19 February, 2008

ROSATTE

ROad Safety ATTributes exchange infrastructure in Europe

European Commission
Information Society and Media

The ROSATTE project aims at establishing an efficient and quality ensured data supply chain from public authorities to commercial map providers with regards to safety related content.

At a Glance

Project:
ROSATTE - Road Safety ATTributes exchange infrastructure in Europe.

Project coordinator:
ERTICO – ITS Europe

Partners:
ASFA (France), Dutch Ministry of Transport, Laboratoire Regional de l'Ouest Parisien (France), Flanders Region Ministry of Transport (Belgium), Navteq (Netherlands), Norwegian Public Road Authorities, Bavarian Department of Highways and Bridges (Germany), PTV (Germany), French Ministry of Transport, SINTEF (Norway), Swedish Road Administration, Tele Atlas (Netherlands), TRIONA (Sweden), University of Stuttgart (Germany)

Duration: 30 months

Total cost: 3 079 935€

Programme: FP7

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Context

Over the past years, important research and development activities towards advanced driver assistance (ADAS) systems have been undertaken, in which digital map content plays an important role. With such systems becoming technically and comercially feasible, high quality map content becomes a prerequisite for their success. The fact that solutions for providing access to up-to-date safety attributes, and especially to timely incremental updates, do hardly exist in Europe constitutes a major bottleneck in the data chain for large-scale exploitation of in-vehicle road safety applications. A viable solution would require commitment by road authorities to report and notify updates in a timely and standardized manner.

Objectives

The ROSATTE project intends to develop the enabling infrastructure and supporting tools that will ensure European access to road safety attributes including incremental updates. This infrastructure will facilitate administrative internal functions as well as supply of data to third parties, e.g. for safety relevant services.

The overall objectives of the project are as follows:

1. Facillitate acess to, exchange and maintain European-wide core road safety spatial data from

national/regional/local sources by standard procedures
2. Enable multi-level aggregation and update of European-wide safety map data
3. Assess the technical and organisational feasibility of this infrastructure

This project will focus on legal speed limits and traffic sign information as this content both show the highest safety relevance and represent a real challenge in terms of maintenance. However, the developed specifications shall be applicable to any other ADAS attribute in real situation.

The proposed solution is based on appropriate procedures and tools to be implemented by road authorities (data owners) at the different levels (national, regional, local) with respects to their organisational and legal framework and an adapted harmonised data exchange infrastructure.

Description of the work

The project will focus on the needed cooperation between data providers (mainly road authorities) and data users (mainly map providers) and study the following aspects:

- Storage and maintenance of safety attributes by data providers and data accessibility
- Data exchange infrastructure between data providers and data users
- Data integration by data users.

The project major milestones are described below:

REQUIREMENTS & OVERALL ARCHITECTURE

Identify, prioritise and agree on the requirements of data providers and users.
The resulting prioritised functional, technical, quality and organisational requirements will be the basis for the rest of the technical work in the project.

DEVELOPMENT OF TOOLS & INFRASTRUCTURE

Find a common conceptual specification for the necessary data maintenance and delivery mechanisms and tools., and develop and adapt specific implementations in the different test sites.
Develop a specification for data exchange infrastructure and implement tools to enable the data exchange of safety attributes between road authorities and potential users of this data.

QUALITY, TEST & VALIDATION OF THE DATA CHAIN

Test and document the efficacy of the exchange infrastructure and the tools developed in the project at five test areas (Sweden – Norway, Netherlands, Flanders, Bavaria, France).
Set up an applied quality management concept for the entire data chain, with the aim to deliver quality assured safety-relevant attributes meeting data user requirements.
Realize the fully automatic and timely integration of a specific set of attributes into pan-European digital map databases.

ORGANISATIONAL ASPECTS & EXPECTED BENEFITS

Identify the organisational aspects that can be potential barriers for exploitation and propose recommendations.
Evaluate the expected public and commercial benefits for data providers and data users and agree on a deployment roadmap to promote the exploitation of project results.

Expected results

The creation of such a pan-European infrastructure and tools to enable data access and integration is expected to lead to the following results:

- A significant increase in the coverage of safety-related road information and new-value added services.
- A considerable decrease of the time delay between the update of an attribute in the map database at a public authority and its availability in the end-user map database
- A significant increase in quality of attribute values
- Road authorities will be more efficient in maintaining safety related data through the developped tools
- Increased efficiency of data integration at map providers

For further information:

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