GML in the Classroom
- bridging a gap?

`<schema targetNamespace="http://www.onemap.net/ompacket"`

The Digital Maps Course

The Digital Maps course ran in the spring of 2003 at Østfold University College, Norway. The main objective was to provide the students with a practical introduction to digital maps and geodata in general and in particular in the context of the Web.
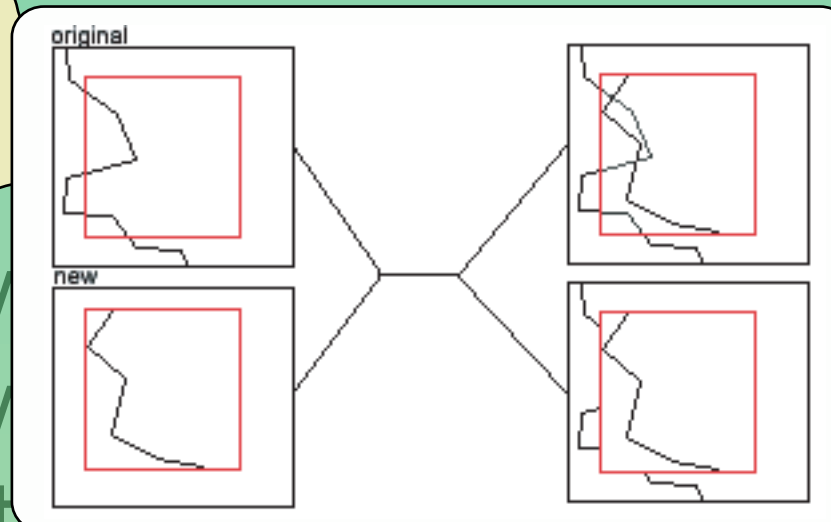
The course was carried out as individual student projects that all in turn were subprojects of Project OneMap. The first weeks consisted of lectures and deciding on projects; the rest of the time were entirely dedicated to the projects. Most of the student projects involved the use of GML and some of these are presented here. The course emphasizes GML as a tool that can help to bridge the gap between cartographers and software developers by giving them a common language.

The Digital Maps course is part of the Computer Science master study at Østfold University College, and is linked to the specialization in Environmental Computing. Gunnar Misund, associate professor, is in charge of the course.
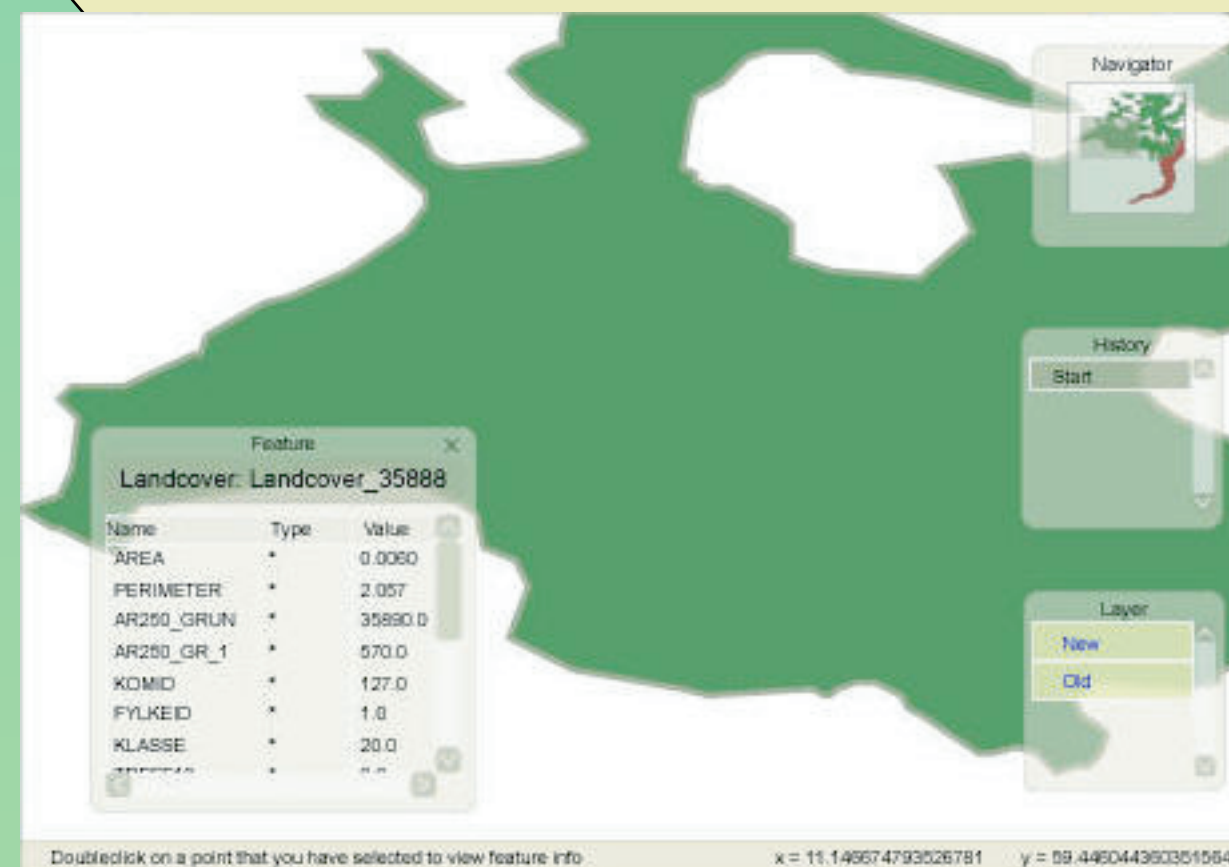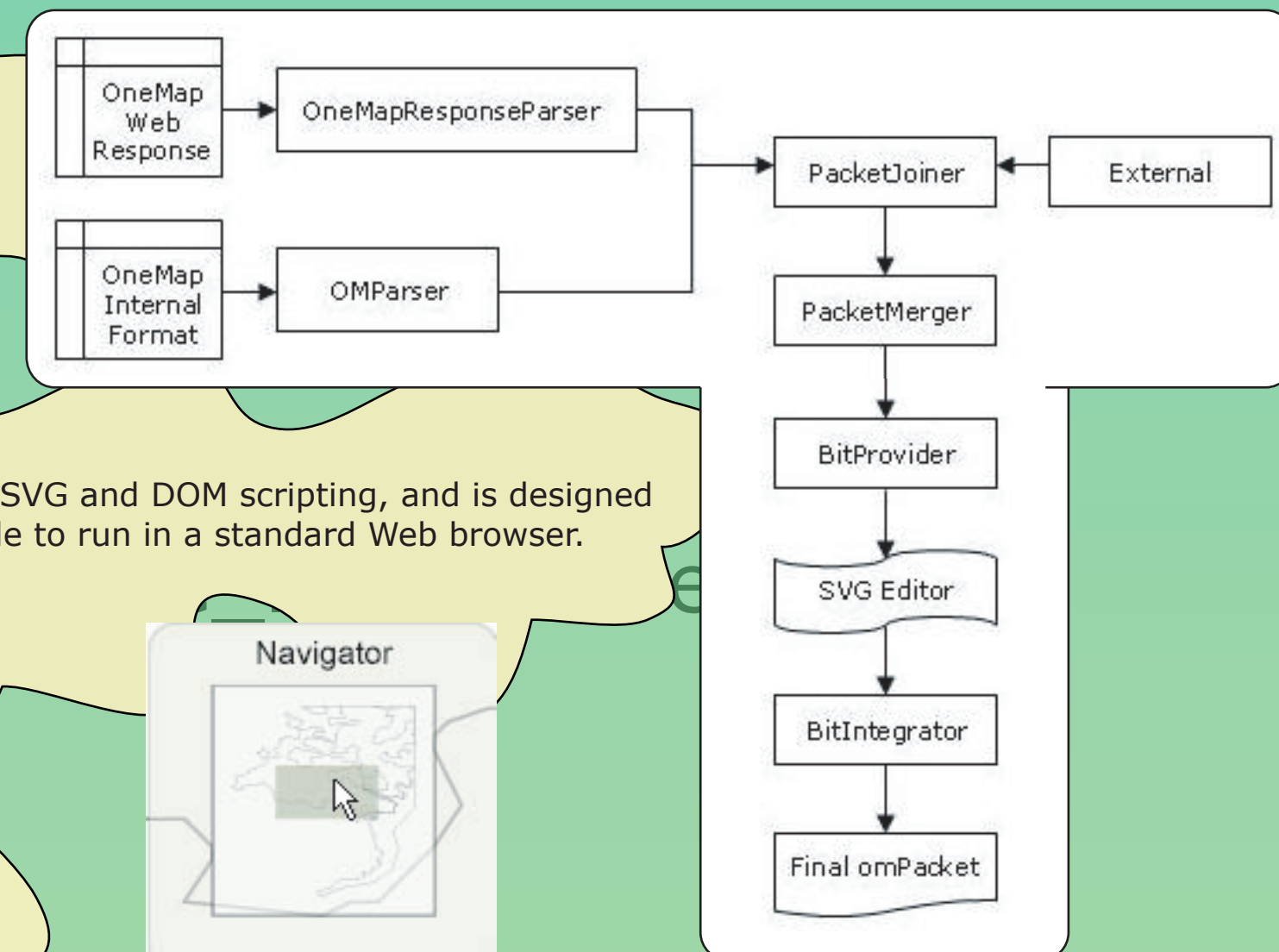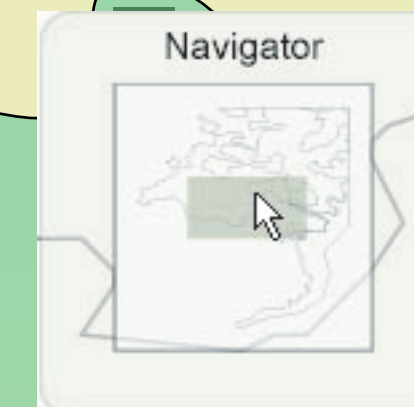
GML Editor

The GML Editor is to be a part of the Project OneMap ClearingHouse and comprises two student projects. Mats Lindh's project "Realization of the first part of the OneMap Peer Review Process" took care of the merging and provision of data for Henning Kristiansen's project "OneMap.Submission.GUI" which is a browser based GUI.

The projects crafted a specific OMPacket schema, which was inspired by the GMLPacket format described in the GML 2.0 specification.

The GML editor is implemented with SVG and DOM scripting, and is designed as a lightweight client application able to run in a standard Web browser. The server side of the system takes care of translating GML compliant documents into carefully structured SVG instances.
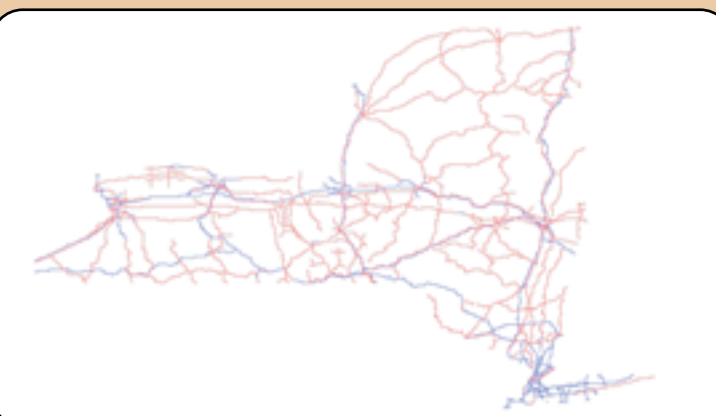
The merging and provision of data was done to identify possible conflicts; geographic features that intersect with the area of new data, and to generally provide simple means of merging the data into one file. New submitted data is checked for conflicts with the already stored data (in terms of intersecting features) and is then submitted to the GUI . The user makes adjustments to the submitted data while having the original data in a separate layer.

`<restriction base="gml:AbstractFeatureCollectionType">`

Tiger/Line to GML

To include the census data from USA in Project OneMap a method and a tool to convert from the Tiger/Line format used by the U.S. Census Bureau to GML was needed. Knut-Erik Johnsen conducted the project "Tiger/Line Conversion".

The goal of the project was to make a parser that can translate a file of the Tiger/Line 2002 format into a GML 2.0 compliant file. The implementation, developed in Java, is so far limited to cover only the roads in the Tiger/Line format.

The project spawned two different implementations of how the data can be modeled in GML. Both implementations follow the OMPacket schema defined for the GML Editor.

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