AS ISO 19147:2018

Australian STANDARD

Geographic information—Transfer Nodes

STANDARDS Australia

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ANZLIC - the Spatial Information Council
Australian Antarctic Division, Department of the Environment (Australian Government)
Australian Bureau of Statistics
Australian Hydrographic Office
Bureau of Meteorology (Australian Government)
Curtin University of Technology
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Geoscience Australia
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Preface

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee IT-004, Geographical Information/Geomatics.

After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian Standard rather than an Australian/New Zealand Standard.

The objective of this Standard is to specify the data types and code lists associated with those types for the implementation of transfer nodes and their services in transport modelling and location based services.

This Standard is identical with, and has been reproduced from, ISO 19147:2015, *Geographic information — Transfer Nodes.*

As this document has been reproduced from an International Standard, the following applies:

(a) In the source text 'this International Standard' should read 'this Australian Standard'.

(b) A full point substitutes for a comma when referring to a decimal marker.

Australian or Australian/New Zealand Standards that are identical adoptions of international normative references may be used interchangeably. Refer to the online catalogue for information on specific Standards.

The terms 'normative' and 'informative' are used in Standards to define the application of the appendices or annexes to which they apply. A 'normative' appendix or annex is an integral part of a Standard, whereas an 'informative' appendix or annex is only for information and guidance.

Contents

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 211, *Geographic information/Geomatics*.

Introduction

All over the world, the authorities are facing serious problems due to the steady rise in the traffic volume. This rise will sooner or later call for very dramatic measures; one first step might be to persuade or force car users to change modes partly or entirely. In order to help this process, the authorities will need a complete overview of where it is possible to change modes of transport.

Over the last few years, substantial work in this field has been carried out by CEN/TC 278 *Intelligent Transport Systems*. EN 28701 was published in 2012. This work is motivated by the fact that the public transport sector needs data on a number of objects and events in their transport networks in order to have them work efficiently. The work done by CEN/TC 278 has been one of the sources for the motivation and background material for the ISO 19147 work done by ISO/TC 211.

Australian Standard®

Geographic information—Transfer Nodes

1 Scope

This International Standard specifies the data types and code lists associated with those types for the implementation of transfer nodes and their services in transport modelling and location based services.

This International Standard includes the following:

— defines transfer nodes in a multimodal way so that the definition is general and valid for all types of transport means and modes;

— links transfer nodes to a location;

— focuses on the attributes defining the transfer node in relation to nodes in mode specific networks;

— defines the attributes of transfer nodes that are relevant for travel planning and modelling of interoperable transport systems by transport planners;

— defines a set of services and facilities that may be related to transfer nodes and a way to provide information on accessibility, deviations and restrictions related to these services and facilities.

This International Standard is applicable for transport infrastructure owners and operators when defining and/or describing their transport infrastructure and for transport-related Service Providers when providing information to travellers and others.

This International Standard is limited to the transport of persons and is also limited to the static getting-on and getting-off points. The main focus is on transfer nodes being part of public transport networks, that are located in road networks, but this International Standard is also applicable for transfer nodes in rail networks and in air and sea transport networks.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 639, *Code for the representation of names of languages*

ISO 3166, *Codes for the representation of names of countries and their subdivisions*

ISO 19103:—[1)], *Geographic information — Conceptual schema language*

ISO 19107, *Geographic information — Spatial schema*

ISO 19108, *Geographic information — Temporal schema*

ISO 19133, *Geographic information — Location-based services — Tracking and navigation*

ISO 19134, *Geographic information — Location-based services — Multimodal routing and navigation*

ISO 19136, *Geographic information — Geography Markup Language (GML)*

ISO 19155, *Geographic information — Place Identifier (PI) architecture*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

1) To be published. (Revision of ISO/TS 19103:2015)