# L-SAP Differencing

## Instance 1

v3.17: file:///Users/dhanwada/cpre491/sdmay18-09/linux-kernel-3.17-rc1/spin/PAIRED@@@cbd1ff@@@[1606+38+@linux-3.17-rc1@drivers@usb@mon@mon_main.c]@@@lock/index.html
v3.18: file:///Users/dhanwada/cpre491/sdmay18-09/linux-kernel-3.18-rc1/spin/PAIRED@@@29c675d@@@[1606+38+@linux-3.18-rc1@drivers@usb@mon@mon_main.c]@@@lock/index.html

Decision: UNCHANGED

Differencing Checks: (check if the specified measure is the same)
- Status - PAIRED
- Name - lock
- MPG Comparison - 3 nodes 2 edges
- CFG Comparison
  - mon_reader_del - 4 nodes 3 edges
- EFG Comparison
  - mon_reader_del - 8 nodes 8 edges

Notes:

## Instance 2

v3.17: file:///Users/dhanwada/cpre491/sdmay18-09/linux-kernel-3.17-rc1/mutex/DEADLOCK@@@10d3280@@@[42298+48+@linux-3.17-rc1@drivers@media@usb@gspca@gspca.c]@@@queue_lock/index.html
v3.18: file:///Users/dhanwada/cpre491/sdmay18-09/linux-kernel-3.18-rc1/mutex/DEADLOCK@@@26de19@@@[42299+48+@linux-3.18-rc1@drivers@media@usb@gspca@gspca.c]@@@queue_lock/index.html

Decision: UNCHANGED

Differencing Checks: (check if the specified measure is the same)
- Status - DEADLOCK
- Name - queue_lock
- MPG Comparison - 4 nodes 3 edges
- CFG Comparison

– vidioc_dqbuf - same graph

🔸 EFG Comparison
– vidioc_dqbuf - same graph

Notes:
– The graph images flipped between versions, so while they were the same, the images were not

## Instance 3
v3.17: file:///Users/dhanwada/cpre491/sdmay18-09/linux-kernel-3.17-rc1/mutex/DEADLOCK@@@1620092@@@[12405+36+@linux-3.17-rc1@drivers@staging@lustre@lustre@llite@dir.c]@@@d_readdir_mutex/index.html
v3.18: file:///Users/dhanwada/cpre491/sdmay18-09/linux-kernel-3.18-rc1/mutex/PAIRED@@@c347ee@@@[12409+36+@linux-3.18-rc1@drivers@staging@lustre@lustre@llite@dir.c]@@@d_readdir_mutex/index.html

Decision: CHANGED

Differencing Checks: (check if the specified measure is the same)
◯ Status - DEADLOCK -> PAIRED
🔸 Name - d_readdir_mutex
🔸 MPG Comparison - 3 nodes - 2 edges
◯ CFG Comparison
– ll_get_dir_page - complex — didn't check but I'm assuming it's different
◯ EFG Comparison
– ll_get_dir_page - mutex_unlock call got added directly after mutex_lock to pair it

Notes:
– This was a complex CFG/EFG Pair that shows a bug was fixed

## Instance 4
v3.17: file:///Users/dhanwada/cpre491/sdmay18-09/linux-kernel-3.17-rc1/mutex/DEADLOCK@@@1773558@@@[68806+32+@linux-3.17-rc1@drivers@scsi@mpt2sas@mpt2sas_scsih.c]@@@mutex/index.html
v3.18: file:///Users/dhanwada/cpre491/sdmay18-09/linux-kernel-3.18-rc1/mutex/DEADLOCK@@@27da49f@@@[68832+32+@linux-3.18-rc1@drivers@scsi@mpt2sas@mpt2sas_scsih.c]@@@mutex/index.html

Decision: UNCHANGED

Differencing Checks: (check if the specified measure is the same)
- 🟡 Status - DEADLOCK
- 🟡 Name - mutex
- 🟡 MPG Comparison - 10 nodes 12 edges
- 🟡 CFG Comparison
  – All CFGs are the same
- 🟡 EFG Comparison
  – All EFGs are the same

Notes:
- – Again this was a complex set of graphs
- – the EFG/CFG pairs were all the same images
- – the MPG graph was the same, but a different image

## Instance 5

v3.17: file:///Users/dhanwada/cpre491/sdmay18-09/linux-kernel-3.17-rc1/mutex/
DEADLOCK@@@1f85e7@@@[23212+27+@linux-3.17-
rc1@drivers@tty@moxa.c]@@@moxa_openlock/index.html
v3.18: file:///Users/dhanwada/cpre491/sdmay18-09/linux-kernel-3.18-rc1/mutex/
DEADLOCK@@@fbd8b4@@@[23212+27+@linux-3.18-
rc1@drivers@tty@moxa.c]@@@moxa_openlock/index.html

Decision: CHANGED

Differencing Checks: (check if the specified measure is the same)
- 🟡 Status - DEADLOCK
- 🟡 Name - moxa_openlock
- 🟡 MPG Comparison - 3 nodes 2 edges
- ⚪ CFG Comparison
  – Different graphs - but the EFG is unchanged
- 🟡 EFG Comparison
  – Same graphs

Notes:
- – This shows a reimplementation of the function (changed CFG), but the parts related to the lock (EFG) are unchanged
- – Perhaps an attempt to fix it? although not likely