

Teknisk specifikation

SIS-ISO/TS 19135-2:2012

Publicerad/Published: 2012-05-11

Utgåva/Edition: 1

Språk/Language: engelska/English

ICS: 07.040; 35.240.01; 35.240.30; 35.240.50; 35.240.60; 35.240.70; 35.240.99

Geografisk information – Procedurer för registrering – Del 2: Implementering med XML-schema (ISO/TS 19135-2:2012)

Geographic information – Procedures for item registration – Part 2: XML schema implementation (ISO/TS 19135-2:2012)

This preview is downloaded from www.sis.se. Buy the entire standard via <https://www.sis.se/std-86190>

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.

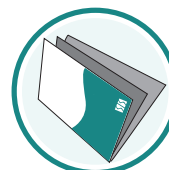
Ta del av det färdiga arbetet

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 standardpaket 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



Denna tekniska specifikation är inte en svensk standard. Detta dokument innehåller den engelska språkversionen av ISO/TS 19135-2:2012.

This Technical Specification is not a Swedish Standard. This document contains the English version of ISO/TS 19135-2:2012.

© Copyright/Upphovsrätten till denna produkt tillhör SIS, Swedish Standards Institute, Stockholm, Sverige. Användningen av denna produkt regleras av slutanvändarlicensen som återfinns i denna produkt, se standardens sista sidor.

© Copyright SIS, Swedish Standards Institute, Stockholm, Sweden. All rights reserved. The use of this product is governed by the end-user licence for this product. You will find the licence in the end of this document.

Uppllysningar om sakinnehållet i detta dokument lämnas av SIS, Swedish Standards Institute, telefon 08-555 520 00. Standarder kan beställas hos SIS Förlag AB som även lämnar allmänna uppllysningar om nationell och internationell standard.

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

Dokumentet är framtaget av kommittén för Ramverk för geodata, SIS/TK 323.

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

Contents		Page
Foreword		iv
Introduction		v
1 Scope		1
2 Conformance		1
3 Normative references		1
4 Terms and definitions		1
5 Abbreviations		1
6 Introduction to the encoding descriptions		2
7 XML namespaces		2
8 grg namespace		2
8.1 Organization of the grg namespace		2
8.2 grg.xsd		3
8.3 register.xsd		3
Annex A (normative) Abstract test suite		5
Annex B (informative) Geographic ReGister XML Resources		7
Bibliography		8

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.

In other circumstances, particularly when there is an urgent market requirement for such documents, a technical committee may decide to publish other types of document:

- an ISO Publicly Available Specification (ISO/PAS) represents an agreement between technical experts in an ISO working group and is accepted for publication if it is approved by more than 50 % of the members of the parent committee casting a vote;
- an ISO Technical Specification (ISO/TS) represents an agreement between the members of a technical committee and is accepted for publication if it is approved by 2/3 of the members of the committee casting a vote.

An ISO/PAS or ISO/TS is reviewed after three years in order to decide whether it will be confirmed for a further three years, revised to become an International Standard, or withdrawn. If the ISO/PAS or ISO/TS is confirmed, it is reviewed again after a further three years, at which time it must either be transformed into an International Standard or be withdrawn.

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.

ISOTS 19135-2 was prepared by Technical Committee ISO/TC 211, *Geographic information/Geomatics*.

ISO 19135 consists of the following parts, under the general title *Geographic information — Procedures for item registration*:

- *Part 2: XML schema implementation* [Technical Specification]

A part 1 dealing with procedures for item registration is under preparation.

Introduction

The ISO 19135 series standardizes the procedures for the registration of geographic items. Since it does not provide any encoding for the storage and exchange of registers and register items, implementations may vary based on the interpretation of the base standard.

This Technical Specification defines an XML encoding for the storage and exchange of ISO 19135-compliant registers and register items. This encoding conforms to the rules described in ISO/TS 19139.

The encoding defined in this Technical Specification is intended to be extended to specific registers, e.g. ISO 19145¹⁾ for registers of representations of geographic point location.

1) To be published.

Geographic information — Procedures for item registration —

Part 2: XML schema implementation

1 Scope

This Technical Specification defines Geographic ReGister XML (grg) encoding, an XML schema implementation derived from ISO 19135.

2 Conformance

Conformance with this Technical Specification shall be checked using all the relevant tests specified in Annex A and all the relevant tests specified in Annex A of ISO/TS 19139:2007. The framework, concepts, and methodology for testing, and the criteria to be achieved to claim conformance, are specified in ISO 19105.

3 Normative references

The following referenced documents are indispensable for the application of this Technical Specification. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 19135:2005, *Geographic information — Procedures for item registration*

ISO/TS 19139:2007, *Geographic information — Metadata — XML schema implementation*

4 Terms and definitions

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

4.1 namespace

collection of names, identified by a URI reference, which are used in XML documents as element names and attribute names

NOTE See Reference [5] in the Bibliography.

4.2 package

general purpose mechanism for organizing elements into groups

[ISO/TS 19103:2005, 4.2.22]

5 Abbreviations

UML Unified Modelling Language

URI Unique Resource Identifier

XCT XML Class Type

XML eXtensible Markup Language
 XSD XML Schema Definition

6 Introduction to the encoding descriptions

This Technical Specification defines Geographic ReGister (grg) XML encoding, an XML schema implementation of the register schema defined in Clause 8 of ISO 19135:2005. This XML schema implementation of ISO 19135 follows the encoding rules stated in ISO/TS 19139:2007, Clause 8. The exceptions and the implementations based on external types are detailed in this clause. This clause uses the UML notation commonly used in ISO geographic information standards and the specific notations defined in ISO/TS 19139:2007, 5.4.

In the list below, the item on the left describes the common namespace prefix used to describe the elements in the namespace. The second item is a description in English of the namespace prefix, and the item in parentheses is the URI of the actual namespace.

grg	Geographic ReGister	(http://www.isotc211.org/2005/grg)
gco	Geographic COmmon extensible markup language	(http://www.isotc211.org/2005/gco)
gmd	Geographic MetaData extensible markup language	(http://www.isotc211.org/2005/gmd)

7 XML namespaces

Figure 1 below shows the namespace used to implement ISO 19135 along with its dependencies on the namespaces defined in ISO/TS 19139 used to implement ISO 19115 and the related standards.

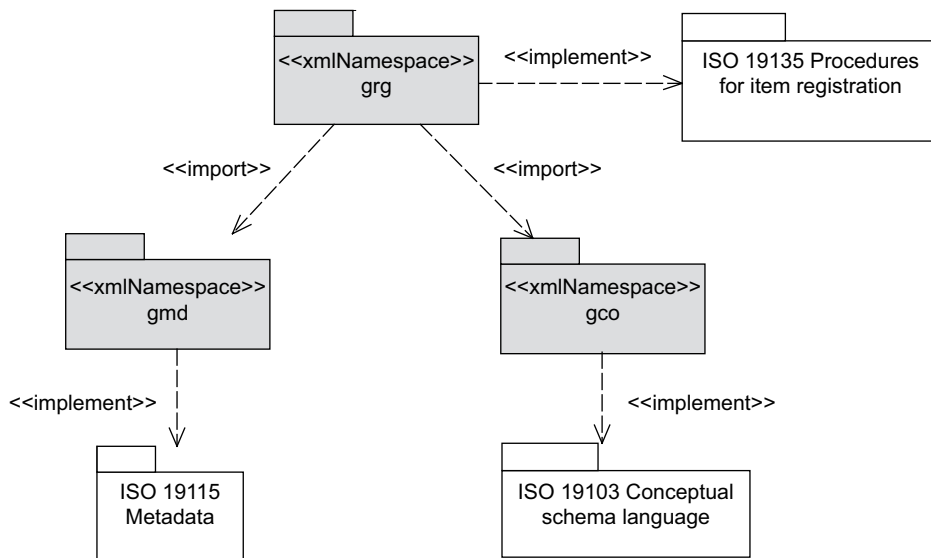


Figure 1 — XML namespaces

8 grg namespace

8.1 Organization of the grg namespace

This namespace contains the implementation of the register schema of ISO 19135. The root of this namespace is grg.xsd. Figure 2 shows the organization of the grg namespace.

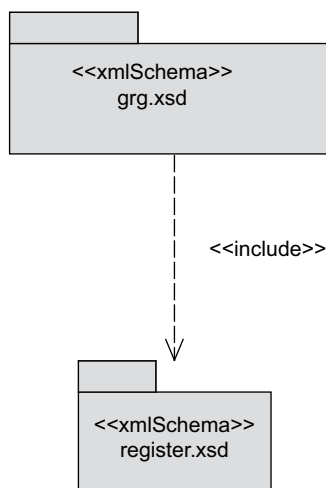


Figure 2 — Organization of grg namespace

8.2 grg.xsd

This XML schema includes directly all the implemented concepts of the grg namespace, but it does not contain the declaration of any type.

8.3 register.xsd

8.3.1 Introduction

This XML schema implements all the UML classes of the register schema defined in Clause 8 of ISO 19135:2005.

The UML classes defined in ISO 19135:2005, 8.2 and 8.7 to 8.24, are implemented in XML schema following the encoding rules defined in Clause 8 of ISO/TS 19139:2007. These classes are: RE_Register, RE_ReferenceSource, RE_RegisterItem, RE_ProposalManagementInformation, RE_AdditionInformation, RE_ClarificationInformation, RE_AmendmentInformation, RE_Reference, RE_SubregisterDescription, RE_AlternativeExpression, RE_AlternativeName, RE_Locale, RE_Version, RE_FieldOfApplication, RE_ItemStatus, RE_DecisionStatus, RE_Disposition, RE_AmendmentType and RE_SimilarityToSource.

Additionally, this XML schema contains two customized encodings, described in 8.3.2 and 8.3.3.

8.3.2 RE_RegisterOwner, RE_RegisterManager, and RE_SubmittingOrganization

An abstract element `grg:AbstractRegisterStakeholder` of type `grg:AbstractRegisterStakeholder_Type` is created to share the two common attributes of classes `RE_RegisterOwner`, `RE_RegisterManager`, `RE_SubmittingOrganization` defined in ISO 19135:2005, 8.3, 8.4 and 8.5. Their XML Class Type (XCT) derives from this abstract element, as depicted in Figure 3.