

Technical Note No. 007

Use of Tera Term Pro and Hyperterminal to Collect and Download Data

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Background

Data can be transmitted in real time or logged data may downloaded from the ozone monitor to a PC or a laptop running a terminal emulator. Microsoft Windows provides the free terminal emulator “HyperTerminal”, usually found in the communications category of the Program Files. The display buffer size in HyperTerminal is limited to under 100 lines so many users prefer using “Tera Term Pro”, another free terminal emulator which can be downloaded from the Tera Term website:

<http://hp.vector.co.jp/authors/VA002416/ttemp23.zip>

With a larger buffer size (up to 10,000 lines), the user can transmit the data to the tera term screen, copy the data, and paste it into a text file which can then be imported into excel.

However, both HyperTerminal and Tera Term Pro allow the user to transfer the incoming data directly to a text file with no limitations for buffer size. Below are procedures on using HyperTerminal and Tera Term Pro to receive data from an Ozone Monitor Model 202 and 205.

Collecting and Downloading Data Using Windows HyperTerminal

1. Connect the straight through serial cable to the back of the ozone monitor and the PC or laptop.
2. Open a HyperTerminal Session
Windows XP:
Start→Programs→Accessories→Communications→HyperTerminal Icon
3. When prompted for a name, choose a name for your connection (e.g., Ozone

Monitor)

4. Click "OK"
5. In the "Connect Using" field, select the com port your serial connection is using. By default it is COM1, but if using a USB to serial adapter, check which port it is using by looking at its device properties.
6. Under "Port Settings", all fields should be left default except for "Bits Per Second" (baud rate). The Ozone Monitor has three options selectable from its menu, 2400, 4800, and 19200. The instrument is shipped with the baud rate set at 2400. The baud rate for the Nitric Oxide Monitor is 4800. Select the correct baud rate and click "OK". This will start your communications session.
7. Power up the Ozone monitor. If communication is established, the first thing that should be seen on the HyperTerminal screen is the Averaging period. The factory default is 10 seconds (Avg: 10 s/rdg). This will be followed by lines of data every 10 s. If unable to gain connection, check the setting of the baud rate on the monitor and the baud rate and com port selection in HyperTerminal and try again.
8. Once communications is established, data will be transmitted at the averaging cycle and will appear on the screen in the display buffer.
9. To collect or download data directly to a file:
 - a. Click on "Transfer" option
 - b. Select "Capture Text"
 - c. Select the path create a file name for the data file
 - d. Click "Start" to start the collecting data to the file
 - e. If you are downloading logged data, enter the menu of the monitor and select XMIT
 - e. To stop or pause, click Transfer → Capture Text → Stop
 - f. After stopping the transfer, the file is available to the user

Collecting and Downloading Data Using Tera Term Pro

1. Open Tera Term Pro
2. Select the correct baud rate: Setup → Serial Port
3. To adjust the buffer size : Setup → Window → select "Scroll Buffer" and enter 10,000 for max buffer size
4. To download data directly to a file:
 - a. File → log → choose the path and file name of the file you will make. This will open a separate window showing the number of bytes transmitted and buttons to "close", "pause", and "help"
 - b. Click "close" when finished transmitting data