

In 2003 we have completed updating our entire product line with our new Engine Analyzer (std and Plus) v3.2 and Engine Analyzer Pro v3.3. These 32-bit versions now make all our software compatible with Windows XP and 2000 and newer printers. In addition, we have added several new features and sensors to our DataMite data loggers, and have finalized more applications for our Black Box data logger.

# Black Box

**Cam Tester& Stand** We've upgraded the Black Box to read more accurate encoders... cont on page 2



### Valve Spring

**Testers** We have finalized the electroncs and software for our Valve Spring tester. In addition to our spring tester, we can also offer a retro-fit kit for the popular Rimac (tm) tester or Power Technology's tester. cont on page 2



#### Flow Bench Testing The Black Box with our Port



Flow Analyzer has been automating the testing of many SuperFlow (tm), JKM (tm), Performance Flo (tm), and various "custom" flow benches. cont page 2

**EZ Flow System** Couple our Black Box with our EZ Flow kit and you can build a computerized, affordable flow

bench for under \$1000. We provide the plans, list of materials, electronics and ... cont on page 2



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# DataMite and DataMite II

### Wide Band UEGO

**A/F Sensors** We have released our single and dual channel A/F sensors and controller. A/F ratio, or how rich the engine is running, is the most important data for tuning any engine. **Prices start at \$499.** 

### **Inductive Pickup**

**Clamp** We have added a "clamp on" sensor for our Inductive Pickup. This is especially convenient for chassis dynos where you need to get running quickly.

### Stuska (tm) RPM

Adapter We have developed a simple bolt on adapter which goes between a Stuska dyno and its mechanical tachometer







# Updated Programs

**Engine Analyzer v3.2 (std. & Plus)** We have released the 3.2 version update to our popular Engine Analyzer programs. cont on page 2

**Engine Analyzer Pro v3.3** We're just in the process of releasing the much anticipated v3.3 Pro. It also has the new standard version 3.2 example cams and heads, History Log for easier tracking of past runs, Diesel and other alternate fuels and A/F ratios, auto-

Cam Profile			Overall Cam Specs
	Intake Profile	Exhaust Profile	Total Cam Advance 33Advance
Centerline, deg ATDC	102.5	109.0	
Duration @ .050"	279.0	292.0	Lobe Separation, 105.8
Dpening @ .050"	37	75	Lift for Rating Events .050 inches
Closing @ .050"	62	37	Calculate Valve Train Dynamics
Max Lobe Lift, in	.471	.42	• Yes O No See Specs for Dynamics
Actual Valve Lash, in	.026	.028	Comments
Designed Valve Lash, in	.028	.028 🔨	Super Stock Buick V-6 Roller
Rocker Arm Ratio	1.6	1.6	Titanium Valves - With Rev Kit
Lifter (profile) Type	Invite Solid Rolle	Invite Solid Role	Des. Valve Lash and Profile
Gross Valve Lift, in	.754	.672	<ul> <li>Type can now be different on Int vs Exh.</li> </ul>
Deg Flat Over Nose	0 Deg-Std Profile 💌	0 Deg-Std Profile 💌	
Duration @ .200"	200.0	201.9	Help
Use a Cam File	🗌 Yes	🗆 Yes 🖌	Location of center of intake lobe of can as
Cam File	cran1.c1	cran1.c1	Deg Flat Over Nose lets you
			design 'cheater' type profiles with various ramp ratings.
Pick Pick			Duration at .200" shows how
Intake Exhaust			agressive the current specs are.

linking to vehicle programs, more cam spec options to tailor the intake to be different than the exhaust lobe, "dwell" cam spec to define a "cheater" (limited lift) cam profile, and much more.

**Practice Tree v2.0** Practice Tree now has a more realistic daytime screen and ... cont on page 2



Box 530164, Livonia, MI 48153 248-473-9230 feedback@performancetrends.com Performance Trends reserves the right to change or discontinue any product at any time.

# Black Box, cont

### Cam Tester & Stand cont ... for more

accurate and easier cam measurements. Since we have had to redesign the Black Box, it has pushed back of our Cam Tester. We anticipate releasing it around April of 2004 for a cost around \$2000 with our test stand.

### Valve Spring Testers cont

Our Valve Spring software can even read old DOS Power Technology files. Retro fit kits for the Rimac (tm) tester start around\$600, and will turn your Rimac into a highly accurate and repeatable computerized spring tester. Windows software will make it easy and compatible



with most all operating systems, including XP and 2000.

#### Flow Bench Testing cont We've also

developed a line of Flow Bench accessories, including our Swirl Meters and Tumble Fixtures, and Pitot Tubes for port velocity mapping. Our new "mini" intake pitot tube lets you map out very small and very short ports not possible before.

**EZ Flow System cont** ...software and you provide some PVC tubing and a vacuum source. We also have blowers and large capacity orifices to provide flow capabilities over 400 CFM.

# Updated Programs, cont

### Engine Analyzer v3.2 (std. & Plus) cont

**Engine Analyzer v3.2** can now automatically find the best port and runner sizes and cam specs, can automatically link to Drag Racing or Circle Track Analyzer for instant vehicle results, has faster navigation between screens, hundreds more example cam and



head files, new total engine files, "cheater" cam profiles and more. **Engine Analyzer Plus v3.2** now has 10 added features over the standard version. New added features include: use a full flow curve for heads, use inches or millimeters for entering dimensions, displaying .200" lift duration for cam specs, user definable report and graph options.

### Practice Tree

v2.0 cont ... the ability to read external switches via your computer's COM port. This lets you use our foot or hand switches or wire in your own switches.





### New Program Updates

In 2003, we continued to release 32 bit updates for nearly all our programs. These 32 bit updates let you use long file names like used in Windows 95/98/Me/XP/ NT/2000, have more updated printer drivers and are more compatible with USB printers. These updates also include new features and enhancements and are available **now** for these programs:

- Engine Analyzer v3.2 (\$35 update) New
- Engine Analyzer Plus v3.2 (\$45 update) New
- Engine Analyzer Pro v3.3 (\$65 update) New
- Practice Tree v2.0 (free update) New
- Port Flow Analyzer v3.0 E (\$35 update)
- Compression Ratio Calculator v2.0 (free update)
- 4 Link Calculator v2.0 (free update)
- Transmission Gear Calculator v2.0 (free update)
- Roll Center Calculator v2.0 (\$20)
- Circle Track Analyzer v3.2 (\$30)
- Drag Racing Analyzer v3.2 (\$25)
- Cam Analyzer v3.2 (\$30)
- Drag Racing Analyzer Pro v2.0 (\$40)
- D. R. A. Pro "Team Engineer" v2.0 (\$100)
- Drag Race DataMite v3.2 (\$40)
- Dyno DataMite v3.2 (\$40)
- Suspension Analyzer "Standard" v1.1 C (free)
  Suspension Analyzer "Full Vehicle" v1.1 C (\$150)

For those marked "free update", simply download the latest version from our website and type in your original Registered Name and Working Code. For other updates with a charge, call Performance Trends with your credit card. For updates from versions more than just 1 prior version, the cost may be more.

**Website** New product info, user manuals and demos are available at our website

www.performancetrends.com which also has quotes from users like Troy Coughlin (Jeg's Pro Stock Team) saying Drag Race Analyzer Pro is "amazing", Chris Andrews (Richard Childress) saying "Suspension Analyzer is the fastest, easiest way to get answers...", Darin Morgan (Reher-Morrison) that "I've worked with every engine simulation program out there. Engine Analyzer is within 1%, both peaks and average. It is the only program that can model a modern Pro Stock engine...a really great piece...", and others.

If you are not getting our monthly, email newsletter, email us requesting it and include your email address.

# **Suggested Retail Prices**

Cam Tester Kits (starting at) Circle Track Analyzer v3.2 Drag Racing Analyzer v3.2 Drag Racing Analyzer 'Pro' v2.0 Drag Racing Anlzr 'Pro' v2.0 Team Engineer Dyno Data Analyzer v1.1 DOS	89.95 229.00 329.00 299.00
Engine Analyzer v3.0 Windows	149.95
Engine Analyzer v3.0 'Plus' Windows	249.00
Engine Analyzer 'Pro' v2.1 D Windows	499.00
Fuel Economy Calculator v1.1	79.95
Fuel Injector Calculator v1.1	39.95
Lap/Segment Timer v1.1	79.95
Performance Analyzer v1.1 DOS	119.95
Port Flow Analyzer v3.0 Basic	249.00
Port Flow Analyzer v3.0 Pro	449.00
Practice Tree v1.1 Windows	39.95
Roll Center Calculator v2.0	79.95
Rotating Inertia Calculator v 1.1	39.95
Suspension Analyzer Standard v1.1	249.00
Suspension Analyzer Full Vehicle v1.1	399.00
Spring (Valve) Tester (with stand, starting at)	1199.00
Spring (Coil) Tester (kits starting at)	799.00
Swirl Meter with direction, average/max/min	749.00
Swirl Meter above + analog output for computer	899.00
Transmission Gear Calculator v2.0 Windows	49.95
DataMite 4 channel system (starting at) *	559.00
DataMite II 30 channel system (starting at) *	1199.00

\* See separate DataMite price sheet for more details.

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