

The Stony Road to Successful FOTs

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Major tasks of project:

- Four FOTs to investigate long-term behaviour of car drivers with ISA in everyday driving
- Build and obtain feedback on one motorcycle and one large truck
- Experimental work on the Leeds driving simulator to investigate overtaking behaviour
- Implementation scenarios — predict future penetration, predict accident savings, calculate costs and benefits

Some of the equipped cars



Field trial timings

Trial 1



Trial 2



Trial 3



Trial 4



This is a one-year delay from the original plan



The systems

2 Windows NT computers:

- One for the Navteq location and speed limit system
- Other for interference with vehicle control and data logging:
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Problem 1: Cars go into fault mode

- Skoda engine management system detected a fault in the electronic throttle
- Solution:
 - No interference except within 10% of the speed limit



Problem 2: Flat car batteries

- Initial diagnosis:
 - Heavy power load from the 2 computers
- Solutions:
 1. Rush out to participant's house
 2. Replace car battery with heavy-duty type

So...

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Problem 2: Flat car batteries (continued)



- Windows shut down problem:
 - Computer runs till car battery is flat
- Solution:
 - Install device to shut off electricity 3 minutes after ignition off

An email message from July 2004

“BIOS settings on Nav computer

As you are aware we have found that continual Error 4 messages is often due to the Nav computer not booting up due to incorrect BIOS settings. Since rectification is a fairly straightforward replacement of the coin cell battery and resetting the BIOS it makes sense to adopt your suggestion of Leeds undertaking this remedy. “Fred” has confirmed that there is no safety issue provided that correct vehicle operation is checked with a test drive. We will compile a set of instructions for the BIOS settings.”

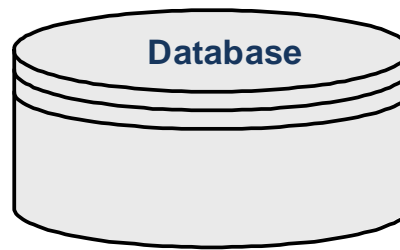
Our researcher's desk drawer



Just to prove that one can still have problems at the end

- One participant in trial 4 broke his leg 3 months into the trial and consequently could not drive

In the end



- 20 cars and 79 drivers for 6 months each
 - 1 month before, 4 months with, 1 month after
- Size of database: 102GB (578,659,931 entries)
- Total km driven: 691,192
 - 570,660 km with speed limit known
 - Of which 352,108 km with ISA available
- All at 10Hz

Thank you for your attention!



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More information or want to cooperate?

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