

First-time User Introduction to LANforge: Scripting and GUI

Goal: This page is designed to introduce a first-time LANforge user to operating the GUI for basic tasks and scripting the GUI via python3 for basic tasks.

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VoIP/RTF	P End	ps File-IO	Generic	Resourc	e Mgr DUT	Profiles 1	Traffic-Pro	ofiles 🚺	Alerts	Messages	Warni	ings (+		
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otop	. 110.	200.1.00.1		Junitac	KCC5		cicui	counters		Section	Den	- <u>-</u>		
Rpt 1	Timer	: medium (8	s) 💌	Apply	·	VRF I	Di	splay		Cr <u>e</u> ate	Mog	dify	Batch Mo	dify
					All Ethernet Ir	nterfaces (P	orts) for	all Resou	urces. —					
Port	ØI	Parent Dev	Channel	Alias	SSID	AF	b		IP	Mode		Signal	1	MAC
.1.00				eth0				192.168	.92.12				0c:c4:7a:	86:69:
.1.01	_			ethl				0.0.0.0					0c:c4:7a:	86:69:
1.02			0	wiphy0				0.0.0.0		802.11abgr	1		00:0e:8e:	32:12:
1.03	_		0	wiphyl				0.0.0.0		802.11abgr	ו		00:0e:8e:	5a:6e:
.1.04			161	wiphy2				0.0.0.0		802.11an-A	С		00:19:70:	be:Se:
.1.05			0	wiphy3				0.0.0.0		802.11abgr	1		00:0e:8e:	56:bd:
.1.13	1	wiphyl	157	stal000	jedway-wpa2			0.0.0.0		AUTO 20		0 dBm	00:0e:8e:	5a:b9:
1.14	1	wiphyl	157	stal001	jedway-wpa2			0.0.0.0		AUTO 20		0 dBm	00:0e:8e:	5a:23:
.1.15	1	wiphyl	157	stal002	jedway-wpa2			0.0.0.0		AUTO 20		0 dBm	00:0e:8e:	5a:99:
.1.17		wiphy2	0	sta2001	jedway-wpa2			0.0.0.0		AUTO 20		0 dBm	00:19:70:	be:d5:
1.06	1	wiphy3	1	wlan3		Not-Associa	ated	0.0.0.0		AUTO 20		0 dBm	00:0e:8e:	56:bd:
.1.07	1	wiphyl	157	wlanl		Not-Associa	ated	0.0.0.0		AUTO 20		0 dBm	00:0e:8e:	5a:6e:
1.08	1	wiphy0	157	wlan0		Not-Associa	ated	0.0.0.0		AUTO 20		0 dBm	00:0e:8e:	32:12:
1.09	1	wiphy2	0	wlan2		Not-Associa	ated	0.0.0.0		AUTO 20		0 dBm	00:19:70:	be:5e:
1.10	1	wiphy0	157	sta0000	jedway-wpa2	Not-Associa	ated	0.0.0.0		AUTO 20		0 dBm	00:0e:8e:	32:e6:
.1.11	1	wiphy0	157	sta0001	jedway-wpa2	Not-Associa	ated	0.0.0.0		AUTO 20		0 dBm	00:0e:8e:	32:e7:
.1.12	1	wiphy0	157	sta0002	jedway-wpa2	Not-Associa	ated	0.0.0.0		AUTO 20		0 dBm	00:0e:8e:	32:de:
.1.16	1	wiphy2	0	sta2000	jedway-wpa2	Not-Associa	ated	0.0.0.0		AUTO 20		0 dBm	00:19:70:	be:9e:
.1.18	1	wiphy2	0	sta2002	jedway-wpa2	Not-Associa	ated	0.0.0.0		AUTO 20		0 dBm	00:19:70:	be:d0:

1. Creating a station : LANforge GUI

A. Click on the *Port Manager* tab. This is will take you to one of the main interfaces that will show what stations are created and all the information there is to know about them.

LANforge Manager Version(5.4.3) — 🗆 😣																	
<u>C</u> ontrol <u>R</u> eporting Wind <u>o</u> ws <u>I</u> nfo <u>T</u> ests																	
					Char	mber View		9	top All		Res	tart I	lanager		B	efresh HEI	LP
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VOIP/RI	P E	na	DS File-IU	Generic	Resource		Profile	10	ranc-Pro		Arm	S	Messages	warn	ings +		_
Status Fort Mgr Layer-S LS End						s	Lay	yer 4-7		Anna	ageu	don	wa	ILINKS	VOIP/RTP		
Disp: 10.253.1.30:1			Sniff Pac	kets	Down	own 1 Clear Coun		Counte	nters Reset Port		Del	e <u>t</u> e					
Rpt	Tim	ner:	medium (8	s) 🔻	Appl					isplay	plav Create		Create	Modify		Batch Modify	
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Port	Ø	î	Parent Dev	Channel	l Alias	SSID		AF	•		IP		Mod	e	Signal	MAC	
1.1.00		-			eth0					192.16	8.92.	12				0c:c4:7a:86:69:1	8
1.1.01					eth1					0.0.0.0)					0c:c4:7a:86:69:1	9
1.1.02				0	wiphy0					0.0.0.0)		802.11abg	In		00:0e:8e:32:12:c	f
1.1.03				0	wiphy1					0.0.0.0)		802.11abg	In		00:0e:8e:5a:6e:3	3
1.1.04				161	wiphy2					0.0.0.0)		802.11an-	AC		00:19:70:be:5e:0	a
1.1.05				0	wiphy3					0.0.0.0)		802.11abg	In		00:0e:8e:56:bd:f	10
1.1.13		1	wiphy1	157	stal000	jedway-wpa2				0.0.0.0)		AUTO 20		0 dBm	00:0e:8e:5a:b9:3	3
1.1.14		1	wiphy1	157	stal001	jedway-wpa2				0.0.0.0)		AUTO 20		0 dBm	00:0e:8e:5a:23:3	3
1.1.15		1	wiphy1	157	stal002	jedway-wpa2				0.0.0.0)		AUTO 20		0 dBm	00:0e:8e:5a:99:3	3
1.1.17		1	wiphy2	0	sta2001	jedway-wpa2				0.0.0.0)		AUTO 20		0 dBm	00:19:70:be:d5:0	a
1.1.06		1	wiphy3	1	wlan3		Not-A	ssocia	ated	0.0.0.0)		AUTO 20		0 dBm	00:0e:8e:56:bd:f	10
1.1.07		1	wiphy1	157	wlan1		Not-A	ssocia	ated	0.0.0.0)		AUTO 20		0 dBm	00:0e:8e:5a:6e:3	3
1.1.08		1	wiphy0	157	wlan0		Not-A	ssocia	ated	0.0.0.0)		AUTO 20		0 dBm	00:0e:8e:32:12:c	f
1.1.09		1	wiphy2	0	wlan2		Not-A	ssocia	ated	0.0.0.0)		AUTO 20		0 dBm	00:19:70:be:5e:0	a
1.1.10		1	wiphy0	157	sta0000	jedway-wpa2	Not-A	ssocia	ated	0.0.0.0)		AUTO 20		0 dBm	00:0e:8e:32:e6:c	:f
1.1.11		1	wiphy0	157	sta0001	jedway-wpa2	Not-A	ssocia	ated	0.0.0.0)		AUTO 20		0 dBm	00:0e:8e:32:e7:c	:f
1.1.12		1	wiphy0	157	sta0002	jedway-wpa2	Not-A	ssocia	ated	0.0.0.0)		AUTO 20		0 dBm	00:0e:8e:32:de:c	:f
1.1.16		1	wiphy2	0	sta2000	jedway-wpa2	Not-A	ssocia	ated	0.0.0.0)		AUTO 20		0 dBm	00:19:70:be:9e:0	a
1.1.18		1	wiphy2	0	sta2002	jedway-wpa2	Not-A	ssocia	ated	0.0.0.0)		AUTO 20		0 dBm	00:19:70:be:d0:0	a
•																	
, Logged ir	n to	: 1	92.168.92.12	2:4002 a:	s: Admin										13	stations: 0113	I OØ

B. Once in the *Port Manager*, click on the *Create* button in the top right corner of the Port Manager. This will open a window that will have a variety of selections. Here, select the *WiFi STA* button.

		Create VI	LANs on Por	t: 1.1.08		• •
6	⊖ MAC-V <u>L</u> AN	○ 802. <u>1</u> Q-VLAN	○ <u>R</u> edirect	⊖ Bridge	⊖ Bond	
U	⊖ GRE Tunnel	◉ <u>W</u> iFi STA	⊖ WiFi <u>V</u> AP	○ WiFi <u>M</u> onitor	🔾 WiFi Virtu	al Radio
2	Shelf: 1 🗸 F	leso <u>u</u> rce: l (ct52	4-emily) 🔻	Port: 8 (wlan0)	•	
B	Quantity: 1	Not a radio Ple	ase choose a	a radio.		
	Basic Settings	WiFi Se <u>t</u> tings	Advanc <u>e</u> d S	ettings		
	VLAN ID:					
	STA ID:	0000		j		
	Parent MAC:	00:0e:8e:32:12	cf]		
~	<u>M</u> AC Addr:	xx;xx;xx;*:*:xx	-			
4	DHCP-IPv4	🗌 Multiple Subn	ets			
	IP Address:			j		
	IP <u>M</u> ask or Bits:			j		
	<u>G</u> ateway IP:			j		
	#1 Redir <u>N</u> ame:]		
	#2 Redir Name:]		
6	Down Ap	oly <u>C</u> ancel		Ready		

C. Once the greyed out boxes are able to be edited, select the *Port* that the station aims to be created on. There might be an original warning that mentions that stations can only be created on a radio. Please assess which radio the station should be created on and select accordingly in *Port*. There are other options for station creation her under the basics tab: Quantity of stations, if the stations will use DHCP-IPv4, station name, resource and port. If the station isn't using DHCP-IPv4, the IP address can be manually set. In the example below, I have set 12 stations to be created, starting with station name *1234* using DHCP-IPv4.

		Create V	LANs on Poi	t: 1.1.08	- • ×
•	O MAC-VLAN	○ 802. <u>1</u> Q-VLAN	○ <u>R</u> edirect	⊖ Bridge	⊖ Bond
•	⊖ GRE Tunnel	◉ <u>W</u> iFi STA	⊖ WiFi <u>V</u> AP	○ WiFi <u>M</u> onitor	🔾 WiFi Virtual Radio
2	Shelf: 1 💌 F	Reso <u>u</u> rce: 1 (ct52	4-emily) 🔻	Port: 4 (wiphy2) 🗸
B	<u>Q</u> uantity: 12				
	Basic Settings	WiFi Se <u>t</u> tings	Advanc <u>e</u> d S	ettings	
	VLAN ID:]	
	STA ID:	1234		j	
	Parent MAC:	00:19:70:be:5e	:0a]	
	<u>M</u> AC Addr:	xx:xx:xx:*:*:xx			
4	▶ DHCP-IPv4	🗌 Multiple Subn	ets		
	IP Address:]	
	IP <u>M</u> ask or Bits:]	
	<u>G</u> ateway IP:]	
	#1 Redir <u>N</u> ame:]	
	#2 Redir Name:				
6	Down Ap	ply <u>C</u> ancel		Done	

D. Under the WiFi Settings tab, please input the information to which the station will connect to. Generally, unless there are multiple networks with the same SSID, one will not need to input the AP/BSSID. If there is security on the network, please mark the adequate security to connect to the network. After all the input is filled out, click on *Apply* in the bottom window. This is will create the stations in the *Port Manager*.

	Create VLANs on Port: 1.1.08	- • ×
a	○ MAC-VLAN ○ 802.1Q-VLAN ○ <u>R</u> edirect ○ Bridge	⊖ Bond
U	⊖ GRE Tunnel	itor 🔾 WiFi Virtual Radio
2	Shelf: 1 💌 Resource: 1 (ct524-emily) 💌 Port: 4 (wi	phy2) 💌
B	Quantity: 12	
	Basic Settings WiFi Settings Advanced Settings	
	SSID: jedway-wpa2-x2048-4	•
	WiFi AP:	
	Key/Phrase: jedway-wpa2-x2048-4	
	WPA WPA2 WPA3 WEP	
4		
6	Down Apply Cancel D	one

E. Click on the *Port Manager* to see the stations appear. In this case, the first station that appears is *1234*, with 12 consecutive station names created after that. This means that the stations are named 1234 to 1245.

2. Creating a station : Scripting

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