

Isolating General Failure Conditions

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Input

```
public void testBrazil() {  
    String brazil = "America/Sao_Paulo";  
    DateTimeZone dtz = DateTimeZone.forID(brazil);  
    LocalDate date = new LocalDate(2009, 10, 18);  
    Interval interval = date.toInterval(dtz);  
}
```

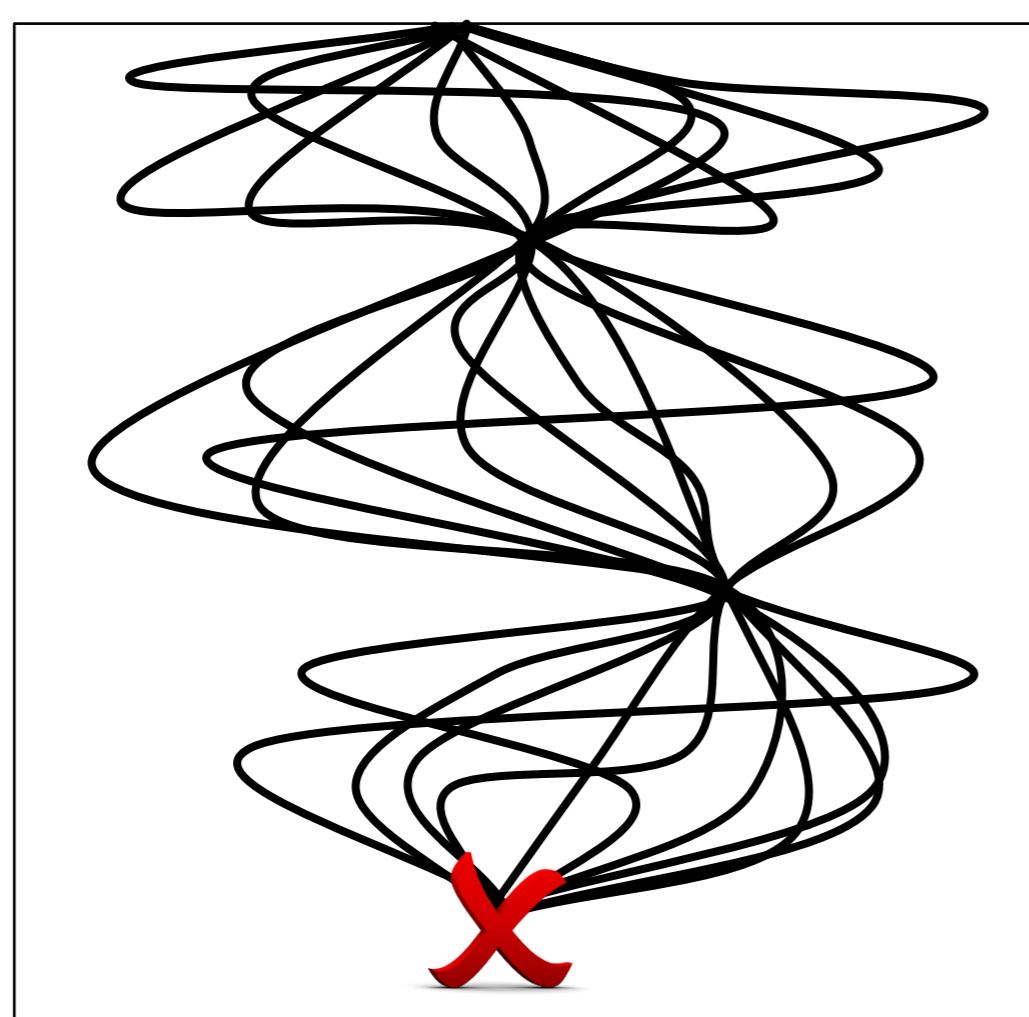
JODA TIME bug 2487417

Failure Condition

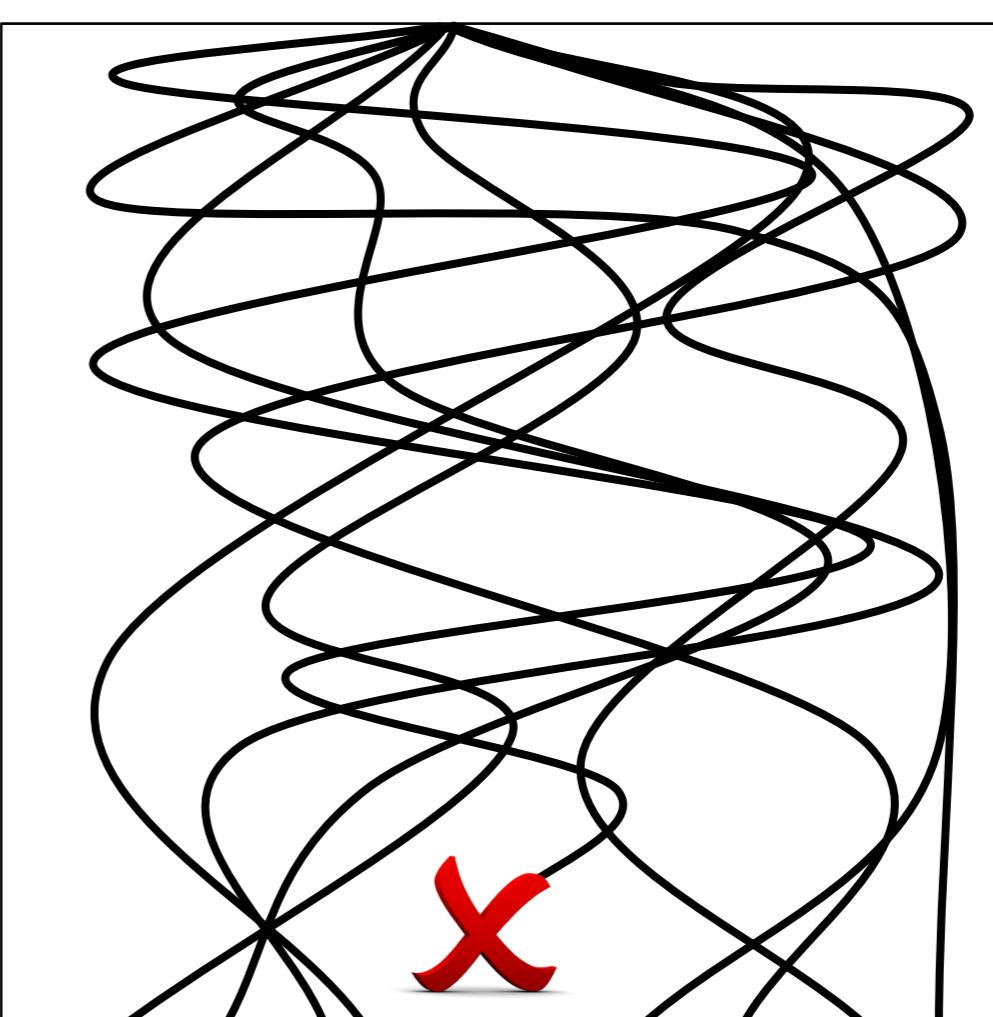
isDaylightCutDay()
&&
(cutoverTime = 00:00:00)

Current State of our Work

Negating individual constraints of an execution path



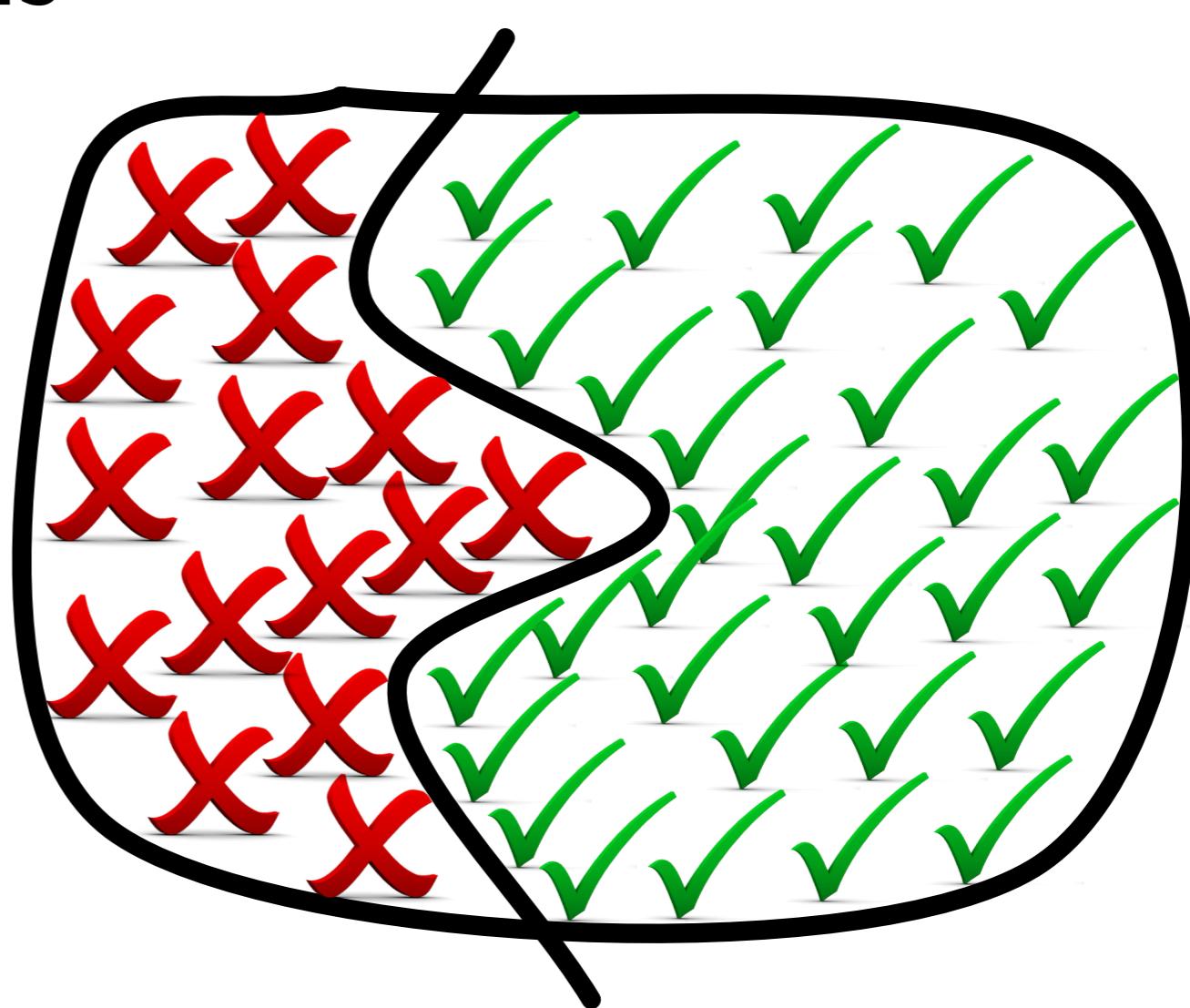
converges locally



diverges globally

Future Work

- 1) Create executions similar to failing runs
- 2) Gather facts:
 - definition/usage-pairs
 - path conditions
 - branches
 - loop iterations
 - variable values
- 3) Find differences



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