How to give an Open BAT or a WLC an IP address ?

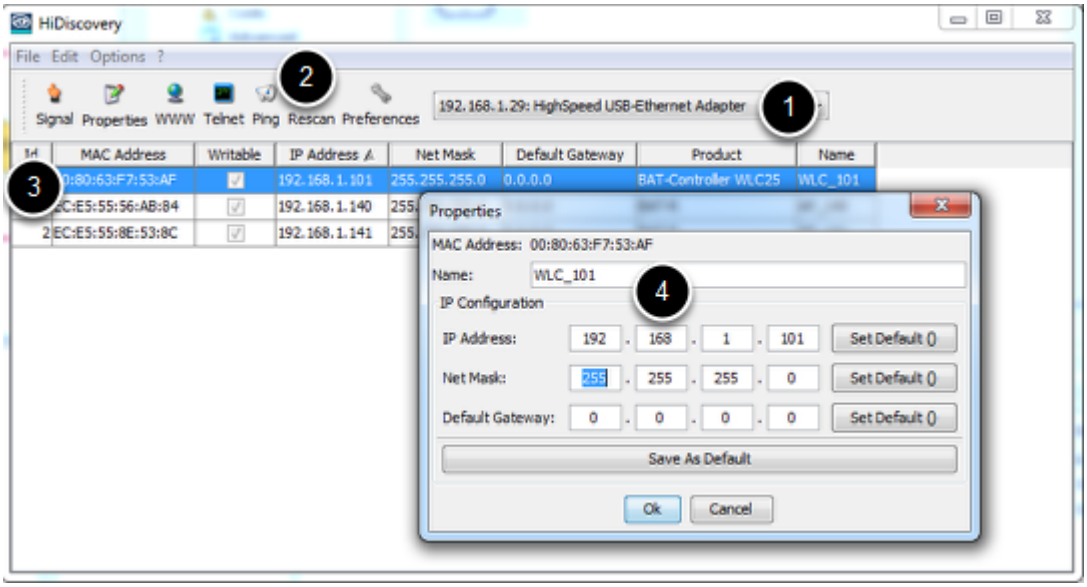
- 2018-02-21 - BAT, WLC (HiLCOS)

This lesson describes how to give an Access Point or a WLC controller an IP address.
We'll see 4 different methods:

- Via Hidiscovery
- With a DHCP server
- Via the serial interface, using the Command Line Interface (CLI)
- Via LANconfig

This how to is based on the assumption that the devices have the Hidiscovery protocol enabled (factory settings) and DHCP as well.

Via Hidiscovery



It's probably the easiest way.

You can download Hidiscovery from the Hirschmann Website :

http://www.hirschmann.com/en/Hirschmann_Produkte/Industrial_Ethernet/Software/Software_Tools/HiDiscovery/index.phtml

Hidiscovery is also included in the CD delivered with each product.

Connect your laptop with Hidiscovery and the BATs devices to the same L2 network

Start Hidiscovery.

Hidiscovery may find automatically the Hirschmann devices connected to your L2 network.

But if you have several network adapaters it could also occur that Hidiscovery starts using a wrong Network adapter. In this case, select the relevant network adapter (1) and Rescann the network (2).

From the discovered devices double clic on the one you want to configure an IP address (3)

A new window will open wher you can enter Name and IP settings for the device.

By clicking OK the settings you entered are automatically applied on the device.

Via DHCP

By default, DHCP is enabled on the WLC and on the Open BAT.

It's then possible t dynamically assign an IP address to the device.

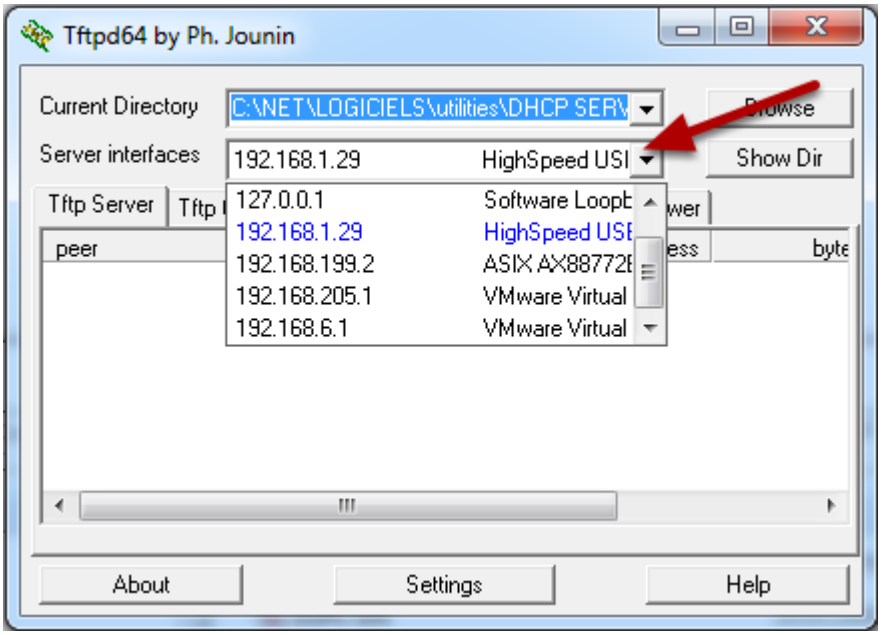
An Hirschmann switch can be used as DHCP server or you can download free DHCP servers on Internet.

One of the easiest and widely used id TFTPD32 which can be downloaded here :

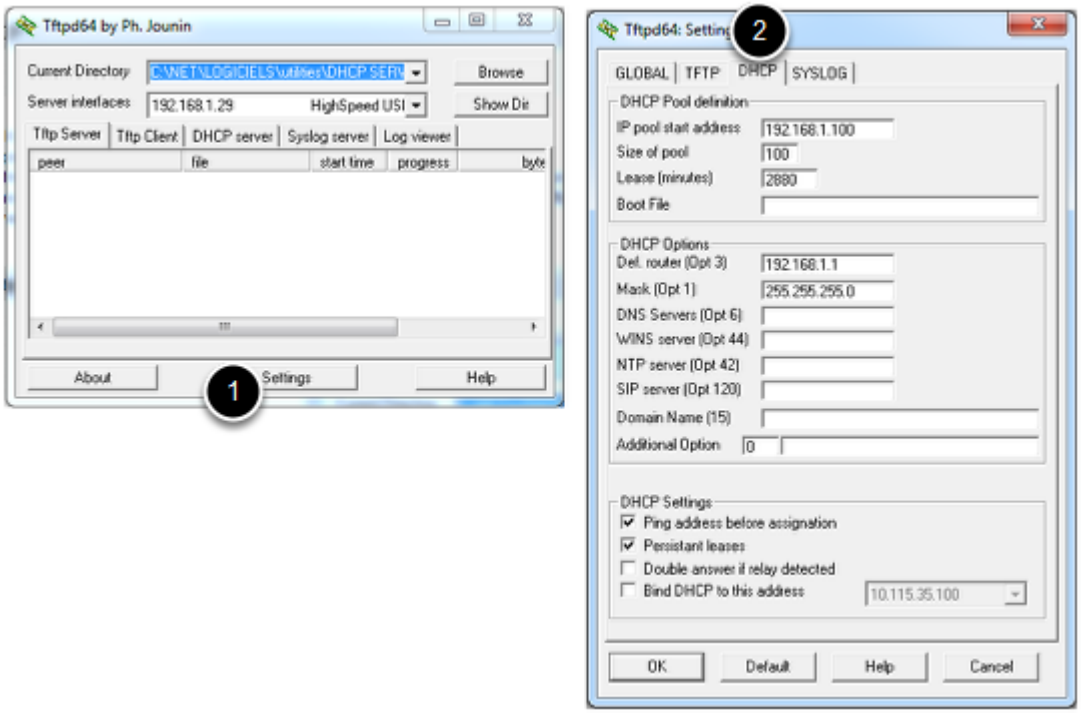
http://tftpd32.jounin.net/tftpd32_download.html

The following example was done with tftpd64 v4.50 on windows 7

Start Tftpd64 and select relevant network interface



Configure the DHCP settings



Clic on settings

Go in the DHCP Tab

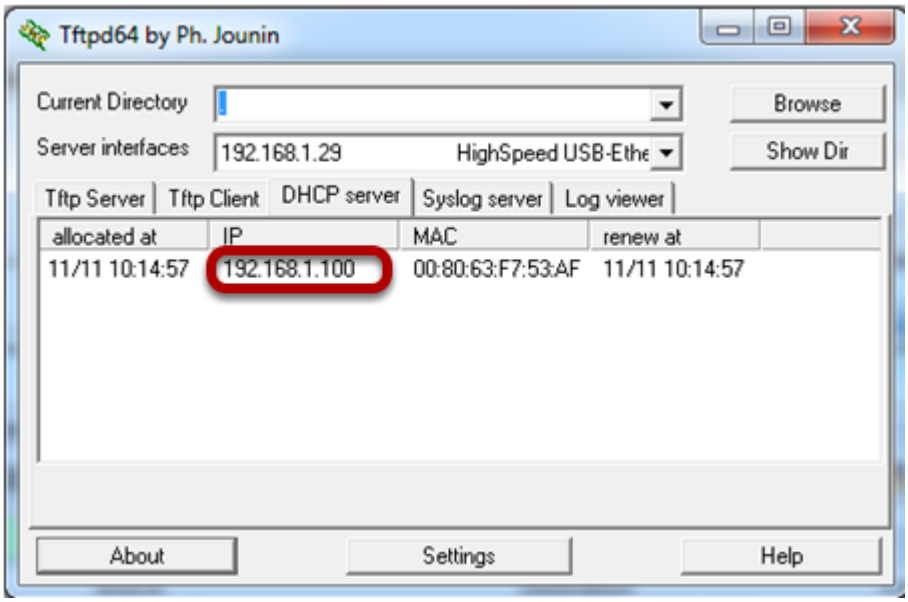
Enter your DHCP pool, subnet mask, Gateway if necessary

Then OK. The configuration of your DHCP server is finished.

NB: UDP port 67 is used by the server. Take care that your Firewall don't block it

(allow incoming trafic with port destination 67, outgoing trafic with port destination 68)

Wait the next DHCP request



At the next DHCP request from the device, your DHCP server will automatically attribute to teh device an IP address from the defined pool of addresses.

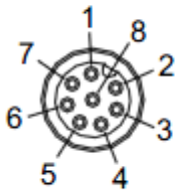
Via the serial interface

WLC and Open BAT have a V24 interface (A coded M12 plug)

A cable is delevered with each device (M12 - RS232) making possible serial connection between a workstation with serial interface (RS232) and the WLC or Open BAT.

If the workstation doesn't have any serial interface, converters USB to serial are needed.

Pin assignment of the V.24 interface, 8-pin, A-coded M12 socket

Pins of the M12 socket on the device	Pin	Function	Description of functions
	1	GND	Ground
	2	DTR	Data terminal ready
	3	TxD	Transmit data
	4	RxD	Receive data
	5	DCD	Data carrier detect
	6	DSR	Dataset ready
	7	RTS	Request to send
	8	CTS	Clear to send

VT 100 terminal settings

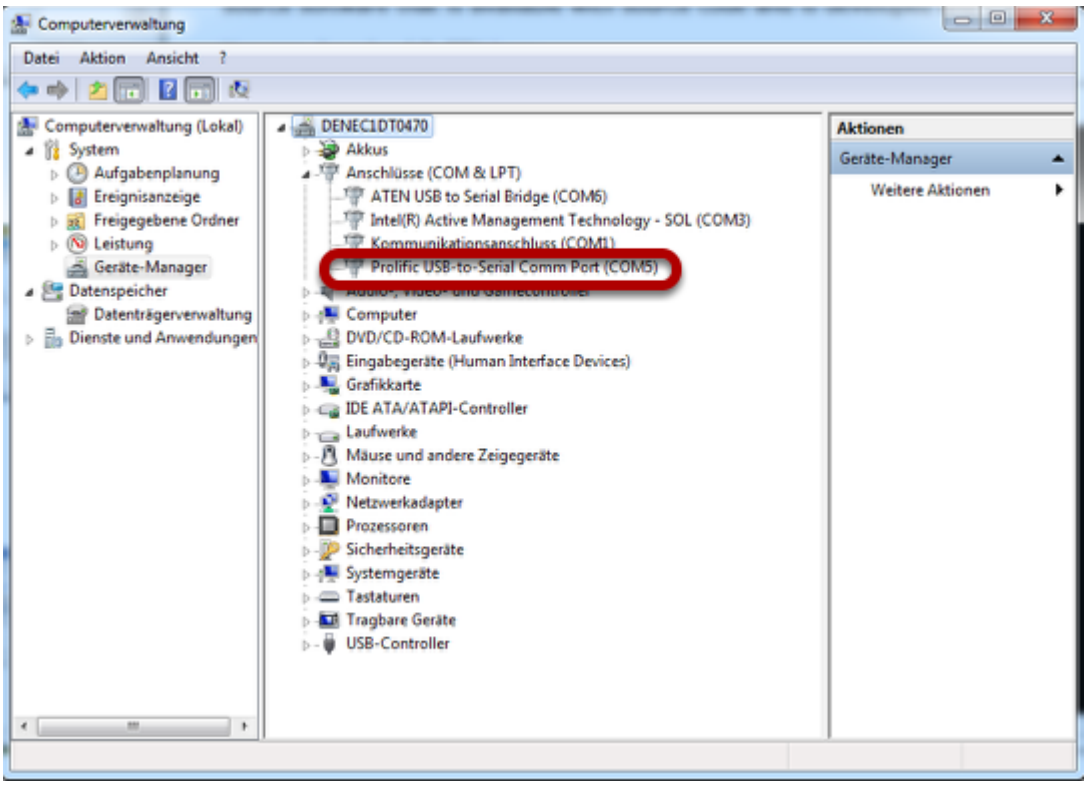
VT 100 terminal settings	
Speed	115200 bit/s
Data	8 bit
Stopbit	1 bit
Handshake	Hardware
Parity	none

Download Putty

PuTTY is an SSH and telnet client but it can also be used as VT100 Terminal emulation.

You can download Putty here: http://www.putty.org/

Check what Port is used for your serial connection



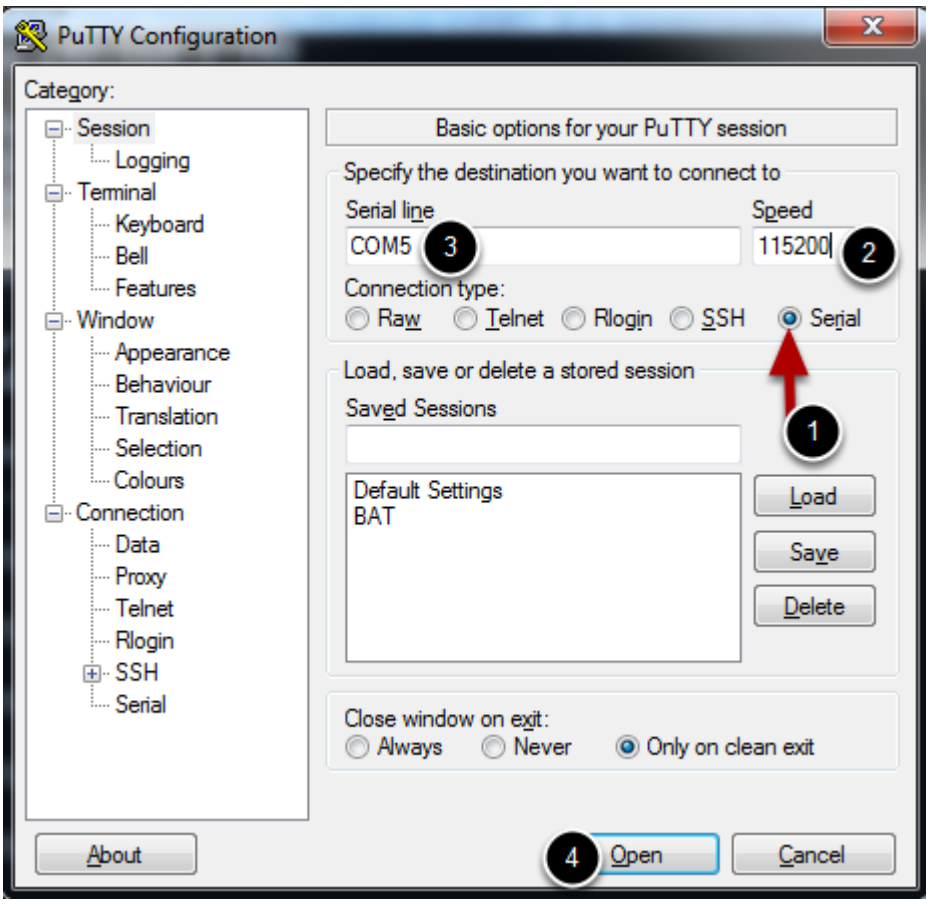
In our example. we use a USB to serial adapter (Prolific).

To check which COM port is in use, go in:

Control Panel > Administrative Tools > Computer Management > Device Manager > Ports (COM & LPT)

In our example it corresponds to COM5

Start Putty and configure the settings



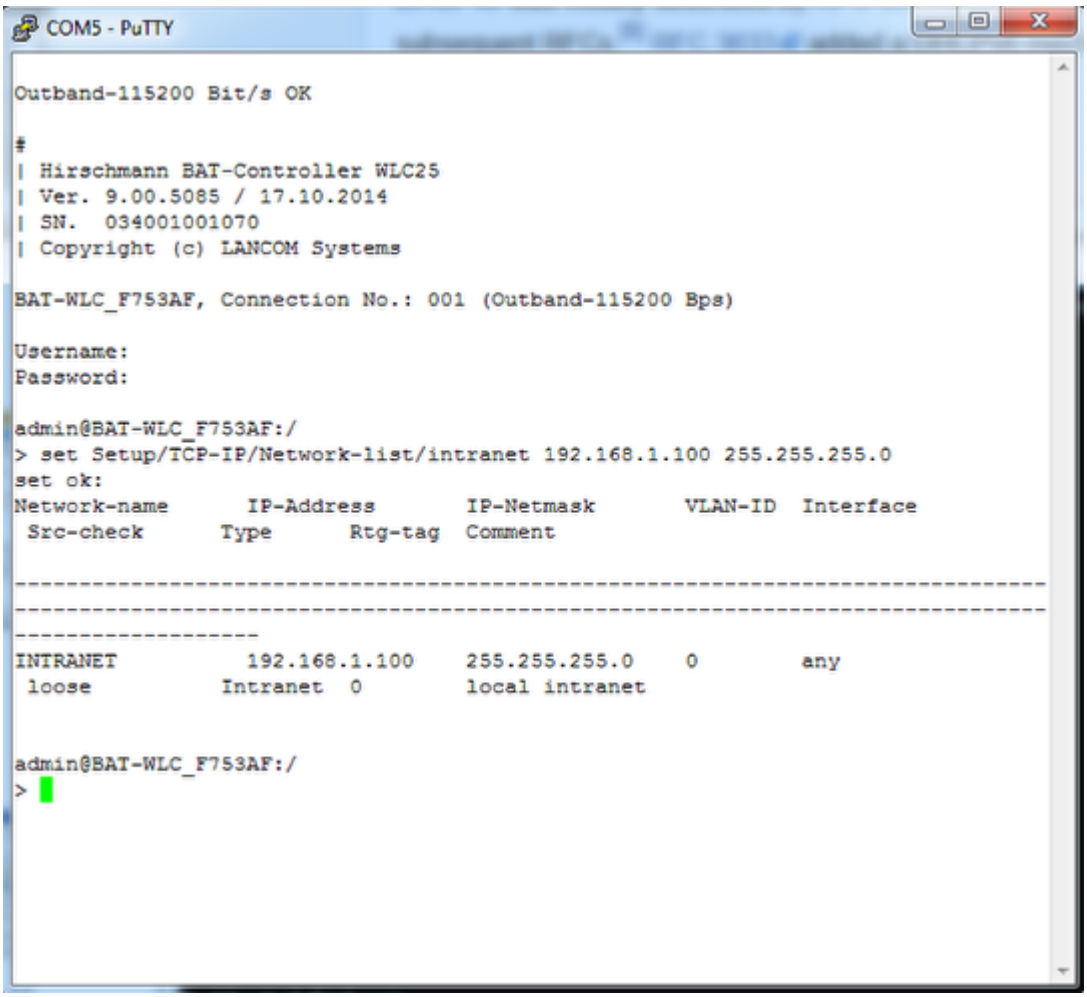
1/ Select the connection Type: Serial

2/ Enter the VT100 Speed: 115200

3/ Enter the serial line in use: in our example COM5

4/ Open

Enter the CLI



After a succesfull login (default password: private) only 1 command is enough to set an IP address:

set Setup/TCP-IP/Network-list/intranet IP_ADDRESS MASK

Via LANconfig

LANconfig is a management software for Open BAT devices and controllers.

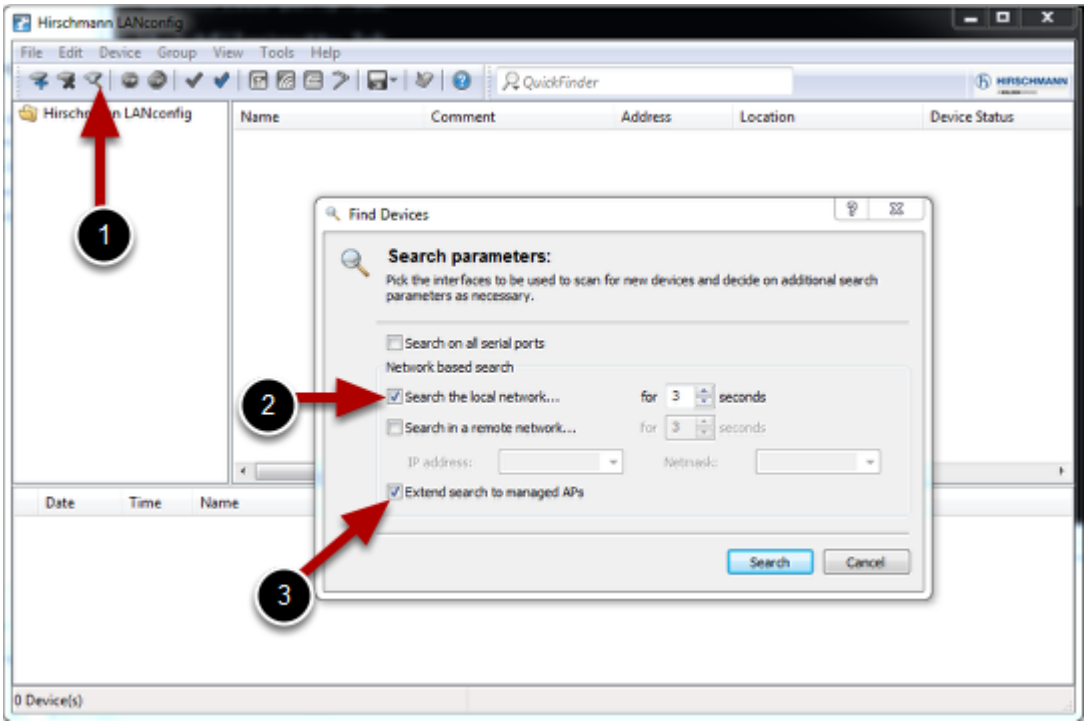
You can install it directly from the CD delivered with each device or download it from the Hirschmann Website.

Pre-requisite for the first steps:

The workstation with LANconfig and the device to configure must be in the same L2 network.

This example is based on the assumption that the device to configure has factory settings.

Start LANconfig and run a scan

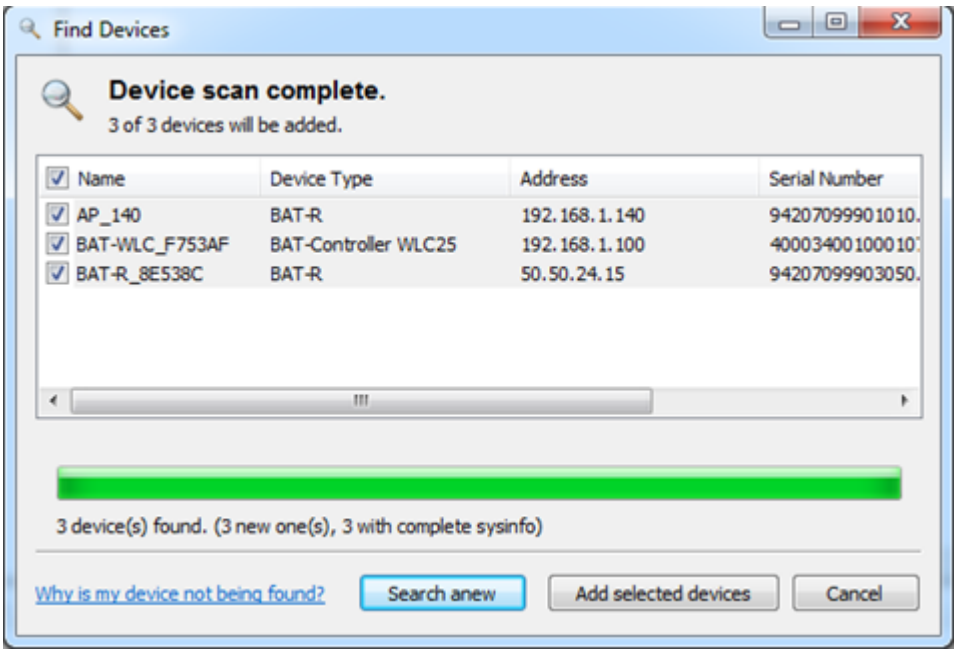


1/ Search for devices in the network pressing the ""find devices"" button (1)

2/ In the ""Find Devices"" menu, select ""Search the local network"". It will search for the BAT and WLC connected in the same L2 network as all your network interfaces (if you have 2 network interfaces in 2 different L2 networks, the discovery will be done in the 2 L2 networks)

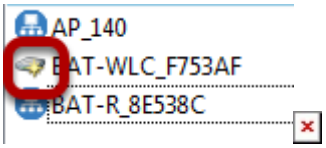
3/ Don't forget to tick ""Extended search to managed APs"", otherwise Open BAT with default config won't be find.

Select the devices to configure



Devices present will be find, new ones (without IP address) or already configured ones.

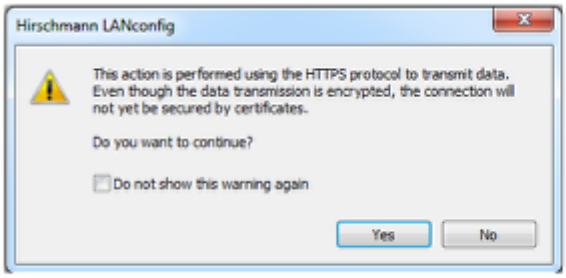
Select the ""new"" devices and select ""Add selected devices""

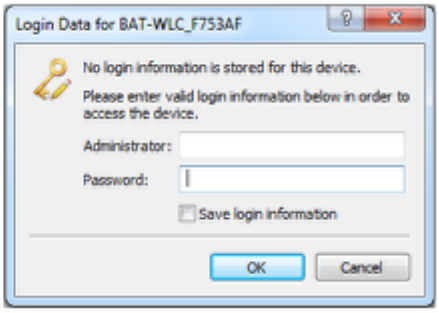


In the main Window the devices without configuration appear with this icon..

Automatically a Wizard is launched. Follow the Wizard.

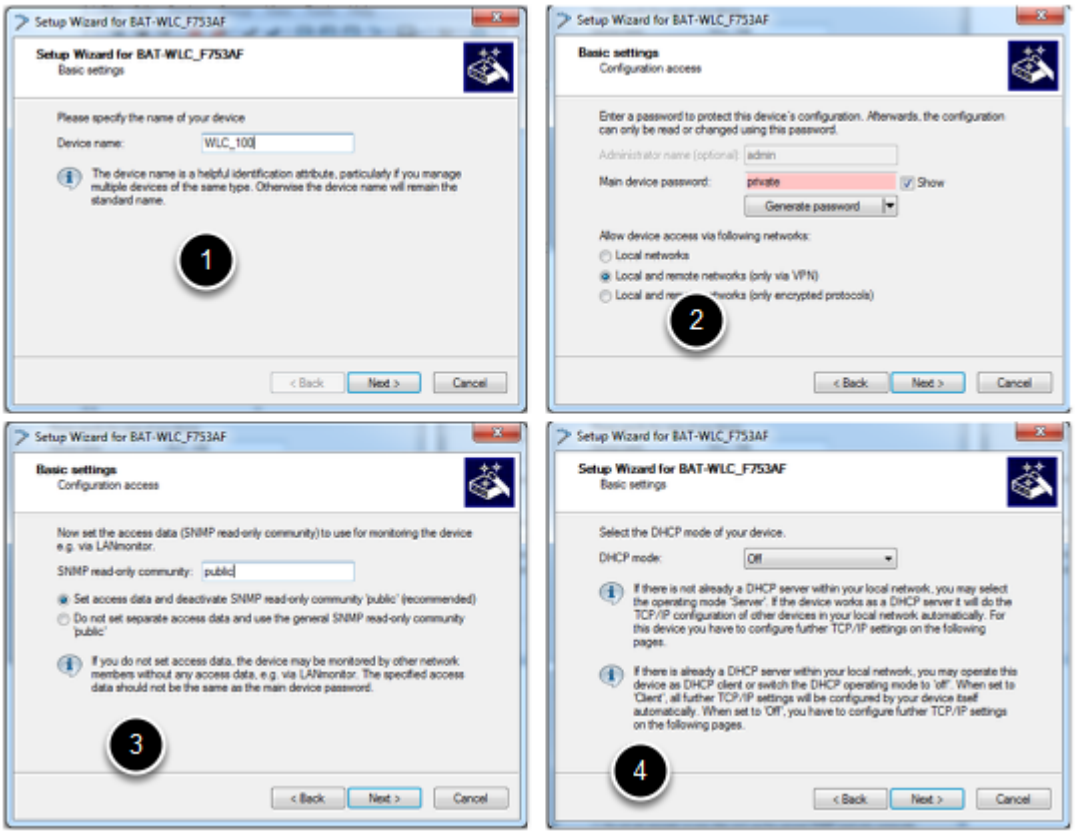
Accept the warning and log to the BAT





Default password : private

Follow the Wizard (1)



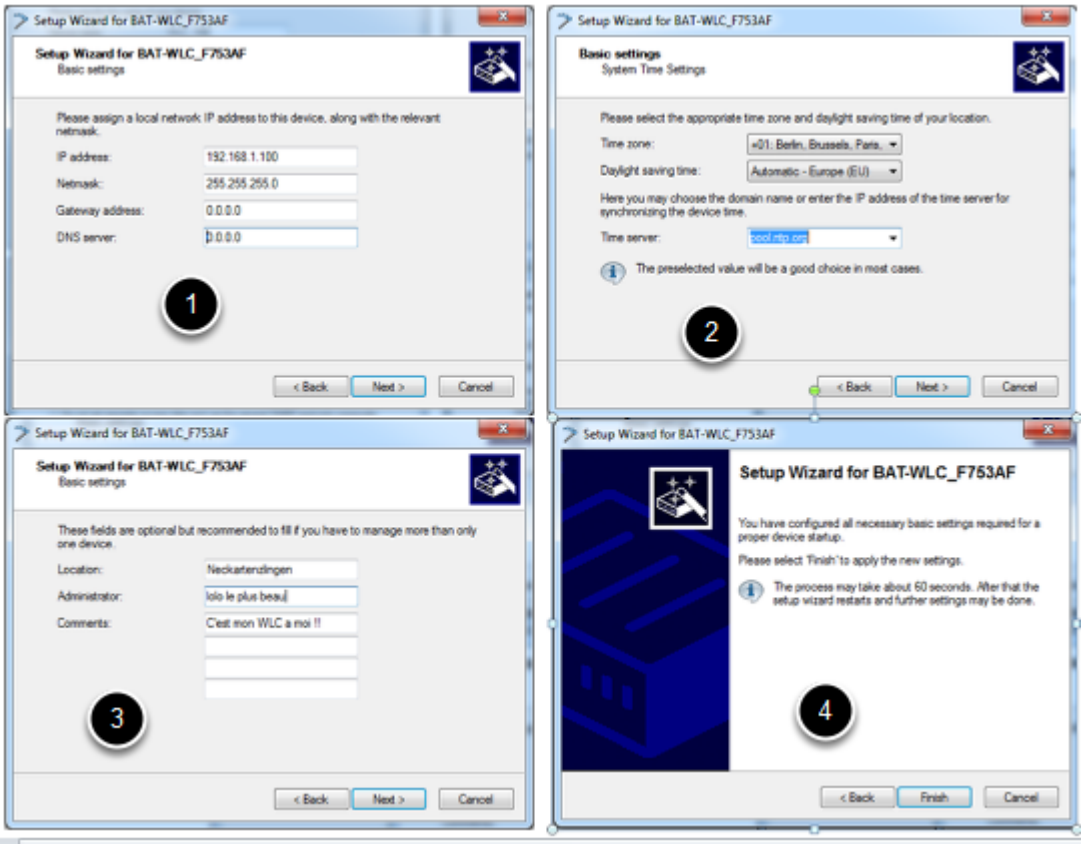
1/ Give the Device a Name

2/ Give the device a password

3/ Configure the SNMP read only community

4/ Configure the DHCP Mode (on our example off)

Follow the Wizard (2)



1/ Give the device an IP address

2/ Give the device Time settings

3/ Optionnal settings (Location ...)

4/ Finish