



## **Geoillustrator - fast sketching of geological illustrations and animations**

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We present our research results in the Geoillustrator project. The project has been going for four years and is ending in March. It was aimed at developing a rapid sketching tool for generating geological illustrations and animations for understanding the processes that have led to a current subsurface configuration.

The sketching tool facilitates effective dissemination of ideas, e.g. through generation of interactive geo-scientific illustrations for interdisciplinary communication and communication to decision makers, media and lay persons. This can improve work processes in early phases of oil and gas exploration where critical decisions have to be taken based on limited information.

It is a challenge for involved specialists in early exploration phases to externalize their ideas, and effectively achieve consensus in multidisciplinary working groups. In these work processes, a tool for rapid sketching of geology would be very useful for expressing geological hypotheses and creating and comparing different evolution scenarios. Often, decisions are influenced by factors that are not relevant, e.g. the geologists who produce the most polished illustrations of their hypothesis have a higher probability for getting their theories through to decision makers as it is more clearly communicated. This results in a competitive advantage for geologists who are skilled in creating illustrations. Having a tool that would lift the ability of all geologists to express their ideas to an equal level would result in more alternatives and better foundation for decision making.

Digital sketching will also allow capturing otherwise lost material which can constitute a large amount of mental work and ideas. The results of sketching are currently scrapped as paper or erased from the blackboard or exist only as rough personal sketches. By using a digital sketching tool, the sketches can be exported to a form usable in modelling tools used in later phases of exploration.

Currently, no digital tool exists supporting the above mentioned requirements. However, in the Geoillustrator project, relevant visualization and sketching methods have been researched, and prototypes have been developed which demonstrate a set of the mentioned functionalities.

Our published results in the project which we will present can be found on our website [http://www.cmr.no/cmr\\_computing/index.cfm?id=313109](http://www.cmr.no/cmr_computing/index.cfm?id=313109)