ABSTRACT

Cadastre in Greece is under construction for the last eight years. The IT system was not developed until the middle of 2002 where the first database system was actually established. The GIS system began to develop at the end of 2002.

Many in-source applications were developed to provide all the necessary functionality. As of today, the system implements all the latest technologies thus providing high-level compatibility with today’s market.

DATA COLLECTED IN TEST ENVIRONMENT

- 201 MUNICIPALITIES
- 2,828,000 RIGHTS
- 1,067,000 PERSONS,
- 1,780,000 PROPERTIES
  - 896,000 LAND PARCELS
  - 713,000 HORIZONTAL PROPERTIES
  - 77,000 COMPLEX VERTICAL PROPERTIES
  - 58,000 SIMPLE VERTICAL PROPERTIES
  - 38,000 SPECIAL PROPERTIES
  - 18 MINES
- 556,000 ADDRESSES
- 2,810,000 DOCUMENTS
- 38,000 DOCUMENT ISSUERS

SYSTEM OVERVIEW

Descriptive data

- Registrable rights
- Beneficiaries
- Deeds
- Applications

Spatial data

- Municipality Boundaries
- Land Parcels
- Buildings
- Mines
- Exclusive use areas
- Easements
- Orthophotographs
- Digital Terrain Models
- Survey maps

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GIS

- GIS and descriptive database systems were developed separately. Both kinds of data are stored and handled by the same database, which is ORACLE 9.2. GIS uses ESRI's ArcGIS 8.2, ArcSDE 8.2, and ArcIMS 4.01.
- Data are stored and handled according to the municipality they belong to. In most cases, a whole municipality is handled exclusively by one cadastral office.
- Restrictions and rules apply to each different dataset, all of which are handled by applications developed in-house.

SOFTWARE APPLICATIONS

All the software developed in-house can be categorized into the following general categories:
- Quality control software
- Data loading software
- Data management and editing software
- Product Creation software
- Internet Software

QUALITY CONTROL

- Data expected in DXF or Shapefile Format
- Quality control with 2 different approaches
- Main software developed for ESRI ArcInfo ArcworkStation 8.2
- Second software developed with ESRI MapObjects 2.2

QUALITY CONTROL TOOLS
QUALITY CONTROL

DATA LOADING SOFTWARE

- Automatic creation of:
  - Data input format rules coverage
  - New fields and new values are created in the loading process
  - New feature classes
  - New data files and tables
  - New internet pages

DATA LOADING PROCESS

DATA MANIPULATION SOFTWARE

- Why this was necessary:
  - Data security and logging
  - Wizard-like procedures to reduce human mistakes
  - Automatic batch processes to minimize effort
  - Creation of procedures not directly supported
  - Creation of customized products

DATA MANIPULATION SOFTWARE

FUNCTIONALITY

- Query data
- All kinds of geometrical changes
- History
- Tools
- Products