



IP-PRO
NETWORK CONSULTING

WEB-SKINS

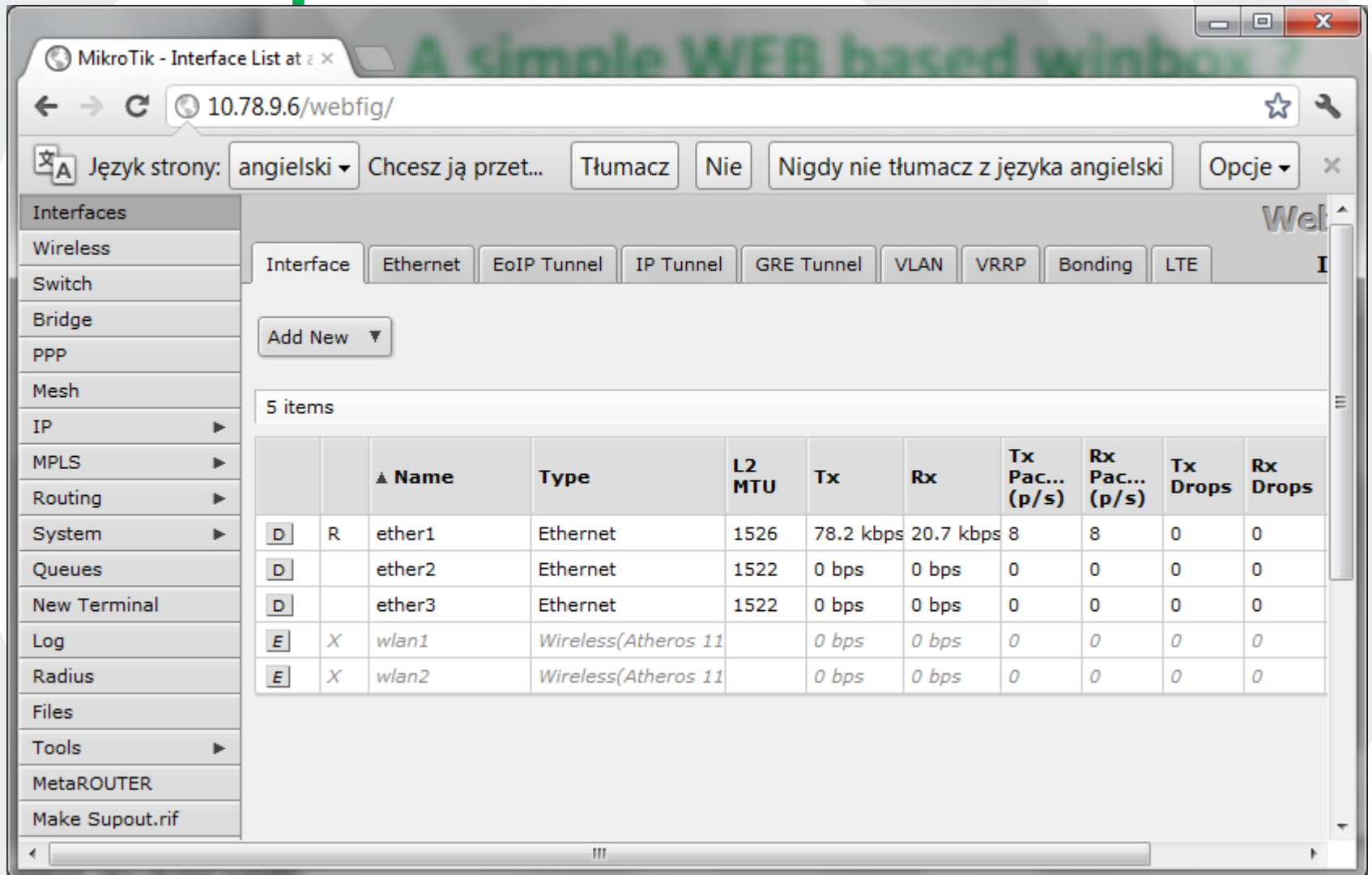
Idea, usage and examples

Another Interface ?



The screenshot shows a web browser window titled "RouterOS router configurati x" with the address bar displaying "10.78.9.6". The browser's language settings are set to "angielski". The main content area features the MikroTik logo and the text "RouterOS v5.14". Below this, a message states: "You have connected to a router. Administrative access only. If this is not your possession, please contact your local network administrator." A green box highlights the "WebFig Login:" section, which contains a "Login:" field with the text "admin" and a "Login" button, and a "Password:" field. A large green arrow points from the right towards the login fields. At the bottom of the page, there are five icons labeled "Winbox", "Telnet", "Graphs", "License", and "Help". The MikroTik logo is visible in the bottom right corner of the page content.

A simple WEB based winbox ?



The screenshot shows the MikroTik WinBox web interface. The browser address bar displays '10.78.9.6/webfig/'. The page title is 'MikroTik - Interface List at 10.78.9.6'. The interface includes a navigation menu on the left with categories like Wireless, Switch, Bridge, PPP, Mesh, IP, MPLS, Routing, System, Queues, New Terminal, Log, Radius, Files, Tools, MetaROUTER, and Make Supout.rif. The main content area shows a list of interfaces under the 'Interface' tab. The list contains 5 items:

		Name	Type	L2 MTU	Tx	Rx	Tx Pac... (p/s)	Rx Pac... (p/s)	Tx Drops	Rx Drops
D	R	ether1	Ethernet	1526	78.2 kbps	20.7 kbps	8	8	0	0
D		ether2	Ethernet	1522	0 bps	0 bps	0	0	0	0
D		ether3	Ethernet	1522	0 bps	0 bps	0	0	0	0
E	X	wlan1	Wireless(Atheros 11		0 bps	0 bps	0	0	0	0
E	X	wlan2	Wireless(Atheros 11		0 bps	0 bps	0	0	0	0

What are Skins ?

Its a feature that will allow some extra functionality we do not have in winbox like:

- Enabling / Disabling every single field
- Creating and Customize Status page
- Translate interface to your Language
- Limit possible options in combo boxes
- Put Notes and explanations

Why do I need that ?

Lets start with some use cases:

- **Giving limited Access to device**
- Giving status access to device
- Simplify Configuration for Customers
- Translate Interface to your Language

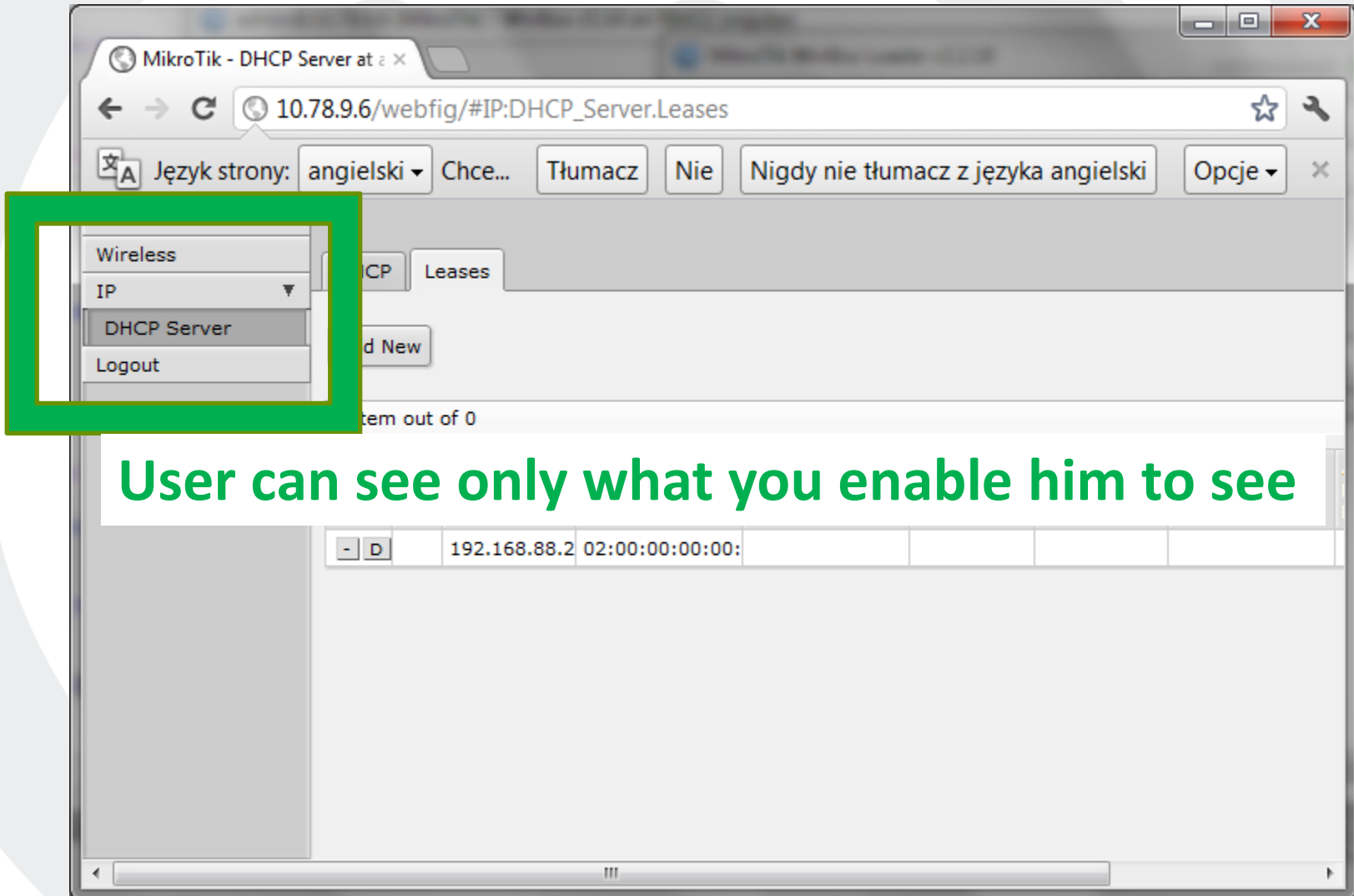
Giving limited Access to device

Use case:

ISP wants to give limited access to CPE to his customer for:

- Check signal strenght in wireless interface
- Allow to control Leases in DHCP-Server

Giving limited Access to device



The screenshot shows a web browser window titled "MikroTik - DHCP Server at 10.78.9.6". The address bar contains "10.78.9.6/webfig/#IP:DHCP_Server.Leases". A language selection bar is visible with "Język strony: angielski" and buttons for "Chce...", "Tłumacz", "Nie", "Nigdy nie tłumacz z języka angielski", and "Opcje". A green box highlights a navigation menu on the left side of the page, which includes the following items: "Wireless", "IP", "DHCP Server", and "Logout". The "DHCP Server" item is currently selected. Below the menu, there are tabs for "DHCP" and "Leases", and a "Add New" button. A table below the menu shows a single entry with the IP address "192.168.88.2" and MAC address "02:00:00:00:00:00".

User can see only what you enable him to see

-	D	192.168.88.2	02:00:00:00:00:00				
---	---	--------------	-------------------	--	--	--	--

Why do I need that ?

Lets start with some use cases:

- Giving limited Access to device
- **Giving status access to device**
- Simplify Configuration for Customers
- Translate Interface to your Language

Giving status access to device

Use case:

ISP wants to give read only access to CPE but only to certain parameters:

- Check some parameters like signal or IP

Giving status access to device

PPP at admin@10.78.9.2 (43 x)

10.78.9.2/webfig/#PPP.Secrets

Status Undo Redo Hide Passwords Safe Mode Design Skin Log out 433 WebFig v5.11

Status

Wireless Parameters

Tx/Rx Signal Strength -58 dBm

DHCP-Client

IP Address 10.78.9.2/24

Gateway IP 10.78.9.1

WLAN Byte Graph

5.0 Mbps	
4.0 Mbps	
3.0 Mbps	
2.0 Mbps	
1.0 Mbps	
	2 min ago
	1 min ago

Only Status Page is Shown

Why do I need that ?

Lets start with some use cases:

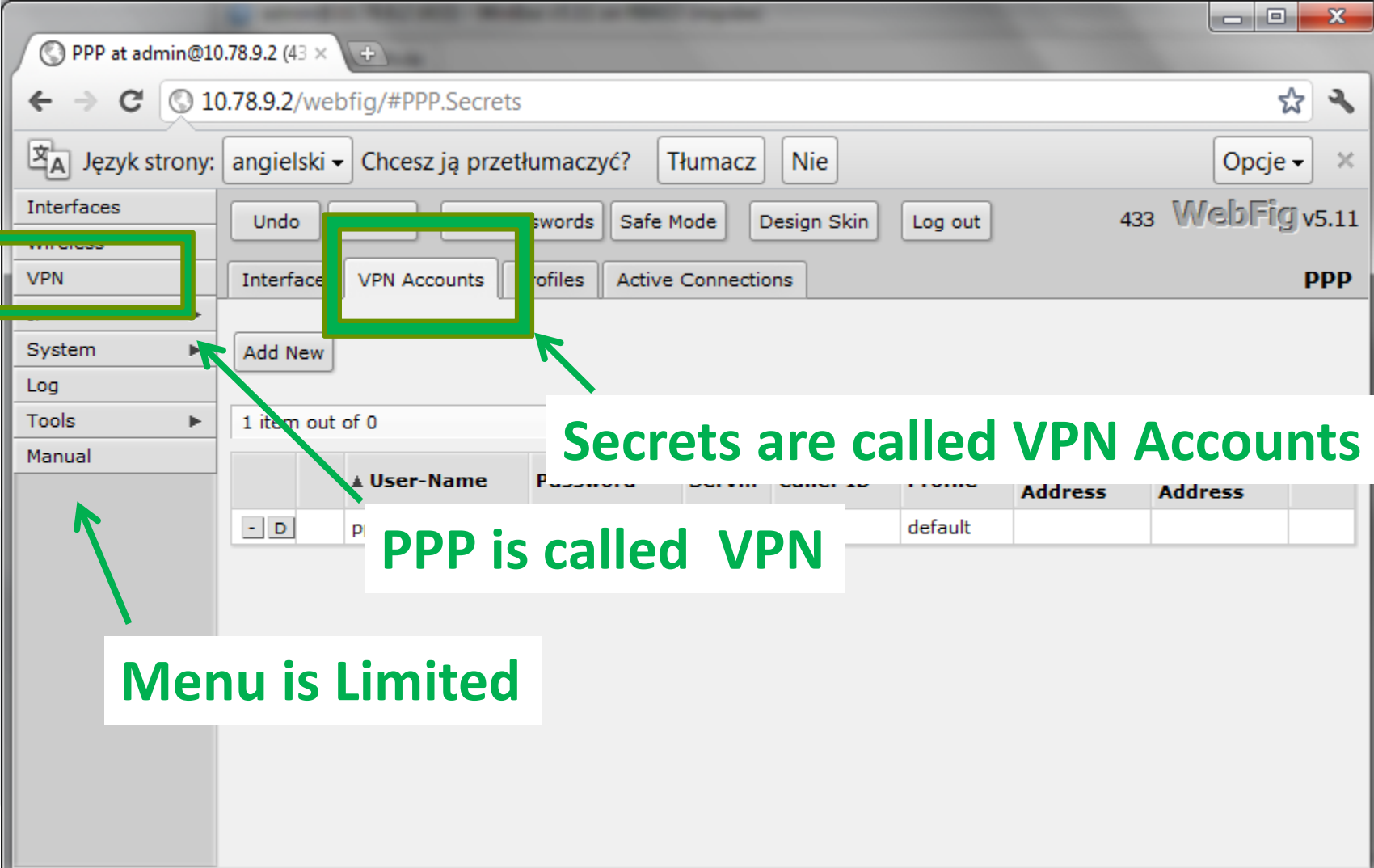
- Giving limited Access to device
- Giving status access to device
- **Simplify Configuration for Customers**
- Translate Interface to your Language

Simplify Configuration for Customers

Use case:

Want to sell Mikrotik Router to non experience Person and give him Interface that is easier then Winbox itself

Simplify Configuration for Customers



The screenshot shows the WebFig v5.11 interface for PPP configuration. The browser address bar shows '10.78.9.2/webfig/#PPP.Secrets'. The interface includes a language selector (set to 'angielski'), a navigation menu on the left, and a main content area with buttons for 'Undo', 'Add New', and 'VPN Accounts'. A table below shows configuration details for a 'default' profile.

User-Name	Password	Domain	Server	Protocol	Address	Address
				default		

Annotations:

- A green box highlights the 'VPN' option in the left navigation menu, with an arrow pointing to the text 'Menu is Limited'.
- A green box highlights the 'VPN Accounts' button, with an arrow pointing to the text 'Secrets are called VPN Accounts'.
- A green box highlights the 'Add New' button, with an arrow pointing to the text 'PPP is called VPN'.

Why do I need that ?

Lets start with some use cases:

- Giving limited Access to device
- Giving status access to device
- Simplify Configuration for Customers
- **Translate Interface to your Language**

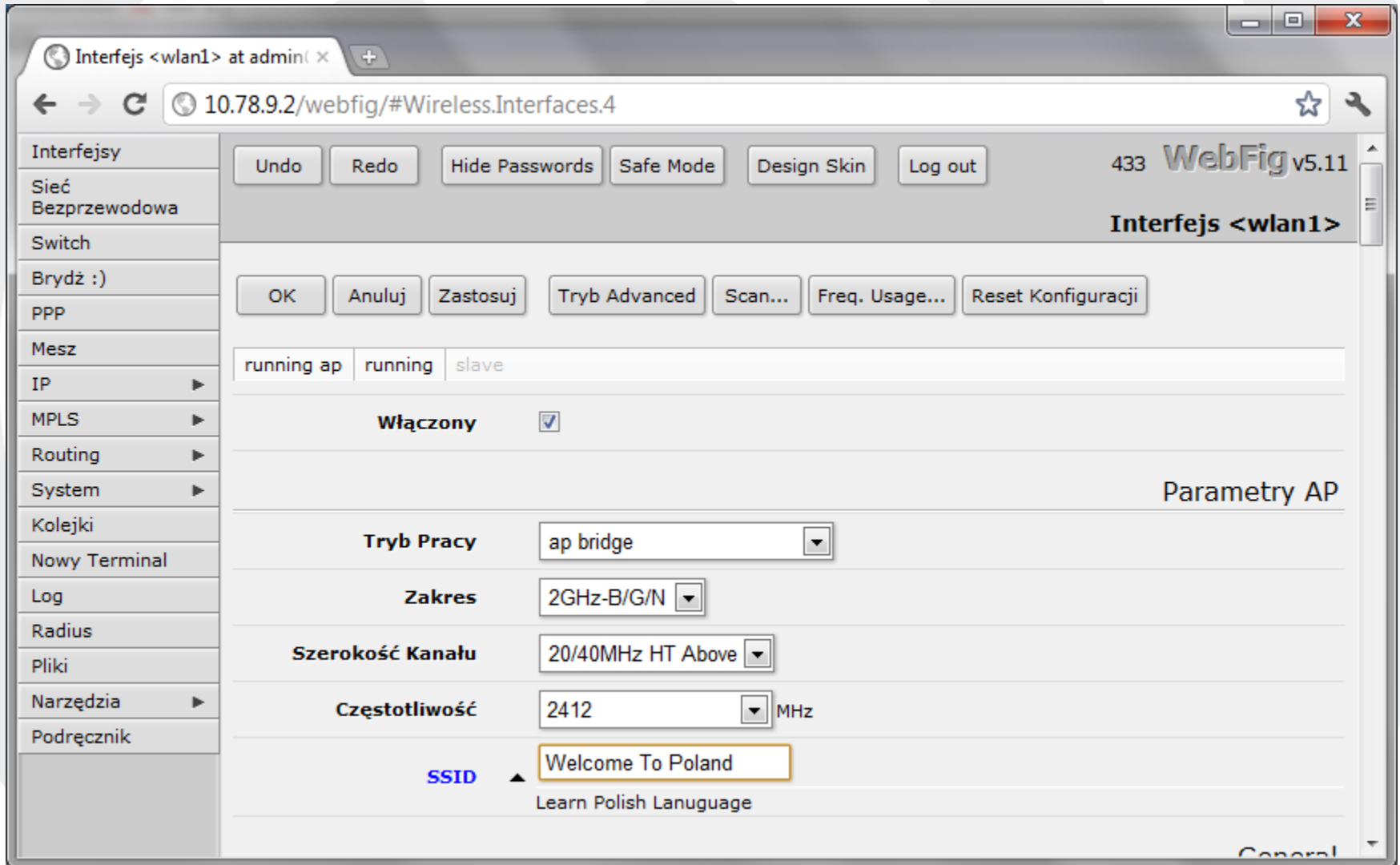
Translate Interface

Use case:

Your employees / customers / network operator are not very good with English Language.

Translate it to them :)

Translate Interface

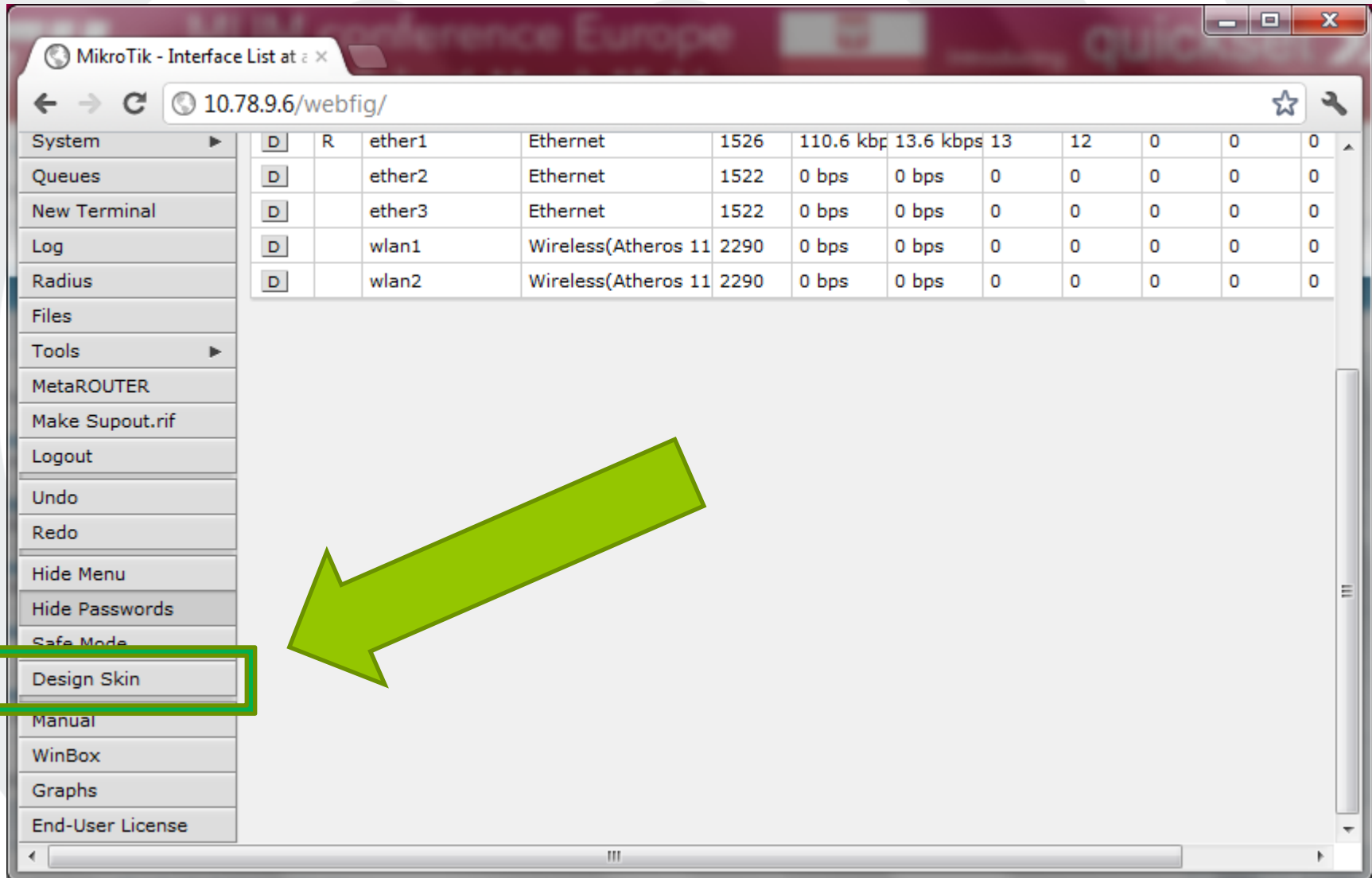


The screenshot shows the Mikrotik WebFig configuration page for a wireless interface. The browser address bar shows the URL `10.78.9.2/webfig/#Wireless.Interfaces.4`. The page title is "Interfejs <wlan1>". The interface includes a sidebar menu on the left with categories like "Interfejsy", "Sieć Bezprzewodowa", "Switch", "Brydź :)", "PPP", "Mesz", "IP", "MPLS", "Routing", "System", "Kolejki", "Nowy Terminal", "Log", "Radius", "Pliki", "Narzędzia", and "Podręcznik". The main content area has a top navigation bar with buttons for "Undo", "Redo", "Hide Passwords", "Safe Mode", "Design Skin", and "Log out". Below this is a secondary bar with "OK", "Anuluj", "Zastosuj", "Tryb Advanced", "Scan...", "Freq. Usage...", and "Reset Konfiguracji". The configuration is for a "running ap" interface, which is currently "Włączony" (checked). The "Tryb Pracy" (Mode) is set to "ap bridge". The "Zakres" (Channel) is "2GHz-B/G/N". The "Szerokość Kanału" (Channel Width) is "20/40MHz HT Above". The "Częstotliwość" (Frequency) is "2412 MHz". The "SSID" is "Welcome To Poland" with a sub-label "Learn Polish Lanuguage". The page version is "WebFig v5.11" and the interface name is "Interfejs <wlan1>".

What you should now about Skins

- How to create them
- How to apply them
- What are:
 - Separators,
 - Tabs,
 - Limits
 - Notes

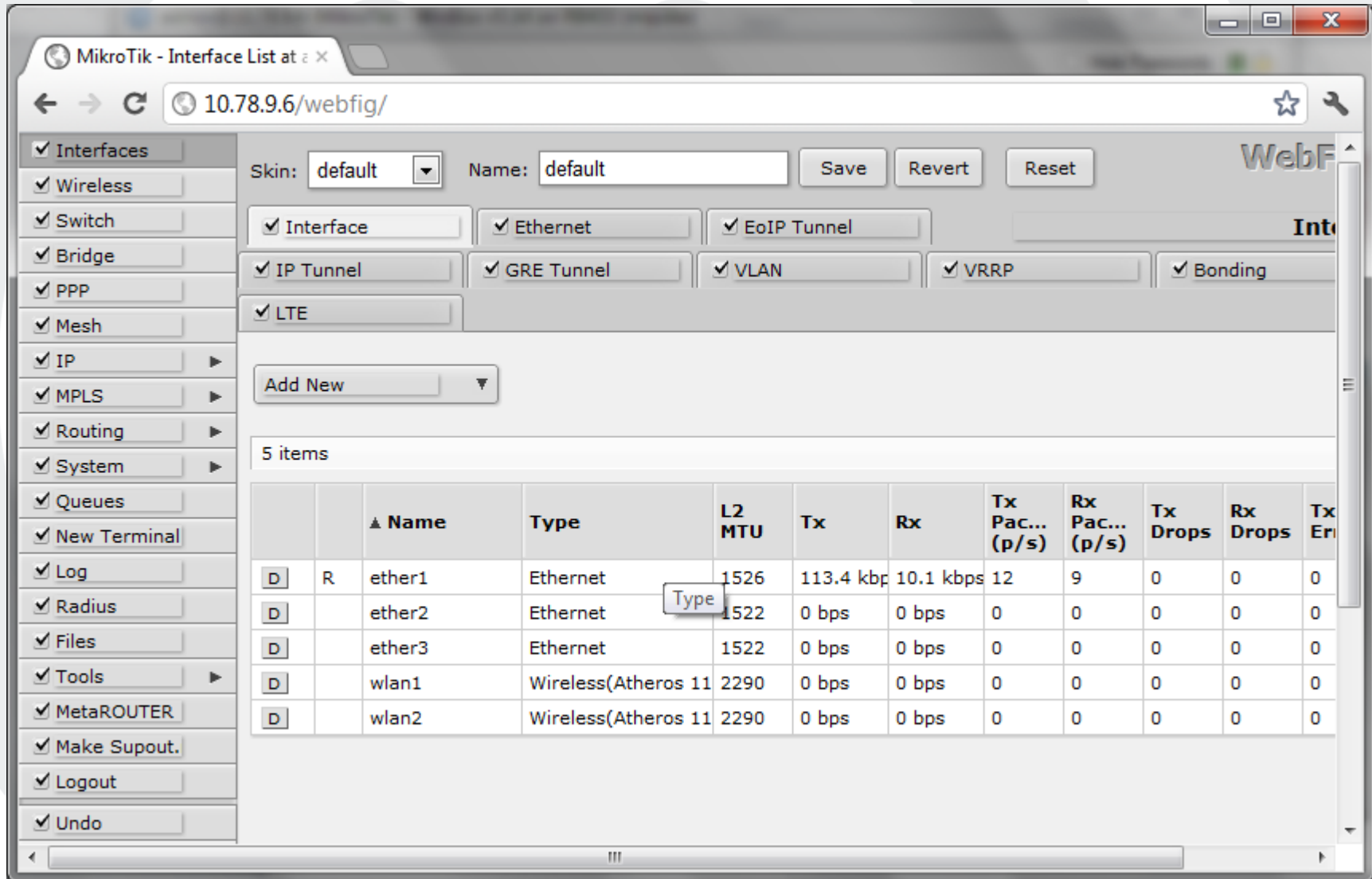
How to Create Skins



The screenshot shows the MikroTik WinBox interface. The left sidebar contains a menu with the following items: System, Queues, New Terminal, Log, Radius, Files, Tools, MetaROUTER, Make Supout.rif, Logout, Undo, Redo, Hide Menu, Hide Passwords, Safe Mode, **Design Skin** (highlighted with a green box), Manual, WinBox, Graphs, and End-User License. A large green arrow points from the 'Design Skin' menu item towards the center of the interface. The main content area displays a table titled 'Interface List at 10.78.9.6/webfig/' with the following data:

System	R	Interface	Type	MTU	Speed	Current Speed	Queue	Queue Size	Queue Type	Queue Length	Queue Max Length	Queue Min Length
		ether1	Ethernet	1526	110.6 kbp	13.6 kbps	13	12	0	0	0	0
		ether2	Ethernet	1522	0 bps	0 bps	0	0	0	0	0	0
		ether3	Ethernet	1522	0 bps	0 bps	0	0	0	0	0	0
		wlan1	Wireless(Atheros 11	2290	0 bps	0 bps	0	0	0	0	0	0
		wlan2	Wireless(Atheros 11	2290	0 bps	0 bps	0	0	0	0	0	0

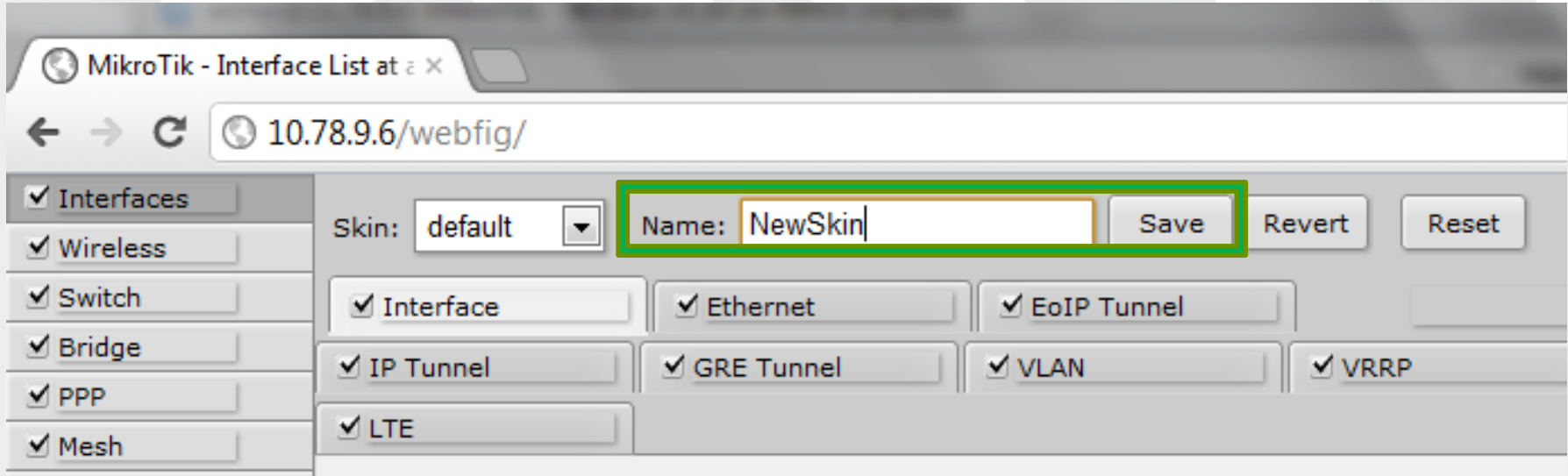
How to Create Skins



The screenshot shows the MikroTik WebFig interface for configuring interfaces. The browser address bar shows '10.78.9.6/webfig/'. The left sidebar contains a navigation menu with various categories like Interfaces, Wireless, Switch, Bridge, PPP, Mesh, IP, MPLS, Routing, System, Queues, New Terminal, Log, Radius, Files, Tools, MetaROUTER, Make Supout., Logout, and Undo. The main content area is titled 'MikroTik - Interface List at 10.78.9.6/webfig/'. It features a 'Skin' dropdown set to 'default' and a 'Name' field set to 'default'. There are 'Save', 'Revert', and 'Reset' buttons. Below these are several checkboxes for interface types: Interface, Ethernet, EoIP Tunnel, IP Tunnel, GRE Tunnel, VLAN, VRRP, Bonding, and LTE. An 'Add New' button is also present. A table below shows 5 items:

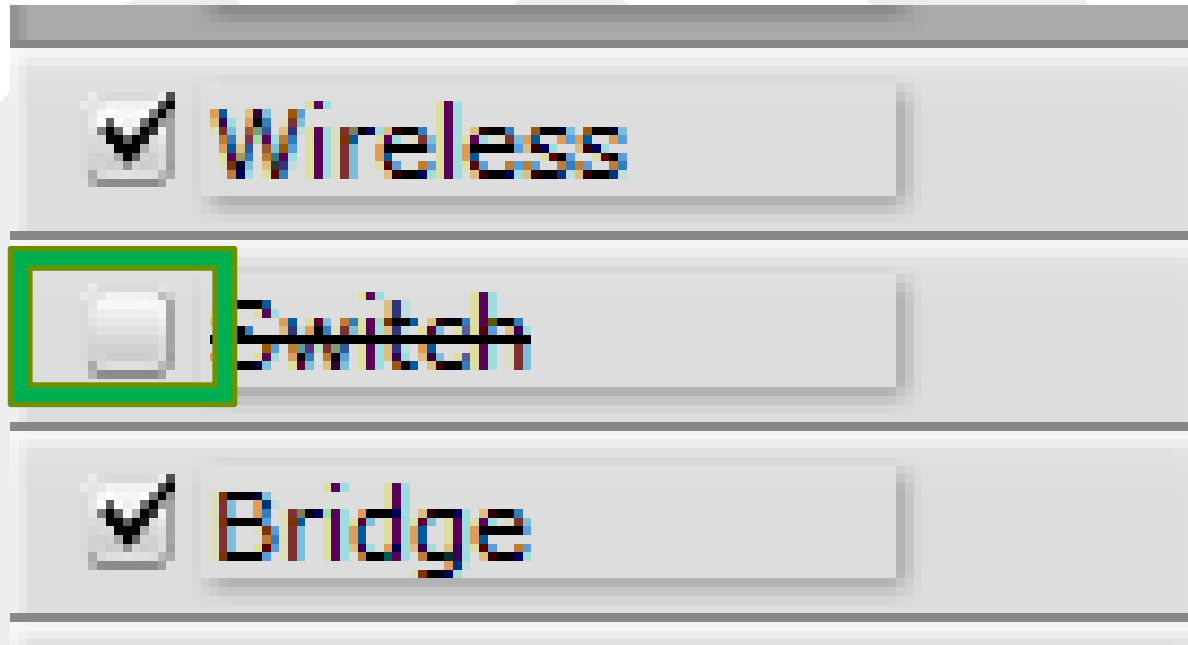
		▲ Name	Type	L2 MTU	Tx	Rx	Tx Pac... (p/s)	Rx Pac... (p/s)	Tx Drops	Rx Drops	Tx Er
<input type="checkbox"/>	R	ether1	Ethernet	1526	113.4 kbps	10.1 kbps	12	9	0	0	0
<input type="checkbox"/>		ether2	Ethernet	1522	0 bps	0 bps	0	0	0	0	0
<input type="checkbox"/>		ether3	Ethernet	1522	0 bps	0 bps	0	0	0	0	0
<input type="checkbox"/>		wlan1	Wireless(Atheros 11	2290	0 bps	0 bps	0	0	0	0	0
<input type="checkbox"/>		wlan2	Wireless(Atheros 11	2290	0 bps	0 bps	0	0	0	0	0

How to Create Skins



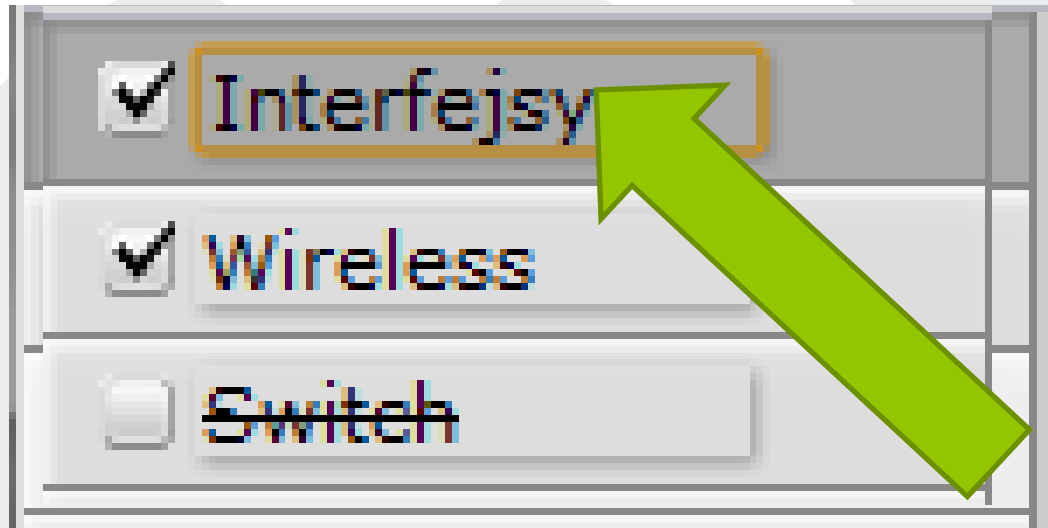
- First of All create new SKIN by setting its name and pressing Save Button

How to Create Skins



- Start with enabling and disabling some options in new skins
- Disabled option will not be visible in that SKIN

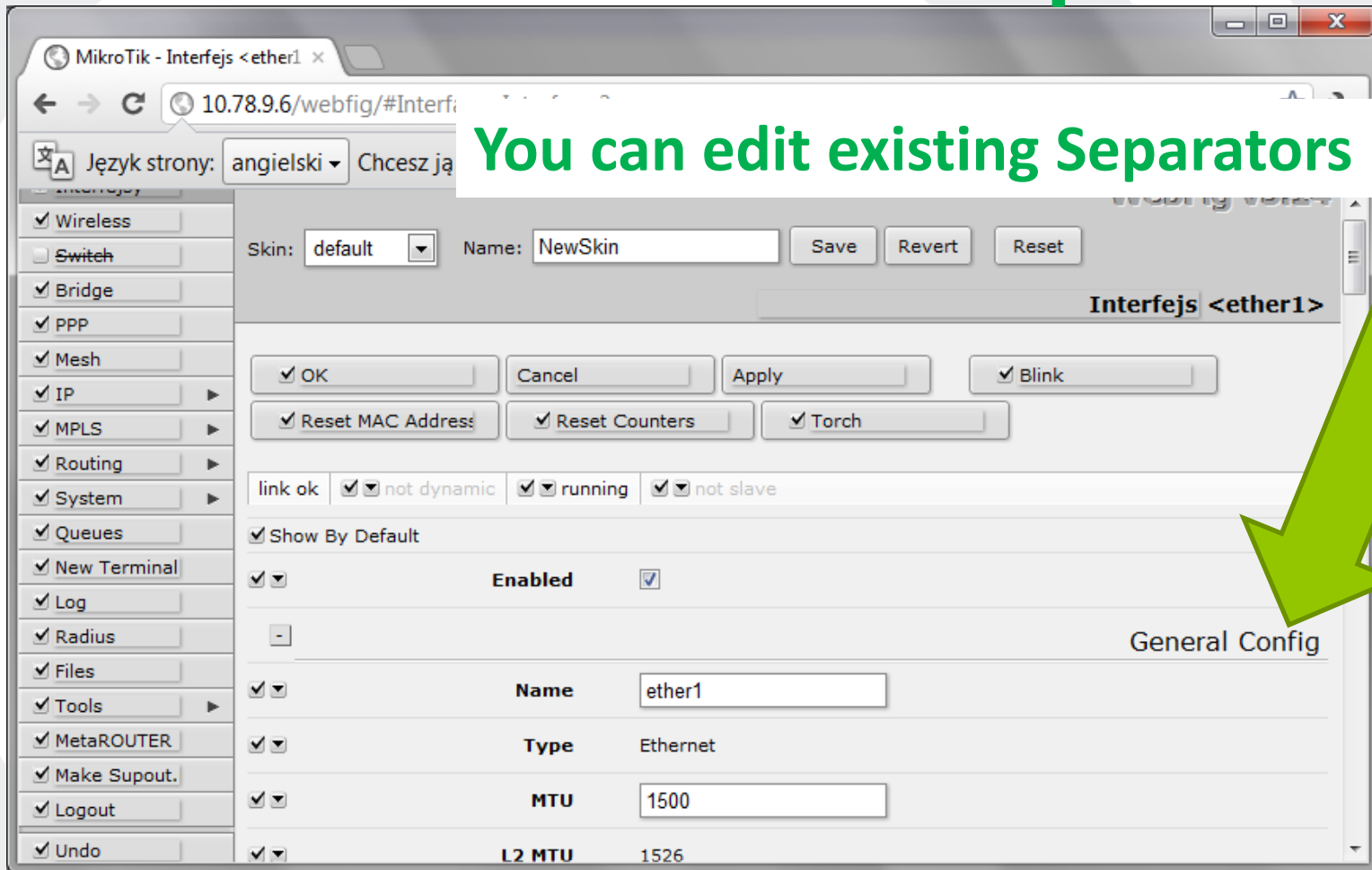
How to Create Skins



- In Design Mode you can click on text and replace it to you own text

How to Create Skins - Separators

You can edit existing Separators

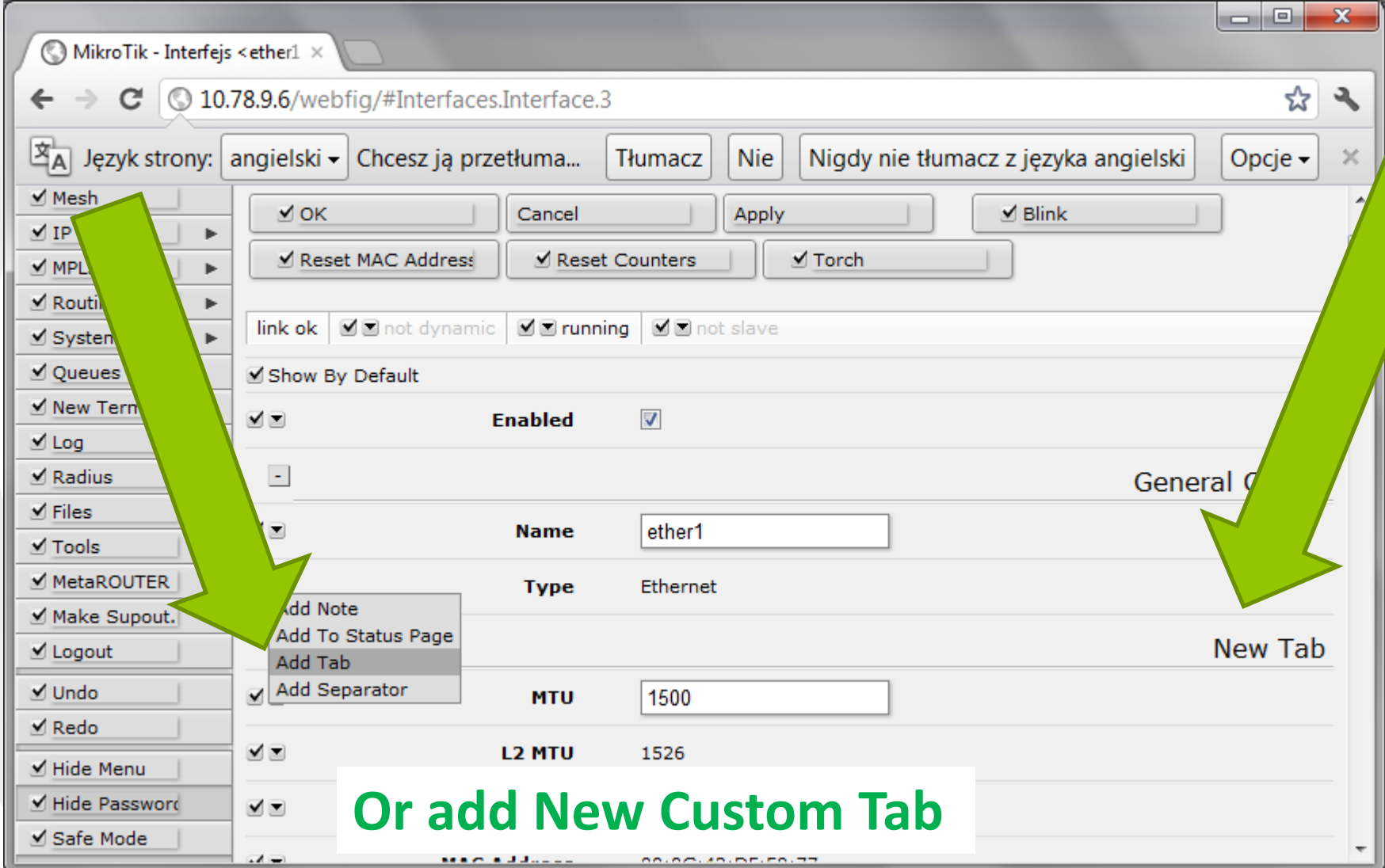


The screenshot shows the MikroTik WinBox interface for editing an interface configuration. The browser address bar shows `10.78.9.6/webfig/#Interf:`. The page title is "MikroTik - Interfejs <ether1>". The language is set to "angielski". The configuration page includes a sidebar with various categories, a top navigation bar, and a main configuration area with various checkboxes and input fields. A large green arrow points to the "General Config" section.

Configuration details visible in the "General Config" section:

link ok	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> not dynamic	<input checked="" type="checkbox"/> running	<input checked="" type="checkbox"/> not slave
Show By Default	<input checked="" type="checkbox"/>	Enabled	<input checked="" type="checkbox"/>	
Name	<input checked="" type="checkbox"/>	ether1		
Type	<input checked="" type="checkbox"/>	Ethernet		
MTU	<input checked="" type="checkbox"/>	1500		
L2 MTU	<input checked="" type="checkbox"/>	1526		

How to Create Skins - TABS



MikroTik - Interfejs <ether1 x

10.78.9.6/webfig/#Interfaces.Interface.3

Język strony: angielski Chcesz ją przetłuma... Tłumacz Nie Nigdy nie tłumacz z języka angielski Opcje

Mesh OK Blink

IP Reset MAC Address Reset Counters Torch

MPLS

Routing link ok not dynamic running not slave

System Show By Default

Queues Enabled

New Terminal

Log

Radius

Files

Tools

MetaROUTER

Make Supout.

Logout

Undo

Redo

Hide Menu

Hide Password

Safe Mode

Name ether1

Type Ethernet

MTU 1500

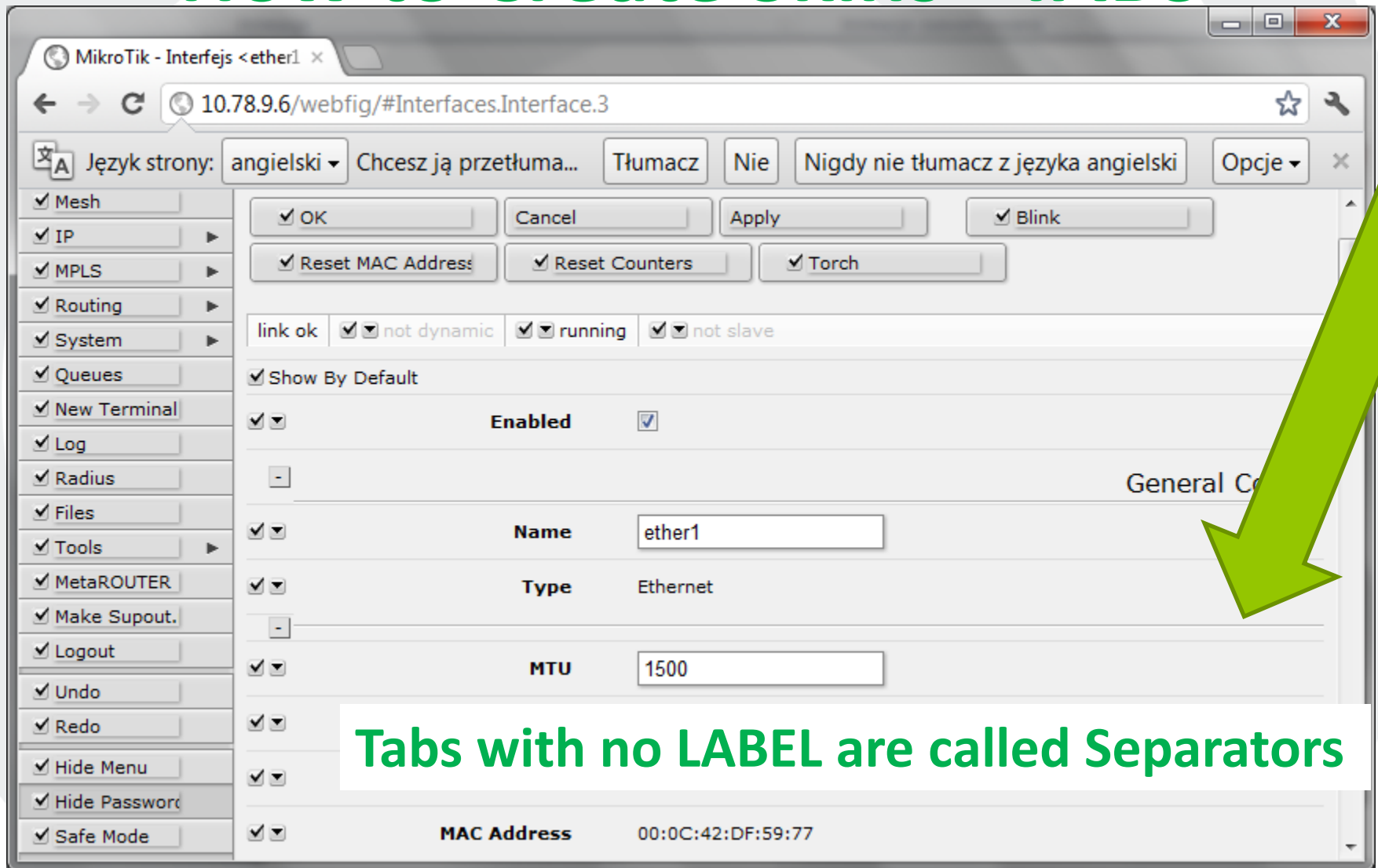
L2 MTU 1526

General C

New Tab

Or add New Custom Tab

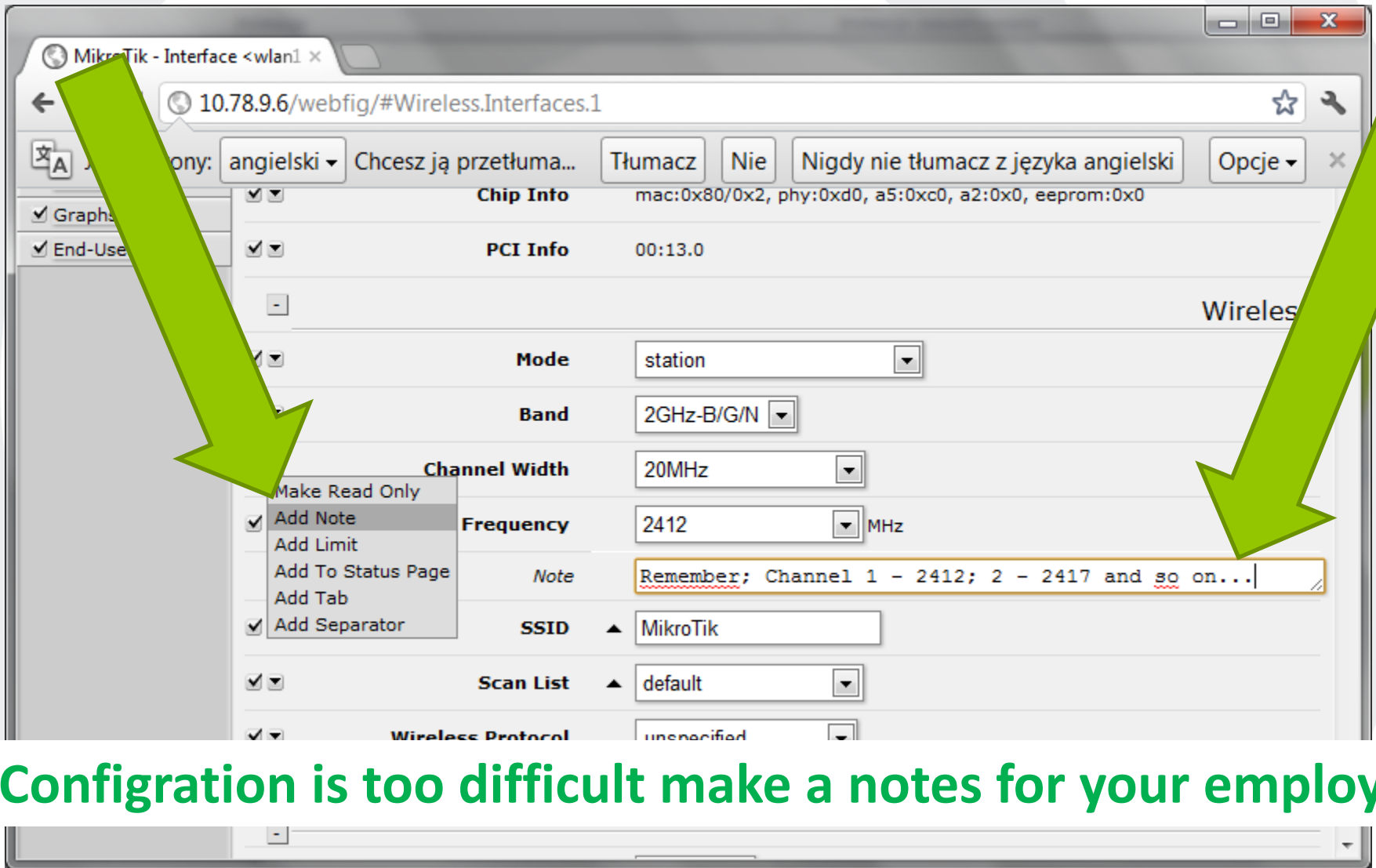
How to Create Skins - TABS



The screenshot shows the MikroTik web interface for configuring an interface. The browser address bar shows `10.78.9.6/webfig/#Interfaces.Interface.3`. The interface configuration page has a left sidebar with various menu items and a main content area with configuration options. A green arrow points to the 'General' tab, which is a separator tab without a label.

Tabs with no LABEL are called Separators

How to Create Skins - Notes

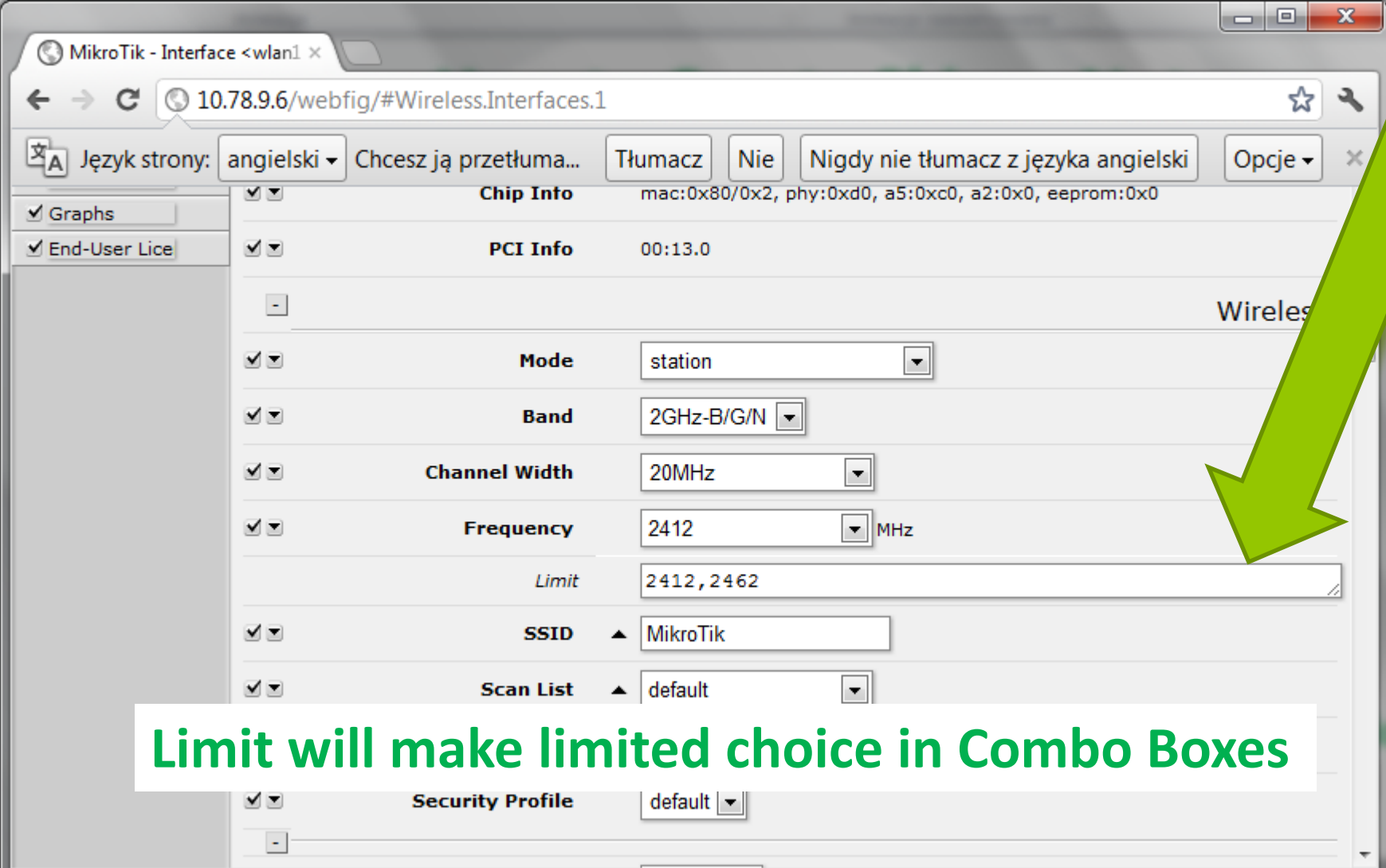


The screenshot shows the MikroTik webfig interface for configuring a wireless interface. The 'Note' field is highlighted with a yellow border, and a context menu is open over it. The menu options are: Make Read Only, Add Note (checked), Add Limit, Add To Status Page, Add Tab, and Add Separator (checked). The 'Note' field contains the text: Remember; Channel 1 - 2412; 2 - 2417 and so on...

Chip Info	mac:0x80/0x2, phy:0xd0, a5:0xc0, a2:0x0, eeprom:0x0
PCI Info	00:13.0
Mode	station
Band	2GHz-B/G/N
Channel Width	20MHz
Frequency	2412 MHz
Note	<u>Remember</u> ; Channel 1 - 2412; 2 - 2417 and <u>so on...</u>
SSID	MikroTik
Scan List	default
Wireless Protocol	unspecified

If Configuration is too difficult make a notes for your employee

How to Create Skins - Limits

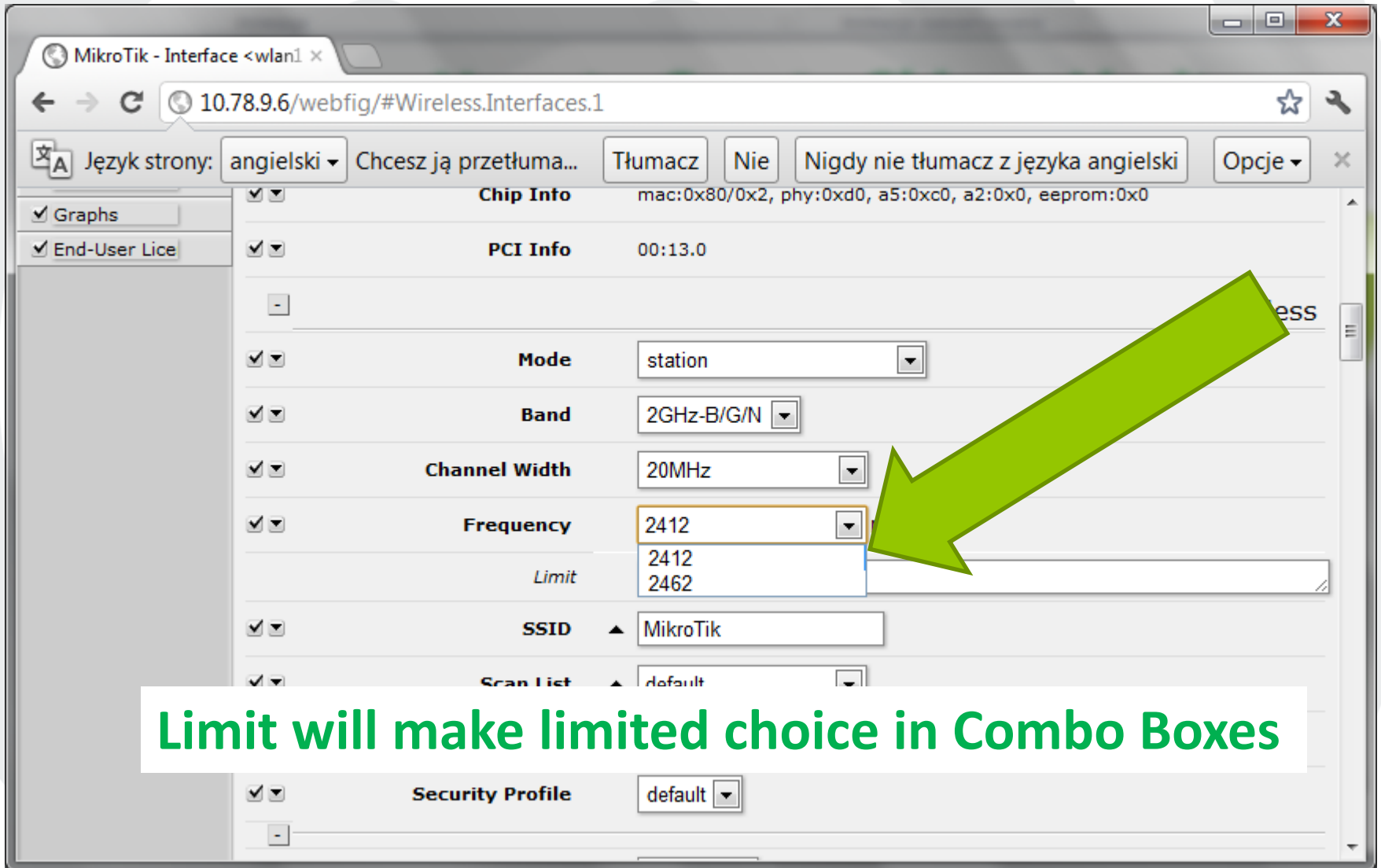


The screenshot shows the MikroTik web interface for configuring a wireless interface. The browser address bar shows `10.78.9.6/webfig/#Wireless.Interfaces.1`. The page is in English. The configuration fields are as follows:

Chip Info	mac:0x80/0x2, phy:0xd0, a5:0xc0, a2:0x0, eeprom:0x0
PCI Info	00:13.0
Mode	station
Band	2GHz-B/G/N
Channel Width	20MHz
Frequency	2412 MHz
Limit	2412, 2462
SSID	MikroTik
Scan List	default
Security Profile	default

A large green arrow points from the right side of the interface towards the 'Limit' field. A white text box at the bottom of the screenshot contains the text: **Limit will make limited choice in Combo Boxes**

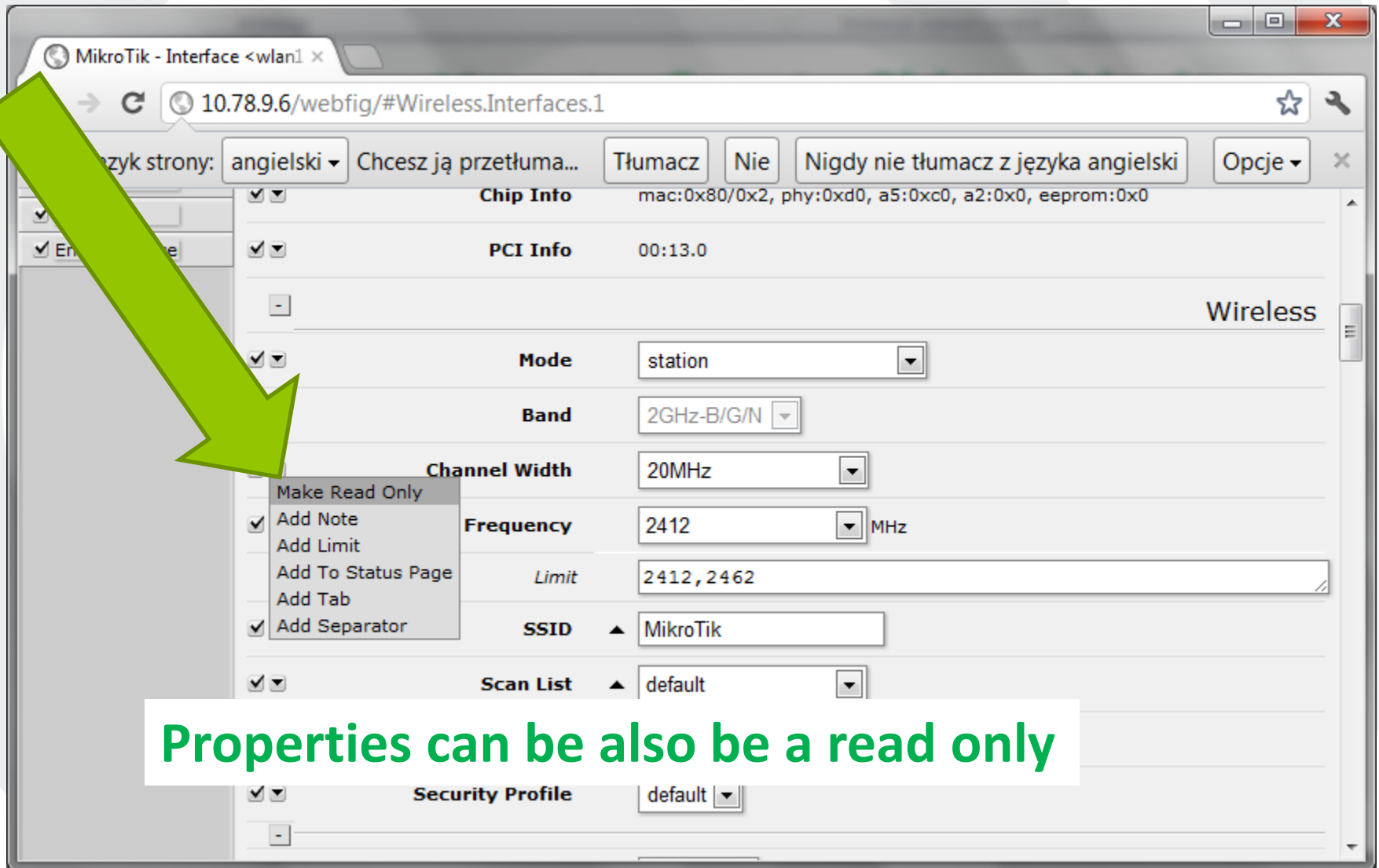
How to Create Skins - Limits



The screenshot shows the MikroTik web interface for configuring a wireless interface. The 'Frequency' field is set to '2412', and its dropdown menu is open, showing '2412' and '2462' as options. A green arrow points to this dropdown menu. The interface also shows other configuration options like 'Mode' (station), 'Band' (2GHz-B/G/N), 'Channel Width' (20MHz), 'SSID' (MikroTik), and 'Security Profile' (default).

Limit will make limited choice in Combo Boxes

How to Create Skins - Limits



The screenshot shows the MikroTik webfig interface for configuring a wireless interface. A green arrow points to a context menu that is open over the 'Limit' field. The menu options are:

- Make Read Only
- ✓ Add Note
- Add Limit
- Add To Status Page
- Add Tab
- ✓ Add Separator

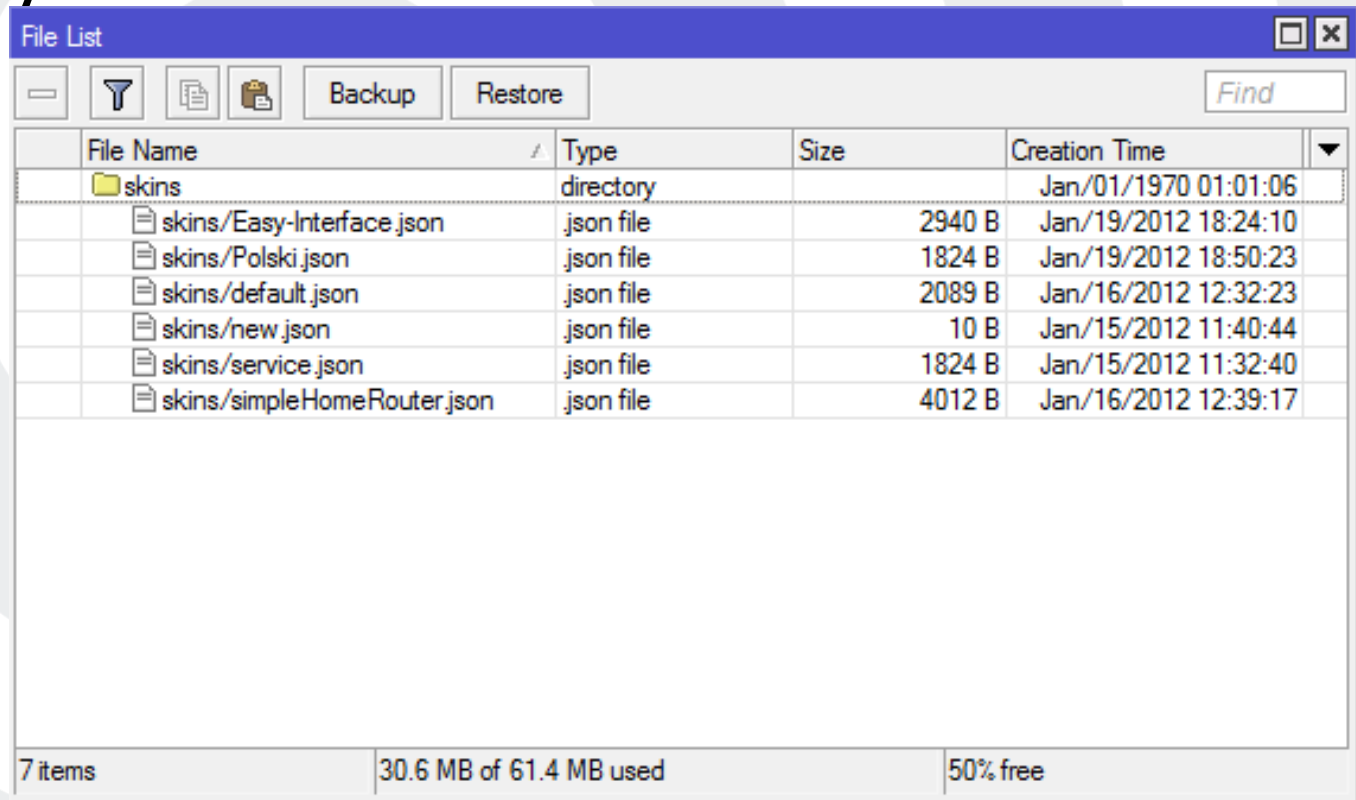
The configuration fields visible in the interface include:

- Chip Info: mac:0x80/0x2, phy:0xd0, a5:0xc0, a2:0x0, eeprom:0x0
- PCI Info: 00:13.0
- Wireless
- Mode: station
- Band: 2GHz-B/G/N
- Channel Width: 20MHz
- Frequency: 2412 MHz
- Limit: 2412, 2462
- SSID: MikroTik
- Scan List: default
- Security Profile: default

Properties can be also be a read only

How to USE Skins

- Skins are JSON files located in Files in skins directory



The screenshot shows a 'File List' window with a table of files and folders. The table has columns for File Name, Type, Size, and Creation Time. The 'skins' directory is expanded, showing several JSON files.

File Name	Type	Size	Creation Time
skins	directory		Jan/01/1970 01:01:06
skins/Easy-Interface.json	json file	2940 B	Jan/19/2012 18:24:10
skins/Polski.json	json file	1824 B	Jan/19/2012 18:50:23
skins/default.json	json file	2089 B	Jan/16/2012 12:32:23
skins/new.json	json file	10 B	Jan/15/2012 11:40:44
skins/service.json	json file	1824 B	Jan/15/2012 11:32:40
skins/simpleHomeRouter.json	json file	4012 B	Jan/16/2012 12:39:17

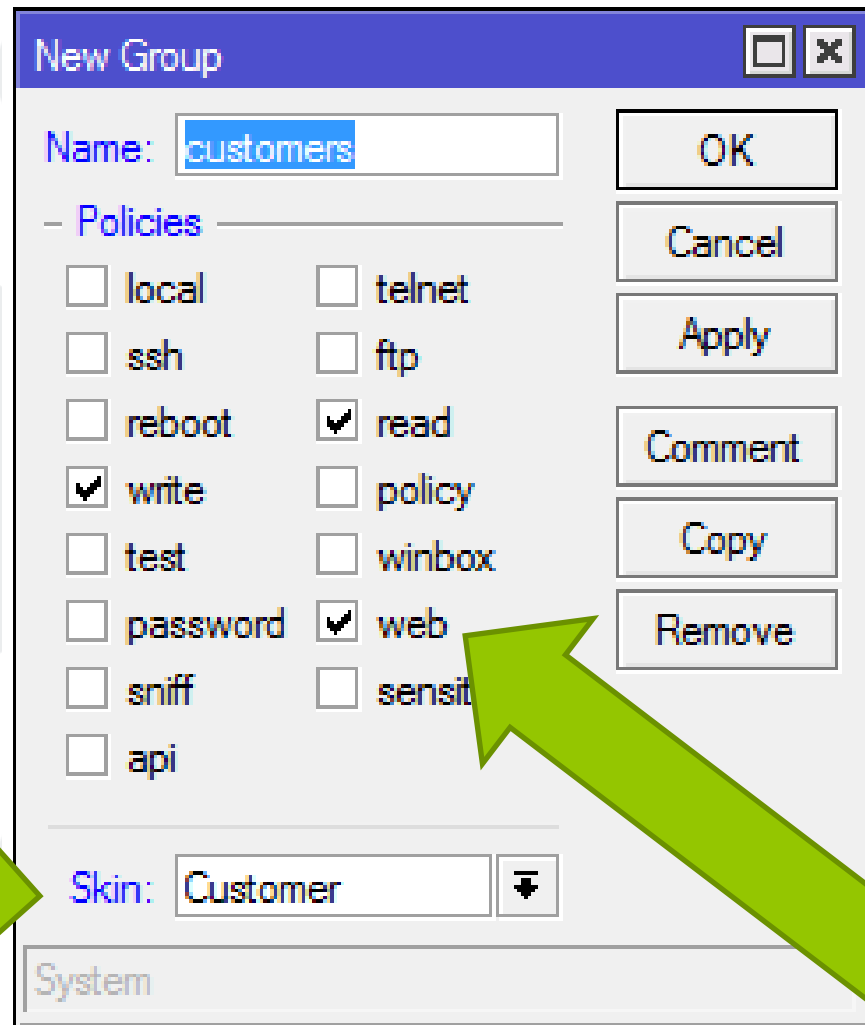
7 items 30.6 MB of 61.4 MB used 50% free

JSON Files

```
34     Name: { note: 'Name for Security Profile' },
35     Mode: { note: 'dynamic keys = WPA/WPA2; static keys = WEP' },
36     'Authentication Types': { limit: 'WPA PSK, WPA2 PSK' },
37     'WPA Pre-Shared Key': { note: 'PSK Key for WPA' },
38     'WPA2 Pre-Shared Key': { note: 'PSK Key for WPA2' },
39     'Supplicant Identity': 0,
40     'Group Key Update': { ro: true },
41     'Management Protection': 0,
42     'Management Protection Key': 0
43   },
44   RADIUS: {
45     'MAC Authentication': 0,
46     'MAC Accounting': 0,
47     'EAP Accounting': 0,
48     'Interim Update': 0,
49     'MAC Format': 0,
50     'MAC Mode': 0,
51     'MAC Caching Time': 0
52   },
53   EAP: { 'EAP Methods': 0, 'TLS Mode': 0, 'TLS Certificate': 0 },
54   'Static Keys': {
55     'Key 0': { tab: 'Static Keys; (For WEP)' }
56   },
```

How to USE Skins

- First We need to create new User Group in /system user menu



New Group

Name:

OK

Cancel

Apply

Comment

Copy

Remove

— Policies —

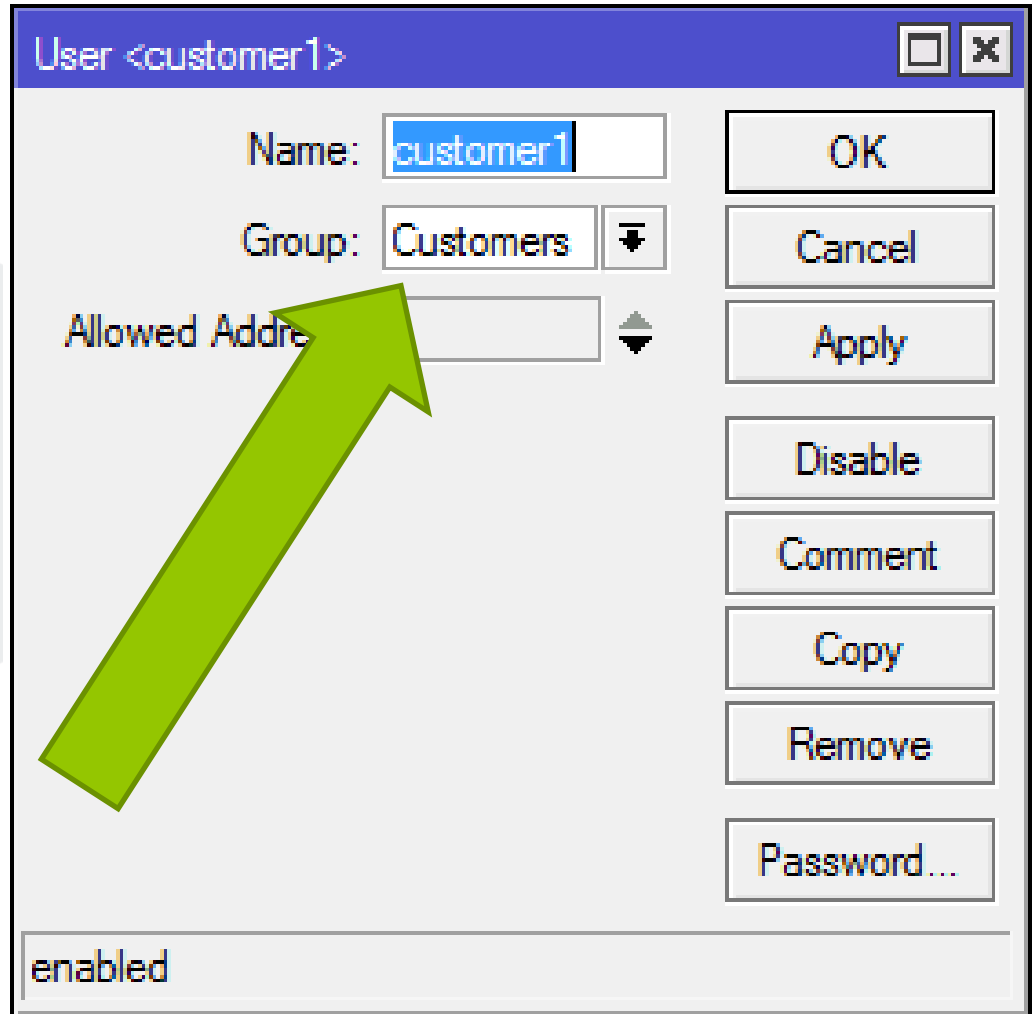
<input type="checkbox"/> local	<input type="checkbox"/> telnet
<input type="checkbox"/> ssh	<input type="checkbox"/> ftp
<input type="checkbox"/> reboot	<input checked="" type="checkbox"/> read
<input checked="" type="checkbox"/> write	<input type="checkbox"/> policy
<input type="checkbox"/> test	<input type="checkbox"/> winbox
<input type="checkbox"/> password	<input checked="" type="checkbox"/> web
<input type="checkbox"/> sniff	<input type="checkbox"/> sensit
<input type="checkbox"/> api	

Skin: ▾

System

How to USE Skins

- Second – Create user in that Group.



User <customer1>

Name:

Group: ▾

Allowed Address: ▾

OK

Cancel

Apply

Disable

Comment

Copy

Remove

Password...

enabled

Mass Configuration

- Copy your JSON file to skin directory and place config of your users
- Use a new export compact to make job easier



```
Terminal

[admin@MikroTik] > /user
[admin@MikroTik] /user> export compact
# jan/02/1970 00:58:29 by RouterOS 5.14
# software id = KG33-5SGB
#
/user group
add name=Customers policy="read,write,web,!local,!telnet,!ssh,!ftp,!reboot,!po\
    licy,!test,!winbox,!password,!sniff,!sensitive,!api" skin=Customer
/user
add comment="system default user" group=full name=admin
add group=Customers name=customer1
[admin@MikroTik] /user>
```

THANK YOU

More Information at:

<http://www.ip-pro.eu/articles/51-web-skins>



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