

# 2012: Latest News



**Quick Cam Checker** lets you check timing on your cam quickly and easily, without having to find TDC or set up a degree wheel. Fig 1. Using a smart microprocessor and inexpensive sensors, you can find centerlines while just cranking the engine over. Other data like lift, duration at .050", etc included. Change the pressure sensor to a lift sensor and now you can find timing on an engine stand. No computer needed, but it can send results to free Windows software via USB.



1) Cam Checker

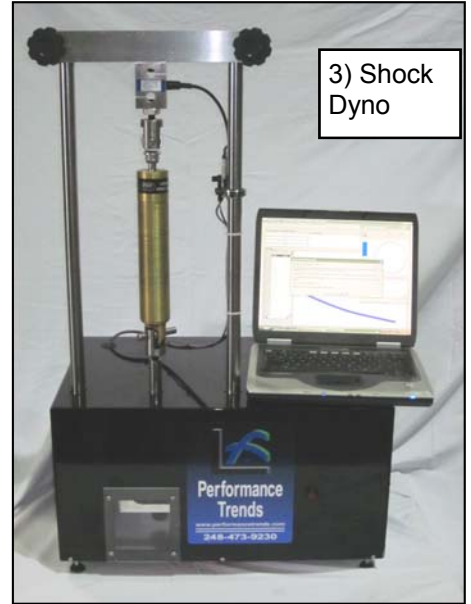


2) A/F Checker

**A/F Checker** lets you check the calibration of UEGO A/F sensors in an actual A/F environment of propane and compressed air (or other gasses). Fig 2. This goes way beyond a simple "free air" calibration. You set a certain condition and read the A/F on the checker and see if you're A/F sensor matches it. Analog output also available so you can track the checker's A/F on your logger at same time as the A/F sensor being checked.

**Shock Dyno** was developed to handle forces up to 1500 lbs and strokes up to 3 inches. Additional features include

- 1.5HP, 110 VAC motor (ideal for most trailers and generators). Fig 3.
- Up to **3" stroke and 20"/second** shock velocity.
- Handles forces up to **1500 lbs**.
- Optional shock temperature sensor.
- USB computer interface
- Software compatible with Win XP, Vista, Win 7, Win 8.

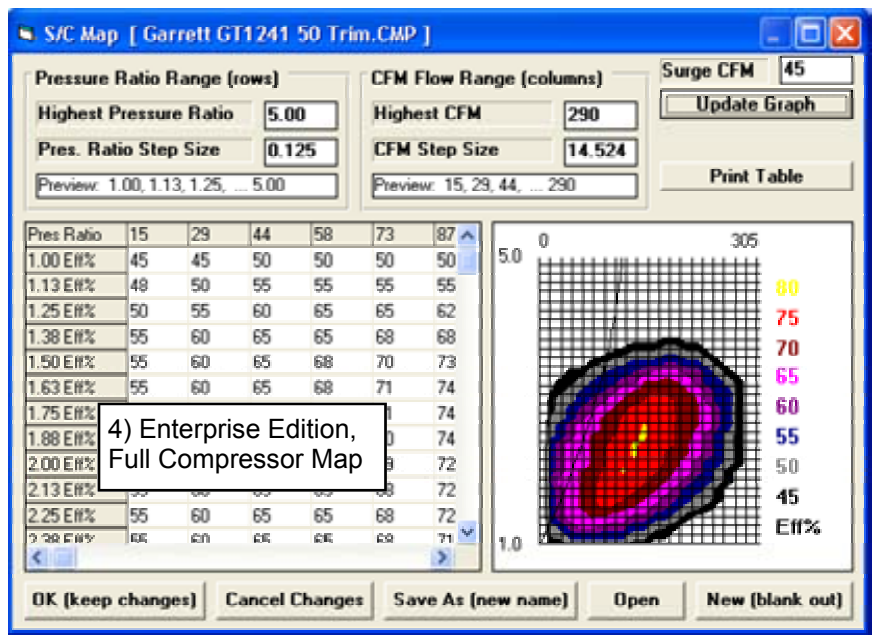


3) Shock Dyno

Advanced Plus version of software also available, which includes reversing motor direction via computer, cycle until a specified shock temperature is reached before testing, and more advanced graph types.

**DataMite 4** enhancements have been released to take advantage of it's digital output channels. Figs 5 and 7. You can program them to be used to control relays for shutting down the engine with a drop in oil pressure, or an over-rev or over-temperature condition. They can also be used for a shift light, or controlling something like temperature by turning on a cooling fan or heater at a particular temperature. We've also added a drag racing vehicle response timer, to precisely time between a switch channel (clutch or trans brake) to when the vehicle acceleration goes above some limit you set.

**Engine Analyzer Pro Enterprise Edition Released** We've added a new set of advance features to our popular Engine Analyzer Pro. These include:



4) Enterprise Edition, Full Compressor Map



5) DataMite 4, with More Channels

- Simulating detailed compressor maps for turbos and superchargers. Fig 4.
- Watching the calculations progress on the actual map to see how well matched the map is to the engine.
- Linking to our Compression Ratio Calculator
- Running part throttle cross-sectional maps across many RPMs and various levels of MAP (intake vacuum) to aid in calibrating electronic engine controls.

**Compression Ratio Pro** lets you calculate piston dish, dome, and valve relief volume from specs, or volume change from valve depth changes. Fig 6.

**Port Flow Analyzer v3.5 B Coming**

We're adding new features to our popular flow bench program, including the ability to control flow bench depression (test pressure). Fig 8. In addition, we're adding a more advanced "Head Porter" version, which allows for more advanced types of graphs, and recording many more velocity points for more complete "port mapping", including graphics of how the flow changes as going down the port toward the valve. Fig 9.

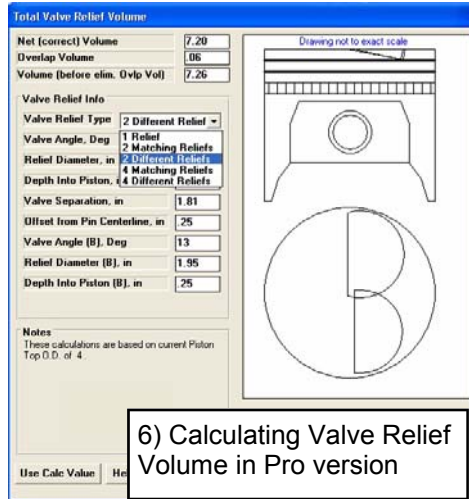
**Universal Micro Recorder**

We've added some features to our blowby recorder to make it very universal. Now you can record RPM with blowby, so you know at what RPM a certain amount of blowby occurred. You can also record something other than blowby, like A/F, or boost pressure, and play it back without a computer. It's small size and rugged design make this a very handy, flexible recorder. Fig 10.

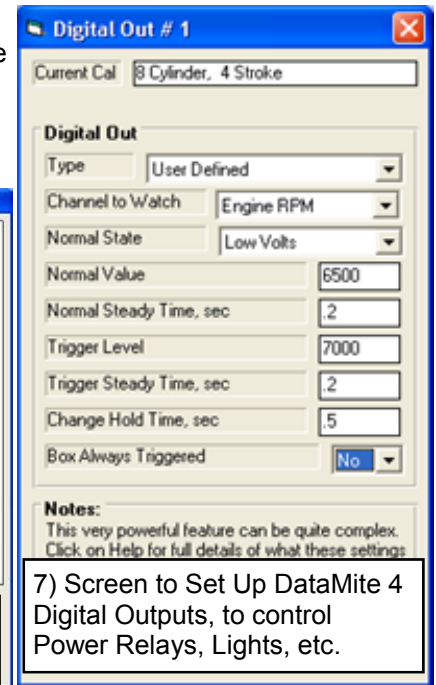
**New Cam Analyzer v4.0 Released**

- 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. Fig 11.
  - Export digital files of XY or polar coordinates for CNC machining.
  - Do harmonic analysis of cam profiles to check for valve spring surge problems.
  - 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.

Watch our website and get on our newsletter mailing list for info on new products.



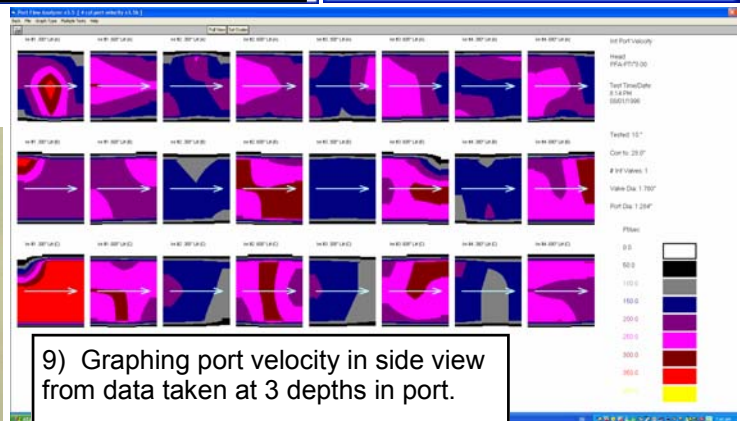
6) Calculating Valve Relief Volume in Pro version



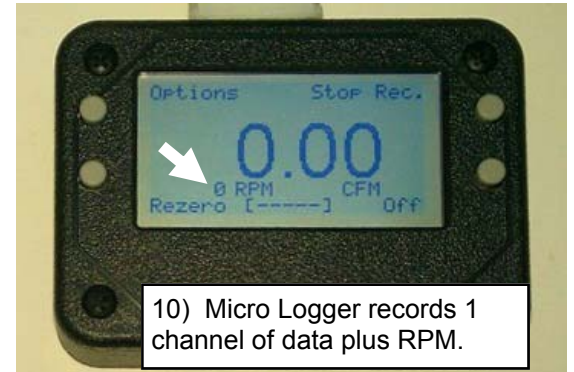
7) Screen to Set Up DataMite 4 Digital Outputs, to control Power Relays, Lights, etc.



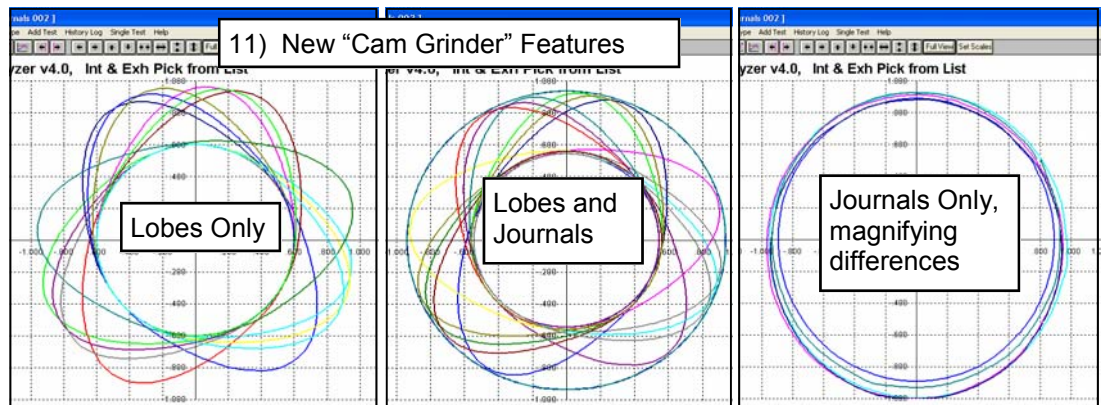
8) Small SF110 Motor Control



9) Graphing port velocity in side view from data taken at 3 depths in port.



10) Micro Logger records 1 channel of data plus RPM.



11) New "Cam Grinder" Features

Lobes Only

Lobes and Journals

Journals Only, magnifying differences