

Dynamic Surface/Grid Levelling for Optimal Surfacing

Henrik VAD, Denmark

Key words:

ABSTRACT

In later years The Danish Road Directorate has been working on the development of a vehicle capable of levelling road surfaces with extremely high resolution and accuracy. The project was initiated by the desire for improved methods for restoring existing roads without the need for traditional, extensive and expensive advance surveys and levellings.

The improved restoration is expected to mean more even surfaces in longitudinal direction, while at the same time allowing for restoration with the use of less new asphalt.

The project is based on the *Profileograph* – a vehicle currently used by the Road Directorate for registering road surface profiles, among other things. The profiles measured have good local accuracy, but poor absolute accuracy. This project is aimed at giving the Profileograph's navigation system better absolute accuracy, so that its measurements can be regarded as levellings accurate to 0.5 cm. An additional advantage to the system is that good plane coordinates can be derived from the levelling.

The article and presentation will describe the work on the project and the difficulties of system integration, of which the system is a good example. The focus in the presentation will be on the surveying aspects of the project.

CONTACT

Henrik Vad Jensen
Danish Road Directorate
Th. Helstedsvej 11
Skanderborg 8660
DENMARK
Tel. + 45 8993 2294
Fax. + 45 8993 2224
E-mail: hvj@vd.dk
Web site: www.vd.dk