Master's Dissertation at the Div. of Structural Mechanics

INTERACTION MODELS FOR 2D FINITE ELEMENT MODELLING ON TOUCH DEVICES

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Presentation
Winter 2012

Report
will be published as report TVSM-5186

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In cooperation with
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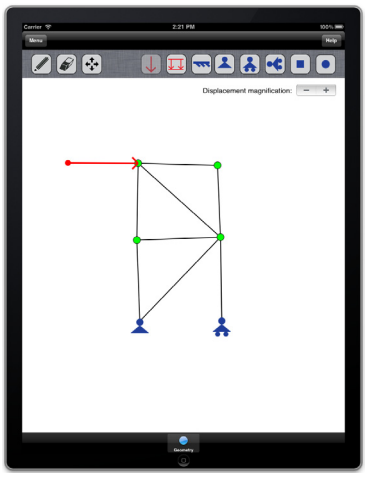
Description
Different touch devices such as the iPad are becoming increasingly popular, and apps for these devices have become a big industry. The purpose of this master thesis is to evaluate how the finite element method can be used on this type of devices.



An app will be created for the iPad using the existing CALFEM C++. The user will be able to draw a 2D geometry using nodes and lines where the lines represent beam elements. The user will be able to test different constraints and loads giving an impression of how the structure will behave. Giving the option of showing deformation, moment, shear or normal forces. The purpose of the app is to help the user get the impression how forces are distributed in different 2D geometries.

It is also examined how to create a user interface that is intuitive for the user so that no manual is required to understand how the app works. This will be done by observing how users new to the app work with it.

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