

Debugging

Debugging Automation

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Debugging Tools

- Allow programs to inspect the state of a running program
- Become more important when debugging graphical or complex applications
- gdb for C/C++ programs on Unix
- jdb and gjdb for java

- Delta Debugging is a methodology to automate the debugging of programs
- Developed by Andreas Zeller of the Saarland University in 1999
- Builds on unit testing to isolate failure causes automatically
 - by systematically narrowing down failure-inducing circumstances until a minimal set remains.
- A test case that produces a bug can be fed to the Delta Debugging algorithm, which will then simply try to trim useless functions and lines of code that are not needed to reproduce the bug

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