

## HOW TO DOWNLOAD STORED DATA FROM THE TRASE UNIT TO A COMPUTER USING WINDOWS 95 HYPERTERMINAL PROGRAM

At the end of each data collection period, files may be downloaded from the Trase unit to a computer for eventual transfer to a database.

### Equipment Needed for Downloading Data

1. A connector cable with a male DB-25 connector on one end and the proper connector on the other end that mates with a COM port on your PC (Gender changers and/or an adapter may be required for your system). Most PCs will have COM1 assigned to their mouse and to make the data transfer easier by not disabling your mouse, we suggest using another COM port, such as COM2, for data transfer.
2. A PC computer with Windows 95, HyperTerminal (a Windows 95 program accessory). No modem is required.
3. Your Trase unit.
4. Backup floppy disks (optional) to copy your data files from your PC.

### Setting Up Your PC to Receive Data

1. First, attach the male DB-25 end of the connector cable to the RS-232 serial port on the Trase unit. Connect the other end of the connector cable to the proper COM port on your PC.
2. In the Windows 95 screen, select Start, Programs, Accessories, then HyperTerminal.
3. The HyperTerminal window will open. Locate and doubleclick on the Hypertrm.exe icon and the Connection Description window will appear. Enter a name for the New Connection Information file (for example, you can enter "Trase" or "Trase BE". Remember, this is NOT your data file name, it is your CONNECTION setup file name). Click OK.
4. Next, the Phone Number window will appear. Skip down to "Connecting Using" and select "Direct to COMX" (X denotes the COM port you selected) from the pull down arrow. Click OK.
5. The COM Properties window will appear. Enter the following settings for the RS-232 communication port and then press OK.

Baud rate:	9600
Data bits:	8
Parity:	none
Stop bit:	1
Flow Control:	Xon/Xoff

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**Note**

Verify in the Trase Setup Screen that the communication protocol on Trase is the same as shown above. If the transferred data will be imported into a spreadsheet or database program, be sure the sending format on your Trase unit is set to “commas” or “1,2,3” format and modem is set to “None”.

6. From the Menu Bar, select Transfer, then Capture Text. The Capture Text Window appears. Assign a name under which you want to store your Trase data and then click Start. Your PC is now configured to receive data and is properly connected to your Trase unit.

A blank screen should appear with the name of your New Connection and HyperTerminal in the top left-hand corner of your PC screen and the box in the lower left-hand corner of the PC screen should say “Connected”.

**Transferring Data**

1. Now that the PC is ready to receive data, you need to configure Trase to send the data. Press the On/Enter button on your Trase unit.
2. Go to the Data Screen. Verify that the desired storage location (1,2,3, or 4) is displayed. If not, move the cursor to the lower portion of the Data Screen by pressing the On/Enter button to change the displayed storage location. Press the Right Arrow (NO) key until the desired storage location is displayed.
3. Once the desired storage location in the Data Screen is selected, press the Send Data key on your Trase unit. Data should immediately download and appear on your PC screen. Once the data has transferred completely, the data will stop scrolling on your Windows terminal. From the Menu Bar, select Transfer, Capture Text, Stop. All data will be stored under the name you entered in the Capture Text window. You will still be connected to your Trase unit.

**Note**

Once you press the Send Data key on your Trase unit, you cannot stop the download. So if you are downloading a large amount of data from a certain storage area, make sure it is the correct data you wish to download.

4. To send another set of data, say from another storage location, select Transfer from the Menu Bar, Capture Text. You will be prompted to enter another file name then click Start. Then, from the Data Screen on your Trase unit, select the data you want to download, press “Send Data” and the file will be immediately downloaded. Repeat these steps until all data you need has been transferred.

**Sending Multiple Graphs**

To send the data from multiple graphs to your PC, start the data transfer from your Trase by keying to the Data Screen and pressing “SHIFT” and “SEND DATA”. When the data stops scrolling on your PC screen, from the

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Menu Bar, select Transfer, Capture Data, Stop. Your graph will have been saved under the name you selected prior to data transfer.

The download of data will consist of the reading followed by the graph data. If the reading used one of the user-defined custom tables, the table will follow the graph data in the data file.

## **Note**

Once you press the Send Data key on your Trase unit, you cannot stop the download. So if you are downloading a large amount of data from a certain storage area, make sure it is the correct data you wish to download.

## **Sending A Single Graph**

The series of data defining an individual graph can be sent to a computer from the Graph Screen. The connections between Trase and the computer are the same as described above. When sending graphs, you should be sure to select the sending format as “commas” mode or “1,2,3” mode. This selection is done in the Setup Screen.

After you have made the proper connections between the Trase unit and the PC, key to the Graph Screen, display the graph desired, and press the “Send Data” key. When Trase sends a graph, it sends at least 1,200 lines. The graph header and y coordinates will be immediately transferred. During the transfer process, the message “SENDING SINGLE GRAPH...” will be displayed in the center of the Trase screen. When data has been transferred, from the Menu Bar, select Transfer, Capture Text, Stop. The download of data will consist of the reading followed by the graph data. If the reading used one of the user-defined custom tables, the table will follow the graph data.

## **Note**

When you exit HyperTerminal you can save these settings for the next time you want to download data. To open the saved connection called Trase, when HyperTerminal opens and prompts you for a New Connection name, select cancel, and then from the Menu Bar select File, Open and locate the saved “trase.ht” connection setup.

## **CAUTION**

It is strongly recommended that you confirm that your data was transferred and is stored on your PC **before** erasing the data from the Trase unit. Once data is erased from Trase, there is no way to recover it.

## **Disconnecting Trase and the PC**

1. When you are finished, and while you are still in the HyperTerminal window, select Call from the Menu Bar, and Disconnect. This will cancel the connection between your Trase and the PC.
2. Select File and then Exit. HyperTerminal will ask if you want to save your Communication settings. Select either Yes or No as you prefer. Then exit the program.
3. Disconnect the cabling from your PC and then Trase.

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## **Viewing the Data in Excel - Data Only**

Close all open programs on your PC. Open your Excel software program. Select File - Open from the Menu Bar. Locate the file you want to open, highlight it and then select OK.

Excel's File Wizard will prompt you to select the following:

1. Select Delimited as the file format and then click on NEXT.
2. Select Commas under Delimiters and then click on NEXT.
3. Select General and then click on Finish.

This will open your Trase data file. You can now examine the data and then save it as an Excel file (with an .XLS extension).

## **Viewing a Graph**

If you open a file that includes Trase graph information, follow the steps above. Then select the Chart Wizard. Place the cursor anywhere in an unused area of the Excel screen. Hold the left mouse button and drag out a box. Chart Wizard will now prompt you to finish the graph by completing or selecting certain information.

1. Select the range of points (probably starting at A3 and continue down to approximately 1203 or wherever your data stops for your range). Click NEXT.
2. Select a line chart, then NEXT.
3. Enter any legends you want to include, then NEXT.
4. Select FINISH, when you are done.

Your 1,200 data points will now be graphed out in your Excel spreadsheet and should look very similar to the graph on your Trase screen.

Now save your file in Excel's file format (an .XLS format) for later viewing.