Adhoc++

The advanced high-order finite element code, AdhoC++, is a well-established set of numerical modules that address the simulation of engineering and real-life complexities in a wide range of fields such as structural mechanics, biomechanics and flow problems using the finite element method, the finite cell method and advanced mesh refinement schemes.

The aim of the project is to analyze and extend AdhoC++'s capabilities to achieve large and extreme scaling on modern HPC systems, thus enabling the computation of a wide range of large-scale engineering, industrial and real-life applications. AdhoC++ brings together finite element and finite cell technology along with different hp-refinement schemes to form a generic and extensible software framework for solving elliptical and parabolic differential equations. The framework is maintained by the Chair for Computation in Engineering at Technical University of Munich since its conception in 2012.