USER MANUAL

TECMOV SA DE CV
TECNOLOGIA EN MOVIMIENTO

N-FROTA FLEET MANAGER

INDEX

1   Introduction

This manual aims to provide information related to Inova Sistemas Eletrônicos' electronic panels system and its fleet manager, so that it can be used and configured correctly, ensuring its perfect operation, aiming for total customer satisfaction.

It is important that the user read this material before using the products. Therefore, using the equipment will be a pleasant and safe experience and comprehending each step will be easily understood.

Inova Sistemas Eletrônicos, holds the rights to modifying any information on this manual without previous notice to the user.

2   Warranty

Inova Sistemas Eletrônicos Ltda offers a 1-year warranty against manufacturing defects from the equipment's purchase date. It is worth noting that the loss of equipment, charges or expenses incurred by the user as a result of incorrect use or installation, damage caused by chemical products, accidents, maintenance and/or modifications in any aspects that degrade the original product are not covered by the factory warranty without the authorization of Inova Sistemas Eletrônicos Ltda.

3   Contact and support

E-mail: tecmov@tecmov.com

Website: www.tecmov.com

Phone: +52 (55) 5395 1542 México, CDMX

4   Inicial settings

4.1   Login

In order to access N-Edit, it is necessary to have an username and password. Contact Inova via e-mail: inova@inova.ind.br or phone (+55 (54) 3535 8000) to complete the registration. Afterwards, access the link : https://nfrota2.inova.ind.br and enter the username and password to log in.

4.2   Language

The system is featured in 4 languages: Portuguese, English, Spanish and French. It is possible to choose the language on the login screen, or after logging in. This feature is always located in the upper right corner, displaying the flag of the chosen language.
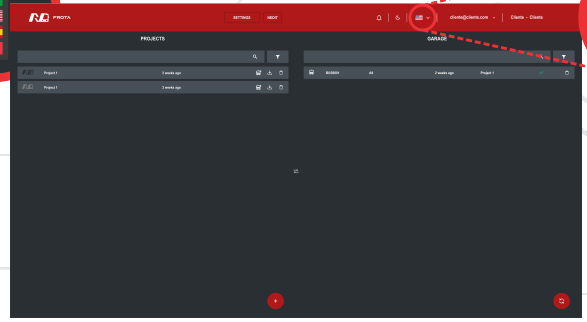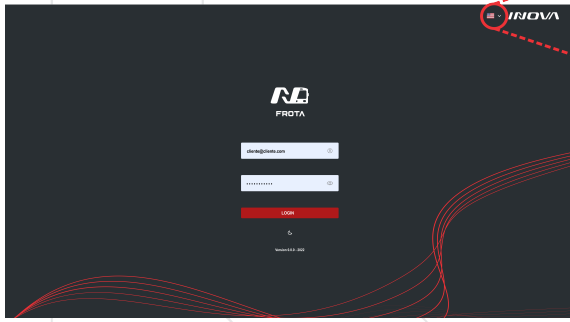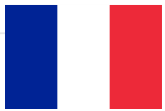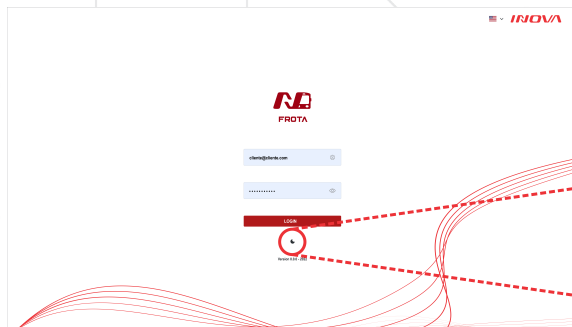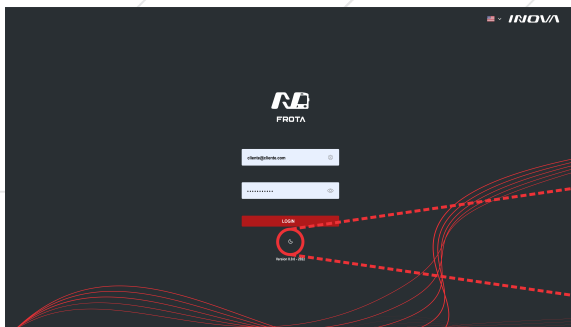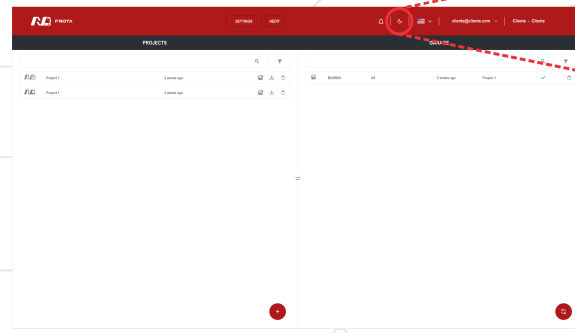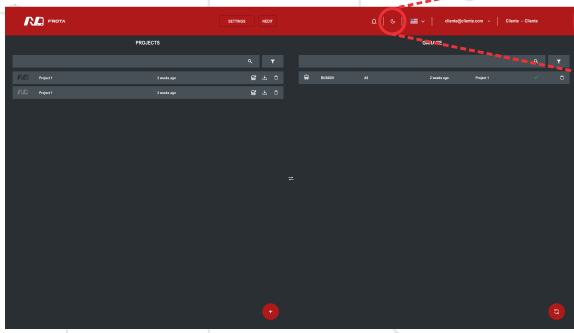
Portuguese (Brazil)

English (USA)

Spanish

French

4.3 Light mode and dark mode

The system has 2 modes: light mode and dark mode. It is possible to choose the mode on the login screen, or after logging in by selecting the moon icon located in the center of the screen, below the username and password fields.


After logging in, the icon will be located in the upper right corner.

4.4   Settings

When accessing N-Frota for the first time, it is necessary to access the settings menu first, generate the "config.i9c" file and send it to the HMI of each bus. With this file, the HMIs will be able to connect to the internet. Prior to downloading the file, fill the Wi-Fi information, and the extra messages field if necessary.
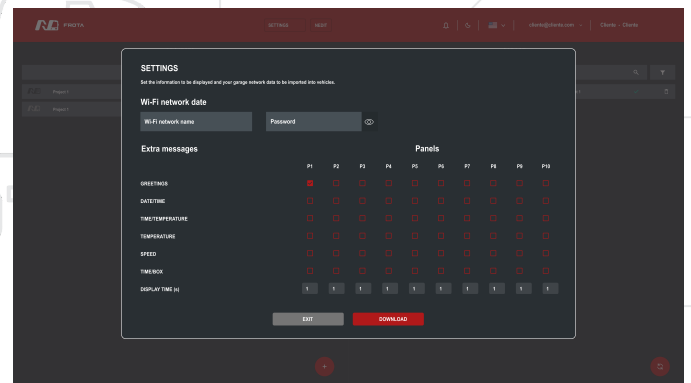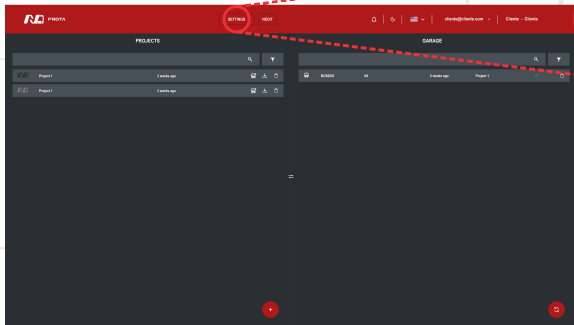

4.4.1   Wi-Fi network data

In this field, enter the Wi-Fi network name and password, that must be the same network that the buses will be connected to.

N-Frota only connects to Wi-Fi networks with WPA2, WPA or lower security, without a login portal and with a frequency of 2.4 GHz.

The "config.i9c" is the communication key between IHM, Wi-Fi and N-Frota.

The HMI will respond only The IHM will respond exclusively to the N-Frota user who generated the "config.i9c" file that was sent to it and will only connect to the registered Wi-Fi.
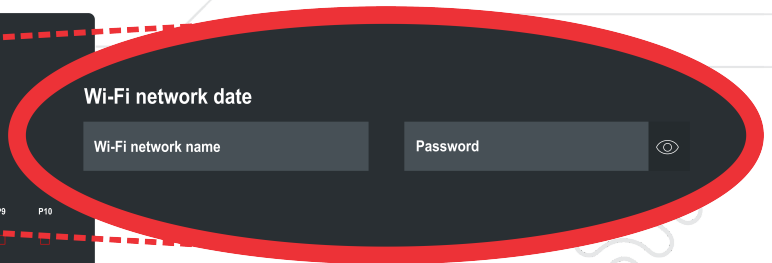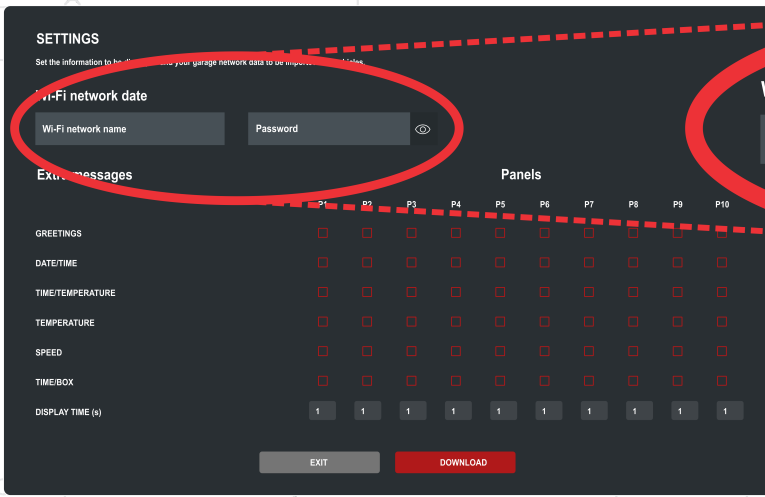
4.4.2 Extra messages

It is possible to leave extra messages within the HMI enabled. As these definitions will be sent by the "config.i9c" file, it is necessary to configure them before downloading the file. In this manner, when the "config.i9c" file is sent, the messages will be automatically enabled according to the N-Fleet configuration. The extra messages can be enabled or disabled later in the HMI if necessary.
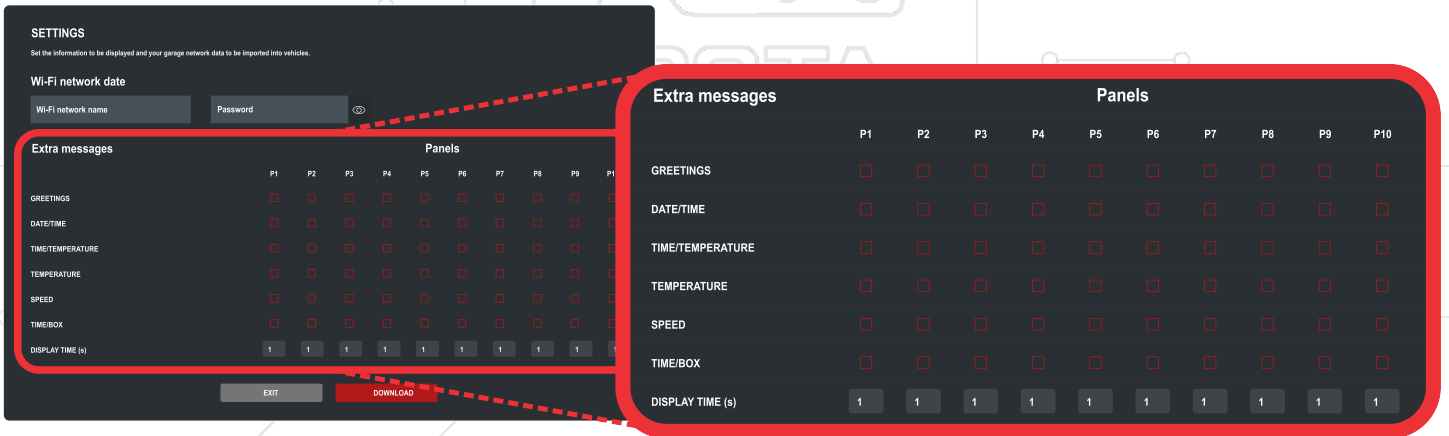
Each HMI supports up to 10 connected panels, through N-Fleet it is possible to configure the extra messages for all 10 panels. To do so, click on the red checkbox to define which messages will be enabled and their exhibition uptime.

☑	Checked (enabled)
☐	Unchecked (disabled)
1	Extra messages uptime, between 0,5 and 60 seconds, 0,5 variation.

If extra messages need to be changed after the "config.i9c" file was sent, it is possible to access the configuration settings, panel menu, extra messages and enable or disable messages.


4.5 Send "config.i9c" file to HMI

After downloading the "config.i9c" file, it is necessary to send it to HMI. To do so, a phone with the N-Drive app is required. The app is available for Android on Play Store and IOS on Apple Store. When using the IOS system, the "config.i9c" file, generated on N-Fleet, must be saved in the "N-Drive Inova" folder.
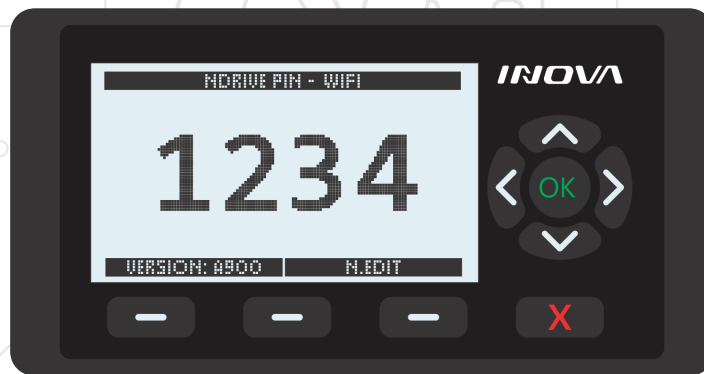

The app will automatically find the file, if the file is not automatically found, click on the "+" button and search it. Lastly, click on the file to send it.
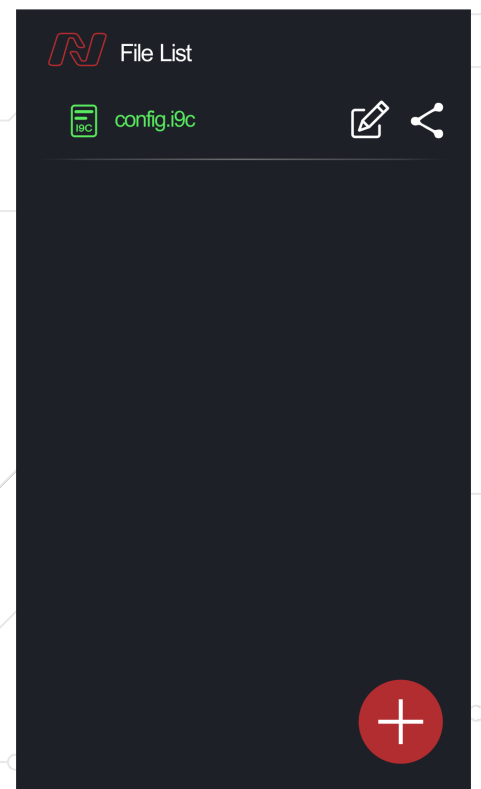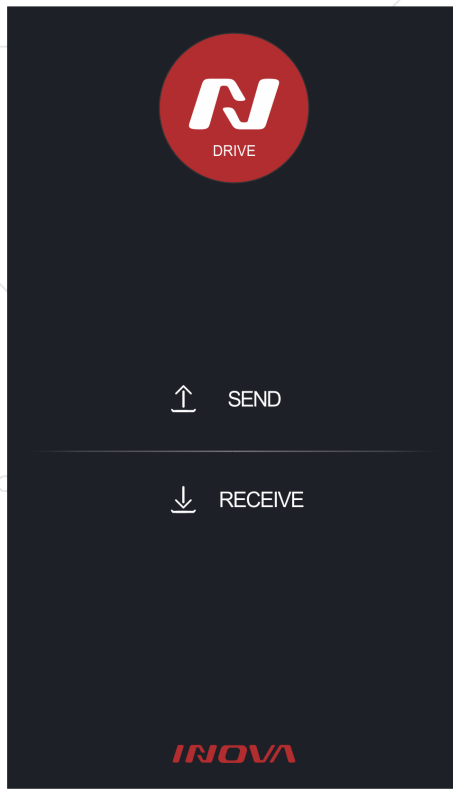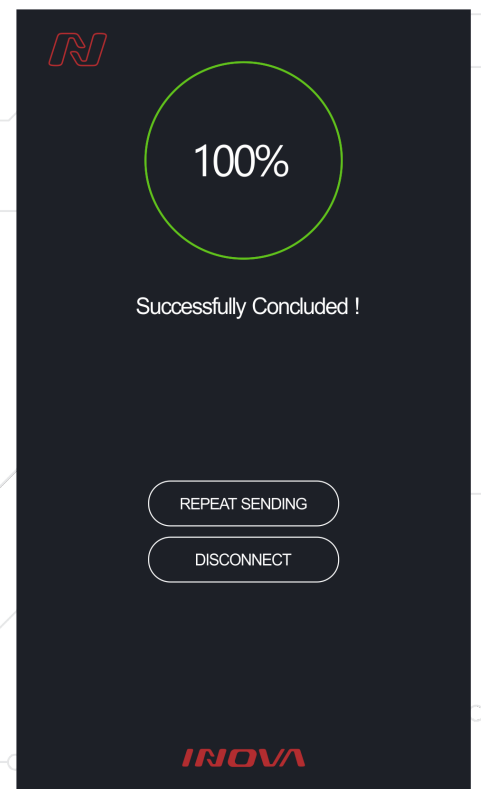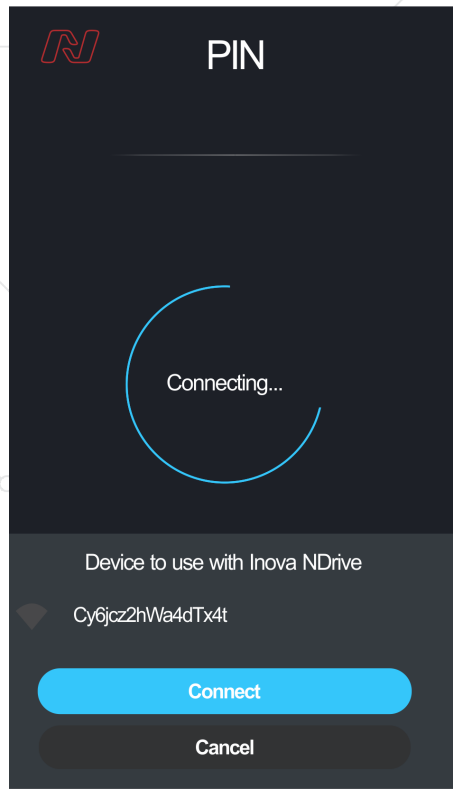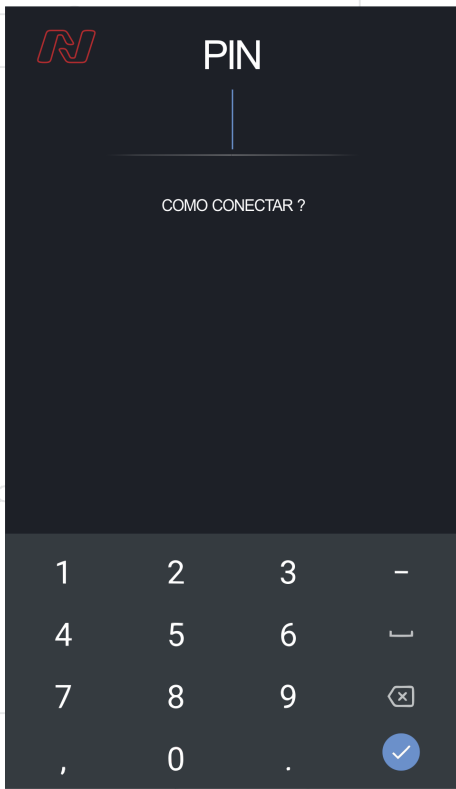
A PIN will be requested for the connection between the HMI and the phone. To display it on the HMI, press the HMI "X" button for approximately 5 seconds until the PIN appears on the screen.

Type in the same 4 digits code generated by HMI, wait for the phone to find the network generated by HMI and lastly click on the "connect" button to transfer the file.

After sending the file, a "Successfully Concluded!" message will appear. To finish it, click on the "disconnect" button.
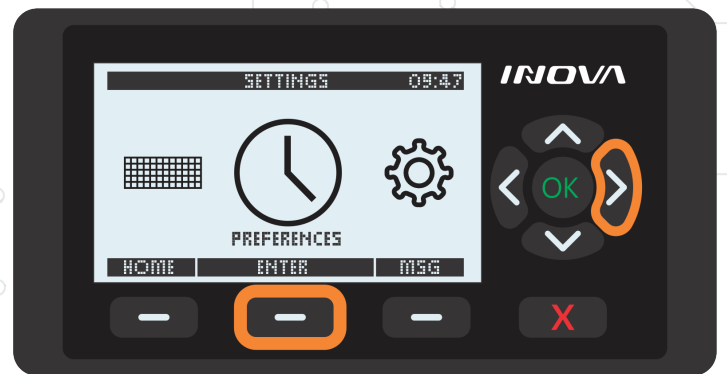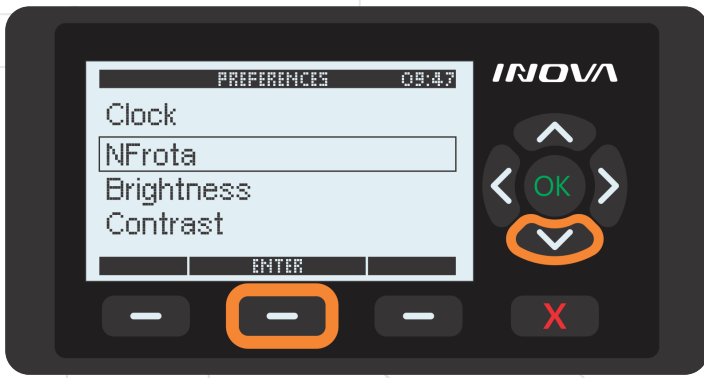
4.6   Configuring the HMI

With the "config.i9c" file on the HMI, the configuration menu will be opened. First, it is necessary to configure the bus ID, which by default will have all digits equal to zero "0000000". This way, N-Frota will be deactivated and to enable it, simply change one of the digits to a non-zero value. It is important to recall that each HMI that will connect to N-Fleet must contain a unique ID, otherwise the duplicate ID message will be displayed.
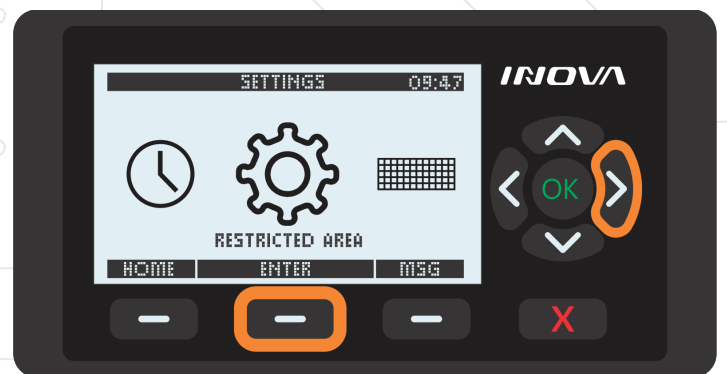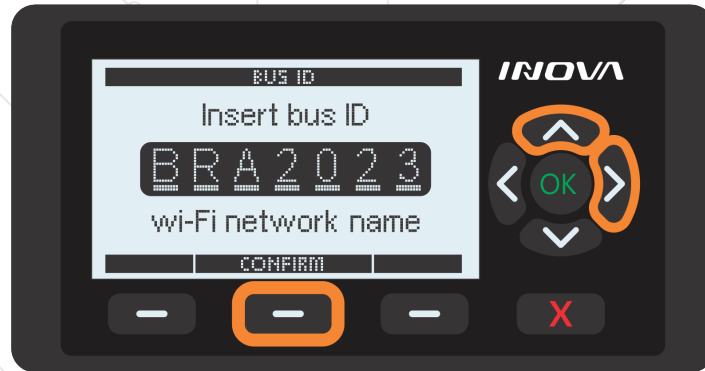
When the bus ID settings is completed, access the N-Fleet through the HMI preferences menu. It is possible to adjust the HMI date and time by selecting "yes" on the "Update clock via NFrota" option, where "Y" is for yes, and "N" is for no. Below it, there is the "connect to Nfrota now" option, that allows the connection without waiting the standard time.

4.7   Connecting the HMI to N-Frota

After completing all the settings, sending the "config.i9c" file to the HMI, altering the bus ID and being within range of the registered Wi-Fi network, it is possible to do the first HMI connection with N-Fleet.

The HMI connection to N-Frota will happen:
- Whenever it is energized.
- After being switched on every 1 hour.
- By accessing the CGF menu, Preferences, N-Fleet, option "connect to Nfrota now".

The HMI screen will display the message "Nfrota starting, please wait..." and "connected to the internet, please wait...", if the option "Update clock via Nfrota" is enabled, the message "date and time update" will be also shown. After connecting with N-Fleet, the HMI will be displayed on the "Garage" column, identified by the bus ID name previously configurated.
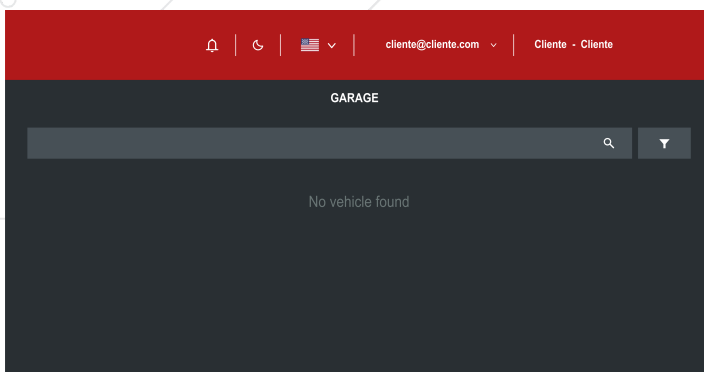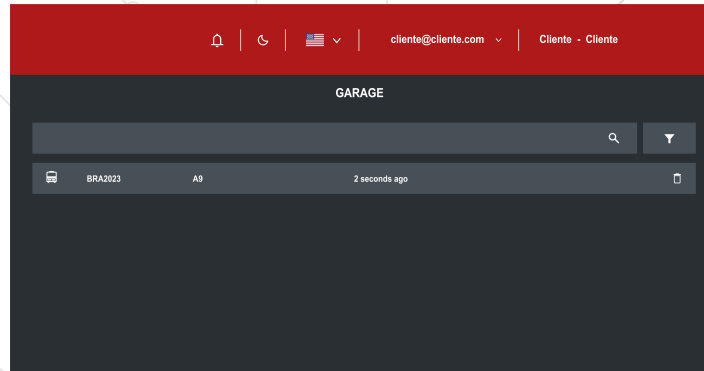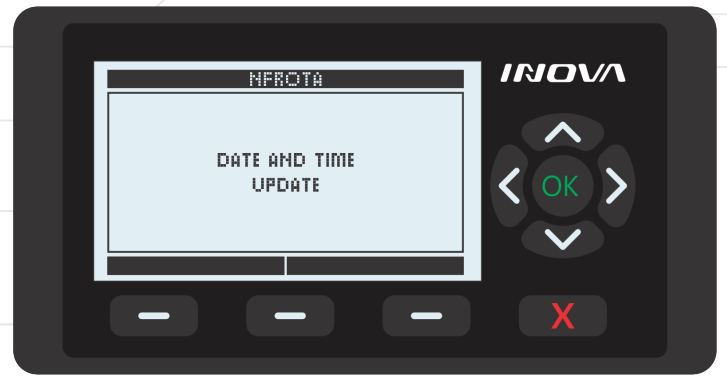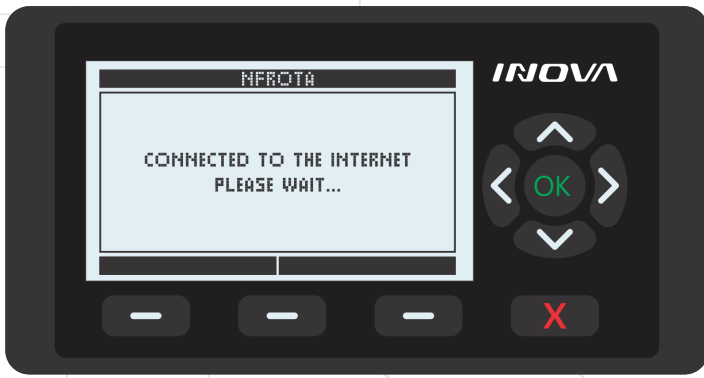
5   Adding projects to N-Frota

To import project files into N-Frota, click on the "+" button, which will display a window to select the file to be sent. Once loaded, click on "Import" for the file to appear in the project list.
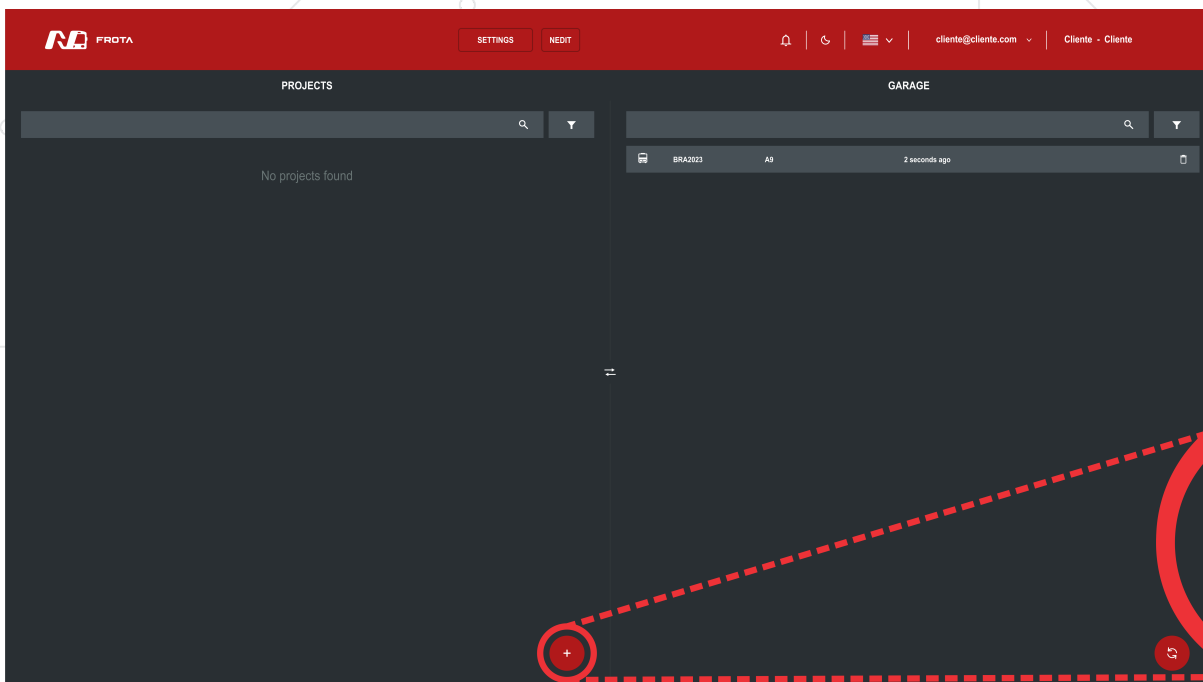
Import Project

Choose the file you would like to import.

| Choose file | 📎 |

CANCEL   IMPORT

Import Project

Choose the file you would like to import.

| Project 1.isi | 📎 |

CANCEL   IMPORT

FROTA   SETTINGS   NEDIT   🔔 | 🌙 | 🇺🇸 ⌄ | cliente@cliente.com ⌄ | Cliente - Cliente

PROJECTS

| | Project 2 | 2 seconds ago | 🚌 ⬇ 🗑 |

GARAGE

| 🚌 | BRA2023 | A9 | 2 seconds ago | 🗑 |

+

🔄

PROJECTS

| 🔍 | 🔻 |

| | Project 1 | 3 weeks ago | 🚌 ⬇ 🗑 |
| | Project 2 | 3 weeks ago | 🚌 ⬇ 🗑 |

N-FROTA AND N-EDIT ICON   NAME OF PROJECTS   DATE OF LAST AMENDMENT   LINK BUS   DOWNLOAD PROJECT   DELETE PROJECT

Sent directly from N-Edit to N-Frota

Project imported to N-Frota through "Import Project"

5.1 ISI projects

Files and projects generated by ISI message editor must be imported as described earlier, by clicking on the "+" button and importing the file from the computer.

5.2 N-Edit projects

Files and projects generated by N-Edit message editor can be imported as described earlier, by clicking on the "+" button and importing the file from the computer.

It is also possible to import through the N-Edit platform, using the same login and password registered on N-Fleet. To do so, access N-Edit, select the project and click on the option "Send to Nfrota". Once the import is complete, the project will appear in the N-Fleet project list with the N-Edit symbol, and on N-Edit there will be a green checkbox, indicating that the project was sent and is updated.
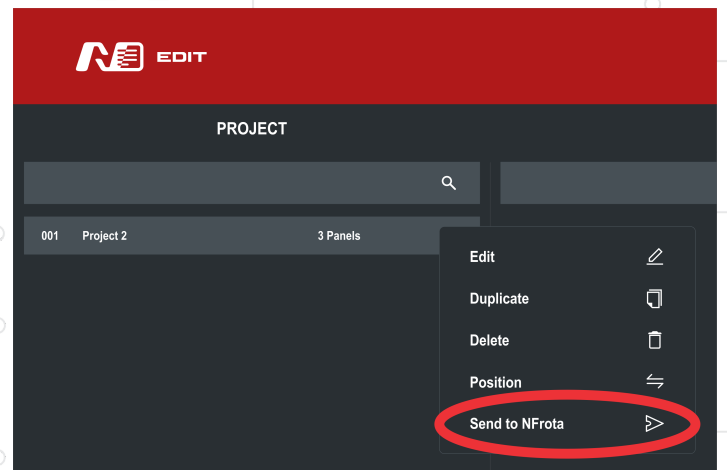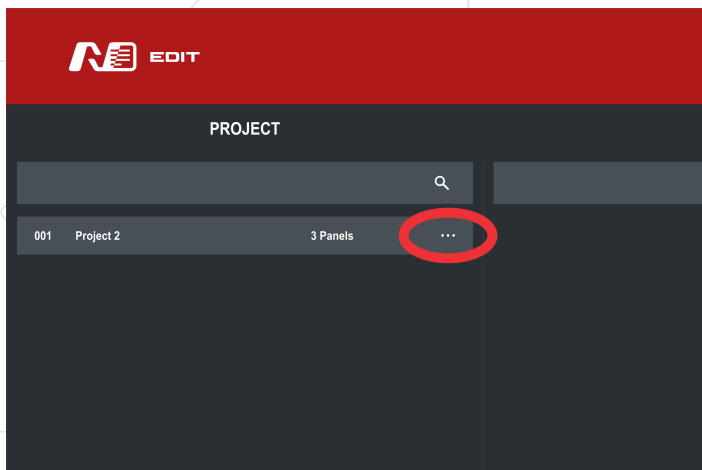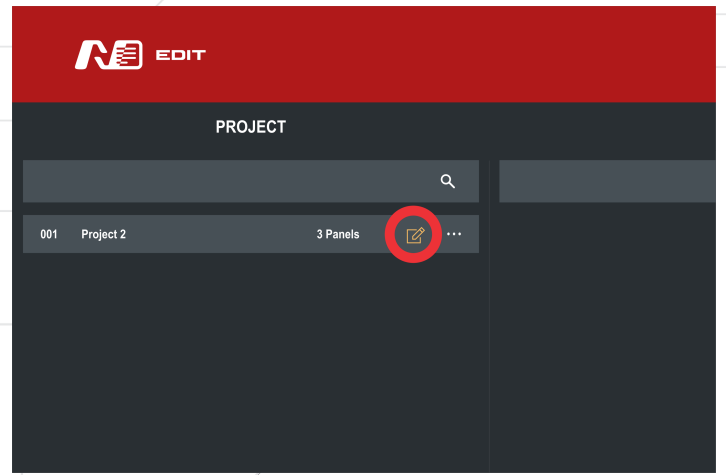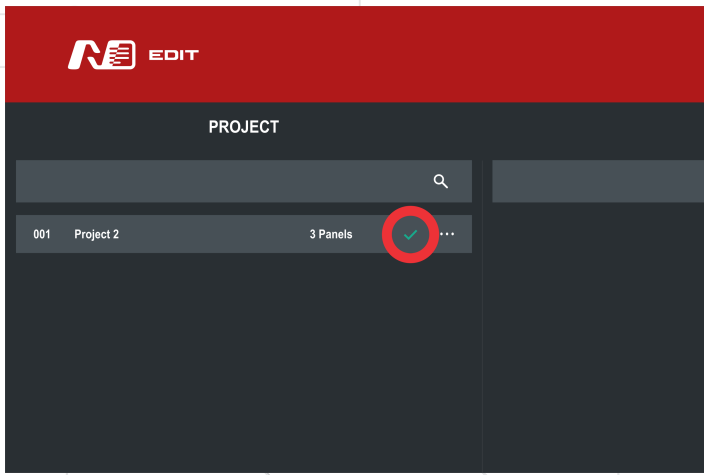
✓ Project updated and sent successfully to N-Frota

✎ Project has been modified and not sent to N-Frota with the last modifications (to update it, send the project to N-Frota again)
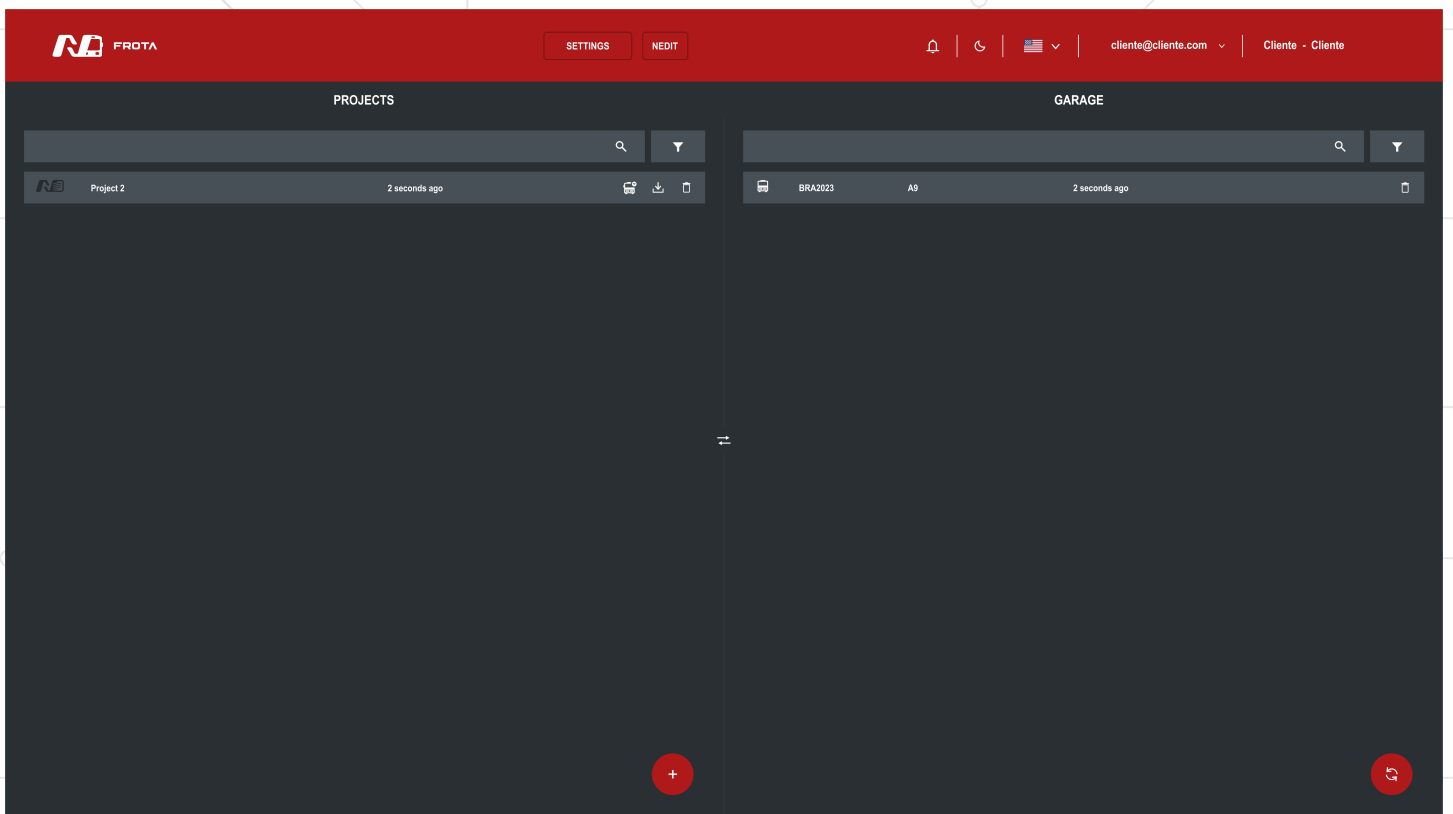
6   Sending projects to buses

After finalizing all the settings, connecting the HMI, adding the projects on N-Fleet and being within range of the registered Wi-Fi network, it is possible to send the projects to the buses.

6.1   Linking buses

First, select the project and which bus or buses will be receiving the project. Click on "Confirm" and the project will be linked to the bus and waiting for the HMI to connect to the Wi-Fi network.

The HMI connection to N-Frota will happen:

- Whenever it is energized

- After being switched on every 1 hour

- By accessing the CGF menu, Preferences, N-Fleet, option "connect to Nfrota now".

The HMI will receive the project, reset and after connecting to N-Frota again, it will show a green checkbox, indicating that the project was sent successfully.

SETTINGS · NEDIT

cliente@cliente.com · Cliente - Cliente

PROJECTS

GARAGE

All (5)

Project 1	3 weeks ago		
Project 2	3 weeks ago		

BUS0001	A9	2 weeks ago	
BUS0002	A9	2 weeks ago	
BUS0003	A9	2 weeks ago	
BUS0004	A9	2 weeks ago	
BUS0005	A9	2 weeks ago	

CONFIRM

✓ **Checked**

☐ **Unchecked**

FROTA

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PROJECTS

GARAGE

All (5)

Project 1	3 weeks ago		
Project 2	3 weeks ago		

BUS0001	A9	2 weeks ago	
BUS0002	A9	2 weeks ago	
BUS0003	A9	2 weeks ago	
BUS0004	A9	2 weeks ago	
BUS0005	A9	2 weeks ago	

CONFIRM

Top Screen

FROTA

SETTINGS NEDIT

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PROJECTS

Project 1	3 weeks ago	
Project 2	3 weeks ago	

GARAGE

All (5)

BUS0001	A9	2 weeks ago	
BUS0002	A9	2 weeks ago	
BUS0003	A9	2 weeks ago	
BUS0004	A9	2 weeks ago	
	A9	2 weeks ago	

Link project

Do you want to link this project to the selected vehicles?

CANCEL CONFIRM

CONFIRM

Bottom Screen

FROTA

SETTINGS NEDIT

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PROJECTS

Project 1	3 weeks ago	
Project 2	3 weeks ago	

GARAGE

BUS0001	A9	2 weeks ago	Project 2	
BUS0002	A9	2 weeks ago	Project 2	
BUS0003	A9	2 weeks ago	Project 2	
BUS0004	A9	2 weeks ago	Project 2	
BUS0005	A9	2 weeks ago	Project 2	

SETTINGS   NEDIT

cliente@cliente.com   Cliente - Cliente

PROJECTS

	Project 1	3 weeks ago			
	Project 2	3 weeks ago			

GARAGE

	BUS0001	A9	2 weeks ago	Project 2	✓
	BUS0002	A9	2 weeks ago	Project 2	✓
	BUS0003	A9	2 weeks ago	Project 2	✓
	BUS0004	A9	2 weeks ago	Project 2	✓
	BUS0005	A9	2 weeks ago	Project 2	✓

+

GARAGE

🚌	BUS0001	A9	2 weeks ago	Project 1	✓	🗑
🚌	BUS0002	A9	2 weeks ago	Project 1	✓	🗑

BUS ICON   BUS ID NAME   IHM FIRMWARE VERSION   DATE OF LAST AMENDMENT   LINKED PROJECT NAME   TRANSFER STATUS   DELETE BUS

6.2   Viewing the HMI

Once the project is linked to the bus, connect the HMI to the internet so that the file can be transferred into the HMI.

The HMI connection to N-Frota will happen:

- Whenever it is energized
- After being switched on every 1 hour
- By accessing the CGF menu, Preferences, N-Fleet, option "connect to Nfrota now".

The HMI will receive the project, reset and after connecting to N-Fleet again, it will show a green checkbox, indicating that the project was sent successfully.

NFROTA

PROJECT RECEIVED
REBOOTING...

INOVA

INOVA

INOVA

NFROTA

NFROTA STARTING
PLEASE WAIT...

INOVA

NFROTA

CONNECTED TO THE INTERNET
PLEASE WAIT...

INOVA

NFROTA

DATE AND TIME
UPDATE

INOVA
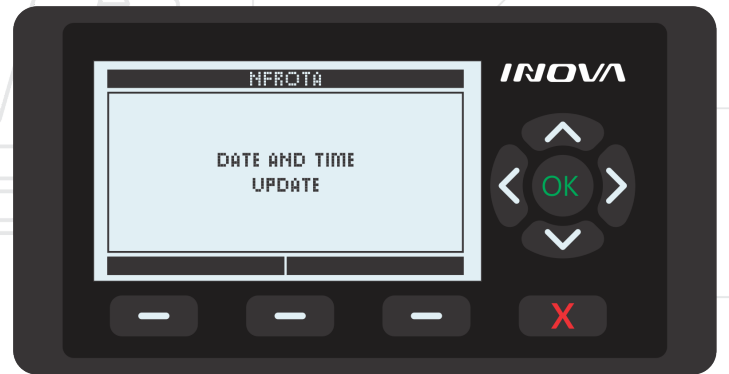
6.3   Viewing status on N-Frota

After linking the project to the bus, use the refresh button to update the lists and monitor the project sending to HMI. The data will always be updated when the refresh button is pressed.

N-Frota features icons that show the status of the project transfer to the IHM:
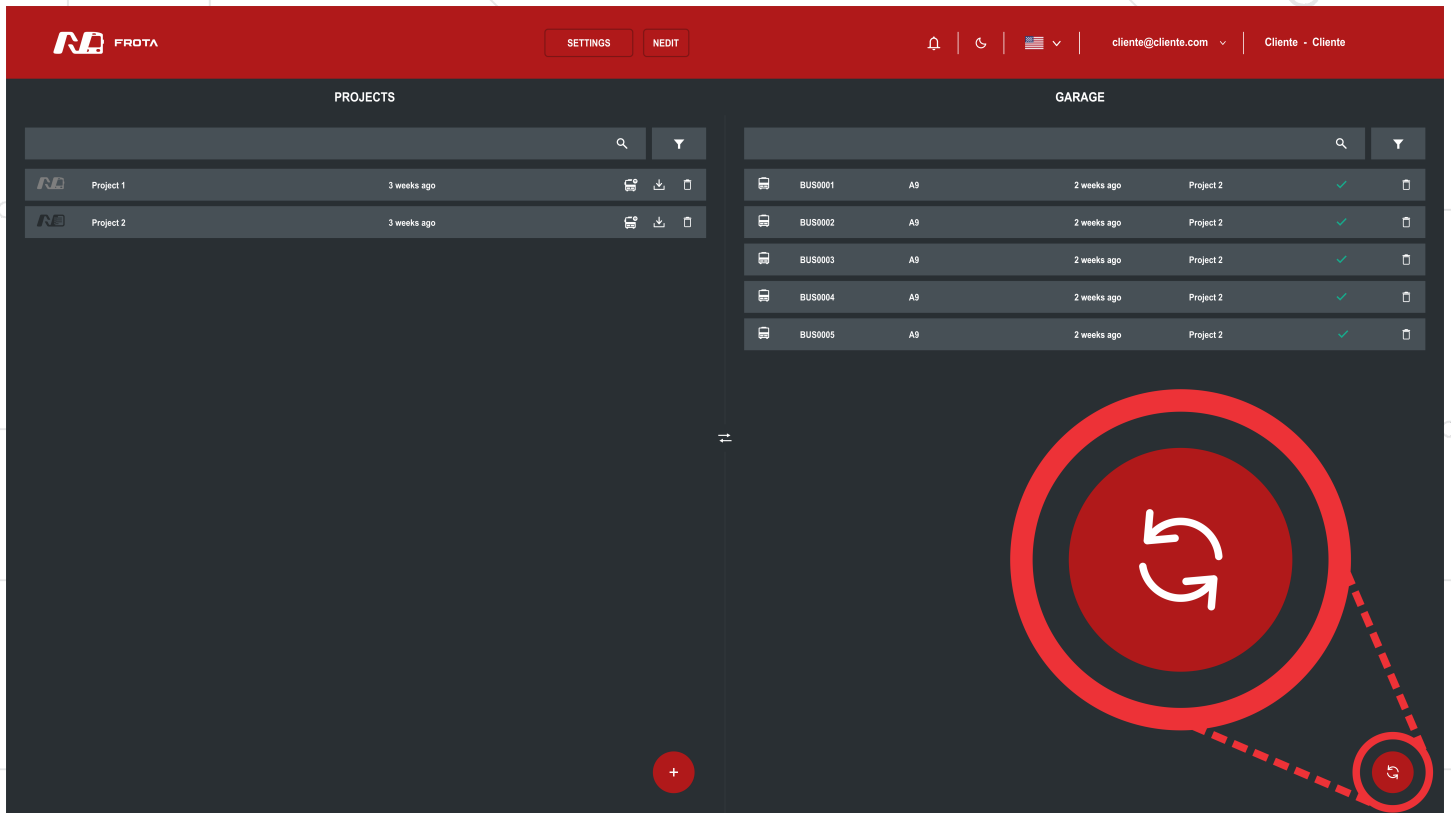
In transfer: Project has been linked, N-Frota is waiting for IHM to connect via the Wi-Fi network to receive the project.

Transfer in process: IHM connected to N-Frota and received the linked project, but it remains to be confirmed if it is correct.

Transfer failure: N-Frota waits 2 minutes for the HMI to connect again and confirm that project has been received. If this does not happen, this icon will appear.

Transferred: Project received successfully. HMI connected for the second time and confirmed that the project has been received.

7 Additional features

This topic presents the features that the platform has to assist in searching, browsing, deleting projects, buses and project downloads.

7.1 Project download

Projects saved within N-Frota with the ".isi" or ".nedit" extension can be saved on the device that was logged in using the download button.
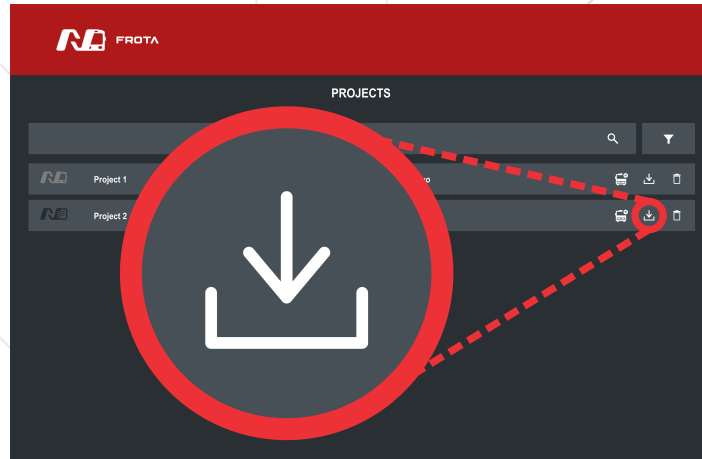
7.2 Deleting projects

To delete a project on N-Frota, click on the trash icon located at the right side of the project.
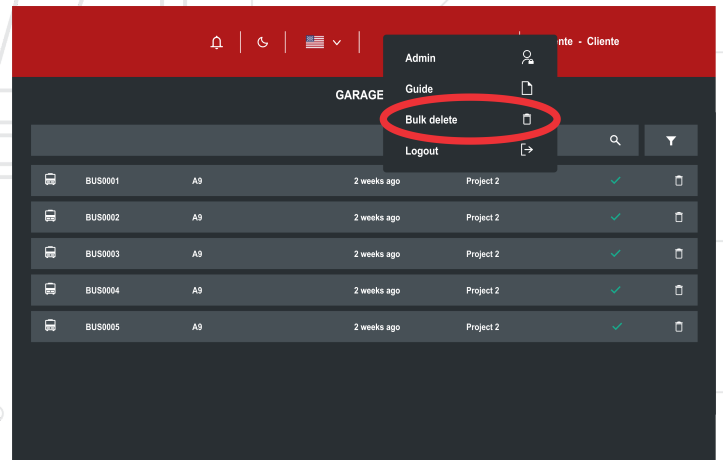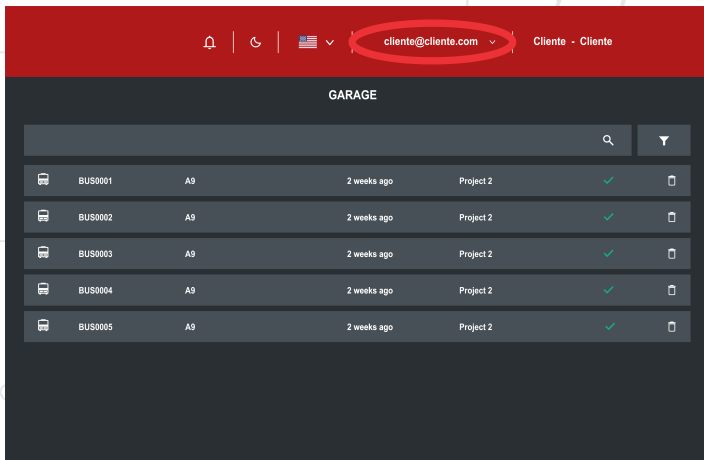

7.3 Deleting a bus

To delete a bus on N-Fleet, click on the trash icon located at the right side of the bus name.

7.4   Bulk delete

To delete all the projects or all the buses on N-Fleet, click on the "Bulk delete" option. To do so, it is necessary to select the items to delete (projects and/or buses), enter the user's login password and click in "confirm".
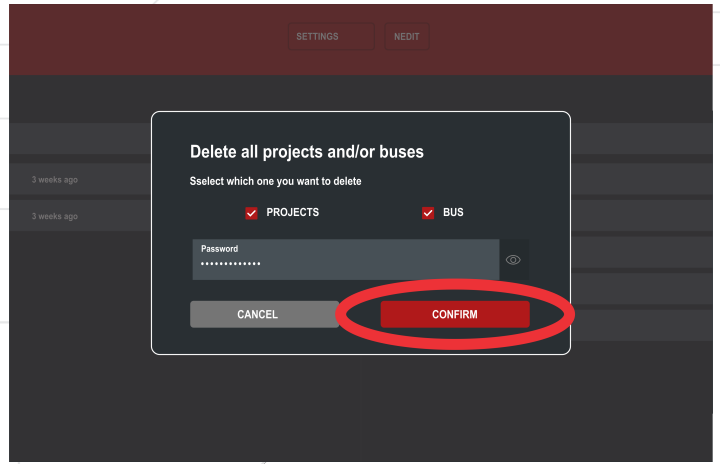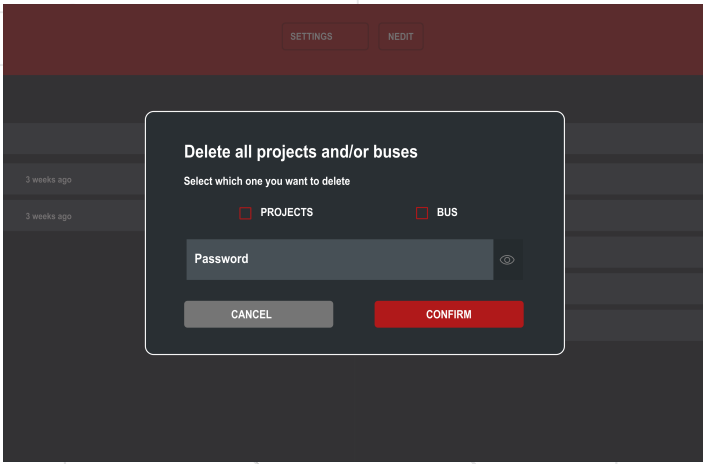
7.5   Search

In both the projects column and the garage column, there is a search field. It is possible to locate a project or bus by searching its name.

7.6   Filters

There are filters for projects and buses in the garage in order to keep the platform organized or easier to locate projects and buses.

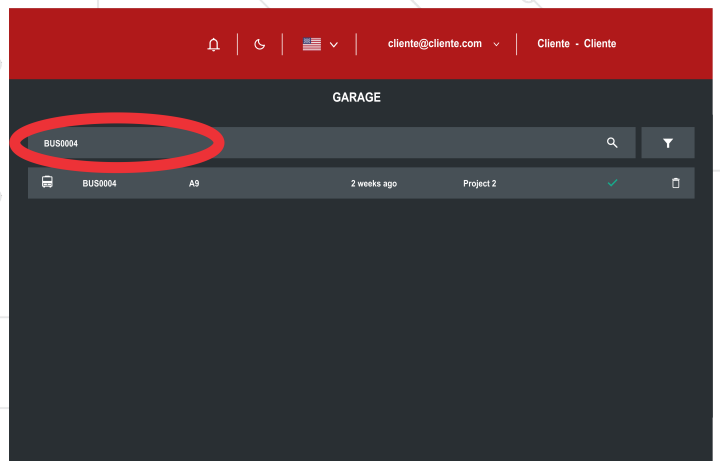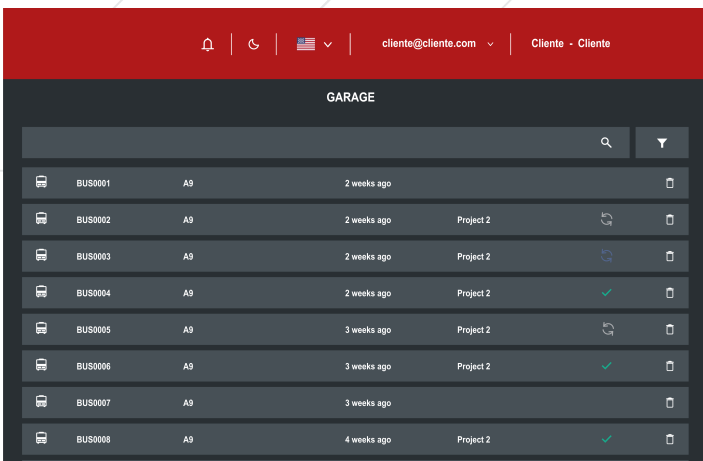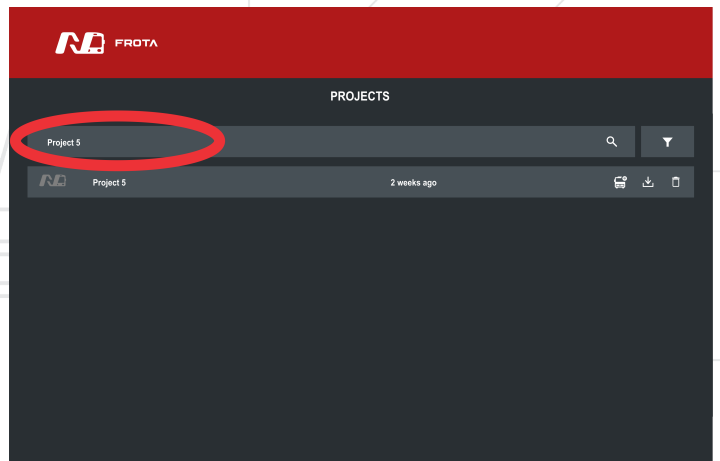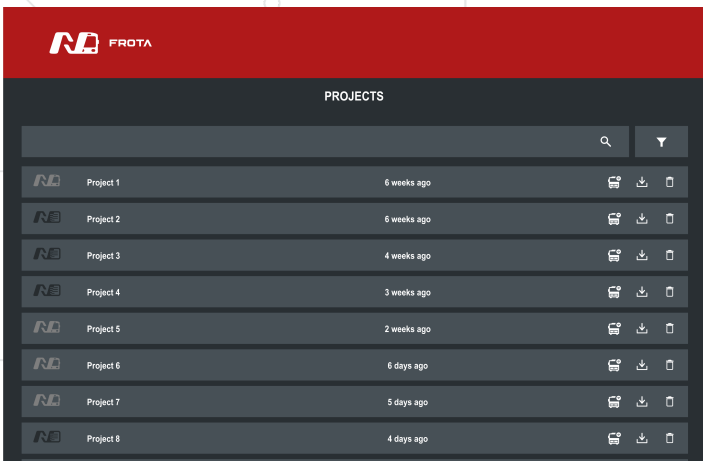In the project's column, there are the following filters:

Newest: The projects are listed from most recent to oldest, based on the date that the projects were added.

Oldest: The projects are listed from oldest to most recent, based on the date that the projects were added.

N-Edit: Only projects that were sent directly from N-Edit to N-Fleet will be shown.

N-Frota: Only projects that were imported directly from the computer to N-Fleet will be shown.

In the garage column, there are the following filters:

Newest: The buses are listed from most recent to oldest, based on the date that the projects were added.

Oldest: The buses are listed from oldest to most recent, based on the date that the projects were added.

No linked project: Only buses that do not have a linked project will be shown.

**With linked project:** Only buses that have a linked project will be shown.

Transfer failure: Only buses that had transfer failings will be shown (yellow exclamation mark icon).

In transfer: Only buses that are in transfer process will be shown (two arrows in a blue circle icon).

Transferred: Only buses that received the project successfully will be shown (green check mark icon).
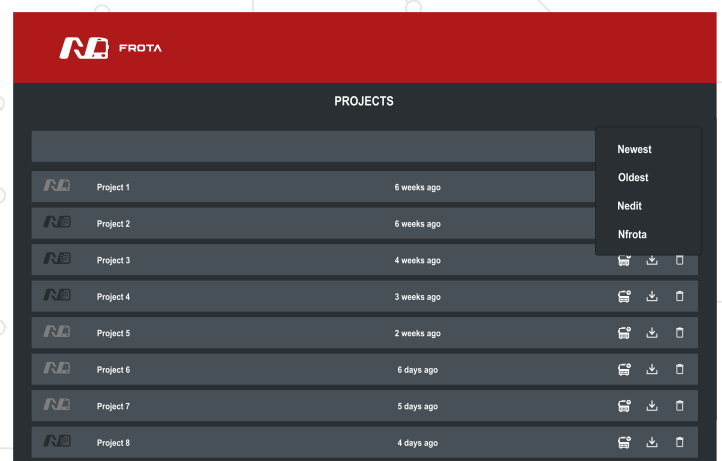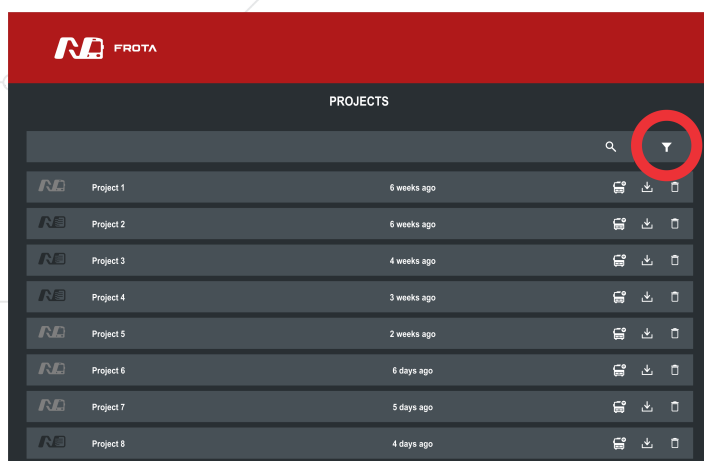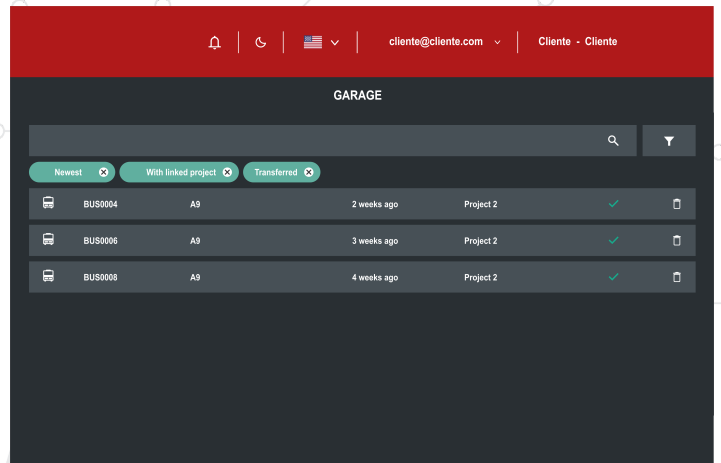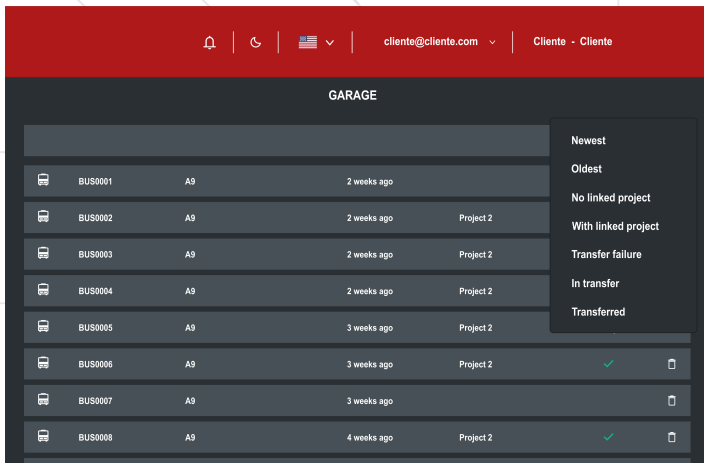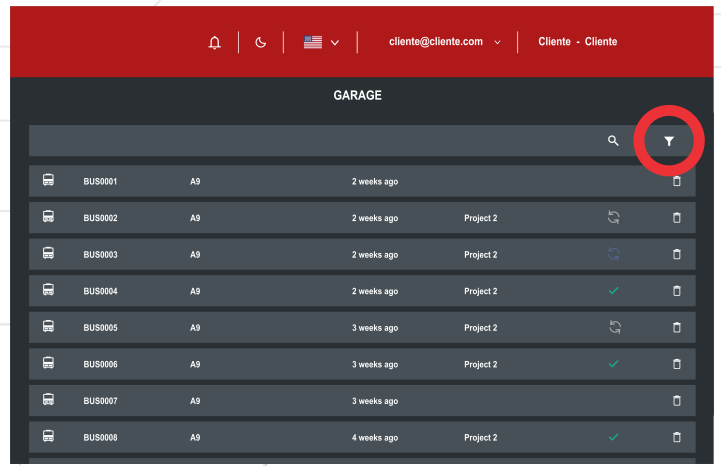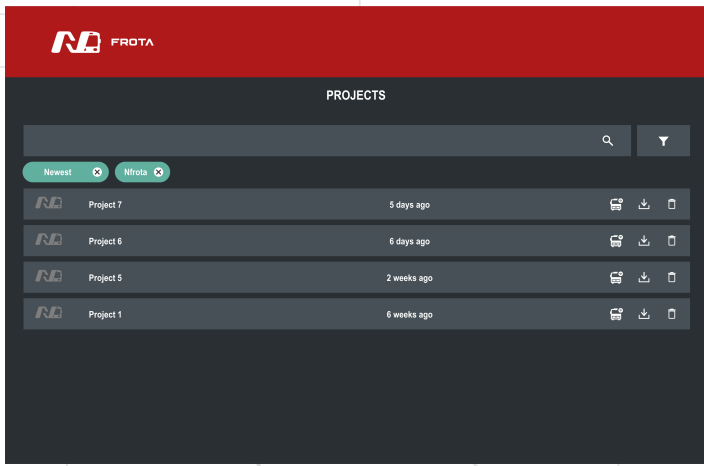
7.7 Notifications

N-Frota has a notification area, to access it, click on the bell icon. To delete a notification, click on the trash icon.

Notifications

There are no notifications.
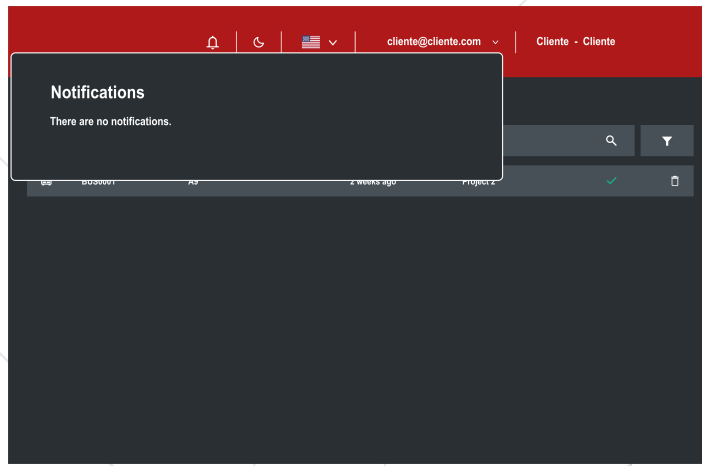
8   Firmware update

Whenever new firmware became available, the HMI can receive this update through N-Frota.

8.1   Confirming on N-Frota

When a new update is available, an icon will be shown by the firmware, on the column that identifies each bus firmware version. To update it, click on the icon an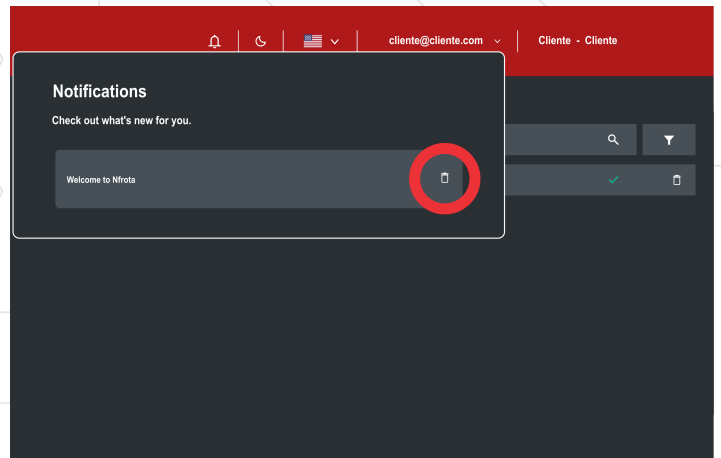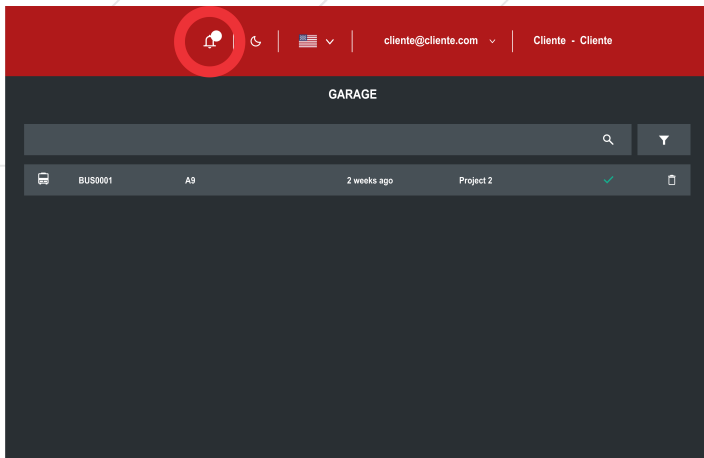d choose to update all the buses, or only the one that was selected. The current firmware version will be shown with an arrow indicating the new version.

When the bus connects to N-Frota, it will receive the update. The firmware version status will only show the new version after the bus is updated. For firmware that need an urgent update, the buses that need to be updated will appear with an arrow indicating the new version they will receive, as soon as they connect to N-Frota.

VEHICLE FIRMWARE VERSION
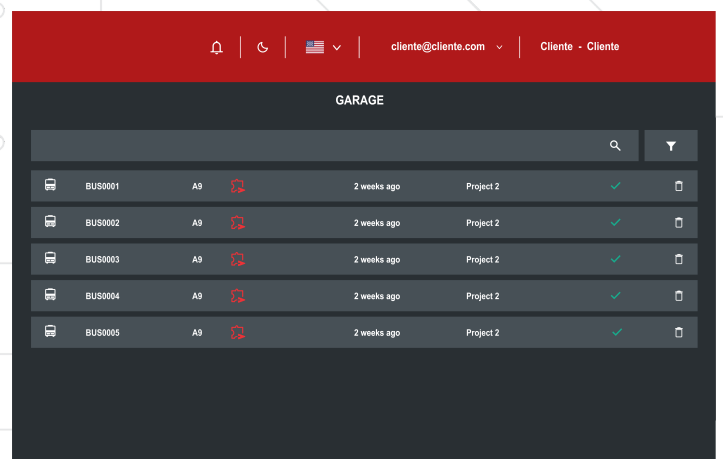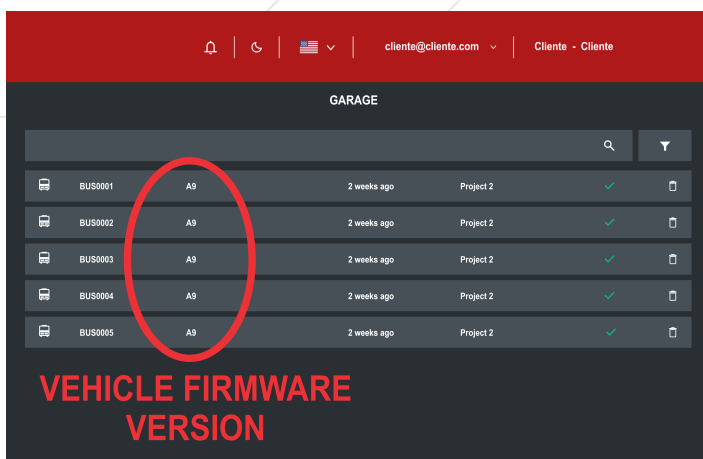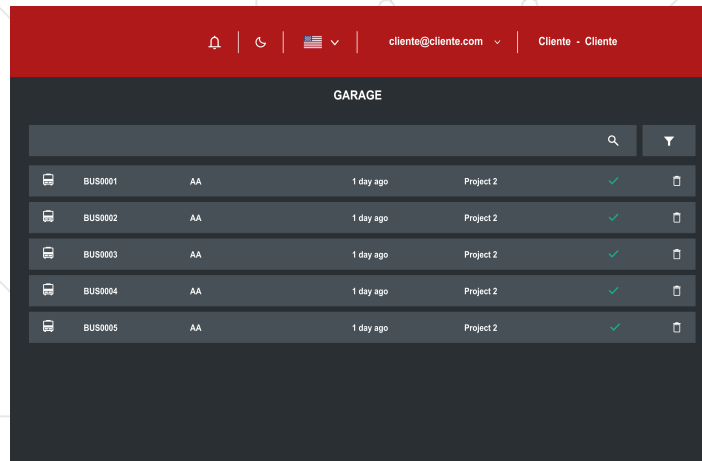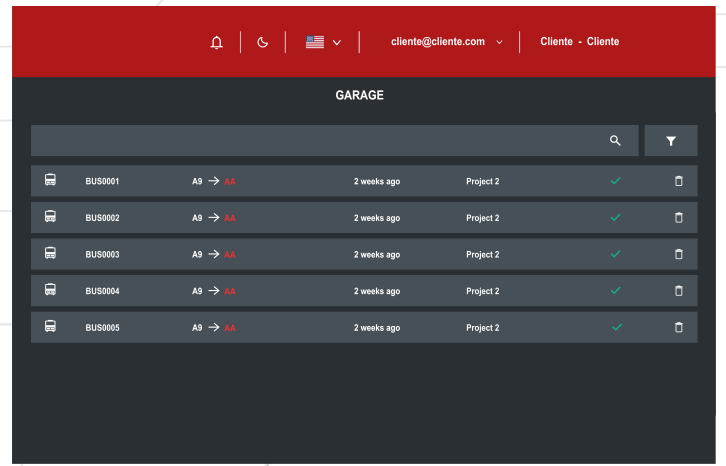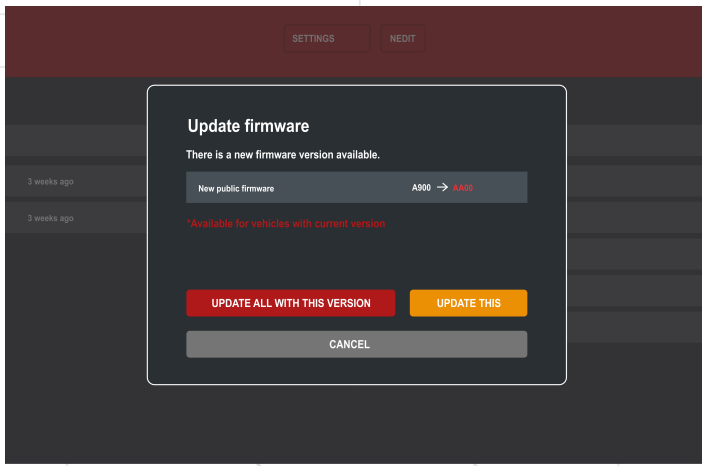
8.2   Confirming on HMI

After confirming the firmware update on N-Frota, the buses that need to be updated will appear with an arrow indicating the new version. When the bus connects to N-Fleet, the download will automatically start, and when it is concluded, the HMI will reset. The message of a new firmware version available will appear on the HMI screen, click on update, once completed it will restart again. Lastly, it is necessary to connect to N-Fleet, so it can recognize that the HMI is updated.

NFROTA

NFROTA STARTING
PLEASE WAIT...

INOVA

NFROTA

CONNECTED TO THE INTERNET
PLEASE WAIT...

INOVA

NFROTA

DATE AND TIME
UPDATE

INOVA

NFROTA

DOWNLOADING A NEW FIRMWARE
PLEASE WAIT...

75%

FW: INV600-19A0AA00.I9B

INOVA

NFROTA

NEW FIRMWARE DOWNLOADED
REBOOTING...

INOVA

INOVA

INOVA

FIRMWARE UPDATE

FOUND AN FIRMWARE
UPDATE

DO YOU WISH TO INSTALL IT?

DISMISS | INSTALL

FIRMWARE UPDATE

INSTALLING FIRMWARE
DO NOT SHUTDOWN...

FIRMWARE UPDATE

VALIDATING FIRMWARE
PLEASE WAIT...

FIRMWARE UPDATE

REBOOTING
PLEASE WAIT...

INOVA

FIRMWARE UPDATE

FIRMWARE UPDATE

DISMISS

9   Failures and solutions

During use, errors or messages may appear indicating the existence of non-conformities that may prevent the equipment from being used properly. To facilitate communication and visualization of these possible errors, the "MSG" menu is available on the HMI, where these faults will be stored, remaining in this form until the problem is resolved.

"Signs communication failure"

This message will be displayed when a panel that has already been paired to the system is no longer recognized by the HMI. The panels that were not recognized during the HMI initial verification will be displayed on the failure menu.

Open the plastic lid on the back of the panel.

- Check if the source board light is on;

- Check if the CPU light is flashing intermittently;

- Reset the system again and recheck the itens above.

If the issue persists, turn off all panels and perform the pairing process again.

"Error on the message file. Upload a new file."

This message will be displayed when the HMI cannot find or recognize any project file.

Run the connection process and send a project file to the HMI.

"Bus ID not configured"

This message will be displayed when the bus ID is not configured or has values equal to zero.

Access the CFG menu, select "Restricted area" and search for the bus ID. In this menu, configure the HMI's ID, as indicated before, the name can contain letters and numbers and should be unique for each HMI.
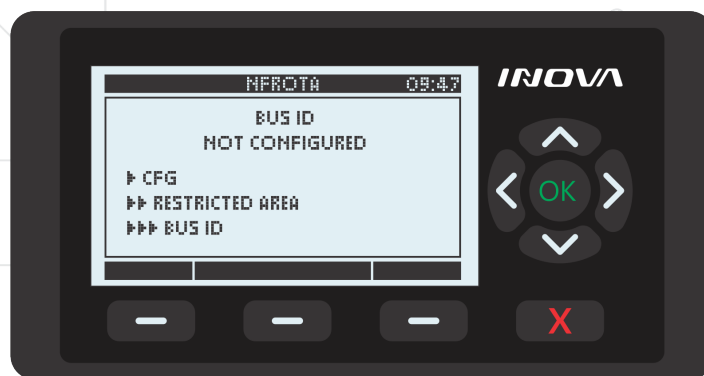
"Bus ID menu blocked"

This message will be displayed when the HMI does not have the "config.i9c" file.

Access N-Frota and download the "config.i9c" file in the settings menu and send it to the HMI using the N-Drive application.

"Failed to connect to the internet"

This message will be displayed when the HMI does not find the Wi-Fi network.

- Check if the command uni tis near the internet router;

- Check if the Wi-Fi password was registered correctly;

- Check if the Wi-Fi network name was registered correctly;

- Check if the registered Wi-Fi network has any firewall blocking the internet access.

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