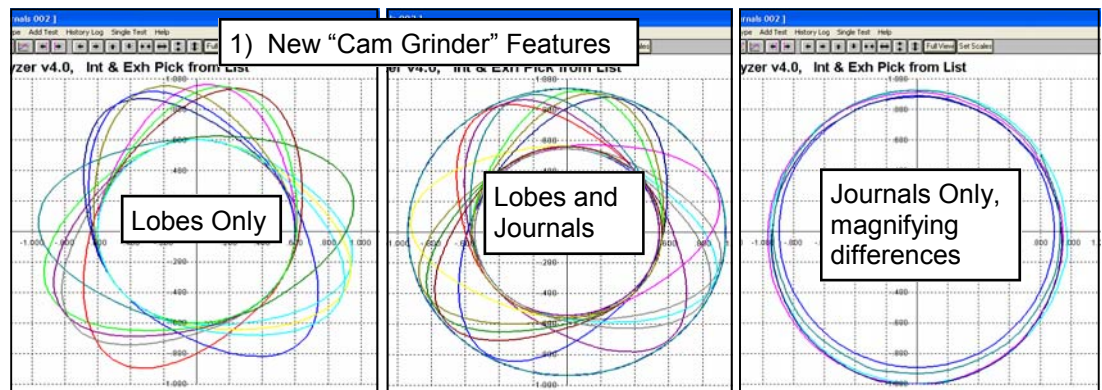


2011: Latest News



New Cam Analyzer v4.0 Coming We're adding new features and updates to our Cam Analyzer software. We're also adding a whole new "Cam Grinder" version with new advanced features, including:

- Make absolute lift measurements so you can measure base circle and journals directly.
- Export digital files of XY coordinates or polar coordinates for CNC machining.
- Do harmonic analysis of cam profiles to check for valve spring surge problems.



Continued on page 2.

New, Larger DataMite 4 was released in 2011, with about 12 more input channels and several new output channels. The output channels are still being developed, but we intend them to be used for safety shutdowns (for example, shutting down the engine with a drop in oil pressure, shift light, etc). Fig 6.

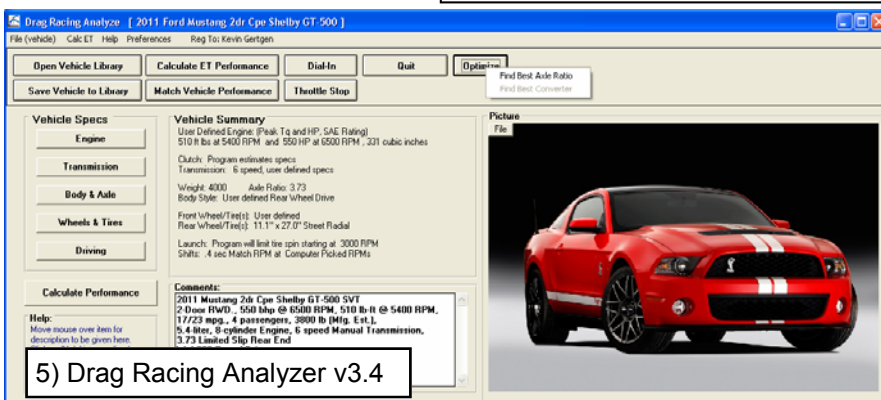
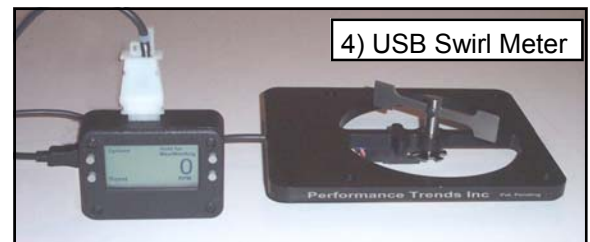
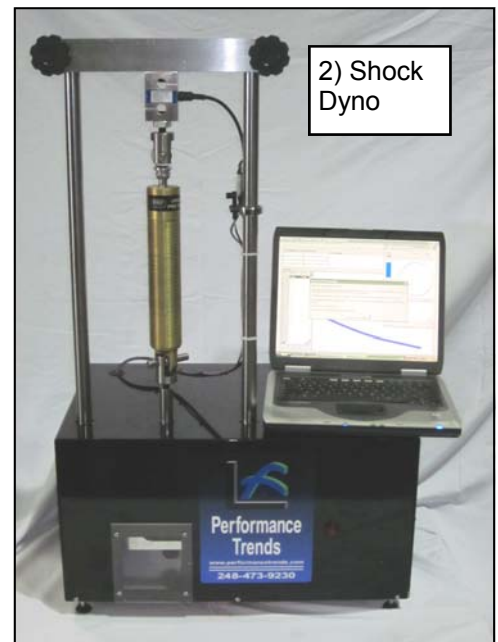
Shock Dyno will be released in early 2012. We introduced it last year at PRI and have had a year to refine it. See Fig 2.

- 1.5HP, 110 VAC motor (ideal for most trailers and generators). Fig 2.
- Up to 2" stroke and 14"/second shock velocity.
- Measures forces over 1000 lbs.
- Optional shock temperature sensor.
- USB computer interface
- Software compatible with Win XP, Vista, Win 7.
- Advanced Plus version of software also available. See Figs 7 and 8.

Continued on page 2.

DataMite Micro was released in early 2011. This hand held "workhorse" has 2 current applications, Blow By Readout and Swirl Meter Readout. Many more applications are being developed for track and shop testing and data logging, either with or without a computer, and battery power.. Watch our website for releases. Fig 3 & 4.

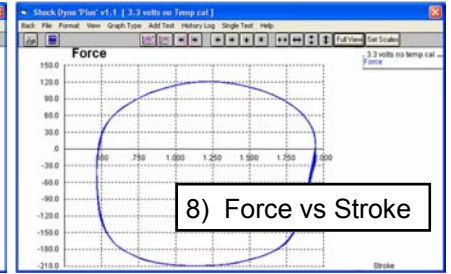
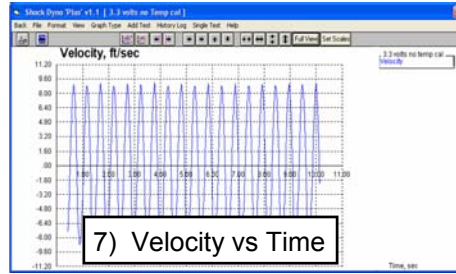
Drag Racing Analyzer v3.4 was released in 2011 with new features and vehicle files, and better Vista and Win 7 compatibility. Fig 5.



New Cam Analyzer v4.0 Coming, cont. Additional features for various versions include:

- Ability to use data measured with a roller follower (like the universal roller) to do the Virtual Follower simulation. Prior to this, you had to put the linear encoder tip directly on the cam lobe.
- Improved emailing of files, reports and graphs.

Shock Dyno, cont. Plus version features will include, reversing motor direction via computer, cycle until a specified shock temperature is reached before testing, and more advanced graph types.



Free On-Line Calculators have been added to our website. The programs let you do quick calculations of engine displacement, port flow efficiency, HP from drag racing results, and more. Features including being able to email and print professional results. See Fig 10.

Other News in 2011 include:

- Valve Spring Wiz, a program similar to the old DOS Spring Master™ was released. Fig 12.
- The Weather Wiz is our weather calculator, weather units converter, carb jetting analyzer, etc. We just added the feature for it to read our



Performance Trends Inc
Producing Quality Computer Tools for Racers and Engine Builders since 1986

Performance Trends Drag Strip Dyno Calculator
Type in the required information:

Track Length: 1/8_Mile_(660_ft)
Finish Speed Units: MPH
Finish Speed (MPH): 93
Vehicle Weight Units: Lbs
Vehicle Weight (Lbs): 3650
Calculated Power Units: HP
Engine Power: 463.5

Calculate

Click here to Remove comment
Hey John, looks like you engine should be making 93 MPH in the eighth mi

Print results | Email Results

Weather Wiz - Performance Trends Inc.

File Options Help Reg To: Kevin Gertgen

Relative Air Density: 1
Jet Sizes: build on here
Weather Station: Turn Weather Station On / Turn Weather Station Off

Barometric Pressure
User Enters Engine Inlet Air Temperature: Yes Hg (mercury)
Engine Inlet Air Temp is Weather Station Temp: Yes Hg (mercury)
Weather Station Calibration: Set. Com Port # (currently S)

Baseline Humidity and Temperature
Type: RH Humidity & Temperature Scan

Rel Hum. %: 56.6 RH Air Temp, deg F: 73.9 Engine Air Temp, deg F: 73.9

Baseline Calculations
Rel Hum. %: 56.60 % Actual Pres: 29.17
Dew Pt, deg F: 57.10 Cor Pres: 30.13
Vapor Pres, "Hg: .469 Density Alt: 1952
Grains: 71.9 Dry Density Alt: 2301
Rel Air Dens. %: 93.43 Corr. Factor: 1.067

Calculations
Rel Hum. %: 68.00 % Actual Pres: 29.66
Dew Pt, deg F: 45.20 Cor Pres: 30.62
Vapor Pres, "Hg: .301 Density Alt: 99
Grains: 46.1 Dry Density Alt: 315
A/F Change w/ No Rejet: 3.3% leaner Cor. Factor: 1.017

Baseline Fuel Delivery
Fuel Delivery: Rejet Options
Fuel: Single 2 Barrel
Rejected: Left: 111 Right: 113 Power Valve: 00 None
Primary Jets: 111 1129 113 1149

Fig 11 Weather Wiz USB Weather Station

Spring Wiz - Performance Trends Inc.

File Edit Compare Train Analysis Help Reg To: unregistered copy

Example Valve Spring Comment #1

Baseline Spring
Spring O.D., in: 1.2 1.3 1.22 1 Installed on
Free Length, in: 2.1 2.1 2.2 4
Total Coils: 6 10.5 8 11 P.A.R.
Active Coils: 2 2 2 2 1.6
Inactive Coils: 2 2 1.3 2
Linear Spring: Yes Yes Yes Yes Lash
Non Linearity: 016
Std Spring Steel: Yes Yes Yes Yes Yes

Proposed Spring
Spring O.D., in: 1.8 1.9 1.8 1.8 Installed on
Free Length, in: 2.1 2.1 2.2 4
Total Coils: 6 10.5 8 11 P.A.R.
Active Coils: 2 2 2 2 1.6
Inactive Coils: 2 2 1.3 2
Linear Spring: Yes Yes Yes Yes Lash
Non Linearity: 018
Std Spring Steel: Yes Yes Yes Yes Yes

Aspect Ratio: 1 1 1 1
Installed Hit: 1.8 1.8 1.8 2.3
Retainer Step: 11 12 1
Open Hit: 1.3 1.3 1.3 1.3 Total
Spring Rate, lb/in: 266.7 266.7 266.7 266.7
Installed Force: 377.0 377.0 377.0 377.0
Open Force: 355.2 355.2 355.2 355.2
Blind Hit, in: 1.000 1.000 1.000 1.000
Nat Freq: 229.6 229.6 229.6 229.6
Nat Freq, RPM: 357.3 357.3 357.3 357.3

Fig 12 Valve Spring Wiz

DataMite Mini USB weather station. See Fig 11.

- We've always had flow bench accessories, like pitot tubes, swirl meters, tumble fixtures, etc. We now added our line of valve openers. The automatic valve opener lets you automate some of your flow bench testing. But we've also released a less expensive, manual valve opener also. See Fig 9.
- We've added the ability of our Circle Track Log Book to interface to our Lap Segment Timer (computerized stop watch). With this ability, the Log Book can record and analyze lap times for each individual lap. See Fig 13.
- Watch our website and get on our newsletter mailing list for info on the many new products we've got planned for 2012.

Circle Track Log Book - Performance Trends Inc.

Record/Date: 05-27-11 12:34

Record/Date	Chassis	Springs	Front Susp	Rear Susp	Tires	Track Results	Used Defined
00004 06-29-11 10:27							
00003 06-29-11 10:25							
00002 06-06-11 19:48							
00001 03-23-10 17:14							
00000 03-16-10 21:02							
00009 03-16-10 20:57							
00008 03-16-10 20:48							
00007 03-16-10 20:39							
00006 03-16-10 20:33							
00005 03-16-10 20:26							
00004 02-08-10 03:28							
00003 05-20-11 12:18							
00002 03-16-10 20:14							
00001 05-22-11 09:43							

Track Spaces
Track: Montevideo
Track Type: Synthetic Oval
Length: 0.900 (mi) Infield Width: 500

Lap Times
Jump to Lap Segment Times
Compare These Records
My Time: avg 18.614
Best (1951) Worst (19.763)
Caught in Traffic
Went Off Track
Red Cadem's

Weather
Method: Radio/TV Report with RealHum
Cor Bas. Hg: 55.33 Elevation, feet: 540
Air Temp, deg F: 75 Rel Hum. %: 75
Wind MPH: 10 Wind: From North
Cor Factor: 1.087 Dry Dens. Alt: 8076

Fig 13 Circle Track Log Book with Lap Time Analysis