

Joint Use of Geographic Information – Cadastral Data, General and Topographic Map Data

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(NLS)

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agenda

- ◆ The National Land Survey of Finland
- ◆ Software interface
- ◆ Software interface for general and topographic map data
 - ◆ example
- ◆ Software interface for cadastral data
 - ◆ example
- ◆ Conclusions
 - ◆ Our experiences of the services
 - ◆ Future plans

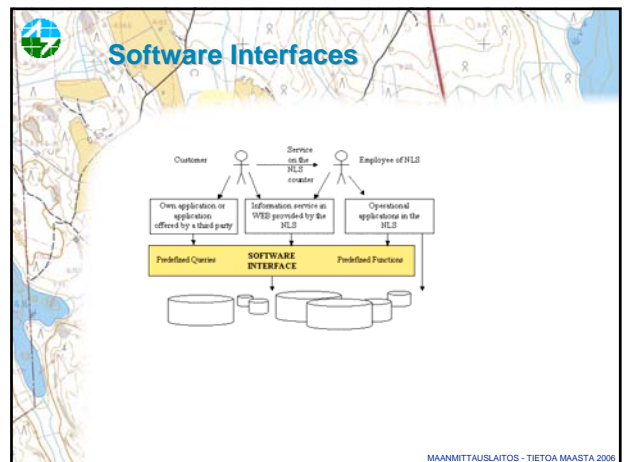
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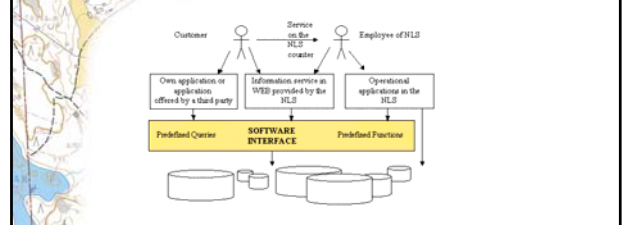
The National Land Survey of Finland, NLS

- ◆ Maintains cadastre with municipalities
- ◆ Carries out legal surveys
- ◆ Collects national topographic database
- ◆ Promotes the shared use of geographic information

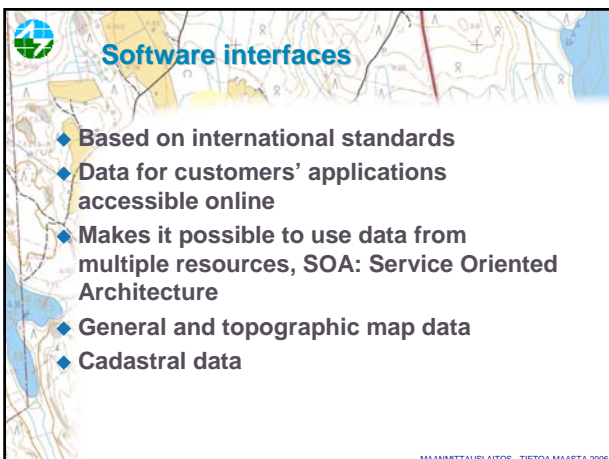
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Software Interfaces



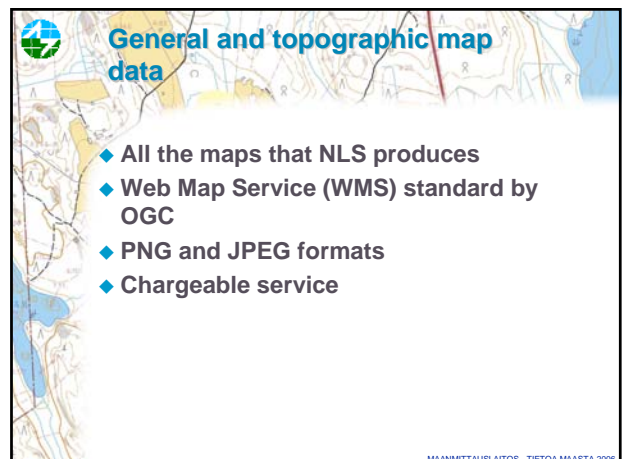
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Software interfaces

- ◆ Based on international standards
- ◆ Data for customers' applications accessible online
- ◆ Makes it possible to use data from multiple resources, SOA: Service Oriented Architecture
- ◆ General and topographic map data
- ◆ Cadastral data

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General and topographic map data

- ◆ All the maps that NLS produces
- ◆ Web Map Service (WMS) standard by OGC
- ◆ PNG and JPEG formats
- ◆ Chargeable service

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https://...?REQUEST=GetMap&VERSION=1.1.1&FORMAT=image/png&BGCOLOR=0xffff&LAYERS=k_rk1_100&STYLES=normal&WIDTH=500&HEIGHT=180&SRS=EPSG:2392&BBOX=2528300,6838900,2529300,6839260

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Example

LAJI	PALVAMAARA KUNTA	PAIKKU
Leulujoutsen	15.6.2006	Hämeenkyrö kintus,
Leulujoutsen	15.6.2006	Ikaalinen Höytö
Leulujoutsen	15.6.2006	Jaala Sikay,
Leulujoutsen	14.6.2006	Kokemäki Puurti
Leulujoutsen	14.6.2006	Paijoo Ylönie
Leulujoutsen	14.6.2006	Isajoki Lauha
Leulujoutsen	13.6.2006	Sillinjärvi Siltasa
Leulujoutsen	13.6.2006	Sillinjärvi Siltasa

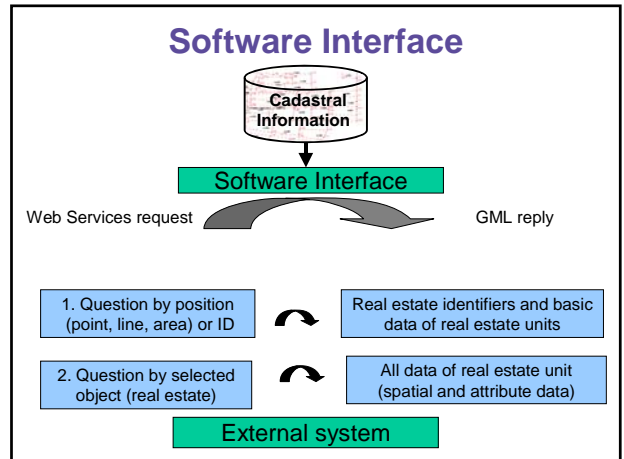
Service on the web of Birdlife Finland, swan observations during a week on June 2006

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Cadastral data

- ◆ Cadastral data of all property located in Finland
- ◆ based on Web Services technology by W3C:n :
 - ◆ services described as WSDL (Web Service Discription Language) documents
 - ◆ systems communicate with messages
 - ◆ messages defined as XML schemes
 - ◆ messages transmitted using SOAP protocol
 - ◆ data in GML
- ◆ chargeable service

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Example

KIINTEISTÖ KARTALLA 19.06.2006 sivu 1 (1)
000-000-10-22

Service on the web which offers register information widely. Product real estate on a map printout.

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Our experiences

- ◆ benefits
 - ◆ no need to update or store the data
 - ◆ free of charge testing of services
- ◆ problems
 - ◆ authentication not specified in standards
 - ◆ proper business model required
 - ◆ more data should be available, for example ownership of real estates
 - ◆ technology still in early adopters phase

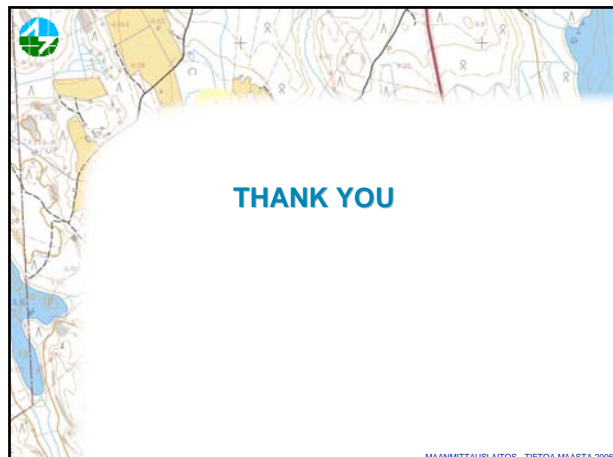
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Future plans

- ◆ Service of orthophotos and other new products
- ◆ Developing new business, pricing and agreement models
- ◆ co-operation with other data producers

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THANK YOU

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