



Technical Note #1006

Communications Interface: F.A.Q.

What are the minimum computer system requirements to use PXRF and X-ray Ops?

- 700MHz or faster processor (1GHz recommended)
- 2GB RAM or greater (4GB recommended)
- 100MB minimum free disk space
- CD/DVD-ROM drive if installing from CD
- Minimum 800 x 600 or higher resolution monitor (1024 x 768 recommended)
- 1 free USB 1.1 or RS-232 communications port
- Windows® XP SP2 or later, Windows® 7

Do I need to use a USB-to-Serial converter?

Only if your computer does NOT have an existing serial (RS-232) port. A typical serial port uses a 9 pin male 'D' type connector. The connector label typically has the following identification: **IOIOI** or **OIO**



What versions of Windows® operating software does PXRF & X-ray Ops support?

Windows® XP, Windows® 7

Will PXRF and X-ray Ops work on a MAC?

No. PXRF and X-ray Ops are designed only for operation on a Windows® based computer.

Does Bruker recommend a particular brand or model of USB-to-Serial converter?

Not all converters operate equally. The Bruker tested **CablesToGo** USB-to-Serial converter, model number 26886, is supplied with the Tracer.

How do I properly install the USB-to-Serial converter?

Carefully read the directions that came with the converter. Typically, you must first load the converter's device driver onto your computer. During the installation of the device driver, you should be prompted to insert the converter into one of the USB ports. Do not insert the converter into the USB port until prompted.

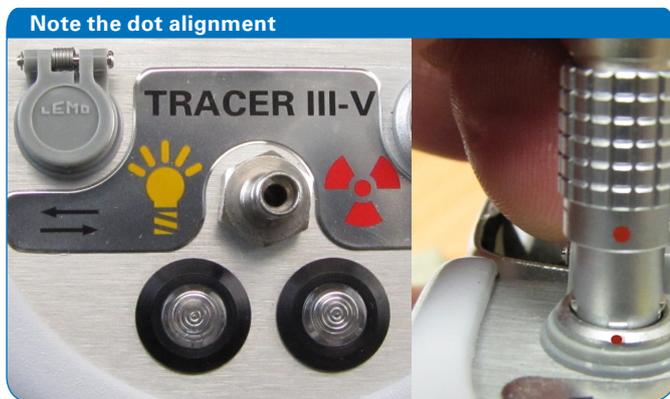
If your computer is running Windows® 7, you will likely need a newer driver than was supplied with the converter. The manufacturer's website, in this case CablesToGo.com, will typically have the latest available driver.

Should I always plug the USB-to-Serial converter into the same USB port?

Yes. If you use a different USB port, then the COM port number will change and you would need to update your software (PXRF, X-ray Ops, etc.) to reflect the currently used COM port.

There are two similar connectors on the instrument; into which one do I plug the communications cable?

The instrument's communications port is located on the left side of the control panel (above and to the left of the yellow power lamp). NOTE: Be sure to line up the red dots before inserting the cable connector into the instrument's communications port.



What baud rate does the instrument use to communicate with the PC?

115200 baud: S1 TURBO^{SD}, Tracer III-SD, Tracer IV-SD, Tracer III-V⁺.

57600 baud: Tracer III-V.

PXRF has a USB option in the DOWNLOAD menu. Is this the proper selection when using the USB-to-Serial converter?

No. Even with the USB-to-Serial converter, you still need to select a COM port.

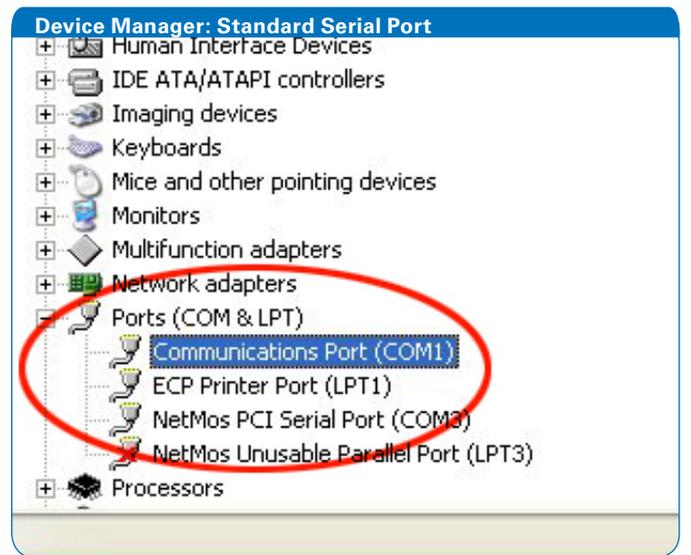
How do I know what COM port to use?

This information is available in your computer's Device Manager. To find the Device Manager and COM port information, follow these simple steps for Windows[®] XP and Windows[®] 7 based computer.

1. Click **Start**, and then click **Control Panel**.
2. Double-click **System** (System & Security in Windows[®] 7)
3. On the **Hardware** tab, click **Device Manager**.
4. Double-click on **Ports (COM & LPT)** to view all COM and LPT port devices.

If using the CablesToGo USB-to-Serial converter, look for the **Prolific USB-to-Serial Port** and note the COM number listed. In the example below, the port is COM12.

If your computer has a built-in serial port, you do not need to use the USB-to-Serial converter. In Device Manager, look for the **Communications Port (COMx)**. In the example below, the port is COM1.



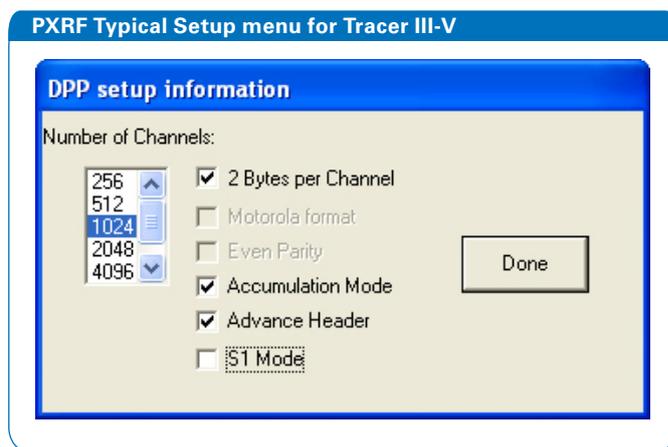
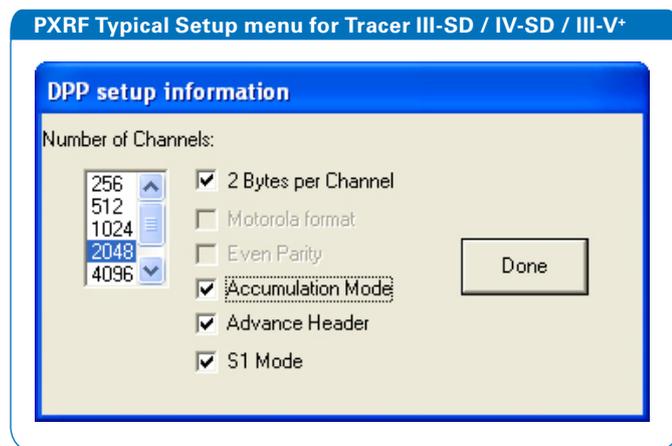
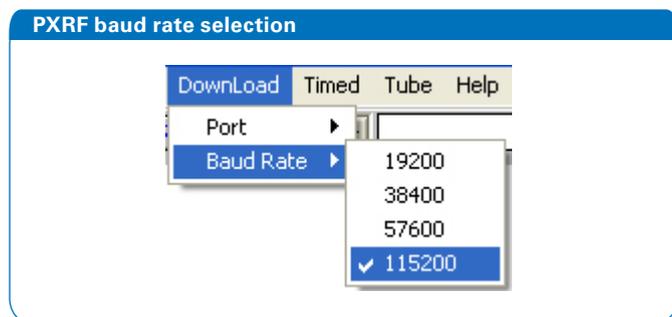
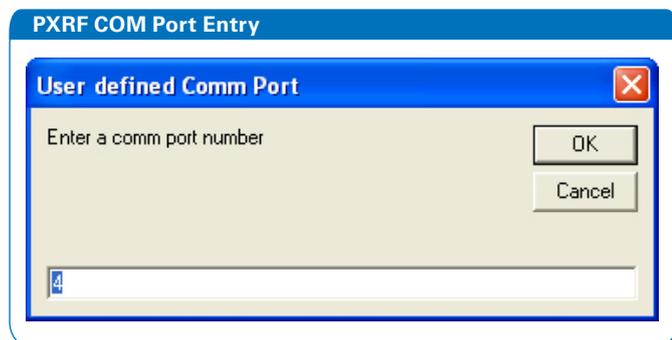
I know the COM port used by my computer; now what?

PXRF:

Consult the PXRF User Guide for detailed instructions.

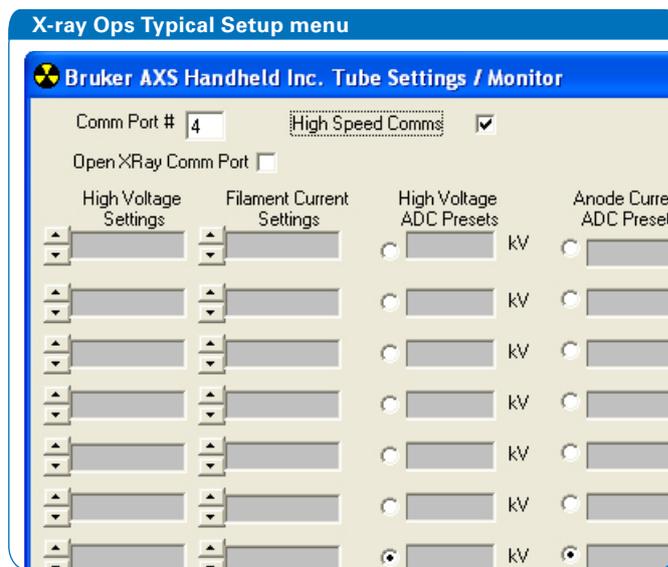
General communications setup requirements:

1. Tell PXRF what COM port to use (**Download** menu)
2. Tell PXRF what baud rate to use (**Download** menu)
3. Properly configure the **Setup** menu



In X-ray Ops:

1. Enter the computer's COM port number into the **Comm Port #** field in X-ray Ops.
2. Click the **High Speed Comms** check box.
3. Click the **Open XRay Comm Port** check box.
4. The data should automatically fill in if communications has been established.



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