3D Cadastres

2nd International Workshop on 3D Cadastres

organized by FIG, EuroSDR and TU Delft

16-18 November 2011, Aula Congress Centre, TU Delft, The Netherlands

www.3dcadastres2011.nl



Why the second Workshop on 3D Cadastres?

The ever increasing complexity of densely built-up areas, including above and below surface infrastructures, requires a proper registration of the legal status (private and public). This can only be provided to a limited extent by the existing two dimensional cadastral registrations. The possibility to register property in three dimensions efficiently will facilitate the dense and complex use of space. Despite all research and progress during the last decade, still no country in the world has a true 3D cadastre, the functionality is always limited in some manner; e.g. only registering of volumetric parcels in the public registers, but not included in a 3D cadastral map, or limited to a specific type of object with ad hoc semi-3D solutions (e.g. for buildings or infrastructures). The aim of the Workshop on 3D Cadastres is to consider the 3D issue of cadastral registration in an international context. The workshop will be organized as joint activity of the International Federation of Surveyors (FIG), the European Spatial Data Research Organization (EuroSDR) and TU Delft. Within the FIG, the Working Group on 3D Cadastres has taken the initiative to organize the second workshop on this topic. The first Workshop on 3D Cadastres, held at Delft University of Technology in November 2001, marked the start of the raised awareness for this topic.

Workshop scope and mission

The main purpose of this workshop is to have a fruitful exchange of ideas. There does not exist a single best solution for a 3D Cadastre. In all cases for the establishment of such a cadastre, legal, institutional and technical issues have to be addressed. The level of sophistication of each 3D cadastre will in the end be based on the user needs, land market requirements, legal framework, and technical possibilities. Therefore, in line with the ISO 19152 Land Administration Domain Model (LADM) it is the intention to explore the optimal trade-offs between 2D en 3D cadastral solutions. It is also imperative to address the issues that arise in the transition zones between 2D and 3D representations. The concept of 3D cadastres with 3D parcels is intended in the broadest possible sense. 3D parcels include land and water spaces, both above and below surface. However, what exactly is (or could be) a 3D parcel is dependent on the legal and organizational context in the specific country (state, province).

FIG TU Delft EuroSDR

Procedure

For the papers to be presented at the workshop a two-step procedure is followed. First authors are invited to submit an abstract of 500-1000 words on any subject relevant for the 3D Cadastres Workshop (see below). The second step is the submission of full papers for selected abstracts. The papers will be selected by the Programme Committee (the participants of the FIG Working Group on 3D Cadastres) based on the submitted abstracts. The full text version of the paper will be included in the proceedings, a book published by FIG that will be available at the workshop.

Workshop topics include:

- Analysis of 3D use cases
- 3D legal objects and physical objects
- Building units (apartments) as 3D parcels
- 3D constructions as 3D parcels
- Utility networks as 3D parcels
- Airspace or subsurface space 3D parcels
- Potentially unbounded 3D parcels (towards the sky)
- Natural resources (groundwater, mining) as 3D parcels
- Polluted areas as 3D parcels
- Spatial (zoning) plans as 3D parcels
- Legal framework for 3D cadastre
- Range of RRR (rights, restrictions, responsibilities) attached to 3D parcels
- 3D data acquisition (survey plans)
- Initial registration of 3D parcels
- 3D data management
- 3D cadastres and models
- Relationship 2D and 3D parcels
- Height representation: absolute/relative
- 3D geometry and topology
- 3D cadastres and time
- Implementation in a cadastral database
- Visualization, distribution and delivery of 3D parcels
- 3D exchange formats
- Web-based access to 3D parcels
- 3D cadastres and Spatial Information Infrastructure
- 3D cadastres and usability

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Deadlines related to papers

31 May 2011	Submission of 500-1000 words abstract
30 June 2011	Notification of selection
30 September 2011	Submission of full paper (for selected abstracts)
16 October 2011	Camera ready copy to printer/publisher (FIG)
16 November 2011	Proceedings available at work shop
2012	CEUS special issue on 3D Cadastres

CEUS special issue

Based on the full papers, the Programme Committee will request a limited number of authors to submit an article for a special issue of the international scientific journal 'Computers, Environment and Urban Systems' (CEUS). This request will be made after the workshop. The journal article must be significantly different from the workshop paper by including new material based on the discussions at the workshop and other new developments (see special issue details for more information).

Registration & Costs

The normal fee for the workshop will be € 350, 'Early Bird' (until 30 September 2011) registration will be € 300 via the conference website www.3dcadastres2011.nl.

Organizing Committee

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