IMO

*i*View HMI - VNC

Tutorial

HMI solutions you can view

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Introduction

This technical note is to explain how to connect the IMO iView Advanced HMI to external peripherals via VNC.

Remote Control

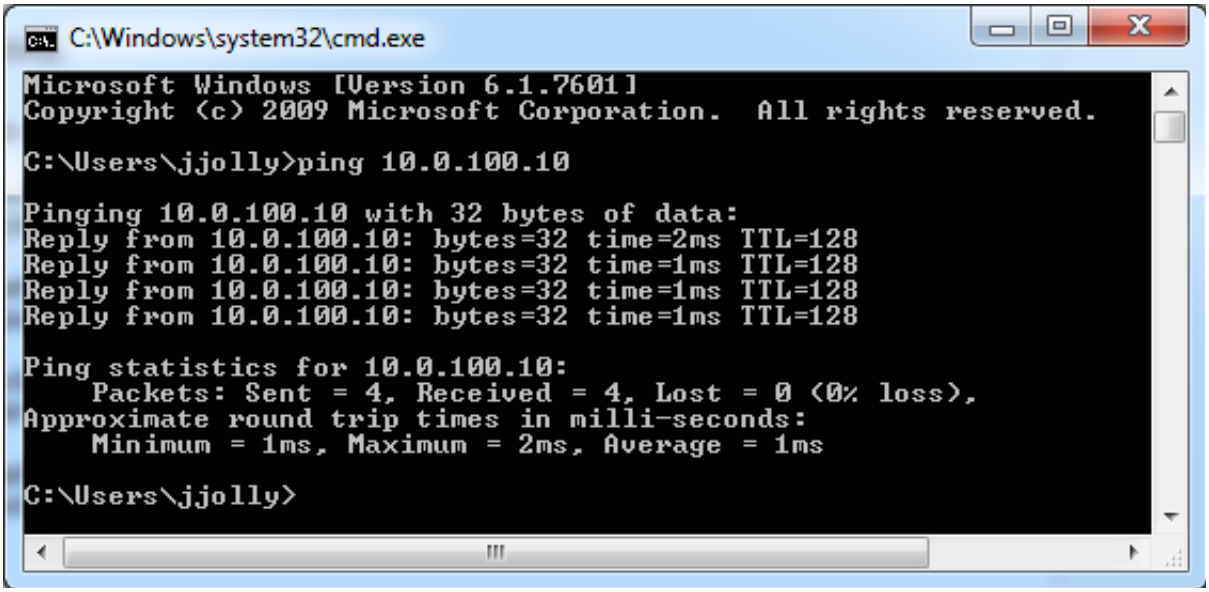
and monitoring iView application using VNC

Part 1: Local Network

1. Set IP Address on the HMI
   - Find “General” Button in the “Panel Setup” Screen and press it.
   - Set “IP Address” to 10.0.100.10, “Subnet Mask” to 255.255.0.0, “Gateway” to 0.0.0.0.
   - Press “OK” to save the setting.

2. Connect HMI network cable to a router or a switch.

3. Confirm your new IP address.
   On any computer of the network, move mouse to “Start -> Programs -> Accessories -> Command Prompt”, key in “ping 10.0.100.10”



If “Destination host unreachable” appears, this IP address can be used. Otherwise, choose another IP address and repeat these steps.

4. To Enable the VNC function in the HMI,
   - Open the Panel Setup
   - Press FTP / VNC / Email button
   - Press VNC button
   - Enable the function by selecting ‘True’
   - Set the password level for control and monitor

5. Start one of VNC Client applications on PC (such as Real VNC) or on Android (VNC Viewer) or on iPad/iPhone (VNC Viewer) and connect to HMI. Key in HMI’s IP address in Server column which is 10.0.100.10.

Note:

1. If using a mobile device like a smartphone or tablet, then connect the HMI to a Wi-Fi router. Connect the mobile device to the Wi-Fi signal.

2. If the HMI is connected to a LAN network, then the option to set the LAN address automatically can be enabled.

- Find “General” Button in the “Panel Setup” Screen and press it.
- Set ‘True’ in ‘Get an IP Address Automatically’ setting.
- Note down the IP address to enter in the VNC Client as the Server address.

Press “OK” to save the setting.

Part 2: Remote Network

1. Find a router or switch, for example:

2. Connect a cable from the HMI to this device.

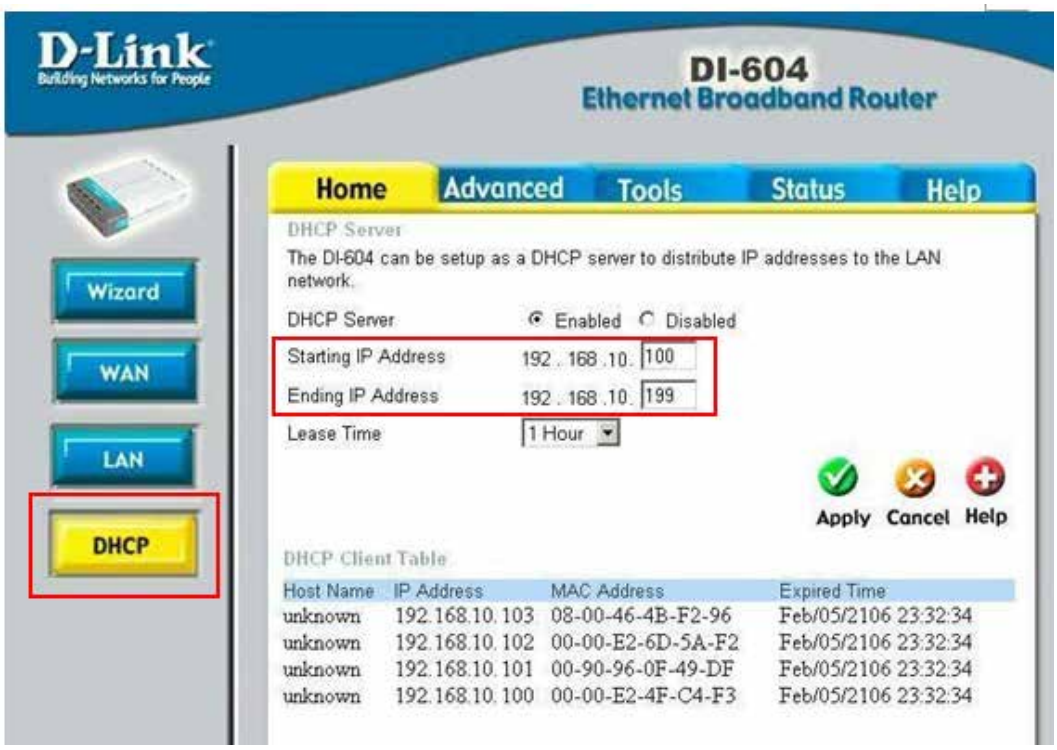
3. Log in the router
   Activate your web browser and type in the IP address of the DI-604 into the Address (for IE) field and press “Enter.” The default IP address of the DI-604 is 192.168.10.1
   For example: http://192.168.10.1

After the connection is established, the logon screen will pop up.
To log in as an administrator, enter the username of “admin” and the password (there are no default password, leave it blank). Click the OK button. If the password is correct, the web-management interface will appear.

If either User Name or Password is input incorrectly, this dialog will appear again. Please double check the User Name and Password or ask somebody to get the correct User Name and Password.

4. Check the starting IP address and the ending IP address.

Move mouse to DHCP button on the left side, and press it.

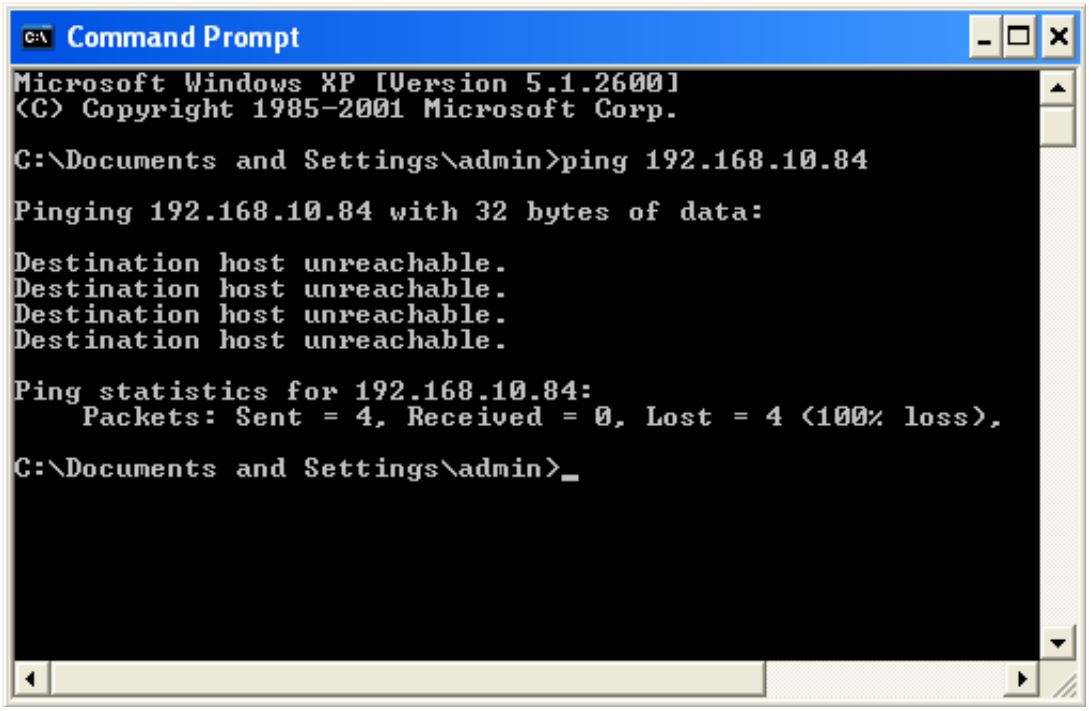


Here are “Starting IP Address” and “Ending IP Address”, they are from 192.168.10.100 to 192.168.10.199.
Choose an IP address which is not in the range of Starting and Ending IP Address, for example, 192.168.10.84

5. Set IP Address on the HMI
   - Find “General” Button in the “Panel Setup” Screen and press it.
   - Set “IP Address” to 192.168.10.84, “Subnet Mask” to 255.255.255.0, “Gateway” to 192.168.10.1.
   - Press “OK” to save the setting.

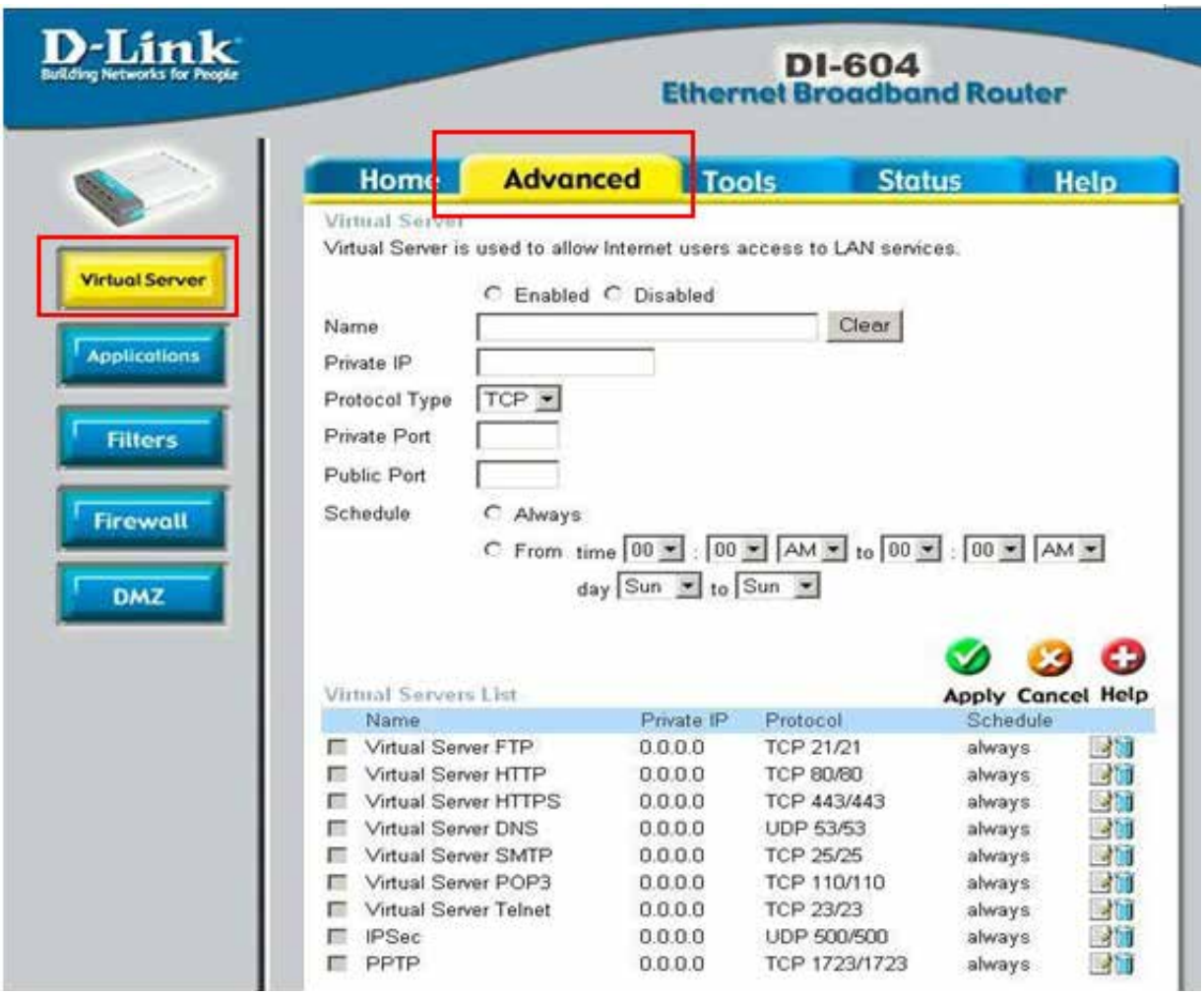
6. Confirm your new IP address.

   On any computer of the network, move mouse to “Start -> Programs -> Accessories -> Command Prompt, key in “ping 192.168.10.84”



If “Destination host unreachable” appears, this IP address can be used. Otherwise, choose another IP address and repeat these steps.

7. Again, go back to router set page. Press “Advanced” Button on the top row and press “Virtual Server” on the left column.



The DI-604 can be configured as a virtual server so that remote users accessing Web or FTP services via the public IP address can be automatically redirected to local servers in the LAN network.

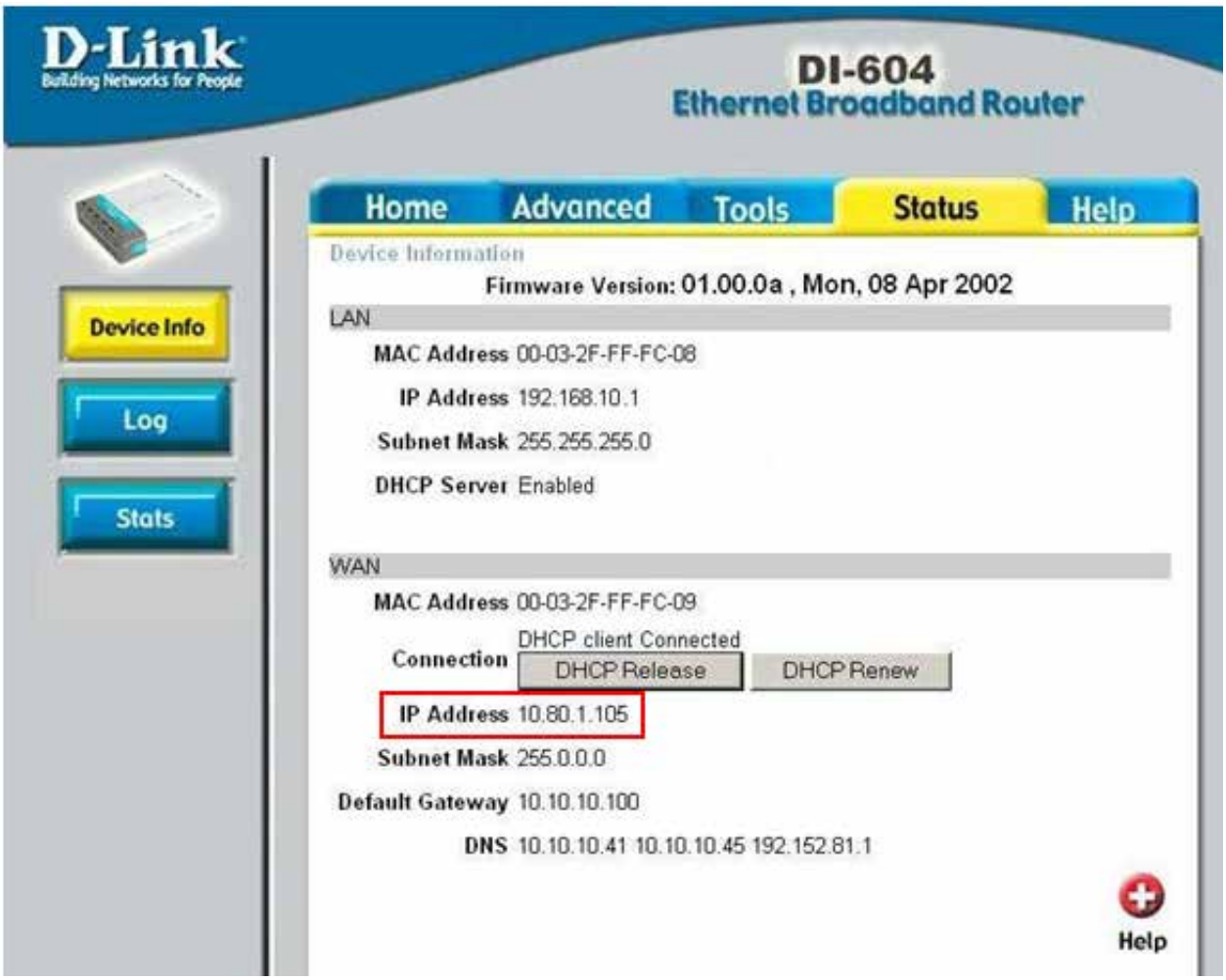
The following table describes each property of the Virtual Server.

Property	Description	Remark
Name	The name referencing the virtual source	
Private IP	The server computer in the LAN network that will be providing the virtual services	
Private Port	The port number of the service used by the Private IP computer	
Protocol Type	The protocol used for the virtual service	
Public Port	The port number on the WAN side that will be used to access the virtual service	
Schedule	The schedule of the time when the virtual service will be enabled	The schedule may be set to Always, which will allow the particular service to always be enabled. If it is set to Time, select the time frame for the service to be enabled. If the system time is outside of the scheduled time, the service will be disabled.

After finishing set, press ”Apply” button on the bottom to save the new settings. The following is the sample setting:

Name: VNC Server
Private IP: 192.168.10.84
Protocol Type: TCP
Private Port: 5900
Public Port: 5900
Schedule: always

8. Get the external IP Address.



This is the router’s working status. Pay attention to WAN area. Write down the IP Address. This is an Internet address which everyone can visit it.

In this example, it is 10.80.1.105.

9. Test this IP Address.

Run HMI unit. Go to Panel -> Send Data to Panel -> Ethernet -> IP address. Enter the IP address which you got from router’s status. The example is 10.80.1.105. And press the “Start” button to start downloading.

10. Release this IP address to anyone who wants to use remote function.

Basically, this is a dynamic IP address. It is going to keep same in a few days, even a few months. But it will be changed at any time. So please check it every time when download is needed.

11. To Enable the VNC function in the HMI,
- Open the Panel Setup
- Press FTP / VNC / Email button
- Press VNC button
- Enable the function by selecting 'True'
- Set the password level for control and monitor

12. Start one of VNC Client applications on PC (such as realVnc) or on Android or on iPad/iPhone and connect to HMI. Key in HMI's external IP address which is from step 8.

Downloads

- Real VNC

Windows 64 Bit -	https://www.realvnc.com/download/get/1732/details/
Windows 32 bit -	https://www.realvnc.com/download/get/1730/details/
iPhone / iPad -	https://itunes.apple.com/us/app/vnc-viewer/id352019548?mt=8
Android -	https://play.google.com/store/apps/details?id=com.realvnc.viewer.android

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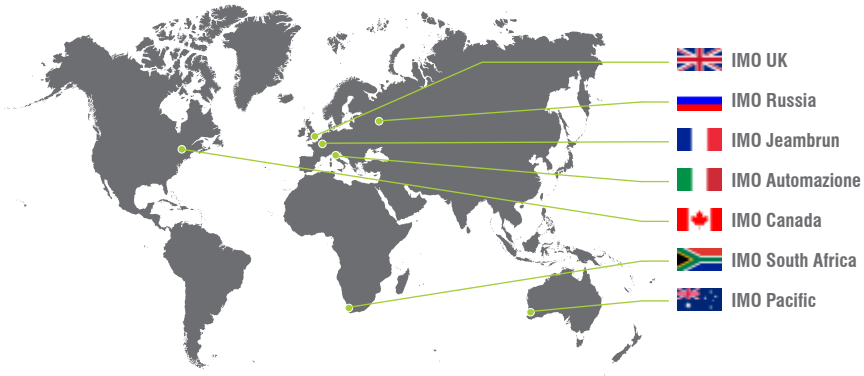

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