**OMC048 Webserver Set-up Guide**

The webserver is currently only available for observator.

Please follow the following steps carefully to make sure the OMC048 data loggers can connect to the webserver:

**Set-up the config.txt (if desired)**

The loggers are redirected to the following server by default:

Connection\_settings:

webserver\_access: True

webserver\_url: blue2cast.com

webserver\_port: 5000

webserver\_password: <OBSERVATOR GENERATED HASH>

transmit\_interval: "0 0,5,10,15,20,25,30,35,40,45,50,55 \* \* \*"

To provide access it is important to set the ‘webserver\_password’ in the ‘config.txt’ and ‘recovery.txt’. Make sure the connection settings are set correctly! An example of the minimum required settings for an operational connection with the remote:

# ----System---- #

Omc048:

system\_id: OMC048\_ID

application: 048\_APP

file\_log\_level: info

repl\_log\_level: info

sensor\_data\_print: True

usb\_mode: repl

# ----Modem-Settings---- #

Modem:

id: onboard\_modem

port: modem

sim\_username:

sim\_password:

apn: internet

network\_technology: GSM + LTE

# ---- External connection settings ---- #

Connection\_settings:

webserver\_access: True

webserver\_url: blue2cast.com

webserver\_port: 5000

webserver\_password: <OBSERVATOR GENERATED HASH>

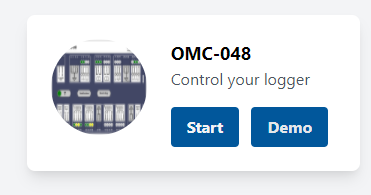
transmit\_interval: "0 0,5,10,15,20,25,30,35,40,45,50,55 \* \* \*"

**Log in to the webserver**

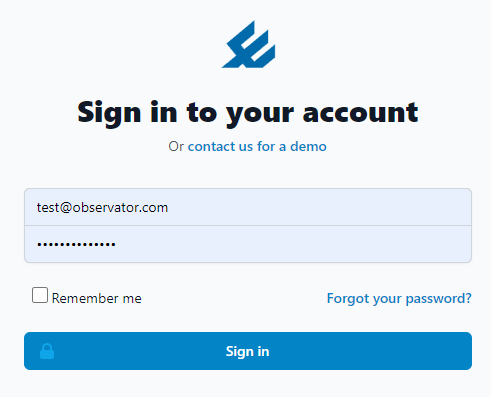
This password can be obtained via the webserver once the omc048 is operational with webserver access enabled. On startup procedure and on external connection ‘transmit interval’ the datalogger shall try to connect to the server.

We must first log in to the webserver:

Visit ‘https://blue2cast.com/’ via a web browser, then click on ‘Start’ in the OMC-048 window.



Sign in with your personal username and password



**Obtaining the webserver password**

The logger shall present itself on the ‘Connect’ page once contact to the webserver was established:

Graphical user interface, text, application, website

Description automatically generated

In case the ‘webserver\_password’ from the loggers ‘config.txt’ is incorrect the webserver shall deny access to the logger. We can now copy the given password and paste it in the ‘config.txt’ as well as in ‘recovery.txt’ under ‘webserver\_password’. Then restart the omc-048.

**Example recovery.txt**

# ----System---- #

Omc048:

usb\_mode: debug

system\_id: RECOVERY

# ----Modem-Settings---- #

Modem:

id: onboard\_modem

port: modem

sim\_username:

sim\_password:

apn: advancedinternet

network\_technology: GSM + LTE

# ---- External connection settings ---- #

Connection\_settings:

webserver\_acces: True

webserver\_url: blue2cast.com

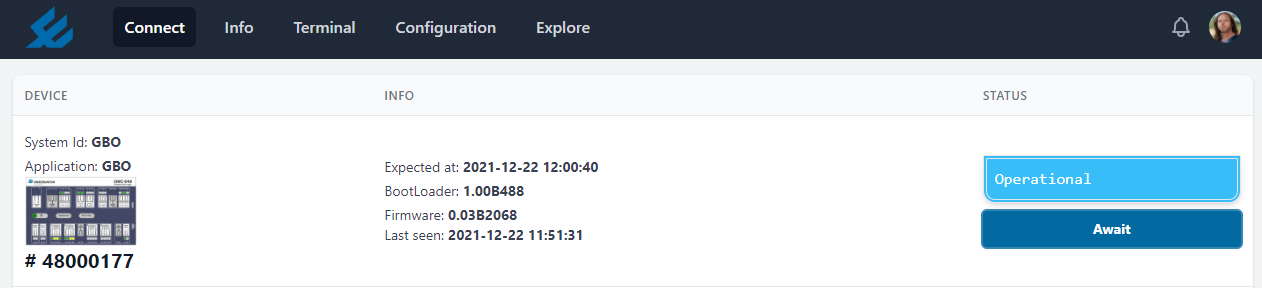
webserver\_port: 5000

webserver\_password: <ASK OBSERVATOR>

transmit\_interval: "0 0,5,10,15,20,25,30,35,40,45,50,55 \* \* \*"

**Webserver view**

If the ‘webserver\_password’ was set successfully the logger shall present itself as ‘operational’.

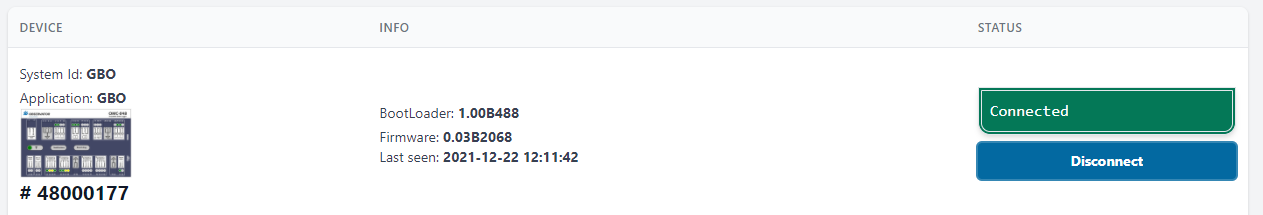
****

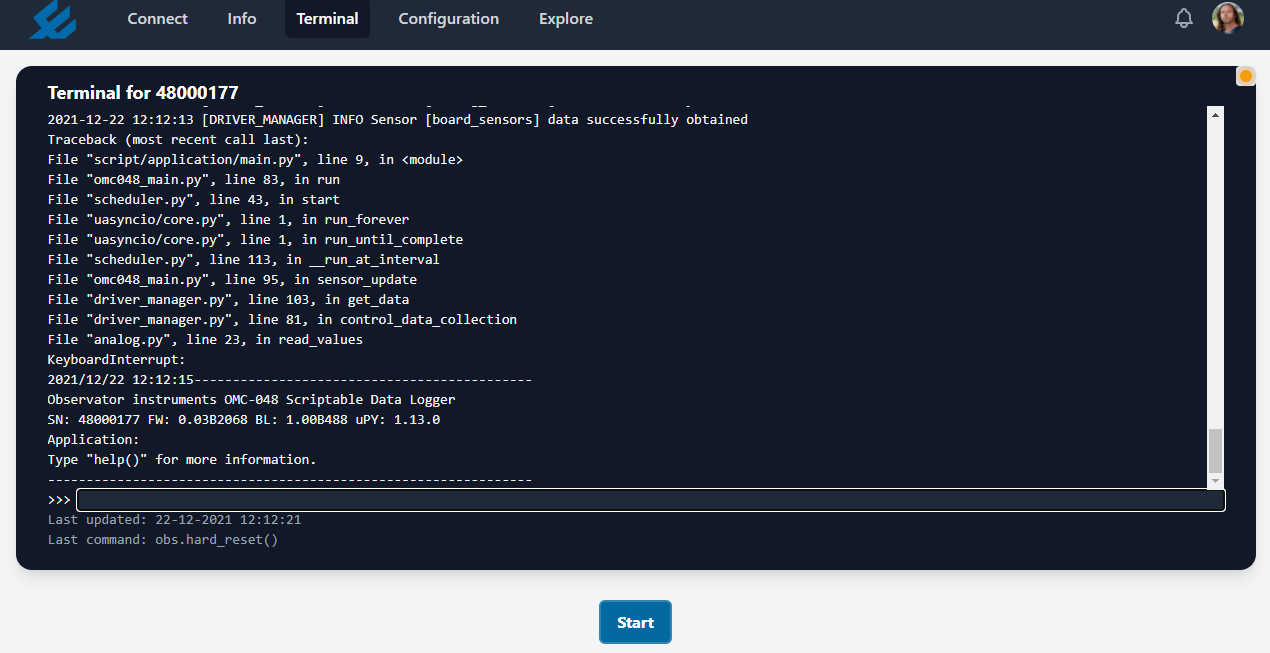
**Storing the ‘recovery.txt’ to the device**

To prevent the datalogger to become inaccessible via the webserver in case the ‘config.txt’, ‘recovery.txt’ or script files were lost, we must now write the ‘recovery.txt’ to the device flash.

This is done via the repl. It can be done via usb-repl or via webserver-repl.

First connect to the logger and halt the logger in repl prompt:





Make sure the ‘recovery.txt’ file is updated with the correct settings!

Type:

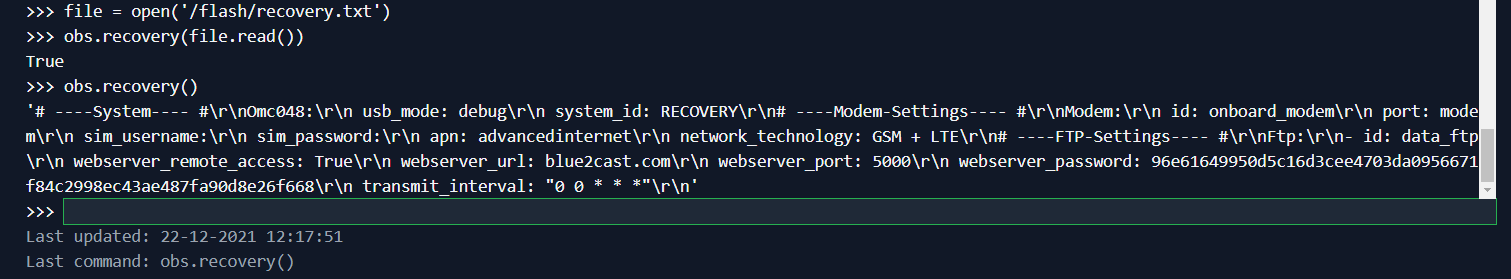
**file = open('/flash/recovery.txt')**

*press <enter>*

**obs.recovery(file.read())**

*press <enter>*

If desired the saved ‘recovery.txt’ can be shown via the command ‘**obs.recovery()**’



Success, the ‘recovery.txt’ is now backed up on device flash. In case of corruption or errors during wireless transfers the datalogger shall recover to the settings given in ‘recovery.txt’.

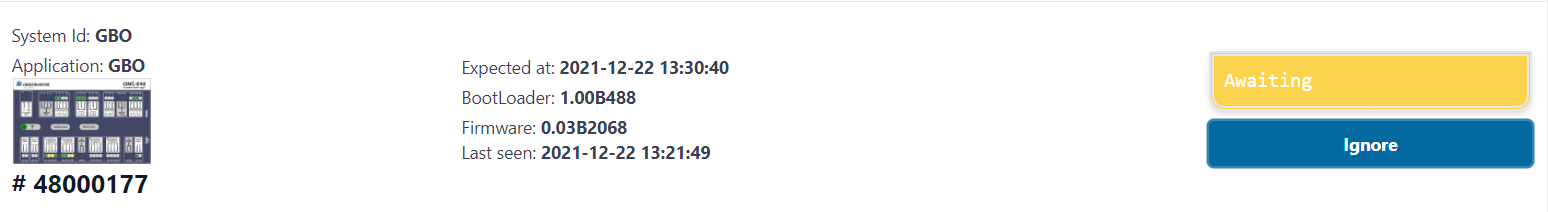
Webserver set-up is now complete!

**OMC048 Webserver FW-upgrade Guide**

To upgrade or downgrade the firmware via the remote webserver follow the following steps.

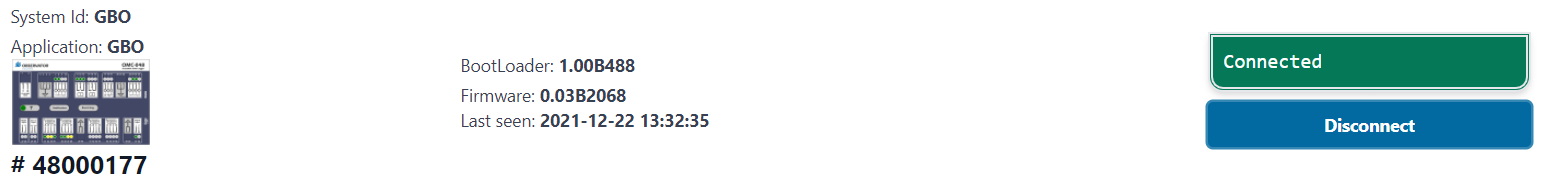
Sign in with your personal username and password.

Connect to the device you wish to upgrade / downgrade:

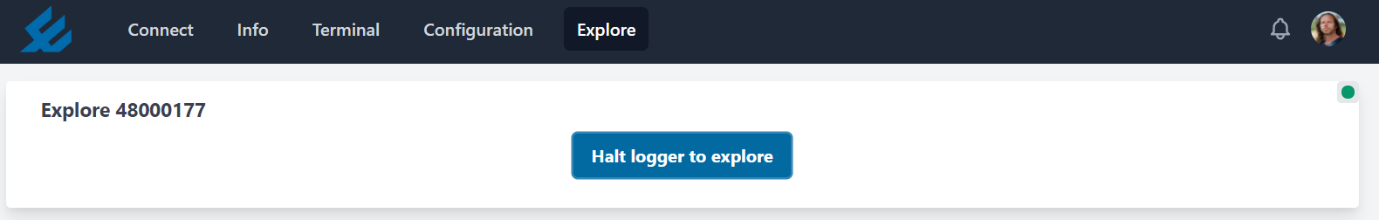


Graphical user interface, application

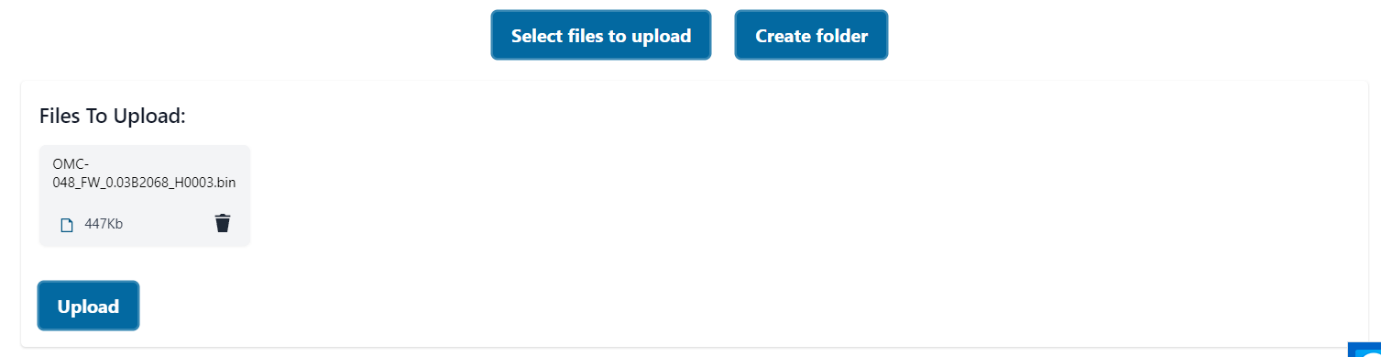
Description automatically generated with medium confidence



Go to ‘Explore’ Tab and press ‘Halt logger to explore’



Open the ‘SD-Card’ folder and upload the firmware file:



After the upload is complete upload the new files from the firmware package. By uploading the existing files with the same name are overwritten.

Once the modules folder is updated, open the ‘script/application’ folder and upload the new ‘main.py’

After all files are uploaded the logger needs to restart so it can install the new firmware via the bootloader.

This can be done by just simply disconnecting from the omc-048 in the ‘Connect’ tab. Because the device was halted during the session it always reboots automatically after the session ends.

After reboot please verify the fw number in the ‘Connect’ page once the logger established contact with the server. If needed you can again connect to the logger and view the operational status to determine all is correct.

**Recovery mode**

In case of failure the logger shall present itself under ‘recovery’ mode. This mode is designed only to contact the webserver application so it can be diagnosed and updated remotely. While in recovery mode the normal operation is ignored so it should be repaired promptly.

Recover the the logger by diagnose and update / downgrade remotely. The procedure given above can also be executed in recovery mode.