JetBox 9310 User Manual

Demo Box

www.korenix.com

0.0.9

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Acknowledgments

Table of Content

Chapter 1 Overview

Korenix Demo Kit is designed to demonstrate Korenix products. In order to let customers understand Korenix product's features and applications, Korenix produces this portable demo box. In the Demo box, Korenix presents the best results, and impresses customers with product introduction as well as live demonstration.

Chapter 2 Package List

2-1 Standard Demo kit

This demo kit includes following items listed in the table.

Device	Power input	Setting
JetBox 9310 	48V DC (4 pin terminal block)	1. The default IP of LAN is **192.168.10.1**, subnet mask 255.255.255.0 2. The default IP of WAN is **192.168.11.1,** subnet mask 255.255.255.0
PoE IP camera 	48V DC (PoE, RJ45 connector)	1. The default IP is **192.168.10.55** 2. **User name: Admin** 3. **Password: Admin**
48V DC power module (DR-75-48) 	DC input from demo kit	1. To provide 48V DC power to the JetBox 9310
Serial to USB cable 	None	1. Connect the USB port of your NOTEBOOK and the JetBox 9310 serial port 2. Need to install the driver in your NOTEBOOK first

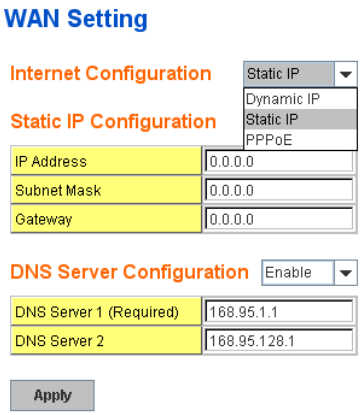
This demo kit includes following accessories listed in the table.

Item	Accessory	For which device	Description	Q'ty
1	**Power cable**	Demo kit	Connect the demo kit and your power socket (USA plug or Euro plug)	1
2	**Ethernet cable**	PoE IP camera	Connect the PoE IP camera and the JetBox	1
3	**Ethernet cable**	the JetBox 9310	Connect your notebook and the JetBox 9310	1
4	**RJ45 to DB9 cable**	the JetBox 9310	Extend the JetBox 9310 serial port (RJ45 connector) to DB9 male connector	1
5	**Acrylic base**		To sustain the demo plate	2
6	**CD**		1. the JetBox 9310 CD 2. the JetBox 9310 demo box CD (incl. USB-to-serial driver)	2
7	**QIG**		the JetBox 9310 QIG	1
8	**Manual**		Demo box user manual	1

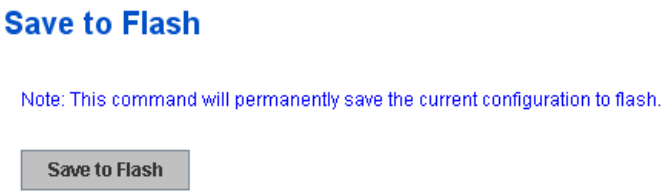
You still need to prepare a notebook for the demonstrations.

Set a fixed WAN IP for JetBox 9310:

1. Connect your notebook into the JetBox 9310 LAN port
2. Enter the JetBox 9310 Web UI by LAN IP address (Default LAN IP is 192.168.10.1)
   Open browser. Enter http://192.168.10.1
   User name: admin
   Password: admin
3. Go to **Networking configuration| WAN setting**. Change WAN port to static IP. Enter IP address 192.168.11.1 and subnet mask 255.255.255.0. Press [Apply] and go to **Save** to press [Save to Flash]. Please change the IP address of your notebook to be in the same subnet with WAN, for example IP address 192.168.11.10, subnet mask 255.255.255.0, gateway none.

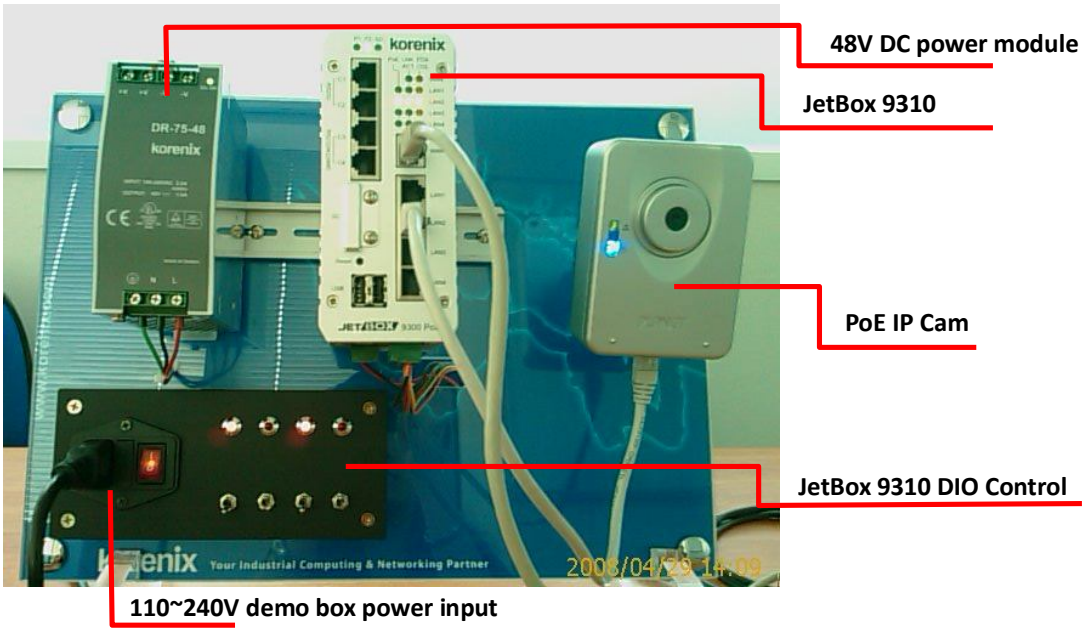


Picture 1: Go to **Networking| WAN setting** to apply static IP for WAN port



Picture 2: Go to **Save** and press [Save to Flash] to save changes in flash

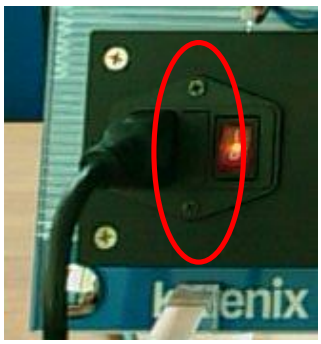
Chapter 3 Demo Box Installation



Picture 3: The overview of the JetBox 9310 demo box

Picture 4: The front panel of JetBox 9310 DIO control

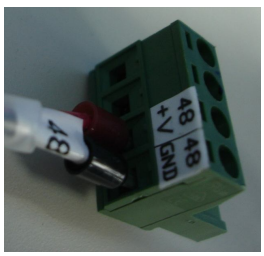
⚠**Notice 1:** There is a fuse near the demo box power switch to protect the demo box from the improper current. **The power input for the demo box is 110~240V AC.**

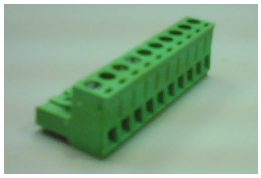


Picture 5: The fuse of the demo box

3-1 Demo Box Wiring

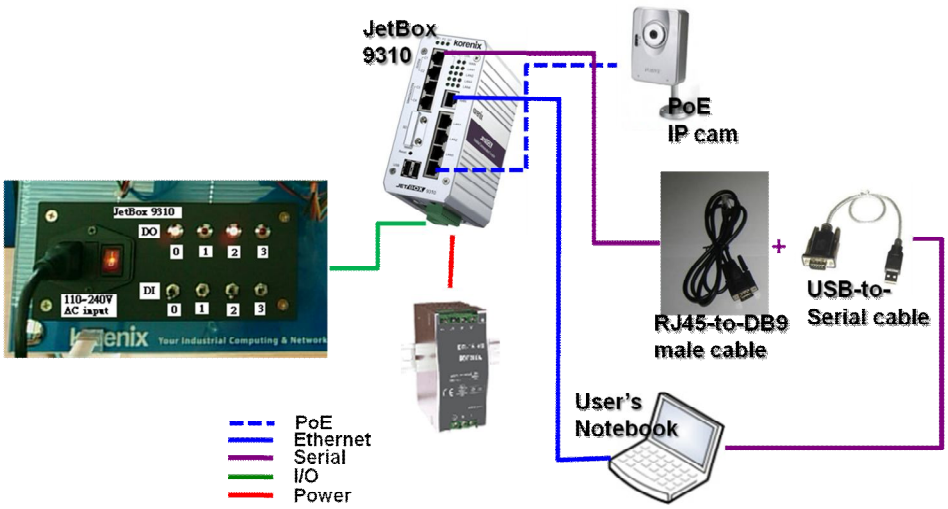
Following is the wires with corresponding connectors in this demo box.

Item	Output voltage	Connector	Pictures	Connect to
1	48V DC	4 pin terminal block		the JetBox 9310 power

Item	Output voltage	Connector	Pictures	Connect to
2	None	10 pin terminal block		the JetBox 9310 DIO

Following is the cables connecting devices in this demo box

Accessory	Connected devices
Power cable	Connect the demo kit and your power socket
Ethernet cable	Connect the IP camera and the JetBox
Ethernet cable	Connect your notebook and the JetBox
RJ45 to DB9 male cable	Connect the JetBox 9310 serial port and USB-to-Serial cable
USB to serial cable	Connect the USB of your notebook (to simulate a COM port of your notebook) and the JetBox serial port



Picture 6: Demo Box wiring diagram

1. Connect PoE IP camera and the JetBox 9310 **LAN4**
2. Connect Serial cable (RJ45-to-DB9 and USB-to-Serial cables) and the JetBox 9310 **COM1**
3. Connect 10-pin terminal block and the JetBox 9310 DIO
4. Connect 4-pin terminal block and the JetBox power connector
5. Connect the Ethernet port of your notebook and the JetBox 9310 **WAN port** (Need to set a fixed WAN IP for the JetBox 9310 first)

⚠**Notice 2:** Please connect power (positive and negative) correctly, otherwise the devices might be damaged.

⚠**Notice 3:** While the JetBox 9310 is booting up, the status of all digital outputs are temporary high.

3-2 Demo Processes

⚠**Notice 4:** All snapshots are for image reference only, not real settings of demo processes.

3-2-1 PoE and WAN Related

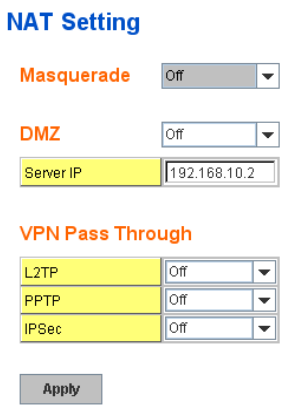
For WAN related demonstration, you need to set the Ethernet configuration of your notebook as follows:

IP address: 192.168.11.10 (the same subnet with WAN)
Subnet mask: 255.255.255.0
Gateway: (none)

Connect the Ethernet port of your notebook and the JetBox 9310 WAN port.

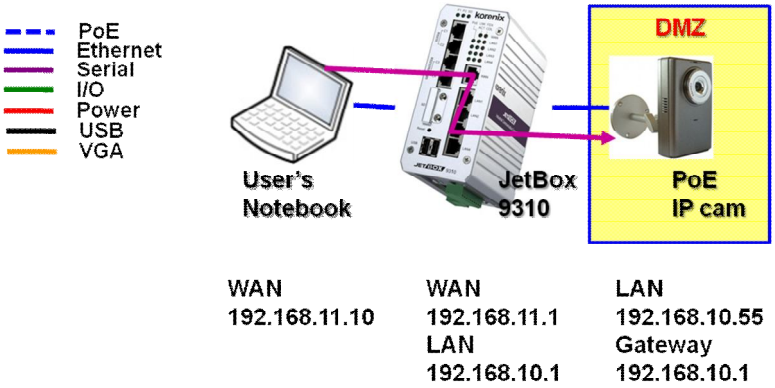
The default Web UI setting of JetBox 9310 for WAN related demonstrations is as follows:

Networking configuration| NAT setting
Masquerade enable
DMZ enable
Server IP 192.168.10.55 (the IP address of the PoE IP camera)



Picture 7 NAT setting of JetBox 9310

3-2-1-1 PoE, Routing, NAT & DMZ



Picture 8: The demo diagram of PoE, routing, NAT & DMZ

Demo purpose:

When NAT and DMZ are enabled in JetBox 9310, the devices in WAN network can only access the server in DMZ and can't access other LAN devices. The LAN devices are protected by NAT function.

In this demo, it shows:

1. The PoE IP camera is powered by JetBox 9310 though the PoE function.
2. The PoE IP camera is set as DMZ server. Your notebook in WAN network can only access the image of the PoE IP camera. This shows the routing (IP camera image from LAN network to WAN network), and NAT & DMZ (your notebook can only access the DMZ server).
3. If you did not set any DMZ server in the JetBox 9310 when NAT function is enabled, the devices in WAN network can only access the Web UI of JetBox 9310 and can't access the LAN devices.

Step by step to demo PoE, routing, NAT & DMZ:

1. Connect the Ethernet port of your notebook and the JetBox 9310 **WAN port**

2. Open Web browser.
   Enter 192.168.11.1 (JetBox 9310 WAN port), and you can see the frame captured by the PoE IP cam because the PoE IP camera is set as the DMZ server.

   Enter 192.168.10.55 (the PoE IP camera IP address), and nothing is found because the LAN devices is protected by NAT function.

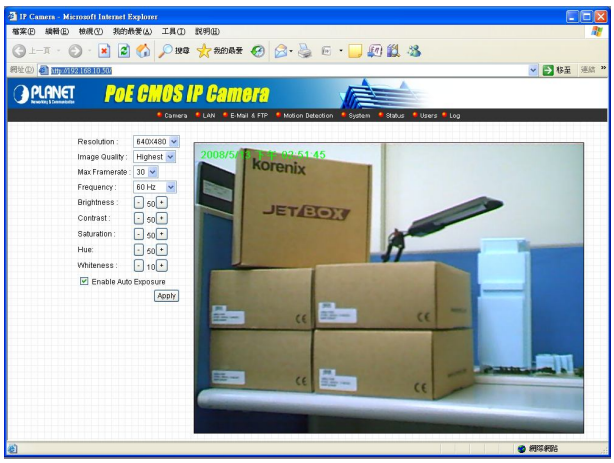
The Ethernet configuration of PoE IP cam is set as follows:

IP address: 192.168.10.55 (also set this IP address as DMZ server in JetBox 9310)

Subnet mask: 255.255.255.0

Gateway: 192.168.10.1

Video port: under 1000



Picture 9: The frame captured by the PoE IP camera

3-2-2 Other Functions

For the demonstrations of other functions, you need to set the Ethernet configuration of your notebook as follows:

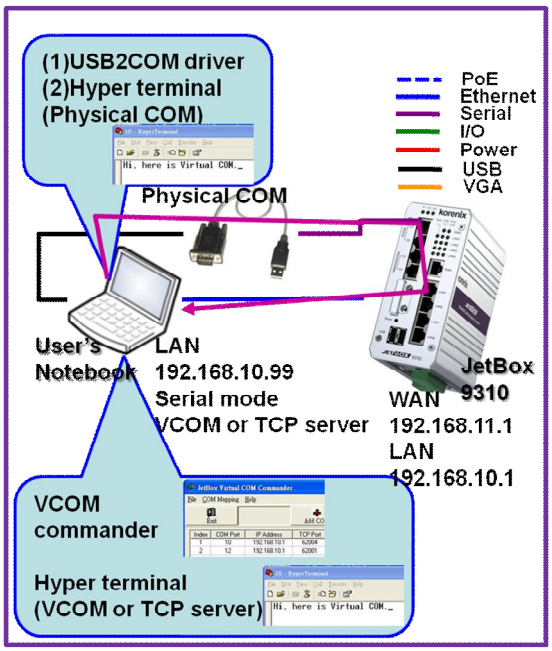
IP address: 192.168.10.99 (the same subnet with LAN)

Subnet mask: 255.255.255.0

Gateway: (none)

Connect the Ethernet port of your notebook and the JetBox 9310 LAN1 port.

3-2-2-1 Serial service modes—TCP server



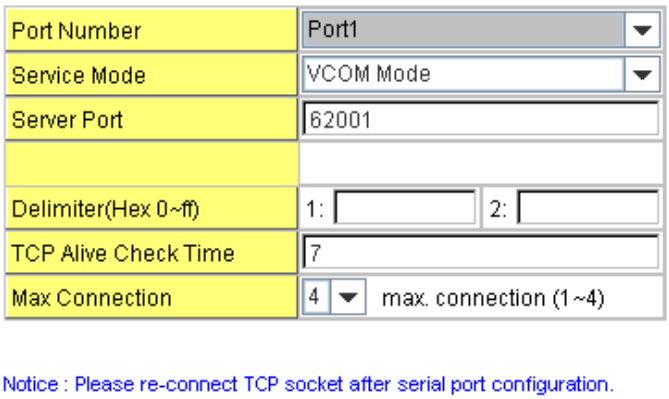
Picture 10: The demo diagram of serial service mode—TCP server & VCOm

Demo purpose:

Use USB-to-Serial cable to simulate a COM port in your notebook and communicate with the JetBox 9310 through TCP server mode

Step by step to demo serial modes:

1. Install USB-to-Serial driver in your notebook
2. Enter the JetBox 9310 Web UI by LAN IP address. (Default: 192.168.10.1).
   Open browser. Enter http://192.168.10.1
   User name: admin
   Password: admin
3. Go to **Serial port configuration| Service mode** to set up the service mode for COM1. (Refer to the JetBox 9310 user manual to operate.)
   COM1: to connect with serial cable and set as TCP server mode

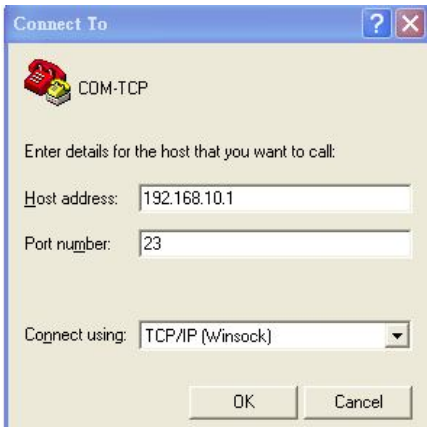


Picture 11: **Serial port configuration| Service mode** of the JetBox 9310 Web UI

4. Use hyper terminal (named Physical COM) in your notebook to connect with the JetBox 9310 through physical COM (often COM1 or COM2)
   The physical COM is connected by RJ45-to-DB9 male and USB-to-serial cables.

Picture 12: Hyper terminal connection—Physical COM

5. Use hyper terminal (named COM-TCP) in your notebook to connect with the JetBox 9310 through TCP server mode.

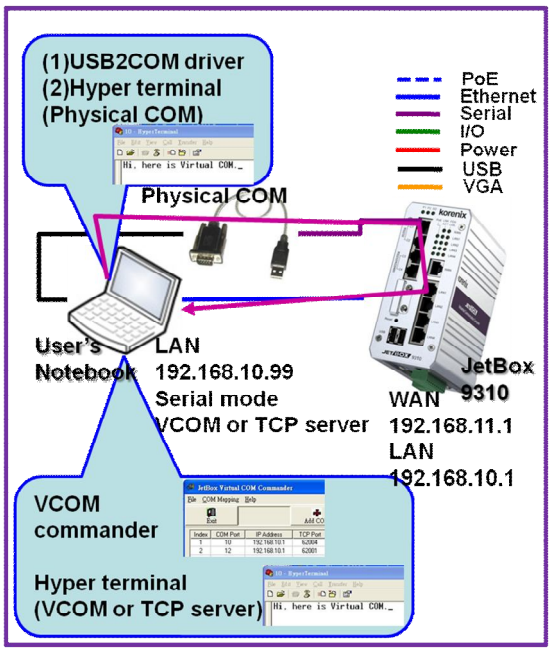


Picture 13: Hyper terminal connection—TCP/IP

6. Type some words in hyper terminal of COM-TCP and they show in hyper terminal of physical COM. Type some words in hyper terminal of physical COM and they show in hyper terminal of COM-TCP.

Picture 14: Key in some words in hyper terminal

3-2-2-2 Serial service modes—VCOM



Picture 15: The demo diagram of serial service mode—TCP server & VCOm

Demo purpose:

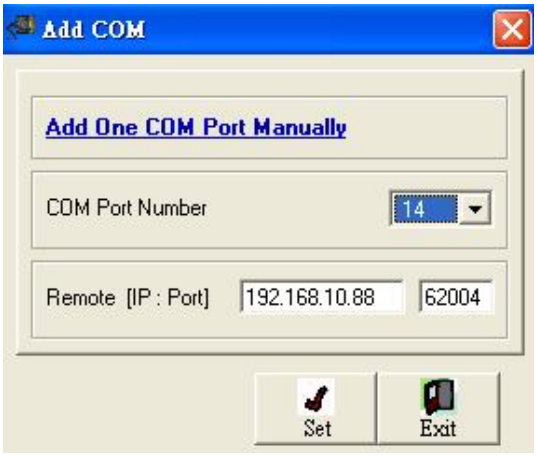
Use USB-to-Serial cable to simulate a COM port in your notebook and communicate with the JetBox 9310 through VCOM mode.

Step by step to demo serial modes:

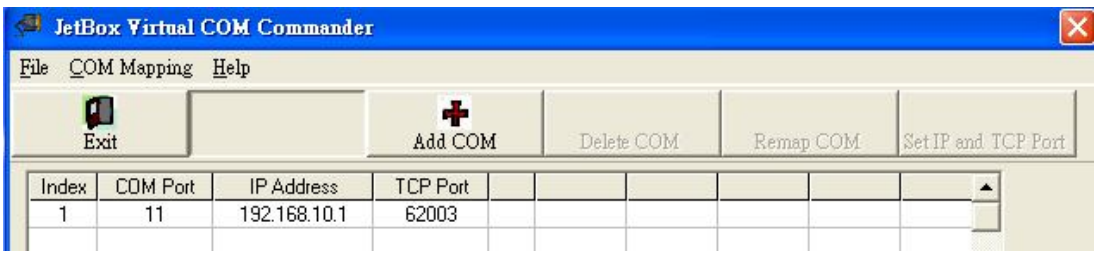
1. Install USB-to-Serial driver in your notebook
2. Install the JetBox Virtual COM Commander in your notebook
3. Add one Virtual COM in your notebook (Refer to the JetBox Virtual COM user manual to operate.)

For example: COM port number 20, Remote [IP & port] 192.168.10.1, 62004

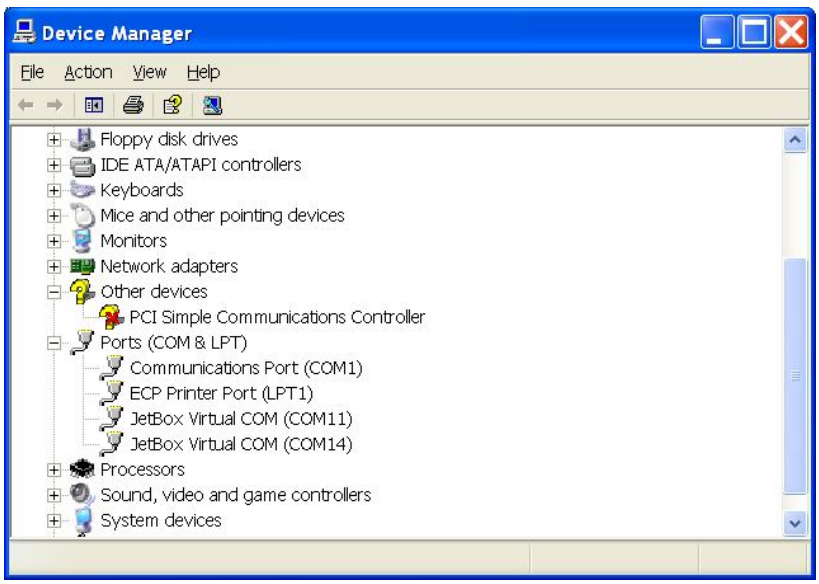
This is to set a VCOM (COM 20) in your notebook to the JetBox 9310 COM4.



Picture 16: Add a VCOM in your notebook



Picture 17: the JetBox Virtual COM Commander

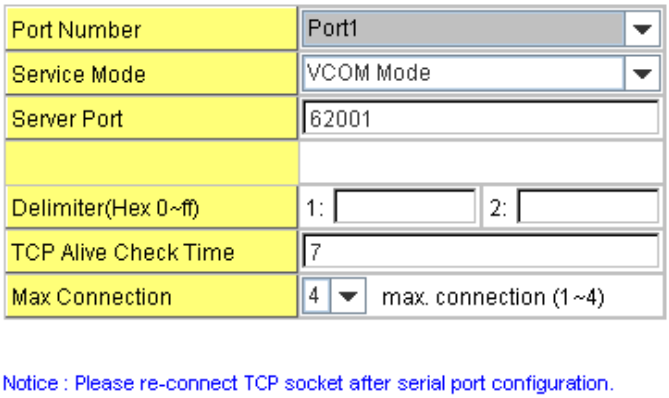


Picture 18: the JetBox Virtual COM in the device manager

4. Enter the JetBox 9310 Web UI by LAN IP address. (Default: 192.168.10.1).
   Open browser. Enter http://192.168.10.1
   User name: admin

Password: admin

5. Go to **Serial port configuration| Service mode** to set up the service mode for COM4. (Refer to the JetBox 9310 user manual to operate.)
   COM4: set as VCOM mode



Picture 19: **Serial port configuration| Service mode** of the JetBox 9310 Web UI

6. Use hyper terminal (named Physical COM) in your notebook to connect with the JetBox 9310 through physical COM (often COM1 or COM2)
   The physical COM is connected by RJ45-to-DB9 male and USB-to-serial cables.

Picture 20: Hyper terminal connection—Physical COM

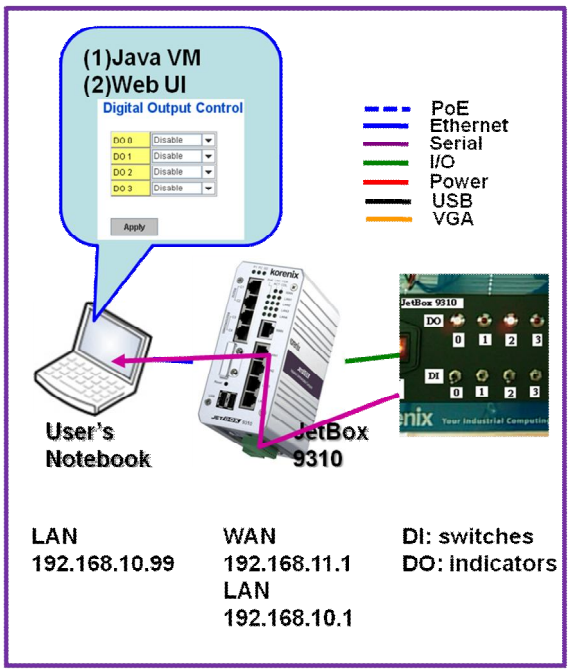
7. Use hyper terminal (named Virtual COM) in your notebook to connect with the JetBox 9310 through VCOM (for example, COM 20 you set in previous step).

Picture 21: Hyper terminal connection—VCOM

8. Type some words in hyper terminal of physical COM and they show in hyper terminal of Virtual COM. Type some words in hyper terminal of Virtual COM and they show in hyper terminal of physical COM.

Picture 22: Key in some words in hyper terminal

3-2-2-3 DIO Control & Web UI



Picture 23: The demo diagram of DIO control and Web UI

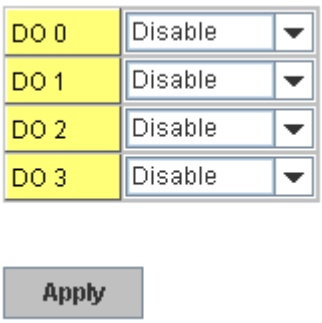
⚠**Notice 5:** In this DIO demo, you need to enable DO 0 to provide the power to DIs first, otherwise, DIs don't have power to do the demo. Keep DO 0 enabled during this DIO demonstration.

Demo Purpose:

Control switches and indicators on the demo box front panel though the JetBox 9310 Web UI DIO functions

Step by step to demo DIO control and Web UI:

1. Enter the JetBox 9310 Web UI by LAN IP address. (Default: 192.168.10.1).
   Open browser. Enter http://192.168.10.1
   User name: admin
   Password: admin
2. Control switches and indicators on the demo box front panel though the JetBox 9310 Web UI DIO functions. (Refer to the JetBox 9310 user manual to operate.)
3. Enable or disable indicators (DO) in **the JetBox 9310 Web UI| DIO configuration| Digital output control**.



Picture 24: **DIO configuration| Digital output control** in the JetBox 9310 Web UI

4. Check the status of switches (DI) in **the JetBox 9310 web UI| DIO configuration| DIO status**.

Picture 25: **DIO configuration| DIO status** in the JetBox 9310 Web UI

Chapter 4 Appendix

4-1 Index for Picture, Notice

Picture

Notice (Limitation of this demo box)

4-2 Customer Service

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