



Acoustic analysis of vertical road signage

Visualise is a high-performance unit for the dynamic acoustic analysis of vertical road signage. It automatically measures the night-time visibility of vertical traffic signs and panels. The unit can measure back-reflection from signs at normal vehicle speeds, and at the same time can take inventories of signs with x, y and z co-ordinates.

Visualise offers the following advantages:

- Faster measuring, enabling checks to be run more frequently and longer stretches of road to be checked.
- Readings in database form for easier distribution and analysis.
- Evident improvements in road safety: having information on the whole road network enables overall network-wide safety strategies to be drawn up.
- Obtaining information as soon as analysis is completed brings down the time between the detection and correction of anomalies in infrastructure maintenance.
- Back-reflection curve according to distance.
- Wide-screen images showing the position of signs on the road.
- Precise distance indications regarding the location of signs.
- GPS co-ordinates of sign positions.
- Sign geometries (rectangular, circular or triangular).
- Detailed images of the sign being checked.

Visualise provides the following data on vertical signage:

The main new feature of this equipment in terms of technology is that test data are acquired dynamically. The system is mounted on a vehicle which travels on roads at normal speed.

Valid data can be obtained by vehicles travelling at up to 120 km per hour. The measuring system used by Visualise is based on image analysis: as the vehicle travels along the road it takes wide-screen pictures with a system of high resolution stereoscopic digital cameras. As pictures are taken an infrared lighting system cuts in to improve results. The processing software of the system analyses the images, and the results can be brought up on a display unit so that the information obtained can be immediately put to use.