

June 2020

Quick-Start Guide

QIAstat-Dx[®] Analyzer 1.0 Printer Setup Guide

The following information provides additional guidance on how to set up printers with the QIAstat-Dx Analyzer 1.0. It covers information on the following:

- Recommended printers
- General recommendations for printer usage
- Step-by-step instructions on how to setup USB printers
- Step-by-step instruction on how to setup network printers
- Step-by-step instructions on how to directly connect the QIAstat-Dx Analyzer 1.0 to a Windows 7 PC
- Step-by-step instruction on how to directly connect the QIAstat-Dx Analyzer 1.0 to a Windows 10 PC
- Frequently asked questions (FAQs) on troubleshooting for printer setup and guidance to avoid common printer issues

Further information

- QIAstat-Dx Analyzer 1.0 User Manual: www.qiagen.com/HB-2636
- Safety Data Sheets: www.qiagen.com/safety
- Technical assistance: support.qiagen.com

Recommended printers

Note that QIAGEN has tested only these printer models. If you are using different printer models, QIAGEN cannot guarantee compatibility. Tested printer models include the following:

- HP[®] OfficeJet[®] Pro 6230
- HP Color LaserJet[®] Pro M254dw
- Brother[®] MFC-9330CDW

General recommendations for printer usage

QIAGEN recommends:

- To use only printers with display and indicator lights that provide unambiguous information on print job status and printer failure modes
- To use generic printer drivers such as those delivered with the system rather than specific printer drivers.
- To restart the QIAstat-Dx Analyzer by powering it OFF and then ON after Common UNIX Printing System (CUPS) configuration changes, such as adding new printers. Please use the power switch on the back. The use of the standby button on the front of the instrument is insufficient.

Step-by-step instructions on how to setup USB printers

Note that USB-connected printers may not require installation after plugging them into any USB port of the QIAstat-Dx Analyzer. Please refer to Section 6.7.4 of the *QIAstat-Dx Analyzer 1.0 User Manual*. This option will work only if the generic printer is enabled under the **Printer** settings by selecting the available option **PRINTER (Options → System Config → Printer)**.

Step-by-step instructions on how to setup network printers

For the installation of network printers, see Section 6.7.5 of the *QIAstat-Dx Analyzer 1.0 User Manual*. Ensure that the network printer, QIAstat-Dx Analyzer, and the PC connecting to the QIAstat-Dx Analyzer are part of the same local network (see the network settings on Section 6.7.6 of the *QIAstat-Dx Analyzer 1.0 User Manual*). Ideally, use a local private network with static IP addresses to ensure that CUPS can be accessed as described in Appendix 11.1.3 of the *QIAstat-Dx Analyzer 1.0 User Manual*. Ask your local IT on how to configure a local private network with static IP addresses, or follow the step-by-step guide below describing how to directly connect the QIAstat-Dx Analyzer to a PC.

Step-by-step instructions on how to directly connect the QIAstat-Dx Analyzer 1.0 to a Windows 7 PC

You can directly connect your PC to the QIAstat-Dx Analyzer via an ethernet cable connected to the ethernet socket located at the back of the device. Once physically connected, follow the steps below to configure network connectivity.

Configure a static IP address on the Operational Module (OM)

1. Click on **Options → System Config → Network**.
2. Enable **IPv4**.
3. Click **Save**.
4. Click on **IPv4 Setting**.
5. Insert the following IP Configuration:
 - 5a. Disable **Obtain IPv4 address autom.**
 - 5b. **IPv4 Address:** 192.168.1.100
 - 5c. **Subnet mask:** 255.255.255.0
 - 5d. **Default gateway:** 192.168.1.1
 - 5e. The remaining fields can stay as they are.
6. Click **Save** (Figure 1).

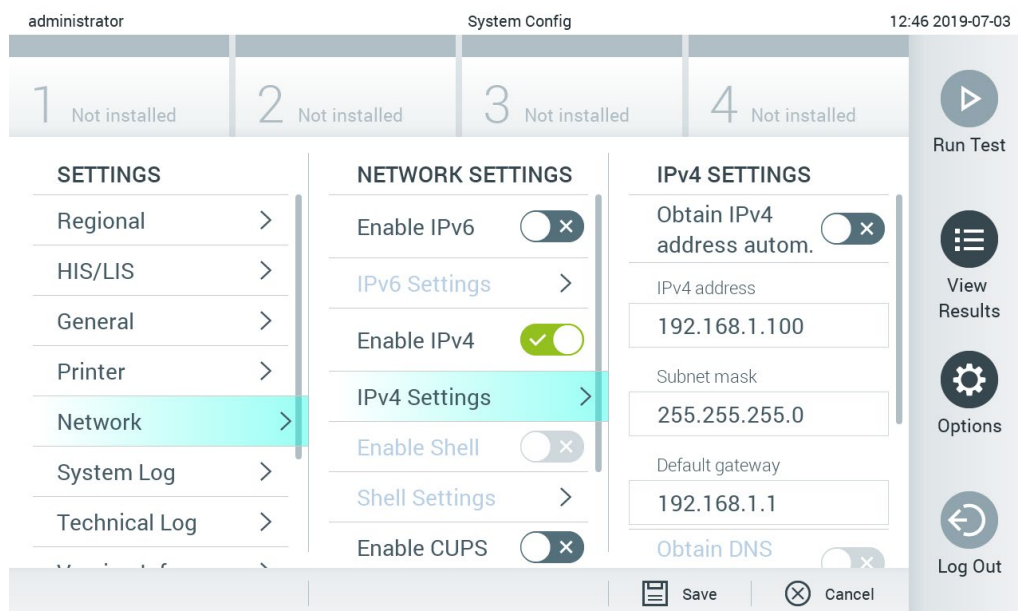


Figure 1. How to configure a static IP Address on the OM.

Configure a static IP address on Windows 7 PC

1. On Windows, click on **Start → Control Panel → Network and Sharing Center → Change adapter settings**
2. Select the ethernet device (**Local Area Connection**), right click, and select **Properties** (see Figure 2., next page).



Figure 2. Selecting the ethernet device.

3. Select **Internet Protocol Version 4 (TCP/IPv4)** and click on **Properties** (Figure 3.).

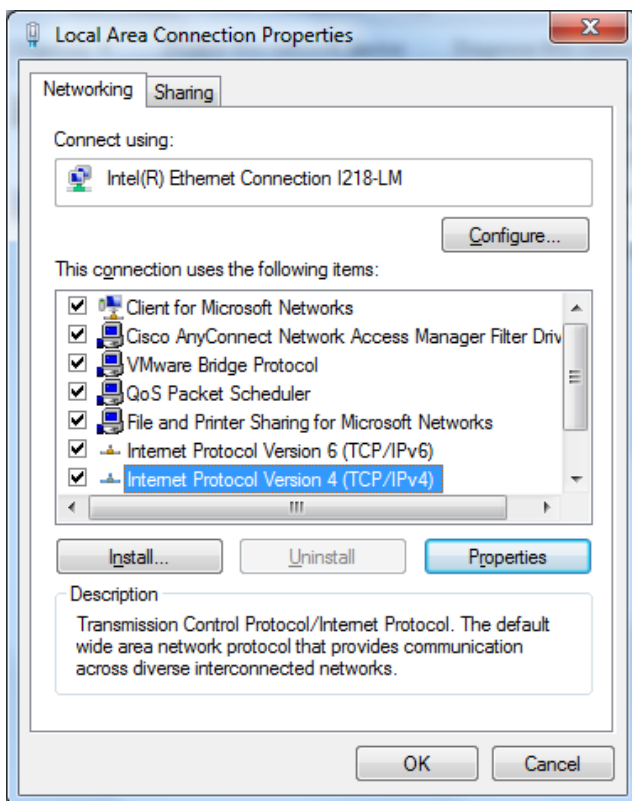


Figure 3. Configuring the Local Area Connection Properties.

4. Insert the following information, and press **OK** (Figure 4, next page).

- 4a. Select **Use the following IP address.**
- 4b. **IPv4 Address:** 192.168.1.101
- 4c. **Subnet mask:** 255.255.255.0
- 4d. **Default gateway:** 192.168.1.1

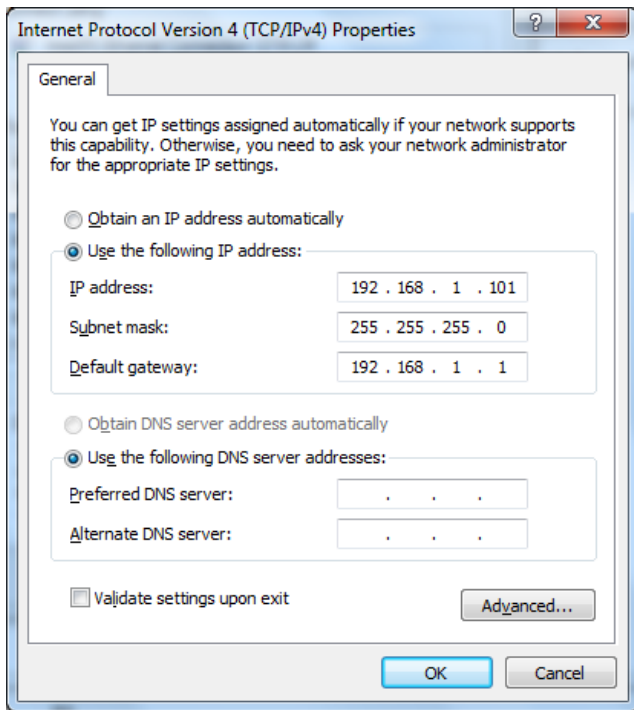


Figure 4. Configuring Internet Protocol Version 4 (TCP/IPv4) Properties.

Note: If the OM and the PC are connected via an ethernet cable and the settings are completed as described in this Section, you should be able to execute the steps described above with the IP address 192.168.1.100.

Step-by-step instructions on how to directly connect the QIAstat-Dx Analyzer to a Windows 10 PC

You can directly connect your PC to the QIAstat-Dx Analyzer via an ethernet cable connected to the ethernet socket at the back of the device. Once physically connected, follow the steps below to configure network connectivity.

Configure a static IP address on the OM

Configure a static IP address on the OM following the instruction provided in the "Configure a static IP address on the OM " section above. In this example, it is assumed that the IP address of the OM is statically set as 192.168.1.100.

Configuring a static IP address on Windows 10 PC

1. Click on the **Start** menu button and search for the **Control Panel** (Figure 5).

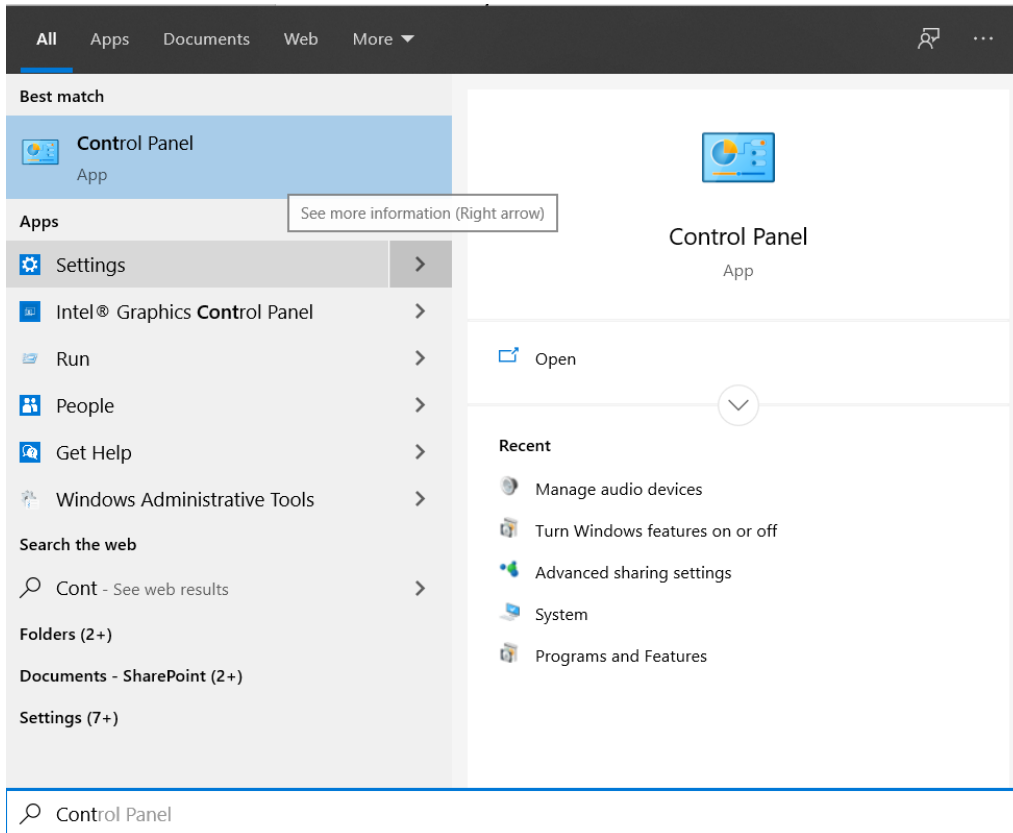


Figure 5. Searching for the Control Panel in the Start menu.

2. Click **View network status and tasks** under the **Network and Internet** section (Figure 6, next page).

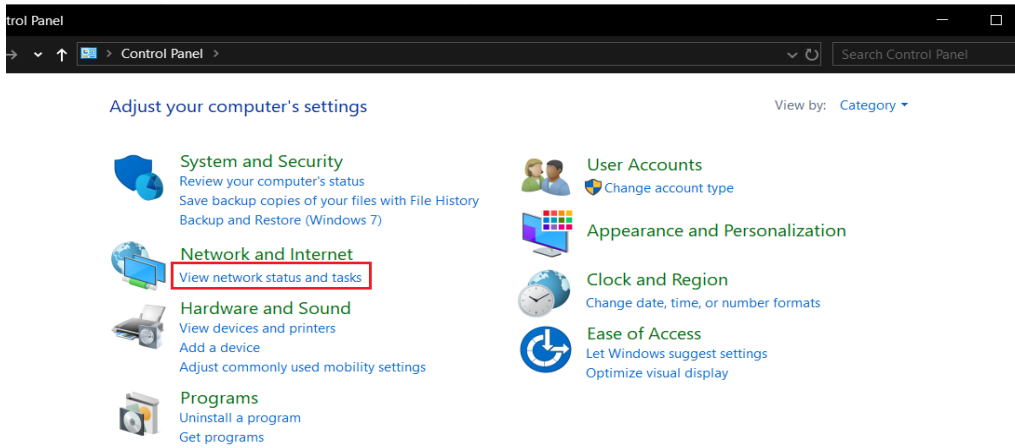


Figure 6. Opening the View network status and tasks menu.

3. On the next screen, click **Change adapter settings**. A new Window will open where all the available network adapters are listed. Select the adapter related to the physical ethernet plug on your PC (usually called Ethernet) (Figure 7).

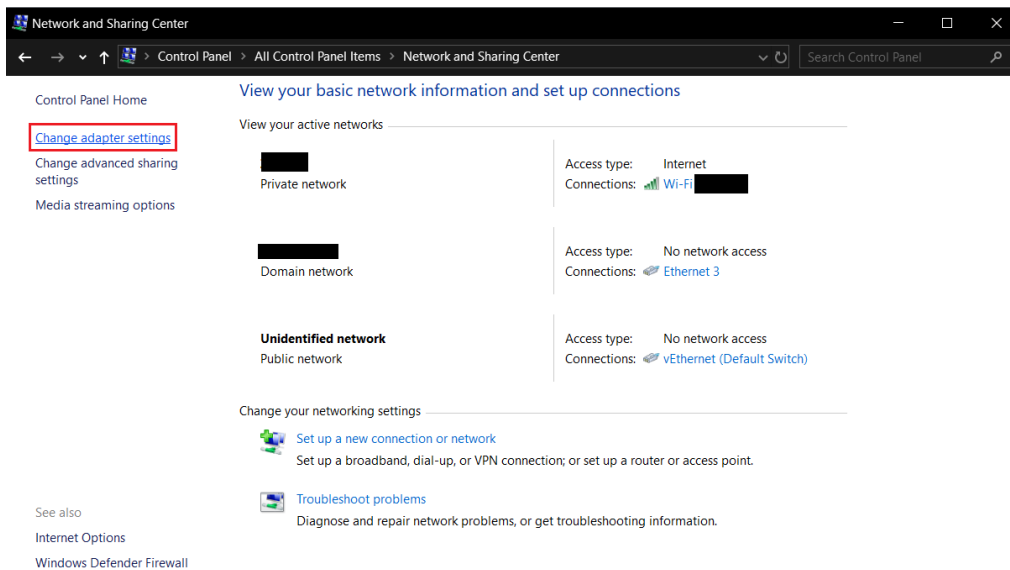


Figure 7. Configuring ethernet settings in the Adapter settings screen.

4. Once the ethernet adapter is selected, click **Change Settings of this connection** (Figure 8, next page).

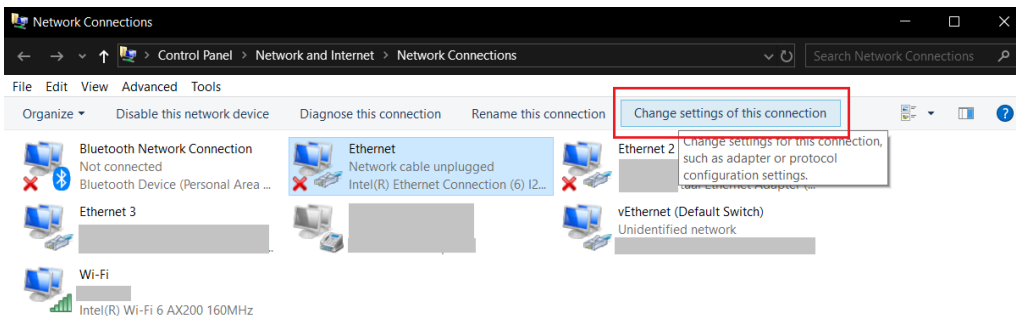


Figure 8. Changing the settings of the ethernet connection.

5. The **Ethernet Properties** window will appear. Select **Internet Protocol version 4 (TCP/IPv4)** and tick the corresponding check box. Click **Properties** (Figure 9).

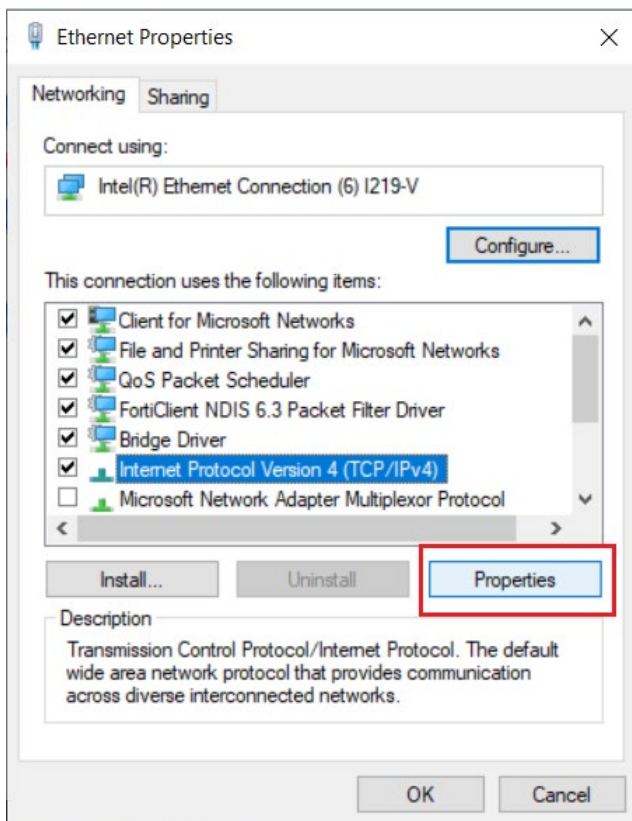


Figure 9. Ticking the Internet Protocol Version 4 (TCP IPv4 checkbox).

6. Select **Use the following IP address** and enter the following information (Figure 10):

6a. **IPv4 Address:** 192.168.1.101

6b. **Subnet mask:** 255.255.255.0

6c. **Default gateway:** 192.168.1.1

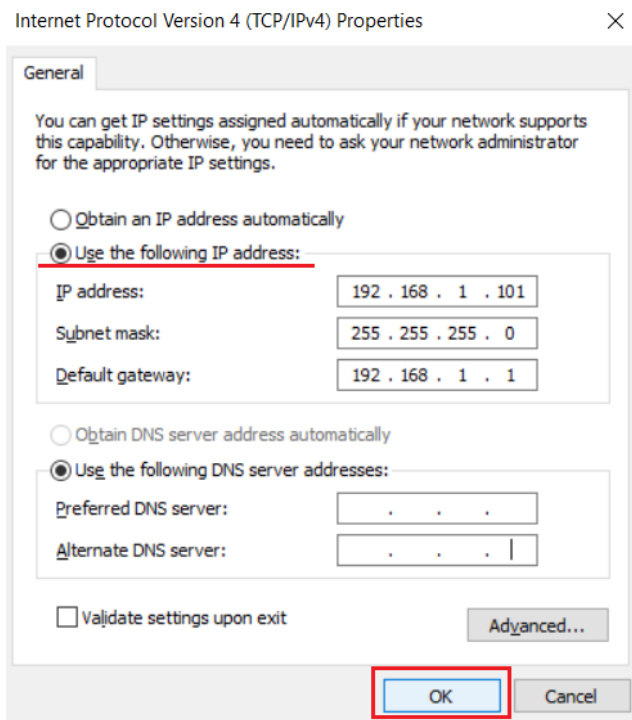


Figure 10. Configuring the IP address settings.

7. Click **OK**.

Frequently asked questions (FAQs) on troubleshooting for printer setup and guidance to avoid common printer issues

- *I am trying to access the CUPS page from my PC, but it does not accept the password. What can I do?*
 - The CUPS password is case sensitive. If a particular CUPS password does not work despite being entered correctly, disable CUPS, save the option, then re-enable CUPS and save the option to get a new password.

- *Where can I find the IP address of the QIAstat-Dx Analyzer?*
 - You can find the IP address of your QIAstat-Dx Analyzer under **Settings → Network → IPv4 Settings → IPv4 Address**.
- *The QIAstat-Dx Analyzer is not connected to a local network. How can I connect to the CUPS admin interface from my Windows PC?*
 - Follow the above step-by-step guide (according to your PC OS version) on how to connect your PC to the OM.
 - Enable CUPS web interface from **Network → Enable Cups** (enabled).
 - Follow step-by-step guide on how configure a printer from CUPS interface.
- *My USB printer does not print using the generic printer driver. How can I install a custom printer driver?*

Try to install a more specific driver for your printer via CUPS. For this purpose, follow the instructions on how to setup network printers (see above). Ensure the QIAstat-Dx Analyzer and connecting PC are part of the same local network (see Section 6.7.6 of the *QIAstat-Dx Analyzer 1.0 User Manual* for network settings of QIAstat-Dx Analyzer).

- *I configured my printer via CUPS, but it does not show up in printer settings of the QIAstat-Dx application software. What can I do?*
 - Ensure that the printer is powered on, and that the USB or network connection is established successfully.
 - Your printer can be accessed via a generic printer driver that is pre-installed on the QIAstat-Dx Analyzer. Try to print via this driver (see Section 6.7.3 of the *QIAstat-Dx Analyzer User Manual* to see the Printer settings).
 - If a custom printer driver was already previously configured, power OFF the QIAstat-Dx Analyzer 1.0 OM and then power ON again to make the driver available. To power OFF/ON, use the switch at the back of the instrument. The QIAstat-Dx application software detects the available printer drivers at the start. When adding a new printer, the QIAstat-Dx OM must be restarted to have the new driver available to use.
- *The printer settings in **Options → System Config** of the application software does not show any printer. Also, the generic printer is missing. What can I do?*

Re-install the generic printer driver via the CUPS page. Please contact QIAGEN technical service for the generic printer driver if it is unavailable.

- *I configured my printer via CUPS. When I press **Print**, no report is printed. What can I do?*
 - Consider that it may take as long as to store a PDF report until the printer receives the print job. Avoid pressing the print button several times in a row. This may delay the print process even further.
 - Note that after clicking the print button, the print job may be spooled. To check if a print job is still queued, connect CUPS. On the CUPS page, click **Jobs** to review the printer queue on the subsequent page.
 - Ensure the printer that is being used is not reporting any error, e.g., due to previous print jobs failing, paper jam, or missing paper. Be sure to solve these types of errors before printing.
 - In CUPS, ensure that the appropriate media size/paper format is selected as configured on your printer, some printers will not print if the paper format is wrong.
 - In CUPS, check the status of your print jobs. This can be performed by navigating to **Jobs** or clicking the **Manage Jobs** button. If necessary, cancel existing and unfinished jobs as they may block the QIAstat-Dx Analyzer from printing.
 - In CUPS, try to print a test page. This can be performed by navigating to **Manage printers** and selecting your printer. From the maintenance drop-down, select the **print test page**.
 - For network printers, it is preferred to use direct printing (Port 9100) the connections to this port should be checked to ensure they are not blocked. To do this connect via socket:9100 protocol (Direct Printing) and set filter to **Generic PS** or **Generic PCL** in CUPS when adding a new printer.

- *I tried to configure a specific driver for my printer, but the list of drivers does not include my model. What can I do?*

Use the most generic driver listed for your printer brand. In the case that none of the listed driver works, please download the CUPS printer driver from its manufacturer's website as a PPD file and select **PPD File** before you press **Add printer**.

- *I tried to configure a driver for my printer, but the CUPS page is not accessible. What can I do?*
 - Ensure that connection via ethernet cable. Also, check switches or other hardware devices in your network infrastructure to ensure they are working properly.
 - Ensure that the QIAstat-Dx Analyzer and connecting PC are part of the same network (e.g., same gateway, subnet mask).
 - Ensure that your network infrastructure allows communication on port 631. Also, confirm that communication via the QIAstat-Dx Analyzer, connecting PC, and network printer are allowed.

- Ensure that the QIAstat-Dx Analyzer and connecting PC are in the same local network. For security reasons, the accessibility of the CUPS page is limited to local networks. If possible, connect via a direct Ethernet connection and assign static IPs from a private IP address range to the QIAstat-Dx Analyzer and PC.
 - Ensure that CUPS is enabled on the QIAstat-Dx Analyzer The current password is used as the password expires after 24 hours.
 - Clear browser cache or try a different browser to avoid login credentials from previous login being used by the PC accessing the CUPS page.
- CUPS shows that print jobs were canceled, but I did not cancel the print job. What does this mean?

If a print job is claimed as cancelled and you did not cancel it, this may indicate the use of an incompatible printer driver. Please try printing via the generic printer driver instead.

Revision History

Date	Changes
R1 May 2020	Initial release.
R2 June 2020	Added new sections: Step-by-step instructions on how to directly connect the QIAstat-Dx Analyzer 1.0 to a Windows 7 PC, and Step-by-step instruction on how to directly connect the QIAstat-Dx Analyzer 1.0 to a Windows 10 PC. Added new FAQs.

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