

# Applications Note

*Insight on Color*

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## Sending DP-9000 Data to Windows 95, 98, and NT Spreadsheets

Color data contained in a HunterLab DP-9000 datalog can easily be transferred to Windows 95, 98, or NT (4.0 or above) spreadsheet programs for manipulation by using the Windows HyperTerminal program that is automatically included with Windows. Instructions are provided below. The same functions can be performed in Windows 2000 and Windows XP, but the screens involved will not look exactly like those shown below.

1. Use an RS-232C cable to connect the 9-pin outlet on the right bottom of the back of the DP-9000 processor to the desired communications port of the computer.
2. Set the Data Format to “DIF” in the Instrument Setup of the DP-9000. Note the baud rate, data bits, and parity values, then exit Setup mode.
3. Hold the DP-9000 Setup key down and press the Comm (phone) key multiple times, if necessary, until “Printer” is shown in the lower right corner of the display.
4. Enter the Windows HyperTerminal program by clicking on the Start button, Programs, Accessories, and then HyperTerminal. A screen similar to that shown below appears.



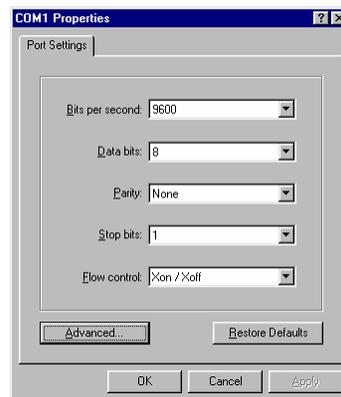
5. Double-click on Hypertrm.exe to open the program.



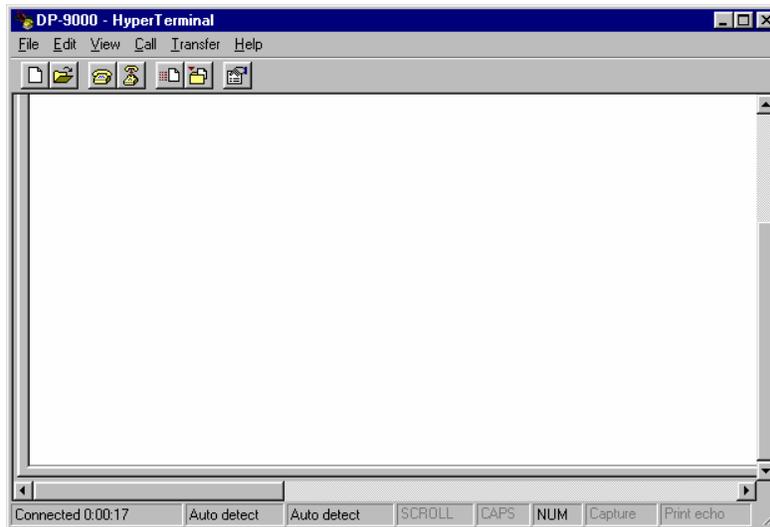
6. In the white box at the top of the screen, name your new connection “DP-9000.” Also highlight one of the icons in the bottom box to use for this connection. Then click OK.



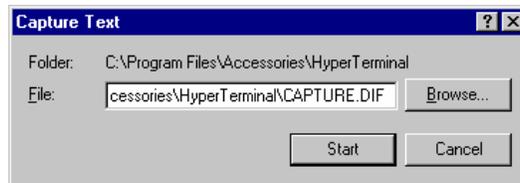
7. In the Connect using box, select “Direct to” and the COM port you are using for the connection. Then click OK.



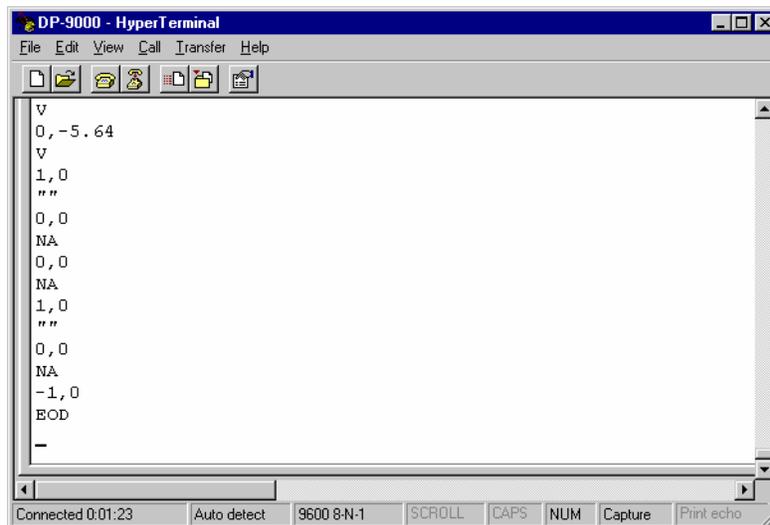
8. Set the Bits per second (baud rate) and other parameters for the COM port to match the DP-9000 Instrument setup. Stop bits should be set to “1” and Flow control to “Xon/Xoff.” Click on OK. The DP-9000 is then connected to the computer and you are shown the blank HyperTerminal display. In the future, you can use these settings by selecting Open from the File menu and choosing the DP-9000 connection.



9. Choose Capture Text from the Transfer menu.

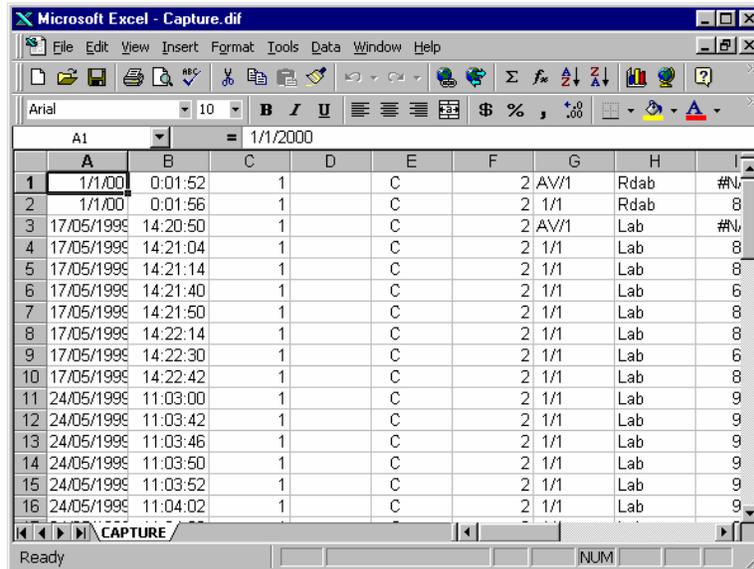
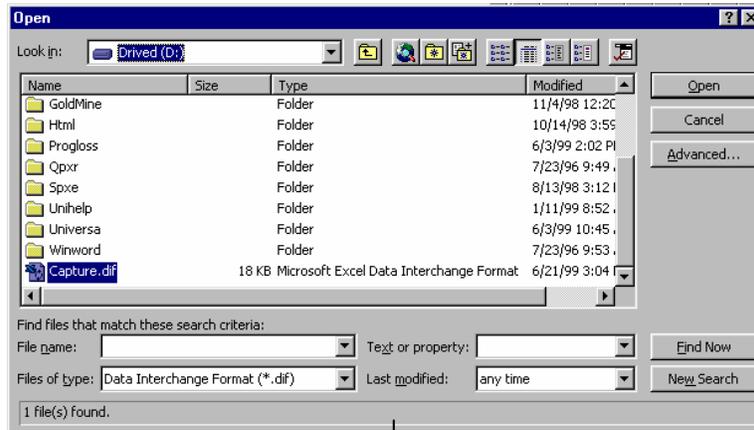


10. Press the Browse key to choose the drive and directory where the file will be stored and also enter a file name ending in .DIF. Click Start.
11. Press and hold the communications (phone) key of the DP-9000 until it double-beeps. Release. The data will be sent to the computer and will flash down the HyperTerminal screen. When data transfer is complete, the DP-9000 will double-beep again. The screen shown will be similar to the one below.



12. Select Capture Text from the Transfer menu and then click Stop.
13. Exit HyperTerminal. It is OK to disconnect the DP-9000 at this point.
14. Enter your spreadsheet program.

15. Open the file as a DIF (data interchange format) file. Most programs (examples provided here are using Microsoft Excel 97) will automatically convert the .DIF file contents into a format usable to the spreadsheet. An example is shown below. For more information on the DIF conversion, consult the manual for your spreadsheet program.



For Additional Information Contact:

Technical Services Department  
 Hunter Associates Laboratory, Inc.  
 11491 Sunset Hills Road  
 Reston, Virginia 20190  
 Telephone: 703-471-6870  
 FAX: 703-471-4237  
 www.hunterlab.com