Execution Synthesis

Brendan Cully, Geoffrey Lefebvre, Dutch T. Meyer, Norman C. Hutchinson, Andrew Warfield
The University of British Columbia
We could not calculate directions between linux 2.6.24.8 and BUG: unable to handle kernel paging request at c0413130.c
Linux regression test trace

State summarized by bug report
Open questions

• Distance function
• Choosing inputs to inject
• What data to include in a bug report
Execution Synthesis

① Record normal execution (e.g. regression test suite)
② Identify “nearby” starting points
③ Drive execution into the weeds

Lather, rinse, repeat