



AurAir
ConfigCL
Tool **GUIDE**



AurAir

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1 Executive Summary

The AurAir is a versatile piece of equipment that is very flexible and can be configured to integrate into existing or new infrastructures. Using this tool, it is not necessary to use a webbrowser to make the necessary setting changes in the AurAir Base. The tool is using an ini file to read the AurAir Base settings and then make all the wanted changes in one run in the AurAir Base. A laptop can either be connected directly using WiFi to the AurAir Base access point or use any desktop/laptop to connect to the AurAir base if you already have the AurAir Base configured to connect to a known WiFi access point.



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2 Version History

Date	Version	Comments
10-8-2019	0.1	Initial draft
1-12-2019	1.0	AurAir ini file added

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4 Purpose

The AurAir firmware can be configured to send the CO2 to both a cloud environment and at the same time to a Domoticz home automation server. This guide explains how to configure the AurAir to do that.

5 Scope

The scope of AurAir Config CL Tool:

- **AurAir Bx (B1, B2 and successors)**
- **Firmware version 1.0.7 or newer**

The firmware version of the AurAir can be found using the web interface, go to your browser and enter `http://<aurair-ip-address>/info`

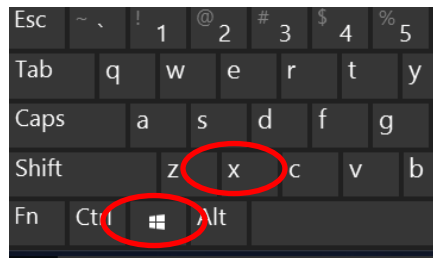


If you have an older firmware version, please make sure that the AurAir has an WiFi connection configured, internet access and upgrade the firmware to the latest version. Explanation how to upgrade AurAir firmware is stated in the AurAir QuickStart Guide.

6 Setting up the AurAir Config CL environment

The AurAir Config CL tool is a Windows 7 or 10 command-line utility that can configure your AurAir to broadcast the CO2 values to both the cloud as well as a to a Domoticz home automation server.

Since it's a command-line utility, it must be run from Windows Powershell. Start a Powershell by entering the following keys on your keyboard (Windows 10): WIN + X and then select 'Windows Powershell', Powershell will then open.



Make sure that the AurAir config CL utility is located in the same directory as your Powershell is currently located, most times this directory will be something like `C:\Users\<your user name>`



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6.1 AurAir Config CL tool parameters

In your Powershell you can run the command `./configcl.exe -h` which will show which parameters are available:

```
Windows PowerShell
PS C:\temp> .\configcl.exe -h
AurAir configcl version: v1.0
usage: configcl.exe [-h] -f CONFIGFILE

Configuring AurAir

optional arguments:
  -h, --help            show this help message and exit
  -f CONFIGFILE, --configfile CONFIGFILE
                        AurAir Configuration file including path
PS C:\temp>
```

6.2 AurAir Config CL tool run

Now that everything is ready, run the configuration tool to configure the AurAir:

```
Windows PowerShell
PS C:\temp> .\configcl.exe -f aurair.ini
```

In this example the AurAir ini filename is `aurair.ini`.

The output should be like this:

```
Windows PowerShell
PS C:\temp> .\configcl.exe -f aurair.ini
AurAir configcl version: v1.0
AurAir configuration file: aurair.ini

*** AurAir Information ***
ID: b1-
Name: AurAir
Location:
Firmware version: 1.0.7
Model: B1
Uptime: 0 days 5 hours 35 minutes
Time: 2019-12-04 23:05:07
Wifi mode: Internet
Free memory: 27600
Total memory: 111168
Stack use: 2576
PS C:\temp>
```



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7 The AurAir.ini configuration file

The configcl tool is using a configuration file to read the necessary aurair configuration data needed to connect to the AurAir and configure it.

The configcl tool can be started using the command 'configcl.exe -f aurair.ini', where aurair.ini is the name of the configuration file and can be any path+filename. Instead of parameter '-f' it is also possible to use the parameter '--configfile'. If the configuration file name is omitted, the default filename aurair.ini in the same location as the configcl.exe file is used.

7.1 The configuration file sections

The configuration file has the following sections:

[aurair]

[config]

[domoticz]

[cloud]

[wifi]

[display]

[captive portal]

More sections for different functions will be added in the future.

7.2 The [aurair] section

This section of the configuration file has the following possible values:

- **Host:** this is dnsname or ip-address of the AurAir to connect to. This is a mandatory field!
- **Port:** This is ip-port of the AurAir
- **Username:** The AurAir username to use to connect to the AurAir if the AurAir has a password protected setting enabled. It defaults to 'admin', since the AurAir at this point has a fixed administrator username.
- **Password:** The AurAir password to use to connect to the AurAir if the AurAir has a password protected setting enabled. If the AurAir is password protected this is mandatory, if the AurAir is not password protected any setting in here will be ignored.



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7.3 The [config] section

This section of the configuration file has the following possible values:

- **Name:** The new name of the AurAir
- **Password:** Password protect the AurAir using this password.
- **Location:** The new location of the AurAir, this useful to remember where you've put it.
- **Locked:** Possible values are 'on' or 'off'. Setting it to 'on' means that the AurAir is locked so that the AurAir button functions Firmware update/Calibrate CO2 sensor/Factory reset/Wifi password off are disabled. All other AurAir button functions remain untouched.
- **Firmware:** Possible values are 'on' or 'off'. Setting it 'on' means that the AurAir will perform an firmware update, updating is only possible if the AurAir has internet access since the new firmware will be retrieved from the AurAir website. Do **NOT** disconnect the AurAir from power while the update is running! Performing this means that the AurAir will reboot during this procedure.
- **Calibrate:** Possible values are 'on' or 'off'. Setting it 'on' means that the AurAir will perform an CO2 sensor calibration. Please make sure that the AurAir is either outside in a protected (against moisture) environment or in an indoor room with clean air! Performing this means that the AurAir will be unavailable for at least 1300 seconds.
- **Factory:** Possible values are 'on' or 'off'. Setting it 'on' means that the AurAir will perform an factory reset, meaning that the AurAir will be reset to factory settings. *Don't forget to also specify a WiFi ssid and key in the configuration file section [wifi] or you will not be able to connect to the AurAir after reboot.* The configcl tool will first do a factory reset and then apply all other settings from the configuration file to the AurAir.
- **Reboot:** Possible values are 'no' or 'yes'. Setting it 'yes' means that the AurAir will perform a reboot after all other settings from the configuration file is performed.
- **Info:** Possible values are 'no' or 'yes'. Setting it 'yes' means that the AurAir will list all available information about the AurAir it is connected to.

7.4 The [domoticz] section

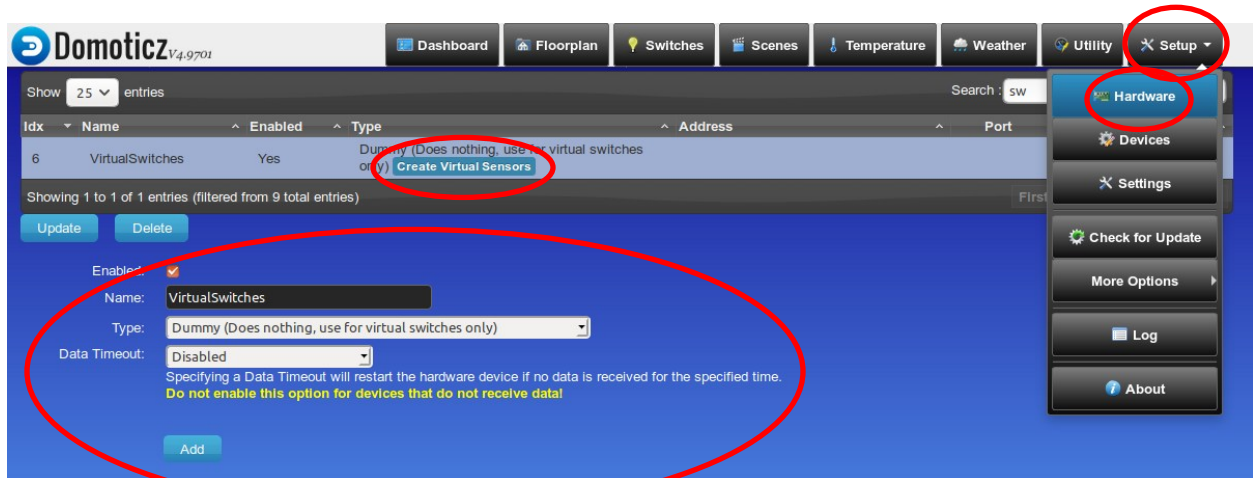
7.4.1 Domoticz Hardware Adapter Configuration

The Domoticz configuration needs to be adjusted to include the Domoticz hardware adapter 'Dummy', which is used only for virtual switches.



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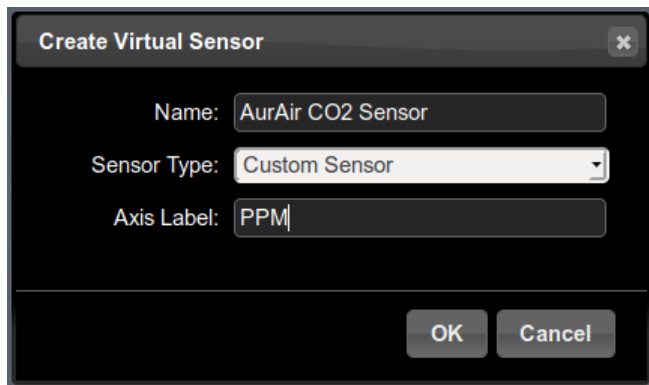
To include the dummy adapter into Domoticz, go to the Domoticz web interface and click on the 'Setup' tab on the right side of the tab menu.



Next click on the 'Hardware' pull down menu option.

Enter the information in the adapter field as stated above and click on the 'Add' button. The dummy adapter should appear in the list of Domoticz hardware adapters.

Click on the button 'Create Virtual Sensors'. The following popup should appear:



Enter the name of the virtual CO2 sensor like 'AurAir CO2 Sensor' in the name field, select sensor type 'Custom Sensor', enter 'PPM' in Axis label field and click on the button 'OK'.

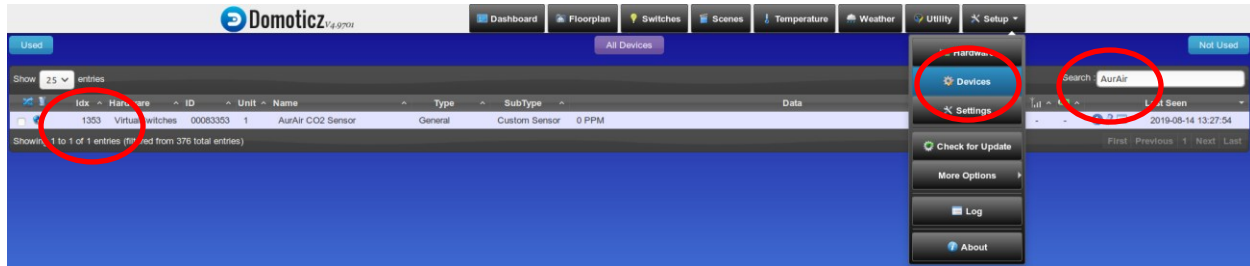
7.4.2 Domoticz Devices Configuration

Now that the virtual co2 sensor has been created, the IDX of the created sensor is needed for the AurAir configuration. Click on the 'Setup' tab on the right side of the tab menu and select 'Devices'.



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Enter 'AurAir' in the search field on the right side and the newly create virtual CO2 sensor should appear. The Domoticz IDX (IDentifier) is listed on the left side of the sensor characteristics, write this number down!

7.4.3 The [domoticz] section information

This section of the configuration file has the following possible values:

- **Enable:** Possible values are 'no' or 'yes'. Setting it 'yes' means that the AurAir will mean the domoticz connection is active. This setting will be effective after an AurAir reboot.
- **Host:** IP Address Domoticz Server
- **Port:** IP Port of the Domoticz Server (default to 8080)
- **Idx:** IDX number for the Domoticz Virtual CO2 Sensor

7.5 The [cloud] section

This section of the configuration file has the following possible values:

- **Enable:** Possible values are 'no' or 'yes'. Setting it 'yes' means that the AurAir will mean the cloud connection is active. This setting will be effective after an AurAir reboot.

7.6 The [wifi] section

This section of the configuration file has the following possible values:

- **Ssid:** The WiFi SSID where the AurAir needs to connect to. If the AurAir cannot connect to this ssid, it will automatically switch to AP mode. This setting will be effective after an AurAir reboot.
- **Key:** The WiFi SSID password where the AurAir needs to connect to. If the AurAir cannot connect to this ssid using this password, it will automatically switch to AP mode. This setting will be effective after an AurAir reboot.



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7.7 The [display] section

All settings will become effective immediately. *Does not work on firmware v1.0.7*

- **Temperature:** Switch the temperature on or off in the AurAir display
- **Humidity:** Switch the humidity on or off in the AurAir display
- **Pressure:** Switch the pressure on or off in the AurAir display
- **Co2:** Switch the CO2 on or off in the AurAir display
- **Display:** Switch the AurAir display on, off, or into night mode

7.8 The [captive portal] section

These settings will become effective at the next reboot. *Does not work on firmware v1.0.7*

- **Url:** The url to send the captive portal bypass request to
- **Method:** Use POST or GET http method to send request
- **Data:** The data in the http request to send, valid only if method is POST
- **Headers:** The http headers to set when sending the http request to the captive portal



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8 INI file content sample

```
[aurair]
host    = 192.168.4.1
port    =
username =
password =
```

```
[config]
name    =
password =
location =
locked  =
firmware =
calibrate =
factory =
reboot  =
info    = yes
```

```
[domoticz]
enable  =
host    =
port    =
idx     =
```

```
[cloud]
enable  =
```

```
[wifi]
ssid    =
key     =
```

```
[display]
temperature =
humidity    =
pressure    =
co2         =
display     =
```

```
[captive portal]
url      =
method   =
data     =
headers  =
```



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9 Troubleshooting

If you have not been succesfull in configuring the AurAir, the following questions might help you:

- Is the AurAir ip address correct? Can you connect using this ip address to the AurAir using a browser?
- Is the Domoticz server ip address correct? Can you connect using this ip address to the Domoticz server using a browser?
- Is the port number correct? Can you connect using this ip address + port number to the Domoticz server using a browser?