

G2X Boat Configuration File Supplement

The G2X_ConfigBoat is a standard G2X configuration file with the addition of a Prop Slip and Prop speed math channel. Both channels derive their data from a combination of engine rpm and GPS MPH along with prop data that is input by the user into the configuration file thus enabling the channels.

If you downloaded the G2X_ConfigBoat file from the www.g2extreme.com website, it will be necessary to unzip and place it in the following location, on your PC:

C:\RacePakData\G2X This is assuming the DatalinkII software was installed on the C drive.

If you obtained the G2X_ConfigBoat file in any other manner, insure it is located in the above directory, on your PC.

The following supplement provides the user with guidelines for the Racepak G2X, when utilizing the G2X_ConfigBoat configuration file.

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Opening the G2X_ConfigBoat for use

The DatalinkII software is designed to automatically open the automotive related G2X_Config file, at startup. To enable the G2X_ConfigBoat file to automatically open at the startup of the DatalinkII program:

1. Open the DatalinkII program
2. Place the mouse cursor over the G2X_Config file tab and left click
3. Close the G2X_Config file by selecting the **red folder** located in the vertical icon column on the left side of the DatalinkII screen

Next, select File, then Open Car Configuration from the Main Menu command. The user will be presented with the Select Configuration dialog window:

1. Select G2X from the left column
2. Select G2X_ConfigBoat from the right column
3. Select OK

At this time, the G2X_ConfigBoat will now be in view. To set as the default config file (automatically opens with DatalinkII):

1. Select File
2. Select Default Configuration

This action will place a check next to Default Configuration.

The G2X_ConfigBoat is now ready for the user to input prop data relative to boat in order to obtain prop slip and speed, upon downloading of data.

The G2X_ConfigBoat is the template for incoming, downloaded data. Remembering this, if a prop or gearing change is made, take the time to change the prop information within the configuration file **before** the run. Failure to do so will result in erroneous prop slip and prop speed data and require the user to manually change the prop data in each runfile, until the configuration file is updated. The configuration file can only affect data that has not been downloaded. Any run data that is already in the users PC will have to be manually corrected.

Prop Information

To enter the prop data, select the Boat button as found at the bottom of the Runlog area of the DatalinkII software. This action will open the Prop Speed, Prop Slip and Accel Time Runlog pages. Next, select the Prop Speed tab at the bottom of the screen.

Prop Speed

The Prop Speed channel is derived from the input of Engine RPM, Gear Ratio, Prop Pitch and various internal mathematical functions. In order for this channel to provide accurate data, it is necessary to manually insert the Gear Ratio, Prop Pitch and Prop Diameter as found the Prop Data page shown below.

The screenshot shows the DatalinkII software interface. At the top, there is a menu bar with options: File, Edit, Telemetry, Runlog, TrackMap, View, Settings, Security, Help. Below the menu bar is a toolbar with icons for various functions. The main window is divided into several sections. On the left, there is a vertical toolbar with icons for different data channels. The central area displays a grid of data channels with their current status (N/S for Not Set). The channels include: GZX Module, GZX Dash, Engine RPM, MPH, Battery Volt, Lateral G, Accel G, GPS_Satellites, GPS_Heading, GPS_Altitude, GPS_Gs, GPS_LatG, GPS_LapX, Prop Speed, Prop Slip, and LapMarkers. At the bottom of the window, there is a section titled 'PROP DATA:' which contains input fields for: Gear Ratio, Prop Pitch, Prop Dia, Prop No. Blades, Prop MFG, Prop SN, Boat Weight, Fuel Quantity, Driver, and Throttle Man. The bottom of the window has a tabbed interface with tabs for: Run Log Menu, Prop Data, Accel Times, and Accel Time Scroll.

Prop Slip

The Prop Slip channel is created from the input of GPS MPH and prop speed. Again, insure the PROP DATA information is completed and the GPS data is functioning correctly, as those inputs contribute to the accuracy of the Prop Slip channel.

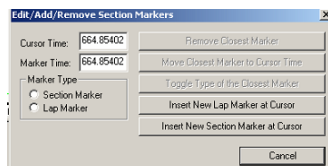
Following the input of prop data, select File, then Save from the Main Menu command area.

NOTE: In order to the Prop Speed and Prop channels to function properly, it is necessary to have a reliable tach or engine rpm input.

Accel Time Runlog Information

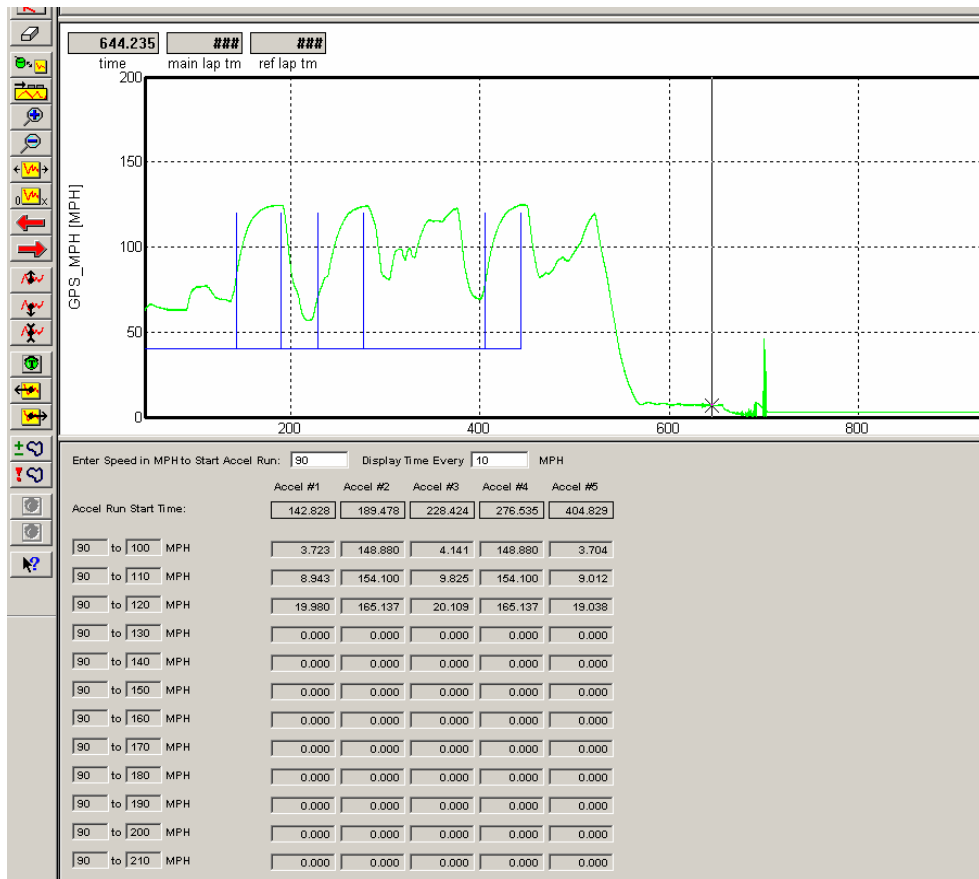
The Accel Time Runlog page provides acceleration time data, in report format. The Datalink II software combines GPS MPH data with beginning and ending MPH points inserted by the user, to calculate the time between two MPH points.

1. Open a Runfile and graph GPS_MPH
2. Accel Times Runlog page
3. Enter the desired speed to start the report and the desired display MPH increments, in the input area located at the top of the Accel Times Runlog page. For example, if 50 MPH is inserted as the Enter Speed and 10 is inserted in the Display Time Every area, the report will start at 50 MPH and display data in 10 MPH increments.
4. Place the cursor in the Main Graph area, then locate the cursor at a starting point in the acceleration data. Remember to locate the cursor at a point that is below the desired MPH for the start of the report. For example, if the starting point of the report will be 50 MPH, the marker placed in the data can not be located above 50 MPH. If the desired starting point for the report will be 50 mph, locate the cursor at 40 MPH in the Main Graph area.
5. Locate the Add/Edit Segment Lap Markers icon, in the list of vertical icons found on the left side of the Datalink II software.
6. Left click the icon, which will open the Edit / Add / Remove Section Markers dialog box.



7. Select the Insert New Lap Marker At Cursor Button
8. Left click the Lap Markers channel button, in order to display the inserted lap marker within the Main Graph area.
8. Move the cursor to the desired ending point of the accel run, and repeat Steps 6 and 7.
9. If multiple acceleration runs were made during the run, continue to place markers at desired beginning and ending mph points.
10. Remember to only place markers within acceleration points within the graphed data. Do not place the beginning marker at an acceleration point and a second marker at a slowing down or deceleration point within the data.

11. The Datalink II software is designed to review acceleration data between two markers and provide time data. If multiple markers are placed, the Datalink II software automatically continues to create time data for each pair of markers, as seen in the example below.



Note: The above screen was trimmed for clarity.