

WatchDog Console 3.1

User Guide

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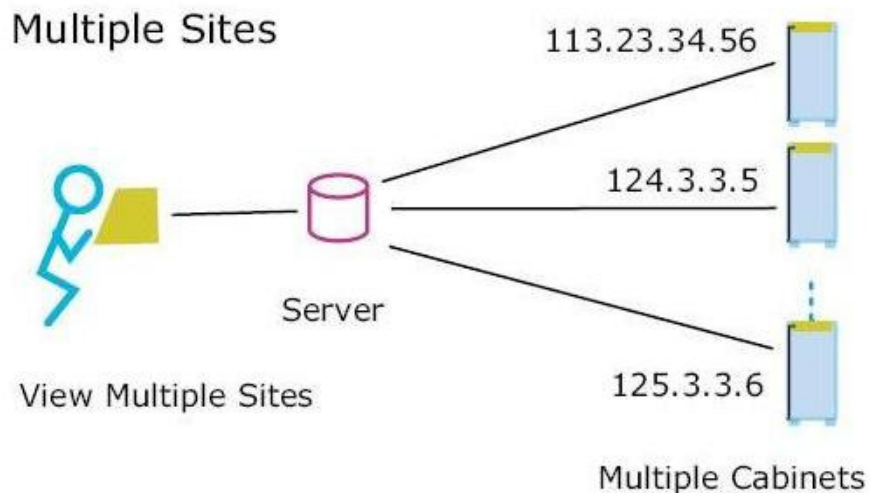
Welcome

1.1 About WatchDog Console 3.1

The WatchDog Console is installed on a Windows-based PC. The Console automatically monitors multiple remote devices. Users access the WatchDog Console Server through a browser to view the consolidated presentation of the monitoring devices. The Console accesses devices using their IP addresses.

Easily Monitor Dozens of Sites

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



Specific data consolidation features

- Continuously log all sensor readings to on-disk SQL database.
- 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 connected web-cams.
- Color-coded bars indicate the current alarm state of devices.

Fact Sheet

- All functions available from a web-based interface.

- Supports up to 200 devices.
- Automatically detects changes in remote sensors attached to devices.
- Automatically recognizes the firmware of each remote unit to upgrade.

Server Requirements

- Runs as a Windows service. Can be started and stopped remotely.
- Supported on Windows XP/Vista/2003/2008 Server platforms.
- Compatible with 32-bit and 64-bit Windows.
- Requires at least 512MB of memory, 200MB of disk excluding log files.

Server Recommendations

- Less than 20 remote units:
P4 CPU, 2GHz, 512MB, or equivalent, select SQL CE
- 20-75 remote units:
P4 CPU, 2.8GHz, 1GB, or equivalent, select SQL CE
- More than 75 remote units:
C2D CPU, 2GHz, 2GB, or equivalent, select SQL Express

Variety of ITW Devices Monitored

The web-based WatchDog Console 3.1 device manager lets you remotely manage multiple devices of mixed types. Using WatchDog Console, you can view all device types and current firmware versions.

Most ITWatchDogs devices and sensors are supported:

- WeatherDuck
- WeatherGoose
- SuperGoose
- MiniGoose
- MicroGoose
- PowerEggs
- All remote sensors
- EM products after v 1.60
- All type II products of Goose family

1.2 List of Changes from Version 2.55

Compatible with new ITW products

- Recognizes all Weather Goose II™ and EM products.
- Set alarms on all Weather Goose II™ and EM products.
- Push firmware upgrade on all Weather Goose II™ products and EM products.

Log data storage in SQL database

- Log data storage in SQL Compact Edition¹ or Express Edition² database.
- Log data archived in SQL database files. All historical data can be stored in archive files.
- Log data accessible with standard SQL-capable tools for user analysis.
- Choice of archive threshold – up to 30 days.
- Graph and view up to one month of data.

Multi-level login

- Read/Control/Admin level access to Console.

Temperature units

- Temperature units are user-selectable
 - Fahrenheit
 - Celsius
 - Same-as-Server
 - Both

Firmware upgrade enhancement

- Abort option for firmware upload. Admin can terminate batch firmware uploads.

HTTPS capability

- Encrypted communication with all remote units.

Add camera username/password in Config page.

- Camera username/password can be stated in the Config page.

¹ Microsoft SQL Compact Edition is free and installed with Console. It does not interfere with other SQL that is running on the same computer.

² Microsoft SQL Express Edition is free. It needs separate installation before Console 3.1 is installed.

Installation

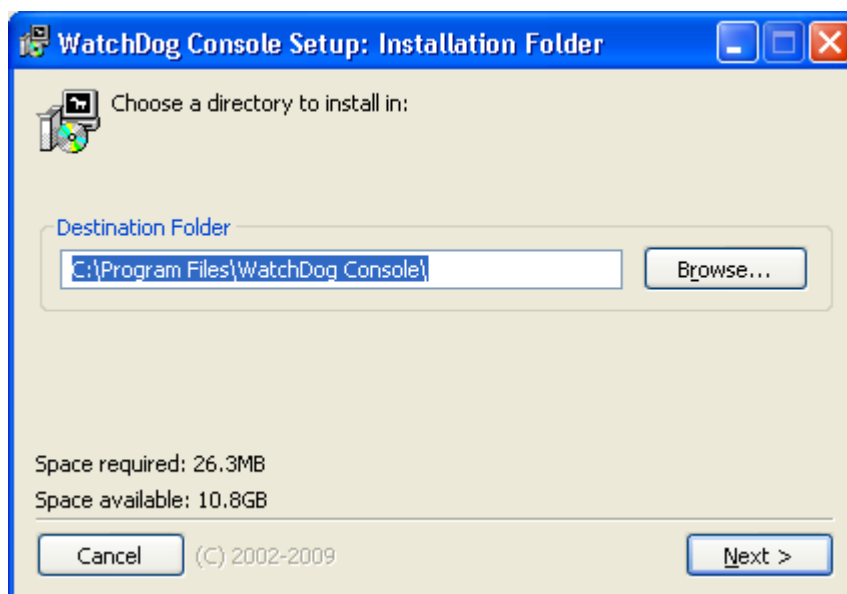
2.1 Instructions on First Time Installation of Console 3.1

You need to be an administrator to install the Console.

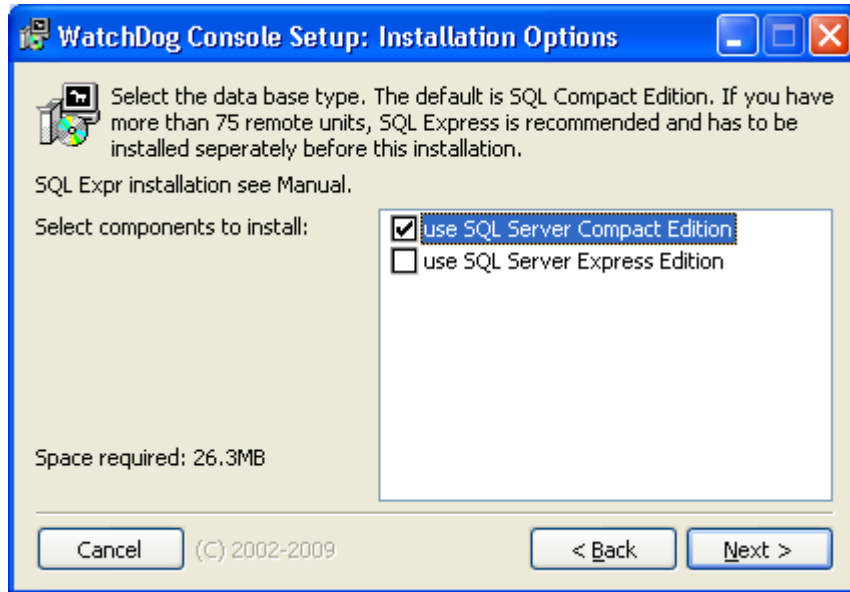
If you have installed a previous version of Console, please go directly to the next section “Instructions on Upgrading to Console 3.1”.

To install the new Console 3.1 on a computer running Windows (XP, 2003 Server), double click the WatchDogConsoleInstaller_v3.1.exe file you previously downloaded.

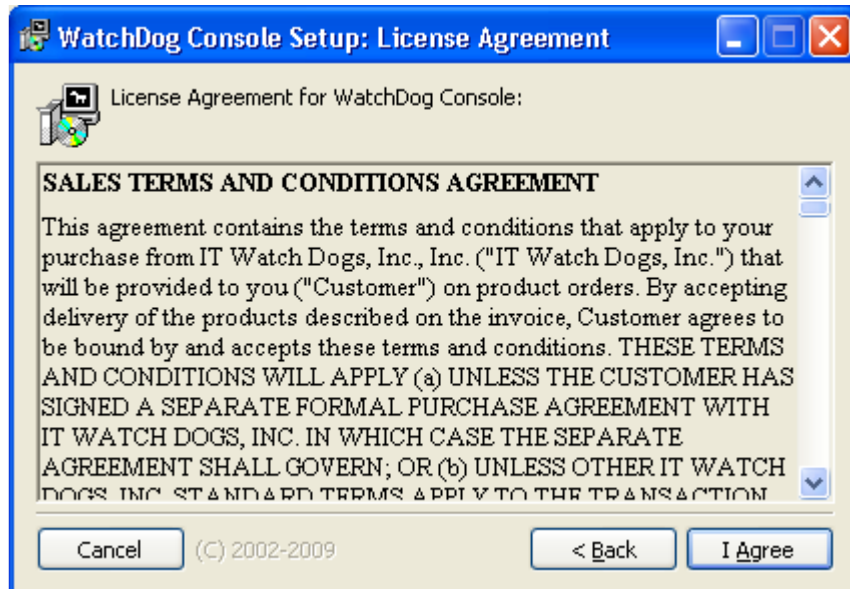
The installation for the Console 3.1 starts with:



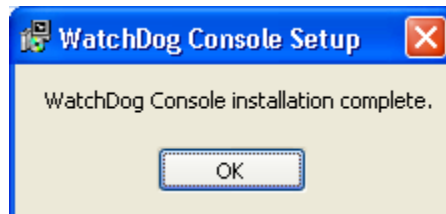
Click Next, select a SQL Server for database. The default is SQL Compact Edition (CE). If you have more than 75 remote units, SQL Express is recommended and has to be installed separately before installing Console 3.1. For details of choosing between SQL CE and Express, please refer to Trouble Shooting Q&A section of this manual. For details of installation of SQL Express, please refer to Section 2.3, Installation of SQL Server Express.



Click Next, then click “I Agree” on License Agreement,



After a few seconds, the Console 3.1 installation is completed.



You should be able to access the Console 3.1 from a browser using the URL <http://localhost:8090>.

The first time you install the Console, you will be asked for the License. Type in the license and other information required. Save this license information for future reference.

After the new Console is installed, it will ask for a username password for first time login. Use the default username/password **admin/console250**. Once logged-in, you can change it to your preferred username/password on the Configuration Page.

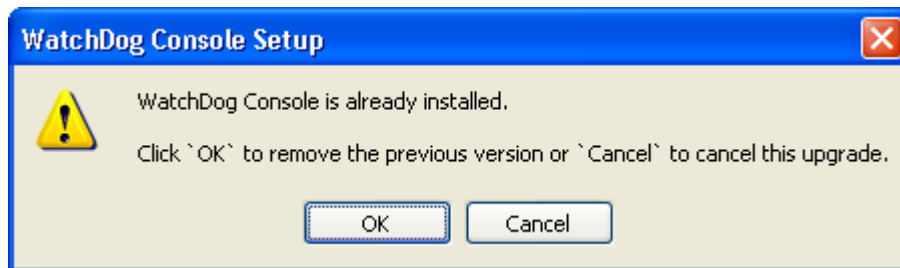
After login, you can go to the Servers Page and add the Goose you want to monitor.

2.2. Instructions on Upgrading to Console 3.1

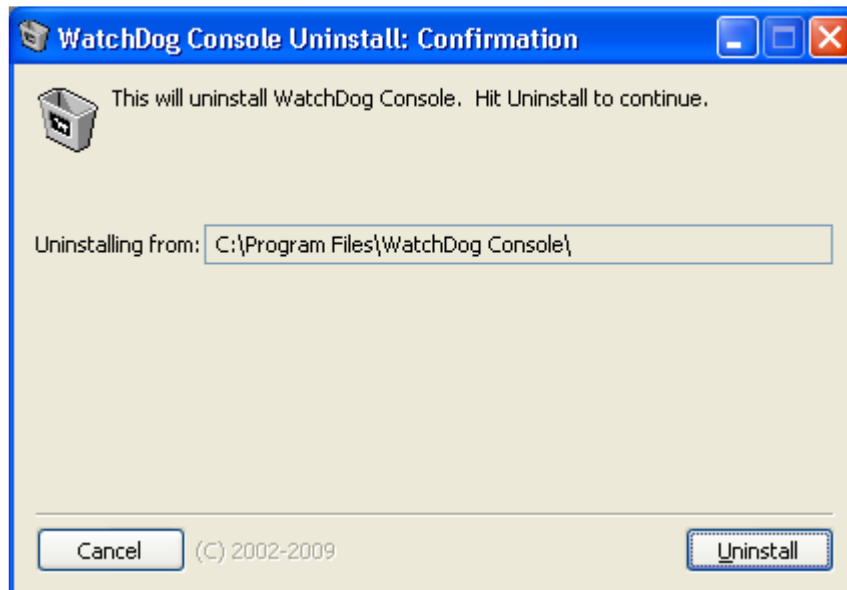
You need to be an administrator to uninstall/install the Console.

To upgrade to Console 3.1 on a computer running Windows (XP, 2003 Server), double click the WatchDogConsoleInstaller_v3.1.exe file you previously downloaded. Note that you should not start installation if the previous console is in the middle of running a firmware upgrade or waiting to retry an upgrade to the same Goose.

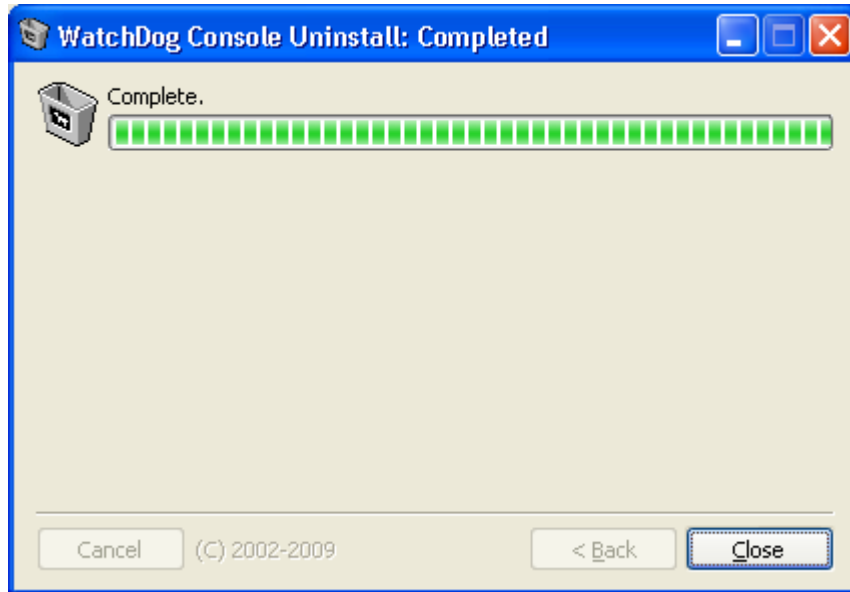
The installer will automatically remove any previous version of Console that may be installed.



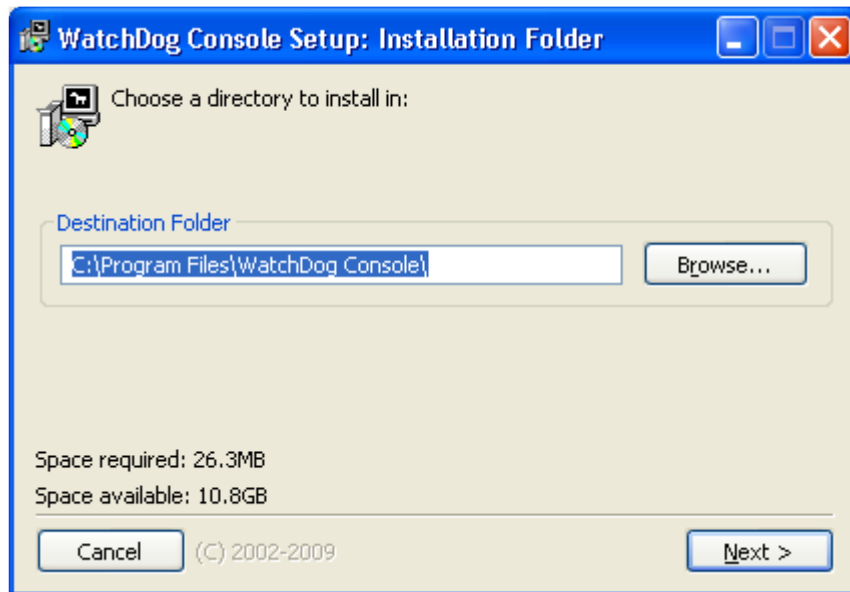
Click OK.



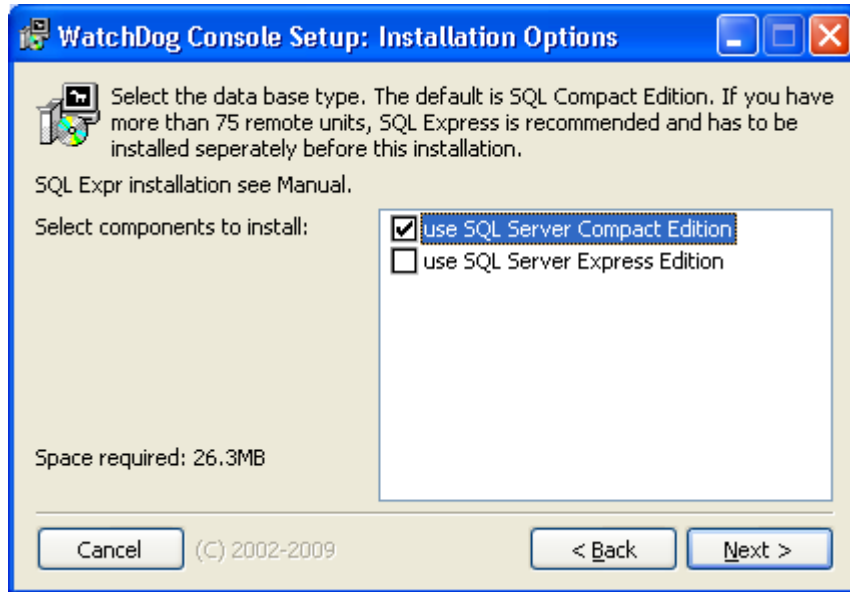
Click Uninstall. When uninstall is completed, click Close,
Note: Selecting "close" will continue the installation process.



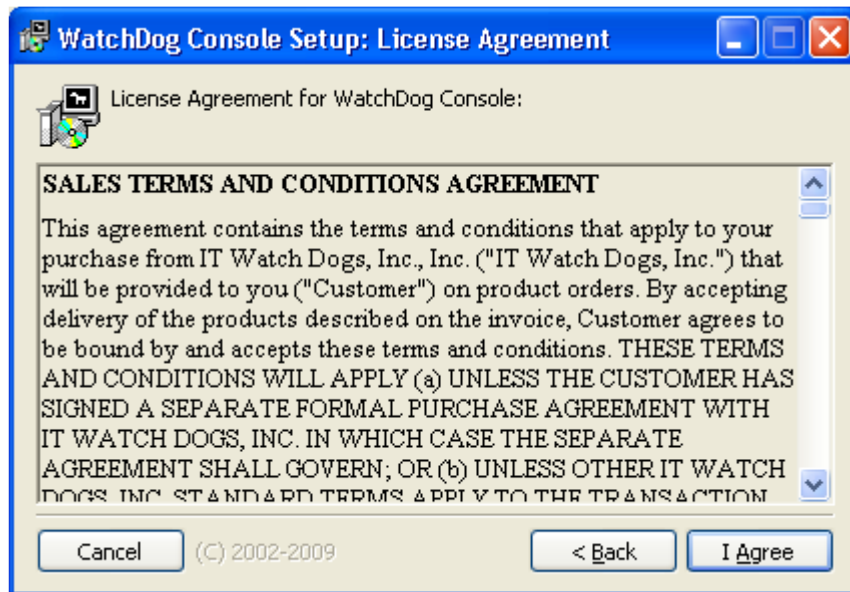
Now the installation for the Console 3.1 starts,



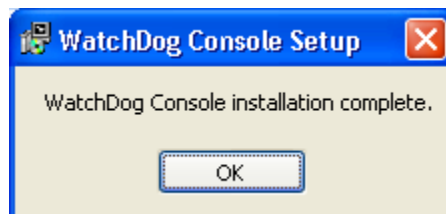
Click Next, select a SQL Server for database. The default is SQL Compact Edition (CE). If you have more than 75 remote units, SQL Express is recommended and has to be installed separately before installing Console 3.1. For details of choosing between SQL CE and Express, please refer to Trouble Shooting Q&A section of this manual. For details of installation of SQL Express, please refer to Section 2.3, Installation of SQL Server Express.



Click Next, then click “I Agree” on License Agreement,



After a few seconds, the Console 3.1 installation is completed.

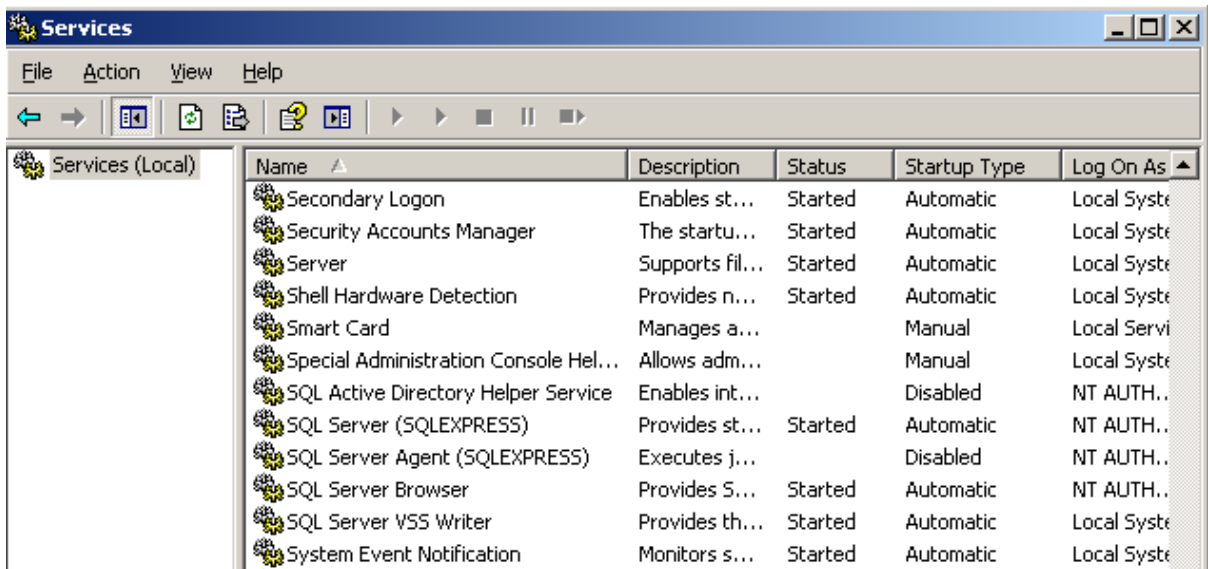


The updated Console uses the same port number as the previous version. If you are using the default port, you should be able to access the Console 3.1 by typing <http://localhost:8090> in a browser. All the methods previous used to access your console previously should be working now. All the username/password and previously configured Geese should be the same in the new console.

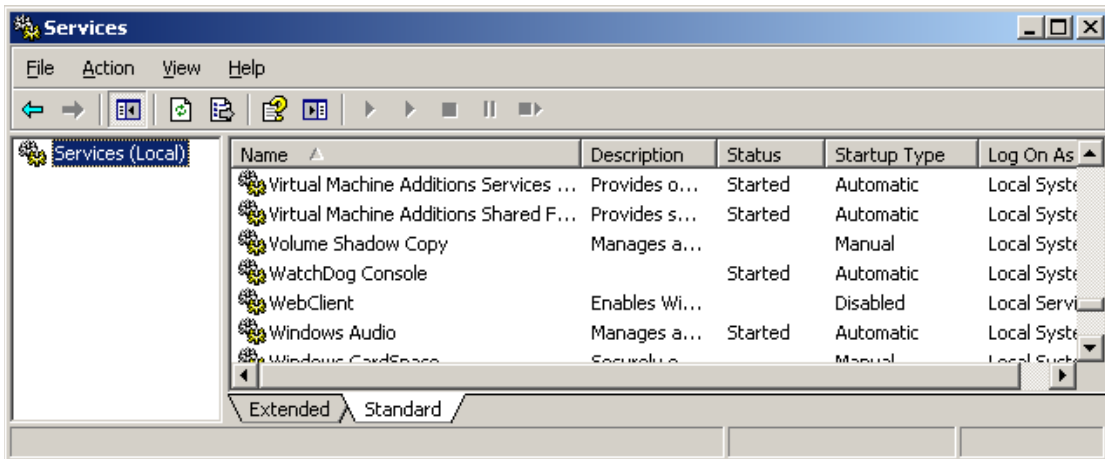
2.3. Installation of SQL Server Express

You must have administrative rights on the computer to install SQL Server Express. You need to install Microsoft .Net Framework 3.5 SP1, Windows Installer 4.5, and Windows PowerShell 1.0 before installing SQL Server Express.

1. Install Microsoft .Net Framework 3.5 SP1 at <http://www.microsoft.com/downloads/details.aspx?FamilyId=AB99342F-5D1A-413D-8319-81DA479AB0D7&displaylang=en>.
2. Install Windows Powershell at <http://www.microsoft.com/windowsserver2003/technologies/management/powershell/download.msp>.
3. Install Windows Installer 4.5 at <http://www.microsoft.com/downloads/details.aspx?FamilyID=5a58b56f-60b6-4412-95b9-54d056d6f9f4&displaylang=en>.
4. Install SQL Server 2008 Express Edition at <http://www.microsoft.com/Downloads/details.aspx?familyid=01AF61E6-2F63-4291-BCAD-FD500F6027FF&displaylang=en>.
5. Run the installer with these command-line options:
`SQLEXPR_x86_ENU.exe /ACTION=Install /FEATURES=SQLEngine /INSTANCENAME=SQLExpress /BROWSERSVCSTARTUPTYPE=Automatic /SQLSVCACCOUNT="NT AUTHORITY\NetworkService" /SQLSVCSTARTUPTYPE=Automatic /NPENABLED=1 /TCPENABLED=0 /SQLSYSADMINACCOUNTS="BUILTIN\ADMINISTRATORS" /QS`
6. The /QS option tells the installer to skip all questions (since the non-defaults have all been specified on the command-line) and don't wait for you to click Next. If the install fails, take the /QS off and walk through the individual steps to see what went wrong.
7. When the install finishes, check that the SQL Server services are running by running the Services console and confirming that the "SQL Server", "SQL Server Browser" and "SQL Server VSS Writer" services are running:



8. Install the Console app and confirm that console service is running:



9. Check to see if any startup errors have occurred by checking the C:\Documents and Settings\All Users\Application Data\WatchDog Console\data to see if a file named errors.log has been created there. If so, open the file and diagnose the problem.

Console Tabs

3.1 Logging On

By default, the web interface is accessible on port 8090 of the computer on which WatchDog Console is running. Therefore, if the machine is called `barney`, the URL 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 “Servers” page describes how this is done.

3.2 Consolidated Home Overview

The 'Consolidated Home Overview' page gives the user a top-level view of all the units WatchDog Console knows of. There are two major display options for this page: Cameras and Normal Readings.

Show Cameras and Normal Readings

WatchDog Console displays any camera images associated with the units and each of their sensor readings.


Home | Status | Graph | Servers | Logs | Firmware | Alarms | Config | Help | Logout

Consolidated Home View

Camera Images: Show Don't Show
Normal Readings: Show Don't Show

Alarm Notifications

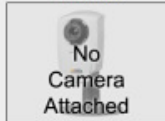
SuperGoose
SuperGoose-66



Temperature (C)	38.52
Temperature (F)	98.94
Relative Humidity	31
Air Flow	1.1
Light Level	31
Sound Level	1
Water Snake	99
IO-2	99
IO-3	99
Temperature (C) on temp: 1	30
Temperature (F) on temp: 1	95
Temperature (C) on temp: 2	31.12
Temperature (F) on temp: 2	88.03
Temperature (C) on temp: 3	38.5
Temperature (F) on temp: 3	98.9


Normal Notifications

RSP
Power X Demo



Amper Phase A	0.05
Amper Phase B	0.05
Amper Phase C	2.6
Amper Neutral	2.62
Outlet1, bottom	0.03
Outlet2	2.56
Outlet3	0.02
Outlet4	0.02
Outlet5	0.02
Outlet6	0.02
Outlet7	0.05
Outlet8	0.02
Outlet9	0.02
Outlet10	0.02
Outlet11	0.02
Outlet12	0.02
Outlet13	0.04
Outlet14	0.02
Outlet15	0.02
Outlet16	0.02
Outlet17	0.02
Outlet18, top	0.02

MiniGoose
MiniGoose-63



Temperature (C)	30.25
Temperature (F)	90.45
Temperature (C) on Temperature Sensor	30.38
Temperature (F) on Temperature Sensor	90.68

Don't Show Cameras but Show Normal Readings

No camera images are displayed. Only the console description and status along with all sensor readings are displayed.

Home | Status | Graph | Servers | Logs | Firmware | Alarms | Config | Help | Logout

Consolidated Home View

Camera Images: Show Don't Show
Normal Readings: Show Don't Show

Alarm Notifications

SuperGoose
SuperGoose-03

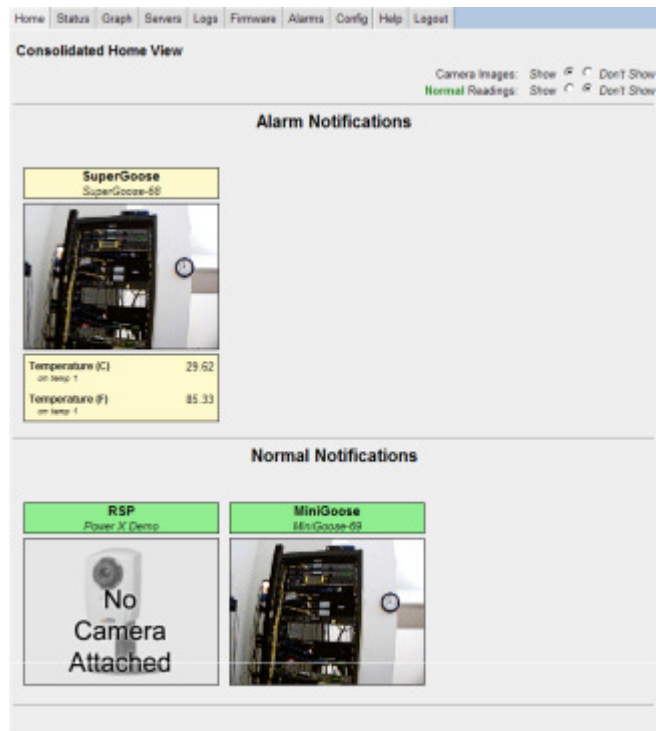
Temperature (C)	30.43
Temperature (F)	86.88
Relative Humidity	31
Air Flow	1
Light Level	33
Sound Level	0
Water Snake	99
IO-2	99
IO-3	99
Temperature (C) on temp_1	30
Temperature (F) on temp_1	86
Temperature (C) on temp_2	31
Temperature (F) on temp_2	87.8
Temperature (C) on temp_2	30.38
Temperature (F) on temp_2	86.68

Normal Notifications

RSP Power X Demo		MiniGoose MiniGoose-09	
Amps Phase A	0.05	Temperature (C)	30.25
Amps Phase B	0.05	Temperature (F)	86.45
Amps Phase C	2.53	Temperature (C) on Temperature Sensor	30.5
Amps Neutral	2.4	Temperature (F) on Temperature Sensor	86.9
Outlet1, bottom	0.03		
Outlet2	2.57		
Outlet3	0.02		
Outlet4	0.02		
Outlet5	0.02		
Outlet6	0.02		
Outlet7	0.05		
Outlet8	0.02		
Outlet9	0.02		
Outlet10	0.02		
Outlet11	0.02		
Outlet12	0.02		
Outlet13	0.04		
Outlet14	0.02		
Outlet15	0.02		
Outlet16	0.02		
Outlet17	0.02		
Outlet18, top	0.02		

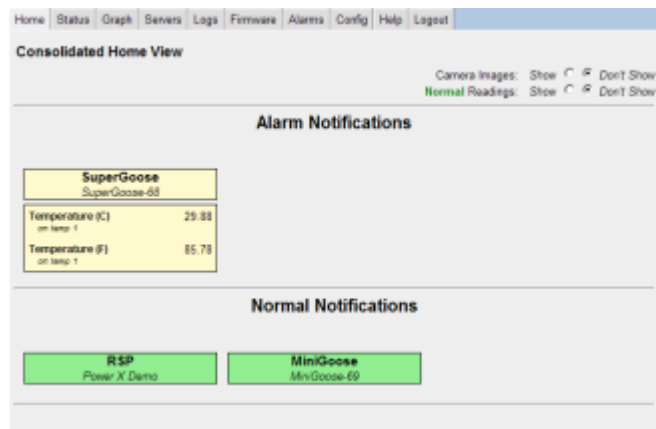
Show Cameras but Don't Show Normal Readings

Sensor readings at normal levels are not displayed. Only camera images and near-alarm-level or alarm-level readings are displayed.



Don't Show Cameras and Don't Show Normal Readings

No camera images are displayed. Only the console description and status along with all sensor readings are displayed.



All 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. All tripped and near-tripped alarms are listed.

Error Notifications

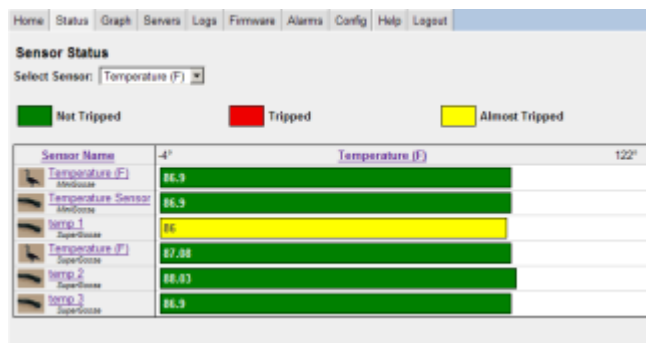
Units under this notification could not be contacted during their last refresh. The causes of this could be due to the unit itself not responding, or the network path to the unit being down.

Normal Notifications

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

3.3 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'.



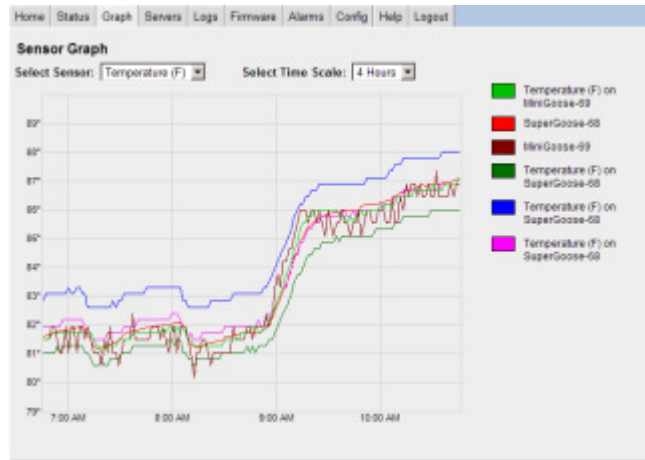
You can select any measurement from the drop-down list at the top of the page. The list of possible measurements is determined automatically based on what units WatchDog Console knows of. An icon representing the sensor's host device is shown along with the user-defined label that was given to the unit 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 in ascending order by measurement name or value by clicking on the corresponding column header. To sort the same field in descending order, click the column header a second time.

3.4 Graph

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



In the 'Graph' page, you can select any sensor measurement from the drop-down menu at the top of the page. Additionally you can select a period of 2, 4, or 8 hours or 2, 4, 7, 14, or 28 days. Note, you can only select as many hours or days as there are logged data points in the current database. Possible limiting factors are WatchDog Console not having aggregated sufficient data. Check the 'Log Clear Frequency' setting in the 'Config' page. You can select the remote server to display in the graph by checking the check box below the graph. You can select at most 20 remote servers.

3.5 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.

Home | Status | Graph | Servers | Logs | Firmware | Alarms | Config | Help

Servers

URL	Version	Last Contacted	Status		
Owl-75	3.1.24	04/14/2009 09:51:31	OK	Details	Remove
Owl-76	3.1.26	04/14/2009 09:51:34	OK	Details	Remove
Owl-79	3.1.28	04/14/2009 09:51:26	OK	Details	Remove
Owl-80	3.1.24	04/14/2009 09:51:23	OK	Details	Remove
Owl-81	3.1.23	04/14/2009 09:51:32	OK	Details	Remove
Owl-82	3.1.24	04/14/2009 09:51:35	OK	Details	Remove
Owl-83	3.1.21	04/14/2009 09:51:24	OK	Details	Remove
Owl-86	3.1.27	04/14/2009 09:51:21	OK	Details	Remove
RCM-0	2.84	04/14/2009 09:51:28	OK	Details	Remove

Add New Server

Server Name or IP Address:

Connection Type: HTTP HTTPS

Server Port:

Server Admin Log-In User Name:

Server Admin Log-In Password:

Server Description:

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." You can select "HTTPS" if you prefer encrypted communication with the remote unit (Make sure the remote unit allows HTTPS first). If you do not supply the correct username and password, the Console will still recognize the unit and will provide limited functionality. Use the "control" username and password for more functionality on alarm settings compared to "view-only" username password. The "admin" username password is 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 are shown for each added server. The status description gives a message indicating any errors encountered the last time the server was refreshed. A server is deleted by clicking its corresponding '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.

3.6 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 each individual server. Also provided is a record summary indicating the number of records for each 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 metadata indicates if a successful record retrieval was possible or if an error was encountered, details of the error. If the record was indeed successfully retrieved then the server's attributes are displayed.

Climate History Information

[Click here to download server's sensor data](#)

Summary

First Timestamp	Records Found	Last Timestamp
03/09/2009 09:21:11	50	03/09/2009 10:28:34

[Prev Record](#) **Viewing Details From** [Next Record](#)

Record Metadata

Status: OK
Timestamp: 03/09/2009 10:28:34
Timeout: 30 seconds

Server Attributes

Host: Climate Monitor
Address: 67.79.205.69
Address Backup: 192.168.123.123
Name: WxGoos-3
Version: 2.84c
PVersion: 1.01
Mac Address: 00:40:9D:24:F3:CD
Company: I.T. Watchdogs, Inc.
Company URL: <http://www.itwatchdogs.com>
Support Email: support@itwatchdogs.com
Support Phone: 512.257.1462
Buzzer: False
Temp Unit: F

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.

Cameras

Device 010307640B00006A

Name	Type	Available	Index
Climate Monitor WxGoss	True	0	

Sensors

Key	Value	Name	Min	Max	Type	Alarmable	Low Trip	High Trip	Alarm State
TempC	25.38	Temperature (C)	-20	50	2	True	21	32	0
TempF	77.68	Temperature (F)	-4	122	2	True	70	90	0
Humidity	46	Relative Humidity	1	99	2	True	0	0	0
Airflow	84.66	Air Flow	0	100	2	True	0	0	0
Light	46	Light Level	1	99	2	True	0	0	0
Sound	2	Sound Level	0	99	2	True	0	0	0
IO1	51	Air Pollution Sensor0	99	2	True	-10	50	0	
IO2	99	IO-2	0	99	2	True	-10	50	0
IO3	66	-48V Monitor	0	99	2	True	-10	50	0

3.7 Logs

The 'Logs' page allows you to download all available logs in a consolidated format.

A message notifying you of the time remaining before all log data are 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 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.

3.8 Firmware

The 'Firmware' page allows simultaneous updating of the firmware of your units.

Server	Current Status	Update Status
RSMN163 Demo <small>ip=87.79.205.70 www.biz.nu</small>	Restarting	Updating to v2.57 d RSMN163
FanController Demos <small>ip=87.79.205.70 www.biz.nu</small>	Update in progress v2.54 RacFanControl	75% Complete Updating to v2.57 d RacFanControl
SuperGoose Demo <small>ip=87.79.205.80 www.biz.nu</small>	Update in progress v2.56 WxGoos-2	17% Complete Updating to v2.57 d WxGoos-2
WeatherGoose Demo <small>www.weathergoose.nu</small>	Update in progress v2.56 WxGoos-1	16% Complete Updating to v2.57 d WxGoos-1
Geist RCM Demo <small>ip=87.52.255.748 www.stb.be</small>	Ready v2.56 RacControl	v2.56 RacControl** 9 available
Geist RSE Demo <small>ip=87.52.255.757 www.stb.be</small>	Ready v2.57 d RacSense	v2.57 d RacControl 11 available
Geist RSP Demo <small>ip=87.52.255.758 www.stb.be</small>	Ready v2.57 d RacSense	v2.56 RacControl** 11 available
MiniGoose Demo <small>ip=87.79.205.80 www.biz.nu</small>	Ready v2.56 WxGoos-3	v2.54 RacControl
RSE Demo (old style) <small>ip=87.79.205.77 www.biz.nu</small>	Ready v2.54 RacSense	v2.53 RacControl -3
RSM Demo <small>ip=87.79.205.72 www.biz.nu</small>	Ready v2.56 RacSense	v2.52 RacControl v2.51 RacControl v2.50 RacControl v2.49 RacControl v2.48 RacControl 0
RSMH2 Demo <small>ip=87.79.205.73 www.biz.nu</small>	Ready v2.56 RacSense	Updating to v2.57 d RacSense
RSP Demo <small>ip=87.79.205.71 www.biz.nu</small>	Ready v2.56 RacSense	Updating to v2.57 d RacSense
Shoshin Demo <small>www.shoshin.co.jp</small>	Ready v2.52 WxGoos-1	v2.52 WxGoos-1** 12 available
SuperGoose Backup 1 <small>ip=87.79.205.74 www.biz.nu</small>	Ready v2.56 WxGoos-2	Updating to v2.57 d WxGoos-2
SuperGoose Backup 2 <small>ip=87.79.205.80 www.biz.nu</small>	Ready v2.56 WxGoos-2	12 available
WeatherFlat Demo <small>ip=87.79.205.74 www.biz.nu</small>	Ready v2.56 Climate Monitor	Updating to v2.57 d Climate Monitor
WeatherGoose Backup 1 <small>ip=87.79.205.75 www.biz.nu</small>	Ready v2.56 WxGoos-1	Updating to v2.57 d WxGoos-1
WeatherGoose Backup 2 <small>ip=87.79.205.79 www.biz.nu</small>	Ready v2.56 WxGoos-1	Updating to v2.57 d WxGoos-1
Alpha Demo <small>ip=46.64.794.stable.dns19105.com</small>	Firmware service not reachable	
All Available Servers		13 available

The Firmware page lists all units that support firmware updates. Located at the far-right of each unit's row is a selection box that allows you to select from any available firmware versions that are applicable to that unit. Unit's whose firmware has not yet been identified will not show this selection box; the status of these units 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 firmware update requires the admin username/password on the device. If Console reports "Firmware service not reachable" and the device is normal on all other pages, the device's username/password are probably not set correctly. You can delete this device and re-add this device with the correct username/password.

The last entry in the server list is 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.

The 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 a short message. WatchDog Console will wait between ten 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, Stop Retry button can stop retry schedule. After the retry schedule is stopped, do not remove power from or attempt a manual reboot of the unit in question. Wait for at least 30 minutes to try another firmware update.

If a unit that never comes back up after a restart, this 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.

3.9 Alarms

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

The screenshot shows the 'Alarms' configuration page. At the top, there is a navigation menu with items: Home, Status, Graph, Servers, Logs, Firmware, Alarms, Config, Help. Below the menu, the page title is 'Alarms'. There are two dropdown menus: 'Sensor location' set to 'Any' and 'Sensor type' set to 'Air Flow'. Below these, there is a 'Select:' dropdown with options: None, All, Invert. The main content is a table with columns: Add Alarm, Sensor, Current Value, Trip Type, Trip Limit, and Notifications. The table contains four rows of alarms, all of which are highlighted in grey. Below the table, there is a 'Disable Selected Alarm(s)' button. Below that, there are controls for 'Trip Type' (set to 'Low'), 'Trip Limit', and 'Notifications' (Buzzer, Email, SNMP). At the bottom, there is a 'Modify Alarm(s)' button.

Add Alarm	Sensor	Current Value	Trip Type	Trip Limit	Notifications
<input type="checkbox"/>	Air Flow on WxGoose-2 Cw/WSE-07	25			Buzzer Email SNMP
<input type="checkbox"/>	Air Flow on WxGoose-2 Cw/WSP-06	10			Buzzer Email SNMP
<input type="checkbox"/>	Air Flow on AFHT Sensor Cw/WeatherGoose-05	56			Buzzer Email SNMP
<input type="checkbox"/>	Air Flow on weatherGoose-1a/gp/fib Cw/WeatherGoose-05	14			Buzzer Email SNMP

Sensor	Current Value	Trip Type	Trip Limit	Notifications
Air Flow on RS4 Monitor Dip/RS4-27	52.38	High	199	Email
Air Flow on SuperGoose-08 Dip/SuperGoose-08	TRIPPED, 1.1	Low	3	Disabled
Air Flow on WeatherGoose-07 Dip/WeatherGoose-07	6.98	High	99	
		Low	0	Email
		High	199	

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.

Legacy Goose (firmware 2.xx) and EM Meter

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 of 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 with alarms marked as 'updating' will not accept any more alarm updates until the original updates are completed.

Goose II (Firmware 3.x.yy)

In contrast to the old version of Goose, the new version of Goose can set multiple levels of high or low alarms. In addition, multiple email addresses can be set for each alarm. To set a new alarm, check the check box in front of the sensor inside the table. Then choose the trip type, threshold, and notification method below the sensor table. Click Add/Modify Selected Alarms. The process can be also used to modify the alarm. To delete an alarm, check the check box in front of the sensor and alarm inside the sensor box, and then click Disable Selected Alarms. The corresponding alarm is deleted. Allow at least 10 seconds for the alarm to be updated. The delay may be longer if you set multiple alarms simultaneously.

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.

3.10 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 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.

Password Protected

If set to "Yes", the user must authenticate with a password in order to view any page on WatchDog Console. If set to "No", any user will be able to access any part of WatchDog Console.

Administrator Password

This field allows you to change the administrator password for WatchDog Console. In order to change it, you must enter the current password in the top box and the new password in both of the bottom two boxes. Blank passwords are not allowed. The Default Admin username 'admin' cannot be changed. Admin user has full access to the WatchDog Console.

Control Password

This field allows you to change the Control user password for WatchDog Console. In order to change it, you must enter the current password in the top admin box and the new password in both of the bottom two boxes. Blank passwords are not allowed. The Default Control username 'control' cannot be changed. Control user, compared to View user and has access to the alarm settings features of WatchDog Console.

View Password

This field allows you to change the View user password for WatchDog Console. In order to change it, you must enter the current password in the top admin box and the new password in both of the bottom two boxes. Blank passwords are not allowed. The Default View username 'view' cannot be changed. View user can only view webpages and has no access to WatchDog Console control features or configuration.

Login Session Timeout

This value is the maximum number of minutes that a logged-in user may be inactive before his session expires. Once a session expires, the user will have to re-enter the administrator password. Enter 0 to disable login session timeout.

The 'Time Settings' section designates what WatchDog Console knows regarding time.

Offset from GMT/UTC

WatchDog Console stores all internal times in GMT/UTC format. Therefore for Console to properly display date and time information for you time zone you must give it an hour/minute offset from GMT.

The 'Display Temperature Unit' section designates how WatchDog Console handles temperature unit.

Display Temperature Unit

WatchDog Console stores temperature unit in 4 ways. Fahrenheit only, Celsius

only, same as the unit, and both Fahrenheit and Celsius. The selection is saved and affects the display on Overview, Graph, Status, and Server Details page. However, this setting has no effect on the Alarm page. The Alarm page is always in "the same as the unit" mode, because values need to be pushed to the Goose.

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.

Log Archive Directory

This path indicates where WatchDog Console saves the archived data and event logs. The default path is: C:\Documents and Settings\All Users\Application Data\WatchDog Console\data

Archive event logs after this many days

Archive data logs after this many days

These values determine how WatchDog Console to aggregate data before it moves the data to an archive database file.

If "Archive data logs after this many days" is set to 14 days, for example, the monthly archive file will contain data covering roughly a 30-day span ending 14 days prior to the end of the month appearing in the log file name. The span of data in a given log file will change when the admin changes the log time, from 14 to 7 or 21 or 30 or whatever. Essentially, the monthly log file will contain data from the end of the previous month's log file (which was determined by the "Archive data logs after this many days" that was in effect at the time the previous month's log file was terminated) up until the end of data in this month's log file (which is determined by the "Archive data logs after this many days" that is in effect at the time this month's log file was terminated.)

Log archive size limit

The archive files are kept until the "Log archive size limit" is hit. Then the oldest archive file is deleted. The default size limit is 10 GB and can be changed. Please

be aware that the amount of disk space used may accumulate very quickly if you have many units.

Archive old camera images

If set, this option will suppress WatchDog Console from keeping an archive of your webcam images. This might save (or free up) a significant amount of space if you have had WatchDog Console running for a long time or have several webcams.

The 'Camera Password Settings' section designates how WatchDog Console changes camera username password.

Camera Password Settings

If the Overview page and Servers Details page display **Unable to Connect**, one possibility is the camera requires a username password to login. Fill-in the username password here can bring up the camera images.

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.

Trouble Shooting Q&A

Administration

- After the new Console is upgraded, it asks me for a License.
Your license is still in file config.xml in C:\Program Files\WatchDog Console
Copy it to C:\Documents and Settings\All Users\Application Data\WatchDog Console. Try again to re-access the Console 3.1.
- After the new Console is installed, it asks me for a **default username password**.
Use the default username/password of **admin/console250**.
- None of my previous Goose shows up in Console 3.1.
Your previous Geese information are still in file servers.xml in C:\Program Files\WatchDog Console. Copy it to C:\Documents and Settings\All Users\Application Data\WatchDog Console. Try again to browse the Console 3.1 “Servers” page.
- I forgot my admin username/password. (The person who knows it has left.)
For Console 3.1, you can try username “reset”, password: your Console License (in file config.xml at C:\Program Files\WatchDog Console or C:\Documents and Settings\All Users\Application Data\WatchDog Console
Otherwise, please email or call customer service.)
- I have lost all license data. What should I do?
Please have your purchase information ready and call customer service.
- The Console installation process failed. The new Console is never installed.
Please make sure that you are logged in as an administrator on the computer.
- I cannot access the Console webpage from another computer. What happened?
Double-check the firewall and browser proxy settings on that computer.

Firmware

- **How to update Goose firmware in Console?**
First, you need to go to ITWatchdogs webpage to download the latest version of firmware. http://www.itwatchdogs.com/dl_wxg.shtml
Go to Console Config Page- Firmware Settings - Archive Directory, type in the full path of the directory where the above zip file saved. Click “update”. Then go

to Firmware Page, you should be able to see a dropdown box listing all the firmware available for each Goose.

If you need to upgrade firmware on many Goose units, try one of them first and watch the process. Then, select all other Geese to update; the Console will handle it automatically and schedule the tasks in batches (at most 4 Geese in one batch). If an update was somehow not processed without error, the Console schedules a retry to this Goose.

Updating as many as 99 Geese may take as long as a day to complete. If you only have 10-20 Geese, they should take 1-2 hours to finish.

Sometimes, there could be some Geese left in a retry loop because of internet traffic and difficulty in contacting the specific Goose. You can stop the retry schedule by clicking the “Stop Retry” button. The Console will stop all firmware actions before next scheduled retry loop starts. After the retry schedule is stopped do not remove power from or attempt a manual reboot of the unit in question. Wait for at least 30 minutes before trying another firmware update.

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.

If the Goose is only reachable by ping after the retry loop is stopped, please call customer service 512-257-1462.

- Firmware Page says “**Firmware service not reachable.**” This is because the firmware update process cannot be initiated, which is usually caused by inconsistent administrator username/password between the Goose and the Console Servers Page. In Servers Page, you can click “Details” to reach each unit and change the username/password for the Goose. Some customers configure their Geese sharing the same IP address but different port number. In this case, you will only be able to update the firmware for Weather Goose II™ products, because the other products use ftp to update firmware, which requires port 20 and 21.

Remote Unit Display Problem

- Camera image says “**Unable to Connect**”. Some customers have experienced “Unable to Connect”. Make sure the camera image is correctly shown on the Goose. Another possible reason for this problem

is the camera is password protected. You can enter the username/password for that camera in the Config Page. Another reason is the camera type is not set correctly in the Goose Config Page. If this is the case, you should see the broken image in the Goose Sensor Page.

- Server Page says “**The remote server returned an error: (404) Not Found.**”. Occasionally, the excess network traffic can cause units to not respond quickly for Console’s needs. It is OK that this happens occasionally. If it happens constantly or never goes away, check in your network connections. Make sure the Goose responds correctly in the browser when clicking the XML link on the Goose.

How much disk and memory space does the Console use?

The largest part of the disk space is used by the database. The MS SQL CE can only handle up to 4GB database file. This is usually enough to hold 1 month of data (excluding the image data). The Console will periodically store the data into an archive database file if the data in active database file are old enough. You can control this in the Config Page “Archive data logs after this many days”.

The memory usage is usually around 100M to 200MB if you only have a dozen Geese. This may increase to several hundreds of MB if you monitor more Geese in the Console.

How does Console archive SQL database file?

The “Archive data logs after this many days” controls how long the data is kept in the active database (in other words, the database that you can graph on the graph page or the server details page). After that number of days, the data gets moved out to the current month’s archive file. The archive file name is “Archive-SnapshotStore-YYYYMM.sdf” where YYYYMM is the time when the data was moved into that file. The archive files are kept until the “Log archive size limit (in MB)” is hit. Then the oldest archive file is deleted. Note, for all archived data files no camera images are stored. Only the active database has camera images stored and you can view them in the “Server Details” page.

.sdf files can be read by the tools that come with SQL Server 2008 or SQL Server 2008 Express Edition or SQL CE 3.5. Using these tools, it can be analyzed or directly imported into SQL Server. The password is “itwConsole250!”.

Why I cannot graph very long data?

In the 'Graph' page, you can select any sensor measurement from the drop-down menu at the top of the page. Additionally, you can select a period of 2, 4, or 8 hours or 2, 4, 7, 14, or 28 days. Note, you can only select as many hours or days as there are logged data points in the current database. Possible limiting factors are WatchDog

Console not having aggregated sufficient data. Check the 'Log Clear Frequency' setting in the 'Config' page.

How do I set Alarms on Weather Goose II™ ?

In contrast to the old version of Goose, new version of Goose can set multiple levels of high or low alarms. In addition, multiple email addresses can be set for each alarm. To set a new alarm, check the check box in front of the sensor inside the table. Then chose the trip type, threshold, and notification method below the sensor table. Click Add/Modify Selected Alarms. The process can be also used to modify the alarm. To delete an alarm, check the check box in front of the sensor and alarm inside the sensor box, then click Disable Selected Alarms. The corresponding alarm is deleted. Allow at least 10 seconds for the alarm to be updated. The delay may be even longer if you set multiple alarms simultaneously.

What is Multi-level Username Password?

See section 3.10 (Config).

What is WatchDog ConsoleLite?

The WatchDog ConsoleLite is a trial version of WatchDog Console. It does not require a License and is free to use. The ConsoleLite only supports up to two remote units.

How do I set the Console in Demo Mode?

Some customers want the console to be in demo mode, so that the public can experiment with it but cannot change critical information or settings, and will never log out. See <http://67.79.205.66:8090>.

You can do this by creating a file named "lock" (no extension) in directory C:\Documents and Settings\All Users\Application Data\WatchDog Console. If there is such a file, Console will be in demo mode, if no such file, Console is in normal mode.

SQL Compact or SQL Express database, which should I choose?

SQL Compact Edition is free and installed with Console. It does not interfere with other SQL servers that may be running on the same computer. Pros: easy installation; Cons: all the remote units are sharing the same connection and performance may suffer with large numbers of remote units.

SQL Express Edition is free. It needs separate installation before Console 3.1 is installed. SQL Express is recommended for monitoring a large number of remote

units (from more than 75 to up to 200). Pros: There is a connection pool, so less delay is experienced. Cons: Installation and configuration of SQL Express Server is fairly complicated. Previous experience with SQL is desired.