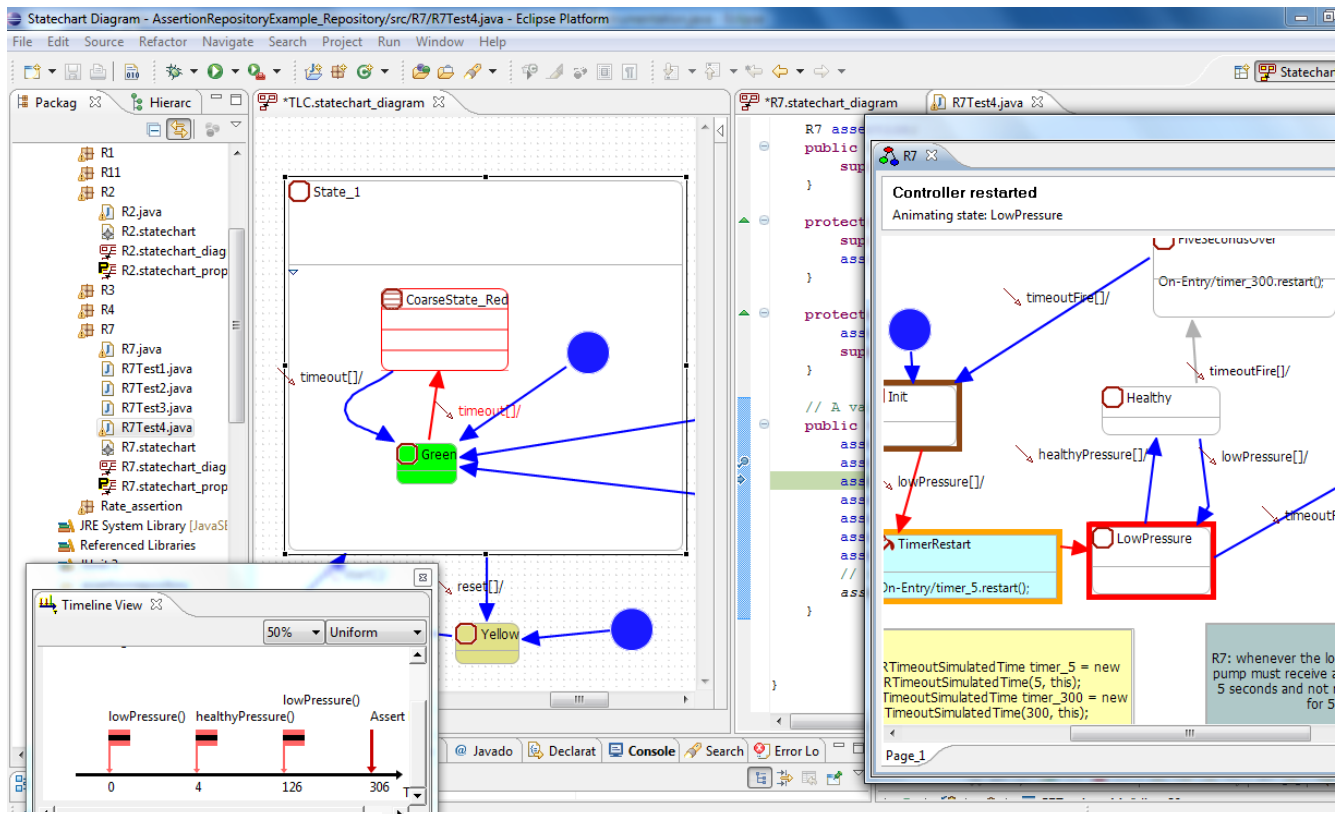


The StateRover - Eclipse Plug-in



Model driven development:

- *Harel statechart diagrams, including state nesting, concurrence/orthogonality, history states, and more.*
- *Automatic code generation (C, C++, Java).*
- *Visual debug animation – visualizes statechart execution.*
- *Optional embedded formal specification assertions for run-time exception handling of specification violations.*

Formal specification and validation:

- *Uses familiar, visual, and intuitive statechart diagrams for formal specification.*
- *Tied to JUnit for simulation and validation.*
- *Timeline diagrams visualization of JUnit tests.*
- *Assertion repository allows subsequent verification using external assertions.*
- *Assertion repository is your automatic test oracle.*
- *Supports all types of assertions: propositional, sequencing, temporal (future and past time), time series, and quantified assertions.*

Run time verification:

- *Uses log files or socket communication with SUT.*
- *Optional instrumentation tool for automatically instrumenting C, C++ or Java source code.*
- *Works with any GCC compliant C/C++ compiler.*
- *Log file to JUnit converter.*
- *Namespace mapping tool: maps namespace of events and variables to assertion repository namespace.*
- *Timeline diagram log file visualization.*
- *Compatible with you existing log file format.*
- *Allows off-line verification of complex systems (e.g., RTOS-based).*