

What is Field-Map

Field-Map is a comprehensive software and hardware technology for effective computer aided field data collection and subsequent data processing. Field-Map product line combines flexible real-time GIS software Field-Map with electronic equipment for mapping and dendrometric measurement. Field-Map application covers a whole range of different tasks ranging from single-tree measurements, research or inventory plot level, forest compartments up to the landscape level. Field-Map is being used in many projects of forest inventory, forestry research, forestry and landscape mapping and others.

Example projects



Statistical Forest Inventory

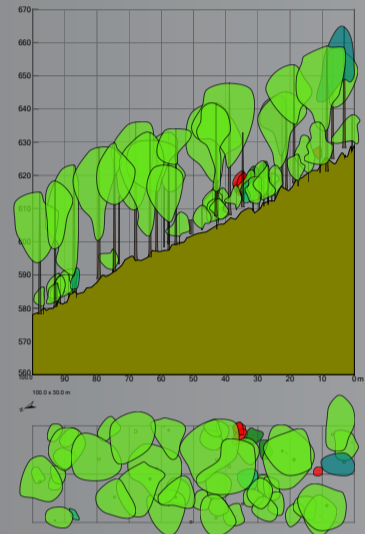
The aim of the statistical forest inventory is to provide comprehensive information about the state and dynamics of forests for strategic and management planning. Field-Map has a full functionality to support any type of statistical forest inventory. The Russian National Forest Inventory (the largest NFI programme worldwide) is one of the best examples of the Field-Map capacity to **manage extensive databases and support multiple field teams**. Other NFI programs using Field-Map are Ireland, Czech Republic, Slovak Republic, Iceland, Cape Verde and Hungary.

National Forest Inventory, Russia

The above mentioned inventory programs demonstrate that the use of the Field-Map technology in statistical forest inventory **optimizes the costs and accuracy** of the collected data and final results. Even in cases with a relatively low number of inventory plots, the data evaluation often yields a desired accuracy of the final results while optimizing the costs of the whole NFI inventory campaign. For this, specifically effective has been the statistical data processing by Field-Map, which dramatically reduced the time for data processing and reporting.



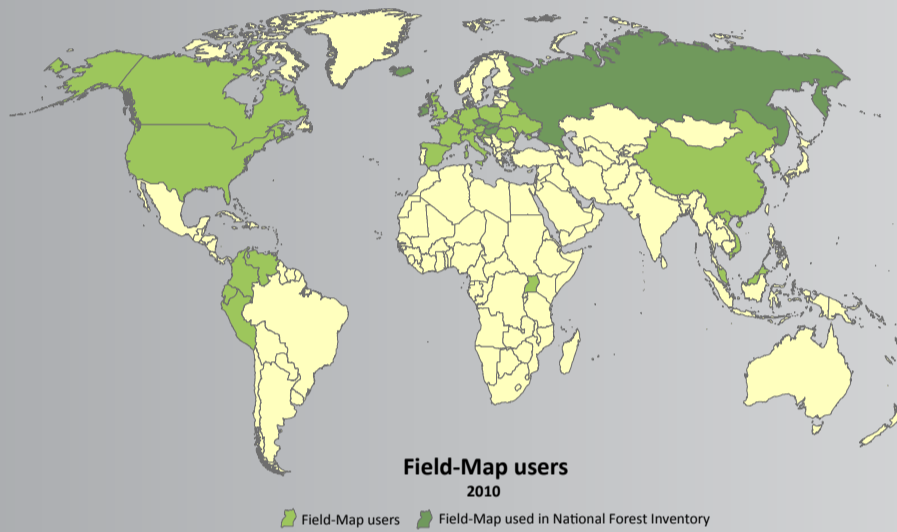
National Forest Inventory, Russia



2D visualization of natural reserve, Poledník, Czech Republic

Forest and natural reserves

Long-term monitoring of forest ecosystems is important for the management of protected areas. Field-Map meets the requirements of the long-term ecosystem monitoring, covering establishment of permanent plots and/or transects, repeated measurements, data processing and 2D/3D visualization. Field-Map has been applied for monitoring of forest and natural reserves in Belgium, Germany, Ukraine, Peru and several other temperate and tropical countries.



Timber tracking and certification

Field-Map is also suited for timber tracking systems. Trees are mapped with Field-Map with all their necessary attributes and then loaded into a timber tracking database. After logging, it is possible to follow the exact position of the timber at any time (from the forest site to the final destination). Hence, Field-Map data permit determination of timber source location.

Carbon stock monitoring

Field-Map technology has been used in a number of projects for estimation of carbon stock budgets and monitoring of forest carbon stock changes. The capacity of the Field-Map system to integrate information from different remote sensing sources with the in-situ measurements ensures the maximum productivity of the inventory projects focused on growing stock, biomass and carbon stock estimation.

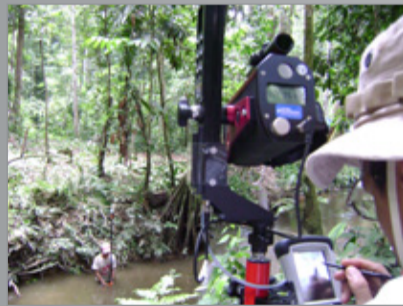
Furthermore, the experience from the Field-Map projects executed in Uganda and Malaysia shows that such technology is also user friendly. After two weeks training the local experts were able to use the technology for biometric measurements in the tropical forest, resulting in estimation of ecosystem carbon stocks. **Capacity building** is one of the important aspects of Field-Map projects. The field measurements cannot be done without the knowledge of local conditions. Therefore the field teams always include local experts who first master the technology and then carry out the projects.



Carbon offset monitoring campaign in National park Kibale, Uganda



Forest management planning in tropical rain forest, Tolima, Columbia



Monitoring of natural forest reserves, Junin, Peru

Forest management planning

Field-Map has substantially increased the productivity of forest inventories for management planning of forest resources. Now Field-Map supports building **digital version of forest management plan** right in the field. It includes mapping forest boundaries, roads, attributing forest stands, performing validation checks against legislative standards, etc.

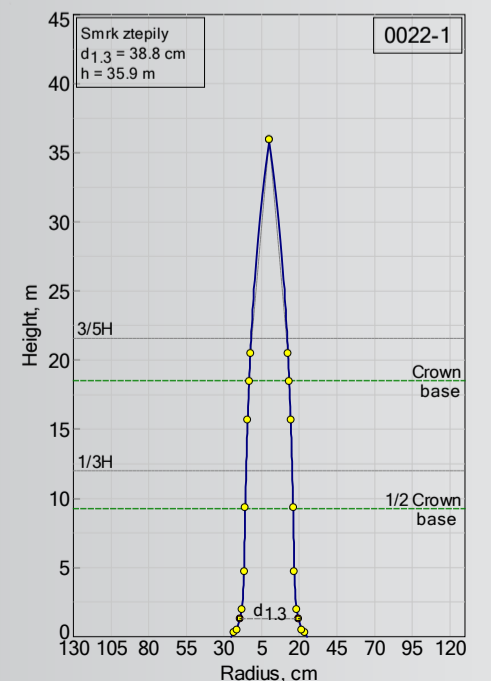


Forest Management Planning, Czech Republic

Standing Volume Assessment

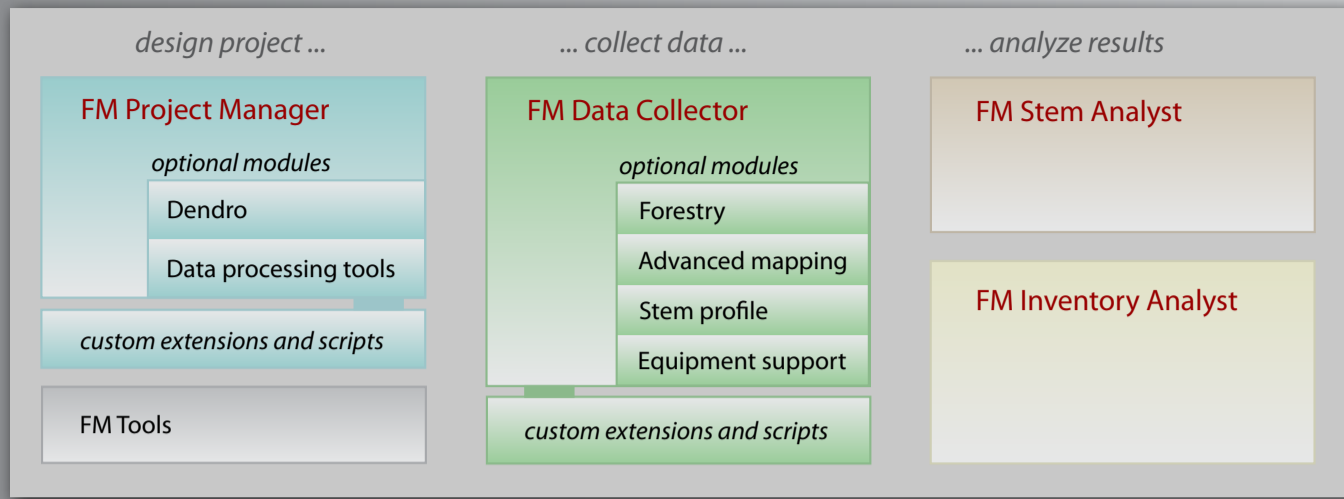
Measurements conducted with the Field-Map technology permit the determination of **equations for tree volume calculations** for number of forest species.

The Field-Map can be used to parametrize global model of tree profile using just a few sample trees. It can then calculate assortments for the entire forest stand or the entire study area.



Field-Map Software

Field-Map consists of several applications. Depending on the type of your projects you may select those, which you need.



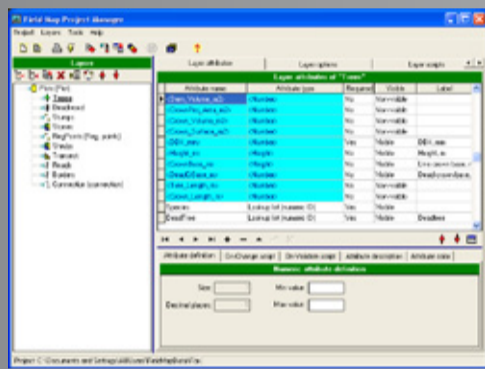
For detail information about our software products please download

Field-Map Catalogue at www.field-map.com



Field-Map Project Manager

Prepare your project using user-friendly interface with no need of programming skills. Implement your methodology into flexible database open to changes at any time. Scripting environment is available for highly specific tasks such as data checking and local equations for volume or biomass estimation.



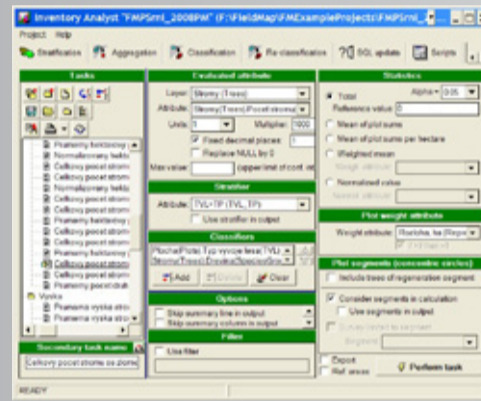
Field-Map Data Collector

Collect your data in situ using field computer with external electronic tools (GPS, electronic rangefinder and compass) and/or traditional measurement devices. Use navigation, continuous georeferencing, on-screen visualization, data checking and other functionality for efficient field survey, data collection and mapping.



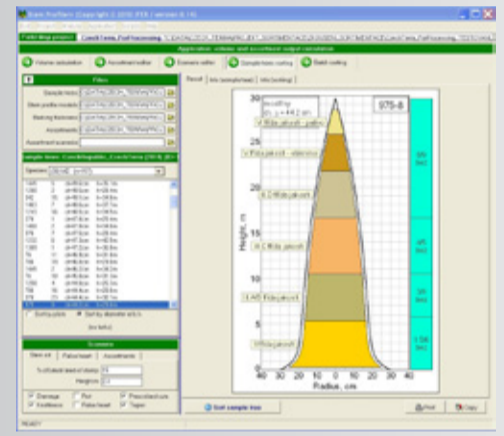
Field-Map Inventory Analyst

Evaluate your data and produce instant results, including calculation of missing trees, tree volume calculation, user-defined classification, user-reclassification, aggregation and others. Use Inventory Analyst, an integral part of Field-Map, for advanced statistical processing of your inventory projects and produce publication-ready tables and graphs. Your inventory campaign can be evaluated practically instantly.



Field-Map Stem Analyst

Calculate parameters for global stem profile model and use it for calculation of timber volume. Field-Map Stem Analyst contains also module for calculating assortments and expressing it as financial value of the timber within specified area.



Field-Map Hardware

Field-Map software is flexible and can be used for many types of projects. Field-Map hardware can be optimized depending on the type of fieldwork you plan.

For complete list and detail information about hardware components or the entire hardware sets please download

Field-Map Catalogue at www.field-map.com



For projects where both weight and computing power matters, you can combine standard measuring devices with lightweight PC computer.

If you need to make a lot of detailed measurements at one location (typically full mapping of large plot), you may want to consider tripod with large screen computer, precise laser range finder and additional battery pack.

Hardware set for simple projects where weight of the equipment matters the most.

Free your hands with adjustable aluminium arm holding your computer.

While mapping forest stand boundaries you may walk around 20 km a day. Then you need lite computer, GPS and just a small pocket laser range finder.

