Project Sprint 1
May 9, 2014
Herbivorous Grazing Cows
Brandon Cox, David Gartzke, Josh Harbison

All data does get through

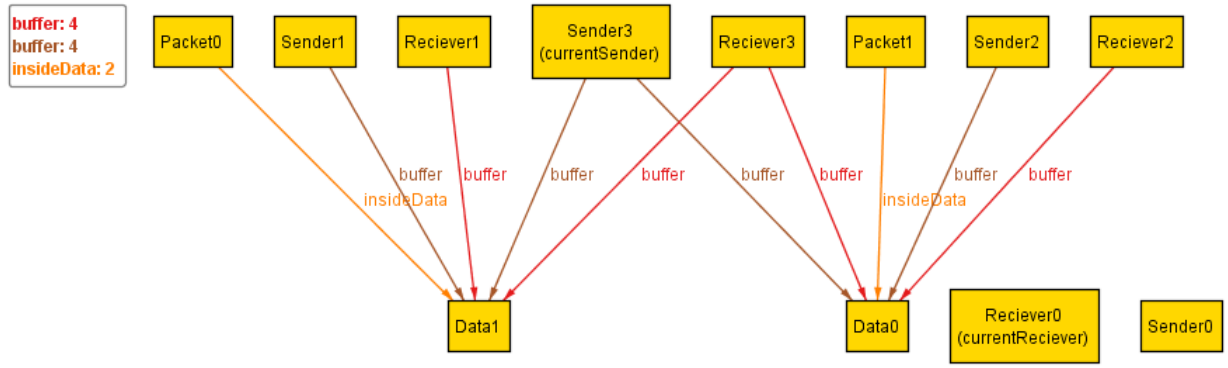
```
Executing "Check allDataGetsThrough for 5 but exactly 2 Data"
  Solver=sat4j Bitwidth=0 MaxSeq=0 SkolemDepth=1 Symmetry=20
  1808 vars. 125 primary vars. 3705 clauses. 42ms.
  Counterexample found. Assertion is invalid. 33ms.
```

All data does not get through

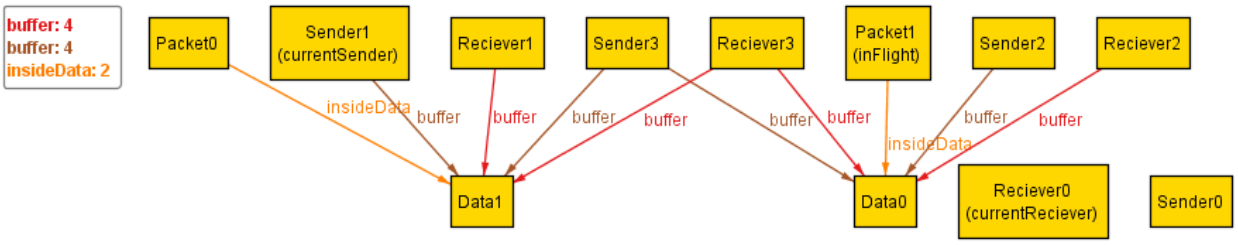
```
Executing "Check allDataDoesNotGetThrough for 5 but exactly 2 Data"
  Solver=sat4j Bitwidth=0 MaxSeq=0 SkolemDepth=1 Symmetry=20
  1820 vars. 127 primary vars. 3714 clauses. 174ms.
  No counterexample found. Assertion may be valid. 33ms.
```

Trace of 2 data being sent through 5 system states

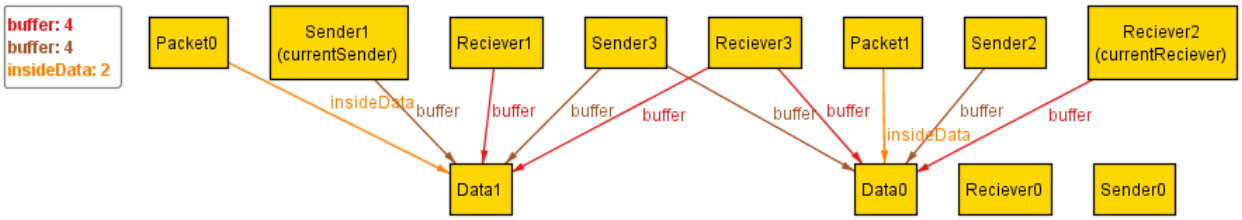
Initial state. The first sender (Sender3) has all the data (Data0 and Data1) in its buffer. The currentReciever (Reciever0) has no data in its buffer.



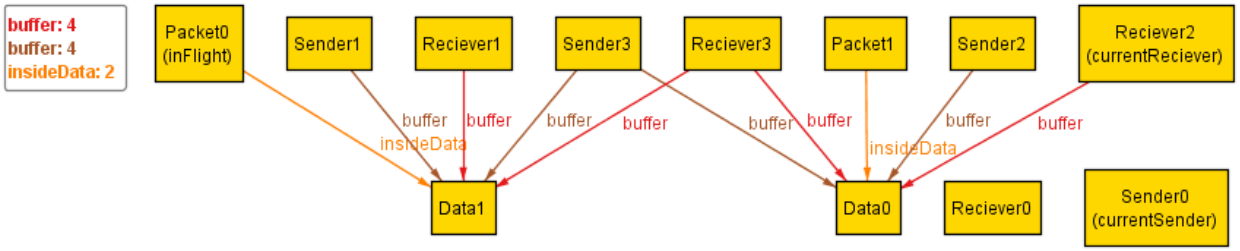
First send. The currentSender (Sender1) packeted one of the Datas in its buffer (Data0) into a Packet (Packet1) and is now inflight.



First receive. Reciever2 got the packeted data (Data0) from the packet (Packet1) and stores the data in its buffer.



Second send. The sender (Sender0) packeted the last of its data (Data1) in to a packet (Packet0) and it is in flight.



Second receive (final state). The reciever (Reciever3) has extracted the last of the data from the packet (Packet0) and stored it in its buffer. Now all the data is in the reciever's buffer and none of the data is in the sender's buffer, which is our final state.