International Standard

ISO 19127

Geographic information — Geodetic register

Information géographique — Registre géodésique

Second edition
2026-08

Reference number
ISO 19127:2026(en)

© ISO 2026



COPYRIGHT PROTECTED DOCUMENT

© ISO 2026

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

Foreword ... **iv**
Introduction ... **v**
1 Scope ... **1**
2 Normative references ... **1**
3 Terms and definitions ... **1**
4 Conformance ... **1**
5 Conventions ... **1**
6 Audience and accessibility ... **1**
7 ISO Geodetic Register roles and responsibilities ... **2**
7.1 General ... 2
7.2 Register owner ... 2
7.3 Register manager ... 2
7.4 Control body ... 2
7.4.1 Control body responsibilities ... 2
7.4.2 Control body membership ... 3
7.4.3 Approval of register content ... 3
7.4.4 Reporting ... 3
7.5 Register system manager ... 3
7.6 Proposer ... 3
7.7 Register user ... 4
8 ISO Geodetic Register governance processes ... **4**
8.1 Proposal process ... 4
8.2 Approval process ... 5
8.2.1 General ... 5
8.2.2 Addition ... 5
8.2.3 Modification ... 5
8.2.4 Retirement ... 6
8.3 Appeal process ... 6
8.4 Content management process ... 6
8.5 Statuses ... 7
9 ISO Geodetic Register system content requirements ... **7**
9.1 Identifiers ... 7
9.2 Register item classes ... 8
9.3 Register items ... 8
10 ISO Geodetic Register content requirements ... **8**
Annex A (normative) **Abstract test suite** ... **12**
Annex B (normative) **ISO Geodetic Register content** ... **13**
Annex C (informative) **Best practices for the ISO Geodetic Register content** ... **35**
Annex D (informative) **Metadata** ... **46**
Bibliography ... **49**

© ISO 2026 – All rights reserved

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 document 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).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

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

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 211, *Geographic information/Geomatics*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 287, *Geographic Information,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 19127:2019), which has been technically revised.

The main changes are as follows:

— updates to ISO 19111:2019 and ISO 19135:2026 have been incorporated.

Any feedback or questions on this document should be directed to the user’s national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

© ISO 2026 – All rights reserved

Introduction

This document governs procedures for the ISO 19127 geodetic register, but can also have applicability to similar national and international registers of geodetic information.

The ISO 19127 geodetic register and the ISO 19127 geodetic register system are referred to as the "ISO Geodetic Register" and "ISO Geodetic Register system", respectively, throughout this document.

ISO 19135 provides for the structural and governance requirements of a register and its management. Register management processes include the establishment, management, operation and publication of a register.

ISO 19111 describes elements necessary to define various types of coordinate reference systems applicable to geographic information. The subset of elements required is partially dependent upon the type of coordinates. Optional fields allow for the inclusion of metadata about the coordinate reference systems. ISO 19111 also provides for the description of a coordinate operation between two different coordinate reference systems or a coordinate operation to account for crustal motion over time. With such information, spatial data referenced to different coordinate reference systems can be referenced to one specified coordinate reference system at a specified time.

This document describes how the structural, governance and management requirements within ISO 19135 are applied to the ISO Geodetic Register of elements applicable to geodetic referencing by coordinates in accordance with ISO 19111. Reference can be made to other register system codes as aliases within the ISO Geodetic Register.

Annex A provides four tests to be applied to verify conformance to this document.

Annex B provides tables that specify information for elements to be included in the ISO Geodetic Register.

Annex C provides best practices for the ISO Geodetic Register content.

Annex D provides the metadata for the ISO Geodetic Register.

The name and contact information of the registration authority and the maintenance agency for this document can be found at www.iso.org/maintenance_agencies.

In accordance with the ISO/IEC Directives, Part 2, 2021, *Principles and rules for the structure and drafting of ISO and IEC documents*, "The decimal sign shall be a comma on the line in all language versions". However, the General Conference on Weights and Measures (*Conférence Générale des Poids et Mesures*) at its 22nd meeting in 2003, unanimously passed resolution 10, which reads as follows:

"The decimal marker shall be either the point on the line or the comma on the line."

In practice, the choice between these alternatives depends on customary use in the language concerned. In the technical areas of geodesy and geographic information it is customary for the decimal point to be used, for all languages. That practice is used throughout this document.

© ISO 2026 – All rights reserved

Geographic information — Geodetic register

1 Scope

This document defines the structure, governance and management of the ISO Geodetic Register, in accordance with ISO 19135. This document also identifies the data elements applicable to geodetic referencing by coordinates, in accordance with ISO 19111.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 6709, *Standard representation of geographic point location by coordinates*

ISO 19111, *Geographic information — Referencing by coordinates*

ISO 19135:2026, *Geographic information — Registration and register governance*

ISO 19162, *Geographic information — Well-known text representation of coordinate reference systems*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 19111 and ISO 19135 apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

4 Conformance

To conform to this document, the ISO Geodetic Register shall satisfy all of the conditions specified in Annex A.

5 Conventions

This document uses URIs as identifiers as described in RFC 3986.[4]

6 Audience and accessibility

The ISO Geodetic Register supports public users in uniquely identifying and using geodetic coordinate reference systems, coordinate operations and related data elements. The ISO Geodetic Register is a publicly-accessible, read-only register.

The ISO Geodetic Register is publicly-accessible via a publicly available URI, which is published on ISO/TC 211's website at https://committee.iso.org/sites/tc211/home/re.html.

© ISO 2026 – All rights reserved