

Hierarchical task network (HTN) is an approach to planning where compound tasks are decomposed into subtasks that can be either decomposed or executed right away. HTN is an extension of classical planning analogously as context-free languages extend regular languages. The goal of the thesis is split into two parts: describe, compare, and analyze various semantics and propose transformations of HTN models that do not lose any characteristics about the model. A significant piece of the thesis aims at handling empty methods which are usually not defined properly. The biggest challenges of HTN transformations lie in the proper management of constraints.