Hardware resource usage of a software can be modeled and therefore it is possible to predict changes in resource usage, which will be caused by changes in implementation of the software. CoCoME models a real trading system. The reference implementation of CoCoME serves as a benchmark for software modeling technologies, including performance modeling. The goal of the thesis is to create a version of CoCoME suitable for performance modeling with hardware resource usage by individual parts of the application. The thesis describes technologies and procedures used to implement CoCoME in SOFA component model with components reflecting the existing SOFA CoCoME architecture.