

Metanorma GSoD 2021 Kickoff

May 24, 2021

Agenda

- Introduction
- Flavors
- Immediate issues
- Deliverables

Metanorma enables end-to-end document publication

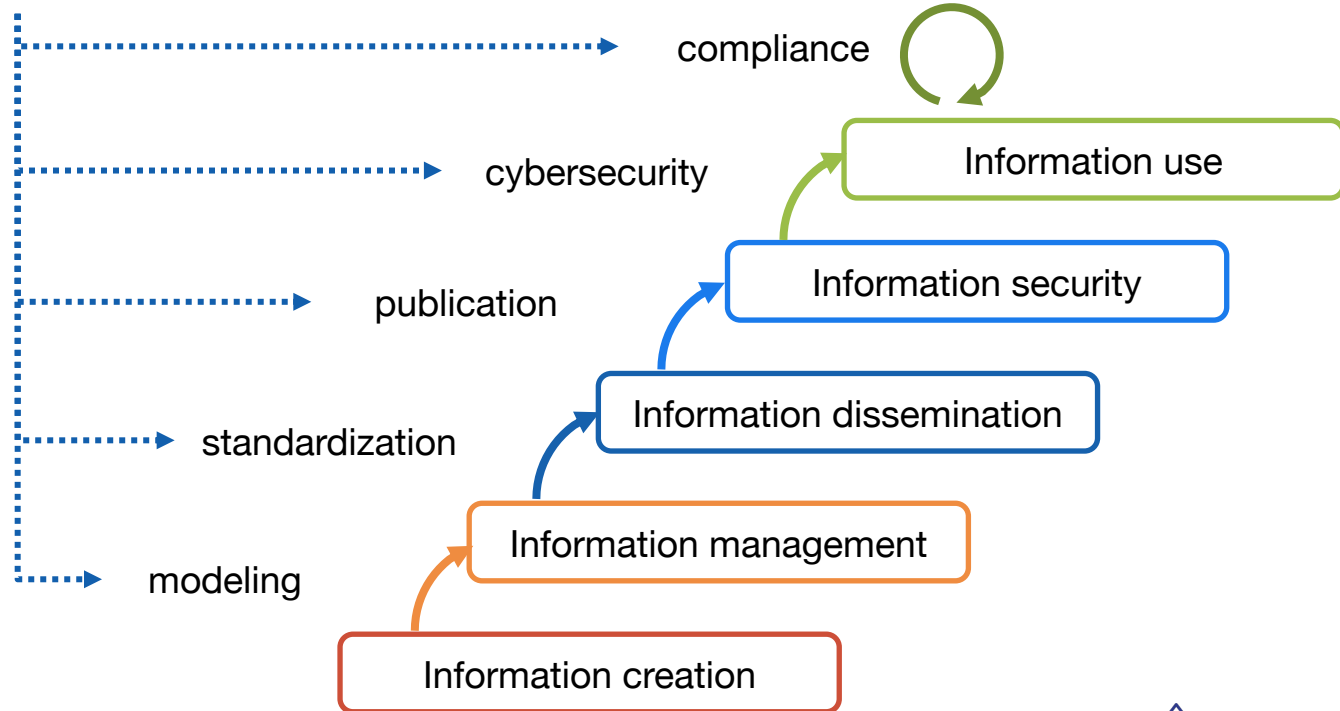
- open source, framework of standards documents
- end-to-end, author-to-publish document creation workflow
- supports model-based authoring
- semantic documents
- ISO 36100 normative document metamodels
- <https://www.metanorma.com>



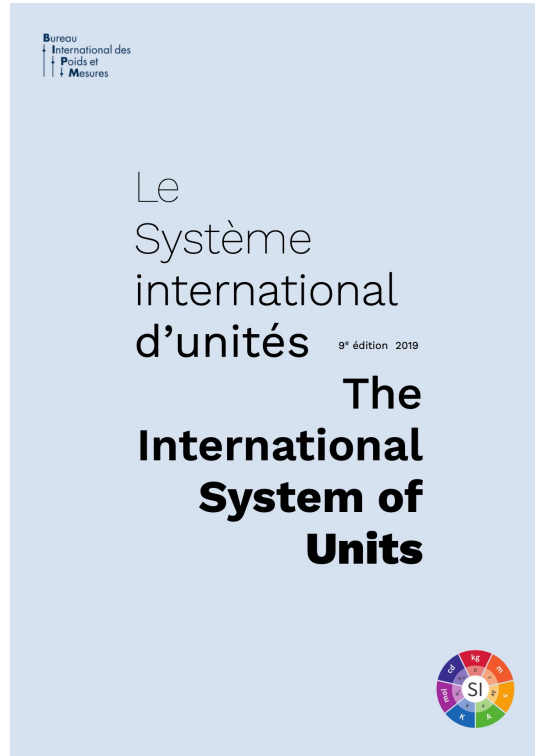
The screenshot shows the Metanorma website homepage. At the top left is the Metanorma logo, a stylized rocket with a document inside, next to the text 'METANORMA AEQUITATE VERUM'. A hamburger menu icon is in the top right. The main heading reads 'Because standards are too important to manage in Word'. Below this is a paragraph: 'Meet Metanorma: an open-source framework for writing & publishing standardization documents with the focus on semantic authoring and flexible output support.' Underneath is the text 'Get started writing standards with Metanorma:' followed by a grid of 12 yellow buttons representing different standards organizations: ISO, IEC, ITU, IETF, CalConnect, OGC, CSA, UN, IHO (Beta), GB (Beta), M³AAWG (Beta), and MPFA (Beta). At the bottom is the text 'Customize and publish standards using Metanorma:' and a large yellow button that says 'Create your flavor'.

We facilitate interoperable semantics from creation to use

this is what we do!



Metanorma semantic documents rendered in PDF



NIST Special Publication 800-90B

Recommendation for the Entropy Sources Used for Random Bit Generation

Meltem Sönmez Turan
Elaine Barker
John Kelsey
Kerry A. McKay
Mary L. Baish
Mike Boyle

This publication is available free of charge from:
<https://doi.org/10.6028/NIST.SP.800-90B>

C O M P U T E R S E C U R I T Y

NIST
National Institute of
Standards and Technology
U.S. Department of Commerce

Usage

The screenshot shows the ISO Geodetic Registry website. The header includes the ISO logo and the text "Geodetic Registry". Navigation links for "Documentation", "Login", and "Feedback" are visible. A "Welcome" message is displayed, along with a sidebar menu containing "ISO Geodetic Re...", "Coordinate Re...", "Coordinate Sy...", "Datums", "Coordinate Op...", and "Other". The main content area features the title "ISO Geodetic Registry" and introductory text about the registry's purpose and accessibility.

This screenshot displays the ISO Geodetic Registry interface. On the left, a list of transformations is shown, including "GDA2020 to WGS 84 TRANSIT [GA v1]", "ITRF93 to ITRF2008 [ERS v1]", "ITRF90 to ETRF2000 [EUREF v1]", "ITRF96 to GDA84 [GA v1]", "ITRF2000 to NAD 83 (MARPO0) [v1]", "ITRF92 to ITRF2000 [ERS v1]", "IGb08 to SIRGAS-CON SIR15P01 [SIRv1]", "ITRF88 to ITRF2000 [ERS v1]", "NAD27 to NAD 83 (1986) [USA v1]", "ITRF2005 to ITRF2014 [ERS v1]", "ITRF96 to ITRF2008 [ERS v1]", "ITRF2014 to NAD83(CSRS) v7 [v1]", "ITRF93 to ETRF93 [EUREF v1]", "NAD27(COG77) to NAD83(CSRS) v2 [O...]", "ITRF2014 to IGS14 [IGS v1]", "NAD83(Original) to NAD83(CSRS) v3 [L...", "NAD 83 (1986) to NAD 83 (HARN) [v2]", "ITRF96 to ITRF2008 [LINZ v1]", "NAD 83 (1986) to NAD 83 (HARN) [v4]", and "NAD27(MA76) to NAD83(Original) [O...". The right pane shows a detailed view of the transformation "ITRF2014 to IGS14 [IGS v1]". It includes fields for "Source CRS" (ITRF2014 - XYZ), "Target CRS" (IGS14 - XYZ), "Extent" (World), "Operation version" (IGS v1), "Accuracy" (0 metre), and "Parameters" (X-axis translation).

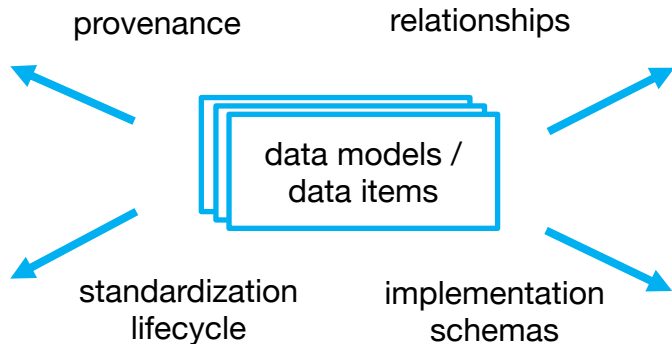
The screenshot shows the ISO Geolexica website. The header features the ISO logo and the text "TC 211 Geographic Information/Geomatics". The main content area displays the title "ISO/TC 211 Geolexica" and a navigation menu with "CONCEPTS", "NEWS & ARTICLES", "REGISTERS", "STATISTICS", "ABOUT", and "FEEDBACK". The "CONCEPT" section is highlighted, showing the term "barycentric coordinates <coordinate geometry>". The "TERM ID" is 2455, and the "SOURCE" is ISO 19107:2019, (E), 3.3.

eng **barycentric coordinates <coordinate geometry>**

point in a n -dimension coordinate system using $n + 1$ numbers, $\{u_0, u_1, u_2, u_3, \dots, u_n\} \ni [0 \leq u_i \leq 1] \wedge \sum u_i = 1.0$, in which the location of a point of an n -simplex (of any dimension) is specified by a weighted center of mass of equal masses placed at its vertices using vector algebra of the \mathbb{R}^n used in the coordinate reference system

Driving SMART standards

- copying text out from standards?
 - standards can be expressed as structured data
 - data should be reusable
- Standards Machine Accessible, Readable and Transferrable



- covering:
 - data models, ontologies
 - model-based content: annotations, guidance
 - semantic content
- we define *and* power SMART
 - ISO SMART standards and pilots
 - IEC SDB pilots



METANORMA
AEQUITATE VERUM



paneron



Relaton
CONNECTING STANDARDS



METANORMA
AEQUITATE VERUM

Identified issues

- <https://www.metanorma.org/blog/2021-03-26/metanorma-gsod-2021/>

GSoD Deliverables

- For Metanorma
 - Audit report of the current state of documentation
 - Information architecture
 - Metanorma authoring guide for new users
 - SDO-specific “pilot” authoring guides for IETF and OGC
- For GSoD
 - GSoD project case study
- With 2 writers we could overcome these (originally stated) caveats
 - “This project will not create SDO-specific guidance for every available flavor”
 - “Full-fledged SDO-specific authoring guides as SDO organization rules can be complex and too numerous to members outside of the organization itself”

Thank you, questions welcome!