

SOFA 2 is a component system employing hierarchically composed components in distributed environment. It contains concepts, which allow for specifying dynamic reconfigurations of component architectures at runtime, which is essential for virtually any real-life application. The dynamic reconfigurations comprise creating/disposing components and creating/disposing connections between components. In contrast to majority of component systems, SOFA 2 is able to specify possible architectural reconfigurations in the application architecture at design time. This allows SOFA 2 runtime to follow the dynamic behavior of the application and reflect the behavior in architectural reconfigurations. The goal of this thesis is to reify these concepts of dynamic reconfigurations in the implementation of SOFA 2 and demonstrate their usage on a demo application.