

Data Capture System

Documentation



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Data Capture System

SYSTEM OVERVIEW

The Data Capture System is designed to be a simple data collection utility which will record data received on the serial port of the computer to an ASCII text file. Any string of data may be sent to the Data Capture System. The only requirement of the data string is that a carriage return (decimal 13) is the last character in the string. Every time a string of data is sent to the computer with a carriage return, the string will be written as a line of data in the current file.

Data File

The data file, in which the system stores the information received, is an ASCII text file that can be viewed by any text editor such as Windows Notepad. The file is stored in the DCPWIN\DAT directory and the name of the file is calculated daily. The filename is derived from the current date. For example, if the current date is 10/17/19, the filename is A191017.prn.

Data File Format

The data will be stored in the file exactly as it received. This allows you to format the data according to the requirements of the software that will be manipulating the data in the file. For Example, if you want to store the received data in a format that Microsoft Excel can import, each line of data sent to the computer should consist of field values delimited by commas with a carriage return on the end. A sample data string might look like the following: Item1, 10/17/19, 12:25:00, 55000, 45000, 10000,<CR> . Once again, the format the data is stored in is entirely up to the sending device and feel free to experiment with different formats.

SYSTEM OPERATION

Hardware Requirements

-) Windows Intel Core i3 processor or higher
-) 8GB RAM
-) at least 500GB available hard disk space
-) Serial Port 1 or Serial Port 2 Available

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System Startup

To start the system, open the Data Capture System program group and double-click the Data Capture icon (see Figure 1).



Figure 1

The program will check for the software security key on the USB port of your computer. If the security key is not found, a message will appear as in Figure 2, prompting you to enter demo mode. Demo mode will capture and display data being transmitted to the computer serial port, but will not record the data in an ASCII file and will not update the records received counter.

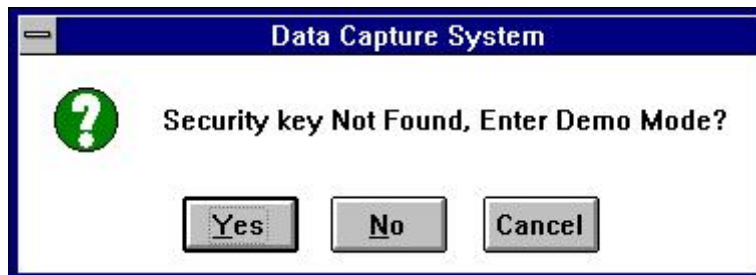


Figure 2

Once the security key is checked, the Data Capture main window (see Figure 3) appears. Once the program is in the main window, it is ready to receive data. The only exception to this is if you do not have the communication parameters in synch with the sending device. See System Parameters section for more on changing the communication parameters. The Data Capture System main window will show you the name of the current data file, the number of records received since startup, and the last six data strings received by the system. You can leave the screen maximized or you can click the upper right arrow of the main window to minimize the Data Capture System and allow the system to continuously collect data.

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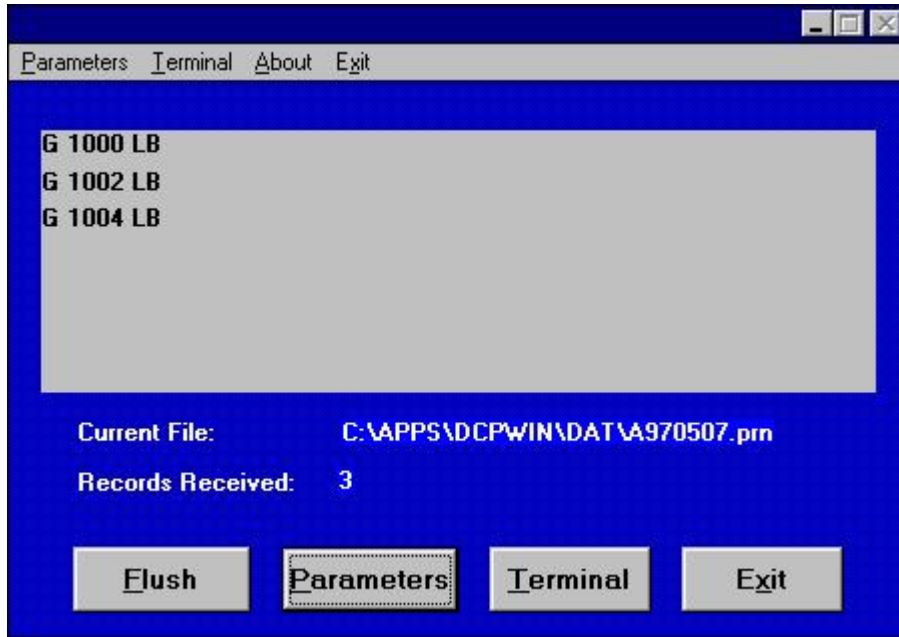


Figure 3

System Parameters

In order to communicate with the device that is sending data to the computer, the sending device and the computer must be using the same communication parameters. The Data Capture System defaults to serial port 1, 9600 Baud, 8 data bits, No parity, and 1 stop bit. To change the default settings, click the parameters button on the Main Window (see Figure 3) and click the Yes button in Figure 4.

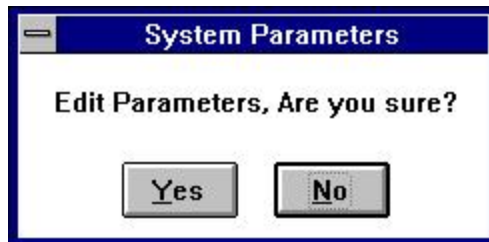


Figure 4

Next, the System Parameters Edit form (Figure 5) will appear and you can change the communication parameters as necessary to match the sending device.

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The screenshot shows a window titled "System Parameters Edit Form" with a menu bar containing "Save" and "Quit". The main area contains the following parameters:

Parameter	Value
Company Name	TSW Automation, Inc.
Com Port	1
Baud Rate	9600
Databits	8
Parity	N
Stopbits	1

Buttons for "Save" and "Quit" are located on the right side of the form.

Figure 5

NOTE: If changes are made to the communication parameters, it is necessary that you exit the Data Capture System and Restart the system for the changes to become active.