

1. abstraction:NodeID
 2. crash point:before read
 3. bug type:data race
-
1. timing:crash

```
1  /*system version:hadoop-2.7.2
2  *org.apache.hadoop.yarn.server.resourcemanager.scheduler.fair.
   FairScheduler.completedContainer#807
3  * need calling contex, 6 caller
4  */
5      FSSchedulerNode node =
   getFSSchedulerNode(container.getNodeId());//crash point
6
7      if (rmContainer.getState() == RMContainerState.RESERVED) {
8          application.unreserve(rmContainer.getReservedPriority(),
   node);
9      } else {
10         application.containerCompleted(rmContainer,
   containerStatus, event);
11         node.releaseContainer(container);
12         updateRootQueueMetrics();
13     }
```