
Technical Note

HyperTerminal Dump from ESC 8816 or 8832

A common cause of E-DAS Ambient system errors is configuration differences between the data logger and the Central PC. When changes are made directly to the data logger and not duplicated in the Central PC software operation errors will invariably occur. Changes should always be made in the Central PC software and then downloaded to the data logger. If you suspect configuration errors or discrepancies you can generate a “dump” capture file of all the settings in the data logger for troubleshooting.

⇒ **Important:** A capture file should be generated and saved when your E-DAS Ambient system is performing correctly. A good working capture file can reduce configuration problems and system down time later. If your E-DAS Ambient system malfunctions later, that capture file of the properly working system can be compared with a new capture file to troubleshoot for configuration errors or inconsistencies between the Central PC and the data logger. It is possible to troubleshoot without a capture file of a correctly configured system, but it is more difficult and time consuming.

Dump capture files can be generated by directly connecting to the data logger with HyperTerminal. HyperTerminal is the communication software that comes with Windows. To connect to a Model 8816 or 8832 data logger with HyperTerminal use a NULL modem cable connected from COM1 or COM2 on the PC to a serial port on the data logger.

► **Note:** It is not possible to capture only specific configurations to a file in the dump. Dumping will capture all settings in the data logger into one file.

Starting HyperTerminal

From the **Start Menu** on the PC select **Programs | Accessories | Communications | HyperTerminal** to start the program. In the **Connection Description** screen, enter a **Name**, and click **OK**.

In the **Connect To** screen (Figure 1), select **Connect using COM1** (or COM2 if you are using COM2), and click **OK**.



Figure 1 Connect To screen in HyperTerminal

Enter the following data logger serial **Port Settings** (Figure 2):

Bits per Second = **9600**
Data Bits = **8**
Parity = **None**
Stop Bits = **1**
Flow Control = **Xon / Xoff**

Click **OK**. The terminal program is now active. A cursor will blink and “Connected” will be displayed in the lower left corner of the screen.

When exiting HyperTerminal you will be prompted to disconnect. Click **Yes** to disconnect. Click **Yes** again if you want to save the current session.

The above procedure is the same when using a modem except when you create the new session, choose a modem instead of **Direct to Com1** and enter the phone number.

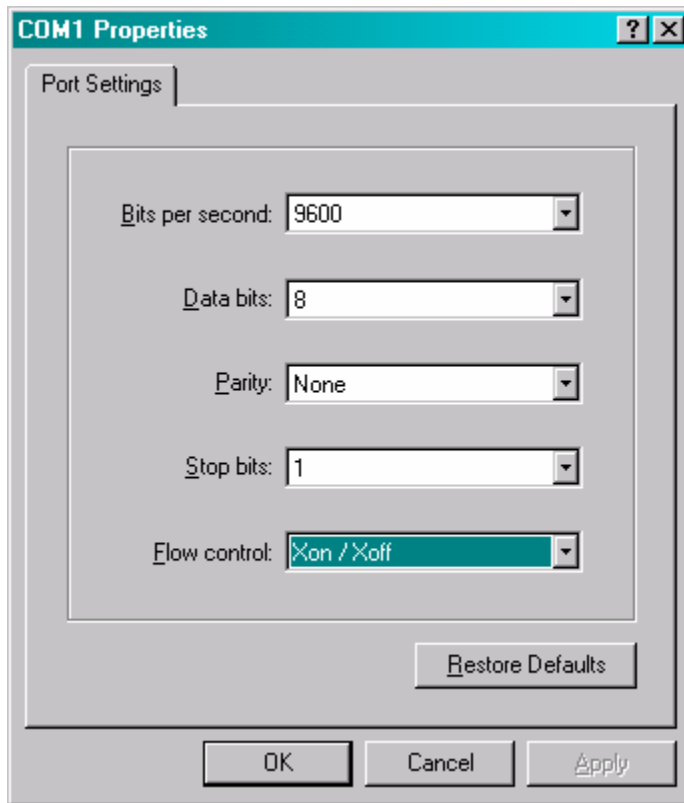


Figure 2 Port Settings in COM Properties screen

Establishing Communication to ESC 8816 or 8832 Data Logger

Connect a null modem cable between the data logger’s serial port and the PC’s COM port that was selected in HyperTerminal. Enter the following escape sequence to link to the data logger: **ESC<ID>AQM** (Replace <ID> with the data logger’s 2-digit ID). The escape sequence will not be displayed on the screen. The data logger’s Home menu will be displayed; if not, repeat the escape sequence and check the cable connection.

Dumping Data Logger Configuration

1. Login using the **Configuration Password**. (Contact Agilaire support if you don’t know it.)
2. From the **Home Menu** select **Status Menu | Dump Setup(s)**.
3. To capture text that appears on the screen select the **Transfer** menu from the main screen of HyperTerminal. Select the **Capture Text** option.
4. HyperTerminal prompts for the location and name of the file in which to save captured text. Enter the path and new file name with a file extension of .TXT. Click **Start**. The text that appears in the HyperTerminal window will be captured to the open capture file.

❖ **Examples:** C:\LOGGER.TXT; C:\LOGA1.TXT

5. From the data logger's **Dump Setup(s)** menu select **Dump All to Curr** (Current) **Port**. The data logger's configuration is dumped to the HyperTerminal screen and to the open capture file.
6. When the dump is completed select the **Transfer** menu from the main screen of HyperTerminal. Click **Capture Text** and then **Stop** to close the capture file.
7. Check the capture file for the data logger's configuration. The capture file should have the current EEPROM setting and the channel configuration for the data logger.

► **Note:** Polling must be stopped or disabled during this procedure or an “unable to open com port” error may be generated.

When checking the capture file, there may be unknown entries at the beginning and end of the file. These entries are normal for HyperTerminal; the menu time is being updated every second.

Troubleshooting Configuration Problem Using Capture Files.

- When capturing the current configuration dump, do not give the current configuration dump capture file the same name as an existing file.
- Print and compare a dump capture file generated when your system was working properly with the data logger's current configuration dump capture file. Record any configuration differences between the two capture files.
- Make the changes at the Central Computer and download the configuration to the data logger. Only make configuration changes at the data logger that cannot be downloaded from the Central Computer.

Common Upgrade and Download Configuration Problems

- The data logger can run out of configuration space when additional channels or calibrations are added to the central logger's configuration and the data logger does not have enough configuration memory. To correct the problem the number of data channels or calibration programs must be reduced.
- The data logger can run out of storage space when additional channels are added to the central logger's configuration or the storage time is change from its original working configuration. To correct the problem the storage time on the data channels or calibration channels must to be reduced.
- Configuration changes made at the data logger but not recorded or changed in the Central Computer may cause the E-DAS Ambient system to malfunction.
- Occasionally configuration changes must be made at the data logger because the Central Computer does not download them. If these configuration changes are entered incorrectly at the logger or the configuration information was not properly recorded when changes were made, the E-DAS Ambient system will malfunction.

- Configuration changes made at the Central Computer and never downloaded or tested for proper operation can cause the E-DAS Ambient system to malfunction.

Channel Configurations Problems

Compare channel names, channel types, channel scaling, storage intervals, storage times, and channel validation.

Calibration and Digital Event Configurations Problems

- Compare calibration names, calibration types, affected parameters, phase names, affected parameters for calibration phase, expected values, and out of control limits.
- Be careful of calibrations that are scheduled to run at the same time and have some of the same affected parameters.

Alarm Configurations Problems

- Compare monitored parameters' alarm conditions and acknowledgement methods.
- Correctly configured time zones and the master timekeeper are essential for running E-DAS (see Technical Note "Setting the Time in E-DAS Ambient and Digi-Trend").