A Complete, Free Solution for Cadastral Map Management

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Unified Hungarian Land Registry, present situation

- Unified Land Registry was established in 1972
- Land registry and Cadastral Mapping integrated in the same organization: Land Office Network
- Since 1997 all land registry data available in digital form
- From 2008 all cadastral maps are available in vector form in the same projection system
- IT developments of Land Office Network was started in the mid of 90's
  - TAKAROS (Land Registry IT system) (fin. 2000)
  - TAKARNET (Network of Land Offices) (fin. 2002)
  - Integrated Land Information Services for registered users (from 2003) via Internet
- All IT developments and support in LO Network is the responsibility of FÖMI

DATR, FÖMI's solution for cadastral map management

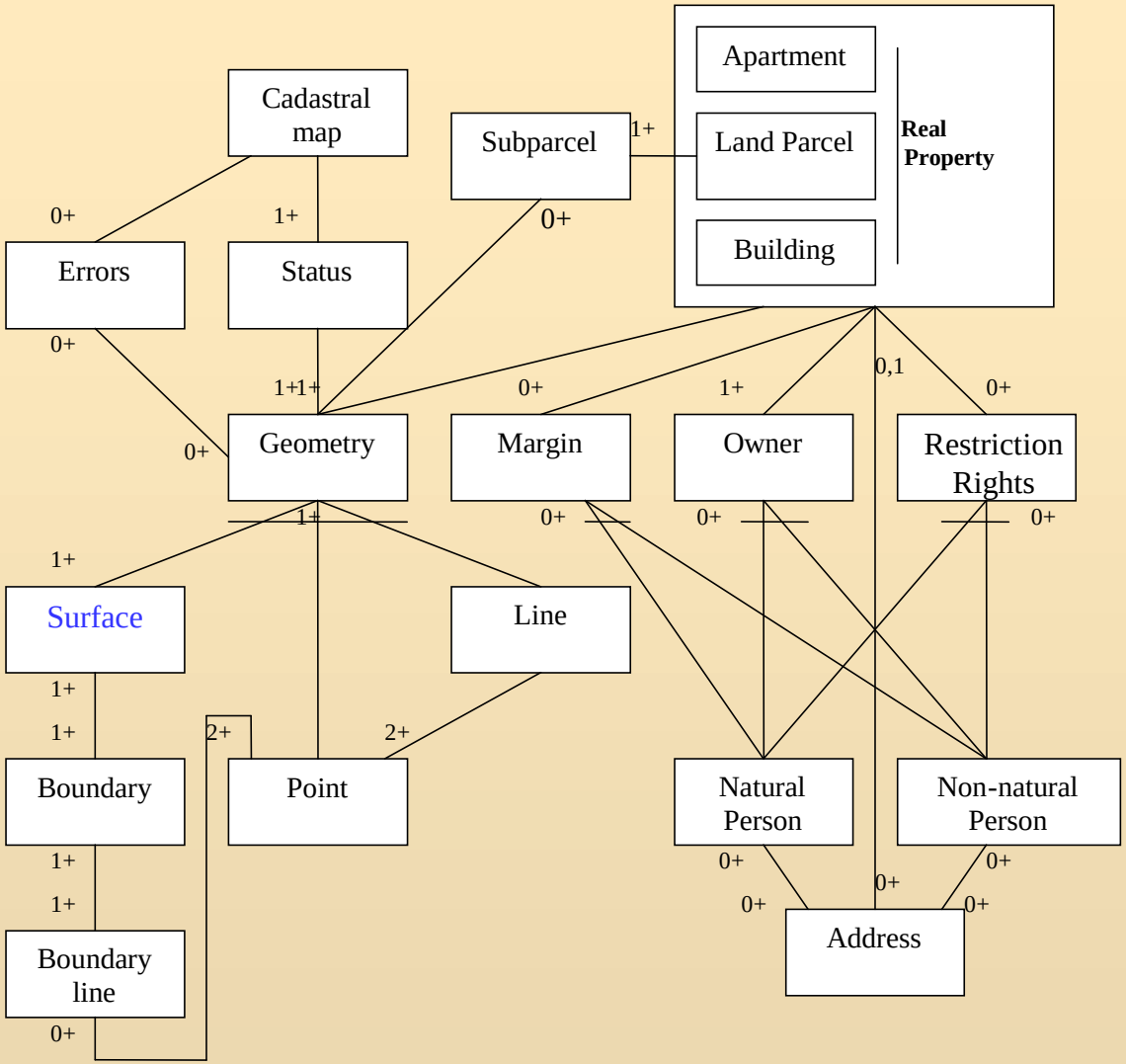
- Basis: MSZ 7772-1 Standard (Digital Base Map – Conceptual Model) in Cadastral Domain since 1996 and DAT Instructions since 1997
- Visions:
  - Map all the principles of Unified Land Registry
  - Compatible with the Standardized Domain
  - Authentic updating of legal and geometry part of Unified Land Registry
  - Independency from any commercial GIS solutions
  - Full integration with existing TAKAROS system (Land registry)

DATR, Characteristics

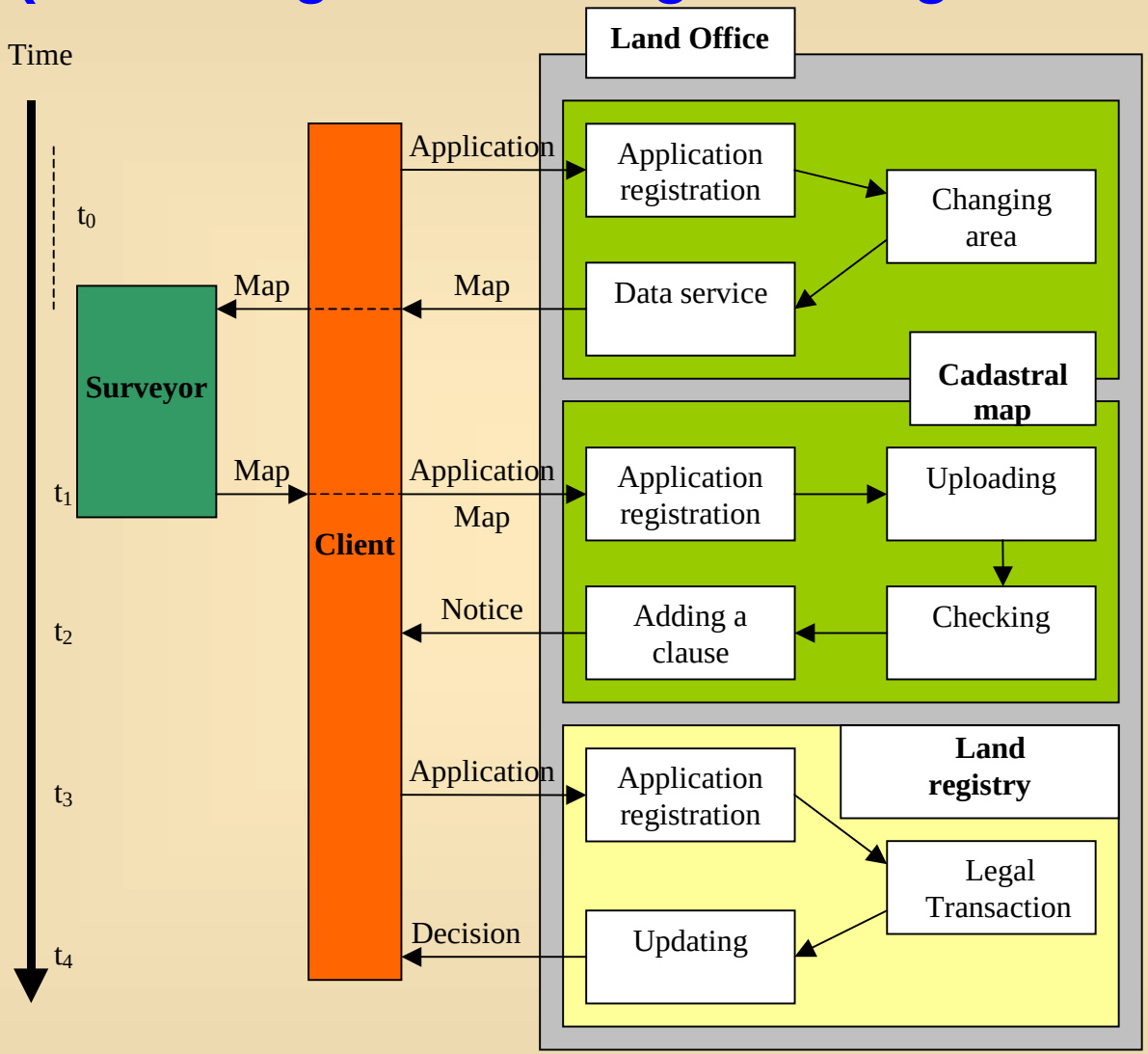
- Providing authenticity
  - No map editor capacity
  - Map updating only via database transactions (in standardized environment)
- Uniform database structure
  - Enforcing database integrity
- Real-time queries via Internet
  - Integrated search with Land registry part
  - Real-time map generating
  - Minimizing network weighting
- Modular self-calibrating architecture
  - All functions are in modules
  - No client-side configuration is needed to insert any new module
- Easy customizable
  - Uniform calling interface and protocol
  - Opened module API

DATR, Core Data Model

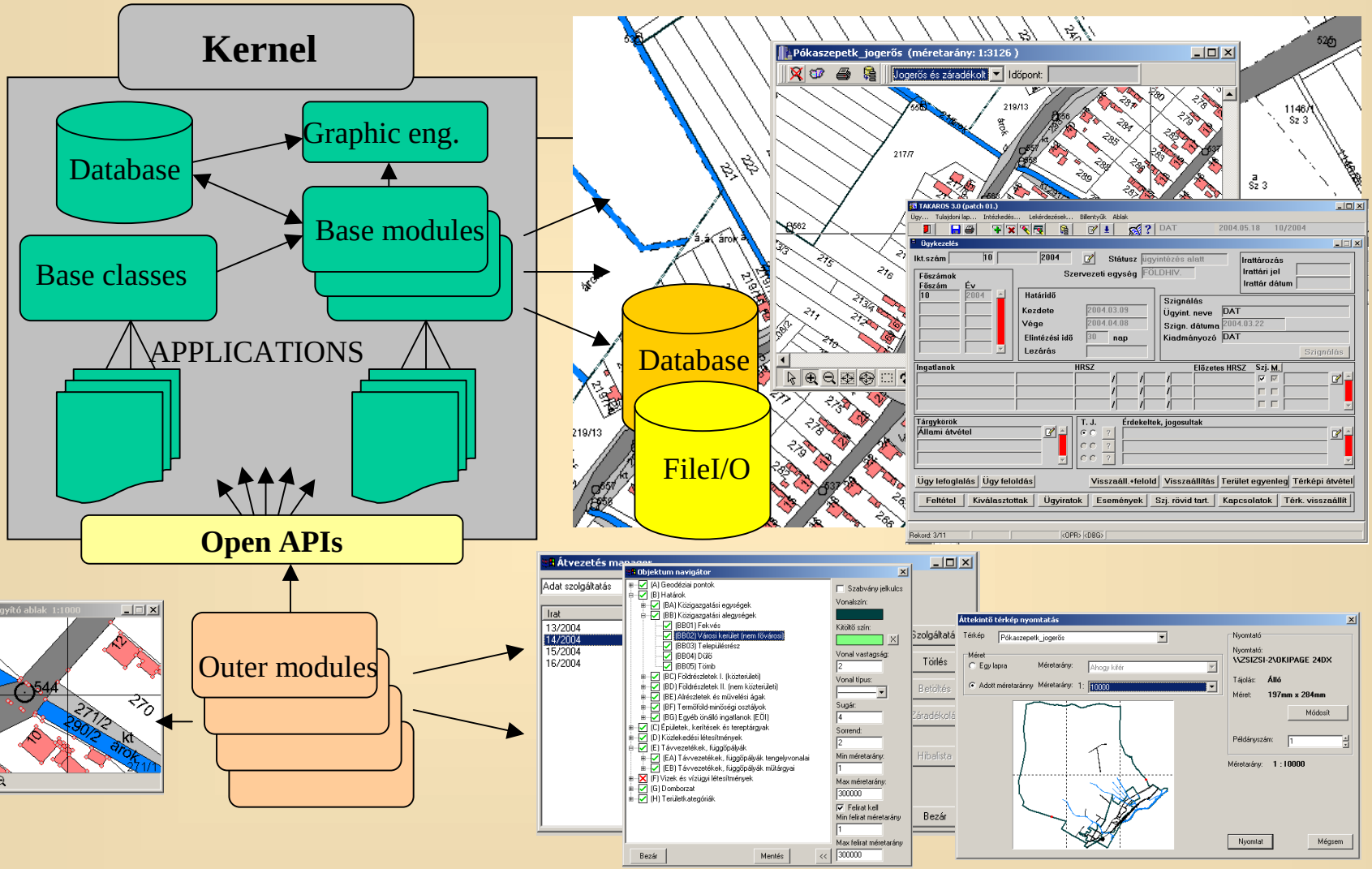
This Core Data Model is compatible with ISO Land Administration Domain Model standard proposal (by our Dutch Colleagues)



Real property transactions in DATR (according to the Hungarian regulation)



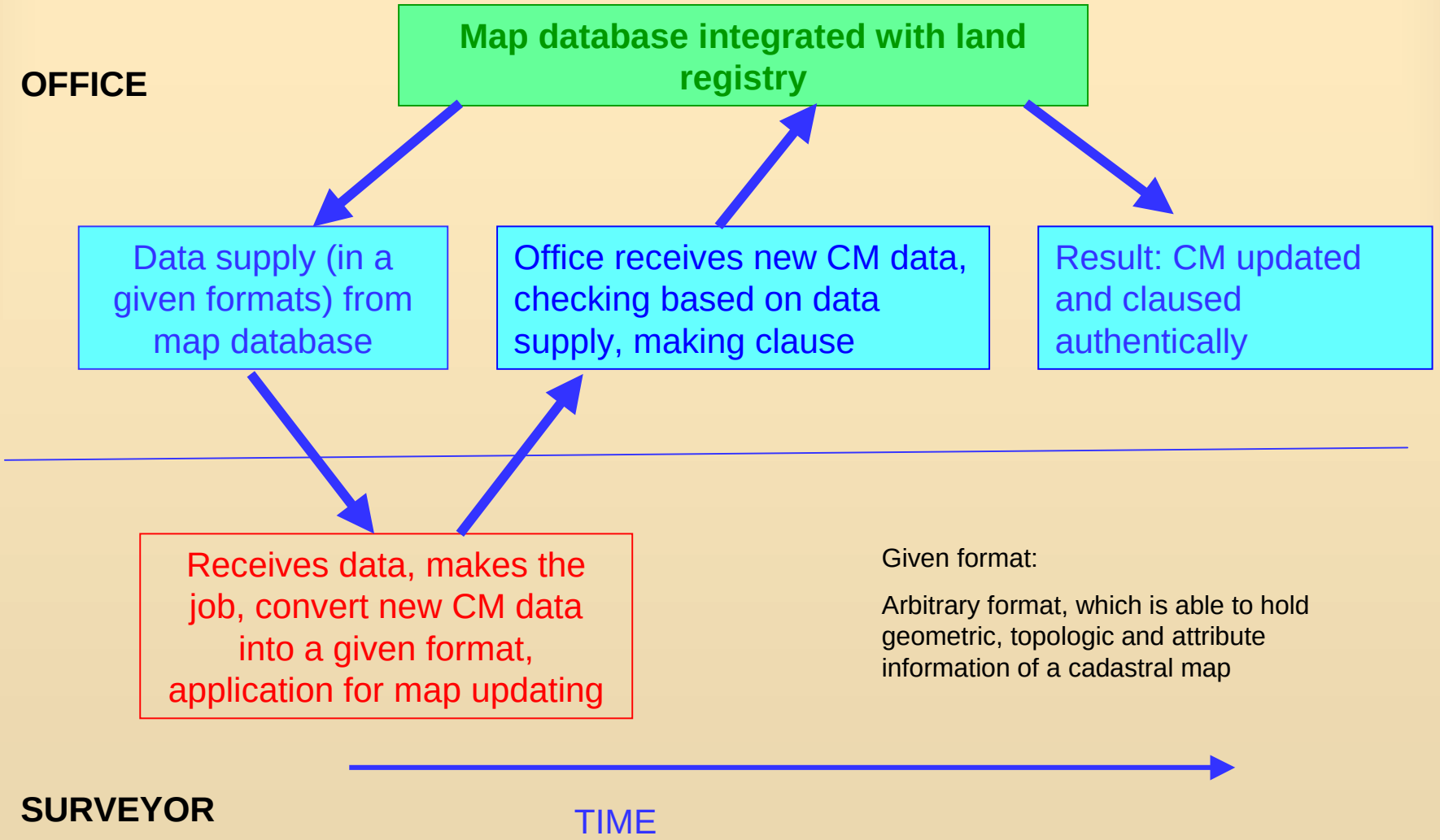
DATR Architecture



DATR, International Version

- Because of the flexibility of the system, FÖMI decided to share this software with the land administration community
- All modules have a lingual description in XML format. Therefore lingual customization is very easy
- By the use of open APIs the system can be modified to any legal and technical environment
- New interface to Open source MySQL RDBMS (beside the existing ORACLE interface)
- If client needs any SQL based interface can be developed
- Full technical and professional (not only IT, but LA) support and guidance

General on workflow on CM in DATR



Conclusions

- DATR is an object-oriented approach and a flexible solution for authentic unified land registry management
- DATR International version will be published as a freeware software, only registration needed
- FÖMI's capacity both in IT and land administration professionals guarantees the long-term maintenance and support of the system
- Linguistic Customization of the system is very easy via linguistic descriptions
- Open APIs help anyone to customize the system into his legal and technical environment
- FÖMI is ready to undertake the task of customization and/or professional guidance for the users of DATR, as well

Thanks for your attention

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See you at:

http://www.fomi.hu