DDW-222

DDW-222 and Serial/IP

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DDW-222 and Serial/IP.

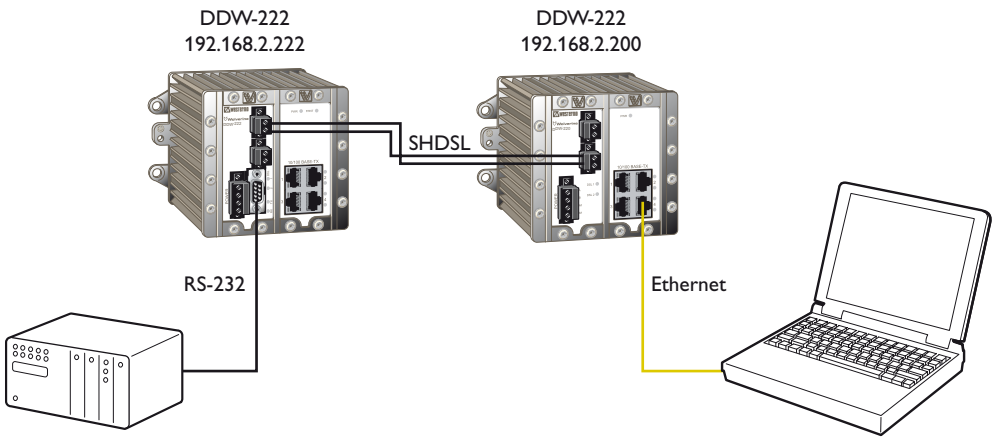
The Serial/IP COM Port Redirector delivered together with DDW-222 creates up to 10 virtual COM ports, this version of Serial/IP can only be used together with DDW-222. The Serial/IP Redirector lets your applications use serial devices provided by serial device servers on your network. This redirector does this by creating one or more **virtual COM ports** that make these networked serial devices appear to be connected to the local computer, even though they are physically located on servers.

This means that your serial device applications can begin using networked serial devices quickly, easily, and without software changes. Since the redirector's virtual COM ports work like standard Windows COM ports, your application software sees no difference between a local serial device and one provided by a serial device server.

Creating a redirected COM port over a DSL-connection.

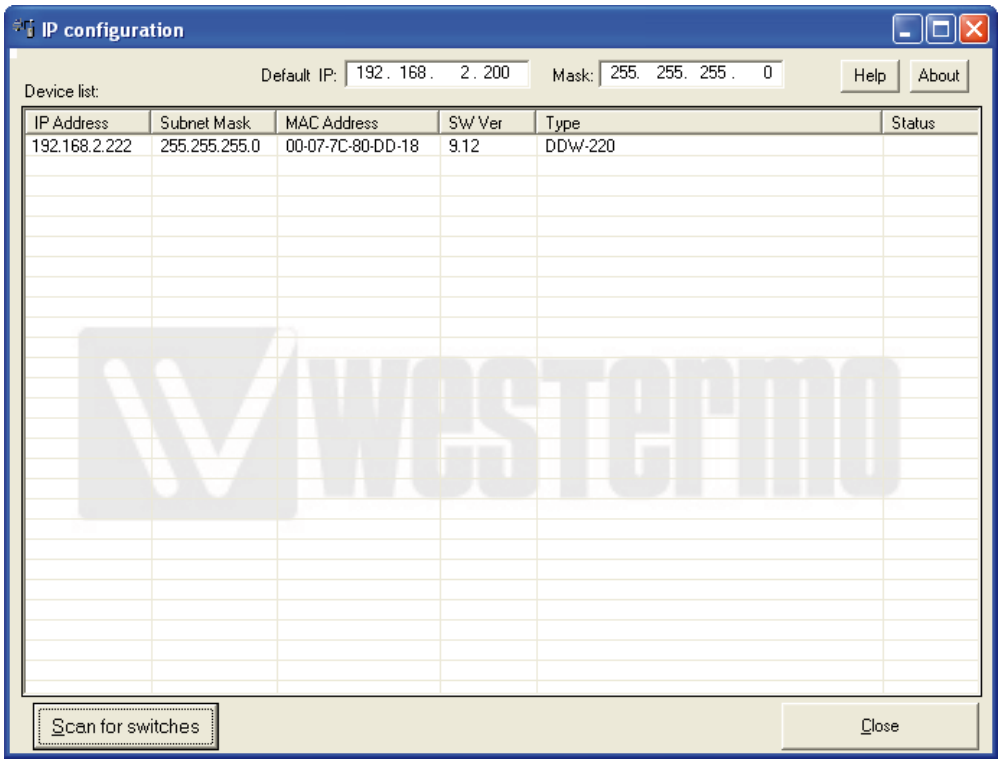
Application scenario:

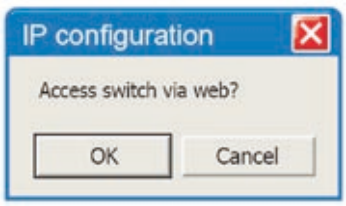
From a Windows PC we will connect to a PLC with serial interface using a DDW-220 and one DDW-222. Since the DDW-222 has an integrated serial port that unit is connected to the PLC.



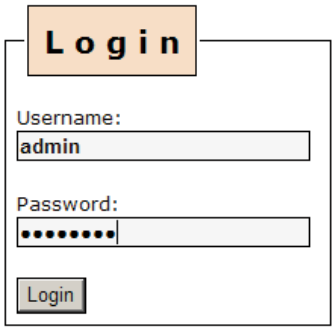
Configuring the DDW-22x

Power up the DDW-220 and connect it to the Ethernet port on the PC.
The DDW-22x has the default IP address 192.168.2.200. To be able to access the DDW-22x via the web-interface the PC must in be the same subnet i.e. 192.168.2.0/24.
Either changes the PCs IP address to match the DDW-22x or use the IP configuration tool from Westermo to change the IP address of the DDW-22x.
Note the DDW-220 and the DDW-222 booth has the same default IP address. To be able to access and configure the units they must not have different IP addresses.





To changes the IP address press button "scan for switches" in the IP configuration tool, then click on the unit in the list and select ok when you're asked if you want to access the unit via web.

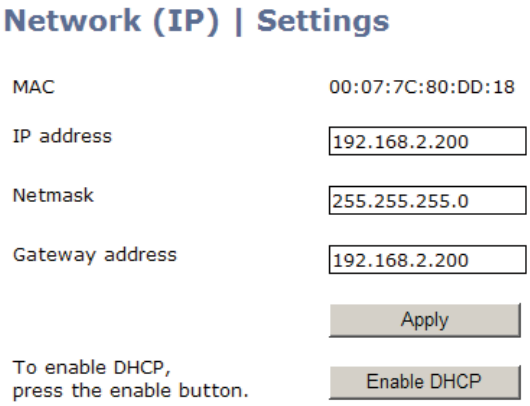


Log in to the web with:

Username	admin
Password	westermo

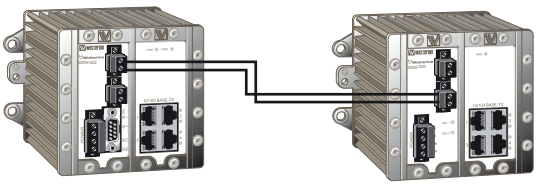
Configuration of IP address

In this example, the IP address of the PC is 192.168.2.3. The IP address of the DDW-220 is kept to factory default address 192.168.2.200, then the DDW-222 will be changed from 192.168.2.200 to 192.168.2.222 all units will be located in the same subnet.



Under Configuration/Network settings a new IP address can be configured. After Apply have been pressed the new IP address is valid.

Now it's time to power up the DDW-222 and connect the DSL-cable. Connect the DSL port 1 on the DDW-222 to the DSL port 2 on the DDW-220.



Once the DDW-222 has booted the units will start DSL negation. This will take up to a minute. The connection is established when the DSL-led has a steady green light.

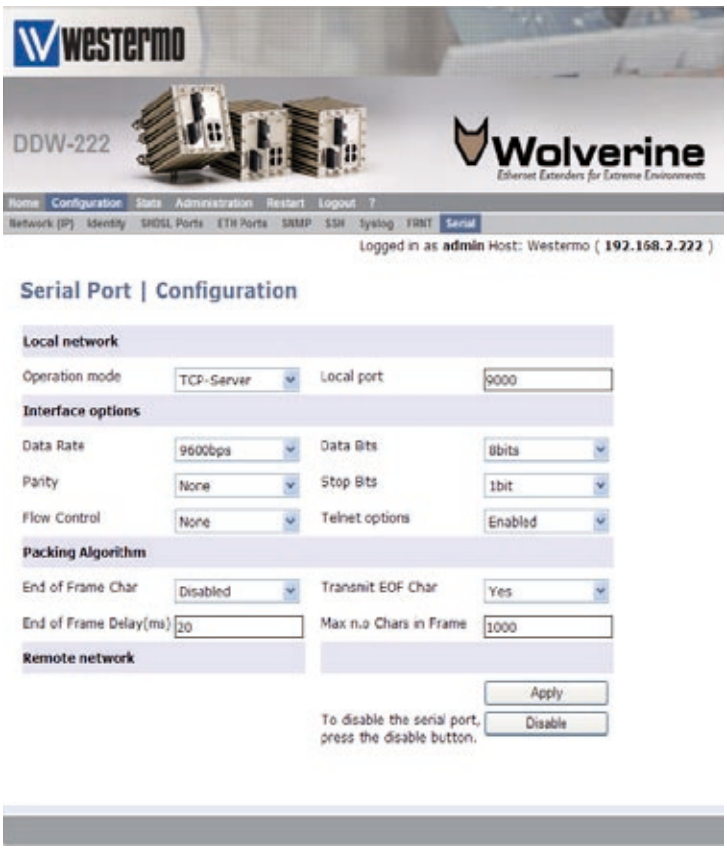
Once the connection is establish use the IP configuration tool to find the DDW-222. The tool should now find both units. Change the IP address of the DDW-222 to 192.168.2.222 as described above.

Configuration of the serial interface

Under configuration/Serial choose the following settings:

- **Local network:** Operation mode is set to TCP Server since Serial/IP will act as a client.
- **Interface options:** The same settings as for the connected serial device in this example we have chosen 9600 bit/s, 8 data bits, 1 stop bit. Telnet options must be enabled since Serial/IP uses this setting.
- **Packing algorithm:** The default setting end of frame delay 20 ms and max number of characters in a frame is 1000, this setting does normally need to be changed.
  This setting will give the result: Transmit data if nothing has been received the last 20 ms or if the numbers of characters in the frame is 1000.

After configuration of serial settings press the apply button. To enable the serial-port and the settings the unit must be rebooted.

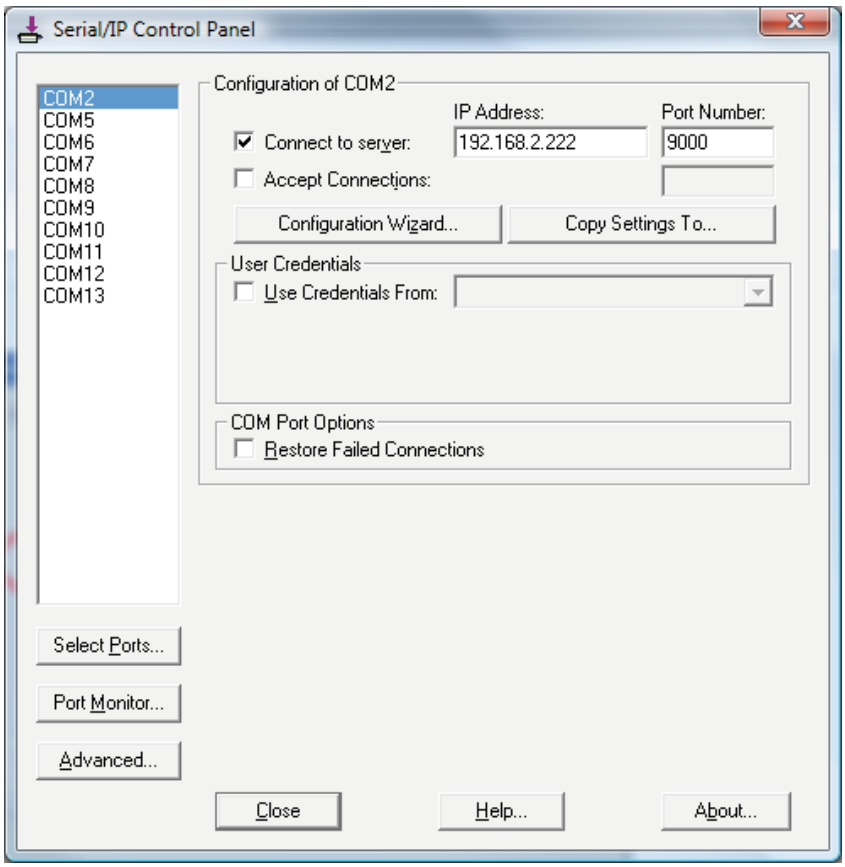


Select Restart in the menu and press restart. After approximately 1 minute you will now get an error message that the web page can't be reached. This is normal due to the fact that the DSL-link has not yet been established.
Once the DSL-led has a steady green light you can refresh the web page. The configuration of the DDW-222 is now complete

Configuring the Serial/IP

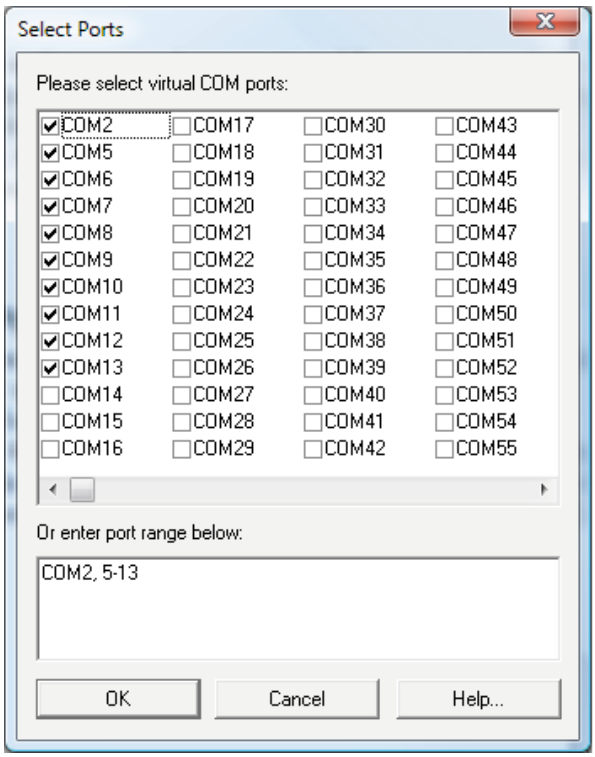
Serial/IP is available on the CD. After the installation, Serial/IP must be configured to work with the DDW-222.

In the Serial/IP control panel you will have an overview of selected Com ports and IP addresses, you can also re-configure the settings according to your application from the control panel.



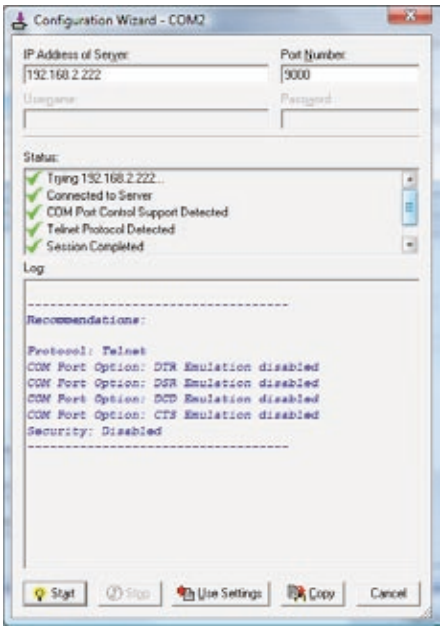
To configure Serial/IP you need to do the following settings:

- Press the button Select ports located on the lower left side of the Serial/IP control panel. A window will pop where you can activate the different Com ports that will be used together with your DDW-222 (max 10 ports).
- Press ok



If we want to access the serial port of the DDW-222 from Com 2 in our PC (IP address 192.168.2.222 and port 9000 as described in the application above) we have to configure Com 2 with the right address.

- Press the button Configuration wizard in the Serial/IP control panel, a new window will then pop up.
- Change the IP address and port number then press the Start button
- Serial/IP will now set up a session to DDW-222, if everything is ok the wizard should then report Session completed.
- Press the button Use settings, the configuration of Serial/IP is now complete and the virtual comport is ready to be used.



After configuration you will return to the control panel. If more ports needs to be configured repeat the steps described above then close Serial/IP, it will then operate in the background.