



# QuickTune

## USER GUIDE V2.0x A



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## 1. PRESENTATION

**QuickTune** software has been developed for **NOVUS** controllers and indicators. With a user-friendly interface, it facilitates the configuration and management of the devices and allows communication through USB, Bluetooth and RS485 interfaces, or TCP/IP connection. Besides, it has several other functionalities, such as, for example, a diagnostic tool that allows you to check information on the status of alarms and the configured parameters and offers a dynamic visualization of the process.

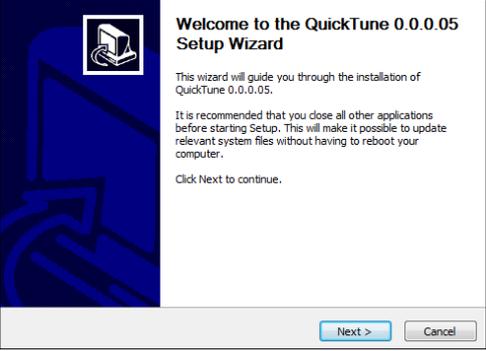
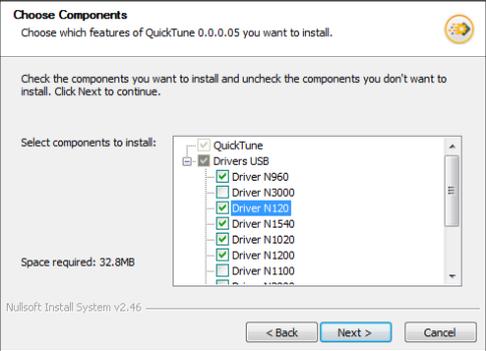
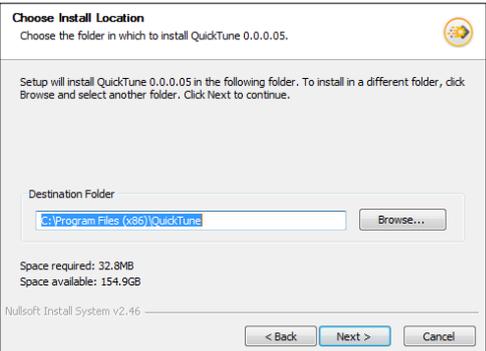
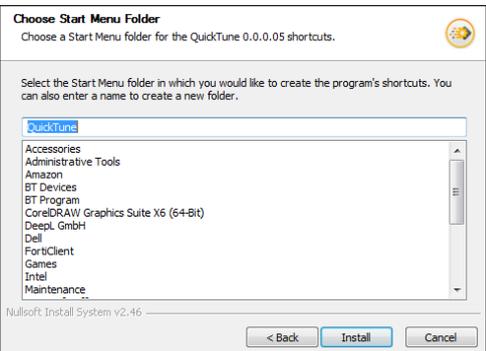
This manual provides a description of the features and gives quick examples of how to configure the software. For detailed instructions about the parameters of each device, please refer to the specific operation manual.

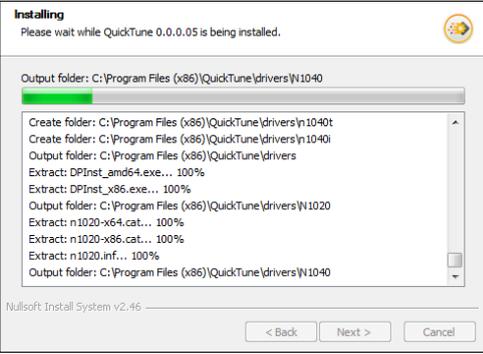
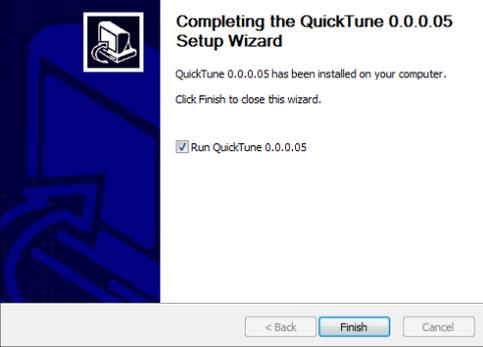
The software can be downloaded for free from our website [www.novusautomation.com](http://www.novusautomation.com), in the Download Area.

## 2. INSTALLATION AND REQUIREMENTS

### 2.1 INSTALLATION

To install **QuickTune**, just run the **QuickTuneSetup.exe** file, available on our website, and follow the step-by-step instructions below:

	<p>Step 1: Select the installation language.</p>
	<p>Step 2: Once you have selected the installation language, click <b>OK</b> to proceed.</p>
	<p>Step 3: Click <b>Next</b>.</p>
	<p>Step 4: Select the drivers to install and click <b>Next</b>.</p>
	<p>Step 5: Click <b>Browse</b> to define a new installation location. Click <b>Next</b> to maintain the current location.</p>
	<p>Step 6: Select the folder where you want to create the program shortcut. To keep the current location, click <b>Install</b>.</p>

	<p>Step 7: Wait while <b>QuickTune</b> and drivers are being installed. Click <b>Install</b> whenever the software requests you to install the driver for the selected devices in step 4.</p>
	<p>Step 8: Click <b>Finish</b> to finish the installation.</p>
	<p>Step 9: The <b>QuickTune</b> software has been successfully installed and the main screen will be displayed.</p>

## 2.2 MINIMUM SYSTEM REQUIREMENTS

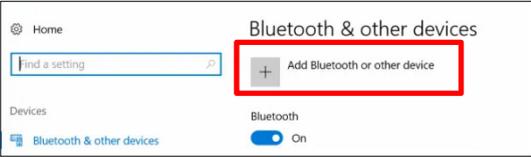
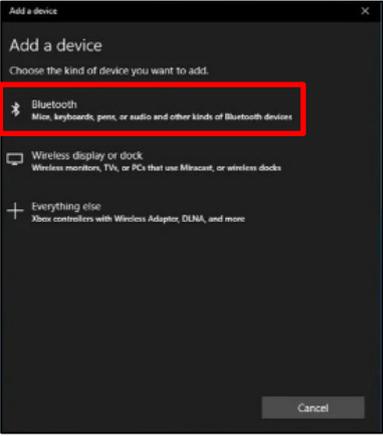
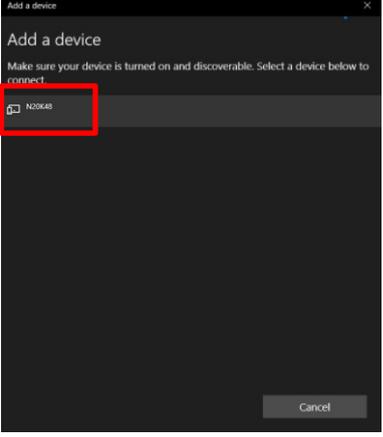
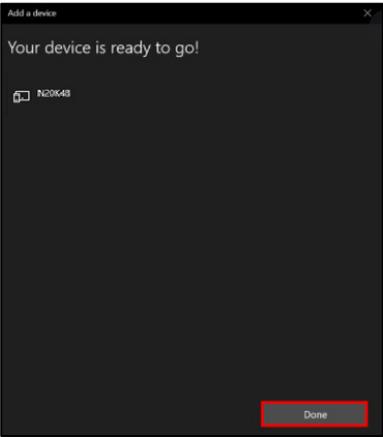
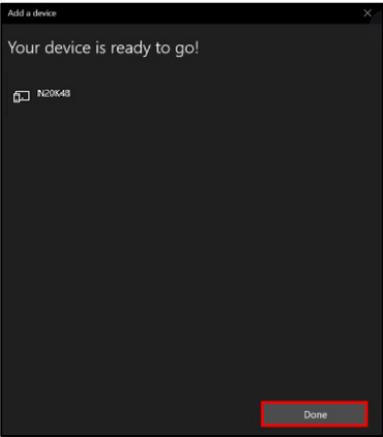
- Computer with dual core processor of 2 GHz or higher.
- 4 GB of RAM (Recommended: 8 GB).
- Monitor and video card with minimum resolution of 1280 x 720.
- 1 GB of hard disk space.
- Windows 8 or higher operating system (Recommended: Windows 10 or higher).
- Support for Bluetooth 4.0 technology (To pair with controllers that have a Bluetooth interface).
- USB port.
- Network interface (To use the features of the software that require Internet access).

	<p><b>Applications that run on Windows platform lower than Windows 10 do not support Bluetooth technology. Windows Server does not support Bluetooth technology.</b></p>
---	--

## 2.3 HOW TO PAIR DEVICES WITH BLUETOOTH INTERFACE

On Windows platforms, you must pair controllers that have a Bluetooth interface with the operating system. Otherwise, the device will not be visible in the **Bluetooth** tab of the **Read Device** section of the **QuickTune** software (see chapter [READING DEVICES](#)).

To perform this procedure, you must follow the steps below (this example uses Windows 10):

	<p>Step 1: Access the "Bluetooth &amp; other devices" option from the System Settings section of the computer you are using.</p>
	<p>Step 2: Click on <b>Add Bluetooth or other device</b>.</p>
	<p>Step 3: Click on <b>Bluetooth</b>.</p>
	<p>Step 4: Select the desired device (in this case the <b>N20K48</b>). For the device to be visible, you must enable its Bluetooth interface. For information about the Bluetooth interface of the device, please refer to the specific operations manual.</p>
	<p>Step 5: Your device has been paired with your computer and is ready for use! To access it, simply open the QuickTune software and perform the device reading process.</p>

 To connect the device to a Windows 11 computer, go to the **Bluetooth & devices** → **Devices** section and select the "Advanced" alternative in the **Bluetooth devices discovery** option. Otherwise, the computer will NOT find the N20K48 Modular Controller.

### 3. STARTING QUICKTUNE

QuickTune has five buttons: **Read Device**, **Create Configuration**, **Diagnostic** and **Open Configuration**, located in the center of the application, and **Options**, located at the bottom left of the application.



Figure 1 Home screen

#### 3.1 READ DEVICE

It allows you to read the device to be configured by the software. The connection can be via USB interface, RS485 interface or via TCP/IP connection. This functionality will be described in detail in the chapter [READING DEVICES](#).

#### 3.2 CREATE CONFIGURATION

It allows you to create a configuration for a device to be selected on the connection screen. Once created, this configuration can be saved for later use. You can access it via the Open Configuration function. It is not necessary for the device to be connected to the software. This functionality will be described in detail in chapter [CONFIGURING DEVICES](#).

#### 3.3 DIAGNOSTIC

It allows you to view diagnostic information about alarms and inputs and outputs of the connected device. In addition, this section presents data on the status of the variable processes of the device. This functionality will be described in detail in chapter [DEVICES DIAGNOSTICS](#).

#### 3.4 OPEN CONFIGURATION

It allows you to open a configuration file created using the **Create Configuration** function. You can carry out the process in two ways: Through a search in some specific directory of the computer, where the file was saved, or by selecting a recent file from the list presented by the software. This functionality will be described in detail in the chapter [OPEN CONFIGURATION](#).

#### 3.5 OPTIONS

It allows you to configure **QuickTune** preferences, such as the default language and checking for updates automatically. This functionality will be described in detail in the [PREFERENCES](#) chapter.

## 4. READING DEVICES

The **Read Devices** button on the **QuickTune** home screen has three tabs, one for each connection mode and device read: USB, Bluetooth, RS485, and TCP/IP. It allows you to read and configure any connected device.

### 4.1 USB

As shown in the figure below, this tab displays the devices connected to the computer via the USB interface:

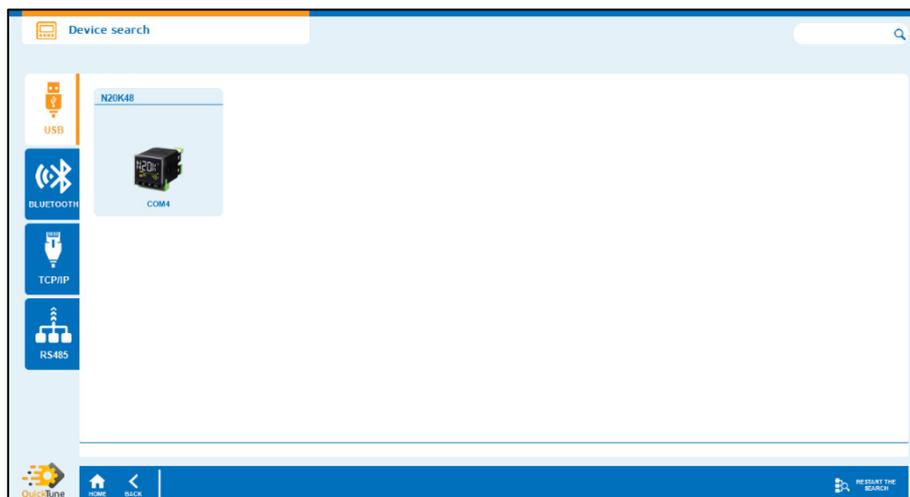


Figure 2 USB connection

Clicking on the device will allow you to access and edit its configuration parameters, as shown in chapter [CONFIGURING DEVICES](#) of this manual.

If the device is not displayed, you can click the **Restart Search** button at the bottom of the screen to refresh the page.

If the connection screen shows too many devices, you can type the name of the device into the search field, located at the top right of the screen, to make the process easier.

### 4.2 BLUETOOTH

As shown in the figure below, this tab displays the devices connected to the computer via a Bluetooth connection:

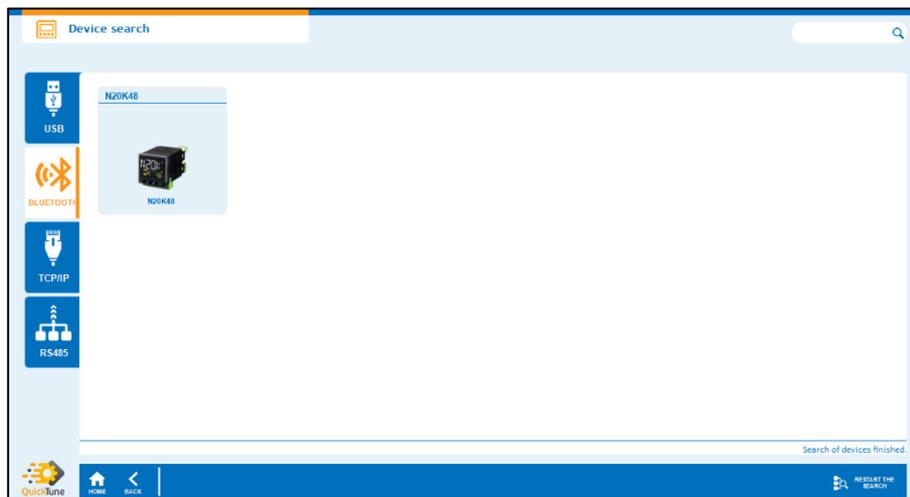


Figure 3 Bluetooth connection

To use this feature, you must use a computer that supports Bluetooth 4.0 technology and uses a Windows 10 or higher operating system (see section [MINIMUM SYSTEM REQUIREMENTS](#)). Otherwise, it will not be compatible, and you will get the warning **“Your computer does not support Bluetooth Low Energy”**.

If the Bluetooth on the computer you are using is disabled, as shown in the figure below, you will see the warning **“Bluetooth is not enabled. You need to enable Bluetooth to proceed”**. To enable it on a Windows operating system, you must access the “Bluetooth & other devices” tab of the Settings section of the computer you are using

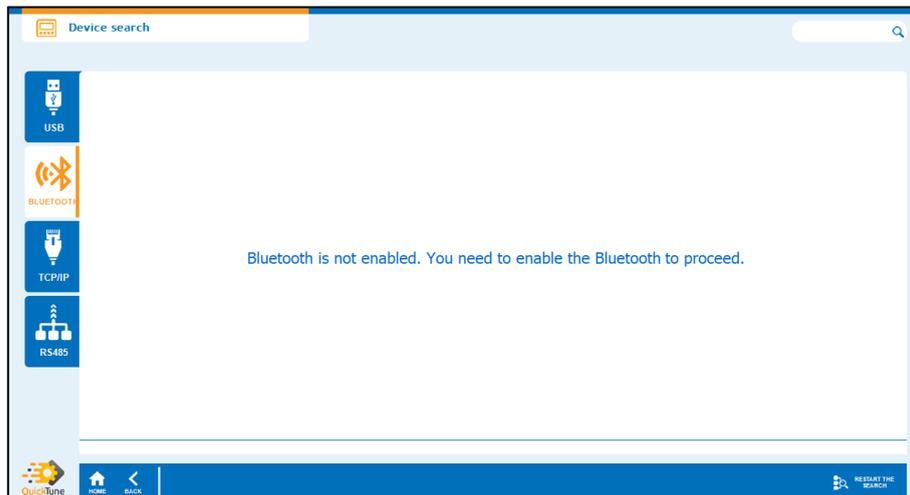


Figure 4 Bluetooth disabled

To pair the device to the **QuickTune** software, you must enable Bluetooth on the device and pair the device to your computer (see section [HOW TO PAIR DEVICES WITH BLUETOOTH INTERFACE](#)). For more information about the Bluetooth interface of the device, please refer to the device manual.

Following the steps above, the device will appear in the Bluetooth connection screen of the **QuickTune** software. Clicking on the desired device will allow you to access and edit its configuration parameters, as shown in the [DEVICE CONFIGURATION](#) chapter of this manual.

If the device is still not showing, you can click the **Reset Search** button at the bottom right of the screen to refresh the page.

If the connection screen shows too many devices, you can type the name of the device into the search field, located at the top right of the screen, to make the process easier.

### 4.3 TCP/IP

As shown in the figure below, this tab displays not only the devices currently connected and communicating with the software via TCP/IP connection, but also displays all devices that have at some point already communicated with **QuickTune**:



Figure 5 TCP/IP connection

To add a new device via TCP/IP, you must configure the TCP/IP connection, as shown in the [TCP/IP NETWORK MANAGEMENT](#) section of this chapter, by clicking the “+” button.

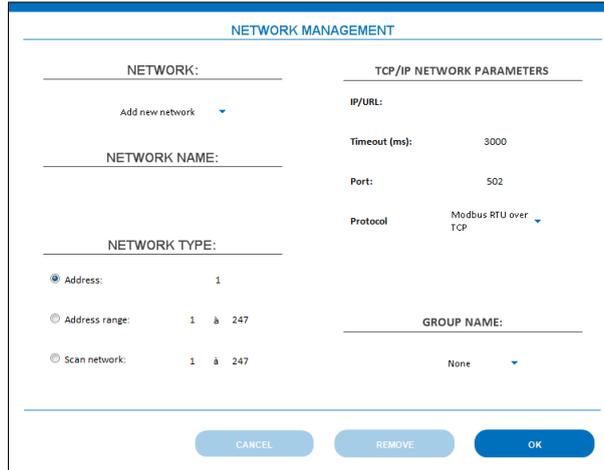
Clicking on the device will allow you to access and edit its configuration parameters, as shown in chapter [CONFIGURING DEVICES](#) of this manual.

If the device is not displayed, you can click the **Restart Search** button at the bottom of the screen to refresh the page.

If the connection screen shows too many devices, you can type the name of the device into the search field, located at the top right of the screen, to make the process easier.

### 4.3.1 TCP/IP NETWORK MANAGEMENT

To add a device to **QuickTune** via a TCP/IP connection, you must click the “+” button in the **figure above** and, as shown in the following figure, configure the parameters of the **Network Management** window:



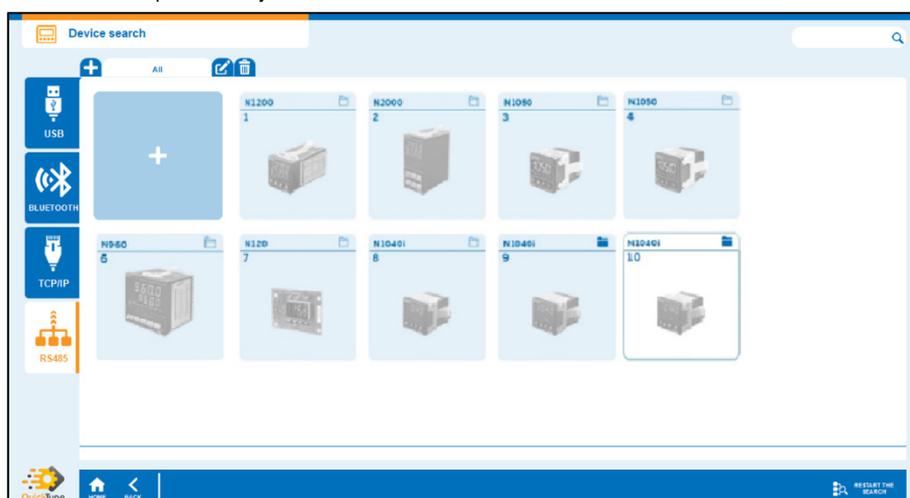
**Figure 6** TCP/IP Network management

- **NETWORK:** Selecting the **Add New Network** option allows you to set specific parameters for a new network. You can also change the configuration of a network already created by selecting it in this parameter.
- **NETWORK NAME:** It allows you to add a name of up to 20 characters to the network to be created.
- **NETWORK TYPE:** It allows you to define the type of network to be created.
  - **Address:** Option to be used when you know the address of the device you want to connect to. When creating a network with this option, the figure of a generic and gray device will appear on the connection screen. You must click on the figure to read it via TCP/IP and then perform the correct identification of the device configured.
  - **Address range:** Option to be used when you know the address range you want to connect to. When creating a network with this option, the figure of a generic and gray device will appear on the connection screen. You must click on the figure to read it via TCP/IP and then perform the correct identification of the device configured.
  - **Scan network:** Option to be used when you do not know the address of the devices you want to connect to. Scanning the network will allow you to perform a search from the selected addresses (from 1 to 247).
- **TCP/IP NETWORK PARAMETERS:** It allows you to set RS485 network parameters.
  - **IP/URL:** It allows you to enter the IP or URL to be used to make the connection.
  - **Timeout (ms):** It allows you to set the connection Timeout period: From 0 to 99999.
  - **Port:** It allows you to set the connection port.
  - **Protocol:** It allows you to define the protocol to be used during the connection: “Modbus TCP” or “Modbus RTU over TCP”.
- **GROUP NAME:** It allows you to add the network to any previously created group (For information on how to create a group, see the [GROUPS](#) section of this chapter).

Once the network has been configured, you must click the **Ok** button to finish the process. When opening the configuration of a connection already created, you can delete it by clicking on the **Remove** button.

## 4.4 RS485

As shown in the figure below, this tab displays not only the devices currently connected and communicating with the software via RS485, but also displays all devices that have at some point already communicated with **QuickTune**:



**Figure 7** RS485 connection

To add a new device via RS485, you must configure the RS485 connection, as shown in the [RS485 NETWORK MANAGEMENT](#) section of this chapter, by clicking the “+” button.

Clicking on the device will allow you to access and edit its configuration parameters, as shown in chapter [CONFIGURING DEVICES](#) of this manual.

If the device is not displayed, you can click the **Restart Search** button at the bottom of the screen to refresh the page.

If the connection screen shows too many devices, you can type the name of the device into the search field, located at the top right of the screen, to make the process easier.

#### 4.4.1 RS485 NETWORK MANAGEMENT

To add a device to **QuickTune** via an RS485 connection, you must click the “+” button in the **figure above** and, as shown in the following figure, configure the parameters of the Network Management window:

The screenshot shows a 'NETWORK MANAGEMENT' window with two main sections: 'NETWORK' and 'RS485 NETWORK PARAMETERS'.  
The 'NETWORK' section includes:  
- 'Add new network' dropdown menu.  
- 'NETWORK NAME:' text input field.  
- 'NETWORK TYPE:' section with three radio button options: 'Address' (selected), 'Address range: 1 to 247', and 'Scan network: 1 to 247'.  
The 'RS485 NETWORK PARAMETERS' section includes:  
- 'COM:' dropdown menu set to 'COM7'.  
- 'Bits by seconds:' dropdown menu set to '19200'.  
- 'Timeout (ms):' dropdown menu set to '3000'.  
- 'Parity:' dropdown menu set to 'Even'.  
- 'Stop bits:' dropdown menu set to '1'.  
- 'GROUP NAME:' dropdown menu set to 'None'.  
At the bottom are three buttons: 'CANCEL', 'REMOVE', and 'OK'.

Figure 8 RS485 network management

- **NETWORK:** Selecting the **Add New Network** option allows you to set specific parameters for a new network. You can also change the configuration of a network already created by selecting it in this parameter.
- **NETWORK NAME:** It allows you to add a name of up to 20 characters to the network to be created.
- **NETWORK TYPE:** It allows you to define the type of network to be created.
  - **Address:** Option to be used when you know the address of the device you want to connect to. When creating a network with this option, the figure of a generic and gray device will appear on the connection screen. You must click on the figure to read it via RS485 and then perform the correct identification of the device configured.
  - **Address range:** Option to be used when you know the address range you want to connect to. When creating a network with this option, the figure of a generic and gray device will appear on the connection screen. You must click on the figure to read it via RS485 and then perform the correct identification of the device configured.
  - **Scan network:** Option to be used when you do not know the address of the devices you want to connect to. Scanning the network will allow you to perform a search from the selected addresses (from 1 to 247).
- **RS485 NETWORK PARAMETERS:** It allows you to set RS485 network parameters.
  - **COM Port:** It allows you to select the COM port to make the connection.
  - **Bits per second:** It allows you to define the Bits per second to be used to make the connection: 9600 or 19200.
  - **Timeout (ms):** It allows you to set the connection Timeout period: From 0 to 99999.
  - **Parity:** It allows you to set the connection parity: Even or Odd.
  - **Stop bits:** It allows you to set the connection Stop Bits: In this case, only 1.
- **GROUP NAME:** It allows you to add the network to any previously created group (For information on how to create a group, see the [GROUPS](#) section of this chapter).

Once the network has been configured, you must click the **Ok** button to finish the process. When opening the configuration of a connection already created, you can delete it by clicking on the **Remove** button.

## 4.5 GROUPS

You can create a group to bring devices together in a more organized way and make searching and viewing easier. **QuickTune** allows you to create up to 7 groups, including the “All” group, which is the software default and contains a list with all devices already connected.

RS485 and TCP/IP groups are shared, but each device will only appear in the section related to its connection medium. Devices connected via RS485 and inserted in Group 1, for example, will only appear in the Group 1 tab of the RS485 tab. The same will happen with devices connected via TCP/IP. Editing the name or deleting a group, however, will be valid for both **QuickTune** tabs.

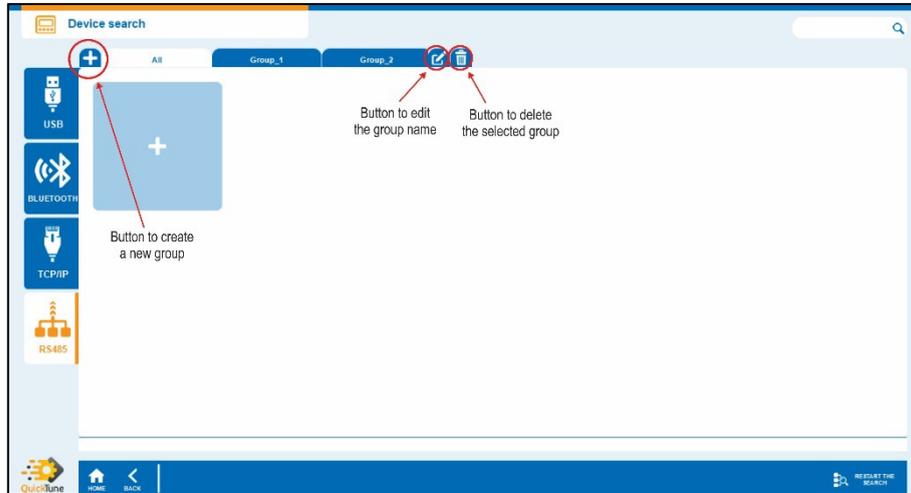


Figure 9 Creating a group

Once the group has been created, there are two ways to add a device to it:

- 1 Click the “+” button and add the device, making the connection through the **Network Management** window (For more information, see [RS485](#) and [TCP/IP](#) sections of this chapter).
- 2 On the “All” connection screen, right click on the connected device and add it to the desired group. This action will only work if a group has already been created.

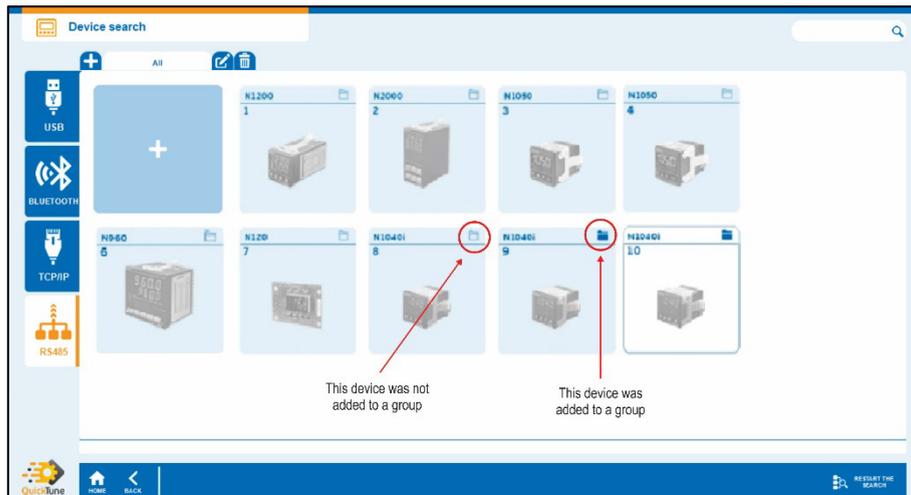


Figure 10 Adding a device to a group

## 5. CONFIGURING DEVICES

The **Create Configuration** button on the **QuickTune** home screen allows you to create a setup for the selected device. To perform this procedure, it is not necessary that the device is connected to the computer and software. A configuration created through this section can be saved for later use.

As shown in the figure below, this tab presents a list with all **NOVUS** controllers and indicators and, once any of them is selected, you can confirm the model for which you want to create the configuration and observe information such as description and version of the descriptor:

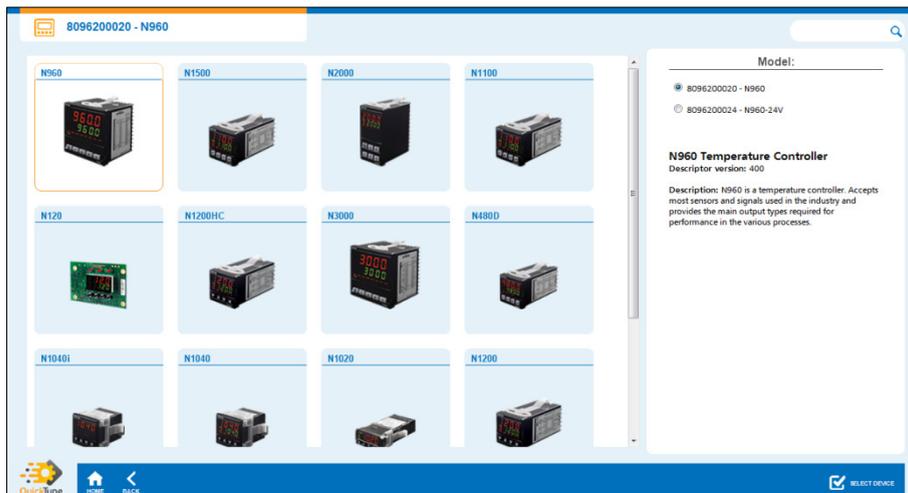


Figure 11 Creating a configuration

If the selected device is a **modular controller**, which allows you to include modules, you can add different modules to the configuration. When you click on the **Select Device** option, the software will display the following message: "The device chosen allows the connection of external modules. Do you want to include any external modules for this new configuration?". If you select the **Yes** option, you can define the modules to be used, as shown in the figure below:

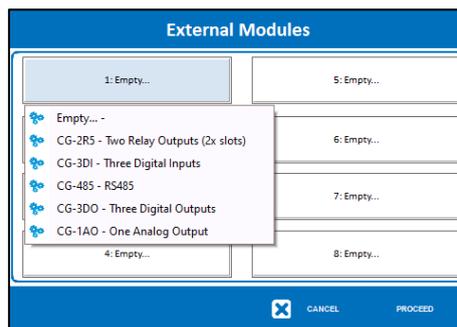


Figure 12 Selecting a module

If the selected module uses more than one slot (as, for example, for the **CG-2R5** module in the figure above), the software will automatically fill the required space by displaying the message "Reserved" in the relevant occupied slot. You can add modules up to the limit that the device can support. Once you have selected the device and, in the case of modular controller models, added the desired modules, **QuickTune** will present the basic configuration screen, as shown below:

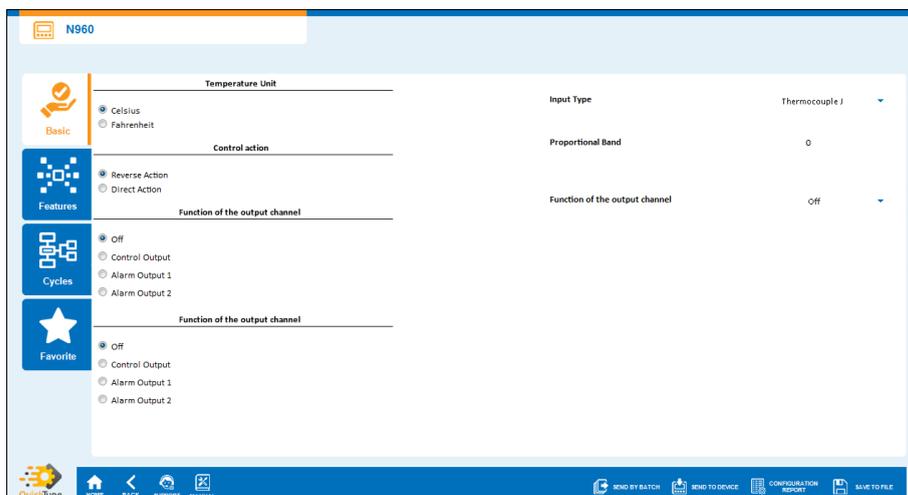


Figure 13 Configuration screen

The specific parameters of each tab change depending on the differences in configuration between each device, but the **Basic**, **Features**, **Cycles** and **Favorite** tabs, located on the left side of the software, will always be the same. The same applies for the lower menu, with the **Home**, **Back**, **Support**, **Manual**, **Send by Batch**, **Convert Model**, **Send to Device**, **Configuration Report**, **Save to File**, and **Firmware Update** buttons. Its functions will be further explained within this chapter and will be presented according to the selected tab.

If the selected device is a modular controller, there is no **Convert Model** option.

## 5.1 “BASIC” TAB

The initial tab of this section, shown in the figure above, contains, as its name implies, basic and essential information for using the device, such as input type, control action, temperature unit, and input and output channel functions.

You can download the device manual by clicking the **Manual** button, located on the **QuickTune** bottom menu, to understand the specific operation of each parameter to be configured.

## 5.2 “FEATURES” TAB

This tab brings the configurable features of the device, divided into a menu composed of the sections **Signal Input**, **Control**, **Protection**, **Tuning**, **Alarms**, **RS Programs** and **Serial Communication**. It is possible, however, that some device does not have protection parameters, for example. In this case, the **Protection** tab will remain missing.

You can download the device manual by clicking the **Manual** button, located on the **QuickTune** bottom menu, to understand the specific operation of each parameter to be configured.

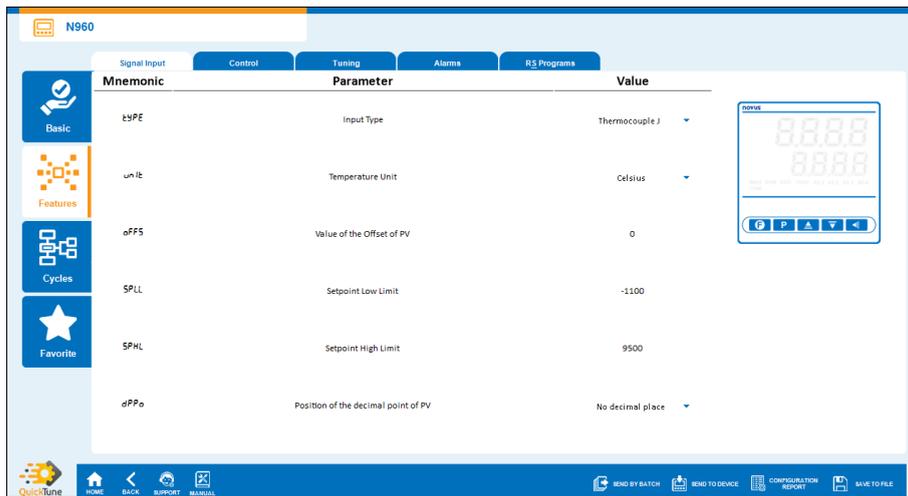


Figure 14 “Features” tab

This tab also features a dynamic figure to the right of the screen to reproduce the physical screen of the device and which will display the mnemonic and the selected value whenever a parameter is set, as shown in the figure below. In this figure, the **Input Type** parameter was configured with the **Thermocouple K**:

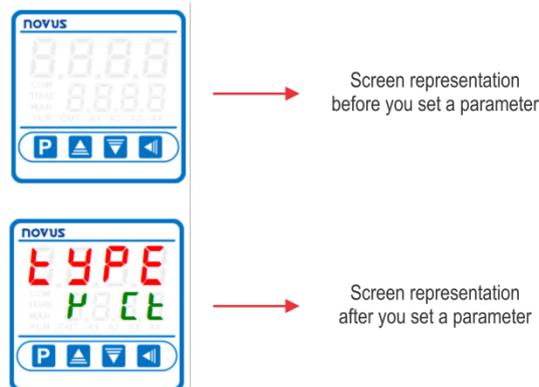


Figure 15 Mnemonics

The colors, design and font of the mnemonics used in the screen representation may vary according to the device selected. **Figure 12**, for example, refers to the **N1200** device.

## 5.2.1 PROGRAMS

Also in this section, the **Programs** tab has a tool to configure the programs of Ramps and Soaks. To access it, just click the **RAS Tool** button, as shown below:

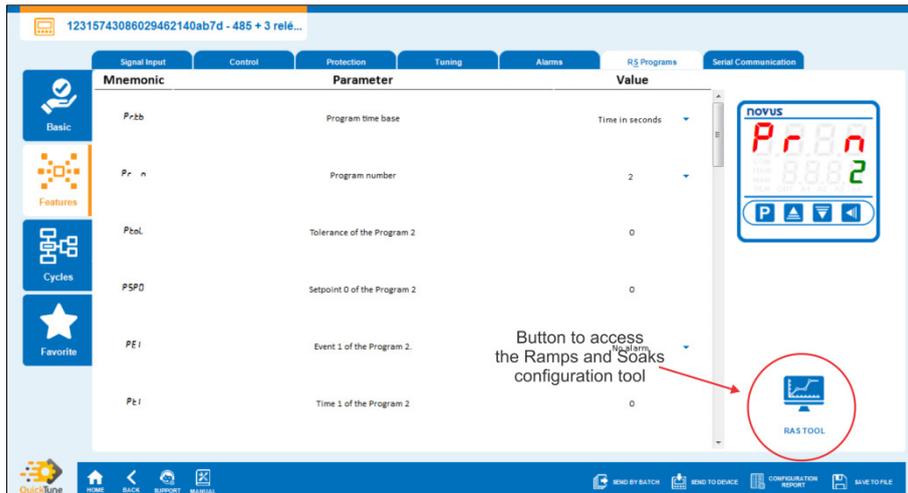


Figure 16 Ramps and Soaks Tool Button

By clicking this button you will be redirected to the screen of the figure below. In this screen you can configure each parameter of each program, always limited to the number of programs allowed by the device, as shown in the upper tabs of **QuickTUNE**. The **N1200**, for example, allows the configuration of up to 7 programs, called **P1** to **P7**.

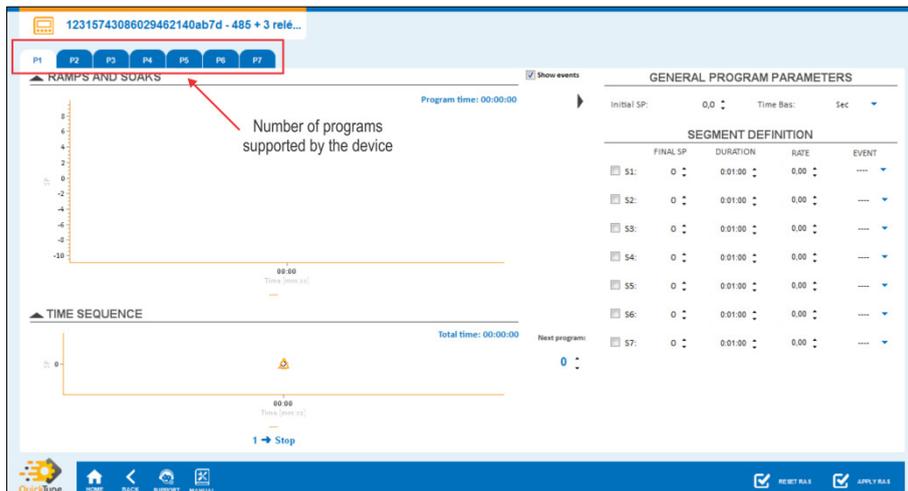


Figure 17 Programs supported by the device

To configure a program, as shown in the figure below, you must configure the general parameters of the program and the specific parameters of each segment:



Figure 18 Program example

The figure above shows an example of programming Program 1 (P1) of Ramps and Soaks. The selected device allows 7 segments per program (only 3 were enabled). In the **General Program Parameters** section, the initial Setpoint of this program was set to a value equal to 0.5 and the time base was set to seconds.

The segments of ramps and soaks are defined by the corresponding Setpoint values. Segment 1, for example, is defined by the initial Setpoint of the program, and the value is defined by the final Setpoint of segment 1 (Final Setpoint 1). Segment 2 (S2) is defined by the Final SP 1 and the value is defined by the Final SP 2. This occurs successively until the last segment, which is defined by Final SP 6 and Final SP 7.

The start of each segment depends on the end of the previous segment.

You must select the **Show Events** option, located at the top of the “Ramps and Soaks” chart, to check and define the events associated with each segment of Ramps and Soaks.

The “Sequence in Time” chat shows a complete view of all the programs linked to form the control loop. This chart presents information such as the total time, events, sequence of programs and other details that allow you to analyze the complete cycle.

You can set the connection of this program (in this case P1) with the following (in this case P3) to the right of this chart. Connections between programs do not have to follow any rules and you can define them any way you like. You can connect P1 with P3, as in this example, but you could also connect with any other program, as with P7 or even P1 (loop). If you set the program to 0, this program will not follow any other.

Both charts can be manipulated with the mouse cursor. Positioning the mouse cursor on the lines of the chart will also allow you to view specific information about the desired point, as shown in the figure below:

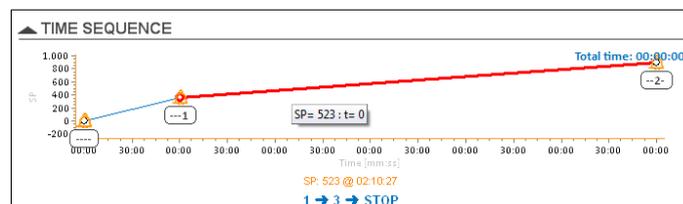


Figure 19 Positioning the mouse cursor

After creating the setting, you can click the **Apply RAS** button, located at the bottom of the screen, to save and finish the procedure. Once you have done this, you will be redirected back to the program screen in the “Resources” tab, as shown in **Figure 15**.

If you need to restart the process, clicking on the **Reset RAS** button, also located at the bottom of the screen, allows you to delete the settings made so far.

### 5.3 “CYCLES” TAB

This tab brings the configurable cycles of the device, divided into a menu composed of sections **Operation**, **Tuning**, **RS Programs**, **Alarms**, **Scale**, **Inputs and Outputs** and **Calibration**. It is possible, however, that some device does not have the tuning cycle, for example. In this case, the **Tuning Cycle** tab will remain missing.

If you have selected a modular controller, this is where the tabs for the selected modules will be displayed.

You can download the device manual by clicking the **Manual** button, located on the **QuickTune** bottom menu, to understand the specific operation of each parameter to be configured.

This is the tab for a standard controller:

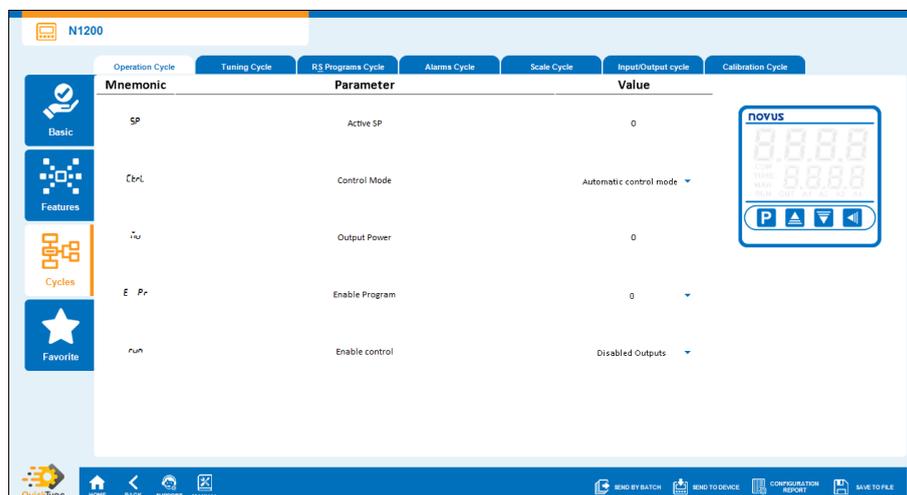


Figure 20 Cycles of a standard controller

This is the tab for a modular controller:

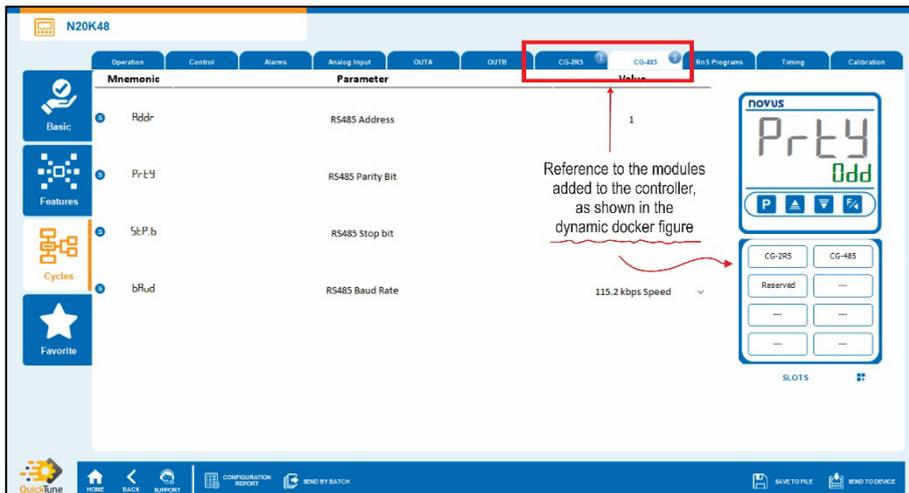


Figure 21 Cycles of a modular controller

The operation of this tab is very similar to the “Resources” tab. It also has a dynamic figure, located on the right, to reproduce the physical screen of the device. This screen will show the mnemonic and the selected value whenever a parameter is set, as shown in **Figure 14**. As shown above, if the selected device is a modular controller, the dynamic screen will also show the selected modules:

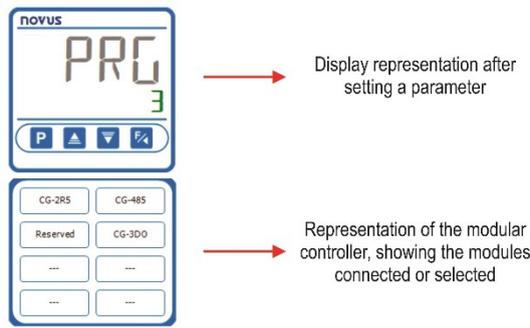


Figure 22 Dynamic display of the modular controller

In this case, clicking the **Edit** button will allow you to edit the previously selected modules. When replacing or releasing a module slot, **QuickTune** will display the following message:

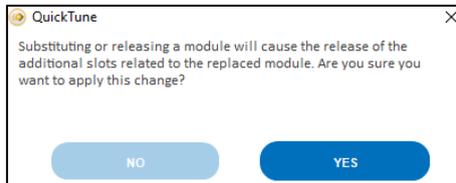


Figure 23 Changing modules

The colors, design and font of the mnemonics used in the screen representation vary according to the device selected.

As with the Programs screen in the “Features” tab, the Program Cycle screen in the “Cycles” tab has a specific tool for configuring the Ramps and Soaks programs. The operation of both is identical (see section [“FEATURES” TAB](#) of this chapter). To access it, just click the **RAS TOOL** button, as shown below:

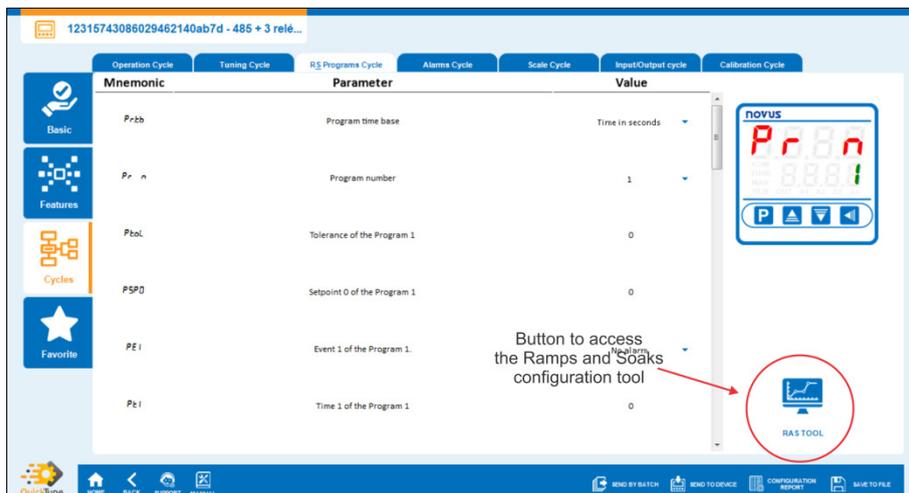


Figure 24 Button for the Ramps and Soaks tool

## 5.4 “FAVORITE” TAB

This section allows you to create a set of favorite settings for the device. If the read device has a previously saved favorite setting, instead of the “Basic” tab, this will be the first tab to be displayed. If no settings have been created so far, **QuickTune** will display the following screen:

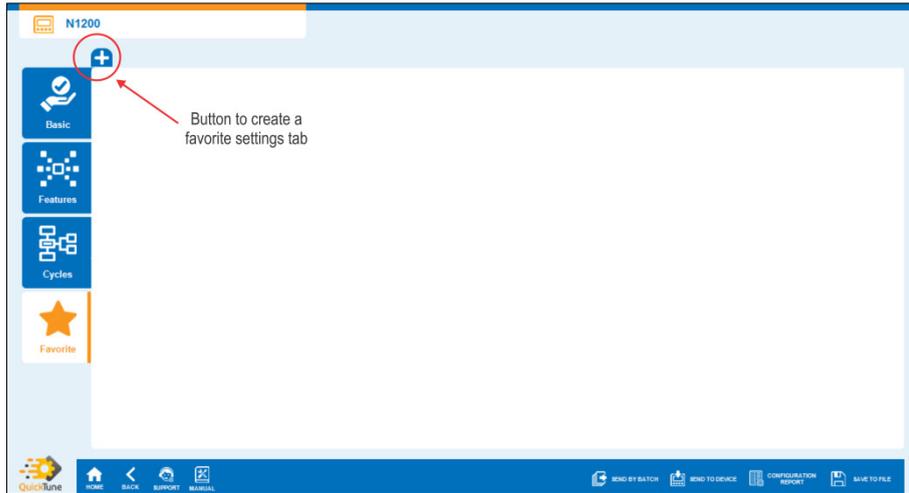


Figure 25 Favorites

As shown in the figure above, clicking the “+” button allows you to create a new set of favorite settings. **QuickTune** allows you to create up to 7 favorites. You can define a specific name for this selection, check the desired parameters and, if necessary, change the order of importance between them, as shown in the figure below:

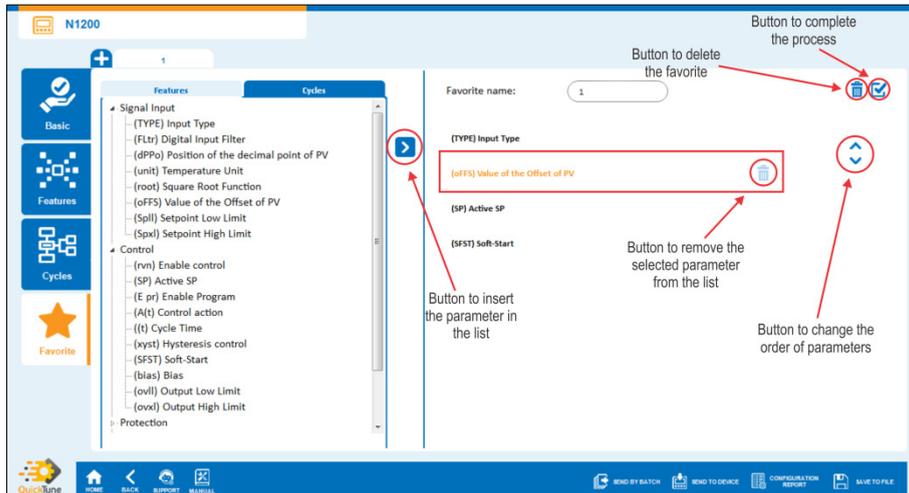


Figure 26 Favorite screen buttons

You can set the display mode of the parameter list by selecting the option “Features” or the option “Cycles”:

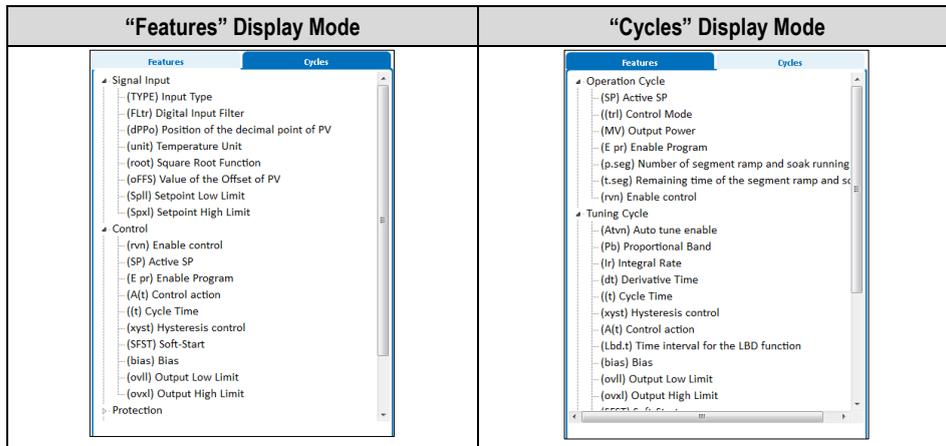
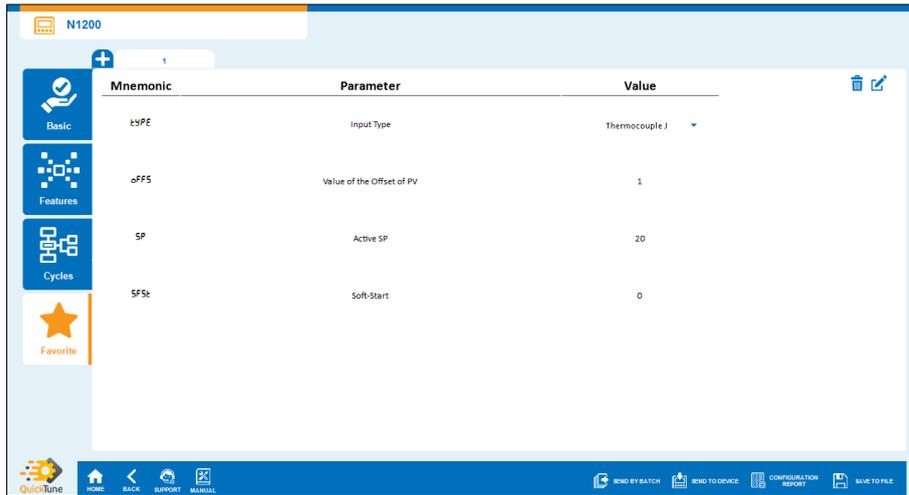


Figure 27 Parameters display modes

Once you have finished selecting your favorite parameters, you must click the  button, as shown in **Figure 26**, to complete the procedure. **QuickTune** will then display the information as follows:



**Figure 28** Favorite created

Set the desired parameters and select any of the options from the bottom menu (**Export Favorite** or **Send to Device**, for example, as shown in the [BOTTOM MENU](#) section of this chapter) to proceed.

To return to the editing part of this favorite or delete it, you must click on the buttons marked in the figure above.

## 5.5 BOTTOM MENU

This section has a set of buttons, located at the bottom of the screen, as shown below:



**Figure 29** Menu buttons

### 5.5.1 HOME

This button allows you to return to the **QuickTune** home screen. When switching screens, you will be asked whether to save the configuration to file or send the configuration to the connected device.

### 5.5.2 BACK

This button allows you to return to the previous **QuickTune** screen. When switching screens, you will be asked whether to save the configuration to file or send the configuration to the connected device.

### 5.5.3 SUPPORT

This button allows you to contact Technical Support. When you click on it, you are immediately redirected to the **NOVUS** Technical Support web page, using your computers standard web browser. There, you can open a ticket for service, view video tutorials, and consult the FAQ, among other options.

### 5.5.4 MANUAL

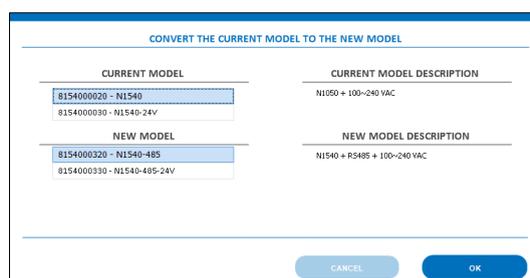
This button allows **QuickTune** to redirect you to the online page of the product manual, available on the **NOVUS** website and displayed in your favorite browser. On this page you can view the PDF version of the manual.

This option requires an Internet connection.

### 5.5.5 CONVERT MODEL

This button allows you to convert the model from an older version to a more current version, keeping the same values for the configured registers and, if the current firmware version presents new registers, keeping the new registers with the default configuration.

This function is especially useful when you have a configuration file of an old firmware version and you want to update a device with the current firmware.



**Figure 30** Convert model

### 5.5.6 SEND BY BATCH

This button allows you to send a batch configuration, that is, to several devices through the selected COM port, as shown below:

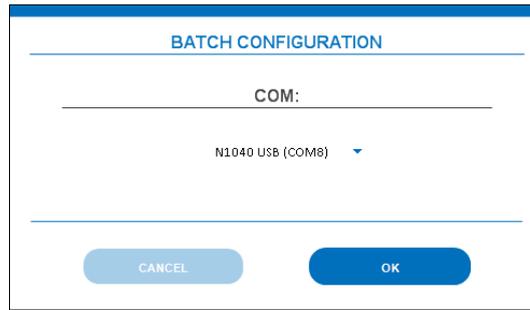


Figure 31 Batch configuration

For devices with RS485 interface, **QuickTune** also features the **Send Options** parameter, which will allow you to set the send mode:

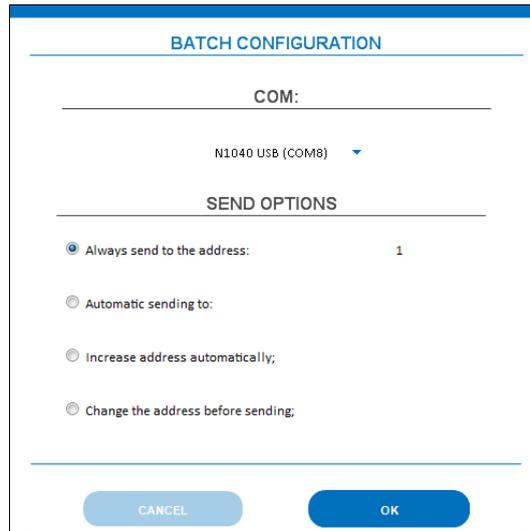


Figure 32 Send options

Options of this parameter:

- **Always send to the address:** It allows you to send a batch configuration to the address configured in this parameter.
- **Automatic sending to:** It allows you to add more than one address to send a batch configuration. The devices will follow the order specified in this parameter and must be separated by a semicolon. Example: 1;2;3-7;
- **Increase address automatically:** It allows the Modbus address to be recorded sequentially: 1, 2, 3, 4, 5,...
- **Change the address before sending:** Allows you to enter the address to be recorded for each process.

### 5.5.7 SEND TO DEVICE

This button allows you to send the settings made to the connected device.

### 5.5.8 SAVE TO FILE

This button allows you to save the created configuration in a file with extension \*.qtc in the indicated place. Later, this file can be opened via the **Open Configuration** button located on the home screen (see chapter [OPEN CONFIGURATION](#)) or by two clicks on the file itself.

### 5.5.9 EXPORT FAVORITE

This button, available only on the **Favorite** tab, will open a Windows window that allows you to export your favorite setting in \*.qtf file format, except in a location to be determined.

### 5.5.10 CONFIGURATION REPORT

This button allows you to generate a configuration report with the values of all the device parameters, as shown below:

Mnemonic	Parameter	Value
ESPE	Input Type	Thermocouple J
dPPa	Position of the decimal point of PV	No decimal place
unTb	Temperature Unit	Celsius
SPiL	Setpoint Low Limit	-110
SPiH	Setpoint High Limit	550
SP	Active SP	0
REc	Control action	Reverse Action
Rbun	Auto tune enable	Tuning off
Pb	Proportional Band	0
HSSc	Hysteresis control	0
SPSt	Soft-start	0
oub1	Function of the output channel	OFF
oub2	Function of the output channel	OFF
oub3	Function of the output channel	OFF
oub4	Function of the output channel	OFF
REw	Percentage output value that will be transfer to MV when the SAFE output function is enabled.	0
Lndt	Time interval for the L&D function	0
FuR1	Alarm 1 Functions	Alarm off
FuR2	Alarm function 2	Alarm off
blR1	Initial Blocking of Alarm	0
blR2	Initial Blocking of Alarm	0
Fibr	Digital Input Filter	5
oPFS	Value of the Offset of PV	0
Addr	Slave Address	1
bAud	Communication Baud Rate	Speed of 115200 bps
Prb	Parity of the serial connection	Without parity
Prsk	Protection Level by password	1
rStr	Restore	0

Figure 33 Report

In order to facilitate later identification, this document features a footer with fields for device name, firmware version and file creation date. It can be printed and/or saved with a \*.pdf extension.

### 5.5.11 UPDATE FIRMWARE

This button, available only when the device is connected, allows you to update the firmware of the connected device, as shown below:

**Standard Controller**

FIRMWARE UPDATE

DEVICE INFORMATION

Name: N1040 Temperature Controller  
Firmware Version: 200  
Model: N1040

AVAILABLE FIRMWARES

N1040\_V210.hex  
N1040\_V211.hex  
N1040\_V212.hex  
N1040\_V213.hex  
N1040X-RR\_V200\_BL.hex  
N1040X-RR\_V201\_BL.hex  
N1040x2\_V210.hex  
N1040\_V200.hex  
N1040\_V214.hex

C:\Program Files (x86)\QuickTune\firmwares\

CHANGE DIRECTORY

CANCEL    APPLY FIRMWARE

**Modular Controller**

FIRMWARE UPDATE

DEVICE INFORMATION

Name: Modular Controller - N20K48  
Firmware Version: 100  
Model: N20K48

LIST OF CONNECTED DEVICES

N20K48 - Firmware version: 100  
CG-8S (Slot 1) - Firmware version: 100  
CG-3D0 (Slot 2) - Firmware version: 100  
CG-3R5 (Slot 3) - Firmware version: 100  
CG-3D0 (Slot 5) - Firmware version: 100  
CG-3D0 (Slot 6) - Firmware version: 100  
CG-3D1 (Slot 7) - Firmware version: 100  
CG-3D1 (Slot 8) - Firmware version: 100

C:\Program Files (x86)\QuickTune\firmwares\

CHANGE DIRECTORY

CANCEL    APPLY FIRMWARE

In this case, select the firmware to be used from the list of available firmware.

In this case, select the device you want to update: Modular controller or one of the connected modules. Once this is done, follow the update process as described below.

Figure 34 Firmware update

To update the firmware of the selected device, you must select the desired firmware from the list of available firmware and click the **Apply Firmware** button. QuickTune will then display the following message, requiring confirmation:

During the firmware update process, there cannot be any interruptions. In case of energy shortage, disconnection of the USB cable or software interruptions during this process, there is a high probability that the device will stop working properly. In that case, the device will need to be sent to the technical support at your local supplier. Confirm firmware update?

NO    YES

Figure 35 Update confirmation

It is important that no interruptions occur during the firmware update process. Otherwise, the device may present problems. **QuickTune** will display a progress bar, which allows you to track the progress of the process while the firmware is being upgraded:

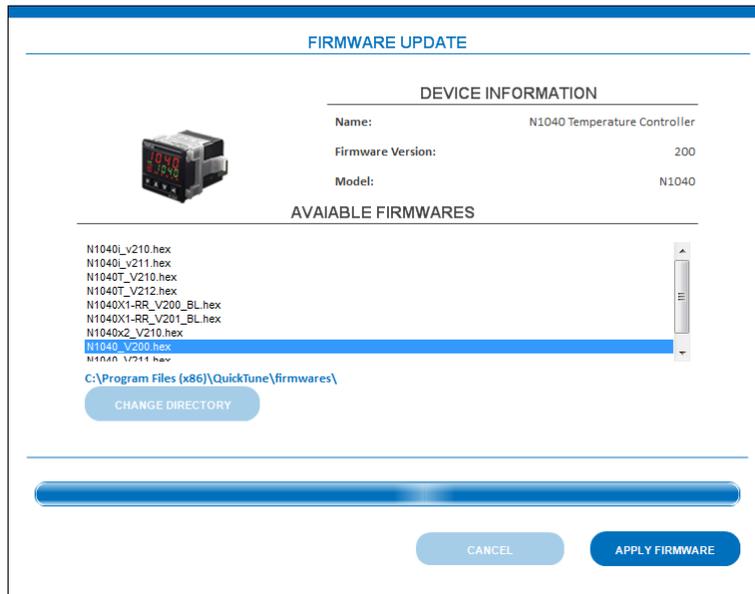


Figure 36 Progress

If the process is completed successfully, **QuickTune** will display a success message and complete the procedure.

## 6. DEVICES DIAGNOSTICS

The **Diagnostic** button allows you to perform an analysis of the device settings and processes. Before starting the diagnosis, however, you must select the device from the connection screen, as shown below:

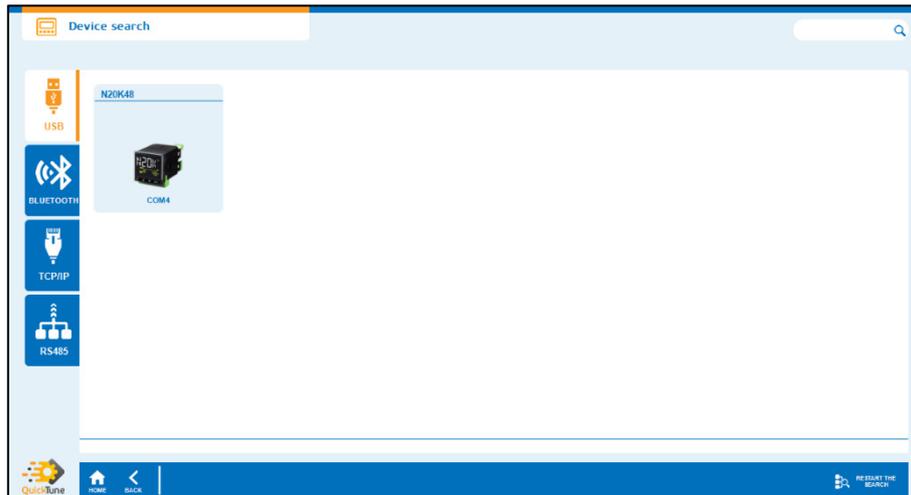


Figure 37 Device selection

You can select a device connected either via USB or a device connected via the RS485 interface or a TCP/IP connection (For more information on connecting devices via the last two options, see the [RS485](#) and [TCP/IP](#) sections of the [READING DEVICES](#) chapter). If the device is not displayed on the connection screen, you can click the **Restart the Search** button to restart the process.

Once the device (in this example, the **N20K48**, connected via the USB interface) has been successfully selected, **QuickTune** will display a loading screen and then display a screen like the one below:

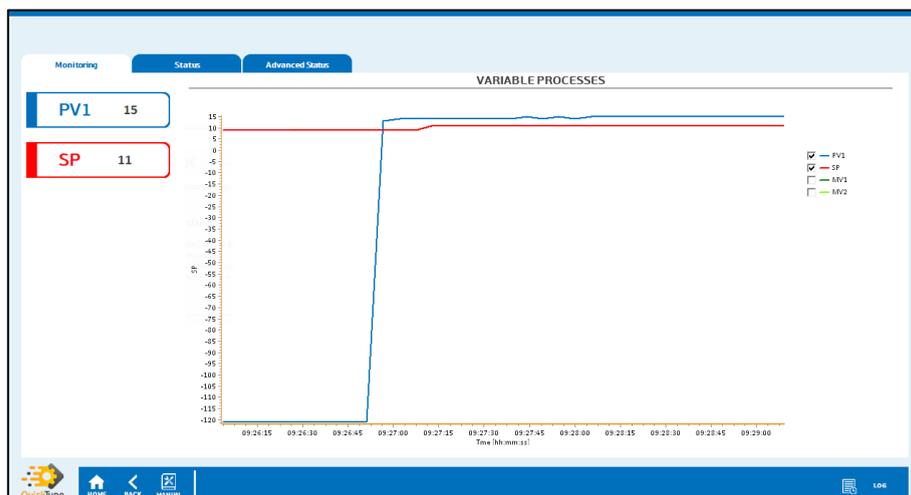


Figure 38 Monitoring tab

The chart above, available in the “Monitoring” tab, can be handled with a mouse aid, which makes it possible to zoom in on specific locations, and has check boxes that allow you to enable or disable the visualization of information on PV, SP, MV, and MV2.

The **Home**, **Back**, and **Manual** buttons, located on the bottom menu, have been properly explained in the [BOTTOM MENU](#) section of the [CONFIGURING DEVICES](#) chapter.

## 6.1 “STATUS” TAB

Non-configurable, this tab is divided into sections that provide information about status, alarms, inputs, outputs, etc. Gray indicators mean that the parameter is disabled. Green indicators, on the other hand, mean that the parameter is enabled.

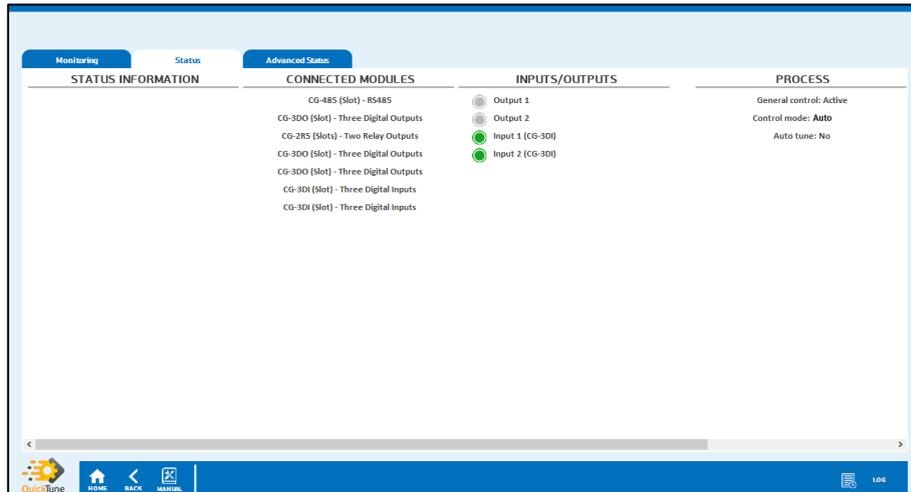


Figure 39 Status tab

## 6.2 “ADVANCED STATUS” TAB

Non-configurable, this tab is divided into sections that provide more advanced information about the device status. Gray indicators mean that the parameter is disabled. Green indicators, on the other hand, mean that the parameter is enabled.

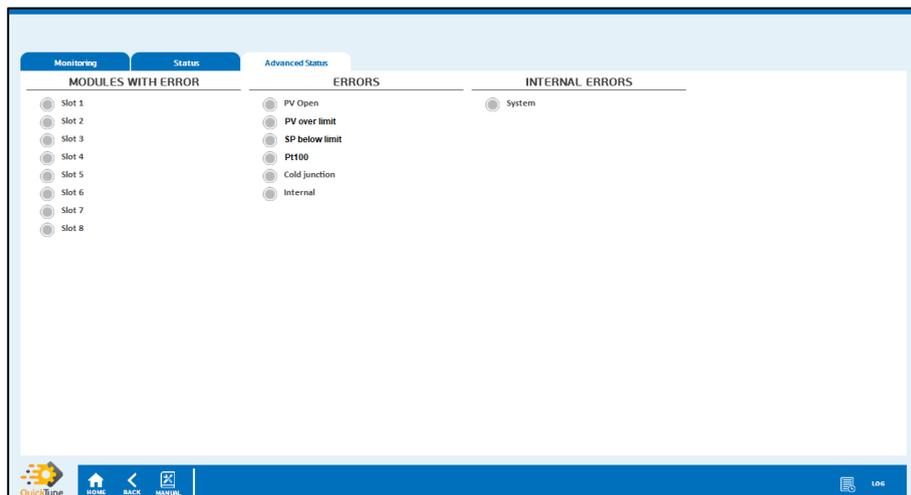


Figure 40 Advanced Status tab

## 6.3 LOG

Clicking the **Log** button allows you to view the device logs in real time, as shown below:

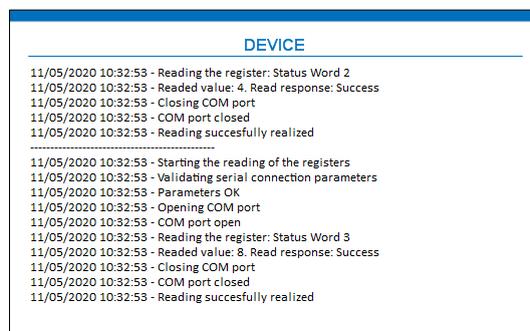
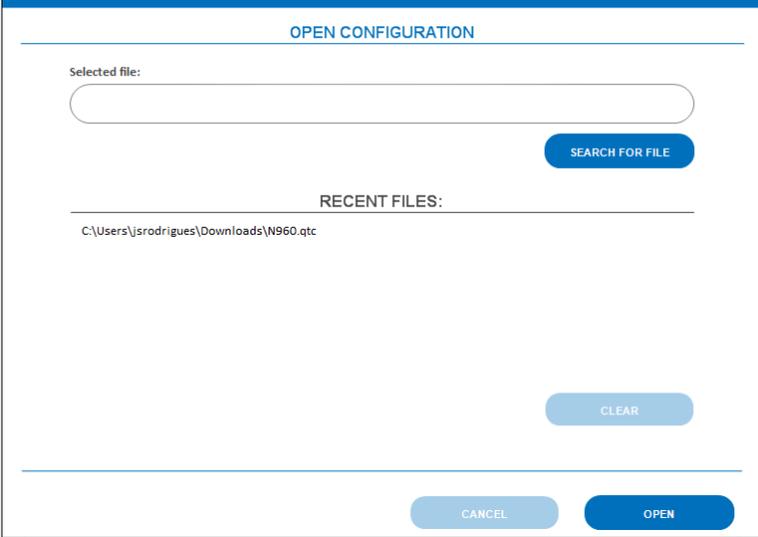


Figure 41 Logs

This is a window with dynamic information that will be updated as the process occurs.

## 7. OPEN CONFIGURATION

The **Open Configuration** button on the **QuickTune** home screen takes you to the window shown in the figure below and allows you to open a previously created setup file, saved on a drive or a network location:



The screenshot shows a dialog box titled "OPEN CONFIGURATION". At the top, there is a label "Selected file:" followed by an empty text input field. To the right of the input field is a blue button labeled "SEARCH FOR FILE". Below this is a section titled "RECENT FILES:" which contains a list with one entry: "C:\Users\jrodrigues\Downloads\W960.qtc". To the right of the list is a light blue button labeled "CLEAR". At the bottom of the dialog, there are two buttons: "CANCEL" (light blue) and "OPEN" (dark blue).

Figure 42 Open configuration

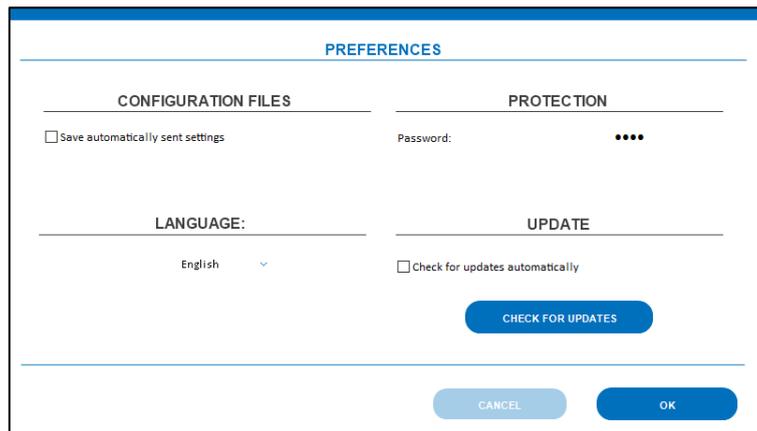
To select a specific file, created through the **Create Configuration** section (see chapter [CONFIGURING DEVICES](#)), simply click the **Search for File** button. You must select the file in the Windows window that will appear and click the **Open** button to view it.

To select a recent file, you must select it with two mouse clicks in the **Recent Files** section. You can also clear the list of recent files by clicking on the **Clear** button.

After you select the file to edit, **QuickTune** will redirect you to a configuration screen. Details can be better viewed in the [CONFIGURING DEVICES](#) chapter.

## 8. PREFERENCES

This screen allows you to configure software usage preferences for the **Configuration Files**, **Language**, **Protection**, and **Update** sections, as shown below:



The screenshot shows a 'PREFERENCES' screen with four sections: 'CONFIGURATION FILES' with a checkbox for 'Save automatically sent settings'; 'PROTECTION' with a 'Password:' field containing four dots; 'LANGUAGE:' with a dropdown menu set to 'English'; and 'UPDATE' with a checkbox for 'Check for updates automatically'. At the bottom, there are three buttons: 'CHECK FOR UPDATES', 'CANCEL', and 'OK'.

Figure 43 Preferences screen

### 8.1 CONFIGURATION FILES

- **Save automatically sent settings:** While you are configuring a device in the **Read Device** section, **QuickTune** will save the changes whenever you switch screens.

### 8.2 LANGUAGE

- This option allows you to select the software display language: Portuguese, English, Spanish, or French.

### 8.3 PROTECTION

- **Password:** This parameter allows you to set a numeric password of up to eight digits. If it is the same as the connected device, this will allow automatic communication between the device and **QuickTune**. In addition, you will not need to enter the device protection password whenever you change the setting.

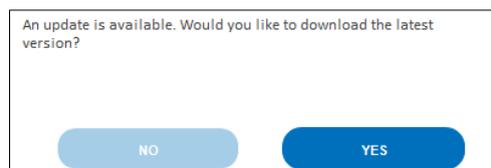
If this parameter remains blank or you have entered an incorrect password, **QuickTune** will request the device password during any attempt to change the configuration.

### 8.4 UPDATE

- **Check for updates automatically:** If checked, this option allows the software to automatically check for updates. Otherwise, you can click the **Check for Updates** button to perform a manual search at the time you judge most appropriate.

This functionality requires active Internet connection.

Regardless of which option you choose (**Check for updates automatically** or **Check for Updates** button), **QuickTune** will display a pop-up, informing you that there is a new update:



The screenshot shows a pop-up dialog box with the text: 'An update is available. Would you like to download the latest version?'. Below the text are two buttons: 'NO' and 'YES'.

Figure 44 Update

Clicking the **Yes** button will automatically download the new version, which must be installed manually. Clicking the **No** button will close the pop-up, allowing you to return to **QuickTune** navigation.

If the software is already up-to-date or there is no Internet connection, **QuickTune** will display a warning pop-up.