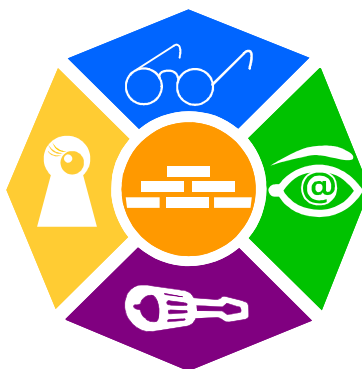




NLPRECOM MANUAL



NEWRON SYSTEM

25-27 Boulevard Victor HUGO
31770 COLOMIERS (France)

T: +33 (0)5 61 15 18 45

F: +33 (0)5 61 15 16 44





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INTRODUCTION

Thank you for choosing **NLPrecom** software member of NLSuite.

We are happy to help you in your LonWorks integration job. All softwares of NLSuite are often updated for correcting bugs and improve performances. We propose to you to check version on Web site www.newron-system.com.



START WITH NLPRECOM

Starting NLPRecom

To Start **NLPRecom**, go to the **NLPRecom** folder from the Start menu of windows.

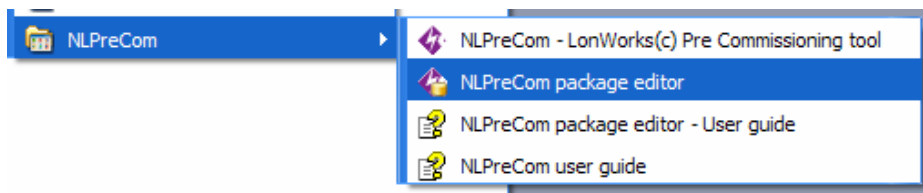


Figure 1 : Start **NLPRecom**

NLPRecom is composed of two distinct tools : **NLPRecom** (the actual runtime tool to test your network) and NLPRecom Package Editor, used to design the packages used by **NLPRecom**.



NLPRECOM

NLPrecom Workflow

NLPrecom has been designed to follow a four steps workflow. Each tab of the software is one step of this workflow.

- Search devices :

Scan the network to find all the devices present on your channel.

- Test network quality :

Stress the network to electrically proof the network.

- Test devices' functionalities :

From what is defined in the package(s) loaded : download programs into devices, send values on network variables and configuration properties, monitor values on the network devices.

- Generate reports :

Generate a general channel validation report, or reports specific to each of the three previous steps of the workflow.

NLPrecom : Working on a project

Create / open a project

When you launch **NLPrecom**, you can choose between three different options :

- New channel certification : creates a new project for channel certification.
- Open an existing project : opens already created projects.
- New channel certification after commissioning : creates a new project for channel certification (after the network devices have been installed in the LNS database).

If you click on "Options", and go to "About" tab, you can change the application's language (English, French and Chinese are available).

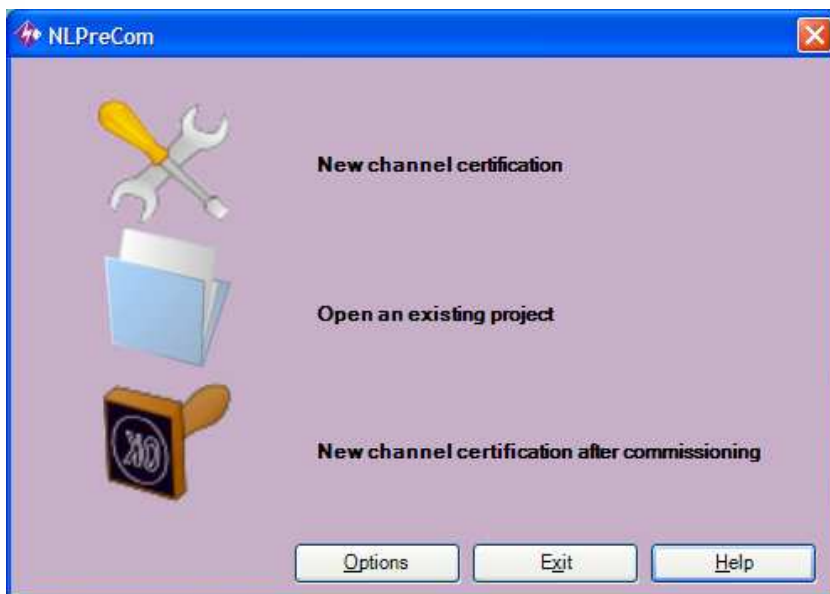


Figure 2 : Create / open project window

New channel certification

The first step is to define names of your jobsite, your channel to certify and location of your channel (the subsystem name for instance). Then define which network interface you will use to communicate with the devices on the channel, and the name of the person that will work on the project. Click on “Next” to go to the next step.



Job site	My Jobsite
Channel to certiv	My channel
Location	My subsystem
Network Interface	NIC USB 1
User Name	Antoine

Name of your job site. [mandatory]

Next >> Cancel

Figure 3 : Project information - Network interface

The next step concerns the packages you need to import in the project. The packages imported for previous projects are still available. You can import a new package or a more recent version of an existing package by clicking on “Import”. Check the “Used” checkboxes of the packages you want to import. Click on “Finish” to move to the first step of the project’s workflow.

Used	Package	Manufacturer	Version
<input checked="" type="checkbox"/>	New version Demo	Newron System	1.0.0.2
<input type="checkbox"/>	Newron Vienna	Newron System	1.0.0.1

Import << Back Finish Cancel Help

Figure 4 : Package import



Open an existing project

Choose one project among the list. Then follow the steps as in the project creation.

Search Devices

A first screen appears, asking you to press the service pin of one of your device, to detect in which domain the network scan must take place ; you can skip this step (press “Next”), the domains are also set in the package.

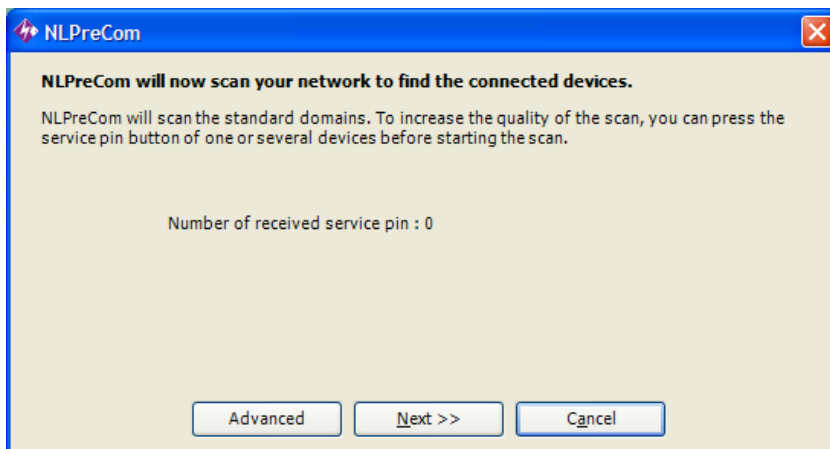


Figure 5 : Domains to scan

After this another window will show how many devices have been scanned on the network, and to which kind of template defined in the package they belong to. Click on “Apply” to move to the next step.

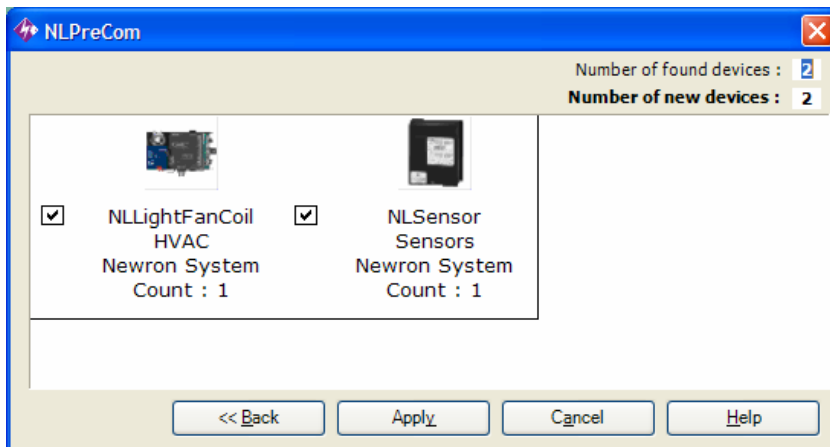


Figure 6 : Scanning the network summary



This time the search devices tab appears. The list of scanned devices will appear in the grid. You can launch another scan, add a device manually or by pressing a service pin. With the buttons at the upper right of the grid, you can sort the devices, remove a device from the list, ...

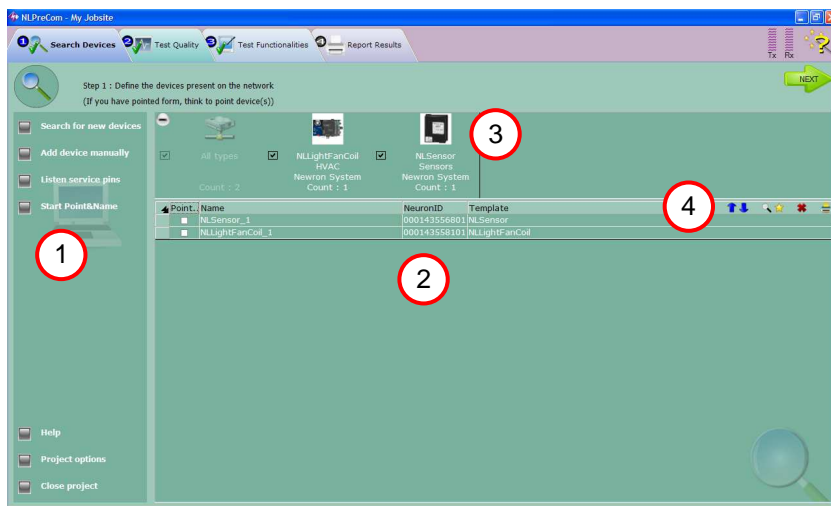


Figure 7 : Search devices tab

1 : Search devices functions (scan the network, add a device, ...)

2 : Devices grid

3 : Device templates found

4 : Grid functions (remove, wink, sort, ...)

Click on the “Next” arrow at the upper right of the window to move to the second step of the project.

Test network quality

The network test is automatically launched. If the channel has passed the test, a green icon will appear. Click on the glass to have a detailed test result for each device. If the channel has not passed the test (absent device, crc errors, ...), the detailed list will automatically be displayed. You can select one or several devices to test them with “Verify selected devices”. If the device status is in error, you can click on the error to get eventual error causes, and actions to apply to fix the problem.

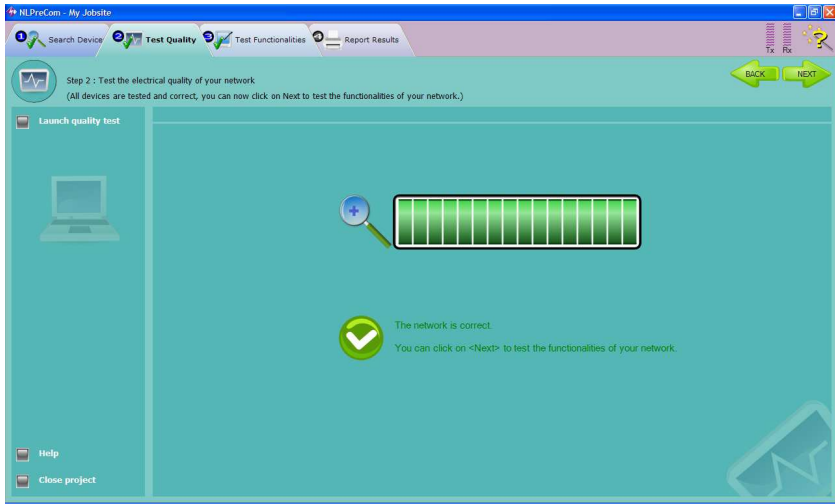


Figure 8 : Test Network OK

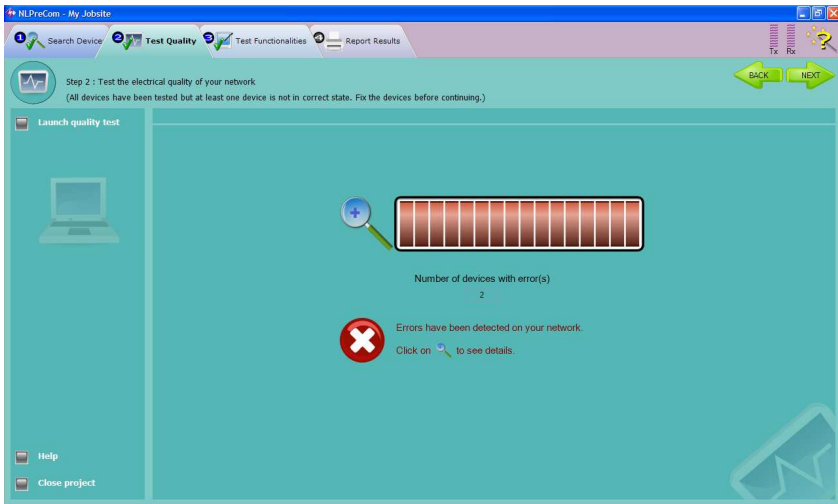


Figure 9 : Test network with errors

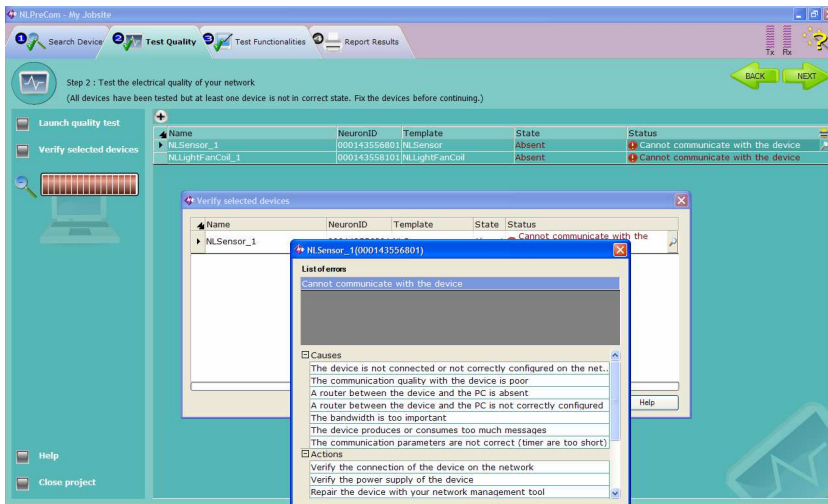


Figure 10 : Details on error

Click on “Next” arrow to move to the third step.

Test Functionalities

Devices are sorted according to their device template. Every action defined on the device template in the package is available in the left menu. Four kinds of actions are available :

- Download (a nxe file into a device)
- Configuration (writing a value to a device)
- Command (writing a value and monitoring a value at the same time)
- Monitoring (monitoring value(s) on the device)

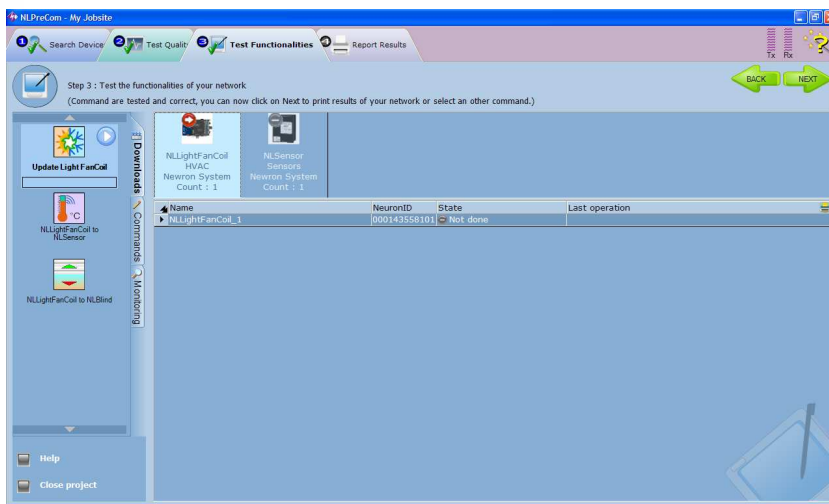


Figure 11 : Test functionalities tab

Some configurations and commands can be mandatory ; if you do not launch them, an error will be displayed when you move to the next step.

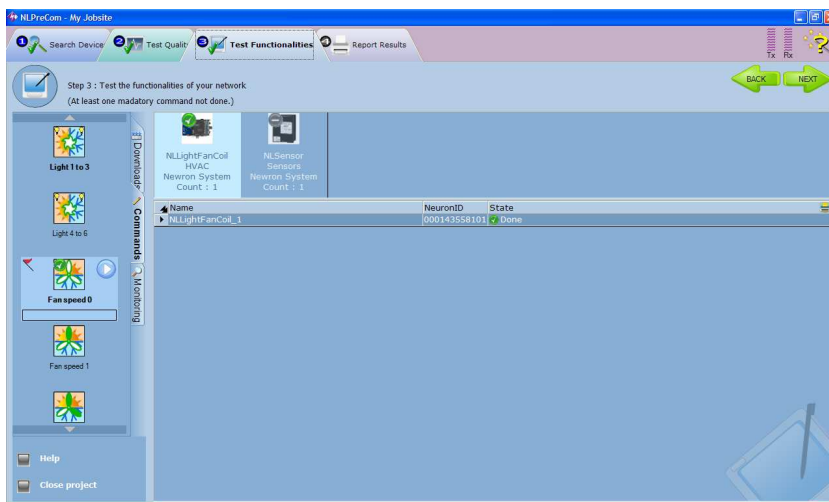


Figure 12 : Mandatory configuration launched successfully

To move to the fourth and last step, click on the “Next” arrow.

Report results

In this tab, you can generate different kinds of reports on the test results of your project.

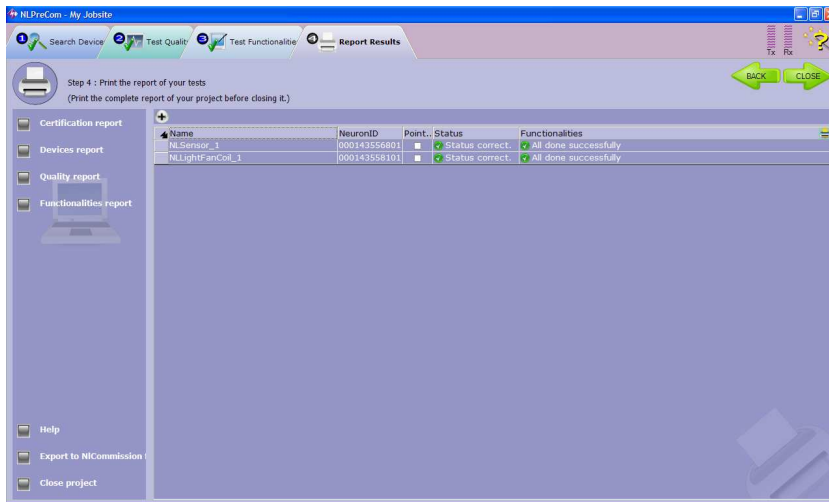


Figure 13 : Report results tab

The certification report is a general report on the channel tests, saying whether it has passed or not all tests launched.

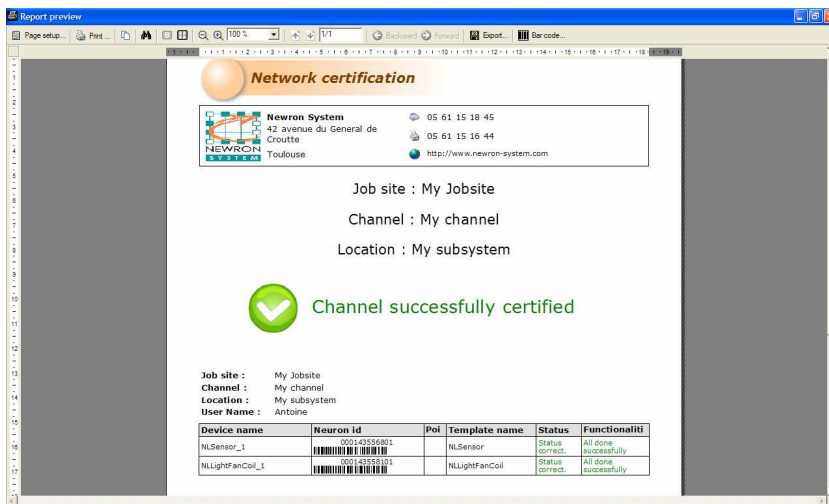


Figure 14 : Network certification report

The devices report gathers information on the first step of the project ; it lists the devices that have been added, with their Neuron Ids.

The quality report gathers information on the second step of the project ; it lists the devices and their state and status after the network test was launched.



The functionalities report gathers information on the third step of the project ; for each functionality, it lists if the functionality has been launched on the device and if it has, what was the result returned.

New channel certification after commissioning

The need for post-commissioning

The post commissioning test is used after the network database has been created and the devices commissioned.

It allows to launch network tests all along the jobsite's life, generating reports for the facility manager.

Create the post-commissioning project

The main difference here is that you can import the devices from an LNS database instead of scanning the network. After defining the names of the project, channel, ..., set "Import LNS database" as the last option.

The screenshot shows a dialog box titled "New Channel certification" with a blue header bar and a red close button. The dialog contains several fields for project configuration:

Job site	PostComm
Channel to certiv	Channel 1
Location	Building 01
Network Interface	NIC USB 1
User Name	Antoine
Start project mode	Import LNS database

Below the fields, there is a note: "LonWorks network interface used to communicate with the devices. Select an available interface from the dropdown list. [mandatory]". At the bottom, there are two buttons: "Next >>" and "Cancel". The "Start project mode" field and its value "Import LNS database" are highlighted with a red circle.

Choose the project you want to import from the combo box. If you click on a channel, the devices present on the channel will appear in the right field. Check the channel to import devices from this channel. You can also choose to import all devices corresponding to a program id, by checking the corresponding check boxes in the bottom field.



Import Lns database

Projects: Valise2

Import	Channel
<input type="checkbox"/>	Channel_1

Devices of channel

Host_Valise2
LightFanCoil
Sensor

Import	Template	ProgramID	Package
<input type="checkbox"/>	Host_Valise2	9000010103800000	
<input checked="" type="checkbox"/>	Node01	8102039A01010101	New version Demo
<input checked="" type="checkbox"/>	Node02	8102039C01010101	New version Demo

Import

Cancel

Help

Figure 15 : LNS database import window



NLPRECOM PACKAGE EDITOR

Define a package

Create / open a package

Launch **NLPrecom** package editor. You can choose between opening a previous package, or creating a new one. If you choose to create a new one, you can create an empty package or choose a wizard to guide you during the creation of the package.

Let's follow here the steps of the wizard.

Package information

The screenshot shows a Windows-style dialog box titled "New package wizard" with a close button (X) in the top right corner. The main title is "PreCom Package" with the subtitle "General information of the PreCom package". The dialog contains three input fields: "File name" with the text "Newron Wizard package", "Company" (empty), and "Version" with four spin boxes containing the values 1, 0, 0, and 0. To the right of the version spin boxes is a checked checkbox labeled "Increment version on build". At the bottom of the dialog are four buttons: "< Back", "Next >", "Cancel", and "Help".

Figure 16 : Package information

Define here package's name, the company providing the package, and the version number.



Languages supported

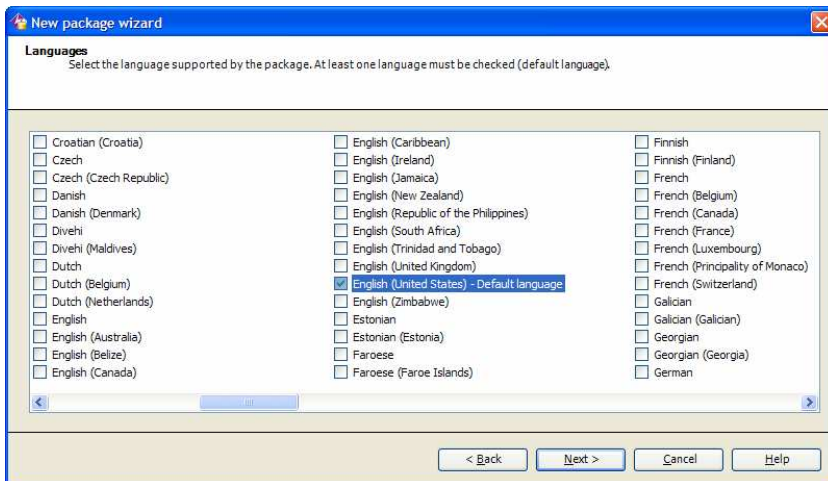


Figure 17 : languages supported

The default application language is automatically selected. You can check several other languages to provide your own package translation into those languages.

Device template

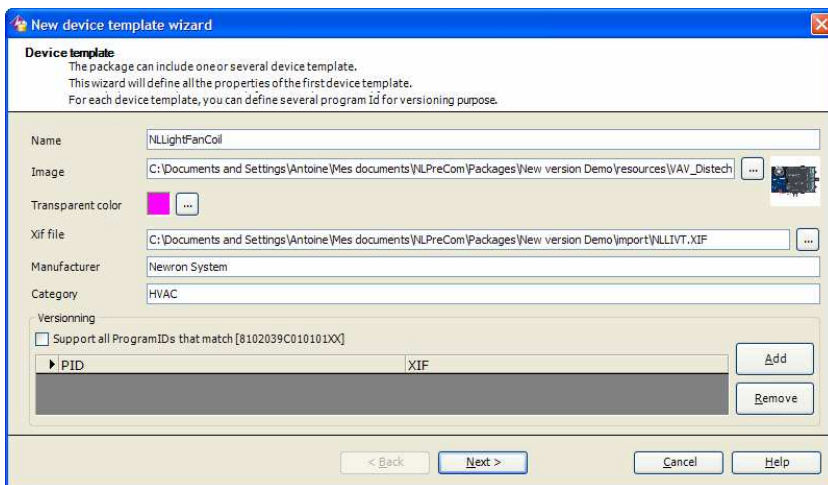


Figure 18 : Device template creation

When you create a device template, you need to define its name and a picture that will represent it in **NLPrecision**. You must also set the xif file that is used by the device. You can also inform the manufacturer and the category of the device



template. You can also add several program ids to be supported by the device template.

Scan domains

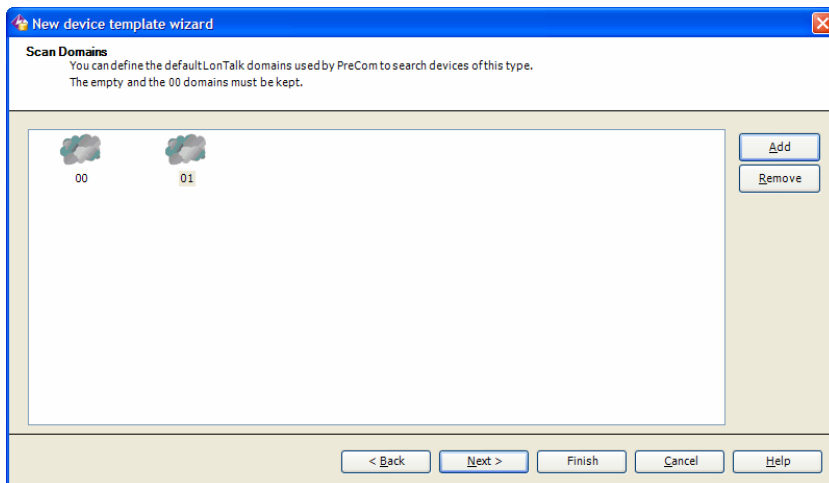


Figure 19 : Scan domains

Define in which domains **NLPrecom** will scan for the devices of this device template.

Download

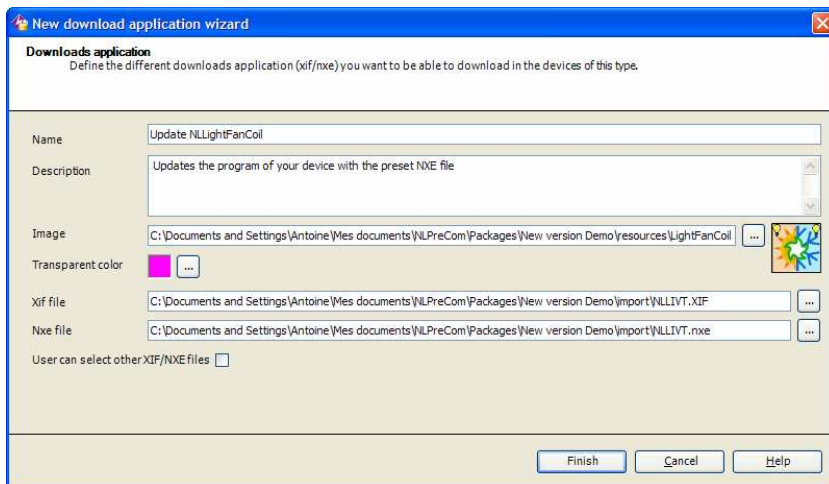


Figure 20 : Define download



When you define a download for a device template, you have to set a name and a picture for this action. Then you must also inform which XIF and NXE files will be downloaded in the device. An option allows the user to choose by himself which NXE file he will download in the device.

Configuration

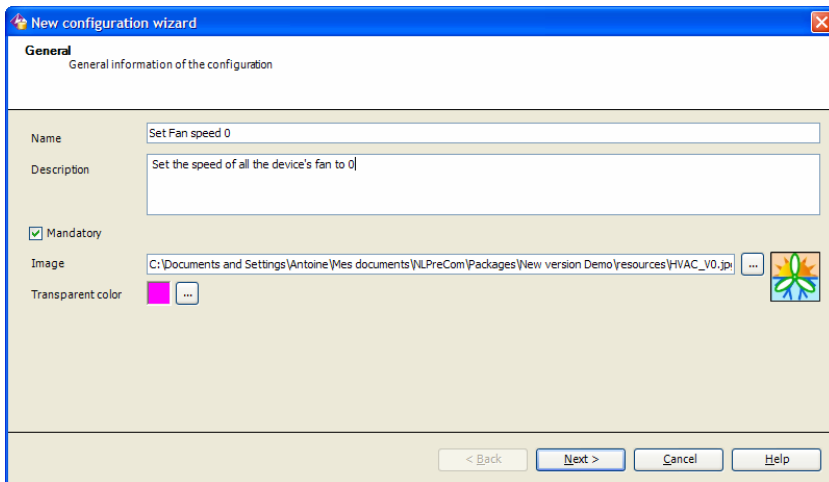


Figure 21 : Configuration general tab

In the general tab, you define a name, a picture and a description of the configuration. An option can be set to force the user to launch the configuration.

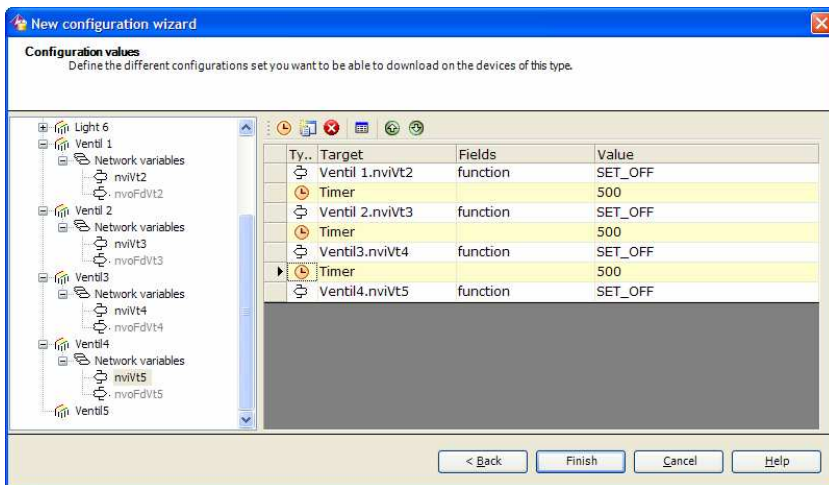


Figure 22 : Configuration writings tab



In the writings tab, you can define which values will be written on which variables or configuration properties.

Name	Used	Type	Min	Max	Value
function	<input checked="" type="checkbox"/>	Fixed value	SET_NUL	SET_STATE	SET_OFF
setting	<input type="checkbox"/>	Fixed value	0	100	0
rotation	<input type="checkbox"/>	Fixed value	-359098	360	0

Figure 23 : Edit / create writing

Command

General
General information of the command

Name: Command Light 1

Description:

☐ Mandatory

Image: C:\Documents and Settings\Antoine\Mes documents\NLPCom\Packages\Newron Wizard package\resources\LightFz...

Transparent color:

Figure 24 : Command general tab

In the general tab, you define a name, a picture and a description of the configuration. An option can be set to force the user to launch the command.

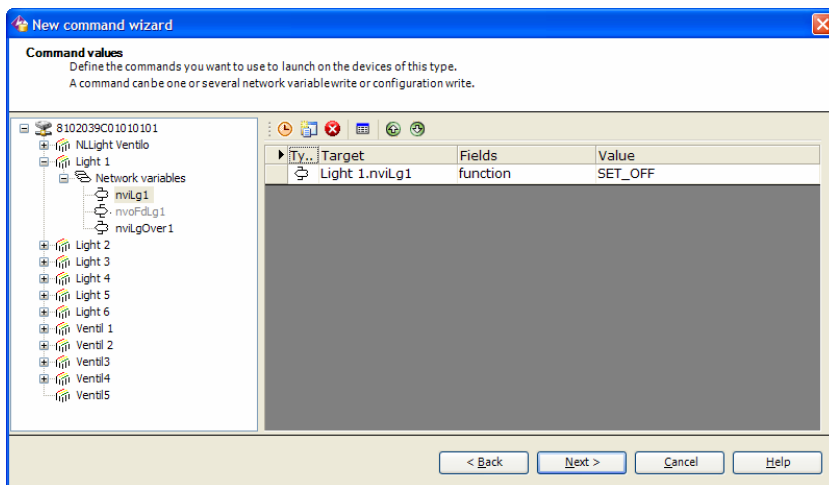


Figure 25 : Command writings tab

In the writings tab, you can define which values will be written on which variables or configuration properties.

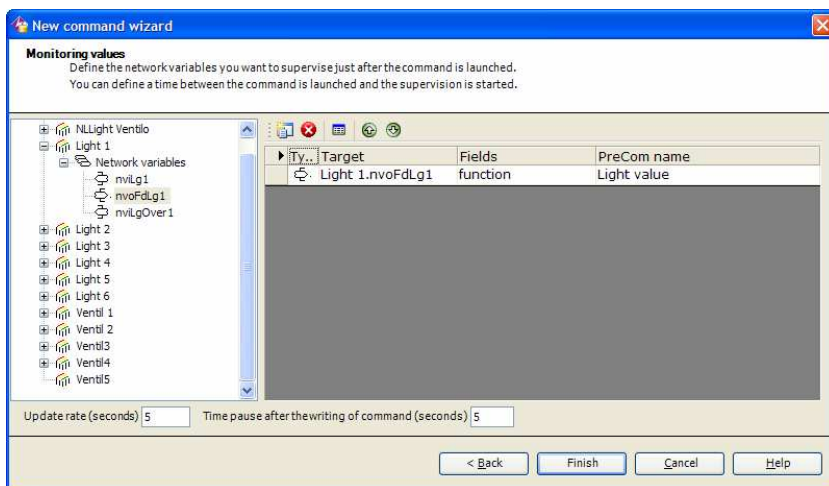


Figure 26 : Commands readings tab

In the readings tab, you can define which value can be monitored on the device. You can eventually define alarm thresholds (high and low) to get a warning on some values.



Monitoring

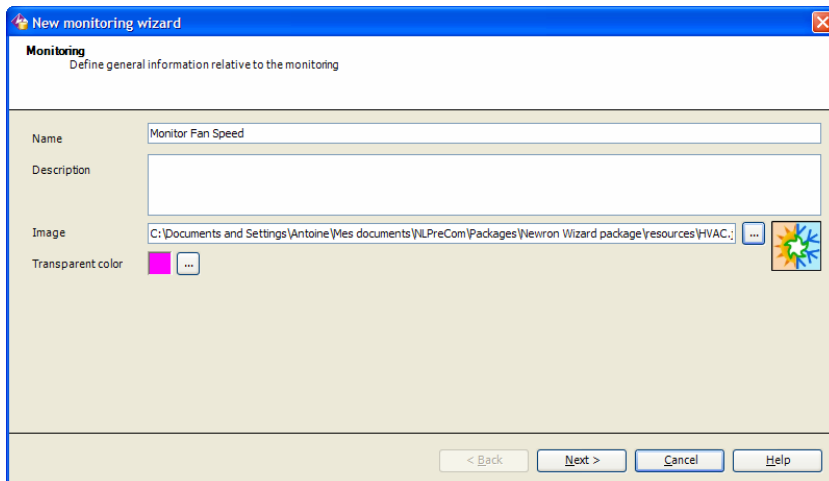


Figure 27 : Monitoring general tab

In the general tab, you define a name, a picture and a description of the monitoring.

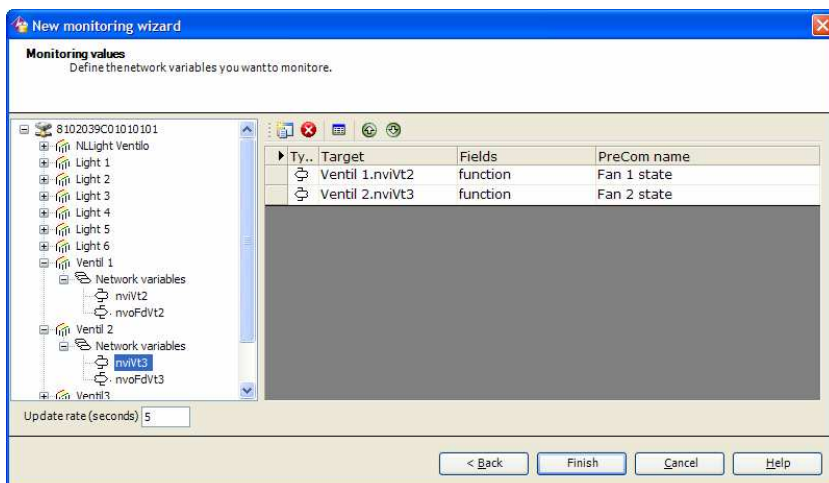


Figure 28 : Monitoring readings tab

In the readings tab, you can define which value can be monitored on the device. You can eventually define alarm thresholds (high and low) to get a warning on some values.

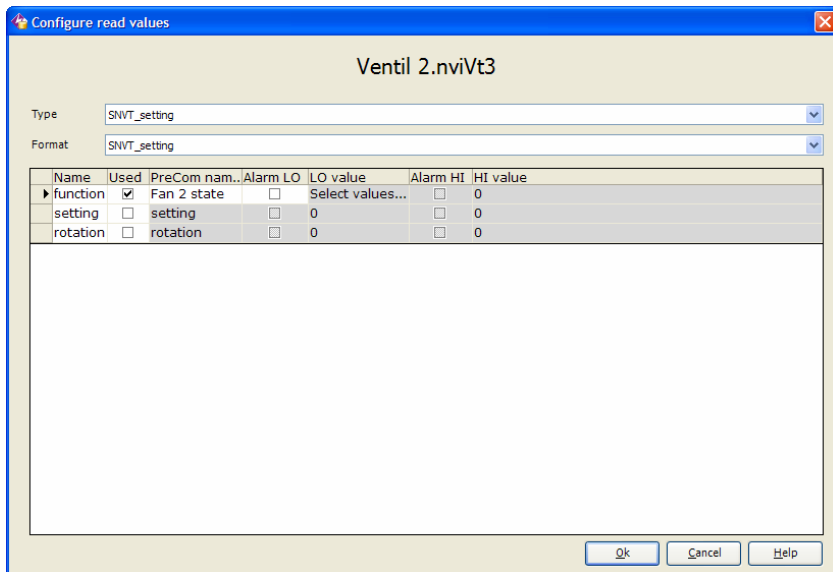


Figure 29 : Edit / create reading

NLPrecom package editor main window

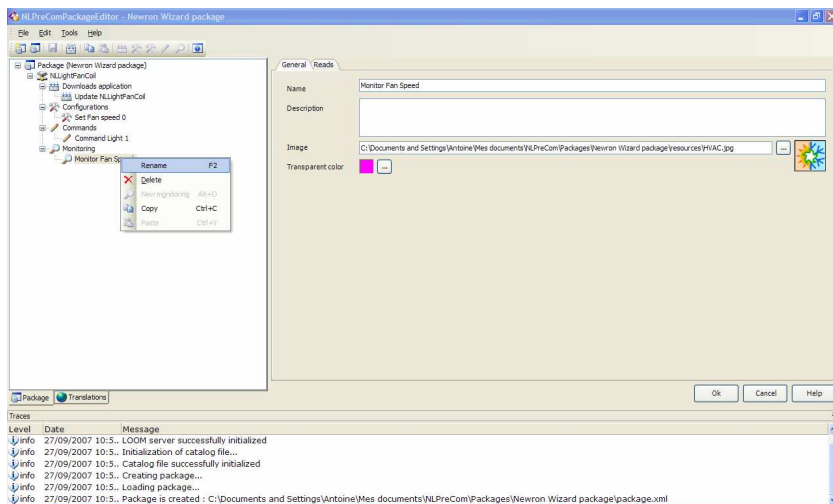


Figure 30 : Package editor main window

After you went through the wizard, your main window should look like this. You can edit the existing items or add new ones.



Translation

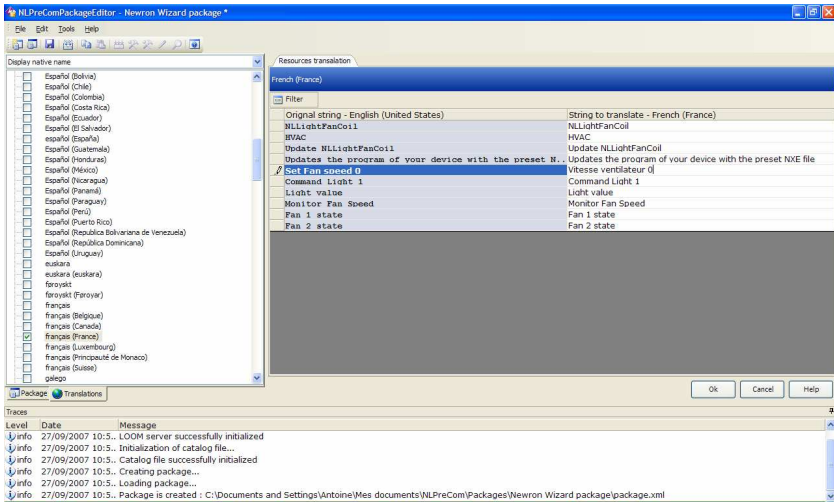


Figure 31 : Package editor translation

Every name defined in the package that will appear in **NLPrecom** (configuration name, monitoring value ...) can be translated. Switch to the Translations tab, and check the language into which you need to translate the package. Each string defined in the package has now its corresponding string in the translated language ; modify the strings to translate your package.

Build the package

Once you have finished to define all the elements of your package, you need to build the package to be able to import it in a **NLPrecom** project. Building the package will generate a .blz file, that you can import in a **NLPrecom** project. To build the package, go to the “File” menu, and click on “Build”.



CONCLUSION

This was presentation of NLPrecom and its associated tool NLPrecom package editor.



25 Boulevard Victor HUGO
Bâtiment Pythagore
31770 COLOMIERS (FRANCE)

Tel +33 (0)5 61 15 18 45

Fax +33 (0)5 61 15 16 44

<http://www.newron-system.com>

Sales and pricing : sales@newron-system.com

General information : informations@newron-system.com

Technical support : hot.line@newron-system.com

