SVENSK STANDARD
SS-ISO 19149:2011

Fastställd/Approved: 2011-11-21
Publicerad/Published: 2011-11-29
Utgåva/Edition: 1
Språk/Language: engelska/English
ICS: 35.020; 35.240.01; 35.240.30; 35.240.50; 35.240.60; 35.240.70

Geografisk information – Språk för rättigheter för geografisk information – GeoREL (ISO 19149:2011, IDT)

Geographic information – Rights expression language for geographic information – GeoREL (ISO 19149:2011, IDT)

Standarder får världen att fungera

SIS (Swedish Standards Institute) är en fristående ideell förening med medlemmar från både privat och offentlig sektor. Vi är en del av det europeiska och globala nätverk som utarbetar internationella standarder. Standarder är dokumenterad kunskap utvecklad av framstående aktörer inom industri, näringsliv och samhälle och befrämjar handel över gränser, bidrar till att processer och produkter blir säkrare samt effektiviserar din verksamhet.

Delta och påverka
Som medlem i SIS har du möjlighet att påverka framtida standarder inom ditt område på nationell, europeisk och global nivå. Du får samtidigt tillgång till tidig information om utvecklingen inom din bransch.

Ta del av det färdiga arbetet
Vi erbjuder våra kunder allt som rör standarder och deras tillämpning. Hos oss kan du köpa alla publikationer du behöver – allt från enskilda standarder, tekniska rapporter och standard-paket till handböcker och onlinetjänster. Genom vår webbtjänst e-nav får du tillgång till ett lättnavigerat bibliotek där alla standarder som är aktuella för ditt företag finns tillgängliga. Standarder och handböcker är källor till kunskap. Vi säljer dem.

Utveckla din kompetens och lyckas bättre i ditt arbete
Hos SIS kan du gå öppna eller företagsinterna utbildningar kring innehåll och tillämpning av standarder. Genom vår närhet till den internationella utvecklingen och ISO får du rätt kunskap i rätt tid, direkt från källan. Med vår kunskap om standarders möjligheter hjälper vi våra kunder att skapa verklig nytta och lönsamhet i sina verksamheter.

Vill du veta mer om SIS eller hur standarder kan effektivisera din verksamhet är du välkommen in på www.sis.se eller ta kontakt med oss på tel 08-555 523 00.

Standards make the world go round

SIS (Swedish Standards Institute) is an independent non-profit organisation with members from both the private and public sectors. We are part of the European and global network that draws up international standards. Standards consist of documented knowledge developed by prominent actors within the industry, business world and society. They promote cross-border trade, they help to make processes and products safer and they streamline your organisation.

Take part and have influence
As a member of SIS you will have the possibility to participate in standardization activities on national, European and global level. The membership in SIS will give you the opportunity to influence future standards and gain access to early stage information about developments within your field.

Get to know the finished work
We offer our customers everything in connection with standards and their application. You can purchase all the publications you need from us - everything from individual standards, technical reports and standard packages through to manuals and online services. Our web service e-nav gives you access to an easy-to-navigate library where all standards that are relevant to your company are available. Standards and manuals are sources of knowledge. We sell them.

Increase understanding and improve perception
With SIS you can undergo either shared or in-house training in the content and application of standards. Thanks to our proximity to international development and ISO you receive the right knowledge at the right time, direct from the source. With our knowledge about the potential of standards, we assist our customers in creating tangible benefit and profitability in their organisations.

If you want to know more about SIS, or how standards can streamline your organisation, please visit www.sis.se or contact us on phone +46 (0)8-555 523 00

Den internationella standarden ISO 19149:2011 gäller som svensk standard. Detta dokument innehåller den officiella engelska versionen av ISO 19149:2011.

The International Standard ISO 19149:2011 has the status of a Swedish Standard. This document contains the official version of ISO 19149:2011.

Upplysningar om sakinnehållet i standarden lämnas av SIS, Swedish Standards Institute, telefon 08-555 520 00. Standarder kan beställas hos SIS Förlag AB som även lämnar allmänna upplysningar om svensk och utländsk standard.

Information about the content of the standard is available from the Swedish Standards Institute (SIS), telephone +46 8 555 520 00. Standards may be ordered from SIS Förlag AB, who can also provide general information about Swedish and foreign standards.

Denna standard är framtagen av kommittén för Ramverk för geodata, SIS/TK 323.

Har du synpunkter på innehållet i den här standarden, vill du delta i ett kommande revideringsarbete eller vara med och ta fram andra standarder inom området? Gå in på www.sis.se - där hittar du mer information.

Contents

Page

Examples and Schemata

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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 19149 was prepared by Technical Committee ISO/TC 211, *Geographic information/Geomatics*. A base document was supplied by the Open Geospatial Consortium, Inc.

Introduction

The use of ubiquitous computing in geographic information is often obstructed by legal concerns about the rights of the holders and owners of data and other intellectual property resources. It can be the case that once data or other resource is released into any unconstrained and unprotected environment, the value of the holding is decreased because the underlying data theoretically becomes available from other sources. The multimedia industry has taken the lead in solving this problem by creating a general model for digital rights protection, in which a language was developed in order that instances of those rights might be documented, a rights expression language, specifically in ISO/IEC 21000-5, the ISO REL. This language, used in conjunction with Digital Rights Management (DRM) systems, can protect the value of data and still allow it to be distributed subject to a system of licensing, trust and enforcement.

This International Standard extends the ISO REL to encompass the concerns of holders of geographic data and service resources to equally ensure their protection. This allows the geographic information market to operate with minimal constraints derived from the need for the protection of intellectual property.

There are two major sources for foundational material for this work.

— The first source is ISO/IEC 21000, a multiple part standard that defines digital rights management in general. There is no need to extend this basic foundation for expressing and enforcing rights for resources except in those cases where the special requirements of geographic information and services make it necessary.

— The second source is ISO 19153 (originally an Open Geospatial Abstract Specification volume), which enumerates these special cases for geographic information as well as providing an overall reference model using common geographic information terms that ties the work of the ISO/IEC 21000 work into this spatial standard.

Given these two foundations, the purpose of this International Standard is to extend the ISO REL, consistent with the requirements for such extensions given in ISO/IEC 21000-5, to cover the special cases enumerated in ISO 19153.

Geographic information — Rights expression language for geographic information — GeoREL

1 Scope

This International Standard defines an XML-based vocabulary or language to express rights for geographic information in order that digital licenses can be created for such information and related services. This language, GeoREL, is an extension of the rights expression language in ISO/IEC 21000-5 and is to be used to compose digital licenses. Each digital license will unambiguously express those particular rights that the owners (or their agent) of a digital geographic resource extend to the holders of that license. The digital rights management system in which these licenses are used can then offer *ex ante* (before the fact) protection for all such resources.

NOTE The proper use of a GeoREL includes the preservation of rights access by formula expressed in usage licenses. Thus, data in the public or private domain, when protected, remain in their respective domains if the usage rights granted so state.

These “rights” are not always covered by copyright law, and are often the result of contracts between individuals that specify the proper and allowed uses of resources, as opposed to the threat of copyright litigations which is an *ex post facto* (after the fact) remediation measure, not an *ex ante* protection measure. This International Standard is not a reflection of, or extension of, copyright law.

Mechanisms for the enforcement and preservation of those contract rights are specified in ISO/IEC 21000, and it is not the intention of this International Standard to replace nor redefine those mechanisms, but to use them as previously standardized.

2 Conformance

The license language vocabulary is expressed as an XML schema extending the ISO/IEC 21000-5 REL. A conformant license expression is a well-formed and complete XML document (or its equivalent) that expresses the semantics described in the standard and that is properly protected from modification by the mechanisms described and specified in ISO/IEC 21000.

A license compliant to this International Standard will be consistent with the XML schema for ISO/IEC 21000-5 and the XML schema associated with this International Standard (see requirements in Clause 6).

A software system compliant to this International Standard shall interpret any compliant license in a manner consistent with the semantics expressed in ISO/IEC 21000 and the abstract test suite given in Annex A.