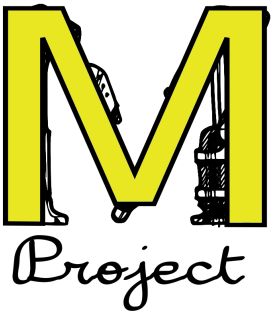


# Morfeas WEB User Guide
# NOX-if/Portal

# 1 License



# 2 Change History

Jan 17,12022 : Sam Harry Tzavaras – Initial Work.

# Contents



# List of Figures

# 3 Introduction

The ”Morfeas WEB NOX if/Portal” is the web user interface of the Morfeas WEB for UNiNOx devices. UNiNOx devices is a special kind of gas analyzers that used primary in automotive, and measuring that amount of NOx and O2 before and after that catalytic converter. The ”Morfeas WEB NOX if/Portal” works in conjunction with the ”Morfeas NOX if” which is part of the ”Morfeas core”.

The ”Morfeas WEB NOX if/Portal” is published under the AGPLv3 or later.

# 4 Installation

The installation of the UNiNOx start by configuring the Morfeas System, by addng a Morfeas_NOX_if component to on of the CAN-ifs. This done from the Morfeas ”System Configuration” WEB utility. The CAN-if that will used by the Morfeas_NOX_if need to be free from other components and been set to 250kbps. The baudrate setup done from the ”Network Configuration” WEB utility.

After the configuration of the Morfeas system and the baudrate of the used CAN-if, the hardware can be connected at the specified CAN-if. The figure 1 show a connection diagram example.

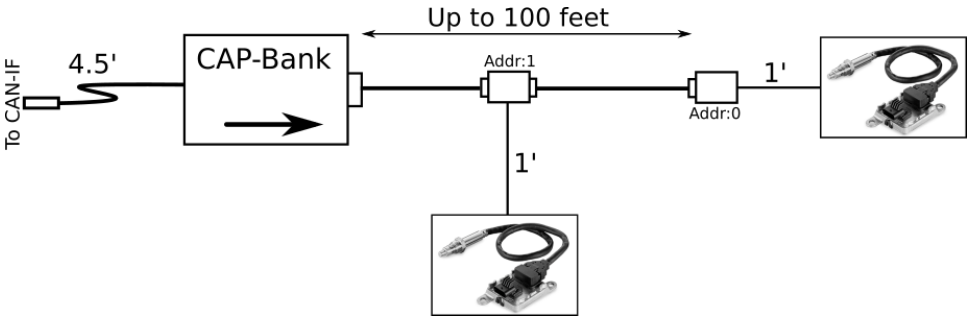


Figure 1: Morfeas UNiNOx Connection Diagram

The connection after the dedicated CAN-if is followed by the ”CAP-Bank”, which is a power supply that regulate the supply line for the UNiNOx(s). The ”CAP-Bank” have integrated a 4.5 feet cable that terminate on a 4pin LEMO connector, which connect to that CAN-if. On the other side of the ”CAP-Bank” there is a female 4 pin LEMO connector that accepting extension cables with connect it to the UNiNOx adapters. The UNiNOx adapters are two kinds, one with one female side and one with two. The adapter with one female connector is self terminated and wired the UNiNOx to address:0. The adapter with two connectors (Tee type) wiring the UNiNOx to address:1, and in case that used alone need to be terminated with 120Ω. The maximum allowed distance between the ”CAP-Bank” and the last UNiNOx adapter is 100 feet. **ONLY** two UNiNOx can be exist at the same chain.


Figure 2: ”CAP-Bank” and UNiNOx adapters

# 5 Morfeas WEB NOx-if/Portal UI

The Morfeas WEB NOx-if/Portal can be accessed from the ”Morfeas WEB” front page by clicking in the dedicated button (NOXs Portal). A new window will open with the Morfeas WEB NOx-if Portal. Then select from top-left corner the CAN-if name and the UniNOx address on interest. At figure 3 shown a example view.

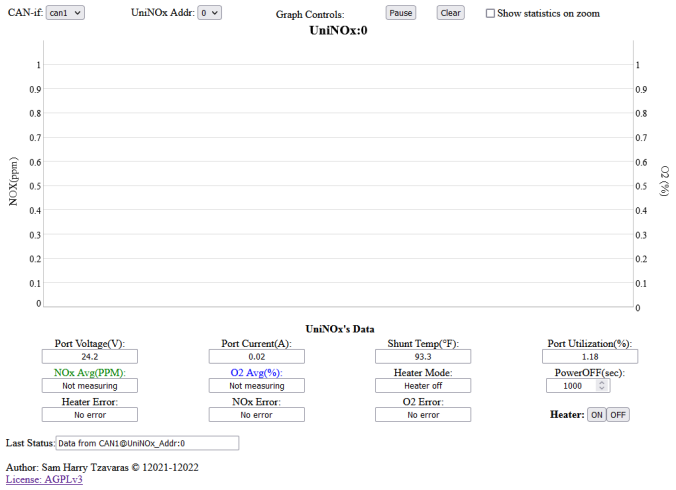


Figure 3: Morfeas WEB NOX-if UI

The Morfeas WEB NOx-if Portal split in two sections. The Upper section contains the graph and some controls related to it. At the lower section, provided live information related to the CAN-if power supply section and the UNiNOx on interest.

To start a measurement the heater of the UNiNOx sensor must be energized. This done from the button at the right bottom corner. To energize/de-energize both UNiNOx (in case that are two in chain) you can press and hold the **”Shift”** key. In addition to this an autoPowerOFF mechanism is provided, the value of the **”PowerOFF(sec)”** field is set the autoPowerOFF time in seconds. The graph show

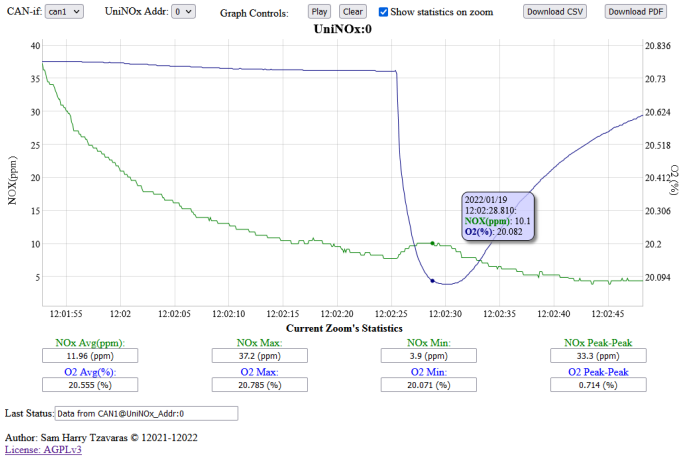


Figure 4: Morfeas WEB NOX-if UI Zoom mode

the valid reading from the sensor. A zoom in mechanism is provided with purpose to provide further examination of the graph. This mechanism works by click and select a portion of the graph (ex. figure 4).

In the zoom mode two button shall appeared at the top-right corner with functions export of the zoom data in ”.csv” and ”.pdf” formats. The ”Show statistics on zoom” option have function to replace the lower section with statistics for the zoomed area. To exit zoom mode do double click on graph.