



U.S. Department of
Transportation



Intelligent Transportation Systems Standards Fact Sheet

July 2001

SAE J2372

Field Test Analysis Information Report

Overview

Location referencing standards enable the location of an event or thing to be communicated from one component of an ITS system to another component using different spatial databases (map or locational) in an unambiguous and mutually understandable way. This standard, **SAE J2372 – Field Test Analysis Information Report**, describes the results of testing of the SAE J1746, ISP -Vehicle Location Referencing Standard. (An ISP is an information service provider.) The SAE J1746 standard was designed for the communication of spatial data references between central sites (such as transportation management centers) and mobile vehicles on roads. Testing was performed by the Oak Ridge National Laboratory (ORNL) and its contractors, resulting in a document from which this information report has been extracted (see “related documents” below). The ORNL testing program determined and characterized the ability of the SAE J1746 standard to transfer information between various combinations of commonly available public and private sector spatial databases, and makes conclusions and recommendations concerning error sources in unsuccessful transfers. Tests were performed by computer analysis and corroborated by field tests with a mobile vehicle.

To obtain a copy of this draft standard, please contact:

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For ordering information on this standard, check the Web site at the bottom of this page.

What is this standard for?

This information report describes results of testing of the SAE J1746 ISP -Vehicle Location Referencing Standard. A transportation management center uses SAE J1746 when sending or receiving locational data, and vehicles can expect to send and receive references through the use of this interface standard as well. Since it is an interface standard, SAE J1746 specifies syntax and common language, but does not specify the quality of the locational data. Nor does it specify if the sender and receiver understand the data models underlying the spatial data being sent. The tests described in the Information Report illustrate this point, and the test results described in this report should be taken into account by traffic management centers or other potential users of the SAE J1746 standard.

Who uses it?

This information report is intended as background for ITS system developers, ISP implementers, vehicle navigation system developers, and any person or organization wishing to use the SAE J1746 ISP -Vehicle Location Referencing Standard for location referencing purposes.

Scope

This information report relates to the communication of spatial data references using the SAE J1746 ISP-Vehicle Location Referencing Standard. It provides detailed information dealing with the performance of various spatial data bases to transfer location information to differing spatial databases. Additionally, it analyzes various error sources and provides limited recommendations to improve the performance of location referencing and the compatibility of spatial databases.

Related documents

Haas, R. P., J. W. Lau, C. W. Goodwin, S. R. Gordon. “Location Referencing Message Specification Report Version 1.0,” Oak Ridge National Laboratory, July 23, 1998.

SAE J1746 – ISP-Vehicle Location Referencing Standard

SAE J2373 – Stakeholder's Workshop Information Report

SAE J2374 – Location Referencing Message Specification Information Report

SAE J2369 – Standards for ATIS Message Sets Delivered Over Bandwidth Restricted Media