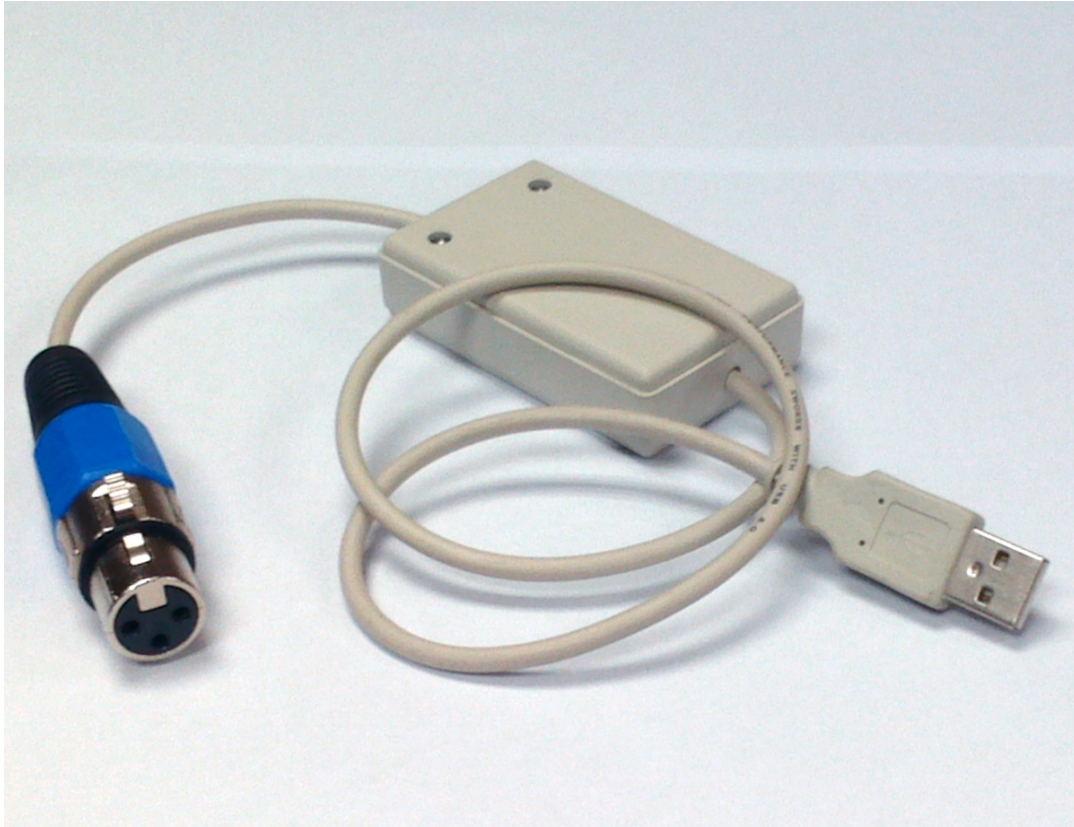


X-uDMX512

DMX USB interface

Galvanic isolation (security for your computer)



Warranty

XZL warrants that the product that it manufactures will be free from defects in materials and workmanship for a period of **one year** from the date of shipment. If the device proves defective within the warranty period, XZL will repair or replace at its sole discretion, the defective hardware. If the failure is due to an operator error, the user accepts the responsibility to pay any costs incurred in the diagnosis of the hardware, parts or shipping from our service facility.

XZL makes no warranty of any kind, express or implied, including without limitation the implied warranties of merchantability and fitness for a particular purpose. In no event shall XZL be liable for indirect, special or consequential damages. Opening the case of the unit voids the warranty as described above.

Customer Service:

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Address: XZL Electronics Co., Ltd. No.8 of Kang Le Li, Jiangmen, Guangdong, China.

Product Brief

- (1) USB DMX Interface.
- (2) Micro processor enabled.
- (3) 1500 V full isolation(data & power lines to protect your computer from surges).
- (4) Supports Various 3rd party softwares (FreeStyler, DMXControl,.PC-Dimmer, Q Light Control, Vixen, etc...)

Besides, most DMX-Software are able to output DMX-data to Art-Net. So it is not necessary to have a plugin for each program. X-uDMX512-2-5P can even be used with programs where there is no plugin. This works for example with Magic Q, Abuelites or any other DMX-software that is able to output DMX-data to Art-Net.

- (5) Internal frame buffering.
- (6) Drivers for Windows and Linux and Macintosh.
- (7) DMX512 times configurable.
- (8) L6.9cm(total 70cm with USB and 3-pin XLR connectors) x W4.1cm x H1.8cm



(1) Driver

The driver for Windows XP, Vista and Windows 7. Besides, on Unix-based operating systems, the LibUSB is integrated directly into the kernel.

You can find the driver directory /X-uDMX512_Driver/. in our CD-ROM in our package . In case that you lost the driver files, you can download it via link:

http://www.xzlgroup.com/products2/X-uDMX512_Driver.rar

DRIVER INSTALLATION:

Download the zipped driver file (or find the driver directory /X-uDMX512_Driver/ in the CD-ROM).

Unzip the files wherever you want and then plugin the hardware to your computer's USB port. The operating system will detect that a new hardware device found and search for a driver. **Please keep in mind that don't let the computer install the driver for our hardware automatically!**

Please **manually** browse to and select the correct **directory** (/X-uDMX512_Driver/) in your CD-ROM or your unzipped directory, after you manually select the correct driver directory (/X-uDMX512_Driver/), the driver should be installed in several seconds. Please select the directory only, no need to select any specific file in the directory of /X-uDMX512_Driver/, because the operating system will detect and install the proper driver as per your system 32bit or 64bit.

ATTENTION: And then the file uDMX.dll has to be MANUALLY copied to the directory <Windows>\System32\ in order to finish the installation.

After uDMX.dll has been copied to the directory of <windows>\System32\ for example: C:\WINDOWS\system32\ , the driver installation is finished.

P.S.: How to install driver (Libusb-win32) for USB-DMX interface X-uDMX512 on Windows 8 - 64bit

You have to disable Driver Signature Enforcement in Windows 8 before installation because X-uDMX512 driver is not digitally signed by Windows.

Installing 3rd party drivers (unsigned driver) can be a pain. Disabling the driver signature removes some protection but enables installation of older drivers without much hassle.

Disabling Driver Signature Enforcement in Windows 8 From Metro Start Screen:

On Metro Start Screen -> Select Settings (pop-out bar should appear when you move your mouse to the bottom-right-corner of the screen, and click the Gear icon).

Select More PC Settings

Select 'General'.

Scroll down => Select 'Restart now' => 'Advanced startup'.

Wait for reboot then skip to step 2 below

Disabling Driver Signature Enforcement in Windows 8 from control panel:

On windows 8 control panel choose General => Under "Advanced Startup" => Restart now.

After reboot, a new menu should appear with - Troubleshoot.

Select 'Troubleshoot'.

Select 'Advanced Options'

Select 'Windows Startup Settings'

Select Restart.

After computer restarts, select 'Disable driver signature enforcement' from the list.

(2) Plugin

Newer versions of FreeStyler (>= 3.3.7) support X-uDMX512 [directly](#). The interface setup for FreeStyler is just choosing "uDMX".

X-uDMX512 Plugins:

There are plugins for uDMX from "ancient" times.

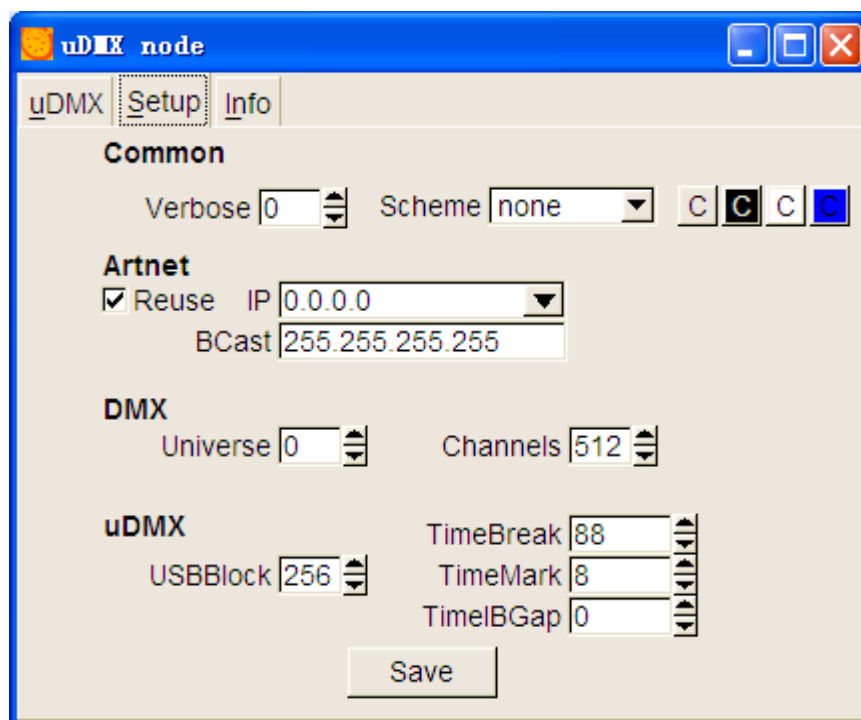
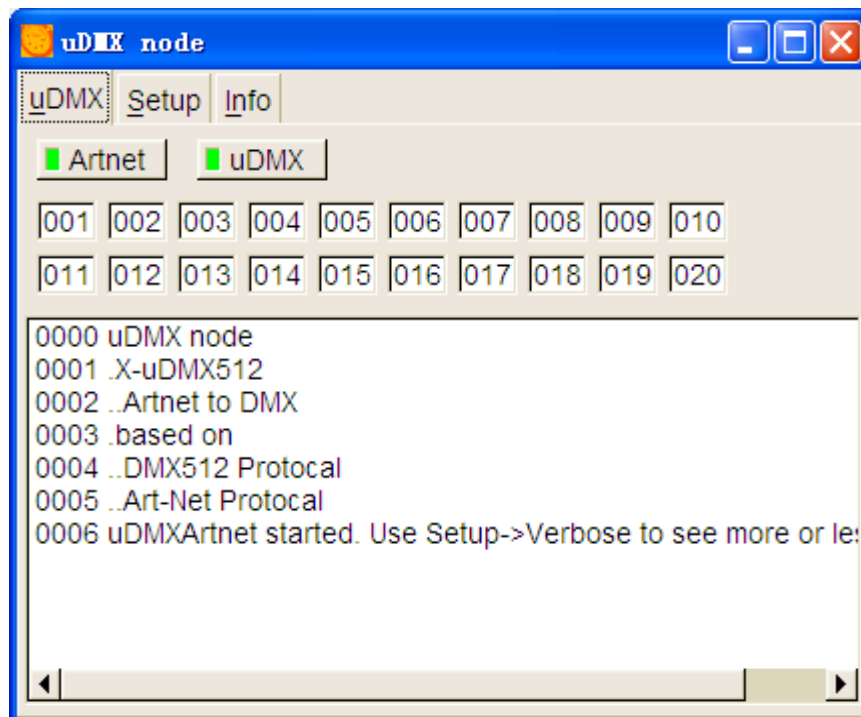
We suggest to use uDMX artnet if your DMX-software supports artnet, as uDMX artnet makes it easy to setup DMX timing.

If you still want to use the old plugins, we put them in the directory of "plugins\" in our compressed driver file.

For your information, Under Linux you can use MagicQ of Chamsys or QLC. Other operating systems or programs are available with the ArtNet server(we put the ArtNet server in the directory of "Artnet server\" in our compressed driver file.

(3) Artnet

You can get our ArtNet server(X-uDMXArtnet.exe) in the directory of "Artnet server\" in our compressed driver file.



Advantages of Artnet or why you should use artnet-receiver for X-uDMX512:

Artnet is a network protocol to transfer DMX data over the ip network. Thus it is possible to transfer DMX data with wireless LAN.

Most DMX-Software are able to output DMX-data to Art-Net. So it is not necessary to have a plugin for each program. uDMX can even be used with programs where there is no plugin.

This works for example with:

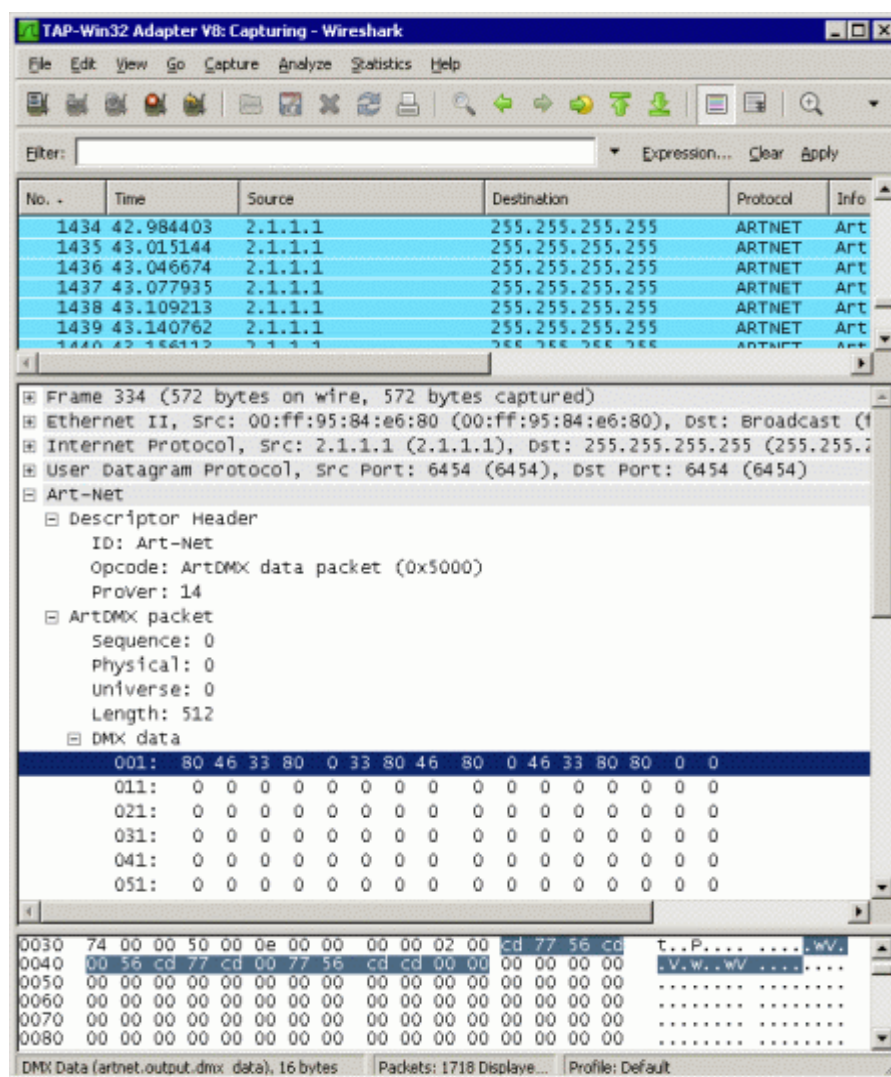
DMX-Control

Freestyler

Magic Q

Abuelites

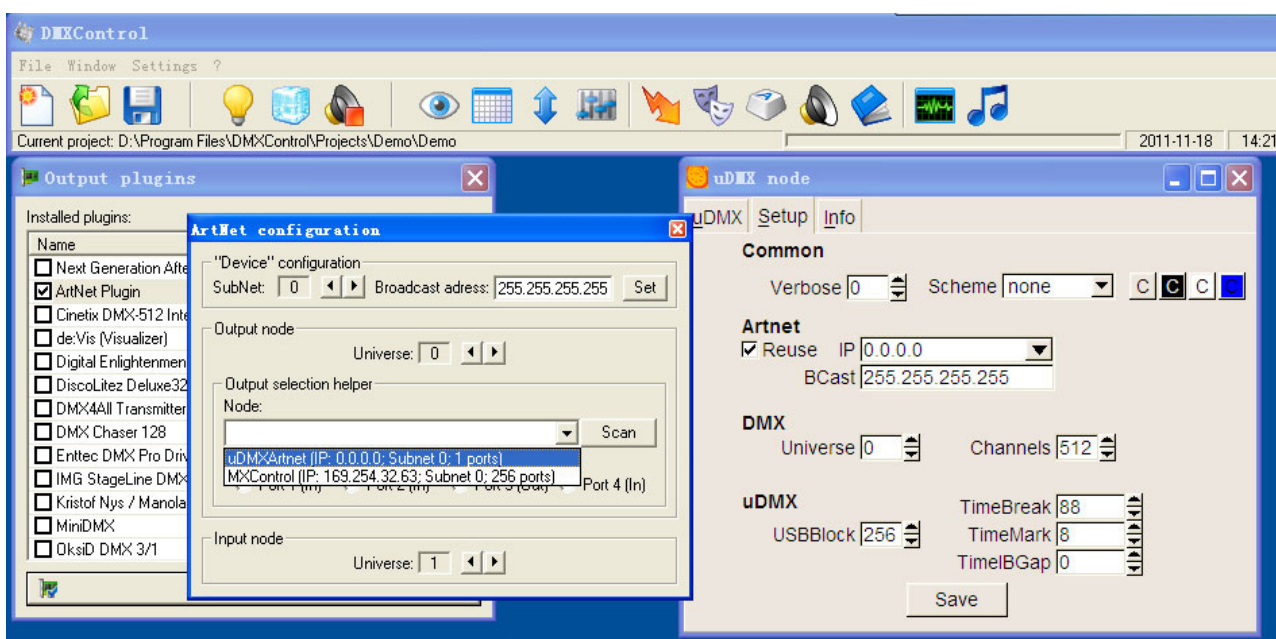
Apart from the advantages listed above, artnet can be perfectly analysed with Wireshark.





X-uDMXArtnet.exe is a software, to receive Artnet-data / DMX and output this data to X-uDMXArtnet Hardware.

X-uDMXArtnet is recognized as real artnet-node by other applications.



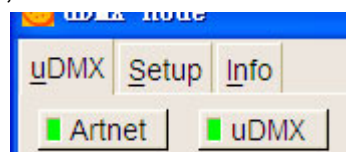
(1) Artnet Quick Start Guide:

Start your DMX-software and configure it to output artnet-data.

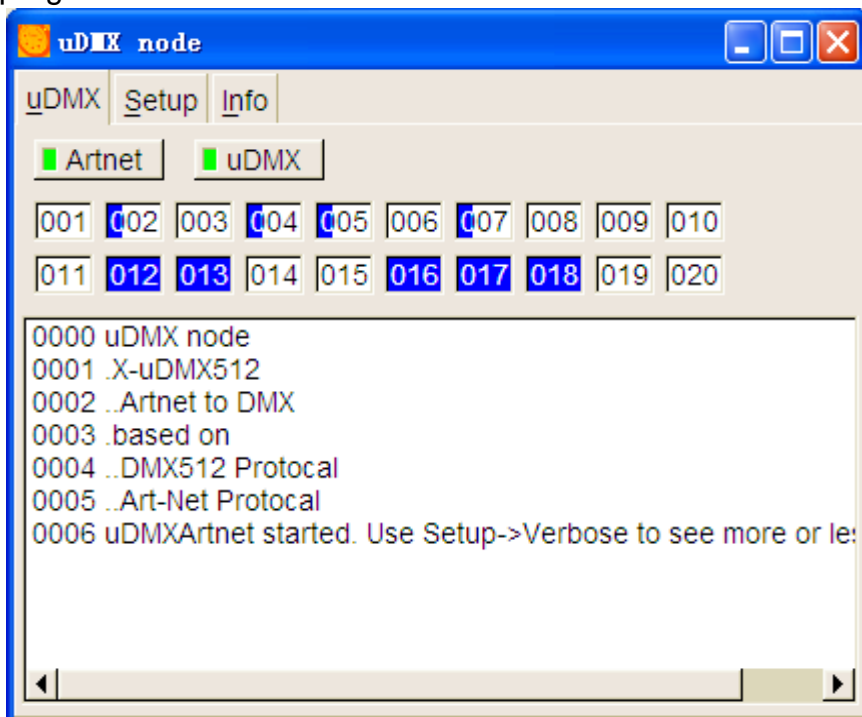
Plugin your X-uDMX512 hardware.

Start the program X-uDMXArtnet.exe .

If all connection is OK, the Artnet and uDMX will turn green as below:

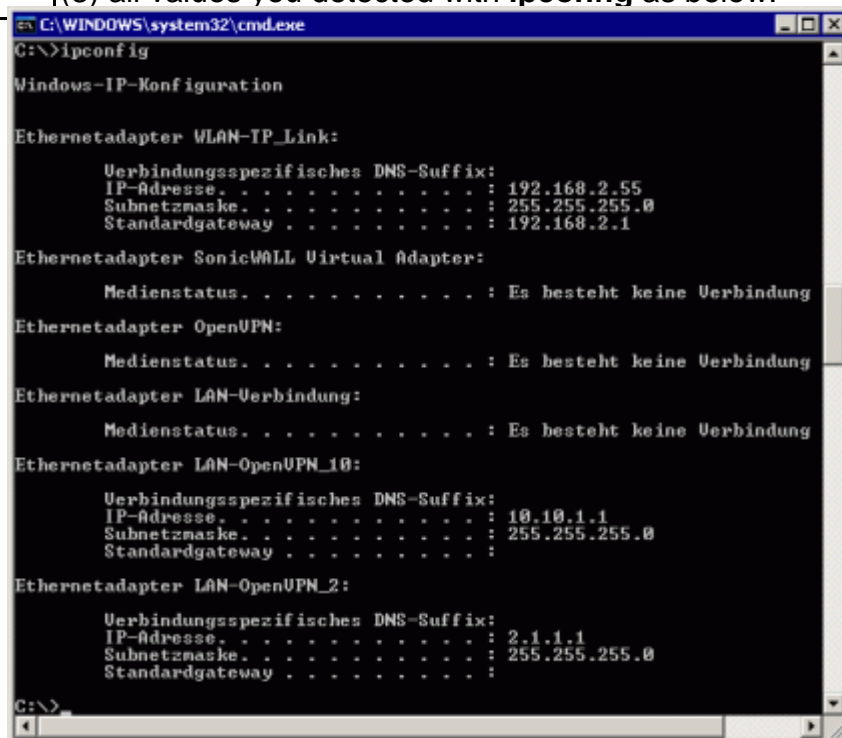


If the program receives artnet-data the values of channel 1-20 are shown as below.



If no data are received, try to change the following settings:

Universe	Universe is changed between 0 and 15 eingestellt. This setting has to match the setting in your DMX-software.
IP-address	The ip-address can be set to the following values: (1) IP-address is empty (2) 0.0.0.0 or (3) all values you detected with ipconfig as below:



(2) Artnet network-configuration

Documentation about Art-Net describes, that the IP-address has to be 2.x.y.z or 10.x.y.z. Some programs allow setting the address to other values, but you should try setting the named addresses first.

IMPORTANT: The windows version of libpcap (Winpcap) does not support reading data from WLAN devices. You can use OpenVPN to solve this.

So here you get an explanation how to find a solution for all difficulties with OpenVPN.

OpenVPN HELPS ...

The installation of OpenVPN has several advantages:

- (1) OpenVPN creates a new interface (new network device).
- (2) This new devices IP-address can be set independent from your other settings, thus can be set to 2.x.y.z or 10.x.y.z
- (3) At least on windows the program can read from OpenVPNs network device even if the device is not connectet, on the other hand you can connect the adapter.

Art-Net network interface with Linux:

To create additional interfaces for Art-Net on Linux you just need a few steps:

- (1) install openvpn
- (2) Download below file, extract the contained files and copy them to the folder /etc/openvpn

http://www.xzlgroupp.com/products2/openvpn_artnet.zip

- (3) Change the ip-addresses according to your needs

Now you can list the new interfaces with ifconfig.

```

lo      Link encap:Lokale Schleife
        inet Adresse:127.0.0.1  Maske:255.0.0.0
        inet6-Adresse: ::1/128  Gültigkeitsbereich:Maschine
        UP LOOPBACK RUNNING  MTU:16436  Metrik:1
        RX packets:12 errors:0 dropped:0 overruns:0 frame:0
        TX packets:12 errors:0 dropped:0 overruns:0 carrier:0
        Kollisionen:0 Sendewarteschlangenlänge:0
        RX bytes:1424 (1.4 KB)  TX bytes:1424 (1.4 KB)

tun8    Link encap:UNSPEC  Hardware Adresse 00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00
        inet Adresse:10.1.1.1  P-z-P:10.1.1.2  Maske:255.255.255.255
        UP PUNKTZUPUNKT RUNNING NOARP MULTICAST  MTU:1500  Metrik:1
        RX packets:0 errors:0 dropped:0 overruns:0 frame:0
        TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
        Kollisionen:0 Sendewarteschlangenlänge:100
        RX bytes:0 (0.0 B)  TX bytes:0 (0.0 B)

tun9    Link encap:UNSPEC  Hardware Adresse 00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00
        inet Adresse:10.1.1.2  P-z-P:10.1.1.1  Maske:255.255.255.255
        UP PUNKTZUPUNKT RUNNING NOARP MULTICAST  MTU:1500  Metrik:1
        RX packets:0 errors:0 dropped:0 overruns:0 frame:0
        TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
  
```

(3) Artnet software settings

The artnet-receivers for uDMX were tested with several softwares. receiver programs have to be configured in a different way depending on the sending software, but receiving always works ...

The settings of the sending softwares are described below:

Software	Settings
MagicQ	Setting the settings like here should lead to success: (1) IP address: one of the ip addresses of the computer (2) Sub net address: 0.0.0.0 (Sends to all network interfaces) (3) Send to Applications on this PC: Yes
FreeStyler	There is no possibility to set the network address in Freestyler. If you dont have an ip address like 10.x.y.z, you should install OpenVPN and set the TAP-adapters address to 10.x.y.z. Freestyler has to be started before starting the artnet receiver software
DMXControl	DMXControl allows to set the subnet. Set it to 255.255.255.255. Then artnet-data are sent to all network interfaces. DMX-Control sends artnet-data - according to the Artnet-spezifikationen - only after 4 seconds if the data do not change. So be patient while waiting for an output.
Abuelites	There is a dialog to set the ip address or subnet. Setting it to 255.255.255.255 should work.