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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 44492.2-2024

**Geographic information - Schema for coverage geometry and
functions - Part 2: Coverage implementation schema**

地理信息 覆盖的几何与函数模式 第2部分：覆盖的实现模式

(English Translation)

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document is part 2 of GB/T 44492 "Geometric and functional models of geographic information coverage". GB/T 44492 has been published the following parts.

--- Part 2: Coverage implementation patterns.

This document is equivalent to ISO 19123-2:2018 "Geometric and functional models of geographic information coverage Part 2: Implementation of coverage" model".

The following minimal editorial changes were made to this document.

--- Added OGC06-121r9 in Chapter 2, as OGC06-121r9 is normatively referenced in 5.2 of ISO 19123-2:2018;

---MIME was added to the abbreviations;

--- Added footnotes 2), 3), 4), 5) and footnote a of Table 1;

Introduction

Overlays are digital geospatial information representations of temporal and spatial variations. Common examples include 1D time series, 2D graphs, Like, 3D x/y/t image time series and 3D x/y/z geophysical models, and 4D x/y/z/t climate and ocean data.

This document is based on the abstract concepts of ISO 19123-1 and specifies a concrete, interoperable, conformance-testable coverage Although ISO 19123-1 specifies an abstract model, it is not interoperable in itself, that is, there can be many different and incompatible the Coverage Implementation Model (CIS) is interoperable and can be used in data format encoding.

Conformity testing is performed down to the level of individual "pixels" or "voxels".

Coverages may be encoded in any suitable format, such as GML, JSON, GeoTIFF, NetCDF or GMLJP2, and may be Coverage definitions are independent of data access methods and can be accessed through various Web-based service interfaces, such as WebCoverage the data is processed and transmitted through different Web services, including but not limited to WFS, WCS, WCPS and WPS.

Use WCS to provide coverage Web services and WCPS to perform coverage processing.

GB/T 44492 is intended to consist of three parts.

--- Part 1: Foundations, which aims to define the abstract concept model covered;

--- Part 2: Coverage implementation model aims to define a consistent and enforceable coverage implementation model that is applicable to multiple A structure covering the encoding format;

--- Part 3: Processing basic operations aims to define a method for obtaining, Overlay processing language for filtering, processing, analysis and fusion.

Together, these parts form a series of standards covering geometry and functional models. This document is primarily intended to facilitate the development of geographic information standards.

This document will help to increase the understanding of interoperability and the understanding of the basic principles and application of geographic information will help coordinate the spatial and temporal data of geographic information within and between fields according to the coverage model.

Interoperability.

Geographic Information Overlay geometry and function patterns Part 2: Overlay Implementation Patterns

1 Scope

This document specifies a concrete 1) implementable, conformant, and configurable implementation of the abstract schema defined in the ISO 19123 geometry schema.

The test coverage structure requirements.

This document applies to multiple coverage format encodings.

2 Normative references

The contents of the following documents constitute essential clauses of this document through normative references in this document.

For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to this document.

GB/T 23708-2009 Geographic Information Geography Markup Language (GML) (ISO 19136:2007, IDT) GB/T 35647-2017 Geographic Information Conceptual Schema Language (ISO 19103:2015, IDT) ISO 19123-1:2023 Geometric and functional models for geographic information coverage Part 1: Foundations OGC06-121r9 Open Geographic Information Consortium Web Services Common Standard, Version 2.0 (OGC WebServicesCommon OGC07-036 Geography Markup Language (GML) Encoding Standard, Version 3.2.1 OGC08-094r1 Open Geographic Information Consortium Sensor Network Implementation Common Data Model Encoding Standard, Version 2.0

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- 1) Relative to the abstract concepts mentioned in the introduction.
- 2) There are no technical differences between the referenced content of ISO 19123-1:2023 and the referenced content of ISO 19123:2005.
- 3) There is no technical difference between the content referenced in OGC08-094r1 and the content referenced in OGC08-094.

3.1 Terms and Definitions

The following terms and definitions apply to this document.

3.1.1

Abstract test suite; ATS an abstract test module that specifies all the requirements to be met to achieve conformance.

NOTE: Abstract test suites are described in conformance clauses.