

ISO 3166 Standard Role of the MA

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Presented by Bart Boswinkel

Overview

- Why this talk & Disclaimer
- ISO Standards & Organisation
- ISO 3166 Standard
- ISO 3166 Terminology and Details
- Dynamics of Alpha-2 Codes
- Dynamics of Alpha-3 Codes
- Summary

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Why this presentation?

- There is a relation between RFC 1591 and ISO 3166
 - RFC 1591 discusses IANA (TLD) delegation policies at that time
 - delegation principles
 - responsibilities of delegation managers
- Explain ISO 3166 purpose and scope
 - ISO 3166 is often referred to in discussions without proper understanding
 - eg: ISO 3166 is about names

Dynamics of 3166

- Triggers in ISO 3166 standard changes
- Triggers ccTLD policies as well?
 - Undefined in RFC 1591
- (Limited) Scope of ISO 3166 important for discussion

Disclaimer & Hat

- Member of ISO 3166 MA & liaison to TC46/WG2
 - I can delegate for ISO 3166 work
 - In case of opinions, they are mine (jaap)
 - Will try to stay out of the Policy discussions
 - Still, all opinions are personal
- Using (mostly) ISO terminology in these slides

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ISO Standards

- Voluntary—No International law or treaty
- Helps to be consistent in use of objects
 - Promotes interchange of goods and ideas
 - Can also protect markets
 - Cost reductions, interchange

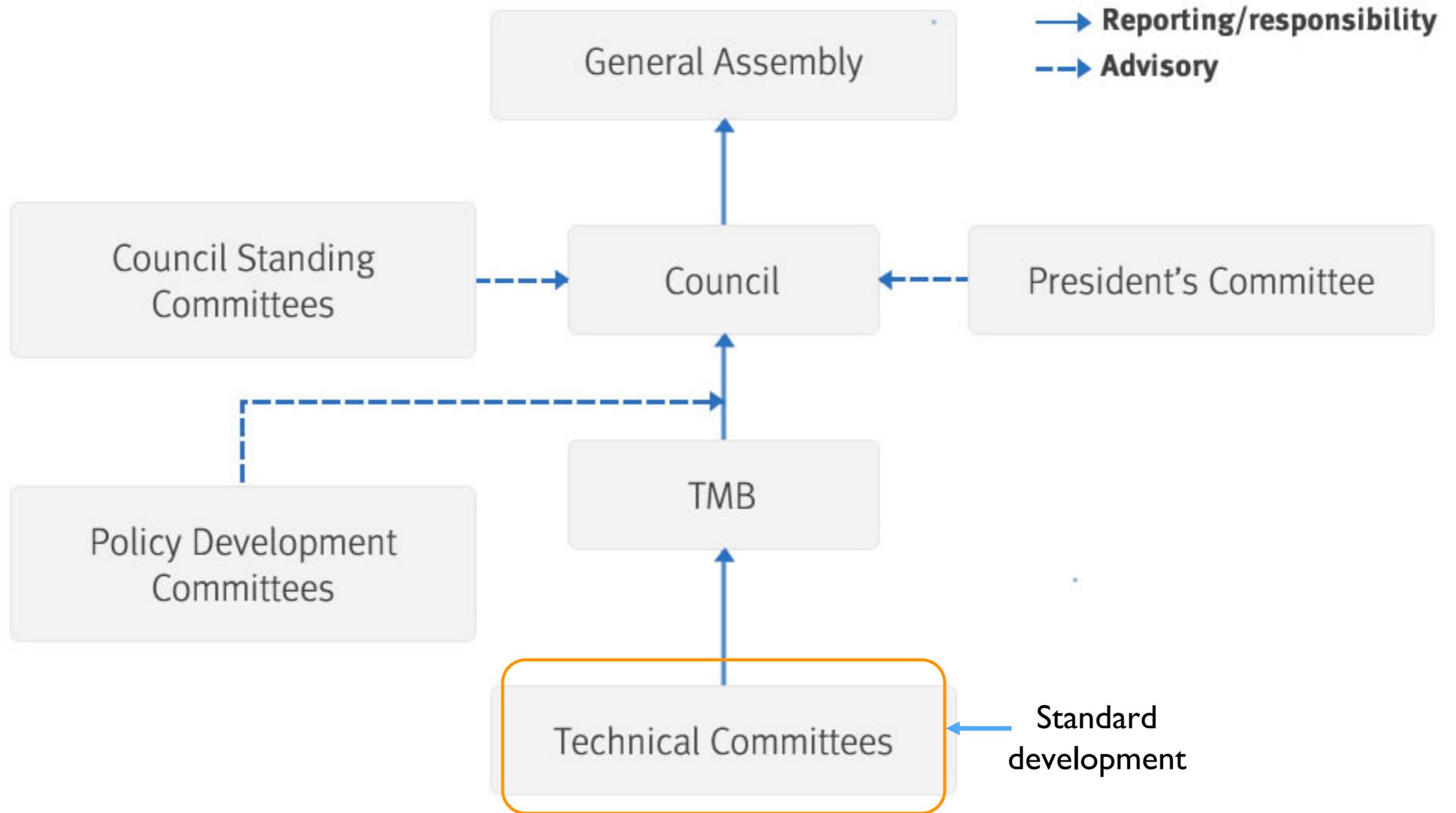
ISO Organisation

- **Non-governmental International membership organisation**
 - One member per country
- **Standardises Lots of things**
 - Technology, Healthcare, Food safety, Business processes etc
 - ISO Published 21884 Standards
- **Cooperates with IEC** (International Electrotechnical Commission)
 - Joint Technical Committee: 3161 ISO/IEC standards

ISO Members

- Standard body From a country
- Full Member
 - Votes, develops, implements & adopts
- Correspondent Member
 - Observes, implements & adopts
- Subscriber Member
 - Observes
 - Small Economies

ISO governance structure



Technical Committees

- Examples:
 - TC 1—Screw heads
 - TC46—**Information and Documentation**
 - TC 176—Quality management and quality assurance
 - TC 222—Personal Financial Planning
 - TC 312—Excellence in Service

TC 46

Information and Documentation

- **Members**
 - Participating: 39
 - Observing: 32
- **5 Subcommittees (SC)**
- **9 Working Groups (WG)**
- **Maintenance Agencies (MA)**
 - 3166 MA
 - 3166-2 Task Force (of MA)

ISO/TC 46/WG 2

Coding of country names and related entities

- WG 2 is the “Owner” ISO 3166
 - Can make substantial changes of the standard
- WG 2 ± 25 members
 - ICANNs role: Liaison type D—Information only
- Changes proposed by WG 2 needs to be ratified by TC 46

Maintenance Agency

- Body which maintains the “ephemeral” part of a standard
- In Internet terms: a registry for a ISO standard (or part of)

MA 3166

- Maintenance of contents and editorial changes
 - Saves lengthy change process
 - Online database of some tables
 - Subscriptions available
- One (private) face to face meeting a year
 - Next proposed: November 2018
 - Discusses Guidelines
 - Changes in Part 2
 - Internal organisation
 - Editorial changes (updated references etc.)

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Origins of 3166 (1974)

- Increasingly urgent need for a universally applicable code for the representation of names of countries
- Effort to incorporate best elements of (then) existing widely used codes, while not being bound by any one of them
- Code system has been derived largely from the designations established under the Convention on Road Traffic, and other codes
- Elaborated in coordination with CCITT, ECE, FAO, IAEA, IATA, ICC, ICS, IFLA, ILO, ITU, UNCTAD, UPU, WIPO, WHO

paraphrased from first edition 3166 (1974-12-15)

ISO 3166

Codes for the representation of name of countries and their subdivisions

- Part 1: Country Codes (alpha-2 & alpha-3 codes)
- Part 2: Country subdivision Code
- Part 3: Code for formerly used names of countries

Part I Country Codes

- Alpha-2 and alpha-3 codes assigned together
 - Same eligible entities
- Lot's of uses of both
 - alpha-2 *Electronic* readable travel documents
 - alpha-3 *Machine* readable OCR travel documents
 - With variations and additions: FIFA, IOC etc.
- Alpha-3 Not mentioned in RFC 1591
- Code format: QQ, QQQ

ISO 3166 Part 2

Codes for subdivisions of Countries

- Subdivisions of codes assigned in Part 1
- Subdivisions proposed by entities listed in Part 1
- Code format: QQ—I234 (QQ alpha-2 from Part 1)

Eligible Entities

- **Independent territories**
 - UN members
 - Areas of geopolitical interest, at the discretion of MA
 - Subdivisions Of Part 1 eligible for Part 2
- **Note: all areas administrative entities**
 - Not necessarily geographical names

Names & Codes

- Names mainly from UN Terminology Database
 - Names do change more often than people expect
- Codes should have some relation to (short) names
 - There is limited choice in codes
 - nearly all alpha-2 codes starting with “S” are assigned
- Visual association between the country name (in English or French) code element to be determined by MA

Purpose of 3166

Scope: for use in any application requiring the expression of current country names in coded form

country name: name of a country, dependency, or other area of particular geopolitical interest

Uses of alpha-2 Codes

- Travel documents
 - ICAO DOC 9303 (*electronically* readable passports)
- Finance related
 - ISO 4127 (Currency codes)
 - IBAN (International bank number)
 - Swift or BIC codes
 - ISO 6166 ([International Securities Identifying Number \(ISIN\)](#)).

More Uses

- Credit card companies for (local) credit cards (3166-2 codes)
- Trade related
 - UN/LOCODE—Trade and Transport Locations
 - UPU S42 and postal distribution centers
 - AS 4590-2006—Interchange of client information

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Format of Codes: “Letter”

- Alpha-2 codes
 - AA to ZZ
- Alpha-3 codes
 - AAA to ZZZ
- Alpha-4 codes
 - Combination of former used codes and/or other codes

Format of Codes: “Number”

- Numeric-3 codes
 - 000 to 899
 - Not assigned by ISO but by UN Statistics Division: M.49
- Numerical representation or the ISO 3166-1 alpha-2 code elements
 - 1101 to 1876
 - (but the first “1” may omitted in closed systems)

Code Types

(ISO 3166-1, alpha-2)

- Officially assigned (249)
- User assigned (40)
- Other Codes (407)
 - Reserved codes
 - Exceptionally reserved (12)
 - Transitional reserved (7)
 - Indeterminately reserved (30)
 - Formerly used (22)
 - Unassigned (336)
 - Escape code (1)

User-assigned code elements

- AA, QM to QZ, XA to XZ, and ZZ
- AAA to AAZ, QMA to QZZ, XAA to XZZ and ZZA to ZZZ
- numbers 900 to 999
- not guaranteed to be unique

Reservation styles

- **Exceptionally reserved**
 - Is an Exception so no rules
 - Interchange requirement
- **Transitionally reserved**
 - Duration of reservation is unpredictable and up to MA
 - Guideline is 50 years max.

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Addition, Change and Removal of Codes

- Major name change (RH)
- Countries merge (DD, VD)
- Countries do split (CS 2x)
- Territories change
 - Changes in Statehood (NL, AN)
 - Still in “limbo” (Kosovo)

Name Change

- Zaire is now Congo, (the Democratic Republic of the)
 - ZR: Transitional reserved, alpha-4 code: ZRCD
- Upper Volta is now Burkina Faso
 - HV: Unassigned, alpha-4 code: HVBF
- Southern Rhodesia is now Zimbabwe
 - RH: Indeterminately reserved for Haiti (UN Road sign convention)

Merging countries

- **German Democratic Republic**
 - Now Part of entry Germany
 - DD is Unassigned, alpha-4 code: DDDE
- **Viet-Nam, Democratic Republic of**
 - Now Part of entry Viet Nam
 - VD is Unassigned, alpha-4 code: VDVN

“Splitting” Countries

- Pacific Islands split into Marshall Islands (MH), Micronesia (FM), Northern Mariana Islands (MP), Palau (PW)
 - PC: Unassigned, alpha-4 code: PCHH
- Gilbert and Ellis Islands (GE) is now Kiribati (KI) and Tuvalu (TV)
 - GE: Assigned to Georgia, alpha-4 code: GEHH
- Canton and Enderbury Islands now part of Kiribati
 - CT: Formerly used, alpha-4 code: CTKI

Splitting CS

- Czechoslovakia (CS) into Czechia (CZ) and Slovakia (SK)
 - CS: transitional reserved, alpha-4 code: CSHH

and then YU got divided ...

Splitting YU

- Name changed from Yugoslavia to Serbia and Montenegro (CS). Former Yugoslavia was divided into Bosnia and Herzegovina (BA), Croatia (HR), The former Yugoslav Republic of Macedonia (MK), Serbia and Montenegro (CS), Slovenia (SI)
 - YU transitionally reserved, alpha-4 code: YUCS
- Reuse of CS that quickly was bad idea: code still in use in various code systems

Splitting CS #2

- Divided into Serbia (RS) and Montenegro (ME)
 - CS transitionally reserved, alpha-4 code: CSXX

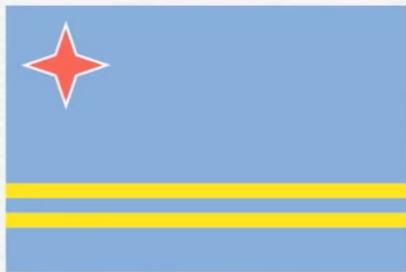
Splitting SU

- Divided into a lot (AM, AZ, EE, GE, KZ, KG, LV, LT, MD, RU, TJ, TM, UZ).
 - BY & UA had already codes assigned
- SU exceptionally reserved, alpha-4 code: SUHH

Statehood changes



the Kingdom of the Netherlands



Aruba



Curaçao



Sint Maarten



Netherlands



Bonaire



Sint Eustatius



Saba

Dutch Antilles AN

- Aruba
- Bonaire
- Curaçao
- Saba
- Sint Eustatius
- Sint Maarten (Dutch Part)

Dutch Antilles AN

- Aruba “status aparte” 1986 begot AW
- Bonaire
- Curaçao
- Saba
- Sint Eustatius
- Sint Maarten (Dutch Part)

Dutch Antilles AN

- Aruba “status aparte” (1986, AW)
- Curaçao “aparte” 2010-10-10: CW
- Sint Maarten (Dutch Part) “aparte” 2010-10-10: SX

- Saba
- Bonaire
- Sint Eustatius



2010 BQ, BES
Special NL municipalities

Overview

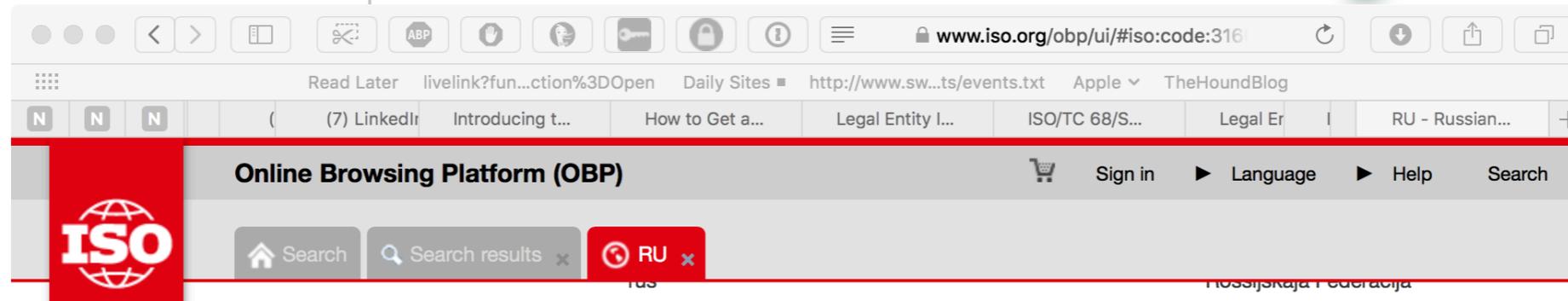
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ISO 3166 Part 2

Country subdivision Code

- Subdivisions of codes assigned in Part
 - What makes a subdivision is undefined
 - Provinces, counties, autonomous {cities, regions, districts} etc...
 - Mostly administrative entities (not geographically areas)
 - Lists supplied by entities of Part 1 alpha-2 codes
- Structure of code:
 - “alpha2” “hyphen” “other code up to four characters”
 - NL-AW Aruba (see also separate country code entry under AW)
 - NL-DR Drenthe

Part 2 RU entry



Subdivisions

- 46 administrative region (en) / région administrative (fr) / oblast' (ru)
- 4 autonomous district (en) / district autonome (fr) / avtonomnyy okrug (ru)
- 2 autonomous city (en) / ville autonome (fr) / avtonomnyy gorod (ru)
- 1 autonomous region (en) / région autonome (fr) / avtonomnaya oblast' (ru)
- 9 administrative territory (en) / territoire administratif (fr) / kray (ru)
- 21 republic (en) / république (fr) / respublika (ru)

List source

PCGN (Information from Russian Constitution 1993-12); BET 1997; PCGN 2006; <http://ru.wikipedia.org/wiki/>;
http://www.exxun.com/afd/gv_admin_divisions/fd_5.html#R; <http://www.statoids.com/uru.html>; <http://www.gsnti-norms.ru/norms>

Code source

ISO/TC 46/WG 2 Secretariat (*) + IATA

Subdivision category	3166-2 code	Subdivision name	Local variant	Language code	Romanization system	Parent subdivision
republic	RU-AD*	Adygeja, Respublika		ru	GOST 1983	
republic	RU-AD*	Adygeya, Respublika		ru	Russian BGN/PCGN 1947	
republic	RU-AL*	Altaj, Respublika		ru	GOST 1983	
administrative territory	RU-ALT*	Altajskij kraj		ru	GOST 1983	
republic	RU-AL*	Altay, Respublika		ru	Russian BGN/PCGN 1947	

Some Part 2 Remarks

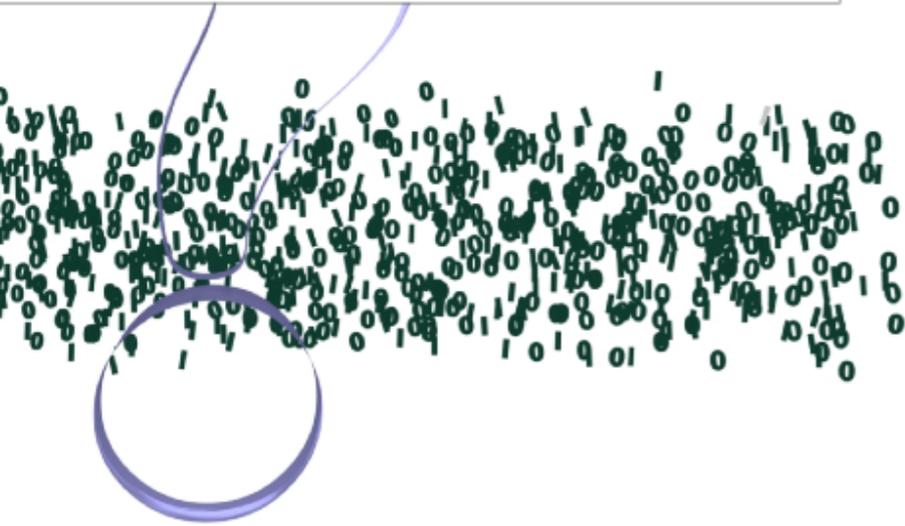
- Names are romanised
 - ISO system is preferred but others are in use (and change over time)
- Same names can appear in different entries, MA is neutral, just processes the data submitted
 - Naming clashes
 - Paris Texas
 - Contested areas
- Difficult to keep up to date

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Summary ISO 3166

- Codes for various applications, not just DNS
 - Currency, International trade etc.
- ISO 3166 is dynamic
 - Follows changes in areas of geo political interests
 - Change of name, merging, dissolution, change of statehood structure
- Code assigned by ISO 3166 MA
 - Two and Three letter codes, only alpha-2 used in RFC 1591
- Independent process to define a country RFC 1591
 - IDN ccTLD eligible when country or territory included in the list



Questions?