



EPSG

GEODETC PARAMETER DATASET

Managed by IOGP's Geomatics Committee

Lodois de Marolles (TotalEnergies)

14th of October 2022

EPSG – What is it?

European Petroleum Survey Group or **EPSG** (1986 – 2005) was an informal scientific organization:

- Meeting of the chief surveyors of European multi-national petroleum companies to discuss technical matters of mutual interest
- consisting of specialists working in applied geodesy, surveying, hydrography and cartography related to oil exploration.

The EPSG Dataset was created with the initiative of Jean-Patrick GIRBIG (Elf) in the aim to standardize, improve and share spatial data between members of the European Petroleum Survey Group.

In 2005 the EPSG organisation was disbanded and its work taken over by the newly formed IOGP (International Association of Oil & Gas Producers) Geomatics Committee. EPSG was retained only as a brand name for the Dataset.

EPSG Geodetic Parameter Dataset – What is it?

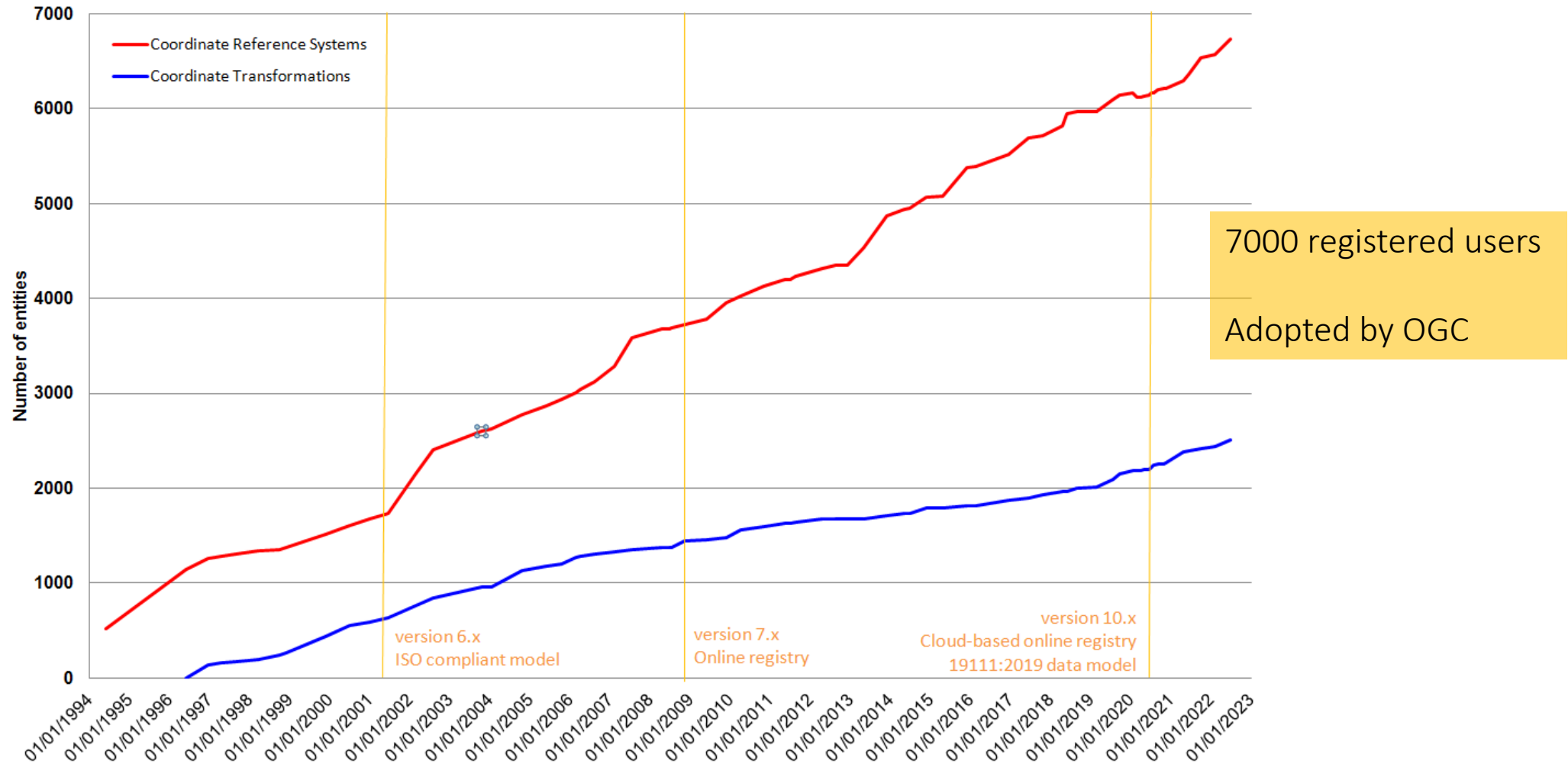
The EPSG Geodetic Parameter Dataset, abbreviated to the EPSG Dataset, is a repository of parameters required to:

- Define a *coordinate reference system* (CRS) which ensures that coordinates describe position unambiguously.
- Define transformations and conversions that allow coordinates to be changed from one CRS to another CRS. Transformations and conversions are collectively called *coordinate operations*.
- Global, regional, national or local in application. Not limited to data of interest to energy industry.
- Made public in 1994.

The EPSG Dataset conforms to ISO 19111:2019 – Referencing by coordinates.

It is the duty of the IOGP Geomatics Committee's Geodesy Subcommittee to maintain and distribute the EPSG Dataset. This subcommittee is composed of a chairman (Roger Lott), 2 vice-chairmen (Bert Kampes and Phil Summerfield) and 21 members. We are coming from energy sector (Exxon Mobil, BP, Shell, TotalEnergies...) or software companies used extensively in the energy sector (ESRI, Blue Marble, Geomatic Solutions)

EPSG Geodetic Parameter Dataset – Growth



EPSG Dataset – Management

All policies and procedure followed by IOGP Geodesy Subcommittee for the management of data within the EPSG Dataset are collated in a document.

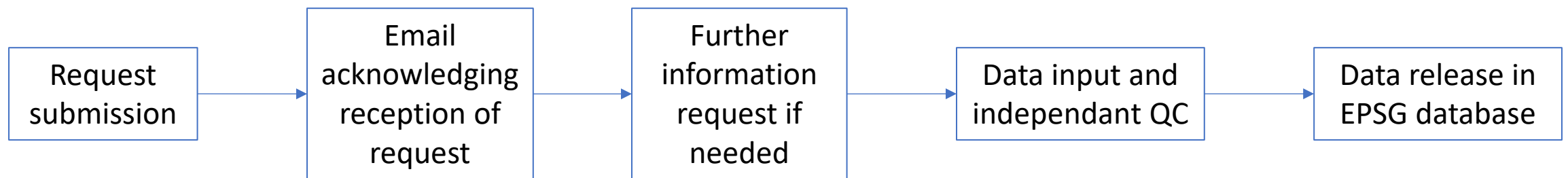
Each chapter describes separate policy or procedure of the concerned item (data correction or deprecation, population of geodetic CRS,...):

- Most of them provide a background information
- Describe the current policy
- Some ends with a discussion section, elaborating on the dilemmas or consequences of the choice made about the policy.

This document ensure a consistent way of how the EPSG Dataset is maintained.

EPSG Dataset – Data additions or modifications

1. Anyone can request to modify or add data. Most proposals from
 - National geodesy and mapping agencies (e.g. IGN)
 - IOGP members (e.g. TotalEnergies)
 - Software developers
 - ISO geodetic register
 - Information and Service System for European Coordinate Reference Systems (CRS-EU)
2. Request should clearly state what is being proposed, using a template downloadable from the web site.
3. If the request concerns a modification, the EPSG code of the element must be stated.
4. To add data, there is a minimum of information that shall be submitted (items with an asterisk in the template).
5. Request must be sent to feedback@epsg.org.



EPSG Dataset – Distribution

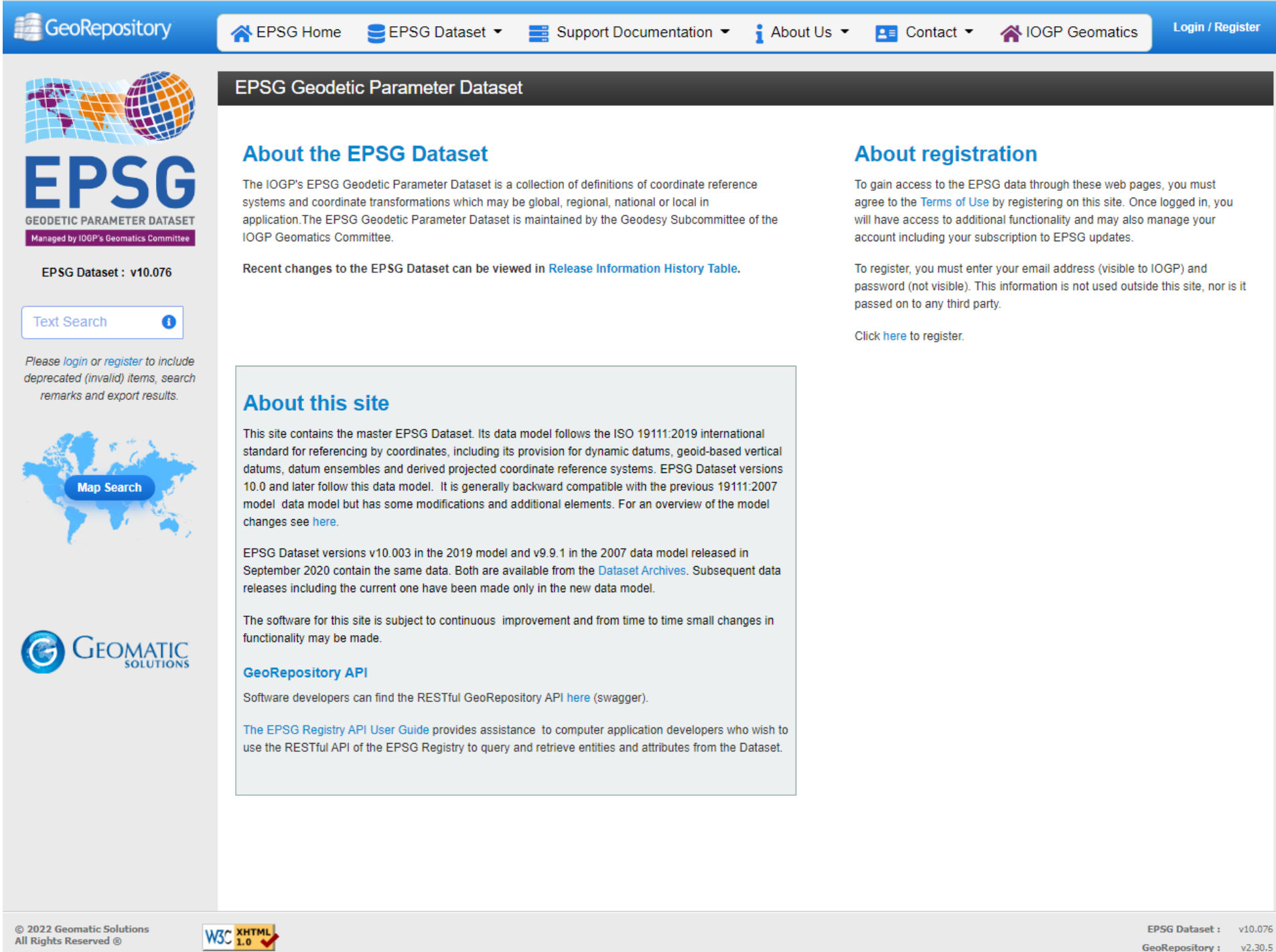
The EPSG Geodetic Parameter Dataset is distributed in three ways:

- a web-based delivery platform <https://epsg.org> with a graphic user interface (GUI) and an application programming interface (API). Possible to obtain WKT (ISO 19162) or GML files,
- a MS Access database, derived from the online registry,
- A SQL script able users to create an Oracle, MySQL or PostgreSQL database and populate it with the EPSG Dataset.

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EPSG Dataset distribution by online registry

<https://epsg.org/home.html>



GeoRepository | [EPSG Home](#) | [EPSG Dataset](#) | [Support Documentation](#) | [About Us](#) | [Contact](#) | [IOGP Geomatics](#) | [Login / Register](#)

EPSG Geodetic Parameter Dataset

About the EPSG Dataset

The IOGP's EPSG Geodetic Parameter Dataset is a collection of definitions of coordinate reference systems and coordinate transformations which may be global, regional, national or local in application. The EPSG Geodetic Parameter Dataset is maintained by the Geodesy Subcommittee of the IOGP Geomatics Committee.

Recent changes to the EPSG Dataset can be viewed in [Release Information History Table](#).

About registration

To gain access to the EPSG data through these web pages, you must agree to the [Terms of Use](#) by registering on this site. Once logged in, you will have access to additional functionality and may also manage your account including your subscription to EPSG updates.

To register, you must enter your email address (visible to IOGP) and password (not visible). This information is not used outside this site, nor is it passed on to any third party.

Click [here](#) to register.

About this site

This site contains the master EPSG Dataset. Its data model follows the ISO 19111:2019 international standard for referencing by coordinates, including its provision for dynamic datums, geoid-based vertical datums, datum ensembles and derived projected coordinate reference systems. EPSG Dataset versions 10.0 and later follow this data model. It is generally backward compatible with the previous 19111:2007 model data model but has some modifications and additional elements. For an overview of the model changes see [here](#).

EPSG Dataset versions v10.003 in the 2019 model and v9.9.1 in the 2007 data model released in September 2020 contain the same data. Both are available from the [Dataset Archives](#). Subsequent data releases including the current one have been made only in the new data model.

The software for this site is subject to continuous improvement and from time to time small changes in functionality may be made.

GeoRepository API

Software developers can find the RESTful GeoRepository API [here](#) (swagger).

The [EPSG Registry API User Guide](#) provides assistance to computer application developers who wish to use the RESTful API of the EPSG Registry to query and retrieve entities and attributes from the Dataset.

EPSG Dataset : v10.076
GeoRepository : v2.30.5

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W3C XHTML 1.0



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GEODETIC PARAMETER DATASET

Managed by IOGP's Geomatics Committee

EPSG Dataset : v10.076

Text Search

Please login or register to include deprecated (invalid) items, search remarks and export results.



Geodetic Parameters

Search Database by Location

Click on the map to select coordinates or use the [GeoLocation service](#)

The map interface includes a search panel on the left with a 'Search By' dropdown menu currently set to 'None' and a 'Search' button. The map shows a world map with a grid overlay. At the bottom of the map, the coordinates 62° 58' 48.0" S 82° 01' 48.0" E are displayed, along with a copyright notice for OpenStreetMap contributors.

- Search by:
- Point
 - Box
 - Polygon

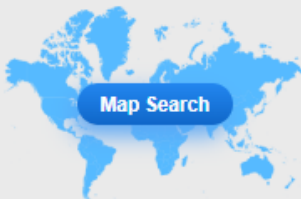


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GEODETTIC PARAMETER DATASET

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EPDG Dataset : v10.076



Geodetic Parameters

Search Database



Search Results (12484 Objects Found)

Search results only display valid entries. Please [login](#) or [register](#) to include deprecated and invalid objects.

CRSs (6743)

Transformations (2343)

Point Motion Operations (3)

Concatenated Operations (173)

Conversions (2394)

Datums (828)

More...

REPORT	NAME	CODE	TYPE	EXTENT	DATA SOURCE	REMARKS	REVISION DATE
<input type="checkbox"/>	Abidjan 1987	4143	geographic 2D	Cote d'Ivoire (Ivory Coast)	EPDG	Replaces Locodjo 1965 (EPDG co...	15 décembre 2016
<input type="checkbox"/>	Abidjan 1987 / TM 5 NW	2165	projected	Cote d'Ivoire (Ivory Coast)	EPDG	Replaces Locodjo 65 / TM 5 NW...	5 juin 2004
<input type="checkbox"/>	Abidjan 1987 / UTM zone 29N	2043	projected	Cote d'Ivoire (Ivory Coast)	EPDG	Replaces Locodjo 65 / UTM 29N...	7 mars 2000
<input type="checkbox"/>	Abidjan 1987 / UTM zone 30N	2041	projected	Cote d'Ivoire (Ivory Coast)	EPDG	Replaces Locodjo 65 / UTM 30N...	7 mars 2000
<input type="checkbox"/>	AbInvA96_2020 Grid	9387	projected	UK - Aberdeen to Inverness	EPDG	The CRS's definition through t...	16 juin 2020
<input type="checkbox"/>	AbInvA96_2020 Grid + ODN height	9388	compound	UK - Aberdeen to Inverness	EPDG		16 juin 2020
<input type="checkbox"/>	AbInvA96_2020-IRF	9384	geographic 2D	UK - Aberdeen to Inverness	EPDG	Intermediate CRS created in 20...	16 juin 2020
<input type="checkbox"/>	Accra	4168	geographic 2D	Ghana	EPDG	Ellipsoid semi-major axis (a)=...	6 janvier 2004
<input type="checkbox"/>	Accra / Ghana National Grid	2136	projected	Ghana - onshore	EPDG	Ellipsoid semi-major axis (a)=...	19 octobre 2000
<input type="checkbox"/>	Accra / TM 1 NW	2137	projected	Ghana - offshore	EPDG		19 octobre 2000

More than 17000 objects in the Dataset:

- 6743 CRSs

- 2343 transformations

- 3 PMOs

- 173 Concatenated Operations

- 2394 Conversions

- 828 Datums

- ...



EPSG

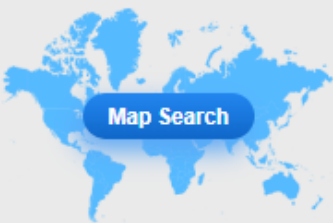
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EPSG Dataset : v10.076

Text Search

- Include Deprecated
 Include World Items
 Search Remarks



Change Requests

Site Admin



Download EPSG Dataset

The datasets downloadable from here are in the updated ISO 19111:2019 data model. Recent but no longer current versions of the EPSG Dataset in the previous data model (incl. SQL files) are available through the [EPSG Dataset Archives](#).

Download:

[EPSG v10.076 \(MS Access database\) \(5 MB\)](#)

[EPSG v10.076 \(MySQL scripts\) \(2MB\)](#)

[EPSG v10.076 \(ORACLE scripts\) \(2 MB\)](#)

[EPSG v10.076 \(PostgreSQL scripts\) \(2 MB\)](#)

[EPSG v10.076 \(WKT\) \(5 MB\)](#)

Note:

- The data in this repository includes some data changes compared to the v9.9 EPSG Dataset caused by revision to the ISO 19111 data model.
- The format of the SQL scripts is changed from the format for v9.9 and earlier to explicitly give attribute field names.
- Download of the full dataset in GML is no longer supported. GML documents for individual entities may be accessed through EPSG Dataset / Text Search.
- WKT download is a consolidated zip file containing individual WKT files for all CRSs, Transformations, Point Motion Operations and Concatenated Operations, including their components, following ISO 19162. WKT for individual entities may be accessed through EPSG Dataset / Text Search.

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EPSG supporting files

[Area Polygons in Shapefile Format \(v10.076, 70 MB\)](#)

[Area Polygons as GML documents \(v10.076, 30 MB\)](#)

It is mandatory to sign-on to be able to download the dataset.

GeoRepository API Version 1.0

BoundCoordRefSystem	Show/Hide	List Operations	Expand Operations
Change	Show/Hide	List Operations	Expand Operations
CompoundCoordRefSystem	Show/Hide	List Operations	Expand Operations
ConcatenatedOperation	Show/Hide	List Operations	Expand Operations
ConventionalIRS	Show/Hide	List Operations	Expand Operations
Conversion	Show/Hide	List Operations	Expand Operations
CoordinateAxisName	Show/Hide	List Operations	Expand Operations
CoordOperationMethod	Show/Hide	List Operations	Expand Operations
CoordOperationParameter	Show/Hide	List Operations	Expand Operations
CoordRefSystem	Show/Hide	List Operations	Expand Operations
CoordSystem	Show/Hide	List Operations	Expand Operations
Datum	Show/Hide	List Operations	Expand Operations
DatumEnsemble	Show/Hide	List Operations	Expand Operations
DatumRealizationMethod	Show/Hide	List Operations	Expand Operations
DerivedCoordRefSystem	Show/Hide	List Operations	Expand Operations
Ellipsoid	Show/Hide	List Operations	Expand Operations
EngineeringCoordRefSystem	Show/Hide	List Operations	Expand Operations
Extent	Show/Hide	List Operations	Expand Operations
GeodeticCoordRefSystem	Show/Hide	List Operations	Expand Operations
NamingSystem	Show/Hide	List Operations	Expand Operations
PointMotionOperation	Show/Hide	List Operations	Expand Operations
PrimeMeridian	Show/Hide	List Operations	Expand Operations
ProjectedCoordRefSystem	Show/Hide	List Operations	Expand Operations
Scope	Show/Hide	List Operations	Expand Operations
Transformation	Show/Hide	List Operations	Expand Operations
Unit	Show/Hide	List Operations	Expand Operations
VersionHistory	Show/Hide	List Operations	Expand Operations
VerticalCoordRefSystem	Show/Hide	List Operations	Expand Operations

A User Guide of the EPSG registry API is available on the website.



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