

SECOND ADMINISTRATIVE LEVEL BOUNDARIES
DATA PRODUCT SPECIFICATION

DRAFT

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SCOPE

This product specification is intended to be used for preparing, encoding, producing and exchanging information regarding first and second administrative level boundaries. The product specification is developed to serve as a framework for the information transmitted to the the Second Administrative Level Boundaries (SALB) initiative of the United Nations.

Launched in 2001, the SALB initiative started under the impulse of the United Nations Geographic Information Working Group (UNGIWG) and was initially led by the World Health Organization (WHO). Since 2011, the SALB initiative is jointly managed by the Geospatial Information Section (Department of Field Support) and Statistic Division (Department of Social and Economic Affairs) of the United Nations.

The SALB initiative aims at collecting, compiling and disseminating worldwide information on administrative boundaries at first and second level within national jurisdiction.

GLOBAL CONTEXT

Administrative boundaries have been highlighted as a priority “core global fundamental geospatial data theme” by the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM) which was established under resolution 2011/24¹ by the Economic and Social Council (ECOSOC). In the context of UN-GGIM, Member States have recognized the importance of SALB and encouraged active participation in the initiative².

SALB as an authoritative geospatial dataset on administrative boundaries can participate in the provision of “reliable geospatial information” highlighted as key in the General Assembly Resolution 66/288 “The Future We Want”³ for the implementation of sustainable development policy-making, programming and project operations.

SALB aims at providing authoritative administrative boundaries for measuring and monitoring the Sustainable Development Goals, in particular by linking statistics to geospatial location as identified in General Assembly Resolution 70/1 “Transforming our World: the 2030 Agenda for Sustainable Development”.⁴ SALB can serve as the authoritative framework for “reliable disaggregated data [...] needed to help with the measurement of progress” of the Sustainable Development Goals.

Finally, SALB is also in line with the objectives of the United Nations Group of Experts on Geographical Names (UNGEGN) by “promoting the recording of locally-used names reflecting the languages and traditions of a country for administrative names” as well as by “promoting the use of these names internationally and use of a single scientifically-based romanization system for administrative names”.

NOTE

The United Nations reserves the right to conform the information and data transmitted in the context of SALB, in consultation with Member States, to its internal policies and practices governed by the Administrative Instructions ST/AI/189/Add.25/Rev.1 of 20 January 1997 of the Secretary-General.

¹ Economic and Social Council resolution 2011/24 “ Committee of Experts on Global Geospatial Information Management” (2011), available online: <http://www.un.org/en/ecosoc/docs/2011/res%202011.24.pdf>

² Global Geospatial Information Management proceedings, Fourth session (2014), Agenda 4 on Determination of global fundamental geospatial data themes, available online: <http://ggim.un.org/docs/meetings/GGIM4/4.Fundamental%20Data%20Themes%20Agenda%20Item.pdf>

³ General Assembly resolution 66/288 “The future we want” (2012), para 187 and 274, available online: <https://documents-dds-ny.un.org/doc/UNDOC/GEN/N11/476/10/PDF/N1147610.pdf?OpenElement>

⁴ General Assembly resolution 66/288 “Transforming our World: the 2030 Agenda for Sustainable Development” (2015) para 74(g), available online: http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E

DISSEMINATION POLICY

The United Nations avails the final products including geospatial datasets over the internet for free download for non-commercial purpose at the SALB website, URL: <http://www.salb.un.org>.

The Institution/Member State transmitting the information/data to SALB shall retain all intellectual property rights, including copyright, and shall grant to the United Nations a non-exclusive, indefinite, free licence to use, change, reproduce, distribute, display, publish and disseminate the documents for non-commercial purposes.

The United Nations will acknowledge originating office/Member States copyrights over the geospatial datasets as directed.

The Institution/Member State can contact the United Nations to obtain a formal document of collaboration to the SALB initiative in the form of a Memorandum of Understanding (MOU).

RESOURCE LIMITATIONS AND CAPACITY BUILDING

The United Nations encourages active participation and provision of administrative boundaries data to the SALB initiative and recognizes challenges for some Member States may face to produce authoritative datasets on administrative boundaries.

The United Nations accepts any data or maps on administrative boundaries by Institutions/Member States which would not be in the position to produce administrative data according to the following Data Product Specifications.

The United Nations can provide assistance or advocate for capacity-building activities to Member States which would want to contribute administrative boundaries information to the SALB initiative but currently have limited means to produce and conform to the present Data Product Specification.

TERMINOLOGY

Feature	Geographic entity related in some way to the Earth's surface.
Geometry type	Features may be either of Point, Line or Area type (Polygon).
Single /multi-part	Single part features consist of only one geometrical primitive. Multipart features are a collection of geometrical primitives of unique geometry type.
Feature class	Set of features with the same definition and set of attributes.
Dataset	Collection of feature classes
Centroid	Geometric center of a feature. For polygons features, it is the center of mass (or center of gravity) and may fall inside the feature. For this data specification it is meant as a centroid or a pseudo-centroid so as to be close to the center of feature but with the imperative to fall within the feature.

DATA SPECIFICATIONS

COORDINATE REFERENCE SYSTEM (CRS)

Global coordinate reference system equivalent should be used such as the World Geodetic System of 1984 (WGS84) or the International Terrestrial Reference Frame (ITRF). The conversion from local datums to global coordinate reference systems should be performed by Member States prior to transmitting the data.

SPATIAL RESOLUTION

The data should be transmitted at a resolution equivalent to 1/1million scale for the specific purpose of the SALB initiative. The data should be a generalised version based from best available source information at the largest scale possible.

LANGUAGE

English or French as official working languages of the United Nations should be used for the data. Other languages should consult use the Romanization version of the administrations names and denominations. For further information on Romanization of languages and diacritics usage, the United Nations Group of Experts on Geographic Names and related documentations is used as the authoritative inter-governmental body on these issues, see URL as follows: http://unstats.un.org/unsd/geoinfo/UNGEGN/docs/pubs/UNGEGN%20tech%20ref%20manual_m8_7_combined.pdf

For this purpose, the character set to be used for names shall follow ISO 8859 part 1, 2, 3, 4, 9, 10 and 15 as the character encoding standard.

GEOMETRY TYPE

The data should be provided in the form of:

- Line features: for the administrative boundaries, the lines dividing the administrative units includes the hierarchy of the line (administrative boundaries line level 1 or 2) should be provided.
- Area/Polygon features: for the administrative units, the area/polygon version including the information regarding administrative units name, category, code and related information should be provided. Single and multi-part features are accepted. (For the administrative units, the area/polygon can also be substituted by a point feature in the form of a centroid or pseudo-centroid providing the same information than the polygon.)

ENCODING AND FORMAT

The encoding of the data should be provided in Geography Markup Language (GML) or Shapefile (SHP). The data should then be transmitted in a standard compressed formats such as .zip or .rar.

FEATURE CATALOGUE: CLASSES

FEATURE CLASSES

Feature Type Name: Administrative Boundaries (L)

Feature Type: Line

Feature Type Definition:

The administrative boundaries line which divide two administrative units.

Feature Type Code: BNDL

Feature Type Aliases: Boundaries Line

Feature Attribute Code:

ISO3CD

BDYTYP

Feature Type Name: Administrative Unit (A or P)

Feature Type: Area/Polygon (or Point as pseudo-centroid of the polygon)

Feature Type Definition:

The administrative units and related entities in the form of an area.

Feature Type Code: BNDA

Feature Type Aliases: Administrative areas

Feature Attribute Code:

ISO3CD

ADM1NM

ADM1CD

ADM2NM

ADM2CD

DATSOR

FEATURE CATALOGUE: ATTRIBUTES

FEATURE ATTRIBUTES (ADMINISTRATIVE BOUNDARIES)

Feature Type: Administrative Boundaries (L)
Feature Attribute Code: **ISO3CD**
Feature Attribute Name: ISO Country Code 3
Description: ISO-3166-1 three letter code
Type: Text
Length: 3
Rule: Mandatory
Feature Attribute value: ISO-3166-1 3 letter code for administering country of boundary line
Feature Attribute example: SEN [Senegal]

Feature Type: Administrative Boundaries (L)
Feature Attribute Code: **BDYTYP**
Feature Attribute Name: Administrative boundary type
Description: Administrative boundary type, distinguishing administrative boundary line for 1st level or 2nd level boundaries
Type: Short integer
Length: 1
Rule: Mandatory
Feature Attribute value: 1 or 2 [respectively for 1st and 2nd level administrative boundaries]
Feature Attribute example: 1 [1st level administrative boundary]

FEATURE ATTRIBUTES (ADMINISTRATIVE UNITS)

Feature Type: Administrative units (A or P)
Feature Attribute Code: **ISO3CD**
Feature Attribute Name: ISO Country Code 3
Description: ISO-3166-1 three letter code
Type: Text
Length: 3
Rule: Mandatory
Feature Attribute value: ISO-3166-1 3 letter code for administering country of boundary line
Feature Attribute example: SEN [Senegal]

Feature Type: Administrative units (A or P)
Feature Attribute Code: **ADM1NM**
Feature Attribute Name: Administrative unit level 1 name
Description: Administrative unit name in Romanised characters, see LANGUAGE
Type: Text
Length: 256
Rule: Mandatory
Feature Attribute value: Specific name for the administrative unit
Feature Attribute example: Kédougou [located in Senegal]

Feature Type: Administrative units (A)
Feature Attribute Code: **ADM1CD**
Feature Attribute Name: Administrative unit level 1 code
Description: Administrative unit code of first level administrative boundaries, in the form of ISO3-3166-1 three letter code; code for administrative level 1 as defined by Member State or numeric of 3 number sequence, based on alphabetically classified Administrative unit name. The code is therefore:
ISO3-3166-1 three letter code + admin1 code
ISO3-3166-1 three letter code + XXX
Type: Text
Length: 7
Rule: Mandatory
Feature Attribute value: Specific code for the administrative unit level 1
Feature Attribute example: SEN007 [Kédégou - Senegal]

Feature Type: Administrative units (A)
Feature Attribute Code: ADM2NM
Feature Attribute Name: Administrative unit level 2 name
Description: Administrative unit name in Romanised characters
Type: Text
Length: 256
Rule: Mandatory
Feature Attribute value: Specific name for the administrative unit
Feature Attribute example: Saraya [located in Kédégou, Senegal]

Feature Type: Administrative units (A)
Feature Attribute Code: ADM2CD
Feature Attribute Name: Administrative unit level 2 code
Description: Administrative unit code of second level administrative boundaries, in the form of ISO-3166-1 three letter code; **AND** code for administrative level 1 as defined by Member State or numeric of 3 number sequence, based on alphabetically classified Administrative unit name; **AND** code for administrative level 2 as defined by Member State or numeric of 3 number sequence, based on alphabetically classified Administrative unit name. The code is therefore: ISO3-3166-1 three letter code + admin1 code+ admin1 code
ISO3-3166-1 three letter code + XXX + XXX
Type: Text
Length: 11
Rule: Mandatory
Feature Attribute value: Specific code for the administrative unit level 2
Feature Attribute example: SEN007003 [located in Kédégou, Senegal]

Feature Type: Administrative units (A)
Feature Attribute Code: DATSOR
Feature Attribute Name: Date of Source
Description: Date of the receipt of the dataset.
Type: Date
Length: 10
Rule: Mandatory
Feature Attribute value: Date in the form of DD/MM/YYYY
Feature Attribute example: 05/04/2010

FEATURE TOPOLOGY

The data transmitted should receive topological verifications to ensure that the line and areas features classes composing the dataset of the administrative boundaries and units do not include breaks, overshoots, undershoots or overlaps.

METADATA

The data transmitted should include metadata as follows

Summary	Summary of the dataset
Example	Administrative Boundaries of Burundi
Description	Description of the data
Example	First and Second Administrative boundaries of Burundi
Credits	Country Institution which provided the data
Example	Institut Géographique du Burundi (IGEBU)
Use limitations	Date of the receipt of the ent dataset (MMM YYYY) and any limitations of data.
Example	Data valid as of JAN 2000. The dataset contains only 1 st level Administrative boundaries as Luxemburg does not have 2 nd level administrative boundaries entities.
Extent	Bounding box coordinates in latitude and longitude (decimal degrees) in West, East, North, South
Example	West 28.993061 East 30.847729 North -2.310123 South -4.465713
Scale range	The scale range of the data, must be suitable for 1:1million scale
Example	The scale of the dataset is 1:1million

DATA QUALITY

The SALB dataset published are compiled from national administrative datasets provided by National Mapping, Geospatial and Cadastral Agencies. The administrative data contributions are transformed into a uniform structure and edge matched to other boundaries and coastline at 1:1million scale.

The Geospatial Information Section sends the harmonized national contributions to each National Mapping, Geospatial and Cadastral Agencies for official quality check and for confirmation on acceptance of the data and its dissemination.