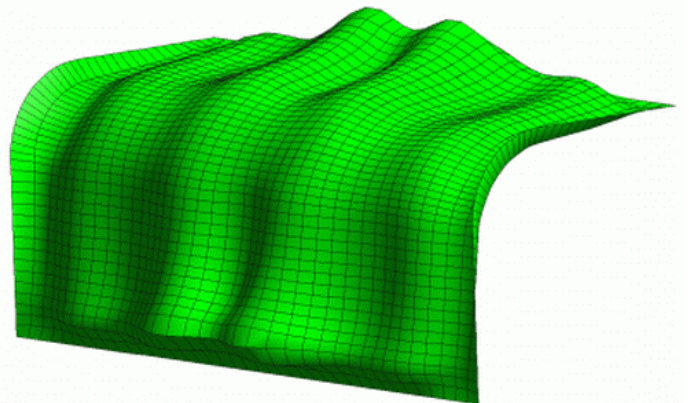
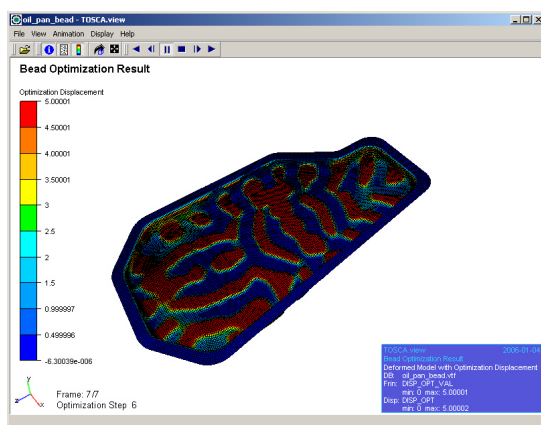


Topic 20

Implementation of an In-Plane Regularization Method in Commercial Software Packages

Description:

Shape optimization of structures becomes more and more important for industrial applications. Prof. Bletzinger and many of his research associates work since many years on this interesting topic. However, the derived optimization algorithms works only in the research code CARAT. Thus, the goal of this software project is to implement basic shape optimization routines in the commercial The computation of sensitivities is a basic prerequisite for gradient based optimization algorithms. This step was realized by a former software project in 2006.



Details of the project:

- Introduction in theoretical background of shape optimization and form finding.
- Implementation of an in-plane regularization approach in a commercial software package.
- Verification of the results by several validation examples.

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