Geophysical Research Abstracts, Vol. 7, 07406, 2005
SRef-ID: 1607-7962/gra/EGU05-A-07406

An SVG (Scalable Vector Graphics) web-map for the updating of a landslide map

M. Latini (1), G. Allegri (1), B. Köbben (2)

(1) Centre for Geotechnologies, University of Siena, Italy (latini@unisi.it) (giohappy@tin.it)
(2) – International Institute for Geo-information Science and Earth Observation (ITC), PO box 6, 7500AA Enschede, The Netherlands (kobben@itc.nl)

In Italy, the landslide official map of a Municipality is updated in collaboration with different local authorities, most of them located in very inaccessible sites.

The landslide map is an official document that represents the actual state of the landslides in the region. This map is usually updated every year, but a lot of landslides phenomena take places constantly so there is a need for an update map that can be accessed via the World Wide Web (WWW).

The updating system of the map is carried out by the different authorities that usually receive advice of new landslide phenomena from the citizens.

These authorities take the citizens advice and draw a sketch on a paper map. This paper map is later submitted to the GIS department of the Municipality, and here a sketch layer is updated with a new polygon representing the new landslide phenomena.

In order to update the official landslide map with the occurrence of the new phenomena, a “field check” is needed.

The previous sketch layer is printed, and a team of geologist and geomorphologist is sent to the field with the objective to decide if the landslide polygons on the sketch map represents a possible damage for the population.

If this phenomenon can really affect either infrastructures or private properties the official landslide map is updated with these polygons.

Most of the authorities responsible for updating the landslide DB are often in inaccessible sites and they cannot afford the expenses of a Geographical Information System.

Another problem due to their location is the lack of a fast internet connection, the connection to the web is made via telephone line and a 56K modem.

These are the problems that the Municipality has to face in order to keep the map up to date. These are the factors that slow down the updating process.

The objective of this work is to provide the local authorities with a light weight Web GIS system that can allow users to draw, directly through a web browser, a sketch of a new landslide phenomena.

The users should also be able to submit this sketch, via the WWW, to the Municipality in order to speed up the process of updating the landslide system.

These maps have to offer some basic navigation functionalities such as zooming, panning, layer control and also a “digitizing” tool that can allow the user to draw some sketch polygon on a sketch layer

Some more functionalities are planned for the future; beside the above mentioned functionalities the Web Map should also offer the possibility to submit, via WWW the polygons that are drawn in the sketch layer.