

## Content

<b>1. Hardware and Software requirements</b>	<b>4</b>
1.1 Hardware requirements	4
1.2 Software requirements	4
<b>2. Fundamental concepts</b>	<b>4</b>
2.1 Workstation	5
2.2 The general controls	7
<b>3. Device configuration</b>	<b>8</b>
3.1 Automation Function	9
3.1.1 Configuring a device with unknown address	9
3.1.2 Configuring a device with known address	10
3.1.3 Configuring a device with known ID	11
3.1.4 When the device being configured is a detector	14
3.2 Temperature control Function	15
3.2.1 Configuring a device with unknown address	15
3.2.2 Configuring a device with known address	16
<b>4. System diagnostics</b>	<b>18</b>
4.1 Automation Function	19
4.1.1 When the device address is unknown	19
4.1.2 When the device address is known	20
4.1.3 When the device ID is known	21
4.2 Temperature control Function	23
4.2.1 When the device address is unknown	23
4.2.2 When the device address is known	24
<b>5. System scanning</b>	<b>26</b>
5.1 Automation Function	27
5.2 Temperature control Function	29
<b>6. Device testing</b>	<b>31</b>
<b>7. Project summary</b>	<b>32</b>
<b>8. Configuration summary</b>	<b>33</b>
<b>9. Export to CSV file</b>	<b>33</b>

## 1. Hardware and Software requirements

### 1.1 Hardware requirements

- Personal Computer with Pentium III processor
- Minimum RAM memory 1GB, recommended 2GB
- Resolution 1024 x 768
- 32 bit Color
- CD-ROM reader
- Mouse

### 1.2 Software requirements

- Windows XP Service Pack 2 or higher
- Microsoft.NET Framework 3.5 Service Pack 1

## 2. Fundamental concepts



**NOTE:** in case of Lighting Management, only the automation function is managed.

The main functions of Virtual Configurator are:

- downloading the project to the system
- if used in local mode, perform a system scan, once this has been configured for subsequent system maintenance.


The software can be used to manage the Automation and Temperature control functions.

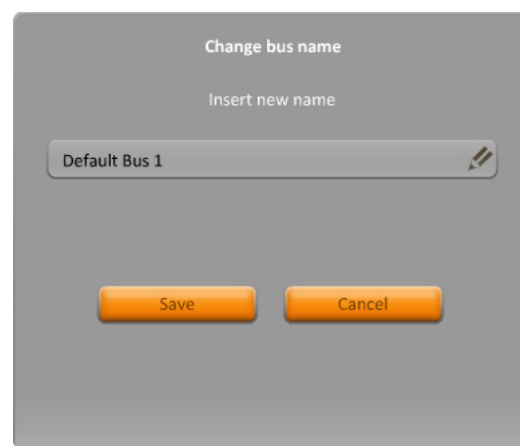
## 2.1 Workstation

Virtual Configurator has a simple and intuitive interface, consisting of three areas:

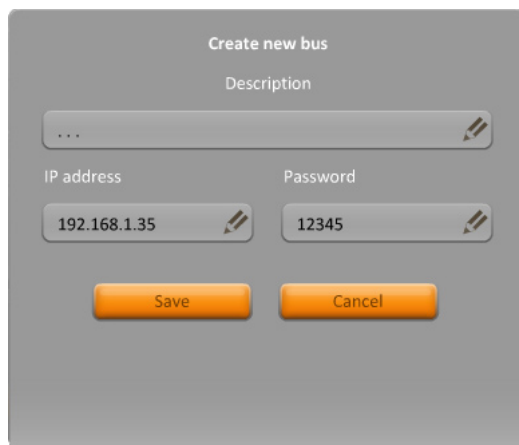


1. The control bar, including the general program controls and the connection status indicator
2. The left area, where the navigation controls can be found
3. The main area, with the specific controls and information for the function selected

When the program is started, the window shows the **Settings** menu as active. At this stage network connection has not yet been established (the connection status icon  is red), and only navigation, **Project Summary**, and **Export CSV** file are enabled



Click Modify description to open the **Change bus name** window, where you can enter a new name for the bus.



The 'Create new bus' dialog box has a title bar 'Create new bus'. Below it is a 'Description' label and a text input field containing '...'. Below this are two columns: 'IP address' with a text input field containing '192.168.1.35', and 'Password' with a text input field containing '12345'. At the bottom are two orange buttons: 'Save' and 'Cancel'.

Click Add bus to open the **Create new bus** window, from which it will be possible to change the bus description, the IP address, and the password.



The 'Research result' dialog box has a title bar 'Research result'. It displays a table of device information:

Device description	BMNE500
User description	BMNE500 device
IP address	10.39.13.238
MAC address:	00-03-50-00-1D-08

Below the table, it says 'It is necessary to insert a password' followed by a text input field containing '11111'. At the bottom, there is a pagination indicator '( 1/12 )' and two orange buttons: 'Use the device' and 'Cancel'.

Click Research on system to open the **Research result** window, where it will be possible to display the devices currently on the system.

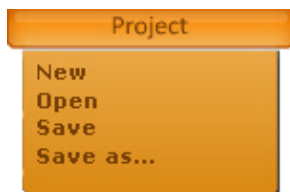


**NOTE:** in order to use this function, it will be necessary to activate the UPnP services that can be installed from the Windows control panel

Lastly, clicking **Save software data** will save the IP address, password, and language settings, and will also activate the connection to the system, giving access to all software functions.

## 2.2 The general controls

The control bar provides the following functions:



- **New** - create a new project
- **Open** - open an existing project
- **Save** - save the current project
- **Save as** - save the current project asking for a file name



Save the current project



This menu can be used to customise the base software settings; to confirm any changes made, press **Save software data** before exiting the menu. The Settings menu is active even if the system is not connected to the Web Server, in order to allow the IP Address and the connection password to be changed



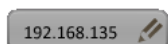
Activate the connection to the system

### Change language



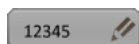
The **Change language** window menu can be used for selecting the language to be used when communicating with the software

### IP address



The program has already been set at the factory with the base BTicino Web Server IP Address 192.168.135; if the BTicino Web Server IP address has been changed, the new number must be known and entered in this field in order to establish connection

### Password



The program has already been set at the factory with the base BTicino Web Server password 12345; If the password has been changed, the new password must be known and entered in this field in order to establish connection

### 3. Device configuration

Configuration is possible on systems on which devices accepting advanced configuration are installed.

The software can be used to configure both devices already configured virtually, and devices which address is not known.

The screenshot shows the 'Virtual Configurator' application window. The top bar contains buttons for 'Project', 'Save', 'Settings', and 'Disconnect'. The left sidebar has a 'SYSTEM NAME' section with 'System\_26/11/2009' and a 'DATE' of '26/11/2009'. Below this is a 'Navigation' menu with buttons for 'Device configuration', 'System diagnostics', 'System scanning', 'Device test', 'Project summary', 'Configuration summary', and 'Export CSV'. The main area is titled 'DEVICE CONFIGURATION'. It has a 'Managed function' dropdown set to 'Automation'. Below this, it asks 'Do you know the device address?' with two radio buttons: 'No, I don't know' (selected) and 'Yes, I know'. Under 'No, I don't know', there are three dropdowns for 'Select address' with values 'A:1', 'PL:1', and 'I:-'. Under 'Yes, I know', there is a 'Write the ID' text input field. A 'Continue' button is at the bottom right of the main area.

Enter the IP address and the password, if different from the default ones; click **Save software data**. Then click **Device configuration**. The following window will appear, where it will be possible to:

- select the function to manage (Automation or Temperature control)
- select one of the following options:
  - **Yes, I know** (the address)
  - **No, I don't know** (the address)
  - **I know the ID** (this option can only be selected when managing the Automation function)
- enter the address, if known
- enter the ID, if known

This is an identical screenshot to the one above, showing the 'Virtual Configurator' application window with the 'DEVICE CONFIGURATION' screen. It displays the same interface elements: top bar with 'Project', 'Save', 'Settings', 'Disconnect'; left sidebar with 'SYSTEM NAME' and 'Navigation' menu; and the main 'DEVICE CONFIGURATION' area with 'Managed function' set to 'Automation', radio buttons for 'Do you know the device address?', address dropdowns, and an ID input field, all leading to a 'Continue' button.



### 3.1 Automation Function

Virtual Configurator

Project Save Settings Disconnect

**SYSTEM NAME**

SYSTEM NAME: System\_26/11/2009

DATE: 26/11/2009

**Navigation**

- Device configuration
- System diagnostics
- System scanning
- Device test
- Project summary
- Configuration summary
- Export CSV

**DEVICE CONFIGURATION**

Managed function: Automation

Do you know the device address?

☒ No, I don't know

☐ Yes, I know

Select address

A:1 PL:1 I:-

☐ I know the ID

Write the ID

Continue

In this window, first of all select one of the following options:

- **no, I don't know** (the address)
- **yes, I know** (the address)
- **I know the ID**

#### 3.1.1 Configuring a device with unknown address

When configuring a device which address is unknown, select the option **No, I don't know**.

Click **Continue**. The following window will open, where the user will be asked to press a key of the device to be configured within 10 minutes. If this is not done, after 10 minutes an error message will be displayed.

Virtual Configurator

Project Save Settings Disconnect

**SYSTEM NAME**

SYSTEM NAME: System\_26/11/2009

DATE: 26/11/2009

**Navigation**

- Device configuration
- System diagnostics
- System scanning
- Device test
- Project summary
- Configuration summary
- Export CSV

**DEVICE CONFIGURATION**

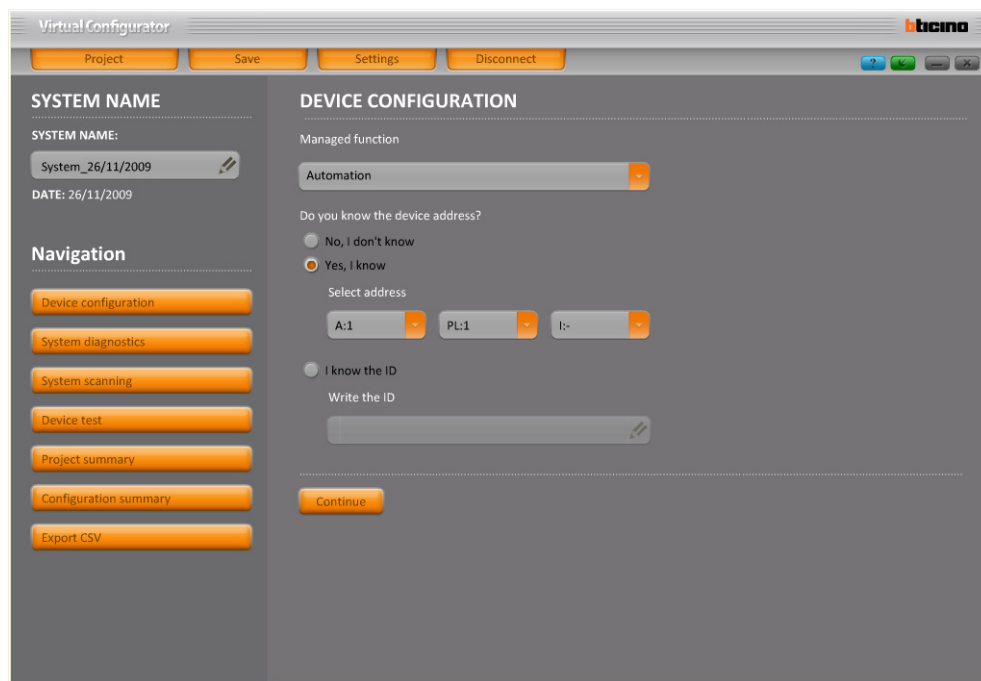
Push the device button to configure

Time left 09:59

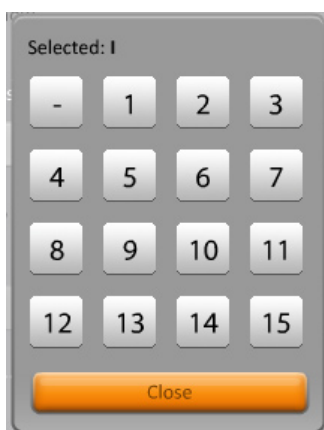
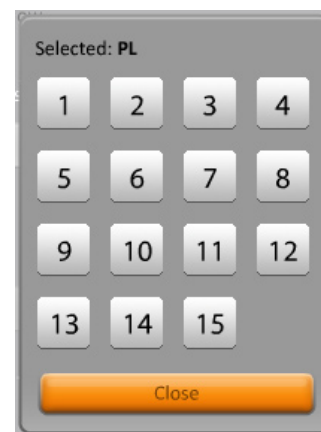
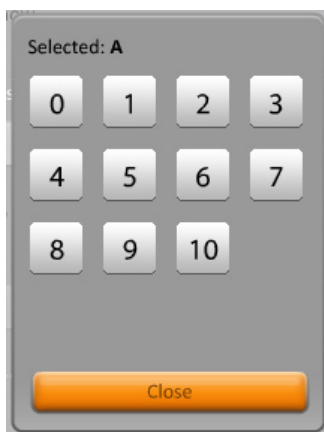
Cancel

### 3.1.2 Configuring a device with known address

To configure a device which address is known select **Yes, I know**.  
This will activate the configuration keys.



Use the menus of the configurators to enter the current configuration of the device to be reconfigured.



Configurator I refers to the logic expansion interface. It must only be configured if the device is beyond the logic expansion interface.

### 3.1.3 Configuring a device with known ID

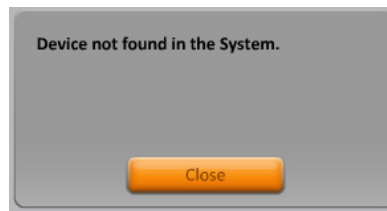
To configure a device when the ID is known, select the option **I know the ID**. This will activate the field **Write the ID**, so that the user can enter the ID.

Now, in order to initiate the device identification procedure, both if the ID is known, and if the address is known, click **Continue**.

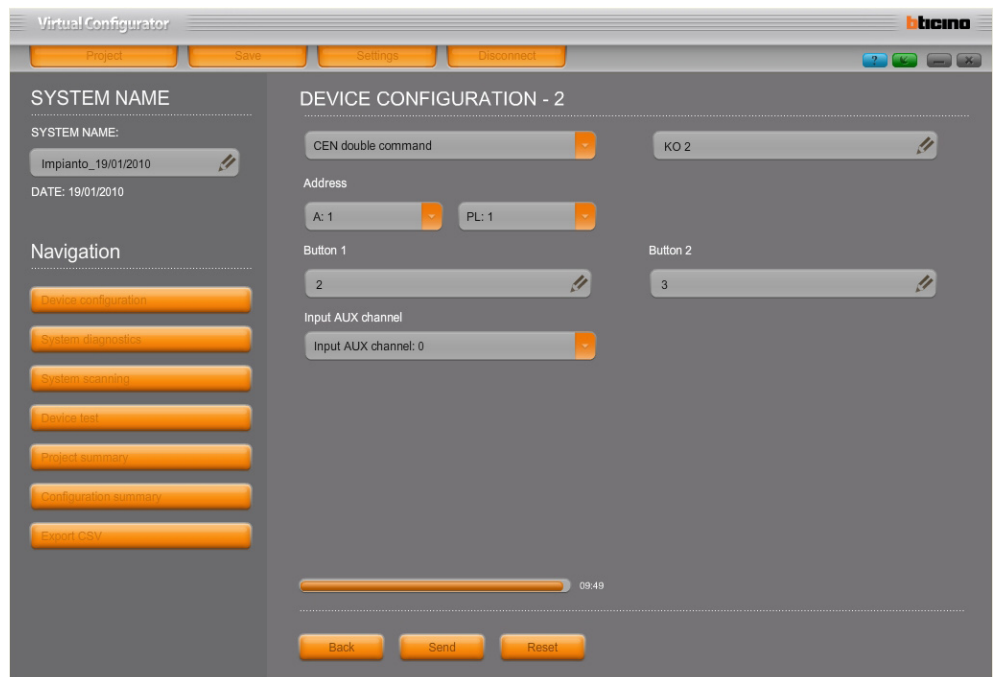
The following window will open, showing the full description and the corresponding configuration of the identified device.



**NOTE:** if the device is not present, a warning message is displayed.



If a green icon appears by the side of the device name, click the icon with the right mouse button to change/delete the device configuration.



In this case, the values shown are those of the actual device configuration.

To complete the parameter changing procedure click the following icons:



**IMPORTANT:** to save any changes made to the configuration, it is not enough to use the Send and Reset functions; it will be necessary to return to the previous page and click Configure.



Return to the previous window without saving the changes to the configuration



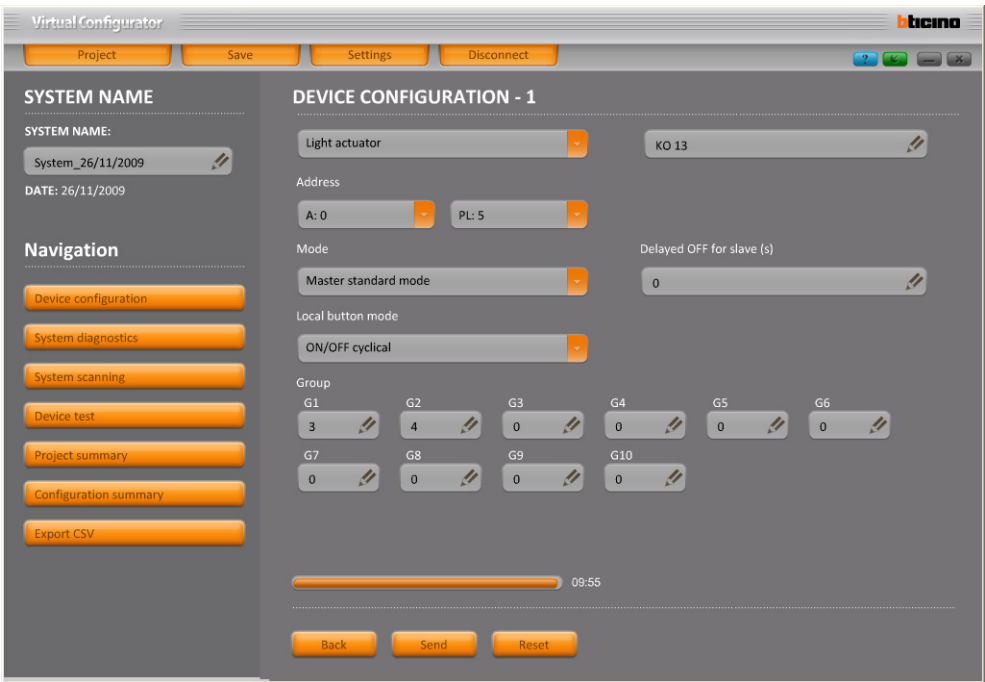
Send the data to the device and return to the previous window



Cancel the current configuration



If a yellow icon appears by the side of the device name, click the icon with the right mouse button to open the following window, where it will be possible to change the device configuration



In this case the values shown are the default values.

To complete the parameter changing procedure click the following icons:



**IMPORTANT:** to save any changes made to the configuration, it is not enough to use the Send and Reset functions; it will be necessary to return to the previous page and click Configure.



Return to the previous window without saving the changes to the configuration

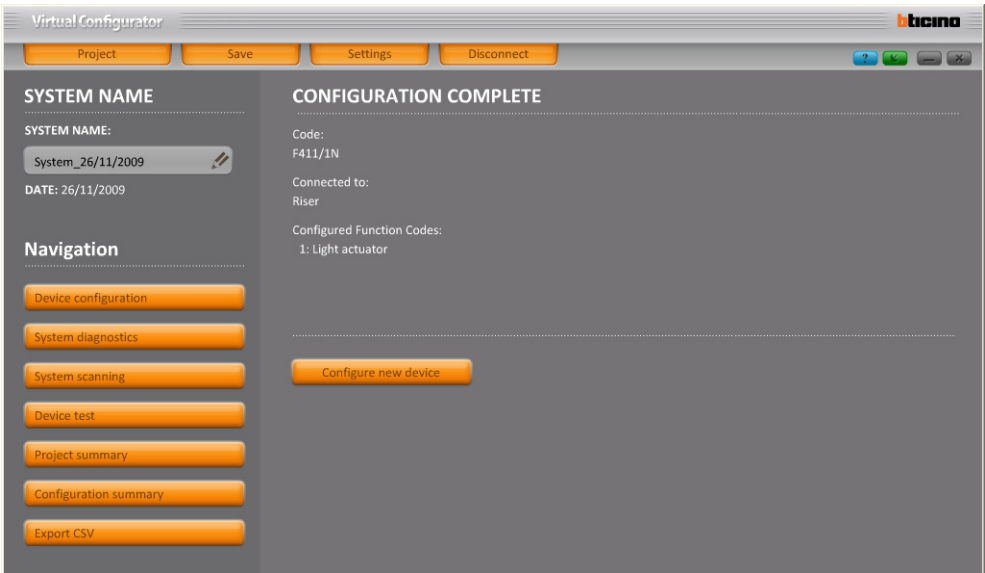


Send the data to the device and return to the previous window



Cancel the current configuration

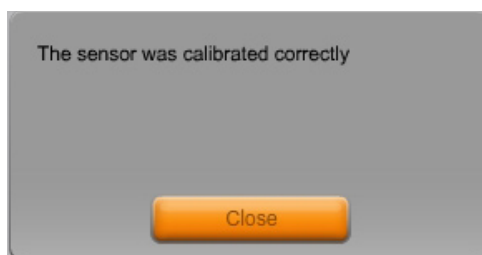
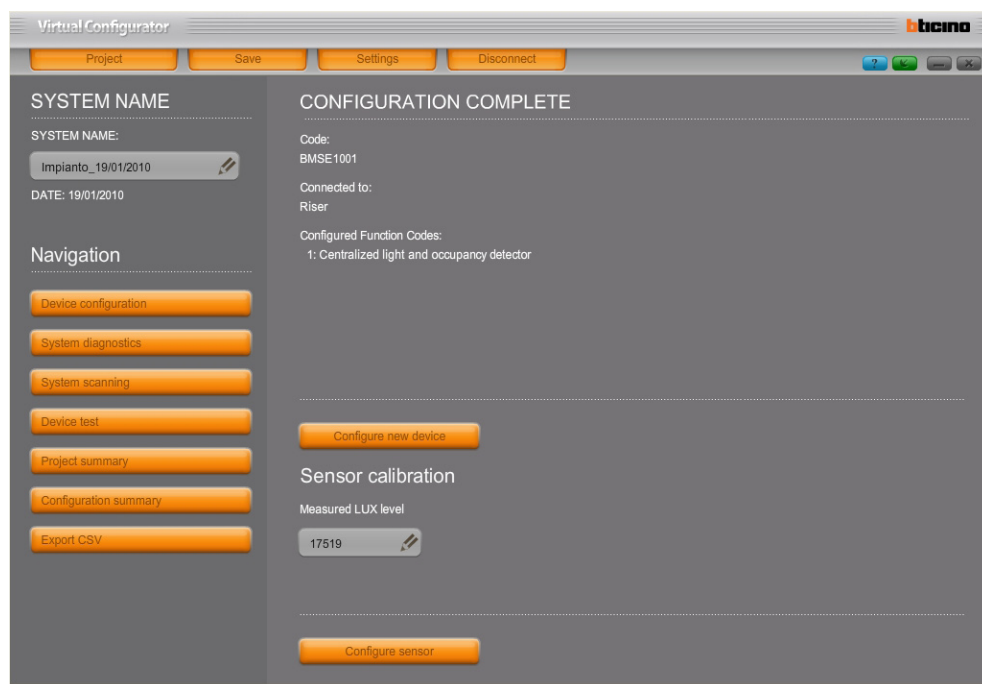
The following window will now be displayed. Click **Configure new device** to configure another device



### 3.1.4 When the device being configured is a detector

If the device being configured is a detector, follow the same procedure as for the actuators, previously described.

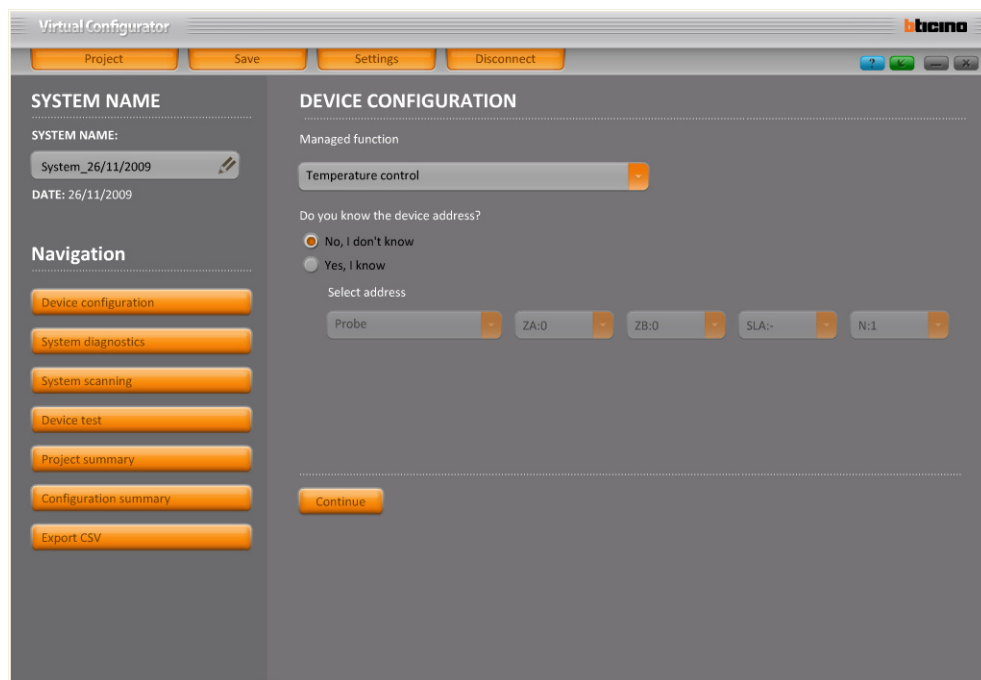
The only difference is that when **Configure** is clicked, the following window will appear, where the measured lux level must be entered in the detector calibration sector.



To configure the detector click **Configure detector**. A message will appear, confirming the correct calibration of the same.

Click **Close** to continue.

### 3.2 Temperature control Function



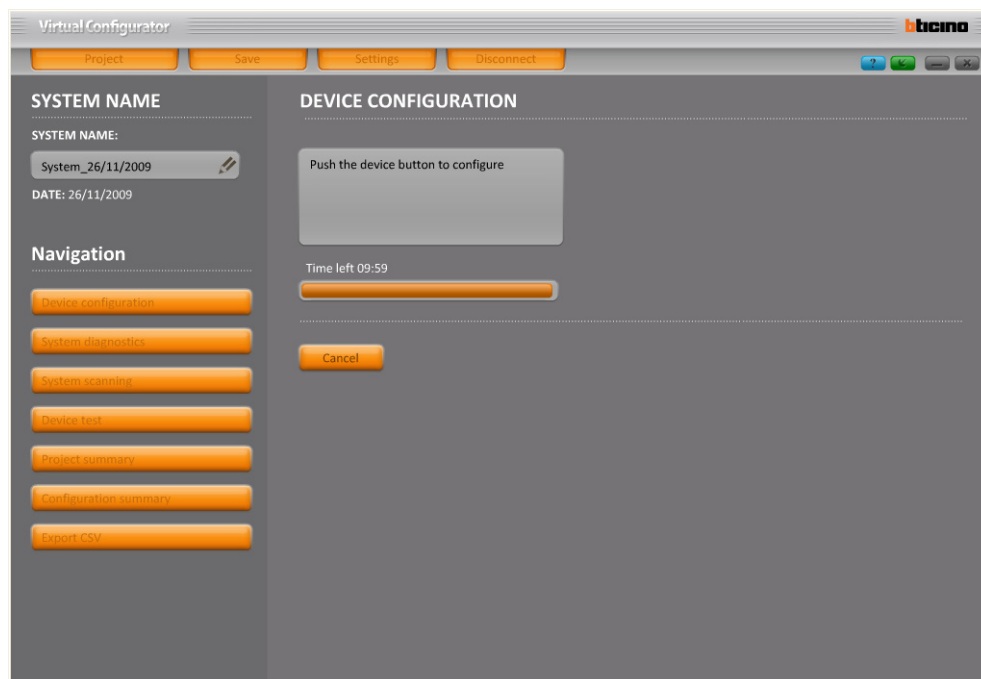
In this window, first of all select one of the following options:

- **no, I don't know** (the address)
- **yes, I know** (the address)

#### 3.2.1 Configuring a device with unknown address

When configuring a device which address is unknown, select the option **No, I don't know**.

Click **Continue**. The following window will open, where the user will be asked to press a key of the device to be configured within 10 minutes. If this is not done, after 10 minutes an error message will be displayed.



### 3.2.2 Configuring a device with known address

To configure a device when the current configuration is known select **Yes, I know**. This will activate the configuration keys.

The screenshot shows the 'Virtual Configurator' window. On the left is a 'Navigation' sidebar with buttons for 'Device configuration', 'System diagnostics', 'System scanning', 'Device test', 'Project summary', 'Configuration summary', and 'Export CSV'. The main area is titled 'DEVICE CONFIGURATION'. It includes a 'Managed function' dropdown set to 'Temperature control'. Below this, a question 'Do you know the device address?' has two radio buttons: 'No, I don't know' and 'Yes, I know' (which is selected). Underneath, the 'Select address' section contains five dropdown menus: 'Probe', 'ZA:0', 'ZB:0', 'SLA:-', and 'N:1'. A 'Continue' button is located at the bottom of this section.

Use the menus of the configurators to enter the current configuration of the device to be reconfigured.



**NOTE:** the menu of the SLA configurator only becomes active if the device which address is known is a PROBE, while the menu of the N configurator only becomes active if the device which address is known is a GATEWAY or an ACTUATOR.

This is a numeric keypad for the 'Selected: ZA' configuration. It features a grid of buttons for digits 0 through 9. The '0' button is highlighted with an orange border. A 'Close' button is positioned at the bottom of the keypad.

This is a numeric keypad for the 'Selected: ZB' configuration. It features a grid of buttons for digits 0 through 9, plus an 'OFF' button. The '2' button is highlighted with an orange border. A 'Close' button is positioned at the bottom of the keypad.

Now click **Continue** to initiate the procedure for the identification of the device on the system.

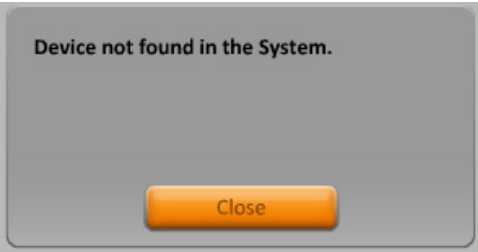


# Virtual Configurator

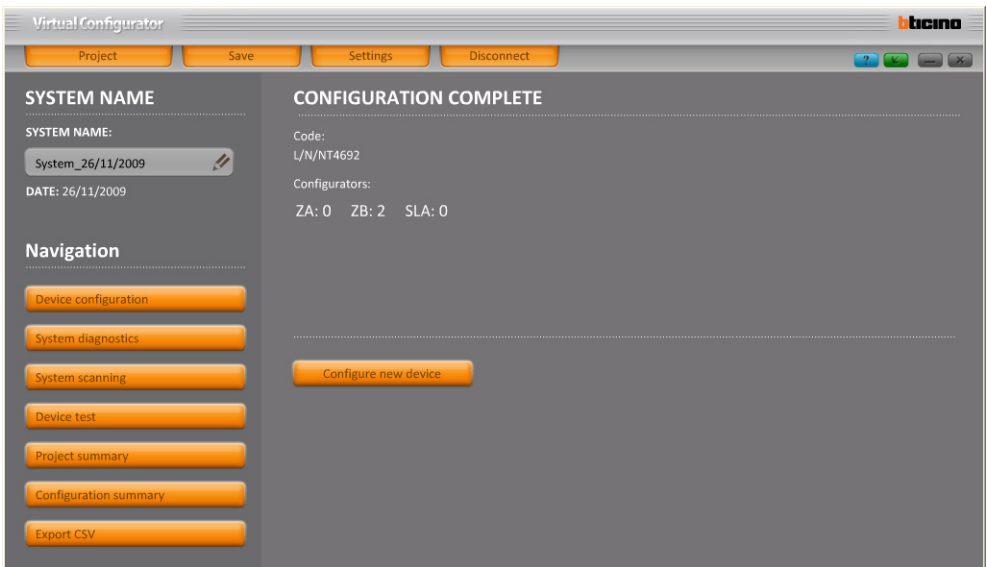
The following window will open, showing the full description and the corresponding configuration of the identified device.



**NOTE:** if the device is not present, a warning message is be displayed.



Click **Configure** to configure the device. The following window will open. Click **Configure new device** to configure another device.



## 4. System diagnostics

Virtual Configurator can be used to check the operation of the devices connected to the system.

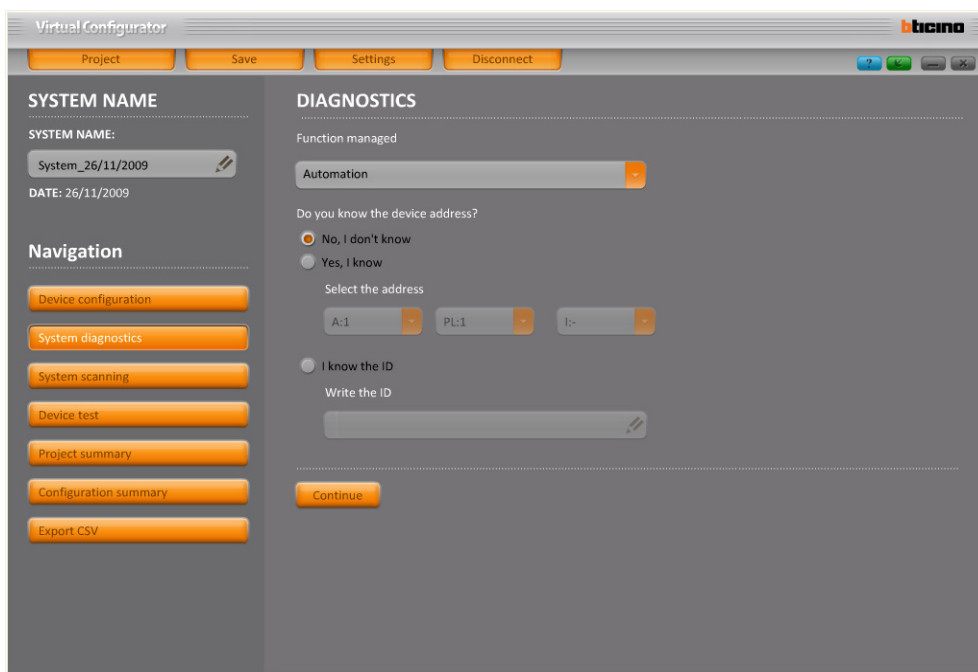
To access system diagnostics section click **System Diagnostics**.

The following window will open, where it will be possible to:

- select the function to be managed (Automation or Temperature control)
- select one of the following options:
  - **Yes, I know** (the address)
  - **No, I don't know** (the address)
  - **I know the ID** (this option can only be selected when managing the Automation function)
- - enter the address, if known
- - enter the ID, if known

The screenshot shows the 'Virtual Configurator' application window. The title bar includes the 'bticino' logo and standard window controls. Below the title bar are four tabs: 'Project', 'Save', 'Settings', and 'Disconnect'. The main interface is divided into two panels. The left panel, titled 'SYSTEM NAME', contains a 'SYSTEM NAME:' field with the value 'System\_26/11/2009' and a 'DATE: 26/11/2009' label. Below this is a 'Navigation' section with a list of buttons: 'Device configuration', 'System diagnostics' (which is highlighted), 'System scanning', 'Device test', 'Project summary', 'Configuration summary', and 'Export CSV'. The right panel, titled 'DIAGNOSTICS', contains a 'Function managed' dropdown menu set to 'Temperature control'. Below this is a section 'Do you know the device address?' with two radio buttons: 'No, I don't know' (selected) and 'Yes, I know'. Underneath is a 'Select the address' section with five dropdown menus: 'Probe', 'ZA:0', 'ZB:0', 'SLA:-', and 'N:1'. At the bottom of the right panel is a 'Continue' button.

## 4.1 Automation Function



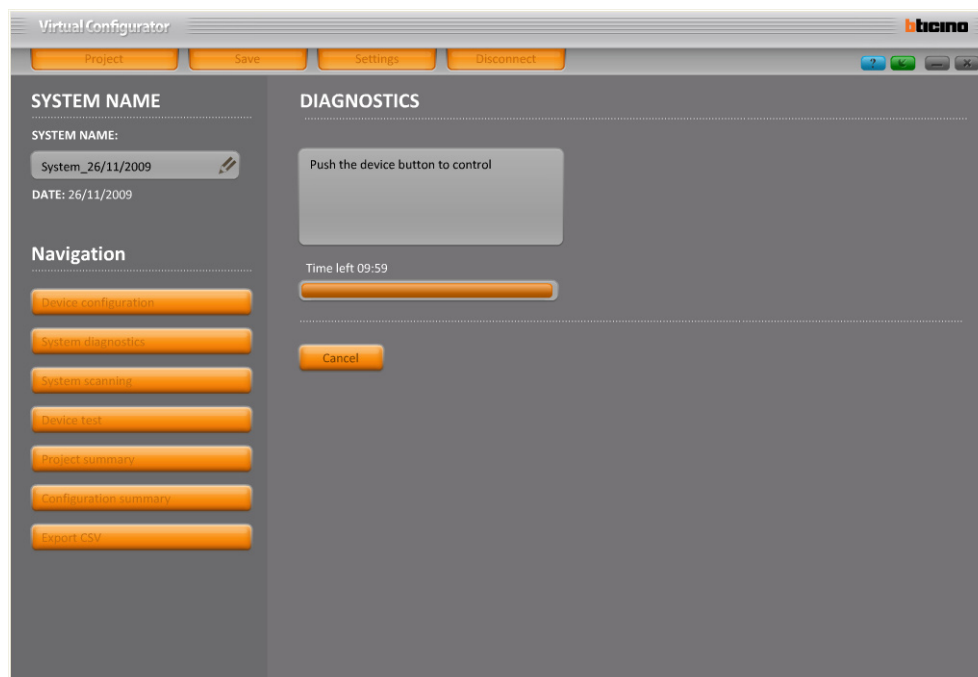
In this window, first of all select one of the following options:

- **no, I don't know** (the address)
- **yes, I know** (the address)
- **I know the ID**

### 4.1.1 When the device address is unknown

To perform the diagnostic procedure on a device which address is unknown, select the option **No, I don't know**.

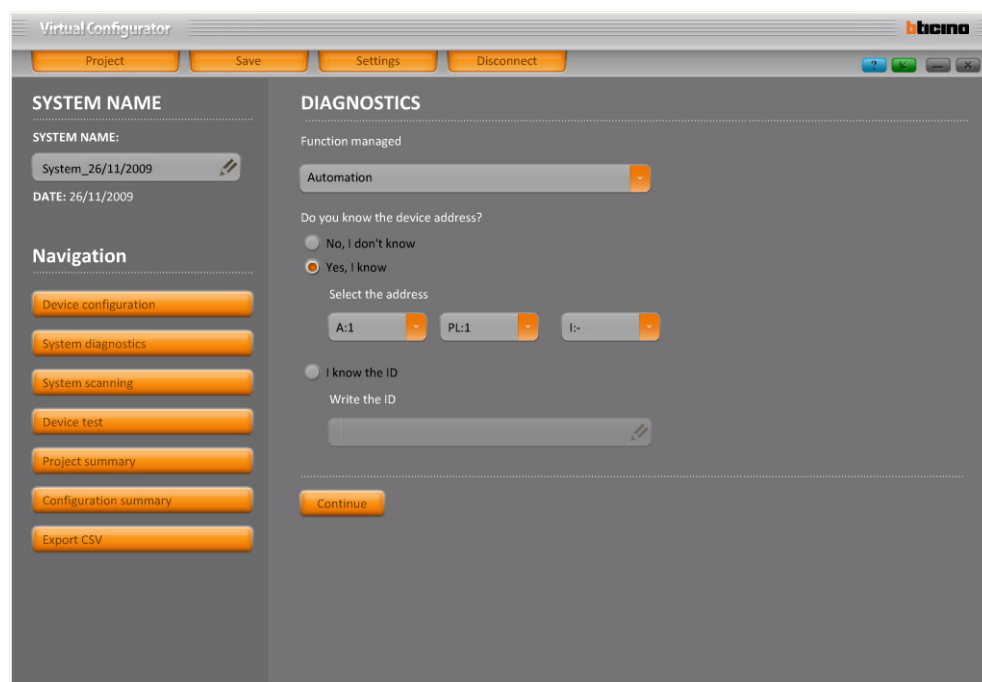
Click **Continue**. The following window will open, where the user will be asked to press a device key within 10 minutes. If this is not done, after 10 minutes an error message will be displayed.



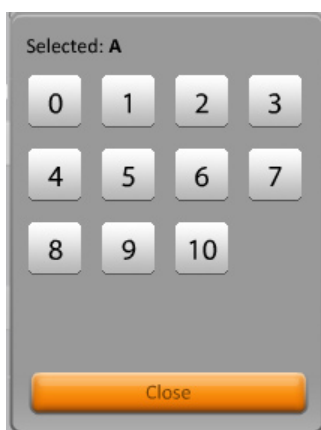
#### 4.1.2 When the device address is known

To perform the diagnostic procedure on a device which address is known, select the option **Yes, I know**.

This will activate the configuration keys.



Use the menus of the configurators to enter the current device configuration.



Configurator I refers to the logic expansion interface. It must only be configured if the device is beyond the logic expansion interface.

### 4.1.3 When the device ID is known

To perform the diagnostic procedure on a device which ID is known, select the option **I know the ID**. This will activate the field **Write the ID**, where the ID can be entered.

Now, in order to initiate the device identification procedure, both if the ID is known, and if the address is known, click **Continue**.

The following window will open, showing the full description and the corresponding configuration of the identified device. The window also includes a section dedicated to the error list, which shows the device operating status.



If a green icon appears by the side of the device, click the icon with the right mouse button; the configuration parameters will be displayed, which in this section cannot be changed.

Virtual Configurator

Project Save Settings Disconnect

**SYSTEM NAME**

SYSTEM NAME:  
System\_26/11/2009

DATE: 26/11/2009

**Navigation**

- Device configuration
- System diagnostics
- System scanning
- Device test
- Project summary
- Configuration summary
- Export CSV

**DEVICE DIAGNOSTICS - 1**

Light actuator

Address  
A: 0 PL: 5

Mode  
Master standard mode

Delayed OFF for slave (s)  
0

Local button mode  
ON/OFF cyclical

Group

G1 3	G2 4	G3 0	G4 0	G5 0	G6 0
G7 0	G8 0	G9 0	G10 0		

Back to device New request

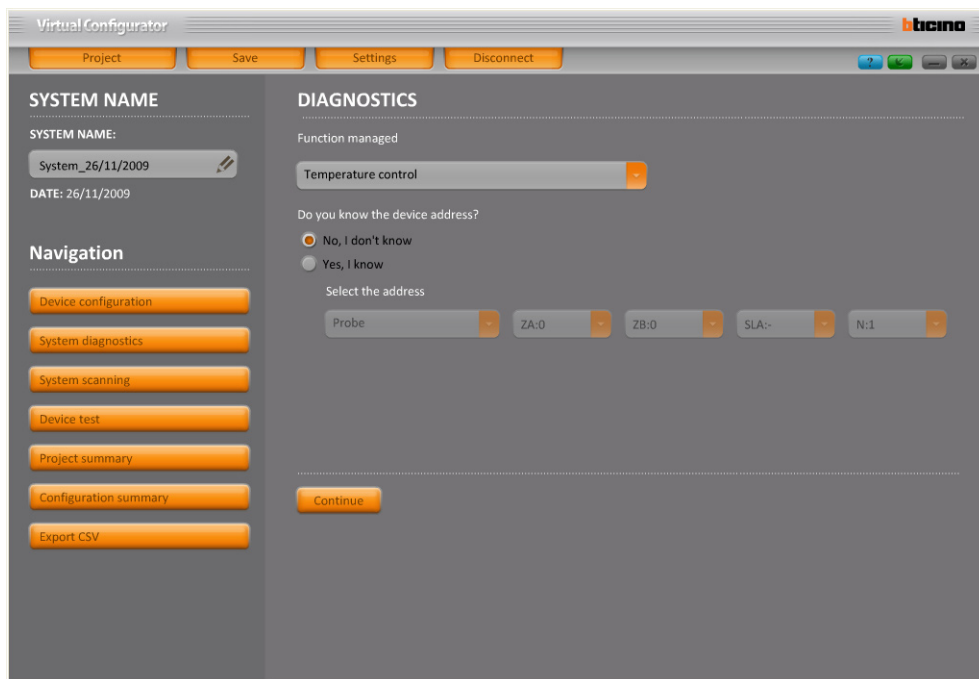


Return to the previous window



Send a new request

## 4.2 Temperature control Function



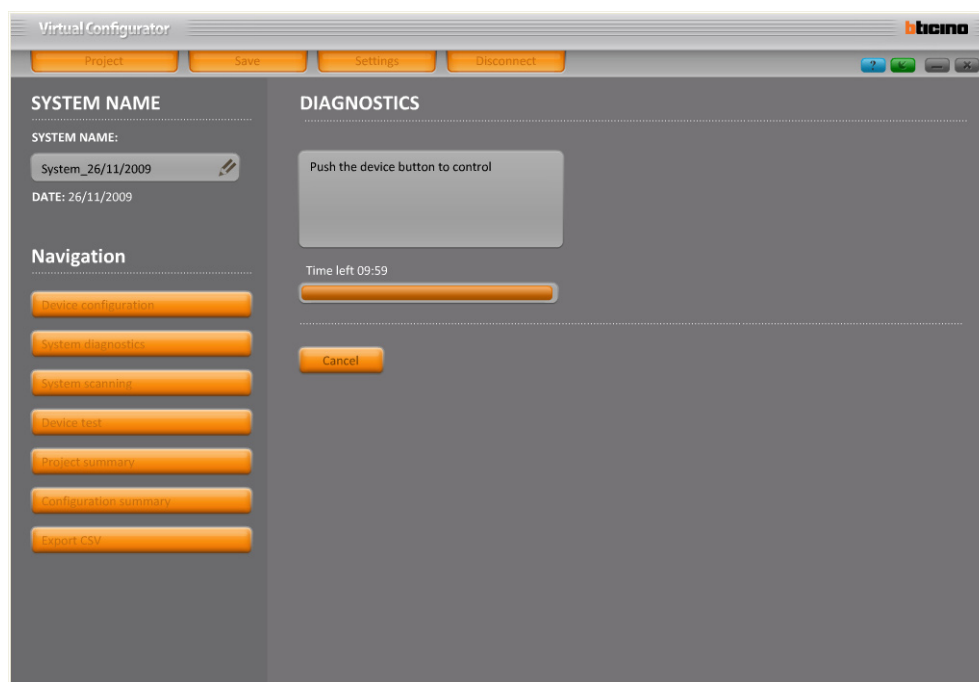
In this window, first of all select one of the following options:

- **no, I don't know** (the address)
- **yes, I know** (the address)

### 4.2.1 When the device address is unknown

To perform the diagnostic procedure on a device which address is unknown, select the option **No, I don't know**.

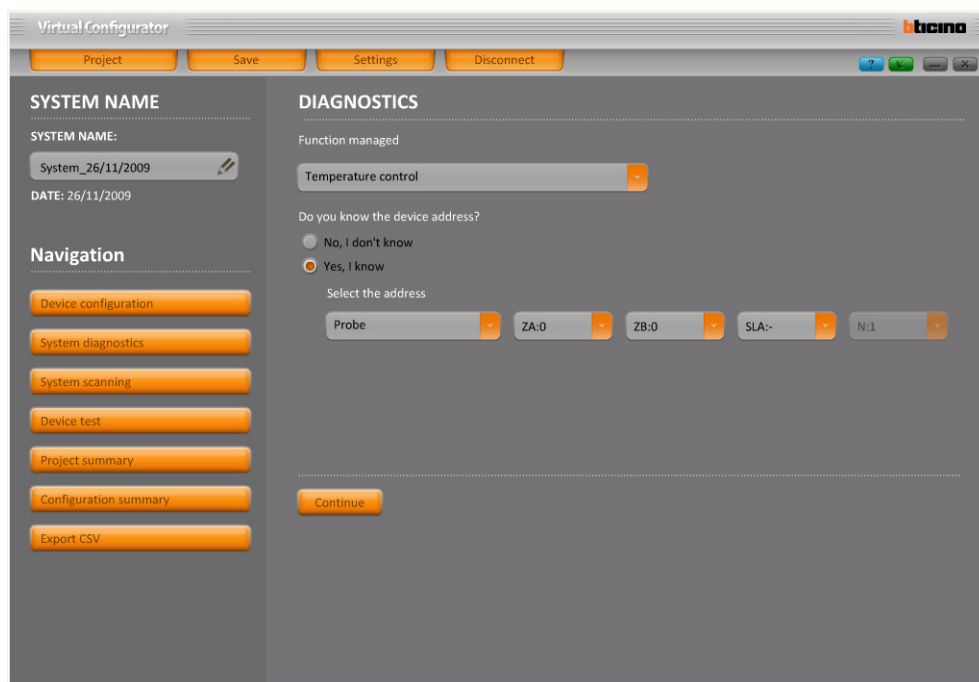
Click **Continue**. The following window will open, where the user will be asked to press a device key within 10 minutes. If this is not done, after 10 minutes an error message will be displayed.



#### 4.2.2 When the device address is known

To perform the diagnostic procedure on a device which address is known, select the option **Yes, I know**.

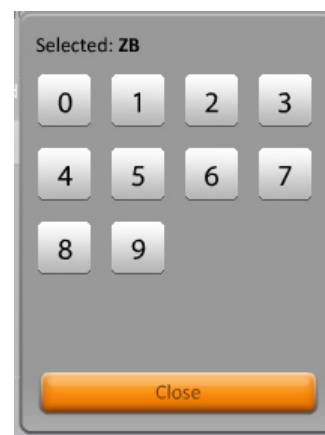
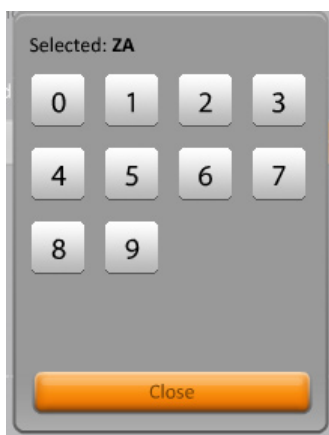
This will activate the configuration keys.



Use the menus of the configurators to enter the current device configuration.

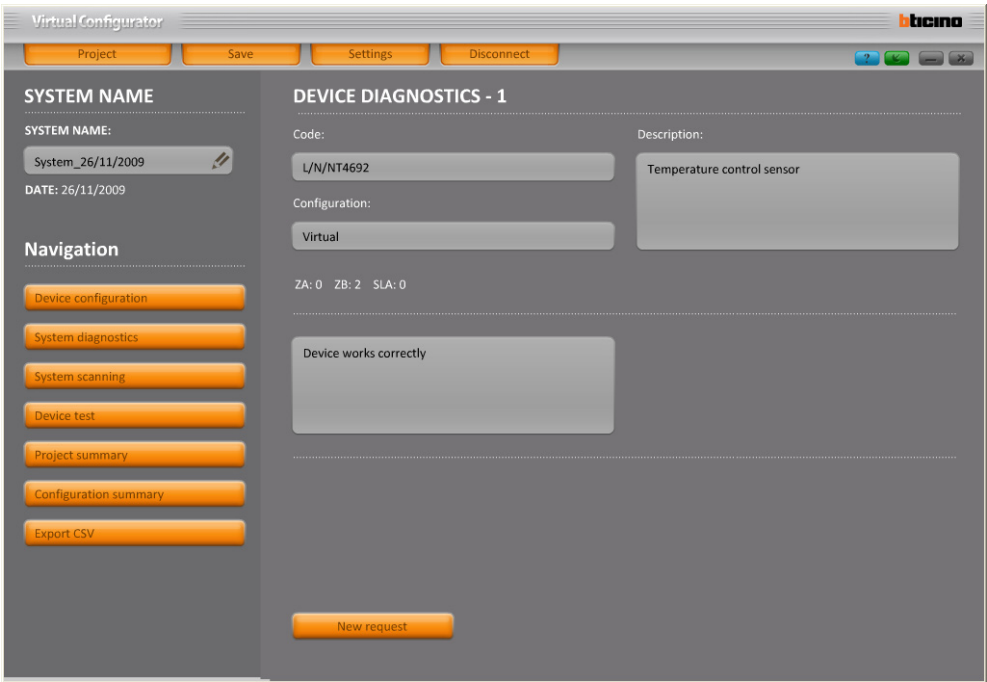


**NOTE:** the menu of the SLA configurator only becomes active if the device which address is known is a PROBE, while the menu of the N configurator only becomes active if the device which address is known is a GATEWAY or an ACTUATOR.





Now click **Continue** to initiate the procedure for the identification of the device on the system. The following window will open, showing the full description and the corresponding configuration of the identified device. The window also includes a section dedicated to the error list, which shows the device operating status.



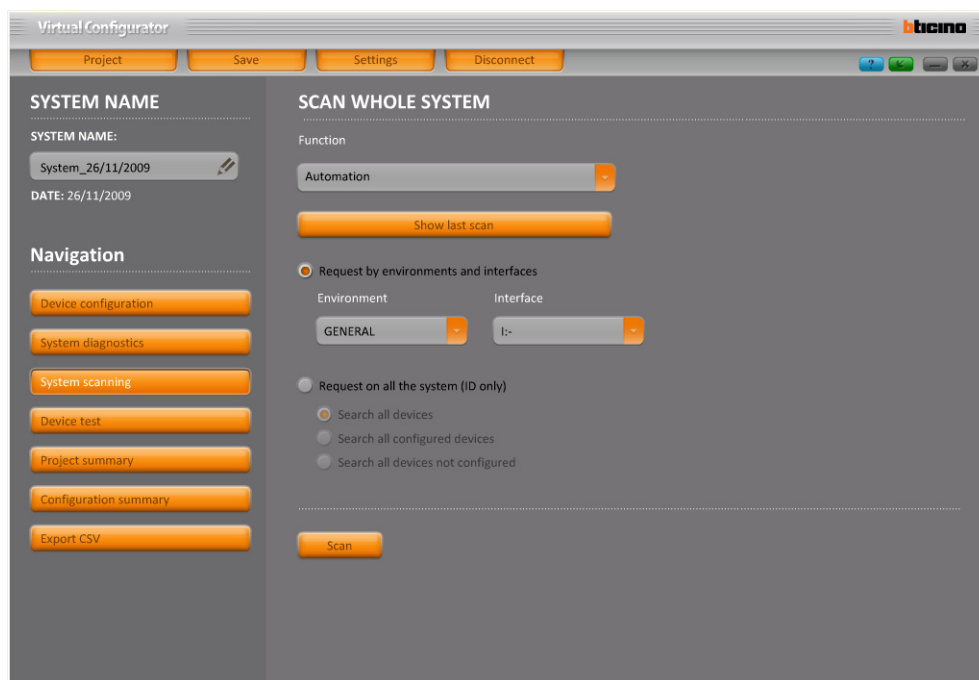
Send a new request

## 5. System scanning

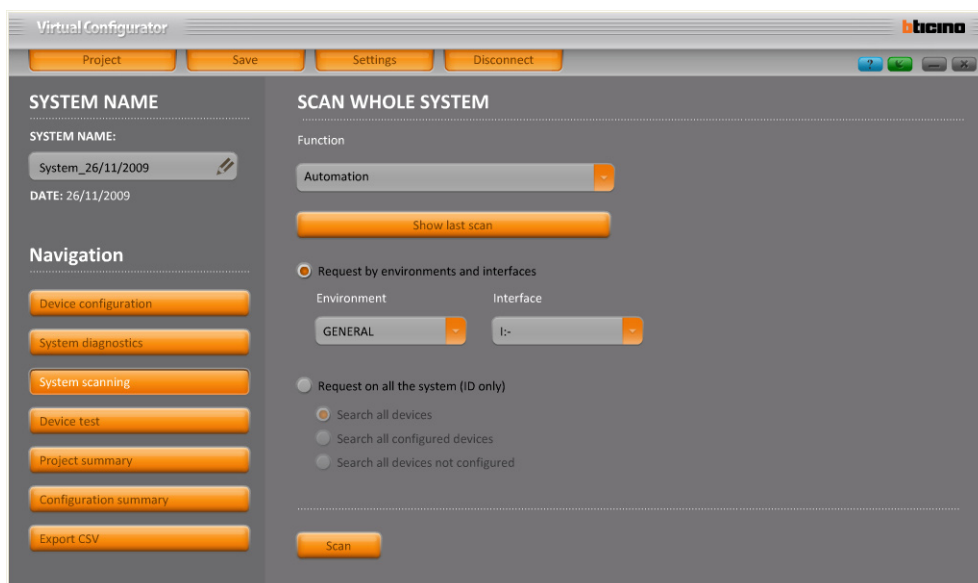
Virtual Configurator can be used to check all the devices installed on the system using the scanning function.

To access the system scanning section click **Scan whole system**. The following window will open, where it will be possible to:

- select the function to manage (Automation or Temperature control)
- display the last scan, by clicking **Show last scan**
- perform the scan



## 5.1 Automation Function



In this window it is possible to:

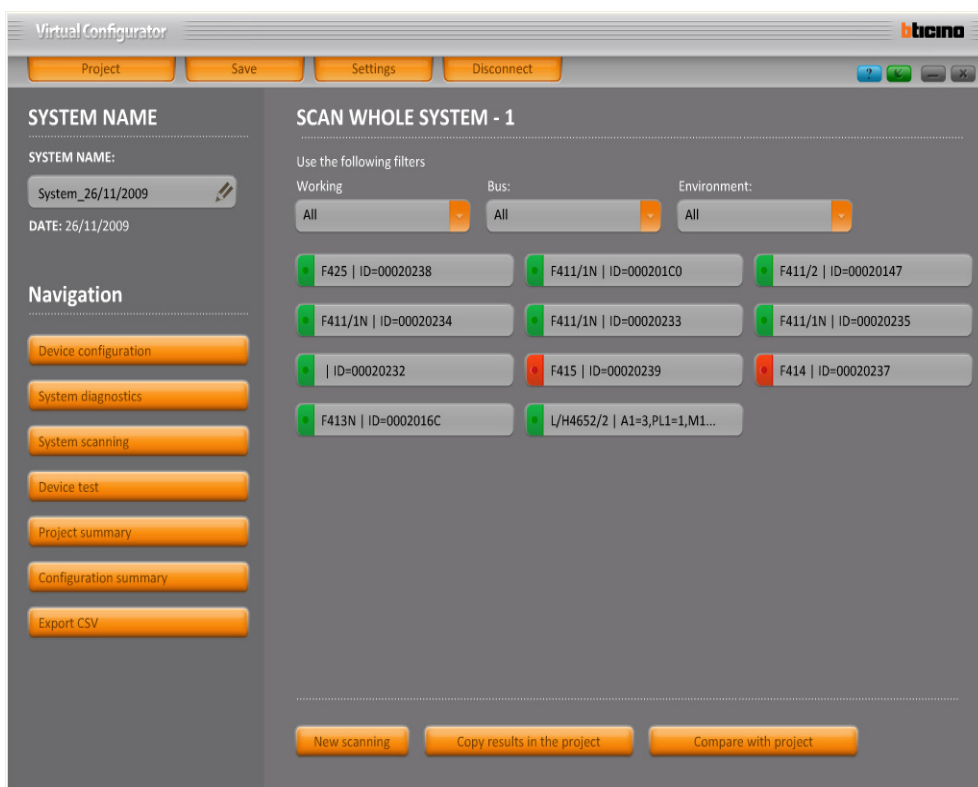
- perform the scan by room and interface
- perform a whole system scan (**This type of scan can only be performed if devices with ID are present**).

In this case it will be possible to select if to search for:

- all devices
- the configured devices
- the non configured devices

Click **Scan** to start the scanning procedure.

Once scanning is completed, the following window appears, showing the list of all system devices.





**NOTE:** only when the devices have an ID:

- the software can detect the system devices but not the project devices
- the software can detect the project devices but not the system devices
- the software can detect the devices with a different configuration

New scanning

Return to the previous window

Copy results in the project

It can be used to add the detected devices to the project, or to replace the current project with the scanning results

Compare with project

It can be used to compare the open project with the scan (ID only)

The different colours of the devices indicate the test results:

F413N | ID=0002016C

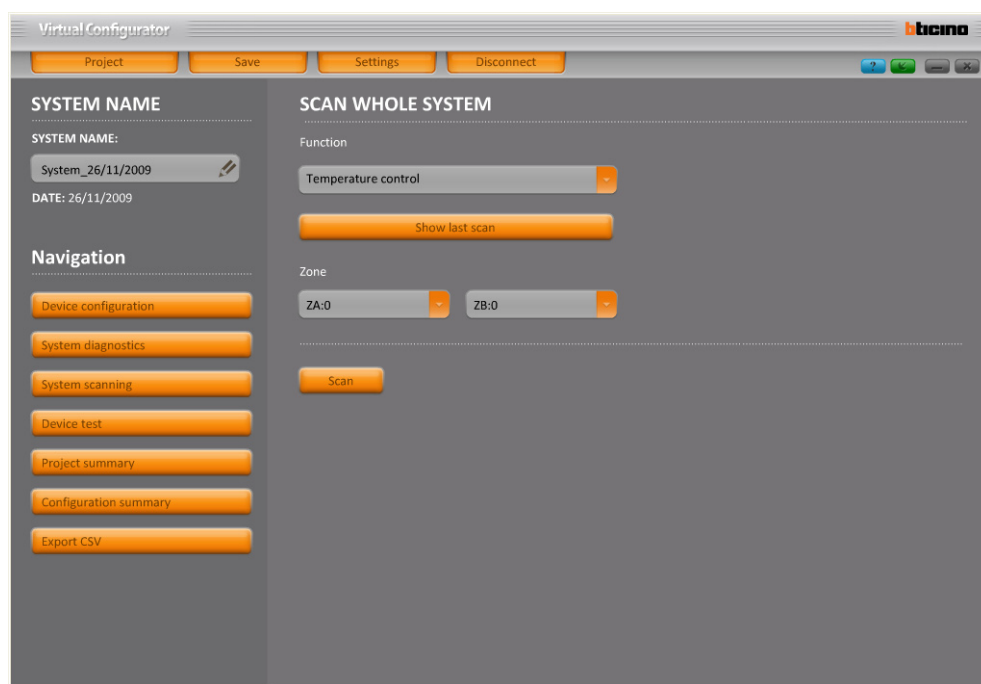
**Green** - device working

F415 | ID=00020239

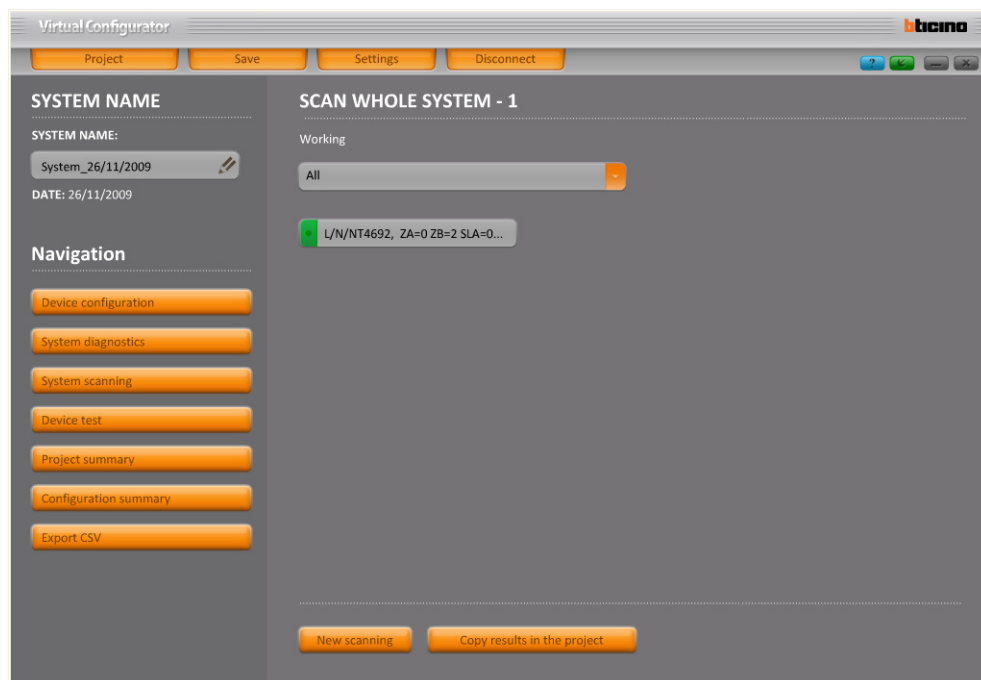
**Red** - device faulty

Select a single device to know its characteristics and, if applicable, the reasons for the fault.

## 5.2 Temperature control Function



In order to perform the system scan enter, using the menus of the configurators, the address of the zone on which the scan must be performed. Click **Scan**. The following window will open, listing all the system devices.





**NOTE:** only when the devices have an ID:

- the software can detect the system devices but not the project devices
- the software can detect the project devices but not the system devices
- the software can detect the devices with a different configuration

New scanning

Return to the previous window

Copy results in the project

It can be used to add the detected devices to the project, or to replace the current project with the scanning results

Compare with project

It can be used to compare the open project with the scan (ID only)

The different colours of the devices indicate the test results:

L/N/NT4692, ZA=0 ZB=2 SLA=0...

**Green** – device working

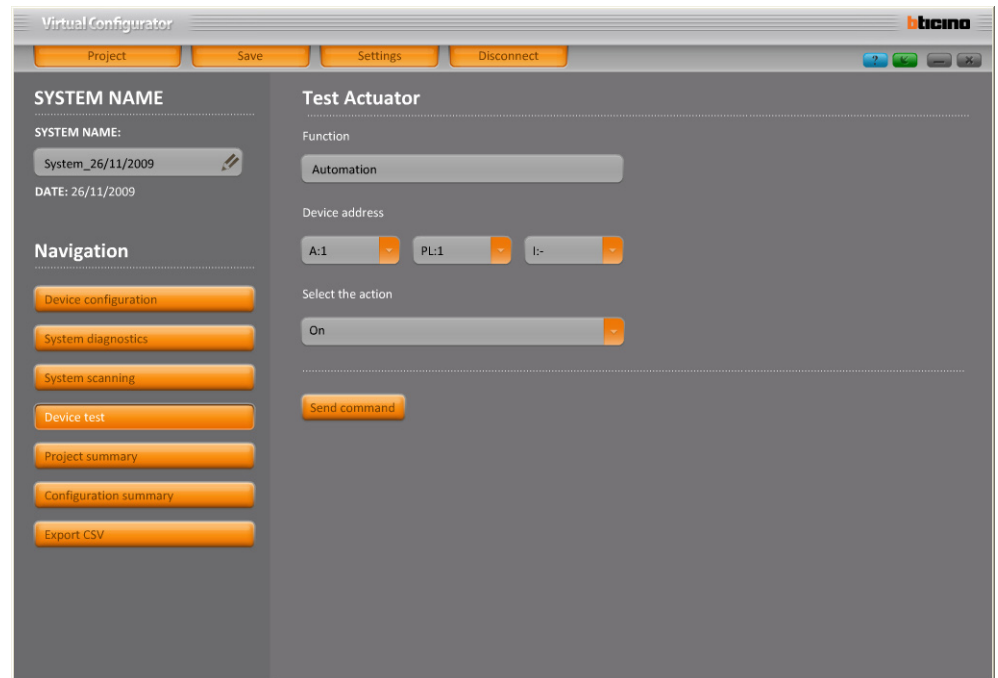
F415 | ID=00020239

**Red** – device faulty

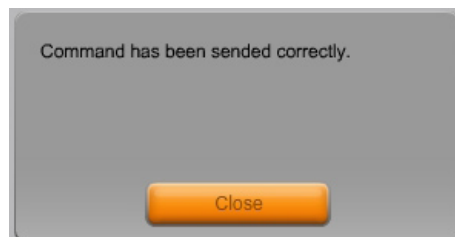
Select a single device to know its characteristics and, if applicable, the reasons for the fault.

## 6. Device testing

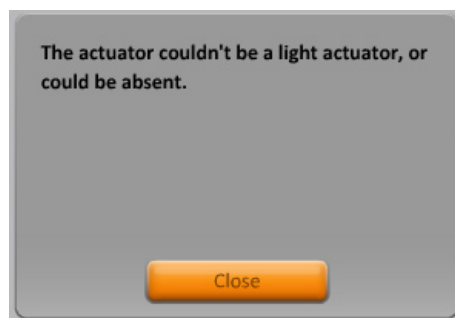
Virtual Configurator can be used to check the operation of the individual system actuators. Click **Test actuator (device)** to access this section. The following window will appear



Use the menus of the configurators to enter the address of the device being tested. Based on the type of device, from the window menu select the action to be performed by the device. Then click **Send command**



If the operation is successful, a confirmation message appears. Click **Close** to return to the previous window, where it will be possible to test another device.

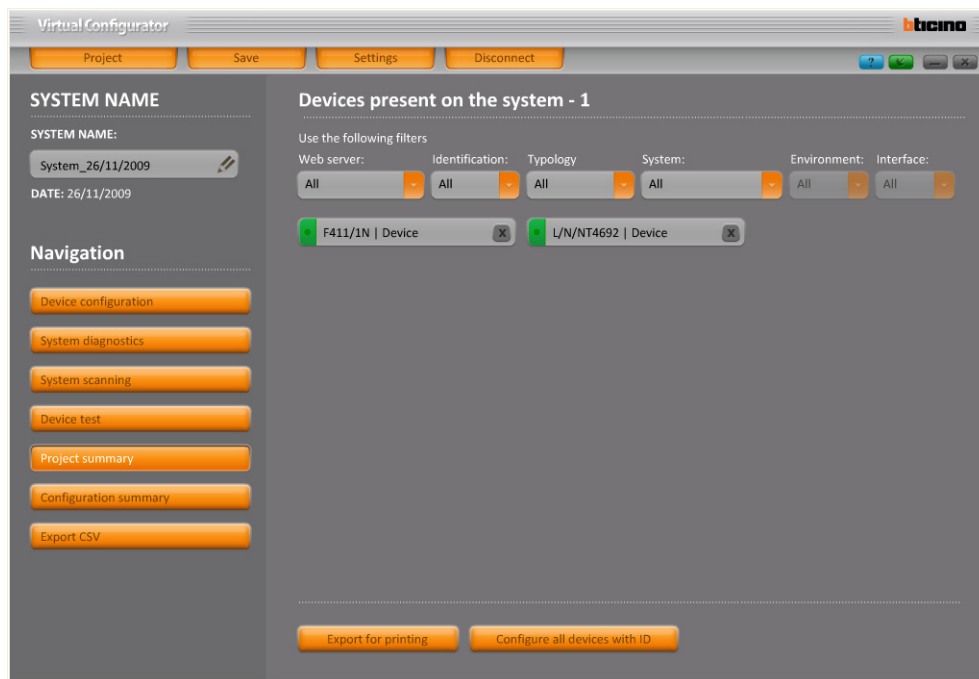


If the device is of the wrong type, or if it is not present in the system, a warning message appears. Click **Close** to return to the previous window, where it will be possible to retry to perform the operation.

## 7. Project summary

Virtual Configurator can be used to display the list of devices that make up the system, viewing their individual characteristics and configurations.

To access this function click **Project summary**. The following window will open, listing all the system devices.



It can be used to export the list as a text file for printing



It can be used to configure all the devices with ID.

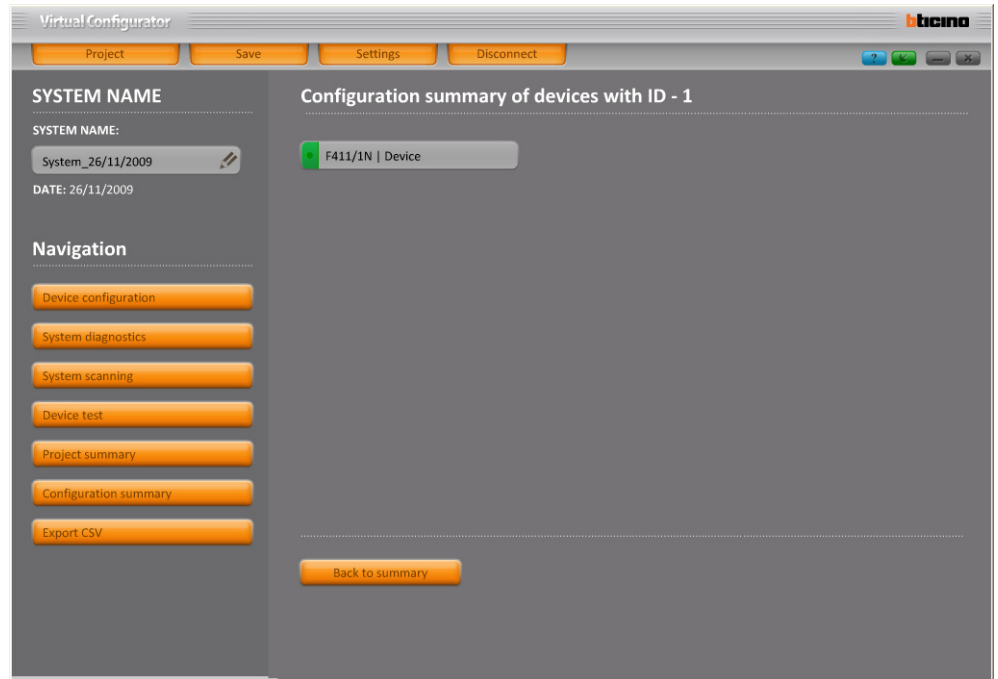


**NOTE:** when this icon is clicked, the configuration activates automatically.



## 8. Configuration summary

Once the configuration of the devices with ID is complete, the **Configuration summary** window opens, showing the list of the devices with ID.



Return to the project summary window

The different colours of the devices indicate the test results:



**Green** - configuration successful



**Red** - configuration failed



**Grey** - the device is not present or has not answered

## 9. Export to CSV file

This function can be used to export an existing project to a .csv file, which can then be opened using Microsoft Excel.

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