Network of knowledge for efficient private forests

O4: Good practice examples in optimization of forest operations

Latvia

LVM GEO system

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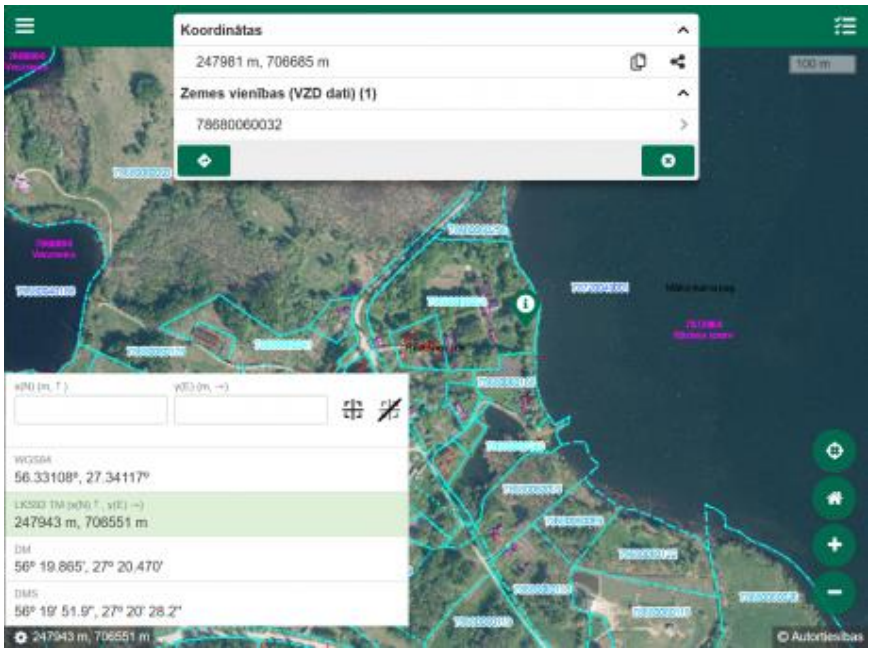
LVM GEO system

LVM GEO is a collection of geospatial information technology (GIT) products and services provided by the Geospatial Information Technologies business unit of the JSC Latvia's State Forests (LVM). They have been developing GIT to support their own business operations, and now they offer GIT products and services not only internally, but also to clients specializing in various industries. LVM GEO products range from a modular and multifunctional geospatial information technology platform with interfaces for companies and organizations to open tools for spatial data processing for any GIT user free of charge.



In the picture: LVM GEO system (www.lvmgeo.lv)

LVM GEO services are:

- Geographic information system development
- Spatial planning optimization model development
- GIS consulting and project management
- GIS data management and analysis
- Remote sensing services

The LVM GEO Platform is among the largest and most versatile GIT products offered to customers in the market. The Platform provides users with numerous ways to view, process and analyse geospatial information. Its single unified database can be accessed via desktop, browser-based and mobile applications.

In the picture: LVM GEO platform (www.lvmgeo.lv)

LVM offers customization and installation of the Platform, as well as access to continued product and service development, to clients requiring geographic information system support for their business activities. The modular structure of the platform allows for specific modules to be used as standalone systems or can be seamlessly integrated with other proprietary systems. The system and its interfaces are easily localised into any language.

Clients may choose a subscription to LVM's infrastructure, including a full, secure system and infrastructure service package, or install the platform on their own IT infrastructure, providing for infrastructure maintenance with their own resources.

The LVM GEO platform consists of four modules: LVM GEO Web, LVM GEO Desktop, LVM GEO Mobile Sync and the platform's data base – LVM GEO Database.

LVM GEO Mobile is an application designed for Android and iOS operating systems. The application allows users to orient themselves under field conditions using GNSS receivers, and send coordinates to any navigation app by simply pressing any location

on the map. Work orders and associated geospatial information from the LVM GEO WEB module can be received by the application, including any information necessary for field work.

In the picture: LVM GEO mobile (www.lvmgeo.lv)

LVM GEO Web Lite is a web-based application that allows users to view, search and edit their company's or organization's geospatial data layers. The application is intended for clients that require basic geographic information system (GIS) functionality. The main advantages of this product are a simple user interface, fast implementation and simple change management.

For example, forest owner cooperative Mezsaimnieks performs forest management planning using the LVM GEO platform, but publishes publicly available information about its members' properties using the LVM GEO Web Lite browser: https://mezsaimnieks.lvm.lv/

Attēlā: LVM GEO Web Lite (www.lvmgeo.lv)

LVM GEO Python Core is an open source automation and scripting core developed by the LVM GEO team. Based on this core any developer can build simple and structured Python programming scripts with a rich functionality. The programming core allows management of all system's maintenance processes within a unified environment.

The LVM GEO team has developed the **LVM GEO Toolkit** for ArcGIS for various geospatial data processing needs and made available in an installation for any ArcGIS user.

Information sources:

1. Guide "*Kas jāzina meža īpašniekam*" (What every forest-owner should know), Association "*Meža īpašnieku kooperācijas atbalsta centrs*" (Support centre for the co-operation of forest-owners) and Latvian State Forest Research Institute Silava, 2017
2. Leaflet "*Meža īpašnieku kooperācija Latvijā*" (Co-operation of forest-owners in Latvia); Latvian Rural Advisory and Training Centre, 2011
3. www.lvmgeo.lv
4. www.mezsaimnieks.lv
5. www.mezaipasnieki.lv