

EFI - 101

Getting in Tune

How to tune your engine?

- Take your car to a dyno
- They simulate different conditions
- They monitor exhaust gas content
- They make changes to the fuel map
- Can be expensive



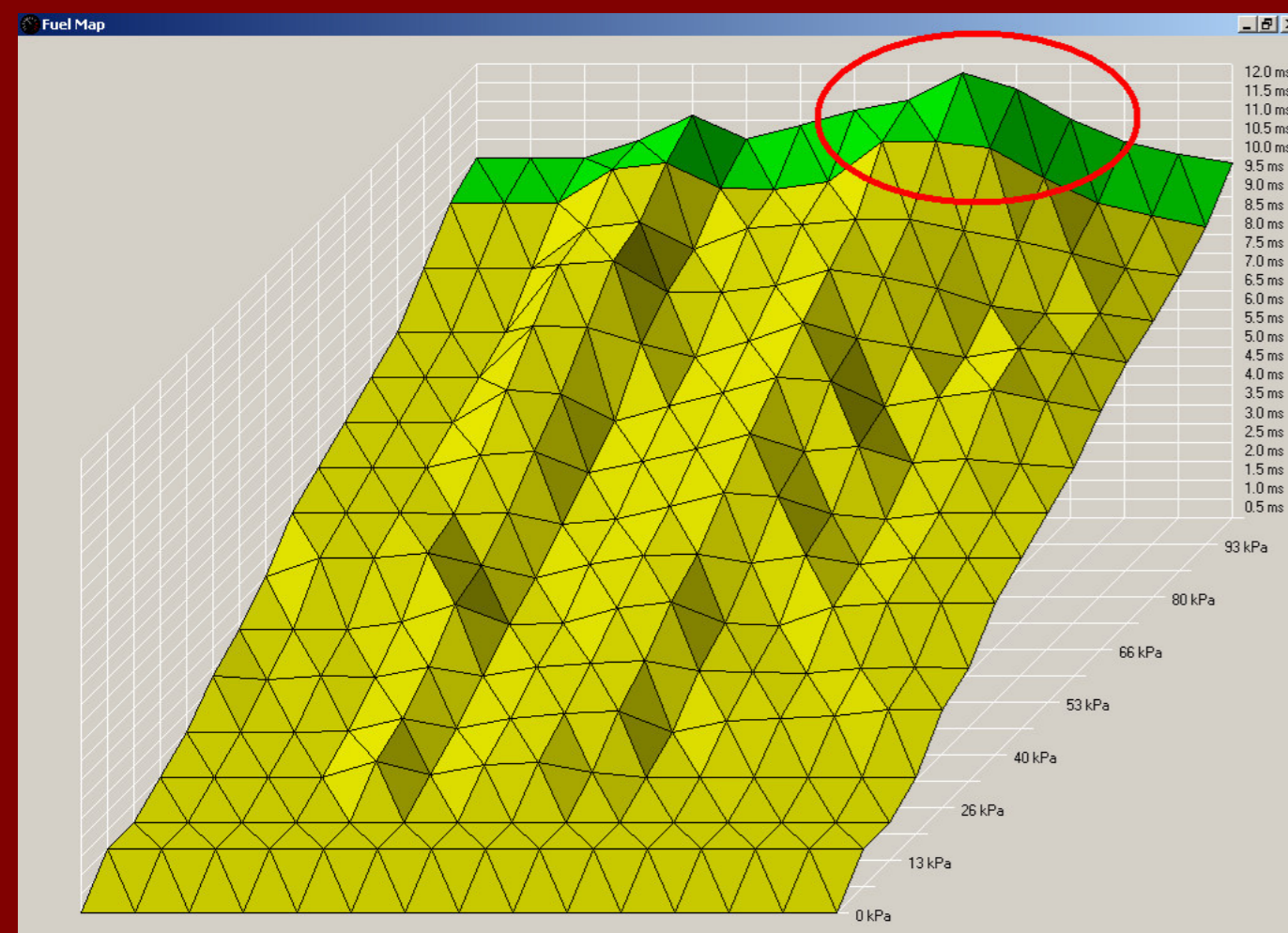
An ECU's Purpose

- Controls fuel and ignition on an engine
- Controls everything else
- Needs to be tuned for a particular engine



How Your ECU Calculates Fuel

- Each engine behaves differently
- Modifications change how an engine behaves
- The ECU is tuned for that behaviour
- When you seriously modify an engine, you need to retune it
- The ECU has a table, called a fuel map, indicating how much fuel to use at different speeds and loads



No-one likes a rich kid

What happens when your car isn't tuned properly?

- Too rich (too much fuel)
 - Poor fuel economy
 - Blowing black smoke
 - High exhaust emissions
 - Poor power production
 - Poor drivability
 - Fines from the EPA
- Too lean (too little fuel)
 - High exhaust emissions
 - Engine damage
 - Poor power production
 - Poor drivability
 - Backfiring



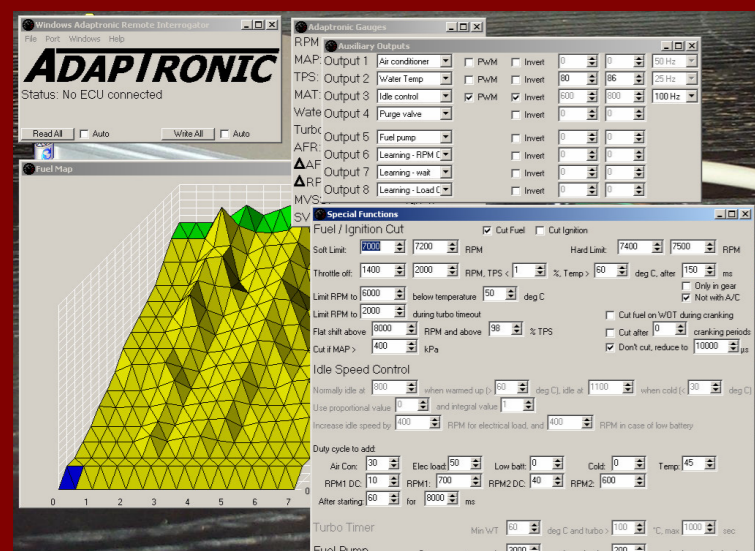
The Problem

- Many mods will require a re-tune
- This can be a great disincentive to perform more mods
- Wouldn't it be good if your ECU would automatically adapt to changes, and retune itself?

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PC Interface

- Datalogging
- 3D graphing



8 Aux Outputs

- Fuel pump, A/C, idle, purge valve
- RPM, MAP, Water temp, etc

8 Aux Inputs

- A/C, WOT, NOS, clutch etc



Benefits of the Adaptronic

- Reduced emissions
- Improved fuel economy
- Makes the most of modifications
- Smoother power delivery

Versatile Triggering

- Missing tooth
- Multitooth
- Nissan optical
- Reluctor and digital



Versatile Outputs

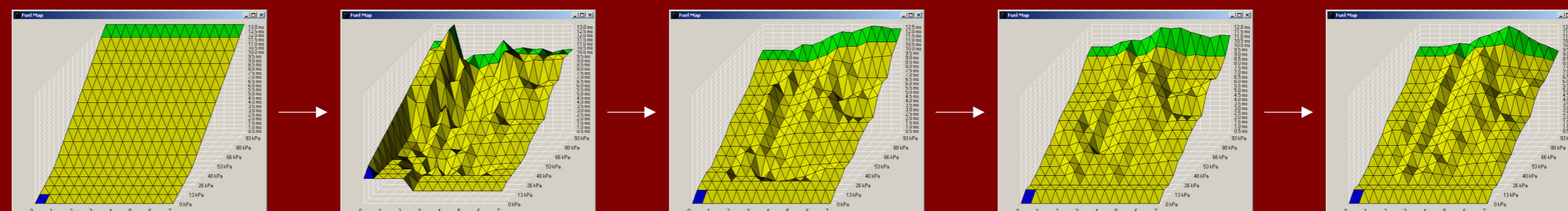
- Batch / Multipoint / Sequential
- +ve/-ve igniter trigger



Only \$990 RRP!

Adaptive Fuel Control

- Tunes itself as you drive!
- Use on street or dyno!



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<http://www.adaptronic.com.au>