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# 1 Installation Notes

# 1.1 Preparation

## 1.1.1 Install the driver

This software needs to be used with a driver, please get the appropriate version from this website according to the actual situation.

## 1.1.1.1 MacOS X

CP210x Software package for Mac, includes VCP Drivers

OR

#### CP210x VCP Mac OSX Driver

SPECS	TECH DOCS	SOFTWARE & TOOLS	QUALITY & PACKAGING	COMMUNITY & SUPPORT		
Exa	mple Code (5)	Exa	ample Code • 5			
Sof	tware (31)	AN	197: CP210x Serial Communic	ations Software	v6 9/7/2	019
		AN	220: USB Driver Customizatio	n	v11. 11/5/20	.2.0 022
		AN	223: CP210x GPIO Example S	oftware	9/7/2	019
		AN	335: USB Driver Installation U	tility	v 9/7/2	/3.4 :019
		AN	721: CP210x/CP211x Device C	Customization Guide	v6 9/7/2	019
		Sof	ftware • 31			
		CP	2102/3 IBIS Model		1/14/2	v1.0
		CP	210x Linux1		8/19/2	017
		CP	210x Software Development I	Cit for Windows XP and Vista	9/12/2	v1.2
		CP	210x Software package for Li	nux	v6 2/8/2	.7.4
		CP	210x Software package for M	ac, includes VCP Drivers	v6 2/8/2	.7.4
		Sho	ow 26 more Software			

Linux 2.6.x VCP Driver	1/18/2017
Linux 2.6.x VCP Revision History	9/4/2020
Linux 3.x.x/4.x.x/5.x.x VCP Driver	v3.x.x/4.x.x/5.x.x 1/29/2021
VCP Driver for WinCE60	v2.1 9/4/2020
VCP Drivers for WinCE50	v2.1 9/4/2020
CP210x VCP Mac OSX Driver	v6.0.2 10/27/2021
USBXpress 4 SDK	v4.0.3 9/4/2020
USBXpress Dev Kit	v3.5.1 11/25/2021
USBXpress Host SDK - Mac	v6.7.7 5/14/2022

# 1.1.1.2 Windows:

CP210x Software package for Windows, includes VCP drivers

OR

CP210x Universal Windows Driver

OR

CP210x VCP Windows

CP210x Software Development Kit for Windows XP and Vista	v1.2 9/12/2017
CP210x Software package for Linux	v6.7.4
CP210x Software package for Mac, includes VCP Drivers	v6.7.4 2/8/2017
CP210x Software package for Windows, includes VCP drivers	v6.7.4 2/8/2017
CP210x Universal Windows Driver	v11.2.0 10/21/2022
CP210x VCP Linux 3.0 Driver Kit	1/14/2017
CP210x VCP Linux 3.1 Driver Kit	1/14/2017
CP210x VCP Windows	v6.7 1/14/2017
CP210x VCP v6.7 Driver for Windows XP and Vista	v6.7 9/12/2017
CP210x Windows Drivers	v6.7.6 9/4/2020

And so on.

### 1.1.1.3 Linux:

In general, Linux comes with CP210x driver, the device can be recognized normally after connection; here is an example of Ubuntu (other versions are similar), according to the way in 1.1.2 can not be verified, then you need to install manually. Check the Linux version of Ubuntu by: sudo uname -a

Download the corresponding driver version from <u>the official website</u> according to your needs. After downloading and unpacking the .c file and make file file in the folder, open the terminal in the folder and execute the command: <u>sudo make</u> to compile the make file file.

After completion, the .ko file will appear in the folder.

Then execute: sudo insmod cp210x.ko, the driver installation is complete.

### Software · 31

CP2102/3 IBIS Model	v1.0 1/14/2017
CP210x Linux1	8/19/2017
CP210x Software Development Kit for Windows XP and Vista	v1.2 9/12/2017
CP210x Software package for Linux	v6.7.4 2/8/2017
CP210x Software package for Mac, includes VCP Drivers	v6.7.4 2/8/2017

Show 26 more Software

Ubuntu power-up automatically loads the driver module.

Copy cp210x.ko to /lib/modules/.../kernel/drivers/usb/serial folder; /kernel/drivers/usb/serial may be hidden, you can search for serial directly in the lib folder, where the dotted dots are your own system version. For example: "5.15.0-56-generic", refer to the description of 1.1.2.

### 1.1.2 Verify driver

After the driver is successfully installed, connect the device and check whether the serial port is properly recognized.

### 1.1.2.1 MacOS X:

Open a terminal and enter the following command: Is /dev/tty.\*

/dev/tty.Bluetooth-Incoming-Port /dev/tty.SLAB\_USBtoUART /dev/tty.usbserial-0001

If you find tty.SLAB\_USBtoUART, the driver is installed successfully, Congratulations.

## 1.1.2.2 Windows:

#### 1.Control Panel --> Hardware and Sound



#### 2. Device Manager



#### 3. Find the COM



If you find the COM of SLAB, the driver is installed successfully, Congratulations.

## 1.1.2.3 Linux

This is an example of Ubuntu (other versions are similar) and can be found at the following paths: /lib/modules/5.15.0-56-generic/kernel/drivers/usb/serial (where "5.15.0-56-generic", you need to choose according to the actual situation of your system, do not copy this path directly), you can find: cp210x.ko; indicating that the system has installed this driver.

F					neo@ubi	untu: /	lib/r	modules	s <mark>/5.15.0-56-generic,</mark> kernel/drivers/usb/serial	Q	Ξ	۰	×
neo@i	buntu	:/1							rnel/drivers/usb/serial\$ 11				
total	l 2520					_							
drwxr	r-xr-x	2	root	root	4096	12月	8	15:48	./				
drwxr	r-xr-x	24	root	root	4096	12月	8	15:48	/				
- rw- r	rr	1	root	root	14297	11月	22	23:08	aircable.ko				
- FW- I	rr	1	root	root	27433	11月	22	23:08	ark3116.ko				
- rw- r	rr	1	root	root	24441	11月	22	23:08	belkin_sa.ko				
- FW- 1	rr	1	root	root	35105	11月	22	23:08	ch341.ko				
- rw- r	rr	1	root	root	78545	11月	22	23:08	cp210x.ko				
- rw-r	rr	1	root	root	30017	11년	22	23:08	cyberjack.ko				
- rw-r	<b>r</b>	1	root	root	54393	11月	22	23:08	cypress_m8.ko				
- rw- r	rr	1	root	root	54913	11月	22	23:08	digi_acceleport.ko				
- FW- F	rr	1	root	root	12025	11년	22	23:08	empeg.ko				
- rw- r	rr	1	root	root	41689	11月	22	23:08	f81232.ko				
- FW- F	rr	1	root	root	48993	11년	22	23:08	f81534.ko				
- rw- r	rr	1	root	root	173569	11月	22	23:08	ftdi_sio.ko				
- rw-r	rr	1	root	root	48697	11月	22	23:08	garmin_gps.ko				
- FW- F	rr	1	root	root	138961	11月	22	23:08	io_edgeport.ko				
- rw- r	rr	1	root	root	114713	11月	22	23:08	io_ti.ko				
- FW- F	rr	1	root	root	69721	11月	22	23:08	ipaq.ko				
- rw- r	rr	1	root	root	19449	11月	22	23:08	1pw.ko				
- FW- 1	rr	1	root	root	27681	11月	22	23:08	tr-usb.ko				
- rw- r	rr	1	root	root	53353	11月	22	23:08	tuu_phoenix.ko				
- rw-r	rr	1	root	root	103945	11月	22	23:08	keyspan.ko				
- rw- r	rr	1	root	root	33625	11月	22	23:08	keyspan_pda.ko				
- rw- r	rr	1	root	root	25209	11月	22	23:08	kl5kusb105.ko				
- rw- r	rr	1	root	root	32065	11月	22	23:08	kobil_sct.ko				
- rw-r	rr	1	root	root	31609	11月	22	23:08	mct_u232.ko				
- rw-r	<b>-</b>	1	root	root	21785	11月	22	23:08	metro-usb.ko				
- rw- r	rr	1	root	root	68017	11月	22	23:08	mos7720.ko				
- rw- r	rr	1	root	root	77785	11년	22	23:08	mos7840.ko				
- rw- r	rr	1	root	root	53977	11月	22	23:08	mxuport.ko				
- rw- r	rr	1	root	root	15697	11년	22	23:08	navman.ko				
- rw- r	rr	1	root	root	13633	11月	22	23:08	omninet.ko				
- rw- r	rr	1	root	root	24777	11년	22	23:08	opticon.ko				
- rw- r	rr	1	root	root	185145	11月	22	23:08	option.ko				
- rw- r	rr	1	root	root	35273	11月	22	23:08	ot16858.ko				
- rw- i	<b>-</b>	1	root	root	52145	11月	22	23:08	pl2303.ko				
- rw- i	<b>r</b>	1	root	root	11913	11月	22	23:08	qcaux.ko				
- rw- r	rr	1	root	root	39745	11月	22	23:08	qcserial.ko				
- rw- i	<b>r</b>	1	root	root	32521	11月	22	23:08	quatech2.ko				
- FM- I	<b>r</b>	1	root	root	17809	11년	22	23:08	safe_serial.ko				

# **1.2 Software Installation**

Click on the installation package and follow the instructions to install or unzip the package to open it.

# 2 Software Usage

This is illustrated here with the MacOS version as an example and the Windows version and Linux version are similar.

# 2.1 HomePage

•				Qliktag NFC tools			
	Qliktag	g NFC tools i	s ready to	o go! Pleas	e connect tł	ne device (	Connect Device
serialpo	rt message						
	Mada O		Deve C	E-II.O. Januaria - C.	Durch		
U lest	wode 🔾	Auto Mode	Pass 0	Fail U Inventory 0	Reset		write NFC Tag

## 2.1.1 Test Mode

#### 1. Test Mode

The "Test Mode" is designed to allow you to write / encode a digital link URL from an upload sheet to the NFC tags one at a time. It requires you to click the "Write NFC Tag" button and then tap the NFC tag to the device each time you're ready to write the next URL queued in the "Inventory". This mode is ideal for writing and testing a few tags one by one.

#### 2. Auto Mode

The "Auto Mode" is designed to allow you to write / encode a larger number of digital link URLs to NFC tags in series. It can be used in conjunction with a label spooler or with the device placed near a conveyor belt where the NFC tags periodically come into contact with the device and sequentially encode the digital links queued in the "Inventory". In this mode, the "Write NFC Tags" button only needs to be clicked once and NFC tags can be tapped on the device one after the next in sequence without having to click anything in between. This mode is ideal for manually bulk encoding multiple tags, to place on a production / packaging line or use with an automatic label spooler with an entire reel of NFC tags.

## 2.1.2 Counter

Cumulative Success / Failure Count. You can click "Reset" to clear the counter.

### 2.1.3 Connect Device

Ensure the device is plugged into the USB port and the drivers have been installed correctly. The Connect Device button can then be clicked to connect the device to the Qliktag NFC Tools software.

•				Qlikta	g NFC tools				
	Qliktag	g NFC tools	s is ready t	o go	o! Please	e connec	t the device	Connect Device	
serialport	message								
Test M	lode 🔿	Auto Mode	Pass 0	Fail 0	Inventory 0	Reset		Write NFC Tag	
				lo Sorial	oort Connecter	4			
			r	O Serial	port Connected	3			

The "Device Controls & Serial Port Settings" window will pop up to confirm the connection settings. Check that within the "COM" dropdown, "SLAB\_USBtoUART" is selected from the dropdown and the other settings match the settings in the screen diagram below. Then, click the "Connect" button.

		<u> </u>	
COM	SLAB_USBtoUART	~	
baudRate	115200		
checkBit	None		
dataBit	8		
stopBit	1	$\sim$	
	Disconnect		

You should then see the message "Serialport: SLAB\_USBtoUART connected!, Waiting to write NFC tag". This indicates that the device has been successfully connected to the software and is now ready to write / encode NFC tags.

•				Qliktag	NFC tools				
	Serialpo	rt: SLAB_U	ISBtoUART	conr tag	nected!,	Waitir	ng to wri	te NFC	Connect Device
serialp	ort message								
• •	et Mada - C	Auto Mode	Page 0	Fail 0		Baset			Meite NEC Terr
U Te	est Mode	Auto Mode	Pass 0	Fail U	inventory 0	Reset			write NFC Tag
			PortName: /dev/tty.SL	AB_USBt	DUART BaudRa	te: 115200 l	.ock: No		

# 2.1.4 Uploading a CSV File with Digital Links to be Encoded

In the top menu bar, select the "File" menu option, and then click on "Upload CSV File".

File Operation Settings			* 🗈	<b>()</b>		Q
Upload CSV File	ЖF	Qliktag NFC tools				
Download Data for NFC Tags Written Passed	жE					
Download Data for NFC Tags Not Written Failed						
Output Directory		connected!, waiting to write NFC	Con	nect Dev	vice	
Master Reset		tag				
serialport message						
						J
Tast Mada	ada Pass 0	Fail O Inventory O Reast	1A/rito	NEC Top		
	oue rasso	Reset	vvnie	INI O Tay		
						-
	PortName: /dev/tty.S	SLAB_USBtoUART BaudRate: 115200 Lock: No				
		Client Version: 0.0.4				

From the file browser / finder screen that comes up, locate and select your .CSV file which has the digital link URLs you need to encode into the NFC tags.

Once you have selected the CSV file and proceed, you should see a message indicating that the records with the URLs have been successfully uploaded. Click OK.

	Qliktag NFC tools	`
Serialport: SLAB	_USBtoUART connected!, Waiting to write NFo tag	C Connect Device
	× Upload Success, 3 record(s), Time Consuming: 0.050 s OK	
Test Mode O Auto Mode	Pass 0 Fail 0 Inventory 3 Reset	Write NFC Tag
	PortName: /dev/tty.SLAB_USBtoUART BaudRate: 115200 Lock: No Client Version: 0.0.4	

You should now be able to see a count of the records that have been uploaded and queued up in the "Inventory" that is ready to encode.

• •		Qliktag NFC tools	
Serialpor	t: SLAB_USBtoU	ART connected!, Waiting to write NFC Connect D	Device
serialport message			
		$\frown$	
• Test Mode	Auto Mode F	Pass 0 Fail 0 Inventory 3 lieset Write NFC 1	ag
	PortName: /d	lev/tty.SLAB_USBtoUART BaudRate: 115200 Lock: No	

# 2.1.5 Write NFC Tag / Run / Stop

Click the "Write NFC Tag" button to run or stop the process of writing / encoding the digital link URLs to the NFC Tags.

In "Test Mode" the following screen will come up.



Click on "Run" to continue.

The following prompt will appear at the top "Start testing, Waiting for Cards". This indicates that the software & device are ready and now waiting for an NFC tag to be tapped on the device.

Qliktag NFC tools					
	Start testing, Waiting for Cards	Connect Device			
serialport message					
<ul> <li>Test Mode</li> <li>Auto</li> </ul>	Mode Pass U Fail U Inventory 3 Reset	Stop			
	PortName: /dev/tty.SLAB_USBtoUART BaudRate: 115200 Lock: No				

Proceed with taking a blank NFC tag and hold it over the device (the tag can touch the device or be brought within millimeters of the device) and hold there for about a second while it encodes.

•	Qliktag NFC tools		
	UID: 04557932A91190, NFC Tag Writing Operation: PASS	ict Devi	ice
2023-05-03	13:23:34.330> SDMStep2 Send: 50 00 23 DC 30 02 40 E0 EE C1 F1 12 00 00 00 00 00 33 00	00 00	00
00 59 00 00	0 00 00 00 00 00 59 00 00 00 00 C2		
2023-05-03	13:23:34.448> Data Received: 50 00 00 DC 8C		
2023-05-03	13:23:34.448> SDMStep3 Send: 50 00 01 E7 02 B4		
2023-05-03	13:23:34.562> Data Received: 50 00 13 E7 00 40 E0 EE 00 01 00 C1 F1 12 33 00 00 59 00 00	59 00	00
FA			
2023-05-03	13:23:34.563> SDMStep3 Data Check, Read Data == Raw Data		
2023-05-03	13:23:34.563> Raw Data: 40E0EEE000100C1F112330000590000590000		
2023-05-03	13:23:34.563> Read Data: 40E0EE000100C1F112330000590000590000		
2023-05-03	13:23:34.563> SDMStep3 Data Check PASS		
2023-05-03	13:23:34.564> UID: 04557932A91190 Write Data: https://bigboxdigital.qlkt.ag/105?		
picc_data=0	00000000000000000000000000000000000cmac=0000000000		
2023-05-03	13:23:34.565> PASS		
2023-05-03	13:23:34.565> Time Consuming: 1.276s		
2023-05-03	13:23:34.580> Buzzer Send: 50 00 02 02 06 01 57		
2023-05-03	13:23:34.693> Data Received: 50 00 00 02 52		
2023-05-03	13:23:34.802> For more details, Please view: /Users/neil/Downloads/New Qliktag NFC		
Software/Me	eetFileStorage/20230503/logs/04557932A91190-20230503-nolock.txt		
2023-05-03	13:23:34.802> Current Progress: 1 / 5		
2023-05-03	13:23:34.803> Next Record: https://bigboxdigital.qlkt.ag/106?		
picc_data=0	00000000000000000000000000000000000000		
Te	est Mode O Auto Mode Pass 1 Fail 0 Inventory 4 Reset	ın	
	PortNemo: /dou/tu/CLAD_UICPtoUAPT_PoudPoto: 115200 Lock: No		

The device will beep, display the data being encoded into the tag as in the screen above, the top message will display the UID of the tag followed by a message to confirm the tag encoding / writing operation has successfully been passed and the pass counter at the bottom of the screen should indicate that one NFC tag has successfully been written and passed.

To write the next NFC tag, click the "Run" button again and repeat the process. At that point, the Pass counter should display 2 NFC tags successfully written and passed.

If you use "Auto Mode", there is no need to hit the Run button multiple times. Once an NFC tag has been successfully written, it will indicate that it is ready for the next tag to be tapped one after the other till the Inventory has reached '0' or the writing operation has been stopped.

# 2.2 File Operations

# 2.2.1 Downloading Data for NFC Tags Written / Encoded

The software maintains a log for the data successfully written and updated with the unique UID of each NFC tag the record was written to so that it can be downloaded and then imported within the Qliktag Platform so the UIDs are updated and registered within the system. Similarly, the software also maintains a log of the data records that have not yet been written to the NFC tags or, have failed the writing process and have not been written to the tags. This can be downloaded so that these records can be re-uploaded and tried to be written again at a later time.

In order to perform these file operations, first click on the File option in the top main menu bar and select "Output Directory". This will bring up your file browser and allow you to select the location where you want the downloaded data files to be downloaded to on your computer.

Upload CSV File #F Gliktag NPC tools							
Download Data for NFC Tags Written Passed 36 E							
Download Data for NFC Tags Not Written Failed 36D							
Output Directory *P 1190, NEC Tag Writing Operation: PASS Connect Device							
Master Reset							
2023-05-03 13:23:34.330> SDMStep2 Send: 50 00 23 DC 30 02 40 E0 EE C1 F1 12 00 00 00 00 00 00 33 00 00 00 00							
00 59 00 00 00 00 00 00 00 59 00 00 00 00 00 00 02							
2023-05-03 13:23:34.448> Data Received: 50 00 00 DC 8C							
2023-05-03 13:23:34.448> SDMStep3 Send: 50 00 01 E7 02 B4							
2023-05-03 13:23:34.562> Data Received: 50 00 13 E7 00 40 E0 EE 00 01 00 C1 F1 12 33 00 00 59 00 00 59 00 00							
FA							
2023-05-03 13:23:34.563> SDMStep3 Data Check, Read Data == Raw Data							
2023-05-03 13:23:34.563> Raw Data: 40E0EE000100C1F112330000590000590000							
2023-05-03 13:23:34.563> Read Data: 40E0EE000100C1F112330000590000590000							
2023-05-03 13:23:34.563> SDMStep3 Data Check PASS							
2023-05-03 13:23:34.564> UID: 04557932A91190 Write Data: https://bigboxdigital.glkt.ag/105?							
picc data=00000000000000000000000000000000000							
2023-05-03 13:23:34.565> PASS							
2023-05-03 13:23:34.565> Time Consuming: 1.276s							
2023-05-03 13:23:34.580> Buzzer Send: 50 00 02 02 06 01 57							
2023-05-03 13:23:34.693> Data Received: 50 00 00 02 52							
2023-05-03 13:23:34.802> For more details, Please view: /Users/neil/Downloads/New Oliktag NFC							
Software/MeetFileStorage/20230503/logs/04557932A91190-20230503-nolock.txt							
2023-05-03 13:23:34.802> Current Progress: 1 / 5							
2023-05-03 13:23:34.803> Next Record: https://bigboxdigital.glkt.ag/106?							
picc data=00000000000000000000000000000000000							
• -							
Test Mode Auto Mode Pass 1 Fail 0 Inventory 4 Reset Run							
PortName: /dev/ttv.SLAB_USBtoUART_BaudRate: 115200 Lock: No							
Client Version: 0.0.4							

To download the data records of NFC tags successfully written or encoded, in the top main menu, select File->Download Data for NFC Tags Written Passed

File Operation Settings	
Upload CSV File %F	
Download Data for NFC Tags Written Passed #E Qliktag NFC to	pols
Download Data for NFC Tags Not Written Failed #D	
Output Directory %P	
91190 NEC Tag W	riting Operation: PASS Connect Device
Master Reset	
2023-05-03 13:23:34.330> SDMStep2 Send: 50 00 23 DC 30 02	2 40 E0 EE C1 F1 12 00 00 00 00 00 00 33 00 00 00 00
00 59 00 00 00 00 00 00 00 59 00 00 00 00 00 C2	
2023-05-03 13:23:34.448> Data Received: 50 00 00 DC 8C	
2023-05-03 13:23:34.562> Data Received: 50 00 13 E7 02 40	
FA	
2023-05-03 13:23:34.563> SDMStep3 Data Check, Read Data =	== Raw Data
2023-05-03 13:23:34.563> Raw Data: 40E0EE000100C1F1123300	000590000590000
2023-05-03 13:23:34.563> Read Data: 40E0EE000100C1F112330	0000590000590000
2023-05-03 13:23:34.563> SDMStep3 Data Check PASS	
2023-05-03 13:23:34.564> UID: 04557932A91190 Write Da	ata: https://bigboxdigital.qlkt.ag/105?
picc_data=00000000000000000000000000000000000	10000 Lock: No
2023-05-03 13:23:34.565> PASS	
2023-05-03 13:23:34.565> Time Consuming: 1.276s	
2023-05-03 13:23:34.580> Buzzer Send: 50 00 02 02 06 01 5	57
2023-05-03 13:23:34.693> Data Received: 50 00 00 02 52	
2023-05-03 13:23:34.802> For more details, Please view: /	Users/neil/Downloads/New Qliktag NFC
Software/MeetrileStorage/20230503/10gs/0455/952A91190-202305	JUS-HOLOCK.TXT
2023-05-03 13:23:34.803> Next Record: https://bigboxdigit	tal_σ]kt_aσ/1062
picc data=00000000000000000000000000000000000	0000
E	
Test Mode	entory 4 Reset Run
PortName: /dev/tty.SLAB_USBtoUART	BaudRate: 115200 Lock: No
Client Version: 0	).0.4

If the operation is successful, you should see a confirmation message as in the screen below to confirm the download is complete. Click "OK".

<pre>&gt;</pre>	Qliktag NFC tools
2023-05-03 13:23:34.430> SDMStep2 Send: 50 00 23 DC 30 02 40 E0 EE C1 F1 12 00 00 00 00 00 00 33 00 00 00 00 00           2023-05-03 13:23:34.448> Data Received: 50 00 0D C8C           2023-05-03 13:23:34.448> Data Received: 50 00 13 F7 00 40 E0 EE 00 01 00 C1 F1 12 33 00 00 59 00 00 59 00 00 59 00 00           2023-05-03 13:23:34.562> Data Received: 50 00 13 F7 00 40 E0 EE 00 01 00 C1 F1 12 33 00 00 59 00 00 59 00 00 59 00 00           2023-05-03 13:23:34.563> SDMStep3 Data Check, Read Data == Raw Data           2023-05-03 13:23:34.563> SDMStep3 Data Check, Read Data == Raw Data           2023-05-03 13:23:34.563> SDMStep3 Data Check PASS           2023-05-03 13:23:34.563> SDMStep3 Data Check PASS           2023-05-03 13:23:34.564> UID: 04557932A91190 Write Data: https://bigboxdigital.qlkt.ag/105?           picc_data=00000000000000000000000000000000000	Download Success: /Users/neil/Downloads/New Qliktag NFC Software/MeetFileStorage/tested-data/tested-data-20230503-4.csv
2023-05-03 13:23:34.330> SDMStep2 Send: 50 00 23 DC 30 02 40 E0 EE C1 F1 12 00 00 00 00 00 33 00 00 00 00         00 59 00 00 00 00 00 00 00 00 05 90 00 00 00 00 C2         2023-05-03 13:23:4448> Data Received: 50 00 00 DC 8C         2023-05-03 13:23:34.448> Data Received: 50 00 13 E7 00 40 E0 EE 00 01 00 C1 F1 12 33 00 00 59 00 00 59 00 00         PA         2023-05-03 13:23:34.562> Data Received: 50 00 13 E7 00 40 E0 EE 00 01 00 C1 F1 12 33 00 00 59 00 00 59 00 00         PA         2023-05-03 13:23:34.563> SDMStep3 Data Check, Read Data *= Raw Data         2023-05-03 13:23:34.563> Read Data: 40E0EE000100C1F112330000590000         2023-05-03 13:23:34.563> Read Data: 40E0EE001100C1F112330000590000         2023-05-03 13:23:34.564> DID: 04557932A91190> Write Data: https://bigboxdigital.qlkt.ag/105?         picc_data=00000000000000000000000000000000000	
2023-05-03       13:23:34.54      >       Data Received: 50       00	
O Test Mode       Pas1       Fail 0       Inventory 4       Reset         Image: Construction of the construction	
2023-05-03       13:23:34.444      >       SDNStep3 Send: 50 00 11 E7 02 B4         2023-05-03       13:23:34.562      > Data Received: 50 00 13 E7 00 40 E0 EE 00 01 00 C1 F1 12 33 00 00 59 00 00 59 00 00 FA         2023-05-03       13:23:34.563      > SDNStep3 Data Check, Read Data == Raw Data         2023-05-03       13:23:34.563      > Raw Data: 40E0EE000100C1F112330000590000590000         2023-05-03       13:23:34.563      > Read Data: 40E0EE000100C1F112330000590000590000         2023-05-03       13:23:34.564      > UD1; 04557932A91190       Write Data: https://bigboxdigital.qlkt.ag/105?         picdata=00000000000000000000000000000000000	2023-05-03 13:23:34.448> Data Received: 50 00 00 DC 8C
2023-05-03       13:23:34.562      > Data Received: 50 00 13 E7 00 40 E0 EE 00 01 00 C1 F1 12 33 00 00 59 00 00 59 00 00         FA         2023-05-03       13:23:34.563      > SDNStep3 Data Check, Read Data == Raw Data         2023-05-03       13:23:34.563      > Read Data: 40E0EE000100C1F11233000590000590000         2023-05-03       13:23:34.564      > WID: 04557932A91190      > Hork: No         2023-05-03       13:23:34.565      > PASS         2023-05-03       13:23:34.565      > PASS         2023-05-03       13:23:34.564      > Buzzer Send: 50 00 02 02 06 01 57         2023-05-03       13:23:34.693      > Data Received: 50 00 00 25 2         2023-05-03       13:23:34.802      > For more details, Please view: /Users/neil/Downloads/New Qliktag NFC         Software/MeetFileStorage/20230503/logs/04557932A91190-20230503-nolock.txt       2023-05-03       13:23:34.802       -> Current Progress: 1 / 5         2023-05-03       13:23:34.803      > Next Record: https://bigboxdigital.qlkt.ag/106?       picdata=000000000000000000000000000000000	2023-05-03 13:23:34.448> SDMStep3 Send: 50 00 01 E7 02 B4
2023-05-03 13:23:34.563> SDMStep3 Data Check, Read Data == Raw Data         2023-05-03 13:23:34.563> Raw Data: 40E0EE000100C1F112330000590000590000         2023-05-03 13:23:34.563> SDMStep3 Data Check PASS         2023-05-03 13:23:34.564> UID: 04557932A91190 Write Data: https://bigboxdigital.qlkt.ag/105?         picc_data=00000000000000000000000000000000000	2023-05-03 13:23:34.562> Data Received: 50 00 13 E7 00 40 E0 EE 00 01 00 C1 F1 12 33 00 00 59 00 00 59 00 00 FA
2023-05-03       13:23:34.563      > Raw Data: 40E0EE000100C1F112330000590000         2023-05-03       13:23:34.563      > Read Data: 40E0EE000100C1F112330000590000         2023-05-03       13:23:34.563      > SDMStep3 Data Check PASS         2023-05-03       13:23:34.564      > UID: 04557932A91190       Write Data: https://bigboxdigital.qlkt.ag/105?         picc_data=00000000000000000000000000ccmac=0000000000	2023-05-03 13:23:34.563> SDMStep3 Data Check, Read Data == Raw Data
<pre>2023-05-03 13:23:34.563&gt; Read Data: 40E0EE000100C1F112330000590000 2023-05-03 13:23:34.563&gt; SDMStep3 Data Check PASS 2023-05-03 13:23:34.564&gt; UID: 04557932A91190 Write Data: https://bigboxdigital.qlkt.ag/105? picc_data=00000000000000000000000000000000000</pre>	2023-05-03 13:23:34.563> Raw Data: 40E0EE000100C1F112330000590000590000
2023-05-03       13:23:34.563      > SDMStep3 Data Check PASS         2023-05-03       13:23:34.564      > UID: 04557932A91190       Write Data: https://bigboxdigital.qlkt.ag/105?         picc_data=0000000000000000000000000ccmac=0000000000	2023-05-03 13:23:34.563> Read Data: 40E0EE000100C1F112330000590000
2023-05-03       13:23:34.564      >       UID:       04557932A91190        Write Data:       https://bigboxdigital.glkt.ag/105?         picc_data=000000000000000000000000000ccmac=0000000000	2023-05-03 13:23:34.563> SDMStep3 Data Check PASS
<pre>picc_data=0000000000000000000000000ccmac=0000000000</pre>	2023-05-03 13:23:34.564> UID: 04557932A91190 Write Data: https://bigboxdigital.qlkt.ag/105?
2023-05-03       13:23:34.565      > PASS         2023-05-03       13:23:34.565      > Buzzer Send: 50 00 02 02 06 01 57         2023-05-03       13:23:34.693      > Data Received: 50 00 02 52         2023-05-03       13:23:34.802      > For more details, Please view: /Users/neil/Downloads/New Qliktag NFC         Software/MeetFileStorage/20230503/logs/04557932A91190-20230503-nolock.txt       2023-05-03 13:23:34.802      > Current Progress: 1 / 5         2023-05-03       13:23:34.803      > Next Record: https://bigboxdigital.qlkt.ag/106?       picc_data=00000000000000000000000000000000000	picc_data=00000000000000000000000000000000ccmac=0000000000
2023-05-03       13:23:34.565      > Time Consuming: 1.276s         2023-05-03       13:23:34.580      > Buzzer Send: 50 00 02 02 06 01 57         2023-05-03       13:23:34.693      > Data Received: 50 00 00 02 52         2023-05-03       13:23:34.802      > For more details, Please view: /Users/neil/Downloads/New Qliktag NFC         Software/MeetFileStorage/20230503/logs/04557932A91190-20230503-nolock.txt       2023-05-03 13:23:34.802      > Current Progress: 1 / 5         2023-05-03       13:23:34.803      > Next Record: https://bigboxdigital.glkt.ag/106?       picc_data=00000000000000000000000000000000000	2023-05-03 13:23:34.565> PASS
2023-05-03       13:23:34.580      > Buzzer Send: 50 00 02 02 06 01 57         2023-05-03       13:23:34.693      > Data Received: 50 00 00 02 52         2023-05-03       13:23:34.802      > For more details, Please view: /Users/neil/Downloads/New Qliktag NFC         Software/MeetFileStorage/20230503/logs/04557932A91190-20230503-nolock.txt       2023-05-03 13:23:34.802      > Current Progress: 1 / 5         2023-05-03       13:23:34.803      > Next Record: https://bigboxdigital.glkt.ag/106?       picc_data=00000000000000000000000000000000000	2023-05-03 13:23:34.565> Time Consuming: 1.276s
2023-05-03       13:23:34.693      > Data Received: 50 00 00 02 52         2023-05-03       13:23:34.802      > For more details, Please view: /Users/neil/Downloads/New Qliktag NFC         Software/MeetFileStorage/20230503/logs/04557932A91190-20230503-nolock.txt         2023-05-03       13:23:34.802      > Current Progress: 1 / 5         2023-05-03       13:23:34.803      > Next Record: https://bigboxdigital.glkt.ag/106?         picc_data=00000000000000000000000000000000000	2023-05-03 13:23:34.580> Buzzer Send: 50 00 02 02 06 01 57
2023-05-03       13:23:34.802      > For more details, Please view: /Users/neil/Downloads/New Qliktag NFC         Software/MeetFileStorage/20230503/logs/04557932A91190-20230503-nolock.txt         2023-05-03       13:23:34.802      > Current Progress: 1 / 5         2023-05-03       13:23:34.803      > Next Record: https://bigboxdigital.glkt.ag/106?         picc_data=00000000000000000000000000000000000	2023-05-03 13:23:34.693> Data Received: 50 00 00 02 52
Software/MeetFileStorage/20230503/logs/0455/932A91190-20230503-nolock.txt           2023-05-03         13:23:34.802        > Current Progress: 1 / 5           2023-05-03         13:23:34.803        > Next Record: https://bigboxdigital.qlkt.ag/106?           picc_data=00000000000000000000000000000000000	2023-05-03 13:22:34.802> For more details, Please view: /Users/neil/Downloads/New Qliktag NFC
2023-05-03         13:23:34.802        >         Current Progress: 1 / 5           2023-05-03         13:23:34.803        >         Next Record: https://bigboxdigital.qlkt.ag/106?           picc_data=00000000000000000000000000000000000	Software/MeetrileStorage/20230503/10g5/0455/932A91190-20230503-no1ock.txt
Image: Second State	2022-03-03 13:23:34.002> Cuffent Progress: 1 / 3
Test Mode	2023-03-03 13:23:34:003> Next Record: https://bigboxatgltat.qtkt.ag/100:
Test Mode O Auto Mode Pass 1 Fail 0 Inventory 4 Reset	
	Test Mode O Auto Mode Pass 1 Fail 0 Inventory 4 Reset Run
PortName: /dev/tty.SLAB_USBtoUART BaudRate: 115200 Lock: No	PortName: /dev/tty.SLAB_USBtoUART BaudRate: 115200 Lock: No

# 2.2.2 Downloading Data for NFC Tags Not Written / Failed

To download records that have either not been written to the NFC tags yet or failed the writing / encoding process, from the top main menu bar, select File->Download Data for NFC Tags Not Written Failed.

File Operation Settings * 📥 🐗	( <b>4</b> )	(;
Upload CSV File 38 F		
Download Data for NFC Tags Written Passed #E Qliktag NFC tools		
Download Data for NFC Tags Not Written Failed #D		
Output Directory #P		
Master Reset 91190, NFC Tag Writing Operation: PASS Connect Device		
2023-05-03 13:23:34.330> SDMStep2 Send: 50 00 23 DC 30 02 40 E0 EE C1 F1 12 00 00 00 00 00 03 30 00 00	00	
00 59 00 00 00 00 00 00 00 59 00 00 00 00 C2		
2023-05-03 13:23:34.448> Data Received: 50 00 00 DC 8C		
2023-05-03 13:23:34.448> SDMStep3 Send: 50 00 01 E7 02 B4		
2023-05-03 13:23:34.562> Data Received: 50 00 13 E7 00 40 E0 EE 00 01 00 C1 F1 12 33 00 00 59 00 00 59 00	00	
FA		
2023-05-03 13:23:34.563> SDMStep3 Data Check, Read Data == Raw Data		
2023-05-03 13:23:34.563> Raw Data: 40E0EE000100C1F112330000590000		
2023-05-03 13:23:34.563> Read Data: 40E0EE000100C1F112330000590000590000		
2023-05-03 13:23:34.563> SDMStep3 Data Check PASS		
2023-05-03 13:23:34.564> UID: 04557932A91190 Write Data: https://bigboxdigital.qlkt.ag/105?		
picc_data=00000000000000000000000000000000000		
2023-05-03 13:23:34.565> PASS		
2023-05-03 13:23:34.565> Time Consuming: 1.276s		
2023-05-03 13:23:34.580> Buzzer Send: 50 00 02 02 06 01 57		
2023-05-03 13:23:34.693> Data Received: 50 00 00 02 52		
2023-05-03 13:23:34.802> For more details, Please view: /Users/neil/Downloads/New Qliktag NFC		
Software/Meetrilestorage/20230503/log8/0455/9324/150-20230503-nolock.txt		
2023-05-03 13:23:34.802> Current Progress: 1 / 5		
2023-05-05 13123134.003> Next Record: https://blgboxalgital.gikt.ag/106/		
Test Mode Auto Mode Pass 1 Fail 0 Inventory 4 Reset		
PortName: /dev/ttv.SLAB_USBtoLJART_BaudRate: 115200 Lock: No		
Client Version: 0.0.4		

If the operation is successful, you should see a warning confirmation message as in the screen below to confirm the download is complete. Click "Continue & Clear". This will download the unwritten or failed records however, it will also clear the "Inventory" of records queued and to be written. You can always re-upload the file you have downloaded to put them back in the inventory and attempt to write them again.

• •	Qliktag NFC tools	
UID: 04557	7932A91190, NFC Tag Writing Operation:	PASS Connect Device
2023-05-03 13:23:34.330 - 00 59 00 00 00 00 00 00 0 2023-05-03 13:23:34 449	Warning >	0 00 00 00 33 00 00 00 00
2023-05-03 13:23:34.448 - 2023-05-03 13:23:34.448 - 2023-05-03 13:23:34.562 - FA 2023-05-03 13:23:34.563 - 2023-05-03 13:23:34.563 - 2023-05-03 13:23:34.563 - 2023-05-03 13:23:34.563 -	Downloading these records will clear the current inventory / queue of links to be written next. Please ensure you have this data backed up. If these links need to be written again, you can re-upload this exported file and add it back to the inventory / queue.	3 00 00 59 00 00 59 00 00
2023-05-03 13:23:34.563 - picc_data=00000000000000 2023-05-03 13:23:34.565 - 2023-05-03 13:23:34.565 - 2023-05-03 13:23:34.580 - 2023-05-03 13:23:34.693 -	Continue & Clear Cancel	glkt.ag/105?
2023-05-03 13:23:34.802 Software/MeetFileStorage/2 2023-05-03 13:23:34.803 picc_data=0000000000000000	<pre>&gt; For more details, Please view: /Users/neil/Downloads/Ne 0230503/logs/04557932A91190-20230503-nolock.txt &gt; Current Progress: 1 / 5 &gt; Next Record: https://bigboxdigital.qlkt.ag/106? 0000000000000000cmac=0000000000000</pre>	w Qliktag NFC
Test Mode    Au	to Mode Pass 1 Fail 0 Inventory 4 Reset	Run
	PortName: /dev/tty.SLAB_USBtoUART BaudRate: 115200 Lock: No Client Version: 0.0.4	

If the operation is successful, you should see a confirmation message as in the screen below to confirm the download is complete. Click "OK".



# 2.2.3 Reset All Previous NFC Tag Data

As you write the NFC tags, the software keeps a log of all previously written / unwritten link URL records as well as the Tag UIDs for all tags previously used. This is why if you attempt to overwrite a tag already written once, even though it hasn't been locked, the software will not overwrite that tag. However, with the "Reset All Previous NFC Tag Data" option, you can completely wipe out all previous logs if you choose to so that you can reuse or re-write previously used tags for testing.

To do this, from the top main menu bar, select File->Reset All Previous NFC Tag Data.



At this point, if you still have data logs for successfully written tags in the past or failed unwritten records for tags that did now previously write, the software will ask you to confirm downloading those logs first before proceeding. This will be mandatory to accept and download before moving ahead.



Click "OK"

É	Qliktag NFC Tools	File	Operation	Settings					🖆 🐠 🤅	
		• •	•			Qliktag N	NFC tools			
		Dow	nload untested csv file.	data and Clear it successf	ully: /Users/neil/Desktop/N	leetFileStorage/	/MeetFileStor	rage/untested-data/untested-data-20230519-2.4	sv, Now you can uple	× pad a
										ОК
			serialport	message						
			Test I	Mode 🔿 Auto Mo	ode Pass	0 Fail 0 In	iventory 0	Reset	Write NFC Tag	
					PortName: /dev/tt	y.SLAB_USBtol Client Ver	UART BaudRa rsion: 0.0.7	ate: 115200 Lock: No		

Click "OK"



Click "OK"

Once the reset has been completed, you can reuse or rewrite previously written NFC tags as long as they have not been "locked".

# 2.3 Additional Settings

# 2.3.1 Locking The NFC Tags

The NFC tags can be "locked" or set to a restricted mode once encoded / written after which they can never be overwritten or edited in any way again. The software has a lock-mode which can be enabled to lock the tags once written so those tags can not be reused, tampered with or overwritten by anyone after the first write. It is important to note that this lock-mode is permanent and a tag can not be unlocked or made writable again once locked so if you're testing with the tags and reusing them to encode different URLs, you may want to keep the settings on "Normal Mode". However, if you are encoding your tags for final production purposes and do not want anyone in future to be able to change the contents of the tag or overwrite them, then the "Lock Mode" is preferable.

To set the configuration for locking NFC tags within the top menu options, select Settings->NFC Tag Locking Configuration.

Operation Settings NFC Tag Locking Configuration %L	Qliktag NFC too	Is		* ▲	)) 32
	4				
UID: 04557932A911	90, NFC Tag Wr	iting Operat	ion: PASS	Connect Dev	ice
<b>GLIN</b> IAG					
2023-05-03 13:23:34.330> SDMStep2 Se	nd: 50 00 23 DC 30 02	40 E0 EE C1 F1 1	2 00 00 00 00 00 00	00 33 00 00 00	) 00
00 59 00 00 00 00 00 00 00 00 59 00 00	00 00 00 C2				
2023-05-03 13:23:34.448> Data Receiv	ed: 50 00 00 DC 8C				
2023-05-03 13:23:34.448> SDMStep3 Se	nd: 50 00 01 E7 02 B4				
2023-05-03 13:23:34.562> Data Receiv	ed: 50 00 13 E7 00 40	E0 EE 00 01 00 C	F1 12 33 00 00 5	39 00 00 59 00	00
FA					
2023-05-03 13:23:34.563> SDMStep3 Da	ta Check, Read Data ==	Raw Data			
2023-05-03 13:23:34.563> Raw Data: 4	0E0EE000100C1F11233000	0590000590000			
2023-05-03 13:23:34.563> Read Data:	40E0EE000100C1F1123300	00590000590000			
2023-05-03 13:23:34.563> SDMStep3 Da	ta Check PASS	1		1050	
2023-05-03 13:23:34.564> 01D: 0455/9	32A91190 Write Dat	a: nttps://bigbo	digital.qikt.ag/	1052	
picc_data=00000000000000000000000000000000000	000&Cmac=000000000000000	000 LOCK: NO			
2023-05-03 13:23:34.505> PASS	ing. 1 276g				
2023-05-03 13:23:34.505> Time Consul	• 50 00 02 02 06 01 57				
2023-05-03 13:23:34.693> Data Receiv	ed: 50 00 02 02 00 01 57				
2023-05-03 13:23:34.802> For more de	tails. Please view: /ľ	sers/neil/Downlo	ads/New Oliktag Ni	FC	
Software/MeetFileStorage/20230503/logs/	04557932A91190-2023050	3-nolock.txt	tab/ non grintedy n		
2023-05-03 13:23:34.802> Current Pro	gress: 1 / 5				
2023-05-03 13:23:34.803> Next Record	: https://bigboxdigita	l.glkt.ag/106?			
picc data=00000000000000000000000000000000000	000&cmac=00000000000000	000			
	Deve 1 Eatl O Java				
lest Mode	Pass I Fail U Invei	ntory U Reset		Run	
PortNam	3: /dev/tty.SLAB_USBtoUART Ba	udRate: 115200 Lock: N	lo		
	Client Version: 0.0	).4			

This will bring up a pop up window with the Tag locking configuration. To enable the tags to be reused or overwritten after encoding / writing the tags, select the "Normal Mode" radio button option and click "Save". To have the tags locked permanently so that they can not be overwritten once encoded / written, select the "Lock Mode" radio button option and click "Save". If this option is selected, once the software writes to the tag, the tag lock settings will also be written to the tag and the NFC tag will no longer be writable or can not be edited by anyone going forward.

•	Qliktag NFC tools	
UID: 0	1557932A91190, NFC Tag Writing Oper	ration: PASS Connect Device
2023-05-03 13:23:34. 00 59 00 00 00 00 00	Conf of Lock Mode	× 0 00 00 00 33 00 00 00 00
2023-05-03 13:23:34. 2023-05-03 13:23:34. 2023-05-03 13:23:34.	48 48 62	3 00 00 59 00 00 59 00 00
FA 2023-05-03 13:23:34. 2023-05-03 13:23:34.	63 Cancel Save	
2023-05-03 13:23:34. 2023-05-03 13:23:34. 2023-05-03 13:23:34.	63 63> SDMStep3 Data Check PASS 64> UID: 04557932491190 Write Data: https://bio	thordigital gikt ag/1052
picc_data=000000000 2023-05-03 13:23:34.	00000000000000000000000000000000000000	No
2023-05-03 13:23:34. 2023-05-03 13:23:34. 2023-05-03 13:23:34.	65> Time Consuming: 1.2768 80> Buzzer Send: 50 00 02 02 06 01 57 93> Data Received: 50 00 00 02 52	
2023-05-03 13:23:34. Software/MeetFileSto 2023-05-03 13:23:34.	02> For more details, Please view: /Users/neil/Down age/20230503/logs/04557932A91190-20230503-nolock.txt	ıloads/New Qliktag NFC
2023-05-03 13:23:34. picc_data=0000000000	03> Next Record: https://bigboxdigital.qlkt.ag/106? 000000000000000000000000cmac=00000000000	