Reunión ILAF

GT IDEE 2021
Virtual
Joan Masó
22 Octubre 2021

La comunidad de expertos más completa y leader mundial sobre información espacial:

- Findable
- Accessible
- Interoperable
- Reusable

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Agenda

- 10:30 - 10:40 Introducción ILAF, *Joan Masó (CREAF)*
- 10:40 - 10:55 GeoPackage: oportunidades y retos en el ámbito de software libre, Javier Zarazaga *(U. de Zaragoza)*
- Pausa hasta las 11:20
- 11:10 - 11:25 Los servicios ATOM INSPIRE en la IDEBarcelona, *Montse Marco (Diputació de Barcelona)*
- 11:25 - 11:45 Últimas novedades de OGC, *Joan Masó (CREAF)*
- 11:45 - 12:00 Debate

Últumas novedades en OGC

Nuevos modos de trabajar/participar

Reunión especial para desarrolladores cada 3 meses

September 2021 Developer Workshop

OGC invites software developers to a Developer Workshop to be held on September 15th, 2021 during the 120th OGC Member Meeting.

The workshop will cover the following OGC Standards: GeoPackage, Observations & Measurements (O&M), CityGML, and the emerging Features & Geometry JSON candidate specification.

OGC API Virtual Code Sprint October 2021

The Open Geospatial Consortium (OGC) invites software developers to the October 2021 OGC API Virtual Code Sprint, to be held from October 26th to October 28th, 2021. The code sprint will begin at 07:00am EDT on the first day, and end at 05:30pm EDT on the last day.

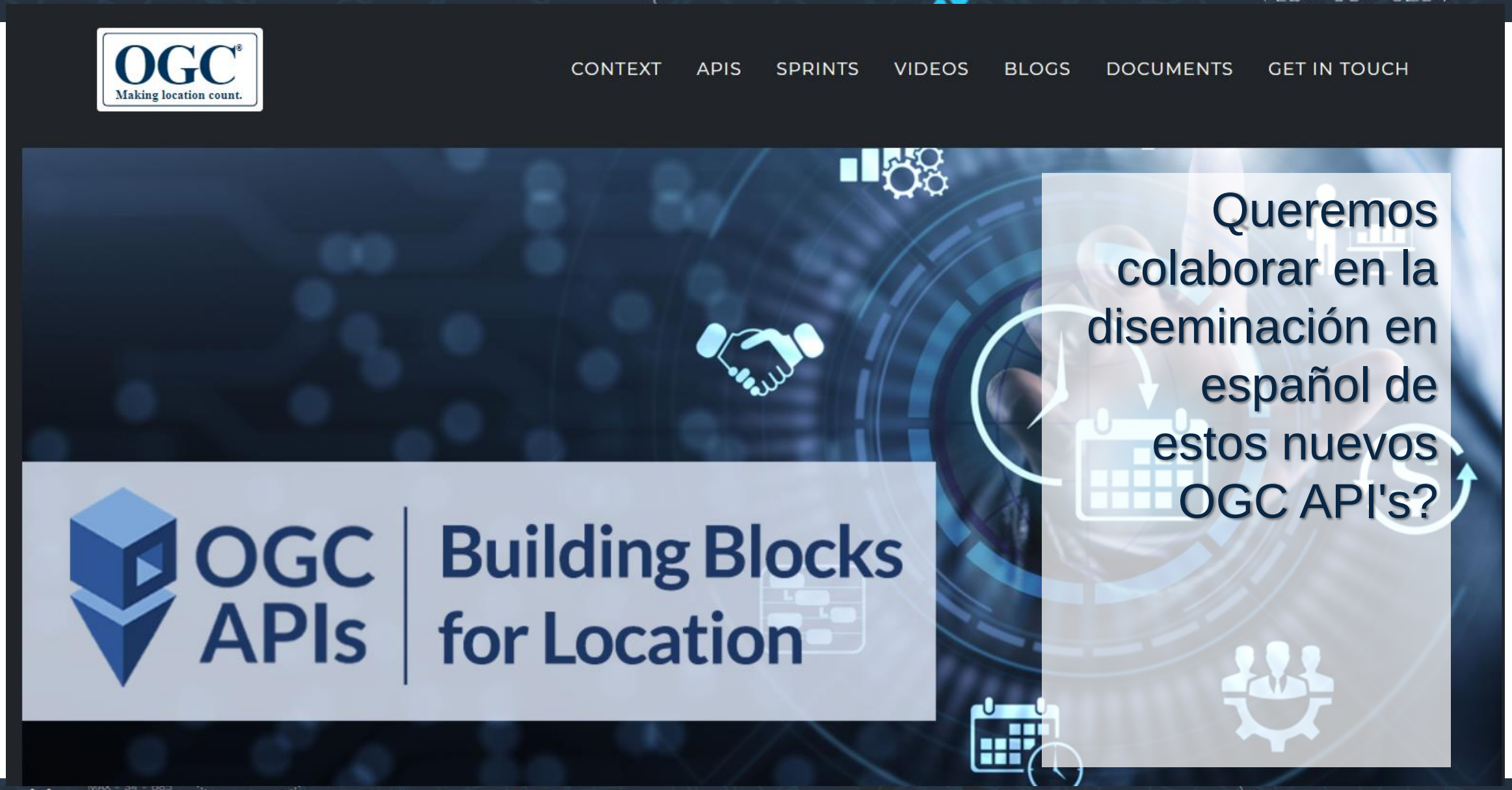
The code sprint will focus on the following draft OGC API specifications:

- OGC API - Routes
- OGC API - Discrete Global Grid Systems
- OGC API - Common

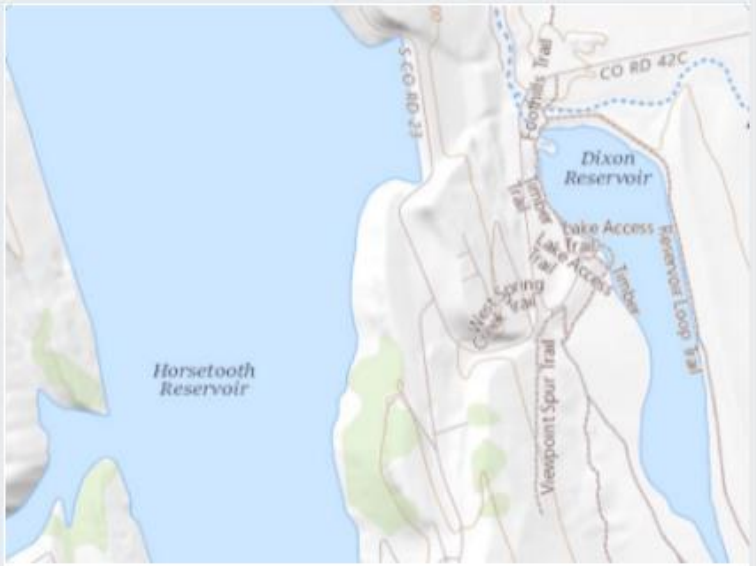
Register here.

Estimulo para implementar OGC APIs antes de estandarizar (o durante)
Es como un *hackathon*.

La web de OGC API: ogcapi.ogc.org



Tres API aprobadas y (no) publicadas



Features

Approved Standard

OGC API - Features - Part 1: Core and Part 2: Coordinate Reference Systems by Reference are both publicly available.

Processes

OGC API - Processes allows for processing tools to be called and combined from many sources and applied to data in other OGC API resources though a simple API.

EDR

Environmental Data Retrieval (EDR) API provides a family of lightweight interfaces to access Environmental Data resources. Each resource addressed by an EDR API maps to a defined query pattern.

https://www.ogc.org/standards/ogcapi-edr

En proceso de escritura (por orden)

Common

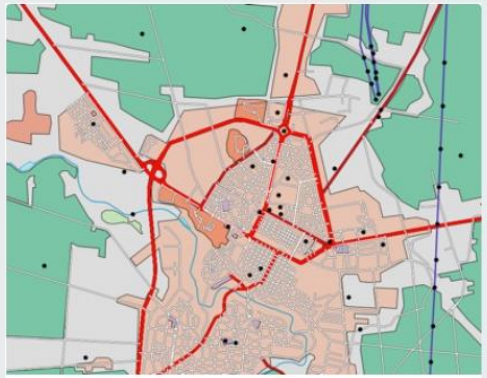
OGC API - Common provides those elements shared by most or all of the OGC API standards to ensure consistency across the family. The candidate standard will soon be released for public review.

Maps

OGC API - Maps offers a modern approach to the OGC Web Map Service (WMS) standard for provision map and raster content.

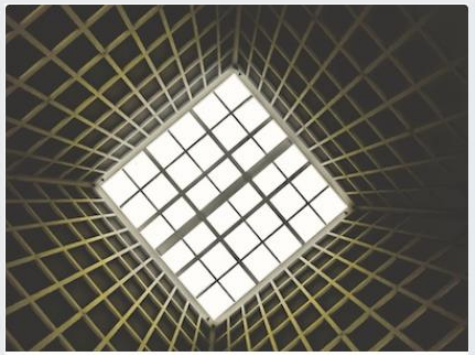
Tiles

OGC API - Tiles provides extended functionality to other OGC API standards to deliver tiled data, such as Map Tiles.



Styles

The OGC API - Styles defines a Web API that enables map servers, clients as well as visual style editors, to manage and fetch styles...



Coverages

OGC API - Coverages allows discovery, visualization and query of complex raster stacks and data cubes.

DGGS

Enables applications to organise and access data arranged according to a Discrete Global Grid System (DGGS).

Records

OGC API - Records updates OGC's Catalog Services for the Web by building on the simple access to content in OGC API - Features.

Routes

Enables applications to request routes in a manner independent of the underlying routing data set, routing engine or algorithm.

Orientación a recursos

Modos de navegación por las OGC Web APIs

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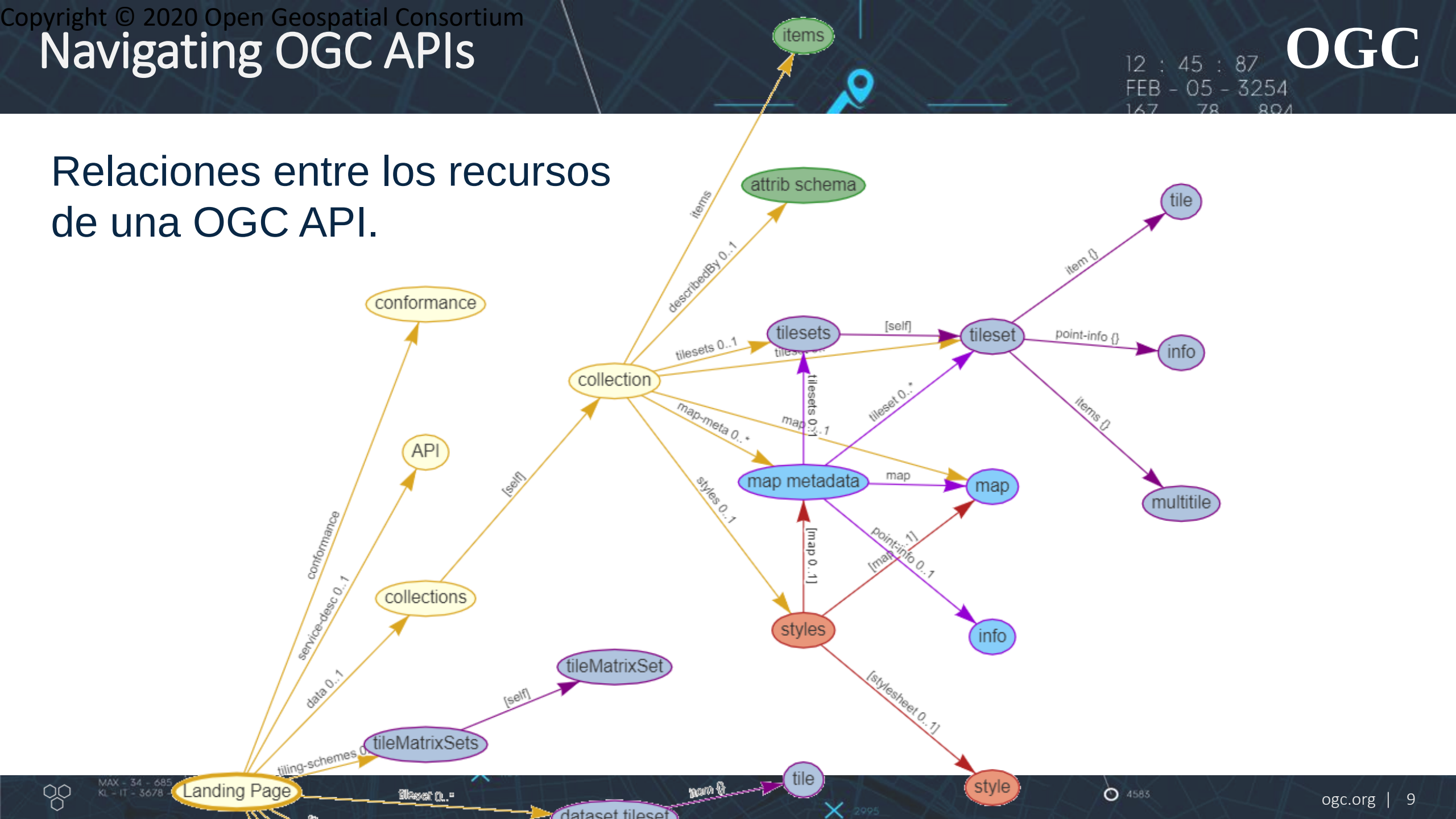
Navigating OGC APIs

OGC

Relaciones entre los recursos de una OGC API.



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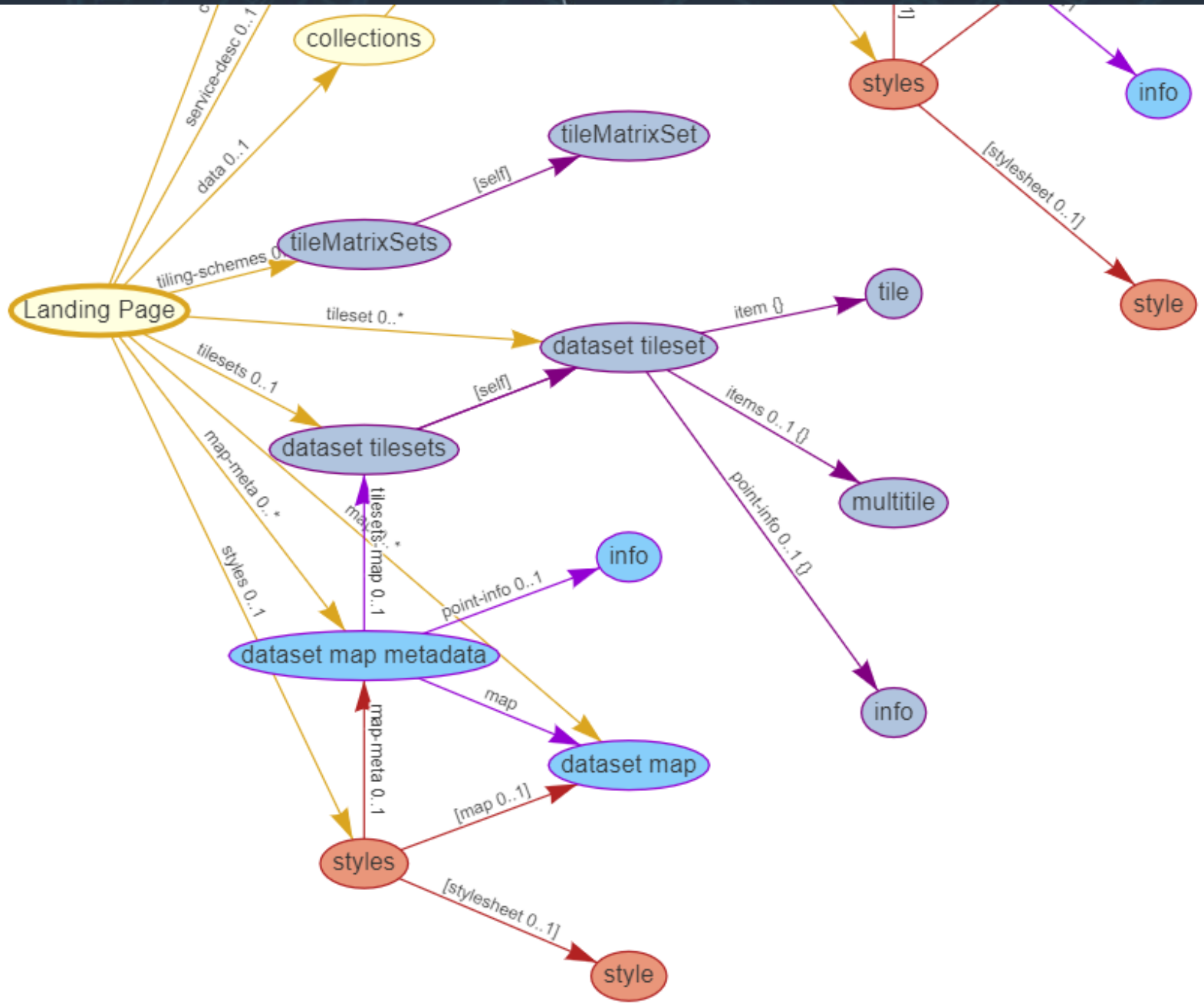

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Documento OpenAPI con los paths

OGC

Lista directa de los paths

ogcapi-features... 1.0.0

Info

Tags

Servers

Search

GET /

GET /conformance

GET /collections

GET /collections/buildings

Data

GET /collections/buildings/iter

GET /collections/buildings/iter

Schemas

SCHEMA buildingCollectionGeoJSC

SCHEMA buildingGeoJSON

Aa SAVE

```
62        '500':
63          $ref: 'https://api.swaggerhub.com/domains
              /cportele/ogcapi-features-1/1.0.0#/compon
              /responses/ServerError'
64    '/collections':
65      get:
66        tags:
67          - Capabilities
68        summary: the feature collections in the dataset
69        operationId: getCollections
70        responses:
71          '200':
72            $ref: 'https://api.swaggerhub.com/domains
                /cportele/ogcapi-features-1/1.0.0#/compon
                /responses/Collections'
73          '500':
74            $ref: 'https://api.swaggerhub.com/domains
                /cportele/ogcapi-features-1/1.0.0#/compon
                /responses/ServerError'
75    '/collections/buildings':
76      get:
77        tags:
78          - Capabilities
79        summary: |-
80          information about the buildings
81        operationId: describeCollection
```

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Modularidad

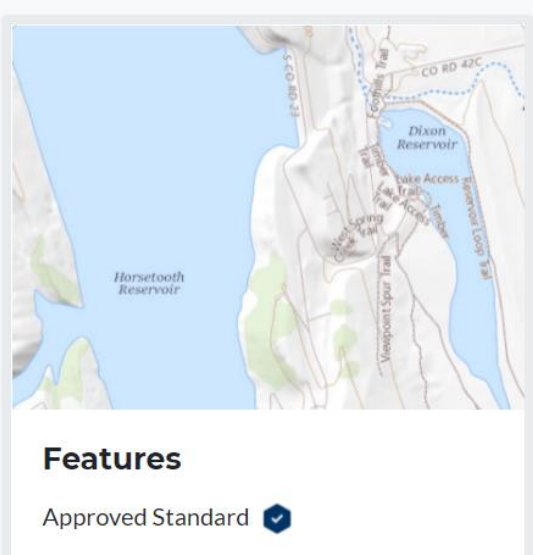
- Mucha más interdependencia entre estándares.
  - OGC API Maps depende de OGC API Styles y OGC API Common
  - OGC API Tiles depende de OGC API Maps (excepto para vector tiles)
- Un estándar tiene "partes"
  - OGC API Common tendrá 3 partes
  - OGC API Tiles tendrá 3 partes
  - Antes decíamos "un WMS", pero ahora...
  - …¿Que significa un "OGC API Tiles"?
  - ... de hecho deberíamos que decir "una Web API basada en OGC API Tiles - Parte 1"
  - Esto afectará a las contrataciones de servicios para la administración.

Un ejemplo: paths de tiles de mapas con estilos

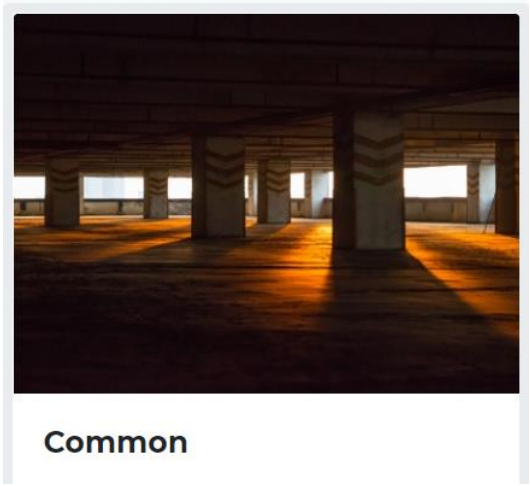
- {datasetAPI}**/styles/{styleId}/map**
  {datasetAPI}**/styles/{styleId}/map/tiles**
  {datasetAPI}**/collections/{collectionId}/styles/{styleId}/map**
  {datasetAPI}**/collections/{collectionId}/styles/{styleId}/map/tiles**

- Una *tile* se genera a partir de dividir un *mapa* que se crea aplicando un *estilo* a una *colección* de un *dataset* (la raiz del servicio)

Partes en de una OGC API



- Part 1: Core
- Part 2: CRS by ref
- Part 3: Filtering CQL
- Part 4: Simple transactions



- Part 1: Common
- Part 2: Collections
- Part 3: CRS

Último Members meeting

GeoPackage: Tiled Gridded Coverage Extension v1.1.0

OGC 17-066r2 is a minor revision to the existing extension with two substantive changes.

1. Supporting additional TIFF data types:
   - 8/16/32 bit signed integers
   - 8 bit unsigned integer (16-bit integer is currently supported, but only for PNG)
   - 32-bit floating point (already supported in 1.0)
   - 1 bit (will be used in CDB 1.2 when adopted, as a binary mask)
2. Reducing requirements classes from 5 to 2:
   - Core (includes PNG encoding)
   - TIFF Encoding

- *These changes do not impact backwards compatibility.*
- The SWG adjudicated all of the comments from the RPC, including correcting an error in the release notes regarding multiple channels in TIFF files.
- The SWG requested sample data to be made available.

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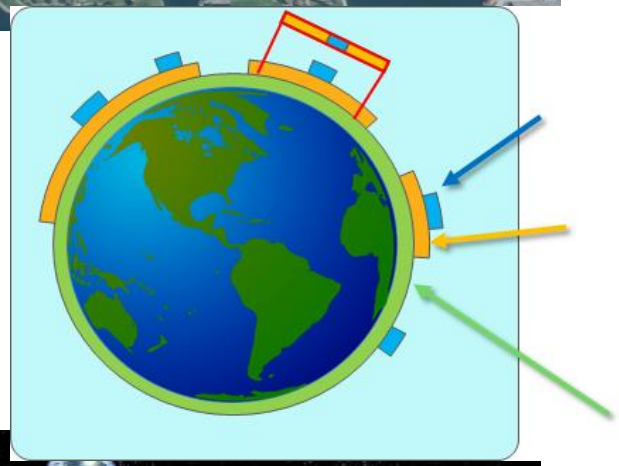
Proposed Plan for Coverage JSON

- Adopt CoverageJSON as specified at https://covjson.org/ as OGC Community Standard
- Produce detailed CoverageJSON and CIS JSON comparison document via the WCS SWG – keen volunteers identified!
- Request and propose improvements to CoverageJSON. E.g:
  - Support for JSON-LD V1.1
  - Support for multiple time axes
  - Other backward compatible improvements (Version 1.x)
  - Identify and plan V2.x
- Convergence with ISO 19123-1 and ISO19123-2 CIS would be a goal
- Continued community support and performance would also be a goal

Nuevos grupos

- Interactive Simulation and Gaming DWG
  - Pasamos de la visualización 3D a la simulación en 3D y los gemelos digitales…
- Modelización conceptual (subgrupo)
  - Recuperemos el interés por UML i organizemoslo mejor en OGC



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Moving Features SWG: Moving Features API

Joint UxS and Aviation DWG: Aviation API

Architecture DWG: Preliminary findings on OpenAPI code generators

GeoPose SWG: Discussion of T17 use cases for GeoPose (GDC, FGJ)

Features and Geometries JSON SWG: Discussion of T17 use cases for JSON-FG

EOXP DWG: Vote to recommend release of EO Cloud Platform CDS Report

Developer Workshop: Features & Geometry JSON (Clemens)

Routes SWG: Routes for Aviation and in JSON-FG - ideas from T17 (Nacho)

CITE SC: An Update from the Testbed-17 CITE activity (Luis)

OGC API Processes: Testbed 17 CITE Thread update (Benjamin)

A multi-source spatio-temporal data cube for large-scale geospatial analysis - Fan Gao (Wuhan University)

Motivación para revisar GeoJSON

- A día de hoy, los desarrolladores prefieren JSON a XML
- GeoJSON es popular y está ampliamente soportado
- OGC API Features típicamente implementan soporte a GeoJSON
- Hay limitaciones (intencionadas) en GeoJSON que pueden ser un problema en algunos casos. Las más relevantes:
  - Restringido a WGS 84 como único Coordinate Reference System
  - Métrica elipsoidal no soportada
  - No hay soporte para sólidos (objetos 3D)
  - No hay ninguna guia sobre codificar propiedades no geospaciales

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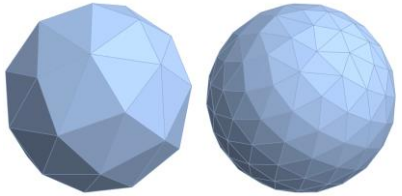
Próximos eventos

- 26 a 28 de octubre: Sprint de OGC API DGGS i Common



- 15 a 19 de noviembre JIIDE 2021

- 6 a 9 de diciembre OGC Members Meeting Virtual

Discusión: Rol y actividades

- ¿Que necesitamos de la comunidad OGC?
- ¿Que queremos comunicar a la comunidad OGC a partir de buenas prácticas, perfiles…?
- ¿Queremos potenciar los OGC API y su uso? Como?
  - Necesidad que existan implementaciones de software para ayudar a "desplegar"
  - Que pasa con la OGC API i las especificaciones INSPIRE
- ¿Proponer WMTS coma estándar ISO ayudaría en algo?
  - Valoramos WMTS como el más utilizado. Es tarde para WMTS en ISO con las OGC API Tiles?

- Continuamos en ilaf.forum@lists.ogc.org

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Gracias