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# RF-Configurator 2

## Quick start guide

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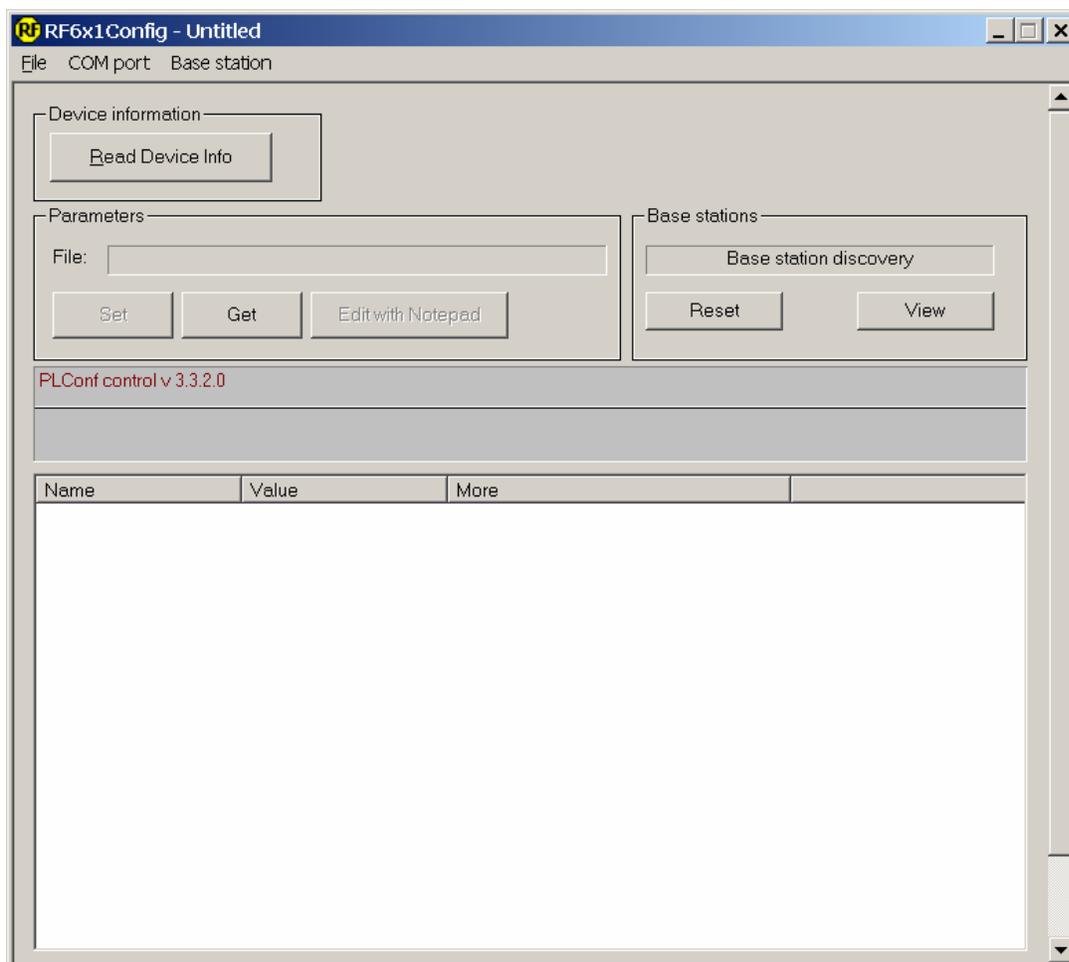
## Installation

1. All previous versions have to be removed
2. No older versions of the file “PLGonf.ocx” cannot co-exist, removed manually if needed.
3. Run “RF-Configurator 2.msi”. All settings are automatic.
4. The shortcut for the program is found in “Start” -> “Programs” -> “Nordic ID” -> “RF-Family” -> “RF-Configurator 2”

## Requirements

For the base stations to be operating correctly, the system must be setup on such network that has a DHCP server.

## Basic view

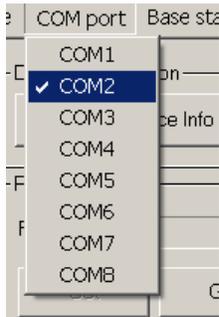


## Basic operations

### *When serial cable is used*

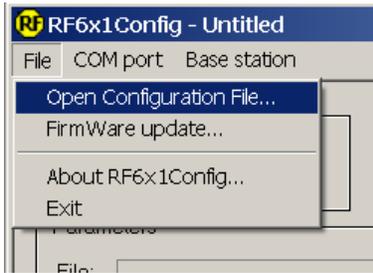
#### Serial port selection

Prior to any operations on a hand terminal or a base station, the serial port has to be selected:

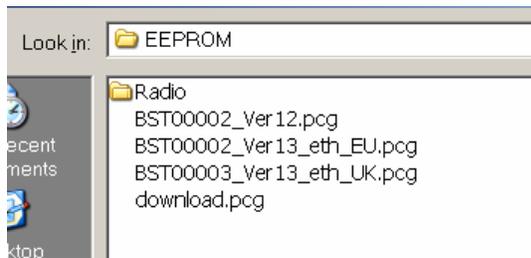


After this, all appropriate operations are performed on this serial port.

## Setting configuration

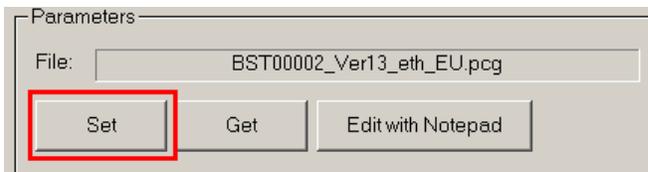


An open dialog will appear. The file names in the picture are examples.



Select the file you have created or downloaded and select Open.

After opening the file press the “Set” button.

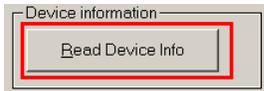


Upon execution, information about the process is shown:

Name	Value
Writing SYSTEM:0	
Writing SYSTEM:99	
Writing parameters...	3-24
Writing parameters...	25-29
Writing SYSTEM:60	
Writing parameters...	30-42
Writing parameters...	70-78
Writing parameters...	90-98
Writing RESET:	
Resetting...	
Writing END:	
File END	

## Reading device information

Press the “Read Device Info” button.



Following information is shown. First picture from a base station, the latter one from a hand terminal.

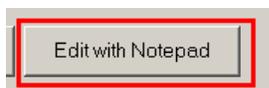
Name	Value	More
Device type.....	RF601 Base Station BST00002 / Ethernet / power supply ...	
Firmware version.....	SWM00011 BS RF601 ver:1.1.7	
commID.....	0	
Channel.....	3	
Radio type.....	2, cal=66	

Name	Value	Mo
Device type.....	RF601 Hand terminal HTC00003 Turquoise / Radio 433MH...	
Firmware version.....	SWM00010 ver:1.2.7	
System param version.....	1.1	
Customer settings name.....	Demo customer	
Customer settings version.....	1.1	
commID.....	39223	
Channel.....	0	
Radio type.....	1, cal=99	

Read information is:

Name	Value
Device type	Tells whether this device is a hend terminal or base station. This field also contains information about the power supply, radio and colour ohe te device.
Firmware version	Trivial
System param version	Trivial
Customer settings name	Name that the user wants to be used with this parameter set.
Customer settings version	Trivial
commID	Communication ID for the RF6xx protocol.
Channel	Communication channel for the device. 0..7 for the 433MHz base station and hand terminal, 0..31 for a Bluetooth device.
Radio type	Radio calibration value. Can be useful to know upon communication difficulties. This value can appear invalid on older version of the hand terminal (RF600) and base stations.

The configuration file (<name>.pcg) can be opened for editing:

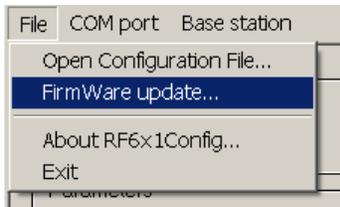


## Firmware update

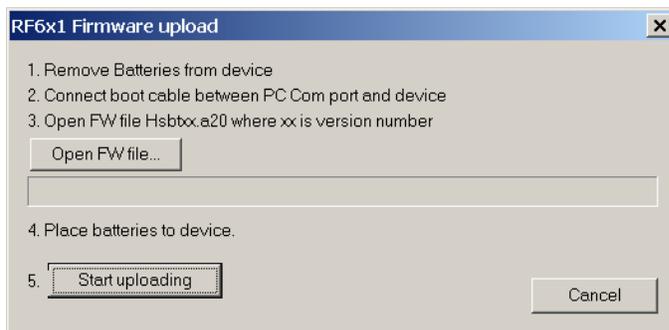
Requires:

1. a latest version of the firmware named <name>.a20
2. correct COM port to be selected

Select File → Firmware update



Follow the instructions in the update dialog:



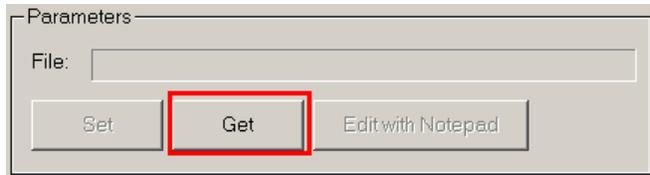
The file (<name>.a20) is selected by pressing “Open FW file...”. As shown, file extension is “a20”. Name in the following picture is an example:



Configurator will inform the user about the success/failure of the operation.

## Getting the device information

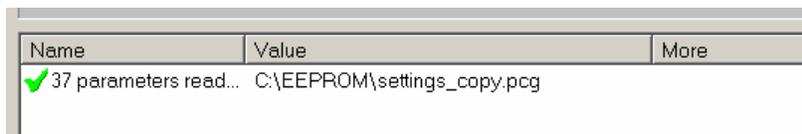
The “Get” operation is useful when user wishes to copy the device settings from one device to another. First, press the “Get” button:



A save dialog will appear. Either select the file from the list or type a new filename in which the settings will be stored. Again, the appearing in the picture are examples:



After execution, the operation status is shown:



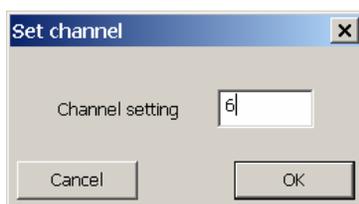
The file is then automatically opened in Windows’ notepad for editing. If the user does not want to edit the settings, notepad is just closed. Then the copying is done so that the destination device is attached to the serial cable and steps are as in “Setting configuration” with the file that was stored in the “Get” operation.

## Hand terminal channel

After “Read Device Info”, by **right-clicking** the information text, the channel can be set separately (hand terminal info):



Following dialog appears to set the channel:

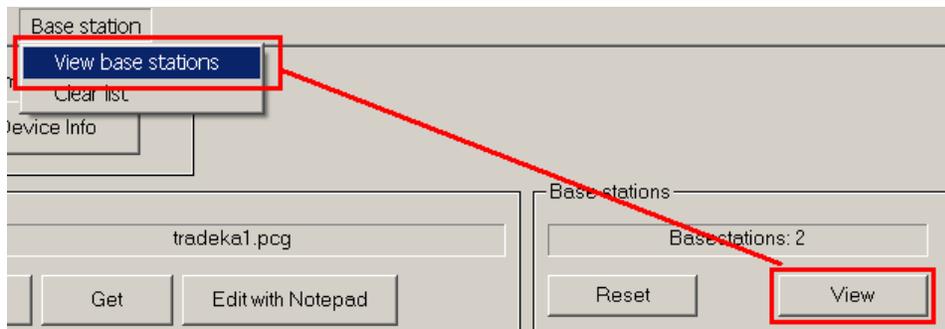


## When Ethernet is used

### The “Base station” menu

**NOTE:** To view the base stations correctly, the system must be setup on a network that has a DHCP server on it.

Viewing the base stations found in the local area network can be done in with either selections shown in the picture:



Base stations are listed as follows

Name	Value	More
Base station	172.16.32.24	Ch: 3, radio: 2, cal: 66
Base station	172.16.32.11	Ch: 3, radio: 2, cal: 66

## Base station operations

By **right-clicking a single base** station, popup menu appears:

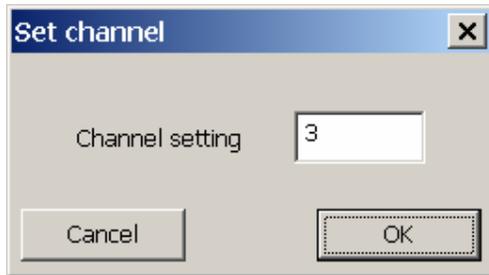


Popup menu contents:

Selection	Does
Channel	Sets the channel for the base station. See “Base station channel”.
Web	Open browser for advanced configuration of the Ethernet module. <b>NOTE: if username and password are changed the configurator will not be able to configure Ethernet settings anymore.</b>
View ethernet settings	Shows ethernet settings, see “View ethernet settings”.
Device info	Same as “Read Device Info”-button
Set configuration file	Same as selecting configuration file via File → Open Configuration file → <select one base station from list> → <press “Set”-button.
Set default ethernet settings	Uploads the factory defaults for the ethernet module and then reboots it.
IP address settings	See “IP address configuration”
Set description	User can set location and description texts with this selection. If the information is available it will be shown when “View ethernet settings” is selected, see “Description and location”.
Reset base station	Resets the base station side of the device.
Reboot ethernet module	Reboots the ethernet side of the device.
Select all base stations	Marks all the base stations in the list selected. Enables multiple base station configuration at the same time, see “Multiple base station configuration”.

## Base station channel

When channel setting is selected, channel set dialog is shown:



Set the correct channel and select “OK”.

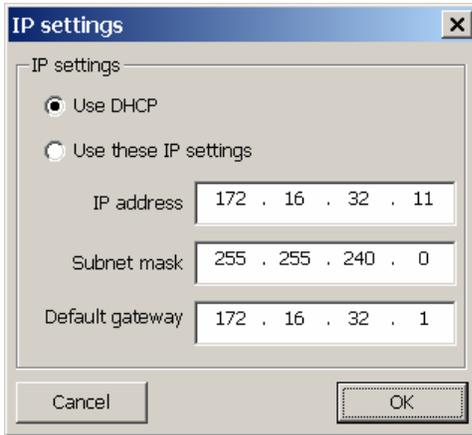
## View Ethernet settings

Settings @ 172.16.32.11	
Use DHCP:	on
Serial baud rate:	19200
Data bits:	8
Stop bits:	1
Parity:	none
Flow control:	none
Location:	Location 11
Description:	Station 11
Log out	OK (200)

where the essential settings of the ethernet converter are shown. Note the presence of the “Location” and “Description” information.

## IP address configuration

It possible to make the ethernet module to use fixed IP address or make it obtain an IP address from a DHCP server. When IP address settings is selected, following dialog appears:

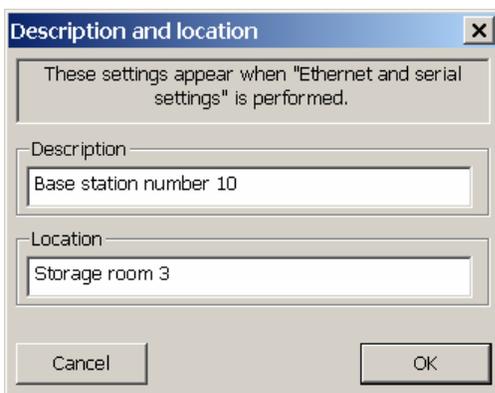


DHCP use is recommended.

**NOTE:** **If the IP address is set to some fixed address, make sure that you know what you are doing.** It may be very difficult to find the device afterwards in case wrong settings were made.

## Description and location

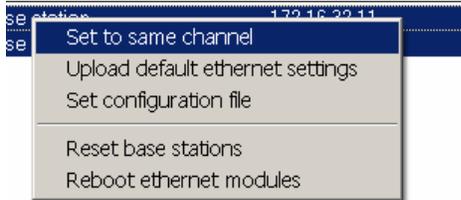
When “Set description” is selected, following dialog appears. Description and location values are examples. This property may come in handy in situation where the exact location of a base station is required.



Hit OK to store the settings.

## Configuring multiple base stations at once

When more than one base station is selected from the base station list, the popup menu (appearing with right-click) appears a bit differently:



The selections are:

Selection	Does
Set to same channel	Enables the all selected base stations to be set to same channel. Dialogs are as in channel selection.
Upload default ethernet settings	Uploads factory default ethernet settings to all the selected base stations.
Set configuration file	Set one configuration file to all the selected base stations.
Reset base stations	Resets all the base stations. This property can be useful in finding a base stations that is not answering: upon reset the LED on a base station flashes red and then goes green (requires the base stations to be in line of sight).
Reboot ethernet modules	Reboots all the ethernet modules.

## Other properties

Property	Does
“Clear list”-button	Clears the information list (does not remove e.g. any base station information)
“Reset”-button	Clears base station discovery information. Same as Base station → Clear list.

## Other information

### *Default Ethernet settings*

Setting	Default value
Use DHCP	yes (**)
Serial baud rate	19200 (*)
Data bits	8 (*)
Parity	none (*)
Flow control	none (*)

Values marked (\*) cannot be changed. When changing values marked (\*\*) care must be taken that the changes are correct