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**Referenčni model za upravljanje geoprostorskih digitalnih avtorskih pravic
(GeoDRM)**

Geospatial Digital Rights Management Reference Model (GeoDRM RM)

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Modèle de référence de la gestion des droits numériques des données géographiques

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**Geospatial Digital Rights Management Reference Model
(GeoDRM RM)***Modèle de référence de la gestion des droits numériques des données géographiques*

ICS 35.240.70

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Contents

Page

Foreword	x
Introduction.....	xi
1 Scope	1
2 Conformance	2
3 Normative references	3
4 Terms and definitions	3
5 Conventions	10
5.1 Abbreviated terms	10
5.2 UML notation.....	10
6 GeoDRM Design Principles	10
6.1 GeoDRM Roadmap	10
6.2 Basics	11
6.3 Flow model of GeoDRM	11
6.4 GeoDRM Gatekeeper.....	12
6.5 DRM metadata – licence model.....	15
6.6 Developmental Guidelines.....	17
6.7 The components of managing risk.....	18
6.7.1 General	18
6.7.2 Trust.....	18
6.7.3 Protection - security.....	19
6.7.4 Remediation - enforcement	19
6.7.5 Metadata in support of trust.....	19
7 GeoDRM Enterprise Viewpoint and Abstract Rights Model.....	20
7.1 Introduction.....	20
7.2 Geospatial Resource.....	20
7.3 GeoLicence Extents	20
7.4 GeoLicence Expression.....	22
7.5 GeoLicence Creation and Enforcement	22
7.6 GeoLicence Delegation and Management	22
7.7 GeoLicence Chaining.....	23
7.8 GeoLicensing Communities	24
7.9 GeoLicensing and resource lineage.....	25
7.10 Handling GeoLicence Violation – and the break-the-glass principle.....	26
7.11 Automated licence revocation/expiration – need to revoke privilege	27
8 GeoDRM Computational Viewpoint	27
8.1 Overview: Roles and Responsibilities	27
8.2 Principals.....	31
8.3 Resource owner.....	31
8.4 Agent.....	31
8.5 Licence broker or licensing agent	32
8.6 Service broker.....	32
8.7 Service provider	32
8.8 End-User.....	32
8.9 Licence Manager	32
9 Information Viewpoint.....	32
9.1 Overview.....	32
9.2 User Metadata	34

ISO/DIS 19153

9.3	Properties and patterns	34
9.4	Resource Metadata	35
9.4.1	General metadata	35
9.4.2	GeoInformation resource metadata	35
9.4.3	GeoProcessing resource metadata	35
9.5	Licence Metadata	36
9.5.1	Licence	36
9.5.2	Principal or Licensee	36
9.5.3	Grants	36
9.5.4	Issuer	44
9.6	Process metadata	45
Annex A	(normative) Abstract Test Suite	46
A.1	Items covered	46
A.2	Rights expression languages conformance Class	46
A.3	Metadata system Conformance Class	46
A.4	Gatekeeper Conformance Class	47
Annex B	(informative) GeoDRM UML Model	48
B.1	Semantics	48
B.2	Class Diagrams	48
B.3	Bind	54
B.4	Binding	54
B.5	principal	55
B.6	principal::Licensee	55
B.7	principalPattern	56
B.8	Property	56
B.9	PropertyType	57
B.10	resource	57
B.11	resourcePattern	58
B.12	Agent	58
B.13	ConditionParameter	59
B.14	Combine	59
B.15	Condition	60
B.16	Copy	61
B.17	CreateLicence	61
B.18	Data	61
B.19	DeriveGraphic	62
B.20	DeriveResource	62
B.21	Details	63
B.22	Edit	63
B.23	Encode	64
B.24	Execute	64
B.25	ExtractResource	64
B.26	FunctionCall	65
B.27	GeoLicence	65
B.28	Grant	66
B.29	GrantComponent	67
B.30	Licensee	68
B.31	LicenceManager	69
B.32	LicensingAgent	69
B.33	Licenser	70
B.34	MetaRight	71
B.35	Modify	71
B.36	Owner	72
B.37	Principal	72
B.38	PrincipalGroup	73
B.39	Print	74
B.40	Process	74
B.41	Processing	75
B.42	ProcessInvocation	76

B.43	PropertyInterface	76
B.44	Request	77
B.45	Resource	78
B.46	Right	80
B.47	Service	80
B.48	ServiceBroker	80
B.49	ServiceProvider	81
B.50	ServiceRequest	81
B.51	SideEffect	82
B.52	SpatialFit	83
B.53	SpatialGeometry	83
B.54	SpatialOperations	84
B.55	SpatialTransform	84
B.56	Sublicense	84
B.57	SubLicensee	84
B.58	TemporalOperations	85
B.59	Time	85
B.60	TimeInterval	86
B.61	TimePattern	86
B.62	Use	87
B.63	View	87
Annex C	(informative) Scenarios	89
C.1	Introduction	89
C.2	Scenario 1: User accesses content from single provider	90
C.3	Scenario 2: Overlaying content from multiple providers	91
C.4	Scenario 3: Joining content from multiple providers	92
C.5	Scenario 4: Derived resource adding content	93
Annex D	(informative) Editor's notes	95
D.1	The spelling of licence in its various forms	95
Bibliography	96
https://standards.iteh.ai/catalog/standards/sist/6b5860ac-b4fa-416e-9b4c-e94d40e55120/sist-iso-19153-2015		
Figures		
Figure 1	— GeoDRM Reference Model Context.....	2
Figure 2	— Gatekeeper metaphor for GeoDRM	13
Figure 3	— Topology for complex gatekeeper example	14
Figure 4	— Sequence diagram for a two-stage geoserver interaction.....	14
Figure 5	— General Licence Model (UML).....	16
Figure 6	— Structure of a Licence.....	16
Figure 7	— Balancing trust with protection and remediation.....	18
Figure 8	— GeoLicence Extents.....	21
Figure 9	— GeoLicence Delegation and Management	23
Figure 10	— GeoLicence Chaining – supporting distributed licensing	24
Figure 11	— An example of GeoCommunity – based on geography.....	25
Figure 12	— GeoDRM Roles and Responsibilities	28

ISO/DIS 19153

Figure 13 — Example Business Model.....	29
Figure 14 — Various Principals in a GeoDRM system.....	31
Figure B.1 — Condition.....	48
Figure B.2 — Condition Binding	49
Figure B.3 — Grant.....	49
Figure B.4 — Grant Components: Principal, Right, and Resource	50
Figure B.5 — Licence	50
Figure B.6 — Principal.....	51
Figure B.7 — Processing Right	51
Figure B.8 — Properties	52
Figure B.9 — Request	52
Figure B.10 — Resources	53
Figure B.11 — Rights.....	54
Figure C.1 — GeoDRM Game – Interactive Role Playing.....	89
Figure C.2 — User accesses content from single provider	90
Figure C.3 — Workflow for creating and enforcing a licence	90
Figure C.4 — Overlaying content from multiple providers.....	91
Figure C.5 — Workflow licensed access to content from multiple providers.....	92
Figure C.6 — Joining resources from multiple providers.....	93
Figure C.7 — Derived resource adding content	94
Tables	
Table 1 — Semantics of licence structure	17
Table 2 — GeoDRM Roles and Responsibilities.....	30
Table 3 — Metadata verification and process authorization.....	34
Table B.1 — Binding Attributes.....	54
Table B.2 — principal Connections	55
Table B.3 — principal Attributes	55
Table B.4 — principal::Licensee Connections	56
Table B.5 — principalPattern Connections.....	56

Table B.6 — Property Connections	56
Table B.7 — Property Attributes	57
Table B.8 — resource Connections	57
Table B.9 — resource Attributes	57
Table B.10 — resourcePattern Connections	58
Table B.11 — Agent Connections	58
Table B.12 — ConditionParameter Connections	59
Table B.13 — ConditionParameter Interfaces	59
Table B.14 — Combine Connections	60
Table B.15 — Condition Connections	60
Table B.16 — Condition Attributes	60
Table B.17 — Condition Interfaces	61
Table B.18 — Copy Connections	61
Table B.19 — CreateLicence Connections	61
Table B.20 — Data Connections	62
Table B.21 — Data Attributes	62
Table B.22 — DeriveGraphic Connections	62
Table B.23 — DeriveResource Connections	63
Table B.24 — Details Attributes	63
Table B.25 — Edit Connections	63
Table B.26 — Encode Connections	64
Table B.27 — Execute Connections	64
Table B.28 — ExtractResource Connections	65
Table B.29 — FunctionCall Connections	65
Table B.30 — GeoLicence Connections	66
Table B.31 — GeoLicence Attributes	66
Table B.32 — GeoLicence Interfaces	66
Table B.33 — Grant Connections	67
Table B.34 — Grant Attributes	67
Table B.35 — Grant Interfaces	67

ISO/DIS 19153

Table B.36 — GrantComponent Connections	68
Table B.37 — GrantComponent Attributes	68
Table B.38 — GrantComponent Interfaces	68
Table B.39 — Licensee Connections	69
Table B.40 — LicenceManager Connections	69
Table B.41 — LicensingAgent Connections	69
Table B.42 — Licensor Connections	70
Table B.43 — Licensor Attributes	70
Table B.44 — Licensor Interfaces	71
Table B.45 — MetaRight Connections	71
Table B.46 — Modify Connections	71
Table B.47 — Owner Connections	72
Table B.48 — Principal Connections	73
Table B.49 — PrincipalGroup Connections	74
Table B.50 — Print Connections	74
Table B.51 — Process Connections	74
Table B.52 — Process Attributes	75
Table B.53 — Processing Connections	75
Table B.54 — Processing Attributes	76
Table B.55 — ProcessInvocation Connections	76
Table B.56 — PropertyInterface Connections	77
Table B.57 — PropertyInterface Interfaces	77
Table B.58 — Request Connections	78
Table B.59 — Request Attributes	78
Table B.60 — Resource Connections	79
Table B.61 — Resource Interfaces	79
Table B.62 — Right Connections	80
Table B.63 — Service Connections	80
Table B.64 — ServiceBroker Connections	81
Table B.65 — ServiceProvider Connections	81

Table B.66 — ServiceRequest Connections	81
Table B.67 — SideEffect Connections	82
Table B.68 — SideEffect Attributes	82
Table B.69 — SideEffect Interfaces	82
Table B.70 — SpatialFit Connections	83
Table B.71 — SpatialGeometry Connections.....	83
Table B.72 — SpatialGeometry Interfaces.....	83
Table B.73 — SpatialTransform Connections	84
Table B.74 — Sublicense Connections.....	84
Table B.75 — SubLicensee Connections.....	85
Table B.76 — Time Connections	85
Table B.77 — Time Attributes	85
Table B.78 — Time Interfaces.....	85
Table B.79 — TimeInterval Connections.....	86
Table B.80 — TimeInterval Attributes	86
Table B.81 — TimeInterval Interfaces.....	86
Table B.82 — TimePattern Connections.....	86
Table B.83 — TimePattern Attributes.....	87
Table B.84 — Use Connections	87
Table B.85 — View Connections.....	88

ISO/DIS 19153**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.

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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.

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ISO 19153 was prepared by Technical Committee ISO/TC 211, *Geographic information/Geomatics*.

Geographic Information — Geospatial Digital Rights Management Reference Model (GeoDRM RM) was originally developed within the Open Geospatial Consortium, Inc. (OGC). ISO 19153 was prepared by ISO/TC 211 jointly with OGC.

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Introduction

To create a marketplace, individuals who own something of value (here a resource) must have some level of assurance that they will be able to obtain fair value for its use or purchase. In a digital world, due to the nature of digital resources and commerce, most digital entities are not sold in the usual sense. When a user acquires an application, he actually acquires the right to use a copy of the application. Possession does not equate with ownership, and a system of software and resource licensing has grown up in the digital world that ensures the following types of things:

- The user may legitimately act upon a resource if he has a corresponding licence for that act.
- The owner should maintain the resource, fixing error (“bug-fix”) and assuring a guaranteed level of functionality.
- Optionally, the user may be asked to pay the owner of the resource based upon agreed criteria, whether that is a one-time fee, a per-machine fee, a usage fee or some other mechanism stated in the legal contract or licence between user and owner.
- The user agrees to protect the owner’s rights based on the agreement. This usually means he cannot backward engineer code or resource, nor redistribute the resource without proper permission.
- The owner agrees to maintain the resource and allow a reasonable access to the users for any fixes that may be required. Again, the extent or degree of maintenance is stated in the user agreement.
- To create and support a large-scale, open market in geospatial resources, this type of protection is needed to assure that a “fair value for work (investment)” ethic can be guaranteed so that suppliers can be sure of fair return on individual sales, and users can be sure of fair value for purchases of uses of resources.

This International Standard describes how this is to be done.

This International Standard does not replace any previous ISO or OGC standards, but it is dependent upon them. Each resource and service standard that exists or will exist becomes a resource description in this International Standard, and hopefully shall be subject to the same sorts of protection that is afforded to other digital resources.

Geographic information — Geospatial Digital Rights Management Reference Model (GeoDRM RM)

1 Scope

This International Standard is a reference model for digital rights management (DRM) functionality for geospatial resources (GeoDRM). As such, it is connected to the general DRM market in that geospatial resources must be treated as nearly as possible like other resources, such as music, text, or services. It is not the intention here to reinvent a market nor the existing technology that already exists and is thriving, but to make sure that a larger market has access to geospatial resources through a mechanism that it understands and that is similar to and consistent with the ones already in use.

The normative content of this International Standard lies mainly in its descriptions.

This International Standard does not replace any previous standards, but it is dependent upon them. Each resource and service standard that exists or will exist becomes a resource description in this International Standard, and hopefully will be subject to the same protection that is afforded to other resources.

This International Standard defines:

- A conceptual model for digital rights management of geospatial resources, providing a framework and reference for more detailed specification in this area.
- A metadata model for the expression of rights that associate users to the acts that they can perform against a particular geospatial resource, and associated information used in the enforcement and granting of those rights, such as owner metadata, available rights and issuer of those rights.
- Requirements that are placed on rights management systems for the enforcement of those rights. A rights management system must be necessary and sufficient: it must implement only those restrictions necessary to enforce the rights defined therein, and it must be sufficient to enforce those rights.
- How this is to work conceptually in the larger DRM context to assure the ubiquity of geospatial resources in the general services market.

A resource in this context is a data file, or service for geographic information or process.

This abstract descriptive standard builds on and complements the existing standards, and defines at an abstract level a Rights Model to enable the digital rights management of standards-based geospatial resources. Future GeoDRM Standards will be written to implement the concepts defined in this International Standard.