*Express*Cube™ Countertop

# DATA LOGGER
<u>User Guide</u>

Version 1 -18

Summary

The ExpressCube Data Logger program is a free software program available that writes the data from the ExpressCube printer port into a text file that can be read by software applications. The data logger software is robust interactive allowing the user to select file location, file name, how the data is stored and the time periods before a new file is started.

Recorded Data

The illustration below shows the measurement data that is recorded from the ExpressCube printer port.
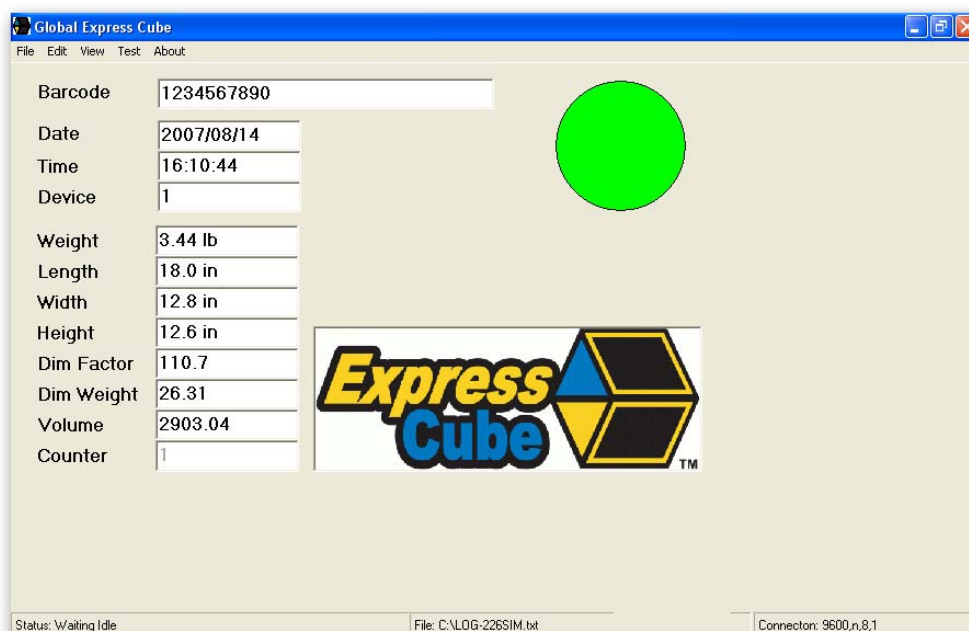

| Field	Description
Barcode:	Optional handheld scanner data
Date:	Record date (obtained from PC clock)
Time:	Time recorded (obtained from PC clock)
Device:	Device # (set in ExpressCube)
Weight:	Weight recorded from ExpressCube
Height:	Height recorded from ExpressCube
Length:	Length recorded from ExpressCube
Width:	Width recorded from ExpressCube
Dim Factor:	Dim Factor (set in ExpressCube)
Dim Weight:	Weight based on Dim Factor & Volume
Dim Volume:	Volume calculated from dimensions
Counter:	Program – not included in logged data
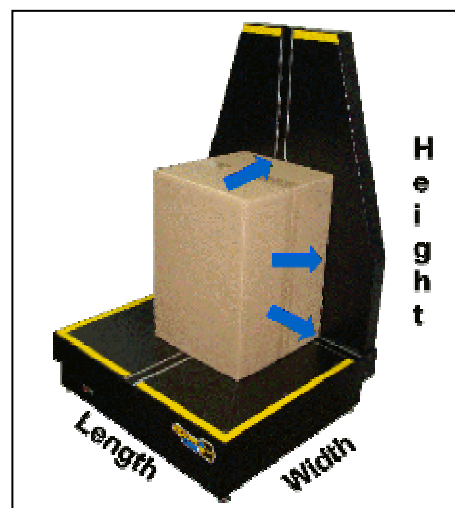
Settings:

Under the Edit menu, you can select "Settings" to open a dialog window for choices about the data output.
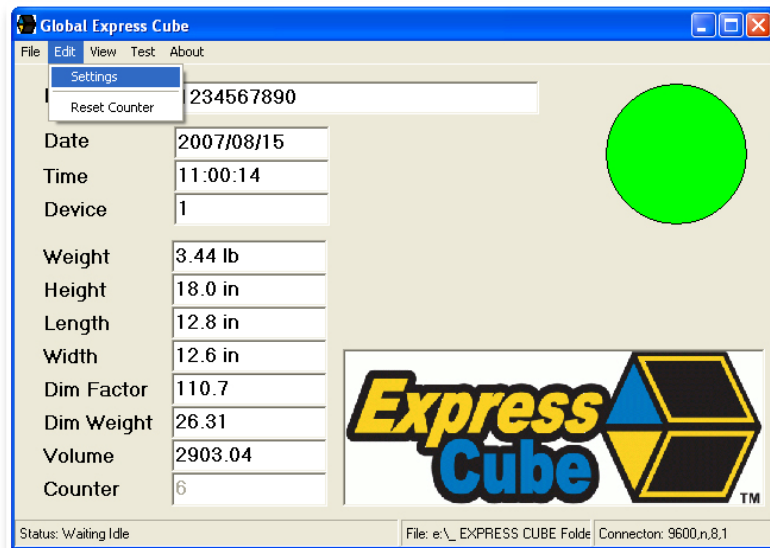
This image shows many of the selections that can be made for customizing the data output to suit the functions of your processing software (example – billing software).
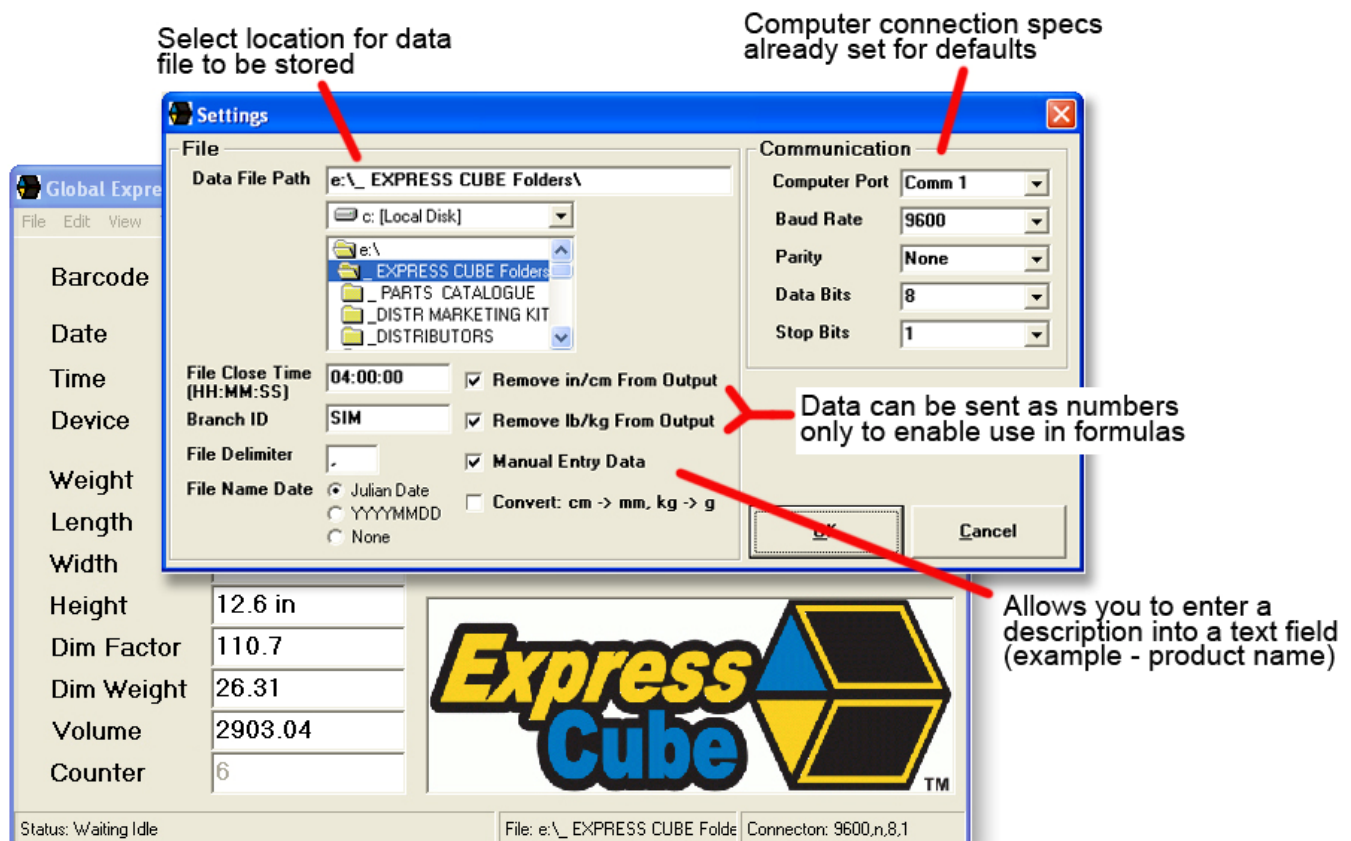
Detailed Settings

File Location: Use the standard Windows directory locators to determine the location of the text (txt) file generated by the ExpressCube Data Logger program.

File Close Time: The ExpressCube Data Logger will stop appending the text file at this time and start a new text file. This generally signals the end of a shift or billing period. The date used on the file name will reflect the start date and data will be recorded under this date until the file close time is reached.

Date Code: The date code selects the format of the date that is presented in the file name. One selection is Julian Day – a three digit code that reflects the current day of the year e.g. 239=Aug27. A second selection is YYMMDD e.g. 070827= Aug 27, 2007 Another selection is for None – no date assigned.

Branch ID: The branch identity code (ID) is used in the file name to identify the source of the file. The branch identity code can be any alpha-numeric character string up to 15 characters. For example, if the Branch ID is 'MAYBERRY' the text file name will be either LOG-239MAYBERRY.txt, LOG-070827MAYBERRY.txt or LOG-MAYBERRY.txt depending on the date code used.

File Delimiter: The file delimiter allows the user select the ASCII character that separates each data item. The default is a comma but in other areas in the world, the comma is used as the decimal indicator. In these locations, semi-colon is commonly used as a delimiter.

Remove in/cm & remove lb/kg from the output: Selecting this feature strips the unit designations from the data items resulting in a numerical input that is easier for most software programs to import the values.

Convert cm->mm, kg->g: This feature converts the metric cm/kg measurements from ExpressCube to mm/g. Note: This is the only selection that intentionally changes the numeric values from ExpressCube – care must be taken that this selection is correct.

Manual Entry Data: This feature, when selected, prompts the user for a maximum 50-character entry. The user can fill in a unique identifier or comment that is then appended in the last data field of the recorded data.

Communication: These settings enable the program to interpret the data from the ExpressCube unit. The default values (9600 Baud, no parity, 8 bits +1 stop bit) do not normally require adjustment but the serial RS-232 communications port (e.g. comm. Port 1) should be set to the PC port that is connected to the ExpressCube.
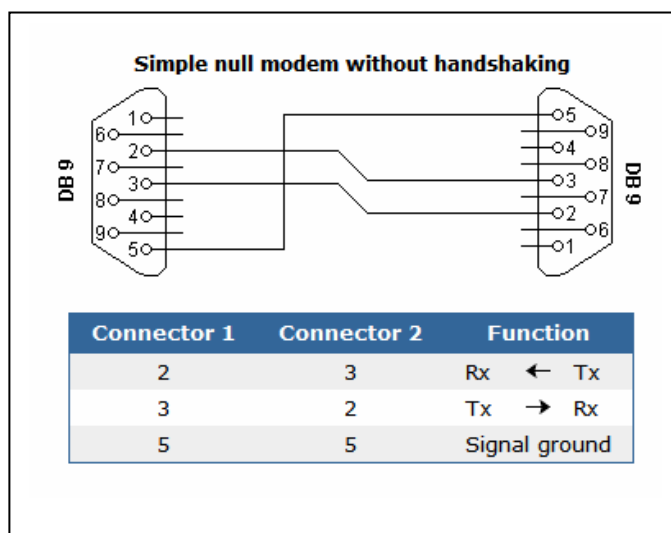
Physical Connections
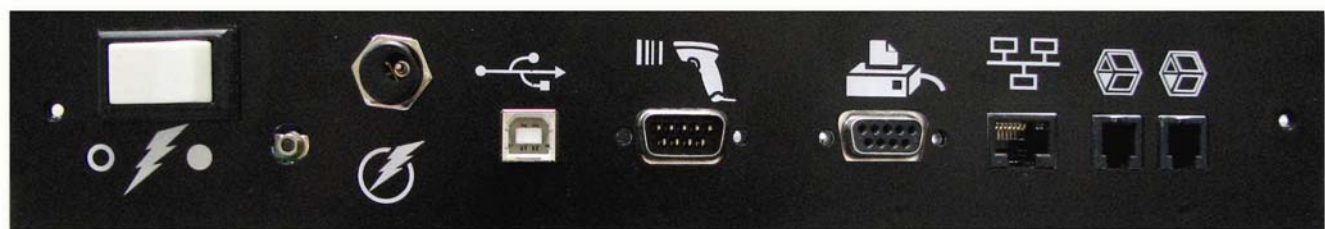
Hand scanner input   **Printer port connection**

The printer port is connected to the RS-232 serial port on the computer with a null modem cable. A null modem cable is a cable that switches the transmit and receive connections so that two DTE [controlling] devices can transmit to each other. It is recommended that a simple null modem cable is used if it is available. A simple null cable only reverses the transmit and receive leads and does not connect the handshaking signals. This avoids any signal miscommunication between the computer & ExpressCube unit. A sample of the wiring of a simple null modem cable is provided.

Simple null modem without handshaking

Connector 1	Connector 2	Function
2	3	Rx ← Tx
3	2	Tx → Rx
5	5	Signal ground

The ExpressCube requires that one end of the null modem cable is a male DB 9 pin connector. Use an adapter if required to fit the other end of the cable to an RS-232 communications port on the computer.
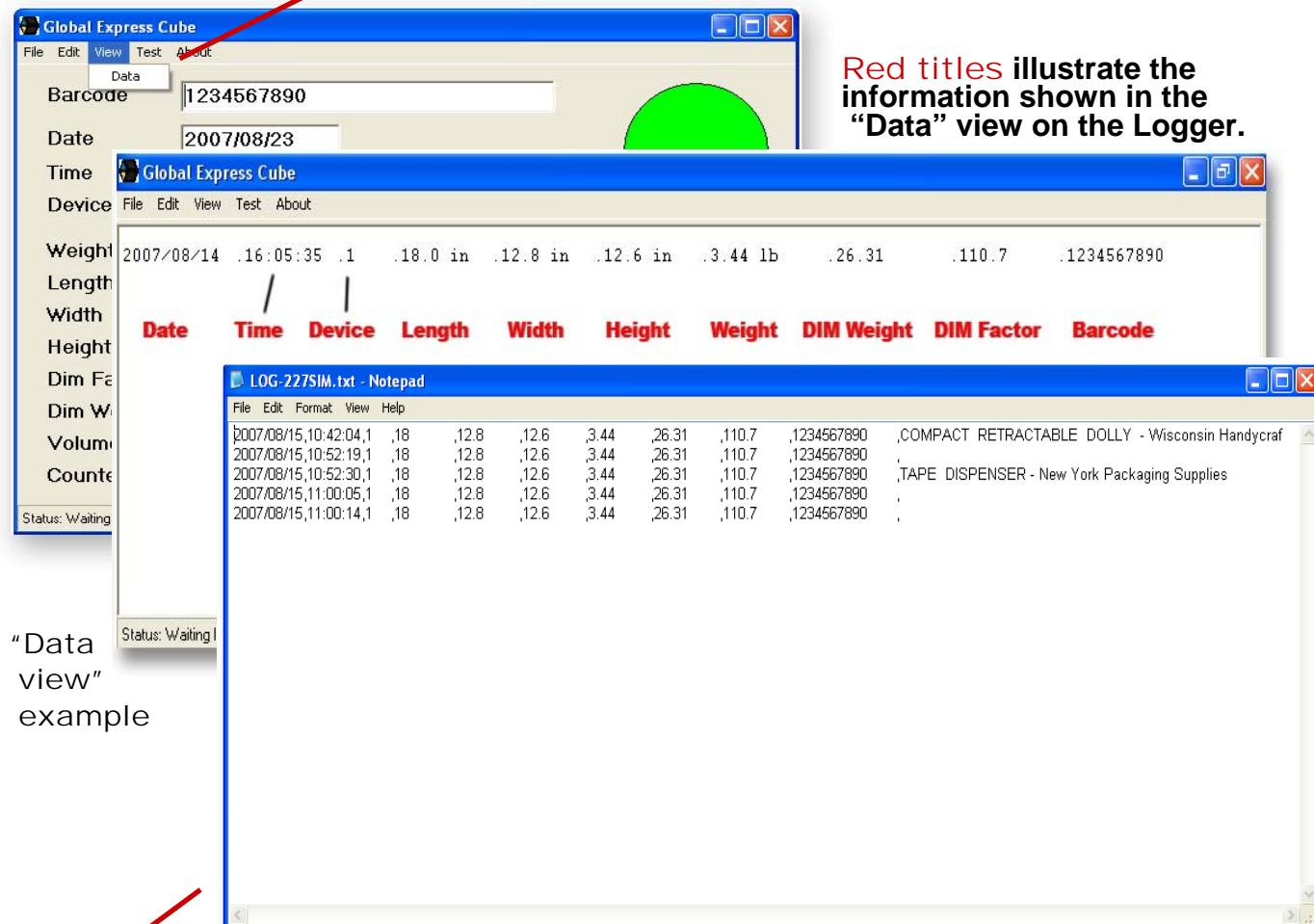
Connection settings for hand scanners

1) Connection port –   RS-232
2) Baud rate -   9600
3) Parity – none
4) Data bits – 8
5) Stop bit – 1 and add a suffix of a CR LF (Carriage Return   Line Feed)

Data View

To view the data stream for each weighing session, select "Data" from the" View" menu. This shows all the captured numbers that fill the Data Logger fields.

"Data" view selection

Red titles illustrate the information shown in the "Data" view on the Logger.
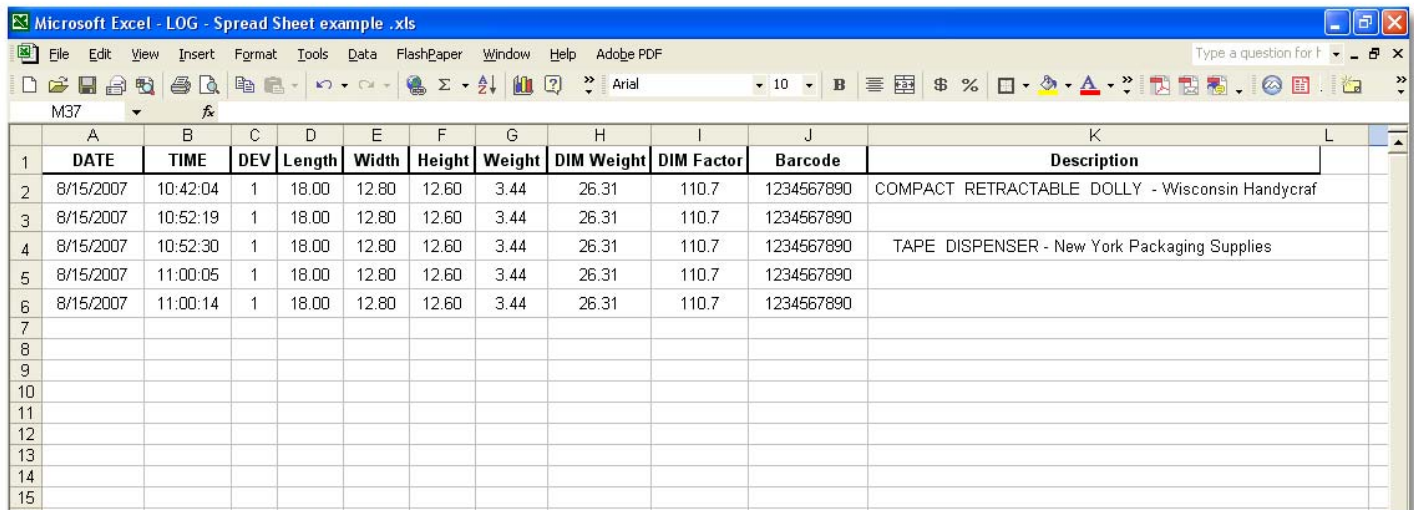
"Data view" example

Text file example:

All the weigh and dimension data that is displayed on the Data Logger view is saved to a Text file (example above). If the option for "Manual Entry Data" is selected on the Data Logger program screen, then that typed information will also show in the last column as it was typed (often used for product description).

Importing Collected Data into Spreadsheet program:

It is very common practice to import the data collected from measured packages into a billing program. To illustrate this process, the following image shows the result after importing data into a simple spreadsheet program.

This example below shows the data imported into cells from an example Text file.

Microsoft Excel - LOG - Spread Sheet example .xls

	DATE	TIME	DEV	Length	Width	Height	Weight	DIM Weight	DIM Factor	Barcode	Description	
1	DATE	TIME	DEV	Length	Width	Height	Weight	DIM Weight	DIM Factor	Barcode	Description	
2	8/15/2007	10:42:04	1	18.00	12.80	12.60	3.44	26.31	110.7	1234567890	COMPACT RETRACTABLE DOLLY - Wisconsin Handycraf	
3	8/15/2007	10:52:19	1	18.00	12.80	12.60	3.44	26.31	110.7	1234567890		
4	8/15/2007	10:52:30	1	18.00	12.80	12.60	3.44	26.31	110.7	1234567890	TAPE DISPENSER - New York Packaging Supplies	
5	8/15/2007	11:00:05	1	18.00	12.80	12.60	3.44	26.31	110.7	1234567890		
6	8/15/2007	11:00:14	1	18.00	12.80	12.60	3.44	26.31	110.7	1234567890		

For information on available software for ExpressCube units or updated versions of the Data Logger please visit out web site, www.expresscube.com

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