
**Abstract**
In this paper, we present an approach for modeling an existing web application using communicating finite automata model based on the userdefined properties to be validated. We elaborate a method for automatic generation of such a model from a recorded browsing session. The obtained model could then be used to verify properties with a model checker, as well as for regression testing and documentation. Unlike previous attempts, our approach is oriented towards complex multi-window/frame applications. We present an implementation of the approach that uses the model checker Spin and provide an example.