

Appendix 7 New Features in v3.7

The Dyno DataMite Analyzer has had many updates since this user manual was written for the original v3.2 for Windows. Here is a brief listing of some of the features new since v3.2 was originally released, including Version 3.7's new features.

Notes:

- Some of these new features apply only to the Pro Version of the software.
- Some of the features listed here were actually added into later versions of 3.2, so you may have them already if you have v3.2.

New Features

We've added a button in Graph Settings screen to "Load Settings for Std Tq/HP Graphs". See Fig A7.1.

We've added a Preference under the 'Main Screen' tab to allow a comparison graph of the previous dyno test to be included on the main screen for comparison. This is very handy to immediately check how repeatable your runs have been, and if a repeat is necessary. See Fig A7.2. This is available in the Pro version only.

We've added a "Do not exceed RPM" warning in the dyno specs screen, and a button for more information about safety of flywheels and rotating components. We've also added output in Estimate Required Inertia calculations of MPH for the wheel being sized. This will help estimate required dimensions for chassis dyno rollers.

We've added a "Click here..." warning when the dyno results look to have problems. This label appears on the main screen, and when you click on it, a list of possible problems and solutions appears in Notepad.

We've made program less 'fussy' about what it would call a noise spike for analog channels. Modified routine that looks for noise spikes so that it now looks 5 data points ahead to see if the signal dropped back down to a "normal" level (used to be only 4 data points). When editing out noise spikes, the program now just gives just one message listing the noise spikes found, not one message for each channel. Program now gives better explanation of where "noise spikes" are found. Program now specifies if it is an "Analog" or "Frequency" channel and the channel #.

We've added new Preference and a method of doing calculations much faster for displaying the Current Readings screen for the USB DataMite, Black Box II, and DataMite II. Note: Do not turn On this Preference unless you need it, like your Current Readings screen if "hanging up" or "freezing". Typically you do not need this Preference turned On unless you are recording from lots of sensors, especially A/F sensors which are **not** the gauge style (like the DT2-AF1 or DT2-AF2).

There are now "one click" Backup and Restore commands to backup all your data files, and restore them from a backup. Click on File at the top left of the main screen, then either Backup Test Data, or Restore from a Backup. See Fig A7.3.

Program now prints graphs better for different printer types and screen resolutions. We've made the Main Screen and graph screen size adapt for "wide screen" aspect ratio. However, the screens now only work well with 600 x 800 resolution or higher (not the old 480 x 640).

Program now better remembers a printer change and printer orientation (landscape vs portrait) change.

We've added a Troubleshooting button on Main Screen to graph critical data channels used to troubleshoot dyno runs. See Fig A7.2.

We've added "File Name" as the possible things to "Filter" to locate a certain test file. Click on Open (from all saved tests), then Filter, then choose File Name and enter a phrase or group of letters you want to find in a file name. This is available in the Pro version only.

We've bumped up the limit of number of tests which can be picked for graphing in the History Log from 6 to 8. This is available in the Pro version only.

We've reduced the minimum dimensions for engine dimensions for more compatibility for radio controlled car specs.

The program now forces critical Test Setup Specs like "Corrected To" to some value when starting a new test, if they were originally blank.

If a file which has been set to "Graph? = Yes" in the History Log has been deleted, the program now sets "Graph? = No" in the History Log, so an error message does not continue to be displayed. History Log is available in the Pro version only.

We've added several Email features to be able to email data files, reports, and graphs to other users. These typically work well if you are using Microsoft Outlook or Outlook Express. With other email programs, you may have to try various options. To use these features, you must turn on a Preference under the Emailing tab.

- On the main screen, click on File, then Email a Test to email a test to another user of the DataMite software (or to Performance Trends to help us troubleshoot a problem).
- In the Graph Screen, click on File, then one of the Email options to email a graphic file of the graph.
- In the Reports Screen, click on File and you can choose to email the report as an Adobe Acrobat PDF file

See Figure A7.4. This is available in the Pro version only.

You can now print your company's logo on printouts of graphs and reports. Click on the Printing tab at the top of the Preferences screen and enter your settings and 'Browse' to pick your graphics file for your logo.

The Graph screen now has a Format feature to display the "Legend" (line labels) on the right side in a larger font, and scroll up and down through the labels. Since the font is larger, not all labels can be displayed on the screen if several data types are being graphed. (Figure A 7.12) This is available in the Pro version only.

We've added a 'Find Ports' button in screen to Check Com Ports to let program find what it thinks are valid com ports. The Check Com Ports screen is available by clicking on Troubleshooting in the DataMite specs screen, or on the main DataMite specs screen for the DataMite III and Mini USB.

In the screen to Open a test file, now when you right click on a folder to delete, rename or copy it, that folder is now selected also. Previously you had to left click it to select it, then right click it to have the options presented to you.

When printing reports:

- Column Titles that are very long and require more than 1 line are now divided more correctly to split the title on 2 lines.
- Graph printed title now auto sizes to make sure long file names will fit within the border.

We've added a new Preference for graphs on Main Screen for Dyno Version. Now you can choose that torque and HP can be on different scales. This is not available if you are including previous test results in the graph.

We've added an 'Open/Edit/Save These Settings' button and commands to Report Specs screen. This allows you to save Report Settings (Format) much like is possible in the Graph Screen for several common combinations of specs to quickly reproduce report settings you want to create often. See Figure A7.1. This is available in the Pro version only.

We've added a "Restore Defaults" button in the Preferences screen. If you have made changes to Preferences, and now the program does not seem to be working like it was before, click this button to restore the original "factory settings". See Figure A 7.6.

We've added several new features for writing ASCII data files from Reports. See Section 3.2 ASCII Data Files for background info. See Figure A 7.11. This is available in the Pro version only.

Starting and Running a Test

We've added a Start Dyno Run button for starting a new test. This makes it more obvious how you start a dyno run for beginners. See Figure A7.2.

Program will now accept more "ups and downs" in the engine/dyno RPM for an absorber dyno run doing a "Start High, Drag to Low RPM" run. How much RPM variation allowed is determined by the "Minimum RPM" setting in the Test Conditions menu. The farther the RPM is from "Minimum RPM", the more RPM variation it will accept.

Program now warns dyno operators if they are not requesting a Dyno type of test when starting a new test, which can cause unusual results to be calculated. A new Preference lets you turn off this warning.

We've added the ability to start and stop data recording of DataMite II, Black Box II and the USB DataMites with keyboard or mouse or external switches (which you would pick as a Record Switch from the list of calibration types).

We've added the ability for program to find start and end of a dyno run (or Tq/HP run in the vehicle versions) based on the closing and opening of a switch. In the DataMite specs, you must assign a switch channel as "WOT Switch" for this feature to be used. This is available in the Pro version only.

You can now use Ctrl+N (hold down the Ctrl key while pressing and releasing the "N" key) to start a new test by bringing up the New Test Screen. Tip: Press a Ctrl+N from the Main Screen to get the New Test Screen, then press Ctrl+N again to start getting data. (This saves time and keystrokes and eliminates mouse commands.)

New Calculations and Outputs

We've added a 'Performance Estimate' Preference for doing either a 1/4 mile or 1/8 mile ET and MPH for the dyno version, based on the power curve(s) on the main screen. We will also display the average HP over the RPM range you specify and the difference between the current run and the previous run if you've selected that Preference also. See Figure A7.6. This is available in the Pro version only.

We've added Metric options for entire program or just for engine measurements. See Figure A7.7. This is available in the Pro version only.

We've added DIN power correction factor as an option. This is available in the Pro version only.

We've added Preference to allow the program to correct for engine inertia when doing Absorber dyno tests.

- You must turn on this Preference under the Calculations (cont.) tab and then also request it in the Test Options screen.
- Background: When an engine accelerates during a power run, some of its power goes into accelerating the engine's and dyno's rotating inertia. The result is power measured at the dyno which is *less* than the engine would produce during a steady state power run. Conversely if you do a *decelerating* test, you will see *more* power than what a steady state power run would show. If you turn On this Preference and enter accurate information about the engine in the Engine Specs screen, the program will try to correct for this effect and report torque and HP numbers more like what a steady state power run would produce. See "Correct for Eng Inertia Effects" on page 35 and Figure A7.6.
- IMPORTANT: We do not turn on this feature automatically because it can produce confusion and non-repeatable results if you are not careful to always enter the correct Engine Specs which describe the engine's inertia. **We strongly recommend you keep this Preference turned OFF unless you are extremely consistent about maintaining accurate Engine Specs and do reasonably consistent acceleration rates.** For good comparisons, always try to maintain the same acceleration rate between tests. Do not expect this correction to perfectly correct for doing tests with different acceleration rates.

This is available in the Pro version only.

The program now highlights in blue the Short Block specs used to estimate the Engine Inertia in the Engine Specs screen. These are used if you choose to "Correct for Engine Inertia Effects" in the Test Conditions screen. See paragraph above. See Figure A7.6. This is available in the Pro version only.

We've expanded a Preference to allow for 3 or 4 decimal places after decimal point for reporting torque and HP.

The Pro version now lets you pick Coastdown as a Test Type option. Click on Test Conds at the top of the screen, then choose Coastdown for the Type of Test. This Type of Test can also be chosen in the Start New Test screen. If this is the test choice, it will pretty much automate the process we describe in Appendix 6. See Figure A7.8.

The program now displays Corr Factor and Dry Density Altitude (labeled Dry Dens Alt) in the Current Readings in Pro Version.

We've added new Calculated outputs for the Current Readings screens to be displayed on the gauges:

- Gallons per Minute (GPM) is an option for fuel flow.
- Clutch Slippage % which displays the difference between engine and dyno RPM (also correcting for gear ratio).
- Power in either HP or Kw. This is only available for absorber dynos.

Click on Options at the top of the Current Readings screen and these appear at to bottom of the choices for the Dial and Bar Gauges screens. This is available in the Pro version only.

Program now will display torque and HP curves closer to the very last RPM point tested. Previously, if you ran the engine to 7000 RPM, but asked the program to display data in 500 RPM increments, data would not be shown for 7000 RPM unless you ran the engine all the way to 7250 RPM (half the RPM increment BEYOND the last RPM increment to display).

Now all thermocouple readings on the Current Readings are shown to the nearest degree. Previously it could show .01 degrees for temps under 100 deg, and this made the readings appear very jumpy.

We've added the ability to do an Engine RPM accel report from just dyno RPM if you have specified Dyno Type as Engine, No Clutch or Engine, Direct Drive and set the Preference of "Engine RPM is Calculated RPM" to Yes. This is available in the Pro version only.

Program now allow multipliers up to 10,000 in the Graph screen, which is better for radio controlled engines, with high RPM but very low torque and HP.

We've added a Preference to direct the computer to provide more power to Com Port, to better power up the "self powered" Optical Isolators for serial data loggers. This is not needed for DataMite III or Mini USB loggers.

We've added a new Torque Preference of "Oz In" for output. When you graph Oz In torque and HP only, the program will try to display the HP curve the higher of the 2, by making its multiplier greater. This is typically only used for very small engines, like radio controlled engines. This is available in the Pro version only.

Program now prints the 'cursor line' on graphs when you print a graph and have cursors on the graph.

For absorber dynos, the program now allows a new 'Type' of run to be specified in Test Options of 'All Data is the Dyno Test'. This means the user determine how much data is used for a run by pressing the Record and Stop Record buttons on the control panel. This is available in the Pro version only.

You can now graph and report Chassis Dyno data versus KPH in addition to MPH This is available in the Pro version only.

New Hardware Options and Features

We've added compatibility to the new Logger Types of DataMite Mini USB and DataMite III USB. See Figure A7.9.

We've added the ability to read from the "Switch" connector for starting and stopping recording on the DataMite III USB. This is available in the Pro version only.

We've added ability to fine tune how the program reads RPM signals for the DataMite III USB and DataMite Mini USB. There are Preferences under the "Calculations (cont.)" tab in the DataMite USB section to:

- Change the 'Hold Off' time in the RPM channels for the DataMite III USB before the next pulse can be read. This will let you tailor the RPM channels to not false trigger on multiple pulses. However, if you increase this hold off time too high, the program will not be able to read high RPM.
- Let the program use either trailing edge or leading edge of the RPM signal. Depending on the type of sensor or ignition system, one method or the other may produce more accurate RPM readings.

For the DataMite III USB, you can choose analog channels 1-4 for the torque channel. For previous data loggers, only one channel was allowed for recording torque.

The program will now use a thermocouple with the "Eng Intake Air" setting for correction factors for the Dyno Version. Box temp is used only to convert Relative Humidity readings to Dew Point. This feature only works on the Black Box II and DataMite III/Mini USB boxes, with internal weather sensors. This is available in the Pro version only.

The program is now setup for the "Second Generation" external dual thermocouple amp, which is much more accurate. It will no longer work with the "First Generation" dual compact thermocouple amp (yellow connectors). See Figure A7.10.

For the Black Box II, we've made several refinements in the software:

- The program is now more forgiving at working with data which could have a bad bit in the sample time channel. This could have put large gaps in data sets.
- If Black Box II is very cold or humid, the weather channels can start to look like 'Frame Separators'. Then the box will actually look like it's not communicating. We've tried to fix these errors with some software modifications.
- We've put in better diagnostic messages for when Black Box II can not communicate. The program will now give an indication of how far along in the start up procedure it gets before it loses communications.
- We've speeded up the Start Recording Switch for Black Box II to trigger twice as fast as before. This is available in the Pro version only.
- We've added a method to see if Black Box II data which appears to have just 1 or 2 corrupt data points can be repaired.
- We've added a Troubleshoot option for Watching Streaming Data for Black Box II.
- We've added checks and actions for trying to salvage partially corrupted data recorded from Black Box II.

For the DataMite II, we've made several refinements in the software:

- You have an option of adding a Mini Black Box to another serial port so you can use some digital On/Off relays for turning items On and Off at certain conditions. This may be expanded to other data logger types in the future. This is available in the Pro version only.
- We've added an option for Engine RPM channel with DataMite II to turn the active filtering OFF. This can help with rough running engines or if certain ignition systems produce erratic Engine RPM data.
- We've added the ability to start and stop recording of DataMite II with keyboard or mouse or external switches. This is available in the Pro version only.
- We've added the ability to update DataMite II firmware from inside the DataMite program. This is done under the Troubleshoot menu item in the DataMite specs screen (only shown if the logger Type is set to DataMite II).

We've added a command of 'Copy Calibration to Another Channel'. This is available in DataMite specs by clicking on File at top of the DataMite Specs screen. You will be asked which analog calibration do you want to copy and to which analog channel you want to copy it to.

We've added a Preference for Using "Divide by 2" IPU (inductive pickup). Divide by 2 IPU's have been used on "odd fire" engines like Harley Davidsons. Very few users should set this to Yes.

Now program allows for writing a debug file for Black Box II, DataMite III USB, DataMite Mini USB communications, if directed to do so by Performance Trends.

We've made several modifications to allow for 60,000 Engine RPM. This is especially need for radio controlled car engines. This is available in the Pro version only.

We've added the 'Correction' factor to many sensor calibrations, which allow the user to shift an analog channel up or down slightly. This replaces the "T/C Corr." that was available only for thermocouple channels previously. This feature is especially

useful for the dyno torque sensor, where you can just 'zero out' the reading with the engine not running. See Figure A7.11. This is available in the Pro version only.

We've added several standard calibration types to pick from, including:

- Pressure sensors (0-5 volt sensors for various ranges from 25 psi to 5000 psi)
- Orifice air meters
- A/F sensors and gauges
- Thermocouple Types (for various external amplifier boxes or internal thermocouple channels)
- Various switch inputs, for Recording (to start and stop the recording session) or WOT switches (to mark when the engine was at full throttle to know where to use data for power curves)

We've added a Preference "Engine RPM is Calculated RPM" so now you can display the Calculated Engine RPM from dyno RPM on the Current Readings screen's gauges. This is available in the Pro version only.

We've added a Preference to allow turning On/Off the Resizing of the Current Readings screen. Users can try either to see which gives best results on their computer. Program now allows the Current Readings screen to be Maximized to fill the entire screen. This is available in the Pro version only.

We've got a new Inductive Pick Up for "cleaning up" the engine RPM signal from a spark plug wire. It now has an adjustment screw to let you adjust the signal to be stronger or weaker. Prior to this, signal strength had to be adjusted with adjusting the signal wire, see page 202 in Appendix 3, Troubleshooting. See Figure A 7.10.

Figure A7.1 Standard and "User Defined" Graph and Report Formats

Graph Data

- Engine Accel, RPM/sec
- Dyno wheel RPM
- Calcd gear ratio
- Clutch/converter slip, %
- Observed chassis rolls torque
- Observed chassis rolls HP
- Corrected chassis rolls torque
- Corrected chassis rolls HP

Other Graph Properties

- Time or RPM Graph: RPM
- What to Graph: Just Power Run #1
- Filtering: Light (some)

Notes:

- Data Selected to Graph (8 types max):
 - Corrected chassis rolls torque
 - Corrected chassis rolls HP

Click here to load settings above to produce Standard Tq/HP vs RPM graphs

Make Graph

Load Settings for Std Tq/HP Graphs

Report Data

Basic Report Specs

- Type: Pick Individual Items
- Time or RPM Report: Time

Click on a saved Report Format to choose it for Opening or Deleting.

Click here to display the "Saved Report Settings" section on the right, where you can Save the current Settings on the left to a name, or Open or Delete sets of saved settings.

Starting Time, sec: 1

Ending Time, sec: 30

Yes/No: Yes, No

Saved Report Settings

- Accel Times
- Tq & HP vs RPM 3000-7000
- Tq & HP vs RPM 4000-7000

Saved Report Settings Name: Tq & HP vs RPM 3000-70

Save, OK, Delete, Close

Open/Edit/Save These Settings

To obtain com 'Multiple Tests' ... 'ory_Log' or

Enter an name here, then click on Save to save the Report settings on the left side to that name.

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Back File Format View Graph Type Add Test History Log Single T

Save/Open/Edit Current Format F3

- Data To Graph (graph type)
- Which Tests to Graph (history log)
- Data Multipliers
- Line Style
- Edit Titles/Legend
- Edit Printed Comments and Data Output
- Grid Style

For Graphs, it works much the same, except you click on Format, then Save/Open/Edit Current Format or press <F3>.

Then you open up this screen which works much like the Report Formats, except it will also save the type of scaling you are using on the graph.

Graph Format Name

- Tq & HP vs RPM 6000-8800

OK, Delete, Close

- Keep Vertical (Y) Scales
- Keep Horizontal (X) Scales
- Turn Auto-Scaling Off

Current Graph Format is Auto-Scaled, saved scales will have no effect

Figure A 7.2 New Features on the Main Screen (some for Pro Version Only)

Click here for a faster way to start a new dyno run, assuming you want to run a test similar to the last test you ran.

If the program thinks there may be some problems with your test, click on this message for more details on these possible problems.

Click here to temporarily hide or show the comparison run.

Click on this "Troubleshoot" button to graph critical data vs time to help understand how the raw data looks.

Comparison torque and HP shown here and also included on graph.

If you've requested it in Preferences, a Performance Estimate is given here. An estimate and amount of improvement is also given if you are also requesting to include a Comparison Run.

Performance Estimate settings are contained under the Performance Est tab in Preferences.

Set "Show Comparison Run Also" to Yes to include the Comparison run, under the Main Screen tab in Preferences..

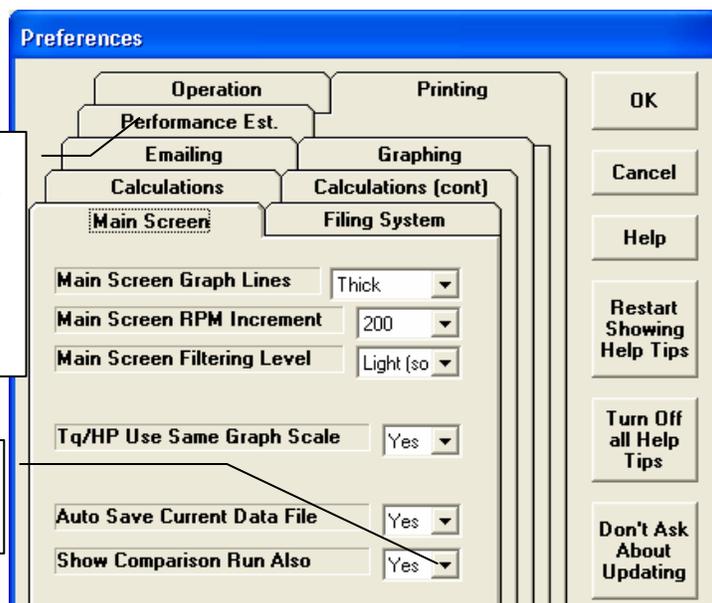
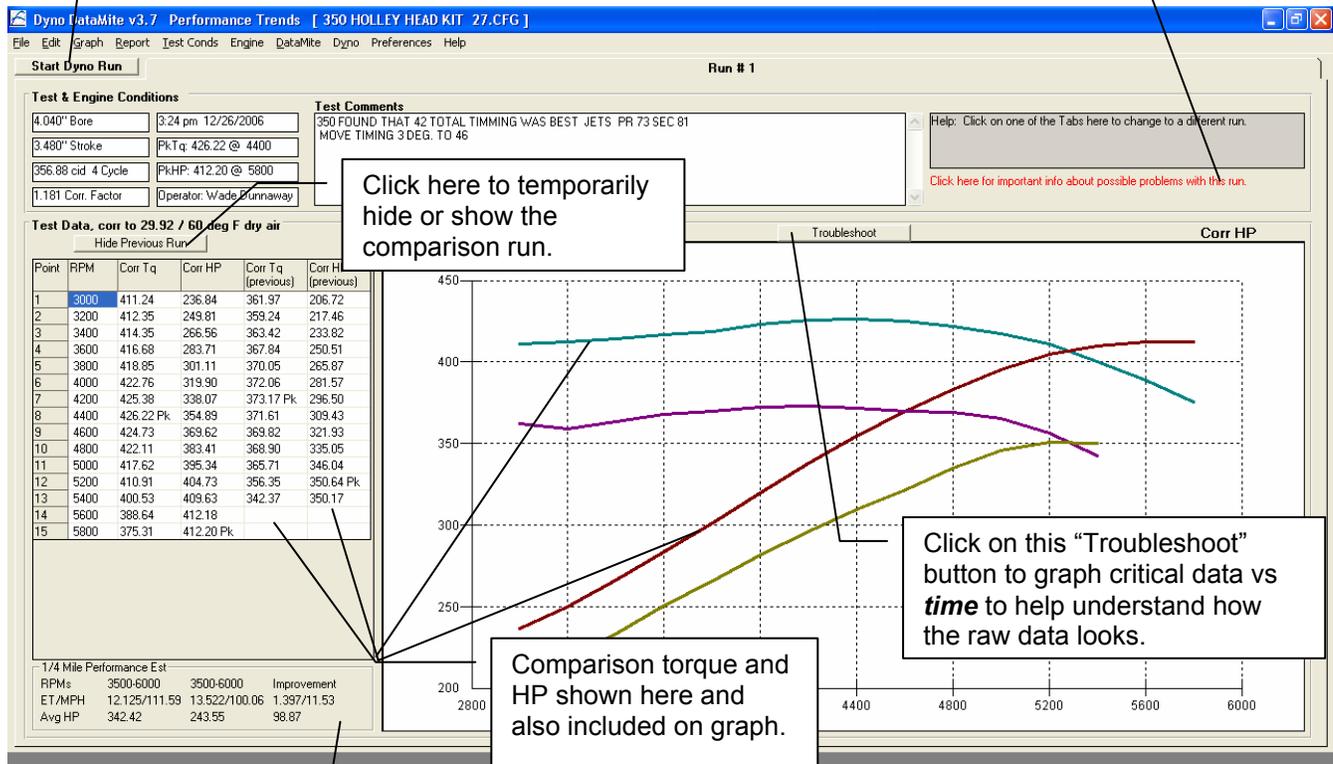
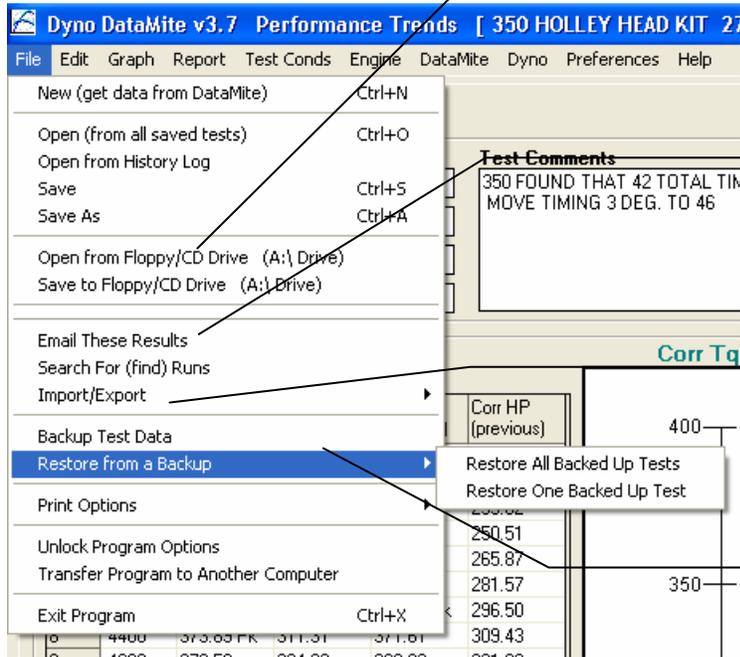


Figure A 7.3 New Commands at the Main Screen (some for Pro Version Only)

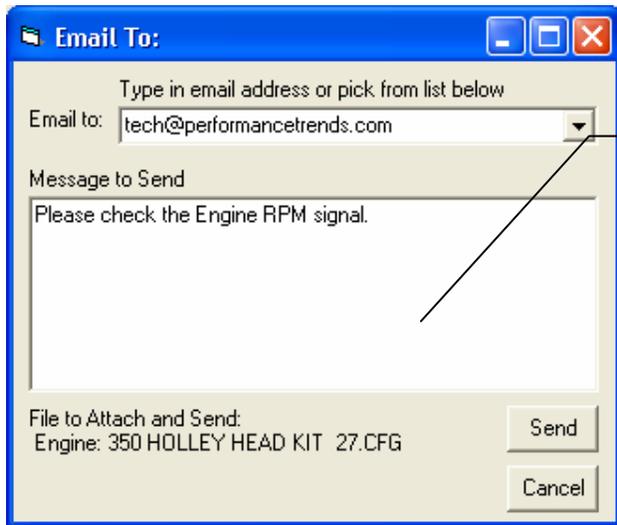


Saving To and Opening From an External Drive (floppy, CD or memory stick) makes it easier to transfer individual tests from one computer to another.

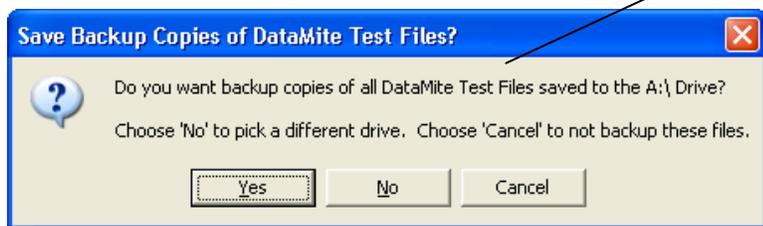
Email command lets you email the current test on the main screen (all 3 files) to another user of the DataMite program, if you've turned on this feature in Preferences. See screen below.

Import/Export commands give tips on receiving and sending data to other computers, or from previous or earlier versions of the DataMite program,

Backup and Restore commands make it easy to back up all you critical data files for transferring to another computer, or restoring if you have a computer failure.

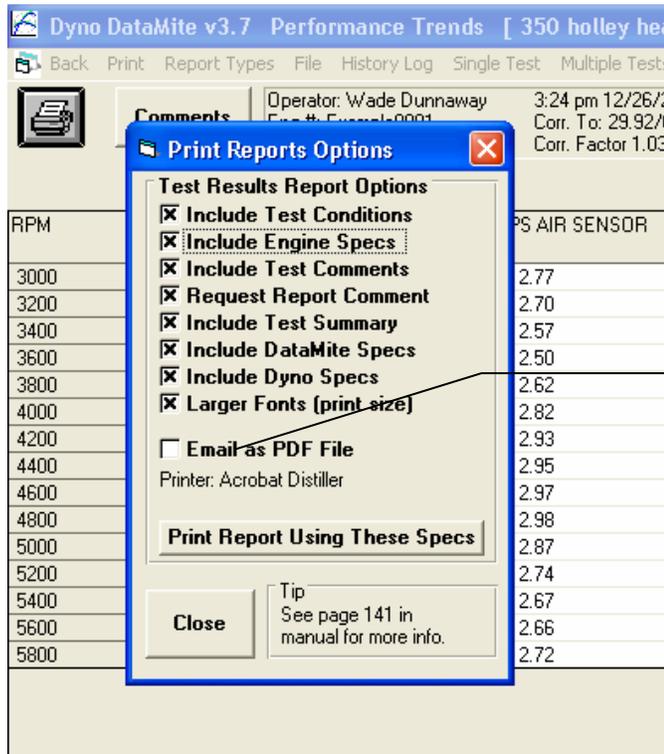
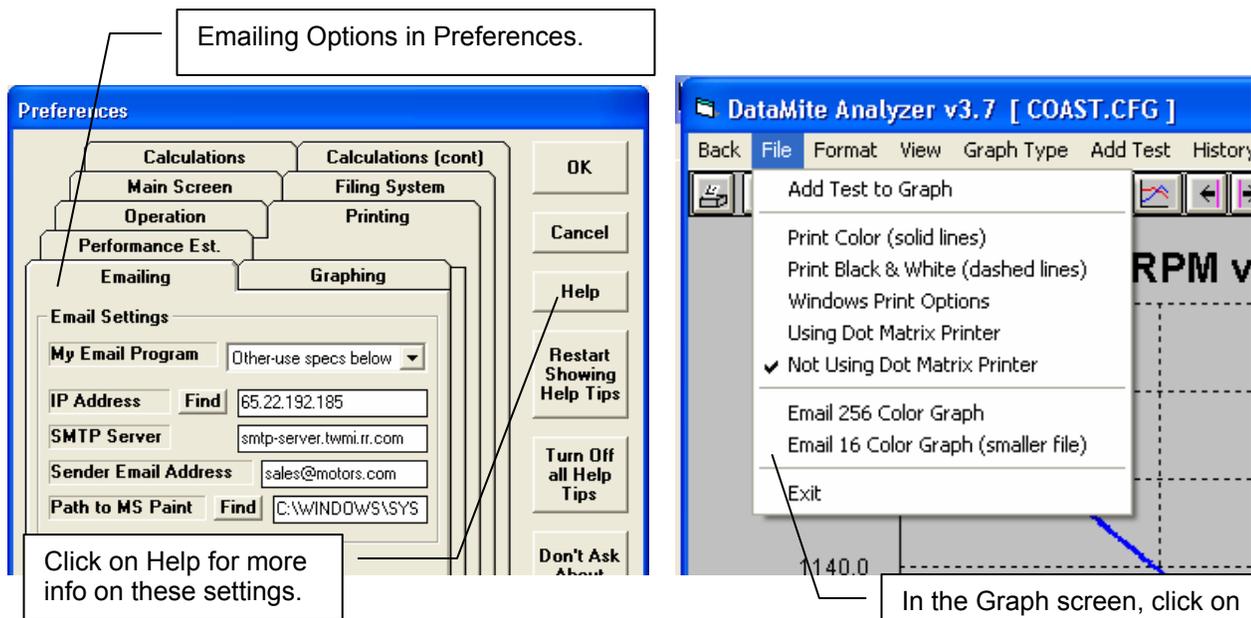


Screen for emailing test files.



One of the screens when backing up your data files.

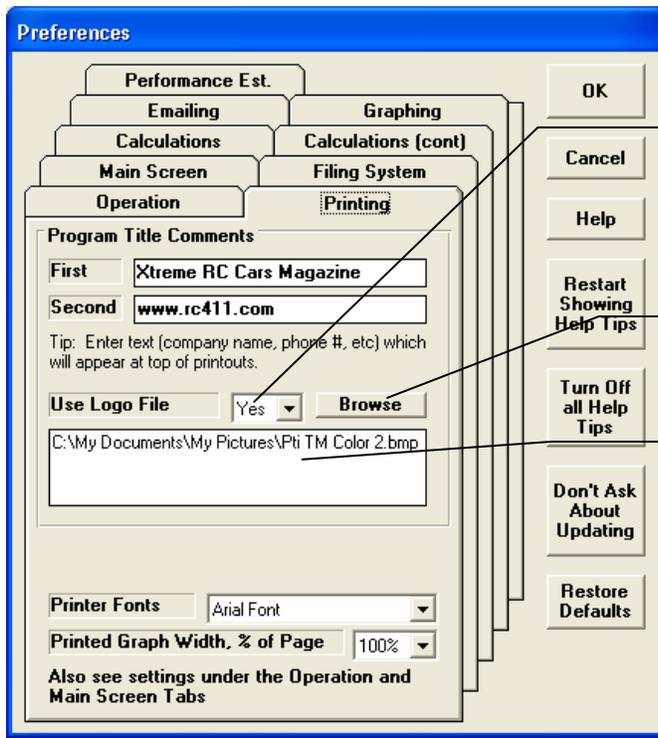
Figure A 7.4 Emailing Options (Pro Version Only)



Select this option and then click on "Print Report using these Specs" to print the report as an Adobe Acrobat file. Note: You need to own Adobe Acrobat or some other type of PDF printing software for this feature to work.

When you click on Print, this PDF file will be written and emailed to the email of your choosing. Note, the recipient does NOT need to have the DataMite program, just Adobe Reader or some other free PDF viewer program to view the printed report.

Figure A 7.5 Printing Company Logo (graphics file) on Graphs and Reports (Pro Version Only)



Set to Yes to include a graphics file (like one of your company logo) on printed graphs and reports.

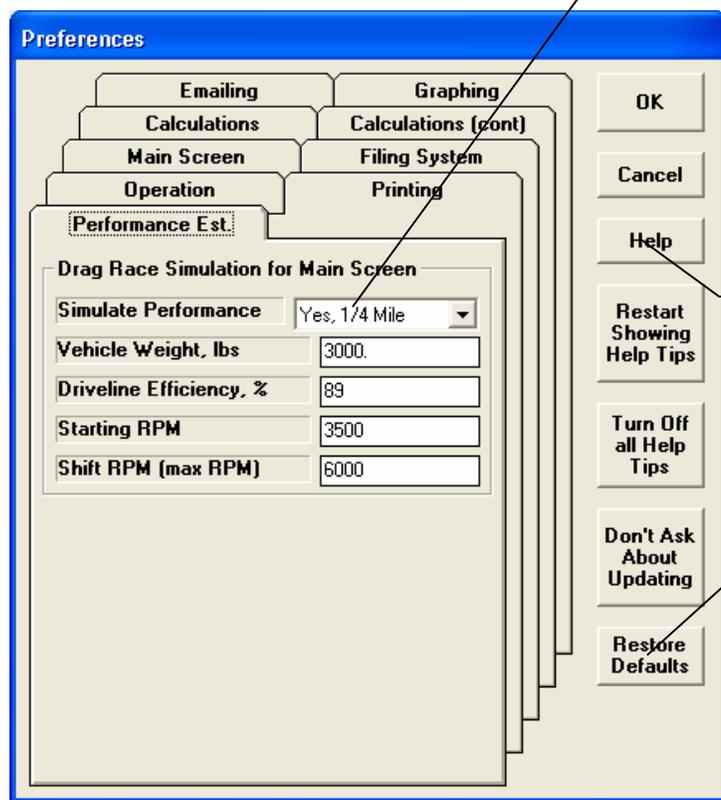
Click on Browse button to find your graphics file on this computer.

The path to the graphics file is shown here.

	DataMite Data Analyzer v3.7 Test: 350 HOLLEY HEAD KIT 27.CFG Customer: Dunnaway Chevy Smalblock - Blowby	Xtreme RC Cars Magazine www.rc411.com Performance Trends (C) 2007	This Report Printed: 10:00 am 09-21-08 Page: 1
Test Comments: 350 FOUND THAT 42 TOTAL TIMMING WAS BEST JETS PR 73 SEC 81 MOVE TIMING 3 DEG. TO 46			
Operator: Wade Dunnaway Eng #: Example0001 Customer:	3:24 pm 12/26/2006 Corr. To: 29.92/60 dry Corr. Factor: 1.000	Pk Tq 373.89 @ 4400 Pk HP 361.58 @ 5800 350.00 @ 4.000	4.040" Bore 3.480" Stroke 8.000" Crank

Example of a Report Printout including a graphics file, in this case Performance Trends' company logo.

Figure A7.6 Preference Settings for Performance Estimates on Main Screen (Pro Version Only)

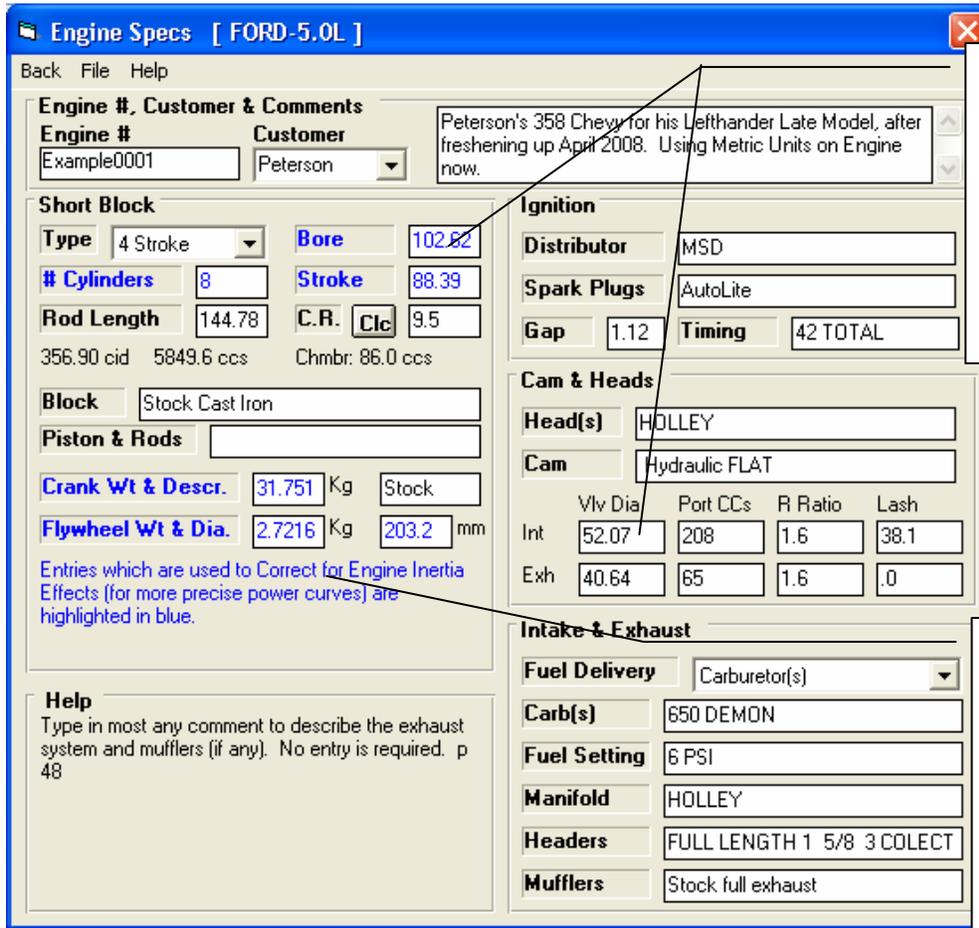


Choose No to not do Performance Estimates. Choose one of the Yes options (either 1/4 mile or 1/8 mile performance) to be simulated on the main screen with these settings.

Click on Help for an explanation of these settings.

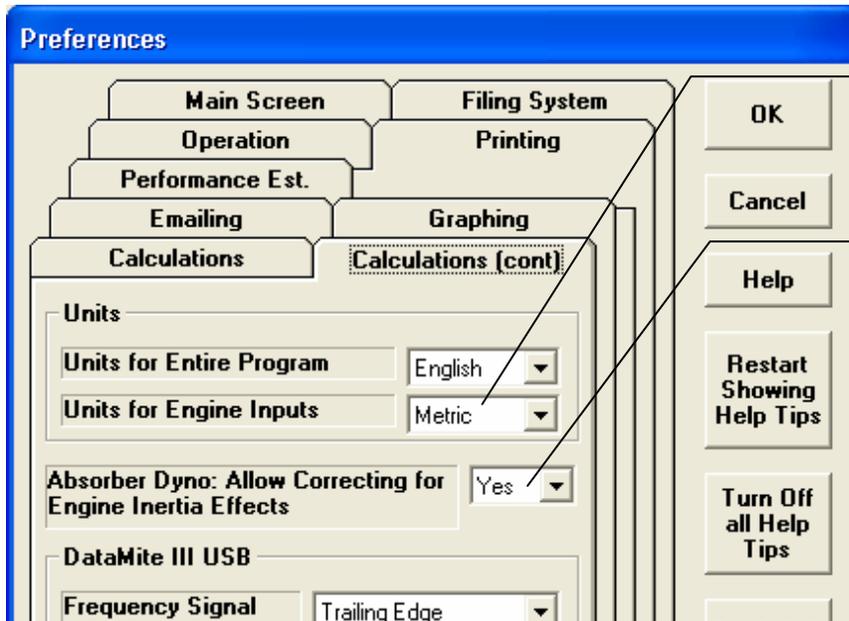
Click on this Restore Defaults to restore all Preferences back to the original "Factory" settings.

Figure A 7.7 New Features in the Engine Specs Screen (Pro Version Only)



All Engine Dimensions can be done in Metric (millimeters) instead of inches. You can also choose to have the rest of the program remain in English units (inches, lbs, etc) or Metric (mm, Kg, etc).

If you have selected to have the Engine's Inertia and acceleration rate be used for correcting the torque and HP data, the Engine Specs which go into that correction are now highlighted in blue on this screen.



Here you can choose to have the Engine Specs done in Metric Units, or English.

Here you can select to have the Engine's Inertia be taken into account for Absorber dyno runs. This has always been possible in the past for Engine Inertia Dynos (not chassis dynos).

Note: You must also ask for this correction to be done in the Test Conditions screen for it to actually be done.

Figure A 7.8 Automated Coastdown Testing (Pro Version Only)

Starting a New Test
Download Data (Ctrl+M) Cancel (don't start new test <Esc>) Current Readings Weather Help
File Name for New Test: 350 HOLLEY HEAD KIT 28.
Operator for New Test: Wade Dunnaway
Eng # for New Test: Example0001
Customer Name for New Test: Dunnaway Chev.
Type of Test: Coastdown

Test Conditions/Options
Back Help
Type of Test: Meas Tq/HP from Dyno
Method: Meas Tq/HP from Dyno
Radio: Coastdown
Corr. Barometer, "Hg: 30.06
Air Temperature, deg F: 59
Relative Humidity, %: 49.9
Elevation Feet: 1764

Dyno DataMite
File Edit Graph
Delete Beginning or End of File
Redetermine Beg./End of Runs
Edit Out 'Noise' Spikes

Dyno Specs
Back File Torque Measurement Est. Required Inertia Current Readings Help
Inertia Dyno Specs
Sections in Main Wheel: 1 # of Main Wheels: 1
Main Wheel, section 1: Inside Dia 0, Outside Dia 24, Width (len.) 1, Weight (lbs) 128.16, Material Steel, Inertia 64.08, % Total 100.0
Main Wheel, section 2: Inside Dia 0, Outside Dia 24, Width (len.) 1, Weight (lbs) 128.16, Material Steel, Inertia 64.08, % Total 100.0
Main Wheel, section 3: Inside Dia 0, Outside Dia 24, Width (len.) 1, Weight (lbs) 128.16, Material Steel, Inertia 64.08, % Total 100.0
Main Shaft: Inside Dia 0, Outside Dia 0, Width (len.) 0, Weight (lbs) .00, Material Steel, Inertia .00, % Total .0
Other Specs: Wheel RPM 1269, 904, 642; Time, sec 4.90, 118.50, 232.10; HP Loss .18, .10, .05
Dyno Type: Engine, with clutch
Total Gear Ratio: 4

Use New Coastdown Data ?
The results from your Coastdown Test are:
First RPM 1269 at 4.90 sec (currently 1400 at 0 sec)
Second RPM 904 at 118.50 sec (currently 1050 at 110 sec)
Third RPM 642 at 232.10 sec (currently 700 at 250 sec)
Do you want to use these new results for your Coastdown data?
Yes No

Chnl #2 RPM vs Time
Graph showing RPM vs Time for a coastdown run.

Annotations:
- Choose the Test Type of Coastdown at the New Test Screen.
- Here's a graph of a typical coastdown run, of dyno RPM coasting down vs time. Coastdown testing is only available (and only makes sense) for inertia dynos, chassis or engine.
- Or choose the Test Type of Coastdown at the Test Conditions Screen.
- You can force a "reanalysis" of an old coastdown test by opening it and clicking on Redetermine Beg/End of Runs.
- The program gives you a summary of the coastdown data as it sees it, and compares it to the current coastdown settings. From here you can choose to keep the settings (Yes) or not (No).
- This new Coastdown Test Type is a way of automating the procedure outlined in Appendix 6 Coastdown Test.
- If you choose to keep the settings, you will be presented with the Dyno Specs screen with the new settings loaded. This way they will also get saved as the new Master Dyno

Figure A 7.9 New USB DataMite Data Loggers are Supported

Larger DataMite III USB
with more channels



Smaller, More Affordable
DataMite Mini USB

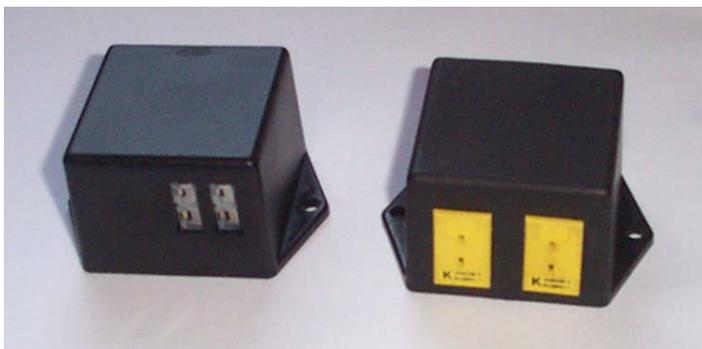


Figure A 7.10 Some New External Signal Conditioning

New, More Accurate
Thermocouple Amp

Older, now Obsolete
Thermocouple Amp

New Inductive Pick
Up w Adjustment



New sensitivity adjustment screw to adjust the signal strength stronger or weaker. Prior to this, the signal strength had to be adjusted by putting more wraps on the plug wire, or moving the pickup wire farther away.

Figure A 7.11 New Features for Writing ASCII Files (Pro Version Only)

Click on File at top of Report Options for ASCII File Options screen shown here.

You can now include the Test Comments in the ASCII file.

You can now include the Test Summary Info in the ASCII file.

Browse button to find file names for replacing, or to find various locations (folders) on your computer for saving the file.

File name now includes full path to most any location.

File Name: C:\WB98\projects6\dtm\1.txt

Save File Cancel

Tip: Enter a valid file name (and path) to save ASCII file. Refer to page 98 and 102 in User's Manual for definitions of Options

Figure A 7.12 Larger Graph Legend and Graphing up to 64 Data Types (Pro Version Only)

Click on the "more" buttons top and bottom to scroll through all 64 Legend Labels.

Click on Format then "Legend (graph line labels)", then select what size Legend labels you want.

Graph Legend shown here as Largest, with cursor data for cursor line (available when clicking on a

PS AIR SENSOR 13.1
OIL PR psi 70.3
OIL TEMP 114.7
WATER TEMP 174.9
Exh #1 DegF 36.0
Corr Tq 362.98
Corr HP 317.69

350 holley head kit 25 #1
DS AIR SENSOR 12.604
PS AIR SENSOR 12.6
OIL PR psi 68.8
OIL TEMP 124.7
WATER TEMP 165.5
Exh #1 DegF 36.0
Corr Tq 386.68
Corr HP 338.88

350 holley head kit 24 #1
DS AIR SENSOR 12.801
PS AIR SENSOR 12.3
OIL PR psi 70.3
OIL TEMP 96.0
WATER TEMP 164.1
Exh #1 DegF 36.0
Corr Tq 361.06
Corr HP 316.23

350 holley head kit 23 #1
DS AIR SENSOR 15.449
PS AIR SENSOR 13.9
OIL PR psi 4600 67.9
OIL TEMP 164.7

