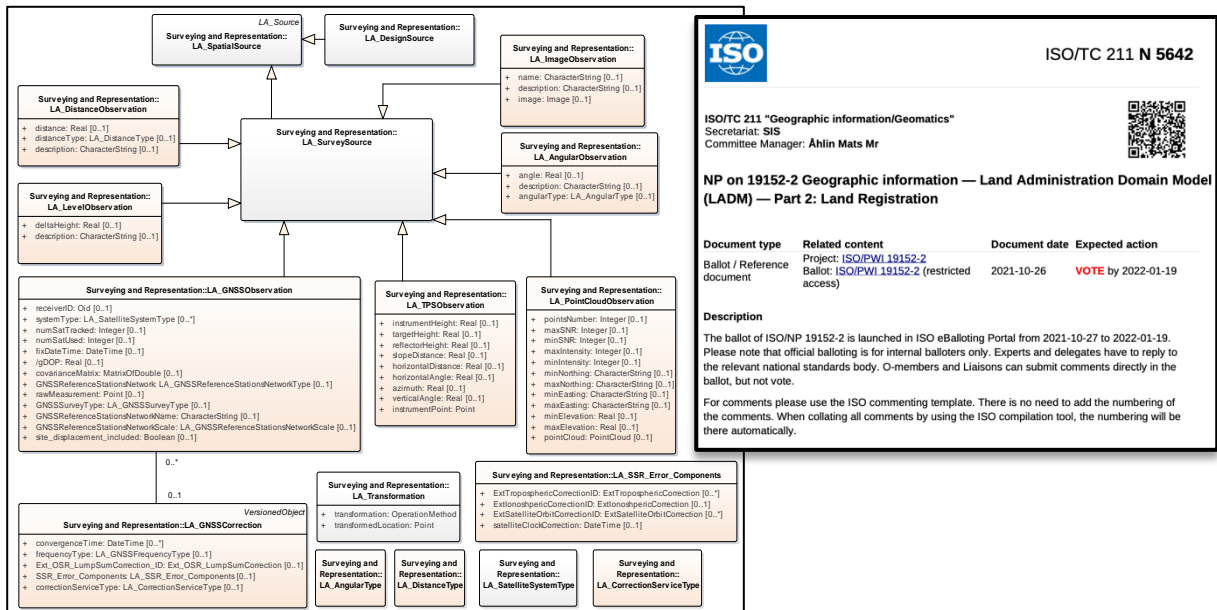


THE REVISED SURVEYING PART OF THE LAND ADMINISTRATION DOMAIN MODEL (ISO 19152)



Cadastral surveying forms the basis for land administration through the definition of the properties' boundaries, and thus, accurate descriptions and records (associated Rights Restrictions, Restrictions with their right holders) of land/ water/ air/ underground parcels are the fundamentals to their rational use and conservation and form the core of well-established Land Administration Systems (LASs).

The ISO 19152:2012 Land Administration Domain Model (LADM), focuses on standardised modelling of land information at the conceptual level, and together with LADM's three main packages, it has a dedicated sub package for Spatial and Surveying representation. The first edition of the standard provides multiple spatial representations, and a rather generic survey model based on the ISO 19156:2011 Observations and Measurement Standard (O&M).

As an ISO standard, the LADM is subject to periodic revision, and currently, its revision is ongoing and among other refinements, the enhanced support of the surveying model, both at conceptual and implementation level is expected. In this context, in order for LADM to support a broad range in surveying and data acquisition approaches and accuracies, a refinement is ongoing considering the recent evolution of technology and the encodings used in practice.

In this scene, the revision of the survey model of LADM has been initiated in 2019, continuing in 2021 by identifying the concepts of data acquisition methodologies and tools that need to be included to address the current needs and align with related standards (i.e. OGC LandInfra). On top of this, in the context of the H2020 GISCAD-OV project (<https://giscad-ov.eu>) feedback has been provided by experts regarding the support of GNSS surveys with satellite-based and earth/location-based corrections,

including among others the Galileo High-Accuracy Services (HAS). Taking this work into account, at the New Working Item Proposal of LADM Edition II - Part 2: Land Registration, the proposed refined survey model is included. Finally, the need to specify the requirements for the survey encodings that will support LADM Edition II (and will be described in Part 6 of the standard) taking into account the technological trends in the field (i.e. web services, cloud storage, big data, AI, ML, etc.) are underlined.

This workshop will introduce the Land Administration Domain Model (LADM, ISO 19152:2012) basic concepts and development since 2012 that has been voted as ISO standard till today; present its current status at the ongoing revision, highlighting the surveying part and the role of the professional surveyors on it.

Interesting readings to prepare yourself:

https://wiki.tudelft.nl/pub/Research/ISO19152/LADM2022Workshop/LADM2022_paper_B2d.pdf

https://www.fig.net/resources/proceedings/fig_proceedings/fig2021/papers/ws_03.4/WS_03.4_abdullah_indrajit_et_al_11163.pdf

https://www.fig.net/resources/proceedings/fig_proceedings/fig2021/papers/ws_03.2/WS_03.2_kalogianni_dimopoulou_et_al_11182.pdf



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