

WINGMATE DATA MANAGER USER MANUAL

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Throughout this manual, features only available on WINGMATE Data Manager Plus are indicated with this symbol.

HARDWARE

INSTALLATION

- Put the Data Manager on a flat horizontal surface and secure the unit rigid. You can use straps to fix it in place.
- For best results, place the Data Manager behind the CFG (Centre of Gravity) of the plane.
- Plug the power lead into the cigarette lighter socket.
 - * If the airplane does not have a power point, it is a quick and easy job for the maintenance engineer to install one.

OPERATION

- Turn the unit on by pressing the power button – the button will light up green. After approximately 10 seconds the red LED will start flashing, indicating that the unit has started recording. In normal logging mode, the red LED will keep flashing on/off.
- Press the power button again to stop logging.
- To take the SD card out to view the data on your PC, always first turn the unit off and wait until the red light is off.
- A continuous red light indicates that the data manager is unable to log data onto the SD card. This can happen when the card is full, locked or faulty.
 - * Always use the SD card provided with the logger. The card will record approximately 600 hours of flying. If the card is full please contact WINGMATE for a replacement.

DATA VIEWER

INSTALLING THE VIEWER

- Copy the installation file from the provided DVD to your computer (e.g. on your desktop).
- Double-click the installation file and the software will install automatically.
- Double-click the WINGMATE icon to open the Viewer.

TRANSFERRING DATA TO THE PC

It is good practice to copy the files you want to analyse with the viewer from the SD card to the PC. Although not necessary, the software will run files from the PC quicker.

- Using Windows Explorer navigate to the SD card (often E:). You will find the file in the directory of the month it was recorded with a timestamp of the day and a number indicating the files recorded that day.
 - * For example: the third file recorded on 15 August 2011 will be stored on the SD card as **Aug11/11-8-15_LOG_03.lfw**
- Copy the file to **C:/WINGMATE/Data**
 - * You can rename the file if required, but keep the same extension (.lfw)

USING THE VIEWER

FILE

- On the **File** menu, click **Open**
- Click on the file you would like to view and then click **Open**
 - * The file is fully loaded when the grey bar listing the current file appears under the menu bar. If you open a large file, this may take some time.

REPORTS

- On the **Report** menu, click **Generate Report** to view the maximum and minimum of all sensors and the calculated analysis values of the take off and landing performance.
 - * The take off report shows the values of the first take off during this logging file and the landing report shows the values of the last landing during this logging file. Performances of intermediate take offs and landings, for example of a touch and go, will not be shown directly.
- **+** On the **Report** menu, click **Generate EFIS Report** to view the values as calculated from the EFIS data.

GOOGLE EARTH EXPORT

Note: You will need Google Earth installed on your computer. You can download the latest version for free from <http://www.google.com/earth/index.html>.

- On the **Google Earth** menu, click **Export to GE**
 - * A message appears that shows the name of the created KML file.
 - * Google Earth will open automatically ready to select the KML file.
- In Google Earth, click **File** and then **Open**.
- Navigate to **C:/WINGMATE/KML** to open the just created file. This will show you the trace overlaid on Google Earth together with a summary of the reports.

SENSOR TRACES

- On the **Graphs** menu, click **Internal Sensors** to view the traces of all the Data Manager's internal sensors.
- **+** On the **Graphs** menu, click **EFIS Data** to view the traces of all EFIS sensors.
- In the graph windows, select or clear the checkboxes on the left to customise which graphs are shown.

! Tip: When working with large files, zooming and panning is faster when fewer traces are selected.

Zoom, Auto range

- In the graph windows, when you right-click the sensor traces, a shortcut menu appears where you can choose:
 - * Zoom in - to zoom in both axes, the range axis (time) or the domain axis
 - * Zoom out - to zoom out both axes, the range axis (time) or the domain axis
 - * Auto range - to reset to auto range both axes, the range axis (time) or the domain axis
- To zoom in you can also click the left top corner of the area of interest and drag the pointer to the right bottom corner
- To zoom out you can also click a point at the right bottom of an area and drag the pointer to the left top. Regardless of the exact area you select, this will zoom out to auto range.

Pan

Press the CTRL key, while dragging the graph to the left or the right to pan any zoomed in graph.

Export graphs

- In the graph screens, when you right-click the sensor traces, a shortcut menu appears where you can choose:
 - * Copy - to copy the graphs to paste into another program (e.g. an MSWord file or an email)
 - * Save as - to save the graphs as a png file

Print graphs

– In the graph screens, when you right-click the sensor traces, a shortcut menu appears where you can choose:

- * Print - to print to any printer installed on your system

! Tip: For guidance on the interpretation of the sensor traces, go to the website at WWW.WINGMATEAVIONICS.COM and have a look at the Data Analysis section. There will also be regular entries in the [blog](#) to discuss specific traces or combination of traces.

HELP

- On the **Help** menu, click **Help file** for tips and shortcuts for the Viewer
- On the **Help** menu, click **About** to find the software version of the Viewer.

SPECIFICATION SHEET

	Standard	Plus
Connections		
Connects to Dynon EFIS	-	✓
Recorded Data		
Lateral, Longitudinal and Vertical accelerations	✓	✓
Yaw, Pitch and Roll	✓	✓
Speed	✓	✓
Heading	✓	✓
Altitude	✓	✓
Angle of Attack	-	✓*
Turnrate	-	✓*
VSI	-	✓*
Airspeed	-	✓*
Pressure Altitude	-	✓*
General		
Power supply	9 to 34 volt	
Temperature	-40 to +85 °C	
Serial bus (connects to EFIS)	-	✓
2 GB SD card	✓	✓
Dimensions W x H x D	103 mm x 53 mm x 120 mm	
Viewer		
Export to Google Earth	✓	✓
Min and max of all sensors	✓	✓
Landing report	Standard	Extended
Take off report	Standard	Extended
Zoom functions	✓	✓
Trace selection	✓	✓

* Providing relevant sensor is connected to EFIS

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