

Pilot's Guide EzSaveTM For Windows[®]

For use with the EDM-700, EDM-800, EDM-760, EDM-900

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J.P.INSTRUMENTS

Information: P. O. Box 7033
Huntington Beach, CA 92646

(714) 557-5434 Fax (714) 557-9840

<http://www.jp instruments.com>

v4.2 09/2003

Section 1 - EzSave and the Long Term Memory

EzSave for Windows is a utility program that will *transfer* compressed data from your EDM to your PC and *decompress* the data into a comma separated value text file. (Hereafter we will use the term EDM to refer to either the EDM-700, EDM-800, EDM-760, or EDM-900.)

EzSave will also read and decompress Palm handheld computer .PDB files.

The EDM Long Term Memory will record and store all displayed parameters once every six seconds (or at a user selected rate—see “Setting Parameters in the EDM” on 7) and, at a later time, transfer them to a laptop PC.

When you retrieve recorded data to your laptop PC you can choose to retrieve *ALL* the data in stored in the EDM, or only the *NEW* data recorded since your last retrieval. In either case, no data in the EDM is erased. The data will be saved in the PC in a file in a compressed format. The EzSave Windows program supplied with the Long Term Memory will decompress the data for display and use by other programs, such as a spreadsheet or database.

The amount of total data that the EDM can store will vary depending on how rapidly the measured temperatures change. The typical storage is 20 hours for the EDM-700, 15 hours for the EDM-800 & EDM-760, and 60 hours for the EDM-900, but may vary depending on which options are installed. When the memory becomes full, the oldest data will be discarded to make room for the newest.

You may place a mark at the next data record by tapping the LF button twice. You will see the word *SNAP* within the next six seconds, indicating a data record has been marked. Tap the STEP button to return to the Automatic indexing mode.

All data are time-stamped. The EDM Long Term Memory contains a real-time clock that may be reset to local time or UTC when you initially program your instrument. You may also program an *Aircraft ID* that will appear in the output data file. The Aircraft ID can be your aircraft registration number or your name.

At power on, the EDM will execute its self-test and then display the date (e.g., *11.12.01*), the time (e.g., *13.25*), the percentage of memory filled since the last save (e.g., *FULL 24*), and the Aircraft ID.

Section 2 - Installing EzSave for Windows on a PC

Follow these simple steps to transfer the program to your PC.

Using the MS Windows® Explorer utility:

1. Insert the EzSave floppy disc into your PC's floppy drive.
2. Select your floppy drive (usually the A: drive).
3. Double click on the **SETUP.EXE** file. Follow the instructions on the screen.
4. Place a copy of the EzSave shortcut icon directly onto your Windows desktop. To place the icon on your desktop, left-click the icon as it appears in the C:\Program Files\EzSave folder, then drag it to your desktop.
5. Double click on the EzSave icon on your desktop and you will see the EzSave main menu. Click on **Select COM port and baud rate** and click on the COM port and baud rate you will be using—usually COM1 and always 19,200. Click OK.

Note: if you receive the error message "Could not open that port. Please select correct COM port." You could have another program—such as the Palm HotSync Manager—using that port. Shut down any program using the COM port before running EzSave.

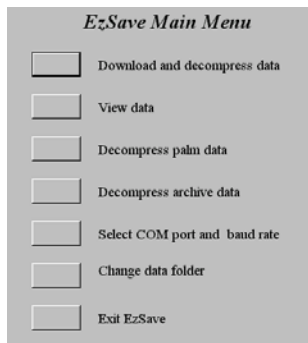
6. Click on **Exit EzSave** to exit the program.

Section 3 - Downloading EDM Data

Connect the computer to the serial port using the serial cable. Insert the small round plug into the data connector on your aircraft instrument panel, and the other end into the computer serial port.

On the Windows desktop double click EzSave icon. Click on the **Download and decompress data** button. You may also tab to the desired button and press the spacebar to select a menu item.

Follow the instructions on the screen. If the data doesn't transfer correctly try waiting two seconds between selecting the **Start** button and tapping the **STEP** button.

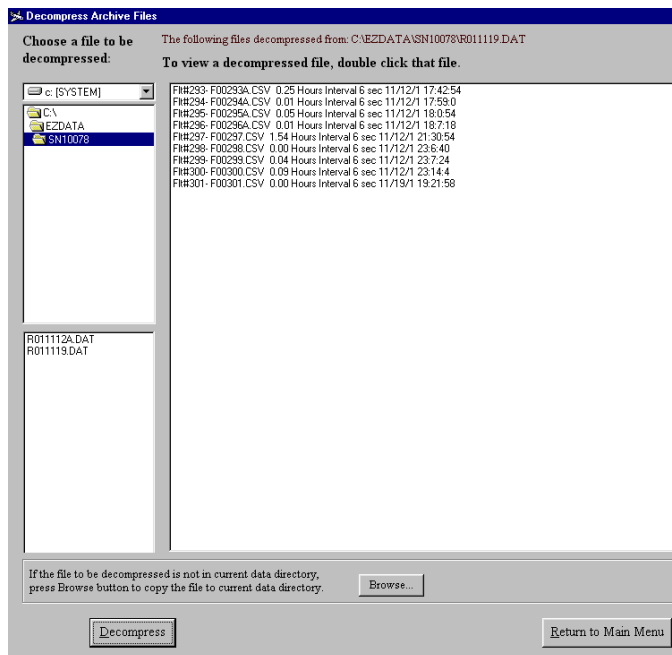


After the data is downloaded, tap **STEP**. You will be asked if you are finished using the program mode by the message: *END Y*. Tap **STEP** if done. Tap **LF** to change the message to *END N* and stay in the program mode. Tap **STEP** to continue.

After the download is complete, the EzSave program will decompress the data file that was downloaded, and produce individual Flight files, each with the .CSV suffix. A list of these files is shown on the right window on the EzSave screen.

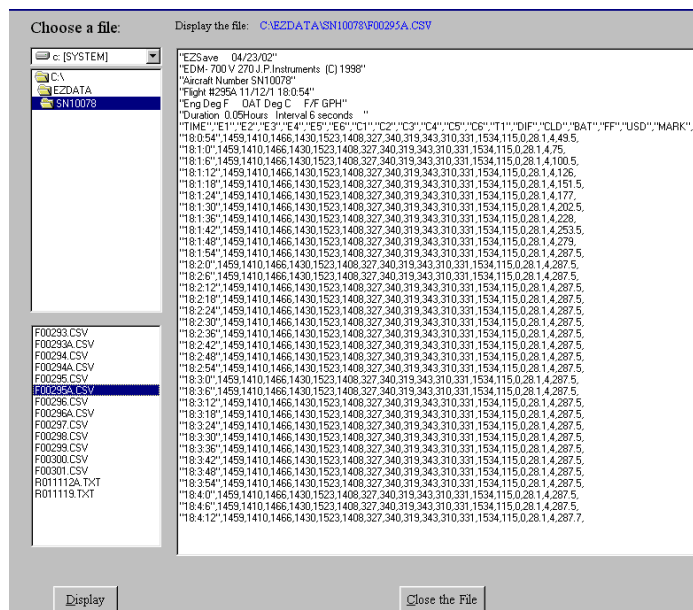
You may double click on any of these lines to open another window that displays the data in text format. (This format is described in the next section.)

After closing the EzSave application, you may open any of these files in a spreadsheet or database program.



Section 4 - Viewing EDM Data

From the EzSave main menu select click **View data** button. You will see a screen similar to the one below:



Select the subfolder in the EZDATA folder (or some other folder that you have selected) that contains the data for your aircraft. The folder name will be the same as the Aircraft ID stored in the EDM. Select a decompressed file from the list on the lower left. The file name is an “F” followed the flight number, as F00238.CSV Subsequent decompressions of the same flight will create files with a letter suffix appended such as F00238A.CSV Select a .CSV file and double click the file name or click the **Display** button. The data will be similar to the following:

```
"EzSave      11-13-2001"
"EDM- 700 V 283 J.P.Instruments (C) 1998-2001"
"Aircraft Number N1205X "
"Flight #5 11/12/01 11:46:24"
"Eng Deg F OAT Deg F F/F GPH"
"Duration 4.44 Hours "
"TIME","E1","E2","E3","E4","E5","E6","C1","C2","C3","C4","C5","C6",
"DIF","CLD","OAT","BAT","FF","USD","MARK"
"11:46:24",1375,1323,1386,1342,1437,1323,355,365,340,368,329,353,
114,0,75,13.9,12.8,21,"S"
"11:46:30",1376,1323,1387,1343,1438,1324,354,365,342,369,330,353,
115,0,75,13.9,12.8,21,""
"11:46:36",1375,1322,1385,1342,1436,1325,356,365,343,367,332,353,
114,0,75,13.9,12.8,21,""
"11:46:42",1376,1320,1385,1340,1437,1324,355,365,345,368,331,353,
113,0,75,13.9,12.8,22,""
```

The line

```
"TIME","E1","E2","E3","E4","E5","E6","C1","C2","C3","C4","C5","C6",
,"DIF","CLD","OAT","BAT","FF","USD","MARK"
```

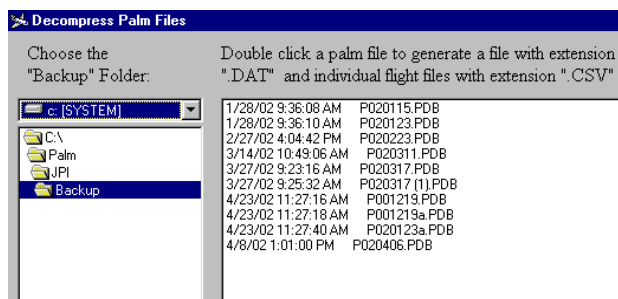
is the header text and is listed in the file only once. It describes the contents of each subsequent line of data starting with time in hours:minutes:seconds. The next labels are E1 ... E6 for EGTs, Then C1 ... C6 for CHTs, The DIF, CLD, OAT, BAT, FF and USD are the same as on the EDM display. The MARK data will be an “S” if the data was marked by pressing the LF button twice.

Viewing the data on this screen is meant just to check the data in a general way. For more detail you will need to import the data to your spreadsheet and follow the directions for your spreadsheet for analyzing and plotting data.

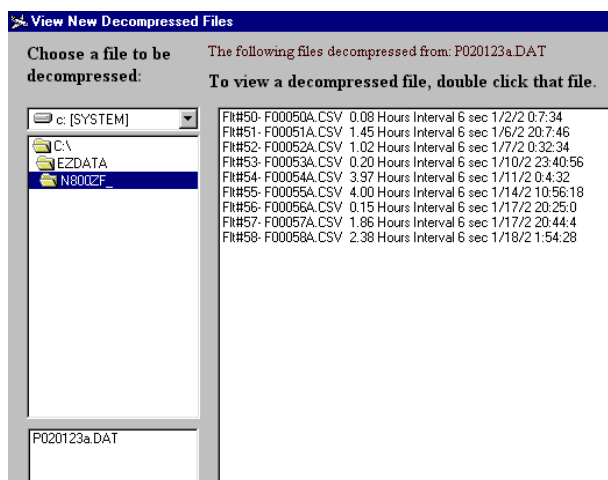
You may use JPI’s EzPlot software to automatically create graphs and summaries of the data, and print them out. EzPlot is available for sale direct from J.P. Instruments.

Section 5 - De-Compressing Palm Data

Select Decompress palm data from the main menu and select the folder that contains Palm .PDB files. To find your Palm files, follow the directions at the bottom of the Decompress Palm Files window.



Double click the file name. You will see a list of the decompressed .CSV files in the View New Decompressed Files window.



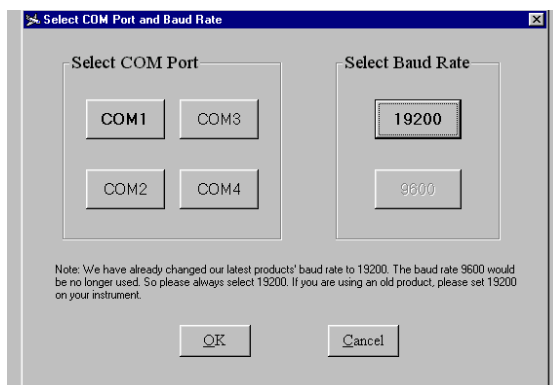
You may double click on any of these lines to open another window that displays the data in text format, as described in Section 4 - Viewing EDM Data. After closing the EzSave application, you may open any of these files in a spreadsheet or database program. The original .PDB file will be deleted from your PC. It is still available in your Palm handheld.

Section 6 - De-Compressing Archived Data

Select Decompress archive data from the main menu and select the folder under the EZDATA folder (or some other folder that you have selected) that contains the data for your aircraft. You will be presented with a list of .DAT files. Chose the file you wish to decompress and double click the file name or click the Decompress button. You will see the decompressed file list of .CSV files. Select and double click on the flight file and you will see the contents of the file displayed.

Section 7 - Configuring the Data Com Port

Select COM port from the main menu.



Select one of the four COM ports—COM 1 through COM4.

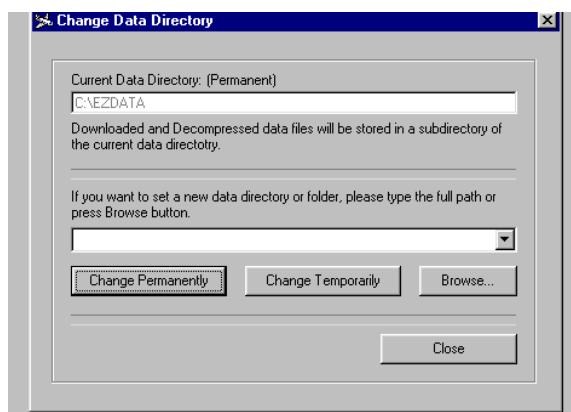
The baud rate is fixed at 19200.

When you are finished click **OK** to save the newly selected configuration. To abort, select **Cancel**; your changes will not be saved.

Section 8 - Change Data Folder

You may select a different data directory than EZDATA for your downloaded and decompressed data files. You can permanently change the directory, or temporarily create a data directory, but the program will default to the permanent directory the next time you start up EzSave.

Choose **Change Permanently** to change the data directory for all subsequent uses of EzSave. Choose **Change Temporarily** to change the data directory for the current session of the EzSave. Choose **Browse...** to browse your local computer drive for the desired location for the data directory. When you have completed the entries, choose **Close** to effect the changes.



Section 9 - Setting Parameters in the EDM

Start the pilot programming procedure by simultaneously holding the STEP and LF buttons for five seconds. You will see the word *PROGRAM* for two seconds. To change the date, time and Aircraft ID for the Long Term Memory, tap the STEP button until the display shows *DUMP N*. Next, simultaneously hold the STEP and LF buttons for five seconds. Then set the date and time as shown:

<i>Tap STEP advances to next item</i>	<i>Tap the LF button to sequence</i>	<i>Comments</i>
<i>RECORD TIME</i>	<i>2⇒500</i>	Record time interval in seconds. This selects how often a sample is recorded.
<i>MONTH</i>	<i>1⇒12</i>	Month
<i>DAY</i>	<i>1⇒31</i>	Day
<i>YEAR</i>	<i>80⇒79</i>	1980 through 2079
<i>HOURL</i>	<i>00⇒23</i>	24 hour time. We suggest you set UTC
<i>MIN</i>	<i>00⇒59</i>	This also zeros the internal seconds timer
<i>N----</i>	<i>N123456</i>	Displays current Aircraft ID. To <i>change</i> Aircraft ID, hold both STEP and LF buttons simultaneously until the first character flashes. Use LF to select the first character. STEP moves to the next character. To <i>Save</i> the Aircraft ID, Hold both STEP and LF for 5 sec.
<i>END Y</i>		Tap STEP button to exit the procedure.

Section 10 - Technical Support

JPI offers both e-mail and telephone technical support. Have your model and serial number ready when you call. Call **JPI** for a return authorization number before returning any equipment.

JPI
3185 B Airway
Costa Mesa, CA 92626

800 345-4574
www.jp instruments.com