

XP-300 Road Safety – Driving Simulator



XP-300 with 3 channels and improved controls

XP-300 brings a new dimension to road safety and hazard perception training.

- Easy to set up & operate without training
- Pre-configured scenarios selected by operator
- High quality scenes to catch & hold attention
- Scenarios that are believable and interesting
- Results presented to be memorable
- Common software for future upgrade capacity
- Easily portable
- Low cost
- Adaptable for specific applications

Software scenarios

Level 1 (Minimal steering)

- Reaction & braking distances
- Maintaining a safe speed
- Following at safe distance
- Driving in wet conditions
- Hazard Perception eg
- Traffic lights
- Car pulling out
- Bicycle pulling around parked cars



Level 2 (Requires steering)

- Follow a winding road
- Adherence to road signs
- Cyclist appears at lights
- Other traffic manoeuvres
- Hazards on country lane
- Motorway lane change
- Lane discipline
- Speed limit, Red lights etc



Level 3 (Specific Training)

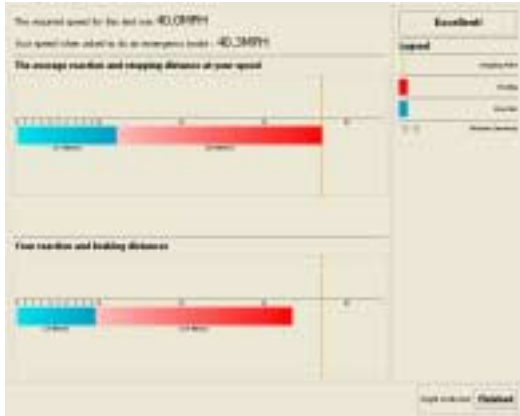
- Blind spots when speeding
- Affects of impairment
- Hazards near schools
- Artificial Intelligence traffic
- Bad weather conditions
- 10 most common accidents
- Feedback from Road Safety users



Presentation of Results

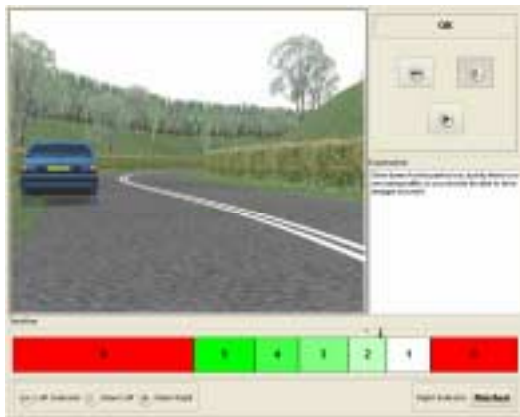
Feedback on performance is possibly the most important aspect in clarifying the message and in maximising the impact of that message. Simulation enables the performance data to be collected and presented in a wide variety of ways.

Different audiences require different feedback of assessment for maximum benefit. XP-300 is currently designed to give positive feedback to encourage users and to improve the acceptability of the system. A certificate will be available as an option for the younger participants.



Level 1 software shows the thinking distance in terms of reaction time from the event to starting to brake and the braking distance calculated according to the vehicle speed and road conditions. These can be compared with those shown in the Highway Code.

Information such as maximum speed and closest distance to the car in front are given when appropriate.



For experienced drivers who have acquired bad habits a factual and more forthright feedback is better. Replay of events or, optionally, plan view analysis can be displayed.

A scoring mechanism is displayed to assess how quickly various hazards are noticed.

Technical Specification

Hardware:

- High specification graphics PC fully configured and ready to run
- Fast response 17" LCD display screen to reduce blur
- Stereo speakers for feedback from engine and road noise
- Standard games steering wheel and dual pedals
- Quick set-up guide

Software:

The car driving software incorporates the following features:

- Realistic dynamic model for all vehicles.
- Automatic transmission model for 2 pedal operation.
- Easy set-up and scenario selection.
- Full 3 dimensional representation of realistic scenes, other vehicles and pedestrians.
- Virtual rear view mirror (in some scenarios).
- High-resolution visual database including an urban area, a rural area and a section of motorway.
- Based on a UK environment and follows standard UK road rules.
- Data logging facility available for research (option)
- Artificial Intelligence in vehicles (Level 3 software only)

Hardware Options:

- Larger LCD Screen or Projection System to User specification
- Multiple channels (from 120° to 360°)
- 14" single turn car steering wheel
- 14" single or multi-turn steering wheels with force feedback
- Professional pedal set (2 pedals or 3 pedals)
- Metal framework for fixed positioning of controls with adjustable seat
- Replica car interior with instrument panel and 4 speed gear-change

NB Specifications are subject to continual change

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