

Example projects

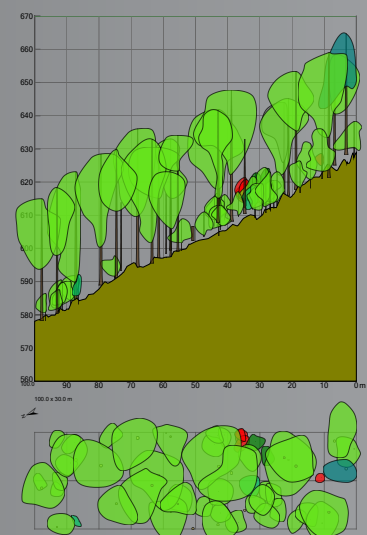


National Forest Inventory, Russia

Statistical Forest Inventory

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

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 the final results. Even in cases with a relatively low number of inventory plots, the data evaluation often yields the desired accuracy of final results while optimizing the costs of the whole NFI inventory campaign. Using Field-Map for statistical data evaluation has been especially effective and has dramatically reduced the time needed for data processing and reporting.



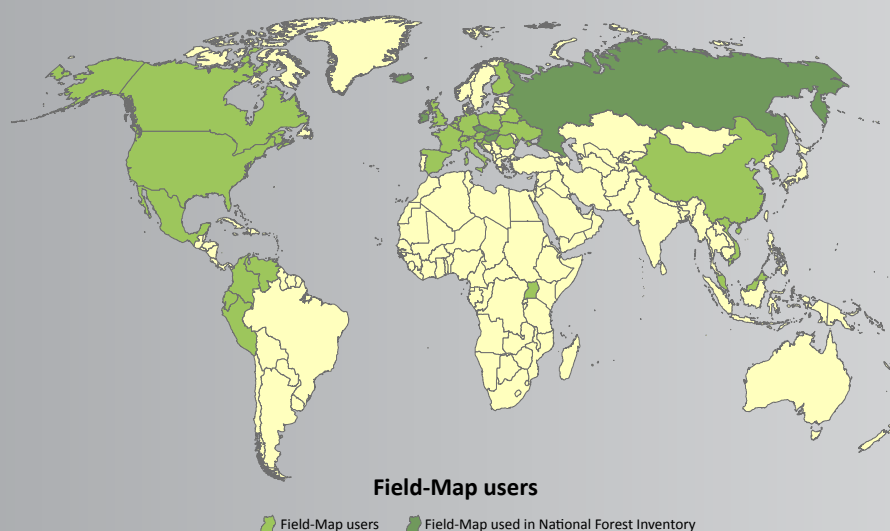
2D visualization of the Poledník National Nature Reserve, Czech Republic

Forest and natural reserves

Long-term monitoring of forest ecosystems is important for the management of protected areas. Field-Map meets the requirements of 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 to monitoring of forest and natural reserves in Belgium, Germany, Ukraine, Peru and several other temperate and tropical countries.



National Forest Inventory, Russia



What is Field-Map

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



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 current location 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 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.

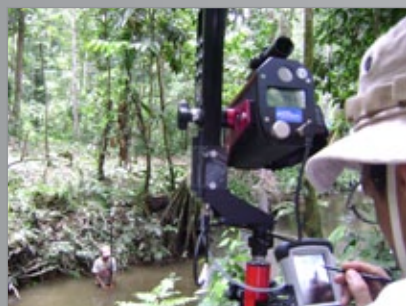
Furthermore, the experience from Field-Map projects executed in Uganda and Malaysia shows that the technology is also user friendly. After two weeks of training, the local experts were able to use the technology for biometric measurements in a tropical forest, with the result of the ecosystem carbon stocks estimation. **Capacity building** is one of the important aspects of Field-Map projects. Field measurements cannot be done without 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

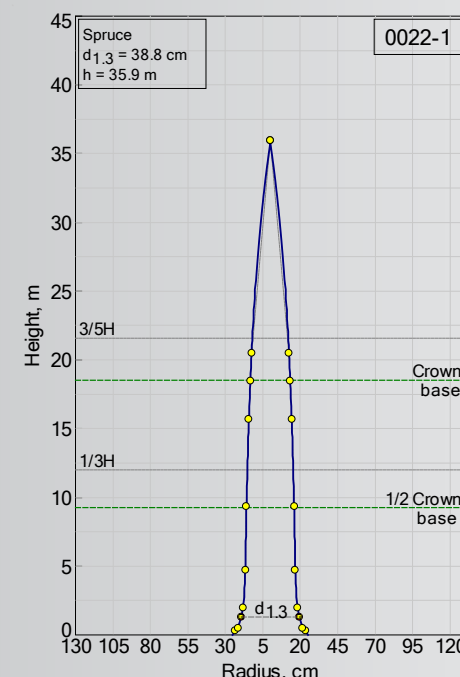
Field-Map has substantially increased the productivity of forest inventories for management planning of forest resources. Nowadays, Field-Map supports building **digital version of forest management plan** right in the field. It includes mapping forest boundaries, roads, attributing forest stands, performing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



Forest Management Planning, Czech Republic

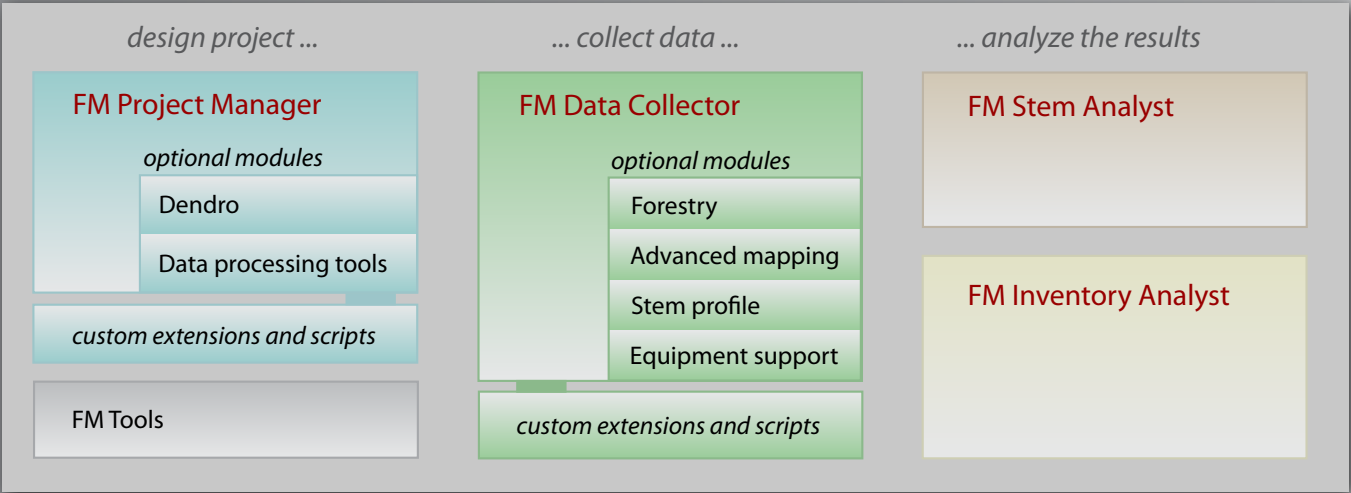
Standing Volume Assessment

Measurements conducted with the Field Map technology permit the determination of **equations for tree volume calculations** for number of forest species. Field-Map can be used to parameterize a 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 software consists of several applications. Depending on the type of your projects, you may only select those which you need.

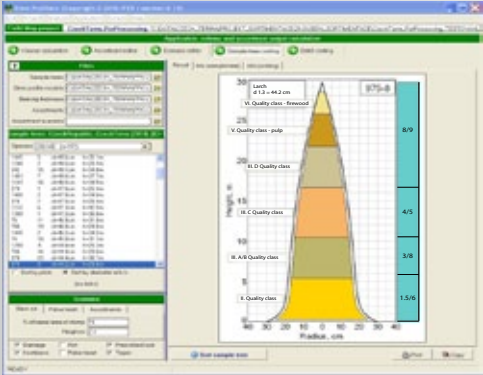
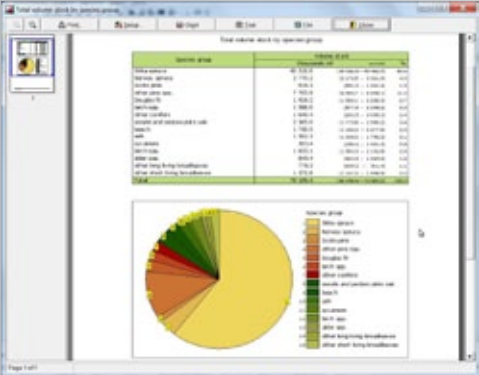
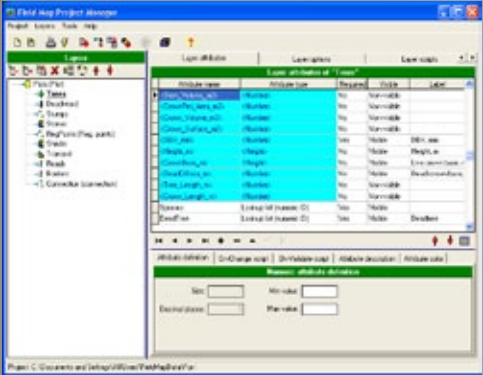


Field-Map Project Manager
Prepare your project in a user-friendly interface with no need of programming skills. Implement your methodology into flexible database open to changes at any time. Scripting environment is available for implementing highly specific tasks, such as custom data checking routines or local equations for volume or biomass estimation.

Field-Map Data Collector
Collect your data in-situ using a field computer with external electronic devices (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 other calculations. 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 of a global stem profile model and use it for calculation of timber volume. Field-Map Stem Analyst also contains a module for calculating assortments and presenting it as financial value of timber within a 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.



Free your hands using an adjustable aluminium arm holding your computer.

If you need to make a lot of detailed measurements at one location (typically full mapping of large plots), you may want to consider a tripod with a large screen computer, a precise laser range finder and a compass or an angle encoder.



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



While mapping forest stand boundaries, you may walk about 20 km a day. Hence you need a light computer, GPS and just a small pocket laser rangefinder.



For detail information about our software products please download

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



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

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