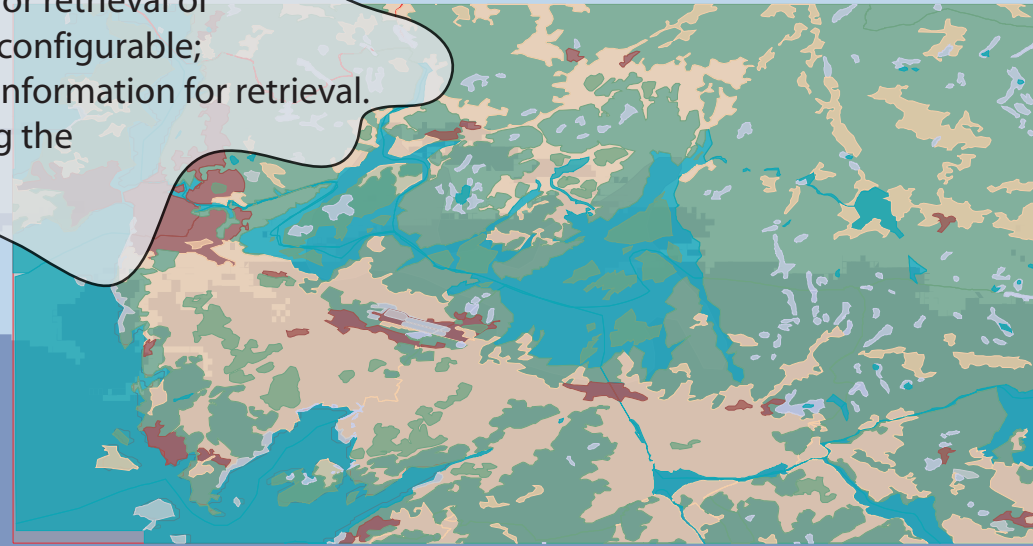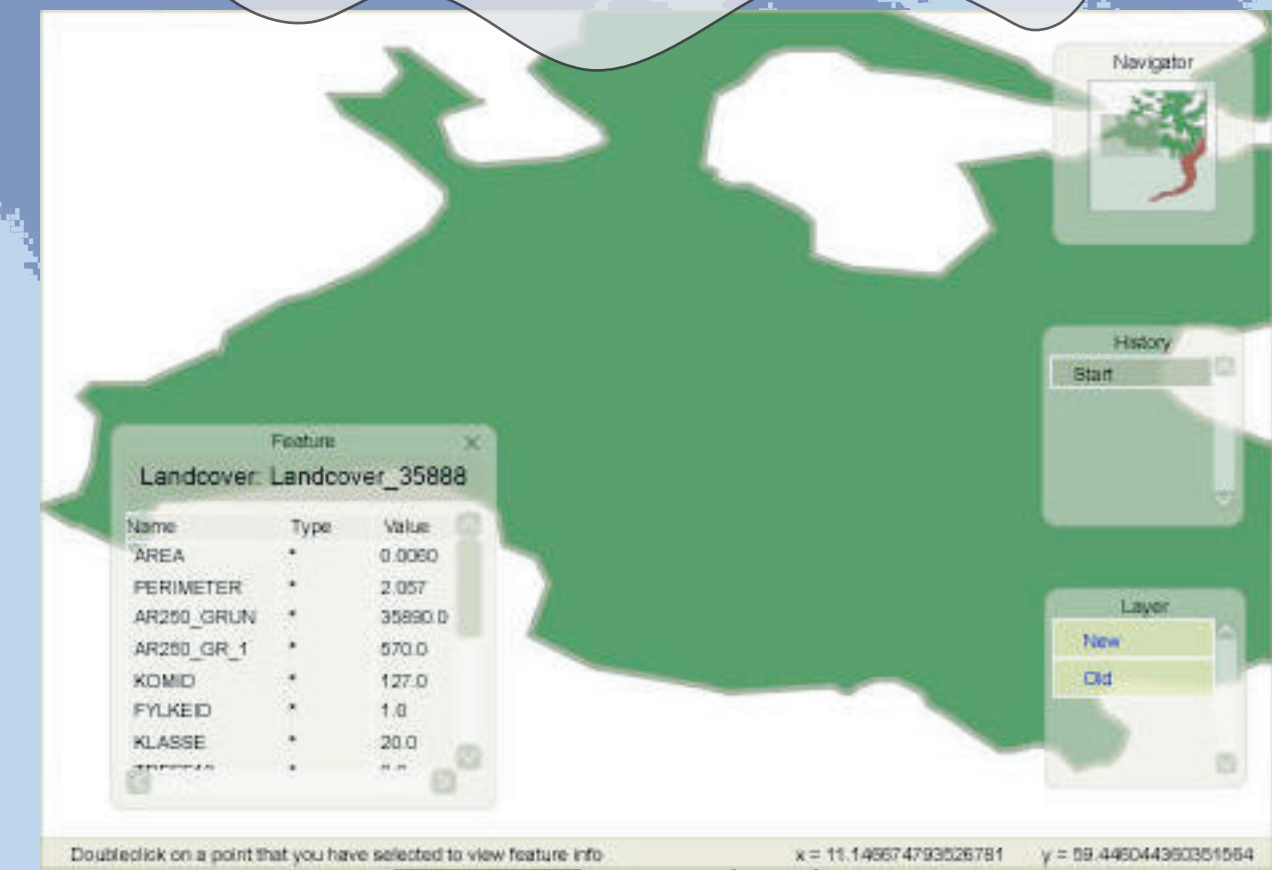# Project OneMap
www.onemap.org

GateWay

The OneMap Gateway is a browser-based user interface for retrieval of OneMap data. The SVG/Javascript implementation is highly configurable; the users have a rich set of tools for querying and selecting information for retrieval. The communication with the geodata repository is following the OGC Web Feature Server protocol. The WF server is built on top of the distributed Repository.

The interface will dynamically configure itself based on the state of the query/retrieval process and the data available according to the selections made by the user.

In addition to the SVG view, the users may download a GML formatted version of the response.

ClearingHouse

The OneMap ClearingHouse will be the main interface between geodata producers and OneMap. It will coordinate and facilitate incremental construction and maintenance of the OneMap geodata stored in the distributed Repository. A GML Editor has been developed for this use.

The ClearingHouse should be a consensus driven service, based on peer review principles and relatively self-organizing with minimal top-down coordination.

Project OneMap

The main objective of Project OneMap is to build a large, global map stored and processed in a scalable and redundant distributed architecture. The core idea is to build the map incrementally and uncoordinated by many submissions. The users may browse and download the geodata at no cost.

There are three main infrastructure components constituting OneMap, the GateWay (access), the ClearingHouse (construction/maintenance) and the Repository (storage).
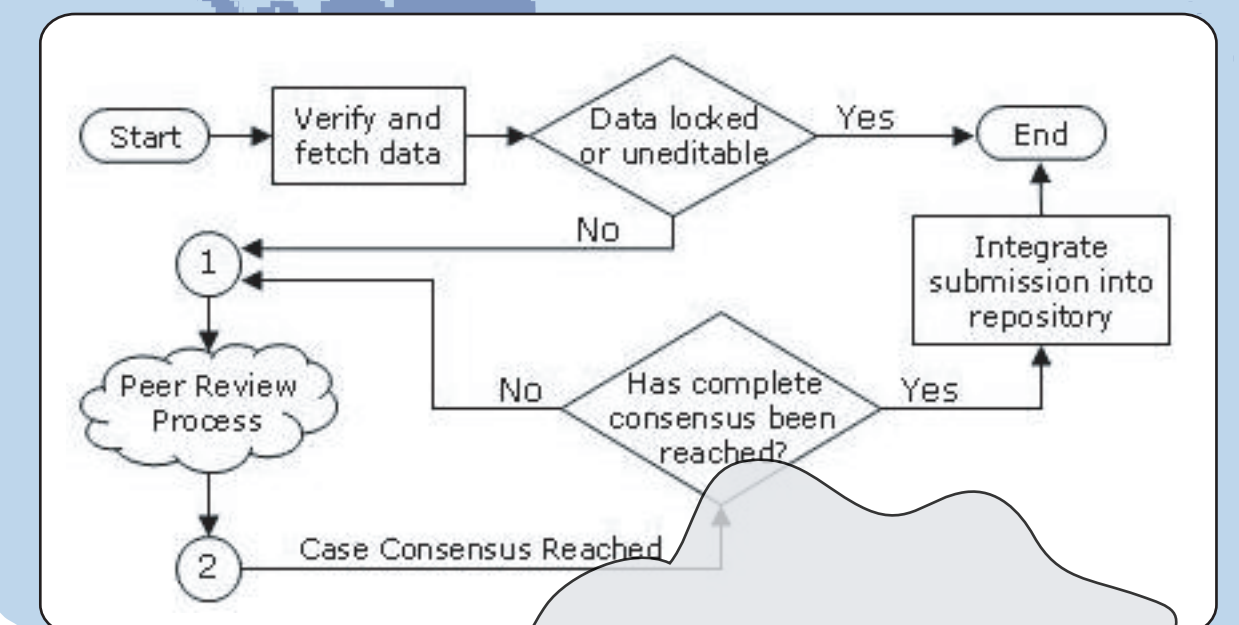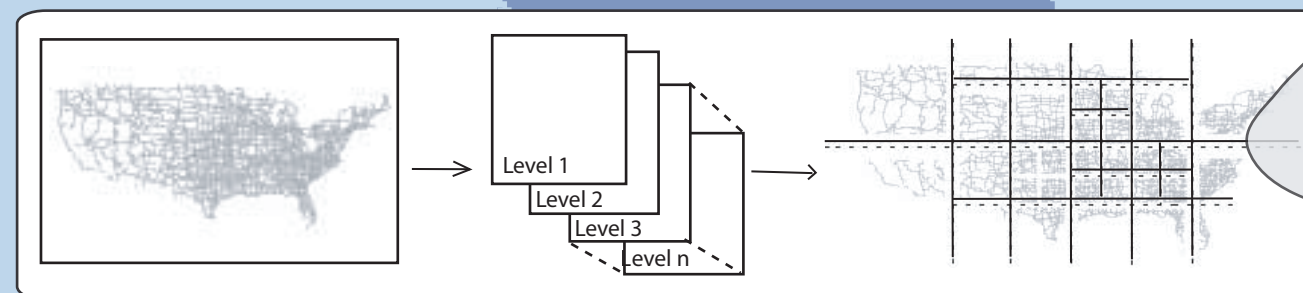
The repository will serve researchers and organizations that are in need for free-of-charge geodata with global, consistent coverage. The framework relies heavily on the OGC work, in particular GML and the web services WFS and WMS. In addition, related XML technologies such as SVG will be used in for example user interfaces.

Project OneMap is an open project in every respect, as it is based on Open Source and Open Content principles. The project is fathered by Gunnar Misund, associate professor, and currently hosted by and coordinated from Østfold University College, Faculty of Computer Science, Halden, Norway.

Repository

The OneMap Repository is basically a huge set of GML files structured to efficiently support retrieval and updating of the geodata comprising the world map. The data is structured in levels of detail to facilitate global overviews as well as street level inspections. The services are based on Java Servlet technology.

The volume of geodata constituting a high resolution world map is bound to exceed by far the capacity of the most powerful existing single location mass storages. The solution to this problem is distributed storage; the files are distributed redundantly on a set of servers. This facilitates both storage scalability and parallel processing of retrieval queries and updating procedures.

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