CHRISTINE

Project ID: V1068
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Characteristics and requirements of information systems based on traffic data in an integrated network environment

Project details

<table>
<thead>
<tr>
<th>Total cost:</th>
<th>Topic(s):</th>
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<tr>
<td>Not available</td>
<td>T121 - Strategies for communication between traffic control and information centres</td>
</tr>
<tr>
<td></td>
<td>T123 - Information functional requirements analysis and methodology</td>
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EU contribution: Not available

Coordinated in: Spain

Objective

The main objective of this project is to define the characteristics and requirements of Information Centres, supporting the traffic and non traffic information flow, in an integrated network of Traffic Control Centres (TCC) and other RTI applications, at European level. The Information Centre (IC) is seen by CHRISTINE as a means by which the flow of information within the IRTE can be integrated and made available to all RTI applications.

Work has been conducted to define the characteristics and requirements of information centres, supporting traffic and nontraffic information flow, in an integrated network of traffic control centres and other road traffic informatics (RTI) applications, at national and transnational levels.

Recommendations have been produced for the following 10 main issues of traffic data exchange:

- Traffic data specification;
- Traffic data flow;
- Information centres;
- Urgency codes for message handling;
- Location referencing;
- Integration of traffic control centres (TCC) and information centres (IC);
- Integration of ATT system and ICs;
- Communication requirements;
- Field trials specifications;
- Recommendations for harmonisation.

These recommendations should allow the discussion with all the parties involved to achieve consensus, obtain the harmonisation of systems all around Europe and provide the basis for the efficient introduction of the integrated road transport environment (IRTE).

CHRISTINE follows two approaches to reach its objectives: Top-down and Bottom-up procedures:

i) The top-down analysis aims to define the relative position of the IC in the IRTE and to define a model scenario where the traffic data interchange network (TDIN) would build up.

ii) The bottom-up analysis covers the following areas of research:

- Data flow in the IRTE: existing channels, TCC operator needs and options for future channels.
- TCCs information requirements to support the control management objectives at all hierarchical levels: Databases.
- Other RTIs information requirements/information providers.
- Definition of a data classification system and the data objects in the IRTE. Localization referencing system requirements for effective traffic data interchange.
- Specification of the ICs supporting the storage, elaboration and distribution of traffic information in the IRTE.
- Architecture of a Traffic Data Information Network.

Key Issues
Traffic data interchange is a multifaced problem which involves research in many fields: communications, systems engineering, computer sciences, modelling, standardisation, etc. CHRISTINE is concerned mainly with systems engineering, as it analyses the information requirements of the identified functions in the IRTE, belonging to existing and emerging applications and technologies. Communication is analysed from the user's needs (requirements) and TDIN's architecture points of view. In the standardisation field, CHRISTINE's main concern is to identify those areas where standardisation is needed, examining the current standards and common used practices. Recommendations on harmonization will be produced on those areas.

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