

The Next Level of Test Automation

Automated Testing through Graphical User Interface

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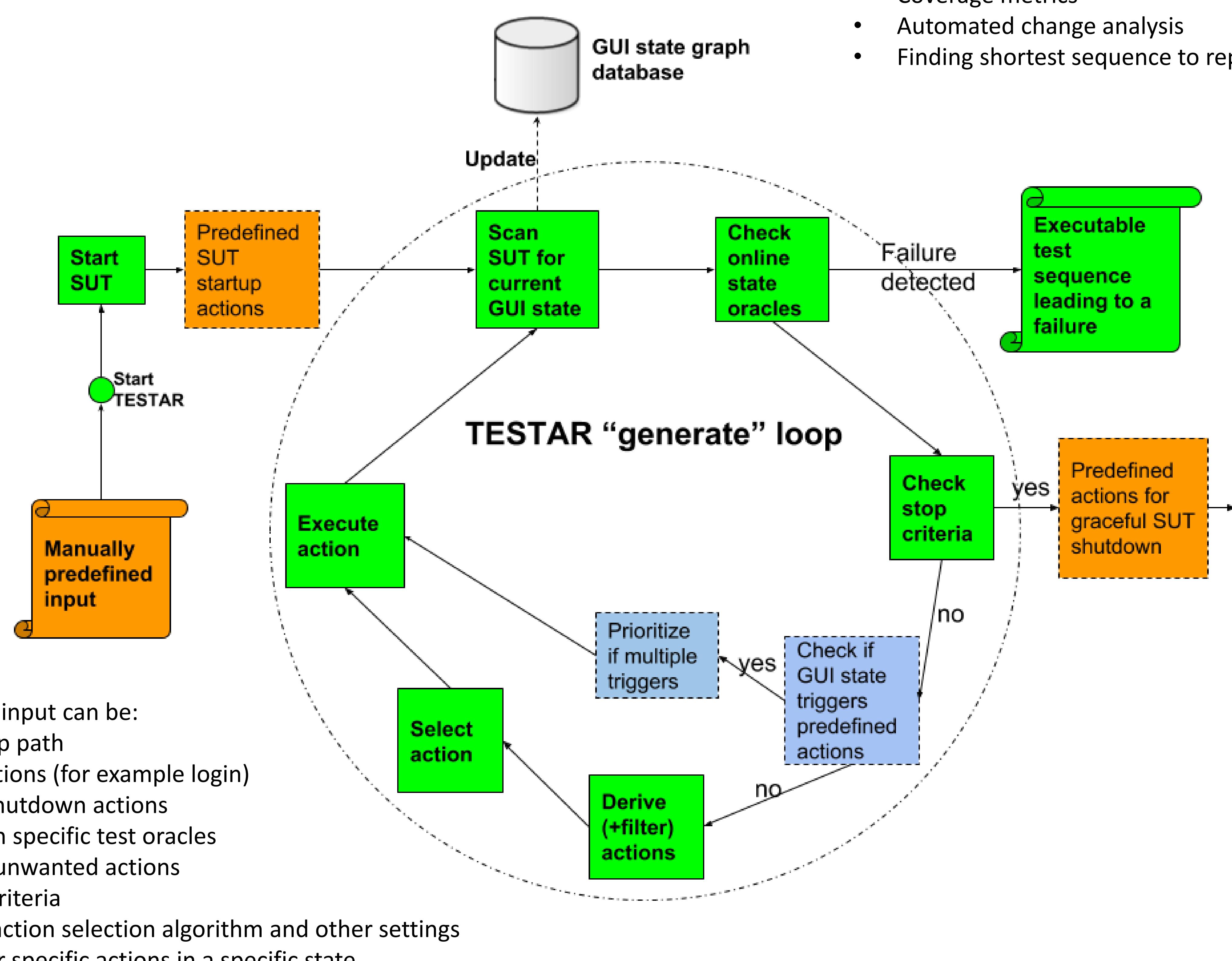
Challenges in Test Automation through Graphical User Interface

- Agile, iterative processes + continuous integration = limited time for testing
- Script-based GUI test automation requires continuous maintenance effort

Scriptless GUI Test Automation with TESTAR tool

- Open source, <https://github.com/TESTARtool/>

- GUI state graph can be used for:
 - Improved action selection algorithms
 - Offline oracles
 - Coverage metrics
 - Automated change analysis
 - Finding shortest sequence to reproduce a failure



- Manually predefined input can be:
 - SUT startup path
 - Startup actions (for example login)
 - Graceful shutdown actions
 - Application specific test oracles
 - Filters for unwanted actions
 - Stopping criteria
 - Choosing action selection algorithm and other settings
 - Triggers for specific actions in a specific state