

About This Standard

Current Status *Emerging*

Standard Identifier OGC WCS 1.1.2

Title of Standard

Web Coverage Service (WCS) Implementation Standard, Version 1.1.2 (v1.1 Corrigendum 2 release), 2008-03-19

Standards History

Introduced to Registry	Date Emerging	Date Mandated	Last Status Update	Last Status Review	Inactive/Retired
2009-03-26	2009-03-26	n/a	2009-03-26	2009-03-26	n/a

Standards Body

[Other](#)

[Broken Link?](#)

URL to Access or Acquire

<http://www.opengeospatial.org>

Working Group

Primary Owner Geospatial Intelligence (GWG)
Secondary Interest No Secondary Interest

Service Area

GEOINT: Geospatial

KIPs

No KIP Found

Standard Applicability

2009-03-27

The WCS specification is used for the development of any system that is intended to provide access to, or to access, coverage data such as remotely sensed images, raster maps, or digital terrain models. There are no competing standards.

Standard Abstract

2009-03-27

A WCS provides access to potentially detailed and rich sets of geospatial information in forms that are useful for client-side rendering, multi-valued coverages, and input into scientific models and other clients. It provides available data together with their detailed descriptions; allows complex queries against these data; and returns data with its original semantics (instead of pictures) which can be interpreted, extrapolated, etc. -- and not just portrayed. The WCS returns representations of space-varying phenomena that relate a spatiotemporal domain to a (possibly multidimensional) range of properties. This version of WCS supports only grid coverages. Examples include remotely-sensed images, raster maps, digital terrain models. The WCS provides three operations: GetCapabilities, GetCoverage, and DescribeCoverage. The GetCapabilities operation returns an XML document describing the service and brief descriptions of the data collections from which clients may request coverages. The DescribeCoverage operation lets clients request a full description of one or more coverages served by a particular WCS server. The server responds with an XML document that fully describes the identified coverages. The GetCoverage operation returns a coverage (that is, values or properties of a set of geographic locations), bundled in a well-known coverage format.

Profiling Questions

GEOINT: Geospatial

- Does your system require a web service interface for requesting, filtering, and retrieving observations and sensor system information?

Products Incorporating This Standard

MapServer 5.2, OSGeo / GDAL, and CompuSult Web Enterprise Suite 10.2 use this standard.

Relevant Information

None

Implementation Guidance

None

Standard Selection Criteria**Interoperability/Supportability**

The DISR already includes the mandated standard for WCS 1.0. WCS 1.1.2 introduced only the following functional changes (section numbers in parentheses refer to WCS 1.1.2 specification sections): a) Use of GridCRS in coverage descriptions and requests (See 9.3.1.2, 10.2.1.1, 10.2.2, 10.3.4, 10.3.6, and Annexes F and G); b) Hierarchical coverage descriptions (See 8.3.4.4); c) Multiple fields per coverage; (See 9.3.1.3, 9.3.2.1, 10.2.1.2, 10.2.2.1, 10.2.2.2, and Tables 18, 26-29); d) XML and (optionally) asynchronous GetCoverage responses (See 10.3.11); and e) Different approach to coverage formats; reliance on encoding profiles (See 9.3.2.2) . Many of the changes were the direct or indirect result of addressing written change proposals, summarized in OGC 06-116.

Technical Maturity

This is a final standard from the primary author of CubeWerx. Implementations are shown in the Products Incorporating this Standard field below.

Public Availability

Web Coverage Service (WCS) is available in the public domain on the Open Geospatial Consortium web site.

Implementability

This standard has been implemented in the following products: MapServer 5.2, OSGeo/GDAL, and CompuSult Web Enterprise Suite 10.2.

Authority

The Open Geospatial Consortium developed and maintains this standard. The Open Geospatial Consortium, Inc (OGC) is an international industry consortium of 368 companies, government agencies and universities participating in a consensus process to develop publicly available interface specifications. OpenGIS Specifications support interoperable solutions that "geo-enable" the Web, wireless and location-based services, and mainstream IT. The specifications empower technology developers to make complex spatial information and services accessible and useful with all kinds of applications. OGC's process is described at <http://www.opengeospatial.org/ogc/process>.

Standard Type

Non-Military

Standard Classification Unclassified

Keywords for Search OGC 07-067r5, geospatial, gis, web coverage service