

## How to configure an Open BAT as Access Client

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

This lesson describes how to configure an Open BAT as Access Client and define basic radio settings and logical settings.

The lesson describes only the "basic" of such configuration. It doesn't details all the possible options.

LANconfig is used as configuration tool.

To follow this lesson you need this tool. You can find it either on the CD delivered with each product either on the Hirschmann Website.

We'll see in this lesson how to:

- Enable a radio module
- Select the indoor/outdoor mode
- Select the country
- Define the Radio settings
- Configure an SSID
- Configure the security settings to access this SSID

In this example we'll do the following configuration:

An Client in Germany outdoor.

2 Radio modules, the first one in the 2.4 Ghz band, the second one disabled

Limitations of channels in 2.4Ghz: 1,6 and 11

SSID : RESEAU\_TOTO

Security: WPA-PSK

### **Preliminary steps**

Give the BAT an IP address

You can refer to the lesson "How to give an Open BAT or a WLC an IP address"

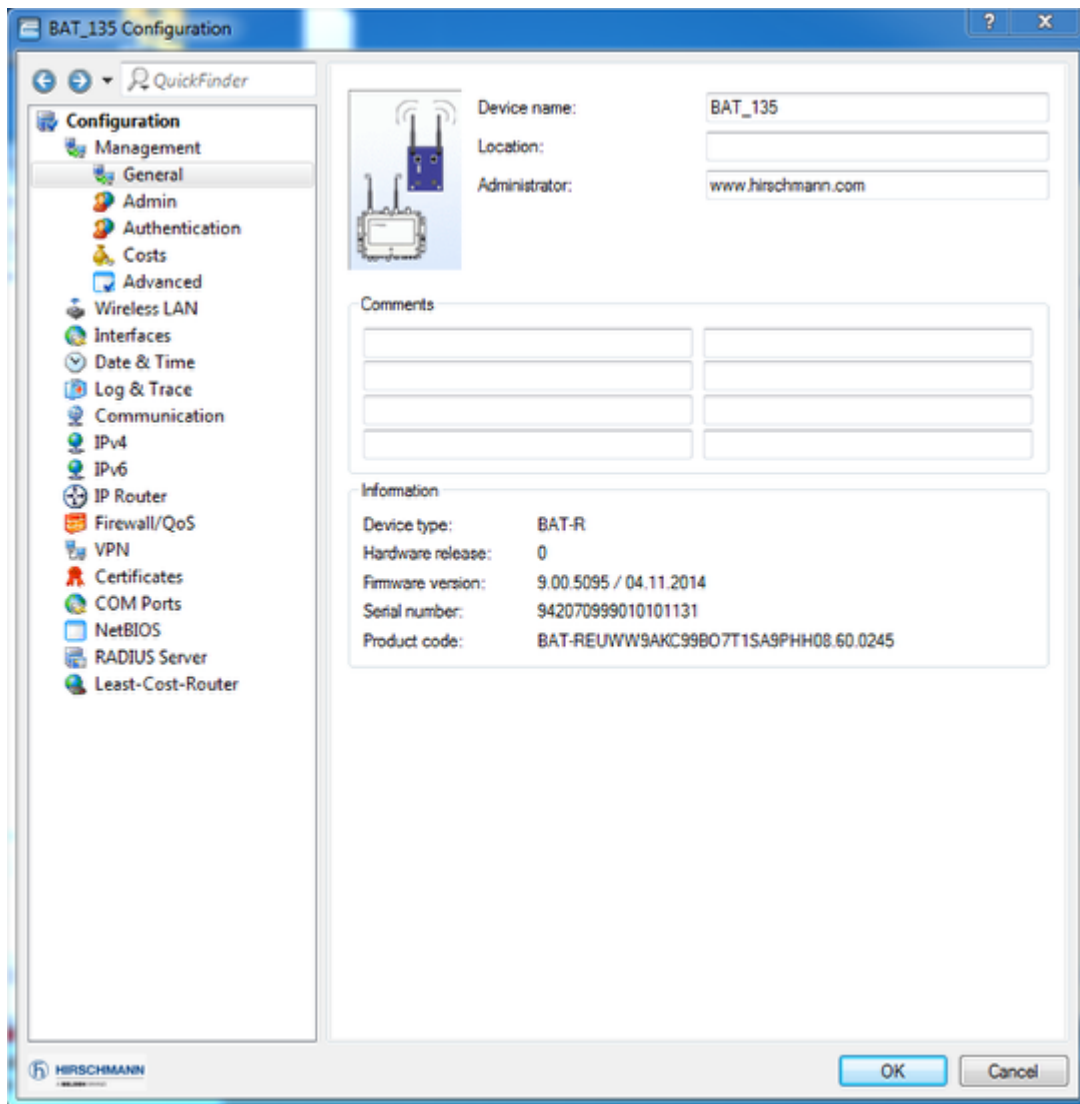
Add the BAT in LANconfig

You can refer to the lesson "How to discover a BAT or a WLC in LANconfig"

### **Select the BAT and open a configuration dialog**

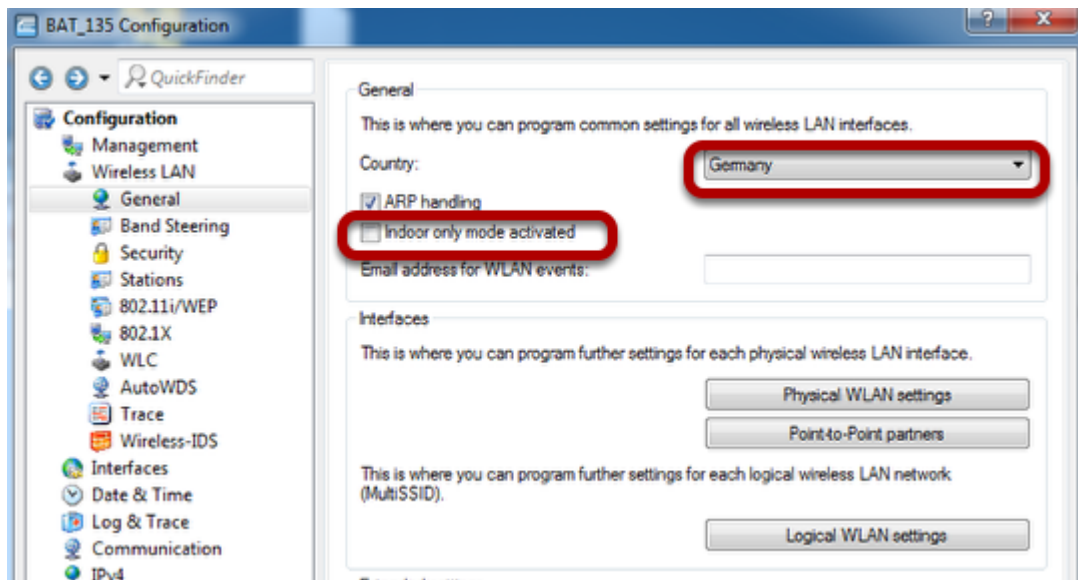






You can open the configuration dialog selecting the device > right clic > configure

**Select the country and the outdoor mode**

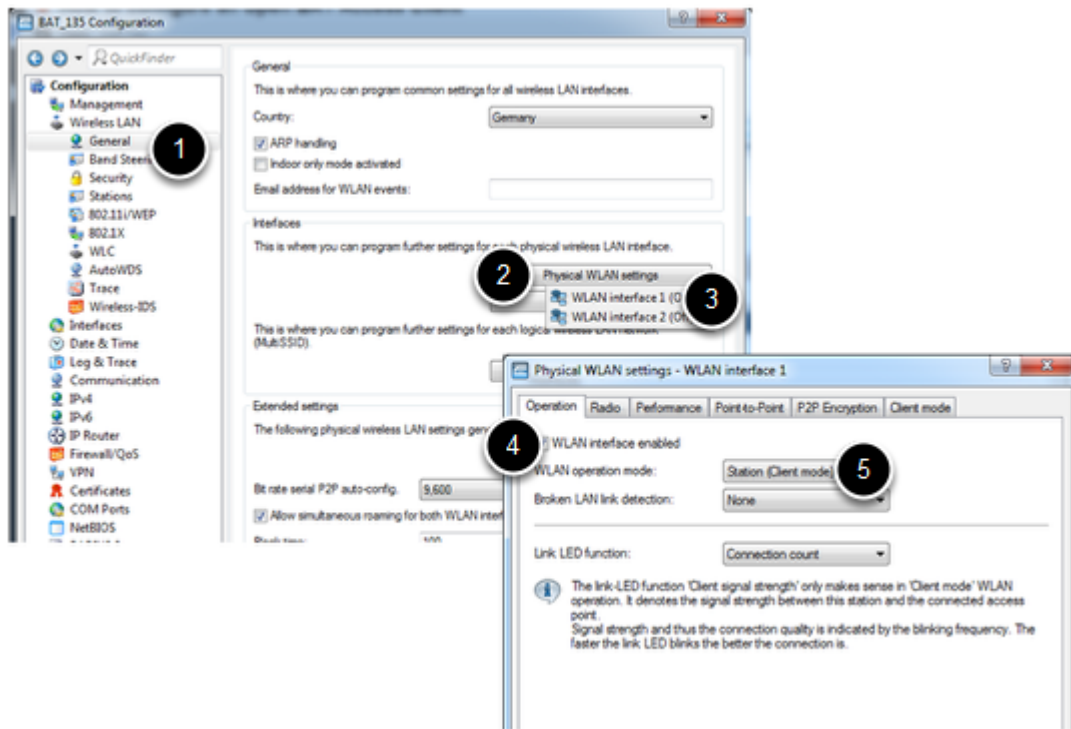


Configuration > Wireless LAN > General >

Select the country Germany

Untick ""Indoor only modeactivated""

**Enable WLAN-1 and configure it as Access Client**



Configuration > Wireless LAN > General > Physical WLAN settings > WLAN interface 1 > tick ""WLAN interface enabled""

Select WLAN operation mode ""Station (Client mode)""

## Disable WLAN-2

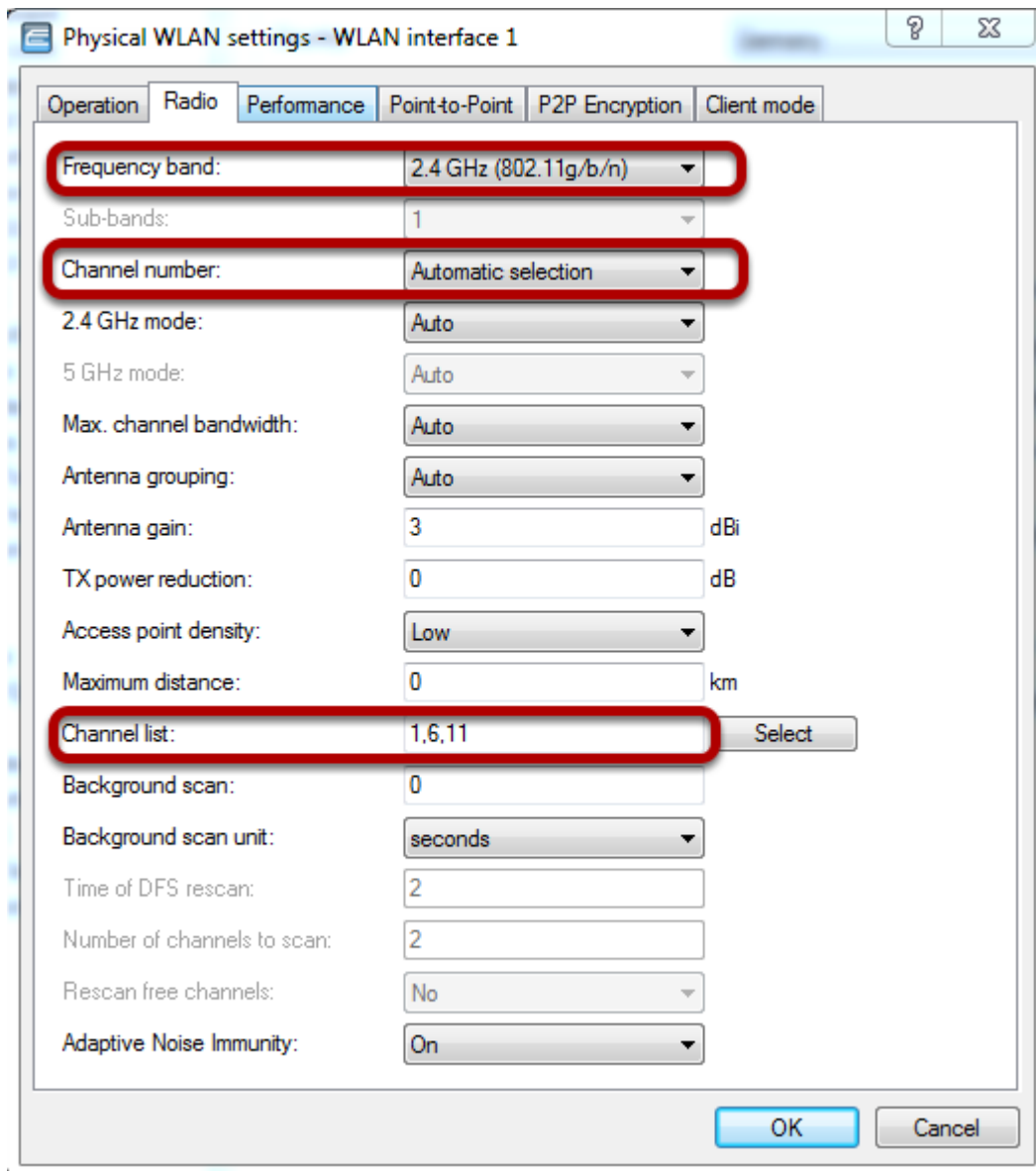
Configuration > Wireless LAN > General > Physical WLAN settings > WLAN interface 2 > Untick ""WLAN interface enabled""

## Define the radio settings and limit the channel list (optional)









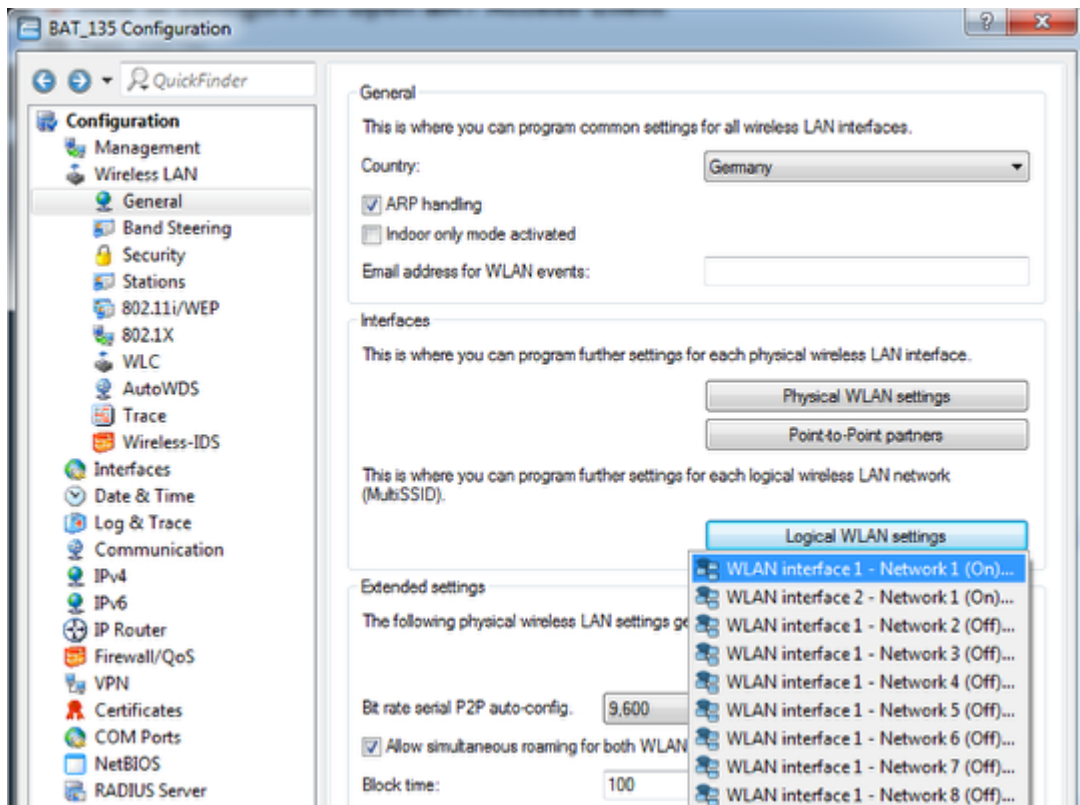
Configuration > Wireless LAN > General > Physical WLAN settings > WLAN interface 1 > Radio Tab

Select the frequency band 2.4 Ghz

Select the channel number ""Automatic selection""

Optionnally the channel list can be reduced (it reduces the background scanning of teh client)

### **Configure the SSID (network) to connect (1)**



Configuration > Wireless LAN > General > Logical WLAN settings >

Select WLAN interface 1 - Network 1

**Configure the SSID (network) to connect (2)**





Logical WLAN settings - WLAN interface 1 - Network 1

Network Transmission Alarms

Interface: WLAN interface 1 - Network 1

WLAN network enabled

Network name (SSID): RESEAU\_TOTO

Suppress SSID broadcast: No

MAC filter enabled

Maximum count of clients: 0

Minimal client signal strength: 0 %

Client Bridge Support: No

TX bandwidth limit: 0 kbit/s

RX bandwidth limit: 0 kbit/s

RADIUS accounting activated

RADIUS accounting server: [ ] Select

Allow data traffic between stations of this SSID

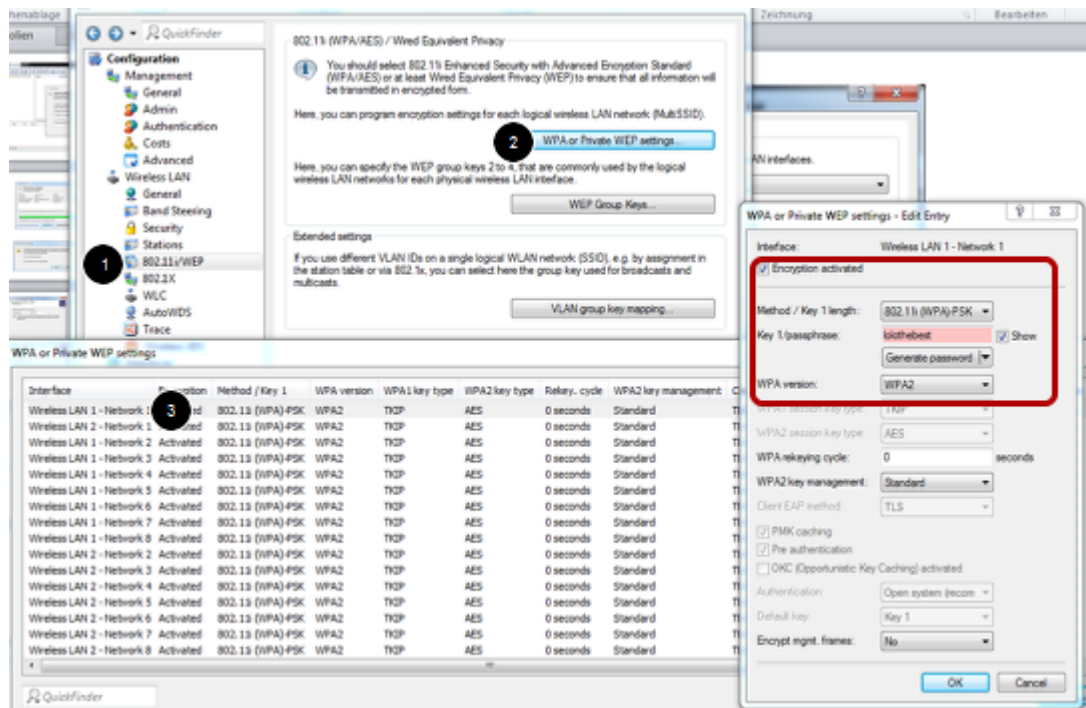
(U-)APSD / WMM powersave activated

Transmit only unicasts, suppress multicasts and broadcasts

OK Cancel

Enable the WLAN network and enter the SSID. In our example: RESEAU\_TOTO

### Configure the security settings



Configuration > Wireless LAN > 802.11/WEP > WPA or Private WEP settings

In WPA or Private WEP settings WINDOW, open the security settings of Wireless LAN 1 - Network 1

Take care that the encryption is activated

Select as method: 802.11i (WPA)-PSK

Choose a passphrase

Select WPA2 as WPA version

Close all the windows by clicking OK.


Closing the main configuration dialog window, the configuration is applied on the BAT.


**Check the discovered AP (with the relevant SSID) in the web interface**

## HiLCOS Menu Tree

 Logout

[HiLCOS Menu Tree](#)

 [Status](#)

 [WLAN](#)

### Scan-Results

| BSSID                        | Interface | Vendor                | Network-Name | Operation-Mode | Encryption | Pre-Auth |
|------------------------------|-----------|-----------------------|--------------|----------------|------------|----------|
| <a href="#">ece555ffd1cf</a> | WLAN-1    | Hirschmann-Automation | RESEAU_TOTO  | Infrastructure | AES        | No       |
| <a href="#">ece555ffd239</a> | WLAN-1    | Hirschmann-Automation | RESEAU_TOTO  | Infrastructure | AES        | No       |

You can see the available APs under:


HiLCOS Menu Tree > Status > WLAN > Scan-Results

**Check the current channel**

## HiLCOS Menu Tree

 Logout

HiLCOS Menu Tree

 Status

 WLAN

### Radios

| lfc           | Radio-Band | Radio-Channel | Channel-Bandwidth | Radio-Mod   |
|---------------|------------|---------------|-------------------|-------------|
| <u>WLAN-1</u> | 2.4GHz     | 6             | 20MHz             | 11bgn-mixed |
| <u>WLAN-2</u> | unknown    | 0             | 20MHz             | none        |

You can see the current channel in use under:

HiLCOS Menu Tree > Status > WLAN > Radios

**Identify on which AP is the client connected**



HiLCOS Menu Tree

[Logout](#)

HiLCOS Menu Tree

- Status
- WLAN
  - Client

### Interfaces

| Ifc    | State     | Station-Mode   | Connect-Time | AID | Phy-Signal | Link-Phy-Signal | Link-Signal-Level | Identification | Op  |
|--------|-----------|----------------|--------------|-----|------------|-----------------|-------------------|----------------|-----|
| WLAN-1 | Connected | Infrastructure | 1655         | 1   | 85         | 86              | -33               | BAT-LEFT       | 11r |
| WLAN-2 | None      | none           | 0            | 0   | 0          | 0               | 0                 |                | nl  |

You can see the current AP in use under:

HiLCOS Menu Tree > Status > WLAN > Client > Interfaces