number of records WatchDog Console has for this server, along with the time span the records cover.

You may browse through the records sequentially using the 'Prev Record'/'Next Record' links, or you may jump to a specific record directly by inputting the desired id number and hitting the 'Enter' key. The record's meta-data indicates if a successful record retrieval was possible or if an error was encountered, what the error was. If the record was indeed successfully retrieved then the server's attributes are displayed.

Any configured cameras on the server at the time of the record are also displayed here. These are images taken for each camera at or around the time of the record's timestamp. If it was not possible to retrieve a camera image at that time, then a descriptive message is displayed instead of an image. Furthermore, virtually every piece of information WatchDog Console knows about regarding all devices is displayed in a tabular format.

## Logs

The 'Logs' page allows you to download all logs WatchDog Console has consolidated.

A message notifying you of the time remaining before all log data is cleared is displayed at the top. The frequency at which log data is cleared is controlled by the 'Log Clear Frequency' setting located in the 'Config' page.

WatchDog Console currently provides two data logs available for download. One is a log of all sensor data for

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all servers collected since that last log clear. The second is the event log which contains information and errors pertaining to various WatchDog Console functions such as the webserver, server refreshes, firmware updates, and alarm updates.

## Firmware

The 'Firmware' page allows simultaneous updating of your units' firmwares.

The Firmware page lists all units that support firmware updates. Located at the most-right of each unit row is a selection box that allows you to select from any available firmwares that are applicable to that unit. Unit's whose firmware have not yet been identified will not show this selection box; their statuses will be marked as 'Not yet identified.' After you have made your firmware selections for each unit, click the 'Update' button located at the bottom of the page.

This will register your firmware selections with WatchDog Console. Note that selecting a blank entry or the unit's current firmware version has no effect. The actual update process begins the next time that unit is refreshed by WatchDog Console and may or may not be initiated depending on if any firmware update connections are free ( Please see the 'Concurrent Update Connections' firmware setting in the 'Config' page for more details ).

The last entry in the server list is one labeled 'All Available Servers'. Making a firmware selection for this entry applies to all units whose status is marked as 'Ready', that is, if the selected firmware version is actually available for a given unit. Also note that making an 'All Available Servers' selection supersedes any individual firmware selections that you may have selected but not yet registered with WatchDog Console.

A status of a unit whose firmware update is in progress is displayed as 'Updating' along with the percentage of the firmware image uploaded at that point. Following a complete upload of the firmware image a unit's status is shown as 'Restarting'. At this point the unit is rebooting and may take up to five minutes to complete. The firmware update process is completed when WatchDog Console identifies the unit's new firmware after the restart.

If an error occurs during a firmware update, the unit's status will change to reflect this turn of events. WatchDog Console will wait between one and fifteen minutes before making another firmware update attempt; WatchDog Console will continue making these update attempts should it fail again. If a unit's firmware update keeps failing after multiple attempts, please contact technical support and do not remove power from or attempt a manual reboot of the unit in question.

A unit that never comes back up after a restart does not necessarily mean that the firmware update failed. The unit may simply be taking longer than usual to restart or network connectivity from WatchDog Console to the unit may have been lost. WatchDog Console will continue to periodically check if a unit whose status is labeled as 'Restart Failed' is back up.

However, if a significant amount of time has elapsed and WatchDog Console has still not successfully identified a unit whose status is labeled as 'Restart Failed', please contact technical support and do not remove power from or attempt a manual reboot of the unit in question.

## Alarms

The 'Alarms' page allows you to set an alarm configuration for sensors of the same measurement across multiple units.

First, select your desired filter options. The 'Sensor location' option filters the alarms based on whether the sensor is internal or external to a unit. The 'Sensor' filters the alarms based on the measurement, such as airflow, humidity, or temperature.

Next, select any alarm displayed in the main list by clicking the checkbox on the leftmost side. A selected alarm will appear as a highlighted entry in the list. You may at any time invert, select all, or select none of the alarms by clicking on the respective select option located above and to the left of the top-most alarm entry. Furthermore, the alarm list may be sorted by any of the column properties by clicking the desired column; clicking the same column consecutively reverses the sort order. Note that tripped or unplugged sensors are identified, along with their last known value, under the 'Current Value' column.

Once all your selections are made, key in your desired alarm settings. Leaving any of the 'Low Trip', 'High Trip', or 'Alarm Setting' fields blank implies that you wish to leave this attribute unchanged across all your alarm selections. Note that an 'Alarm Setting' value with a buzzer is only applied to units that support buzzers. For example, an 'Alarm Setting' value of 'Buzzer, SNMP Trap' is translated as a 'SNMP Trap' value on units that do not support a buzzer. Likewise, an 'Alarm Setting' value of 'Buzzer' is translated as a 'Disabled' value on units that do not support a buzzer.

Finally, click the 'Set Alarm' button to update your selections; alarms that are in the process of updating are highlighted in gray. A unit who has alarms marked as 'updating' will not accept any more alarm updates until the original updates are completed.

Any units that do not support alarm update functionality or are otherwise busy or unreachable are listed under the 'Problems encountered' table located at the bottom of the page.

## Config

The 'Webserver Settings' section designates how WatchDog Console responds to web requests.

## Listening Port

This controls the port on which WatchDog Console listens for web requests. The default port is 8090.

## Concurrent Connections

This value determines how many simultaneous web requests WatchDog Console will handle. A larger value

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may help speed up web response times on computers with faster CPUs and more resources.

### **Connection Timeout**

This value is the maximum number of seconds WatchDog Console will wait for a web request to complete. You may wish to increase this value if the network that console is listening on suffers from consistent packet loss.

The 'Firmware Settings' section designates how WatchDog Console performs firmware updates.

### **Concurrent Update Connections**

This value determines how many simultaneous firmware update connections WatchDog Console is allowed to perform. Users who need to upgrade many units and whose computer can spare the extra resources may wish to allow more connections.

### **Archive Directory**

This is the directory that WatchDog Console scans for valid firmware ZIP archives. If you add or remove any archives to this directory simply click the 'Update' button to rescan the directory.

The 'Log Settings' section designates how WatchDog Console handles its log aggregation activities.

Clear logs after this many days

This value determines the number of days to allow WatchDog Console to aggregate data before it clears it. Please be aware that the amount of disk space used may accumulate very quickly if you have many units and cameras.

The 'License Settings' sections designates the license configuration for WatchDog Console

### **Installed License**

This section display information about the license that is currently installed in your WatchDog Console system.

### **New License**

Use this form to install a new license.

### **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.

ITWatchDogs  
12885 Research Blvd  
Suite 210B  
Austin, TX 78750  
512-257-1462  
309-406-3651 (fax)

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