

Hallal, H., Petrenko, A., Ulrich, A. and Boroday, S. "Using SDL Tools to Test Properties of Distributed Systems" In *Formal Approches to Testing of Software (FATES'01), Workshop of the International Conference on Concurrency Theory (CONCUR'01)*. Aalborg, Denmark, August 21-24, 2001.

### **Abstract**

We present an ongoing project on reasoning on properties of distributed systems based on monitoring of their executions. The proposed approach uses SDL to model an execution trace of the system under test and an existing model checker to perform the analysis of properties of interest specified in the SDL-like language GOAL. For this purpose, we use the available ObjectGEODE tool set. We describe how SDL models are built from collected traces, and show how the desired properties are specified. An example is used to illustrate the approach. The proposed methodology can be applied to test distributed systems and to diagnose their faults.