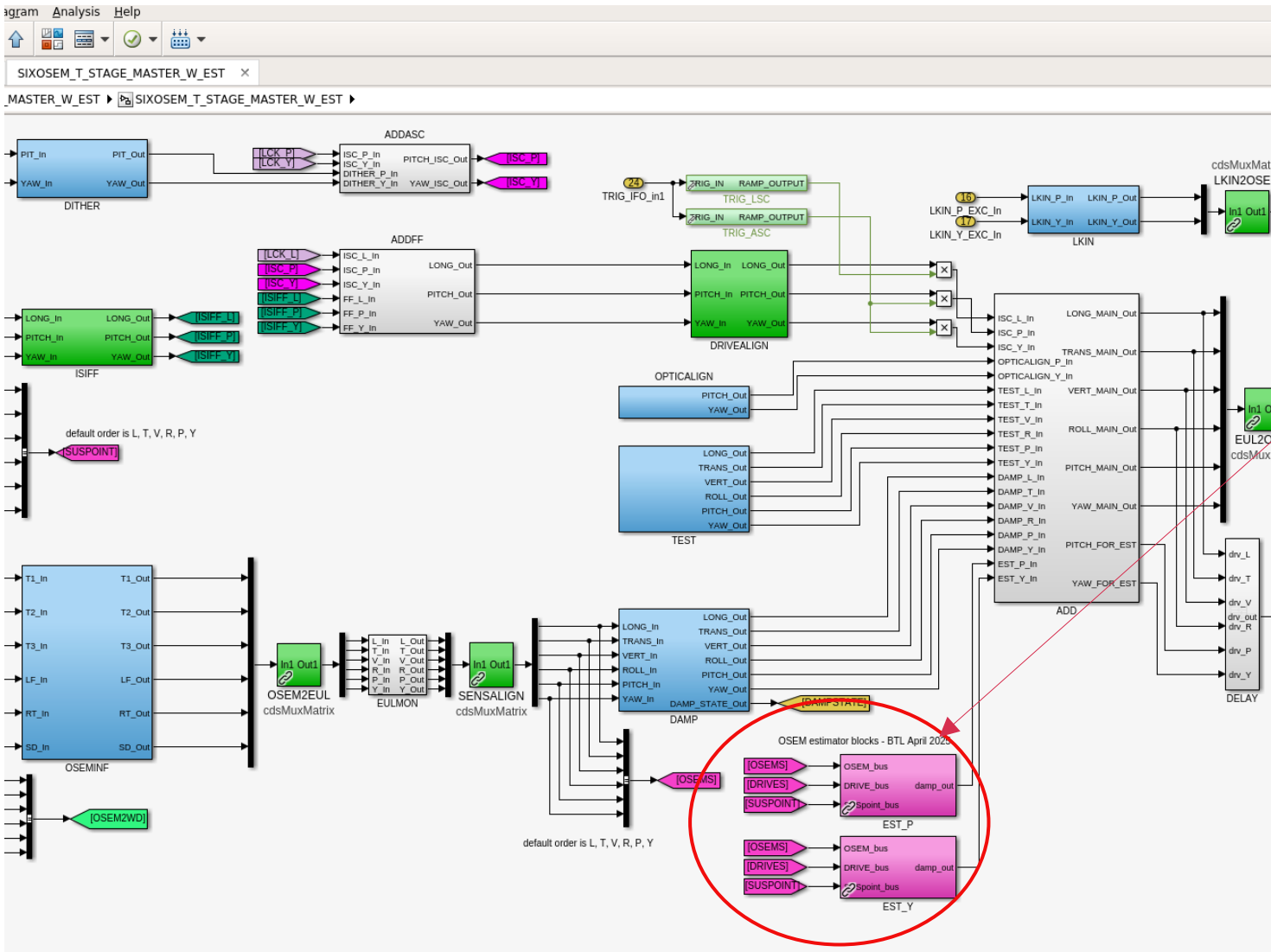


We leave light damping from the OSEMs engaged during the plant ID, so that damping is part of the modelled plant, and should not be monitored by the "drives" applied to the SUS

Summary of changes:

SIXOSEM_T_STAGE_MASTER_W_EST.mdl

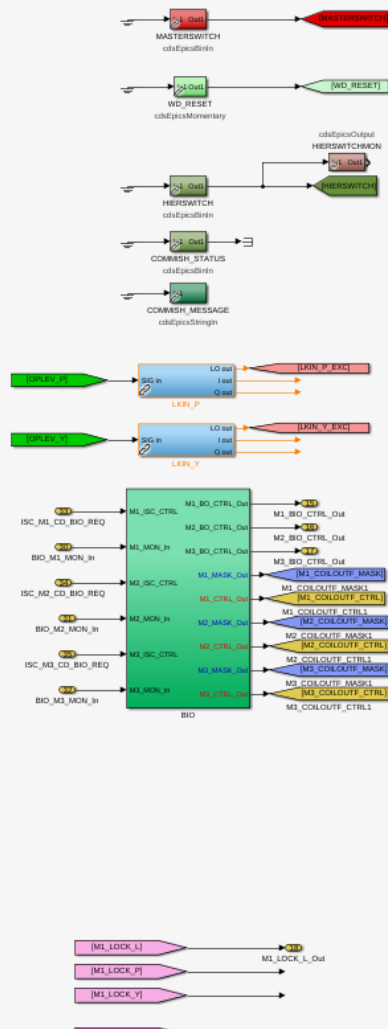
- Added M1_ADD_P_TOTAL and M1_ADD_Y_TOTAL testpoints inside the ADD block.



Summary of changes:

SIXOSEM_T_STAGE_MASTER_W_EST.mdl

- Added M1_ADD_P_TOTAL and M1_ADD_Y_TOTAL testpoints inside the ADD block.
- Renamed the estimator blocks at the top level:
 - PIT was renamed to EST_P
 - YAW was renamed to EST_Y



#DAQ Channels

M3_ISCINF_L_IN1* 2048

M3_MASTER_OUT_UL* 2048

M3_MASTER_OUT_LL* 2048

M3_MASTER_OUT_LR* 2048

M3_MASTER_OUT_UR* 2048

M3_ISCINF_P_IN1* 2048

M3_ISCINF_Y_IN1* 2048

M3_DRIVEALIGN_L_OUT* 2048

M3_DRIVEALIGN_P_OUT* 2048

M3_DRIVEALIGN_Y_OUT* 2048

M3_OPLEV_SEG1_OUT* 256

M3_OPLEV_SEG2_OUT* 256

M3_OPLEV_SEG3_OUT* 256

M3_OPLEV_SEG4_OUT* 256

M3_OPLEV_PIT_OUT* 256

M3_OPLEV_YAW_OUT* 256

M3_OPLEV_SUM_OUT* 256

M3_OLDAMP_P_OUT* 256

M3_OLDAMP_Y_OUT* 256

M3_WIT_L* 256

M3_WIT_P* 256

M3_WIT_Y* 256

M3_OSEMINF_UL_OUT* 256

M3_OSEMINF_LL_OUT* 256

M3_OSEMINF_UR_OUT* 256

M3_OSEMINF_LR_OUT* 256

M2_MASTER_OUT_UL* 1024

M2_MASTER_OUT_LL* 1024

M2_MASTER_OUT_LR* 1024

M2_MASTER_OUT_UR* 1024

M2_DRIVEALIGN_L_OUT* 1024

M2_DRIVEALIGN_P_OUT* 1024

M2_DRIVEALIGN_Y_OUT* 1024

M2_OLDAMP_P_OUT* 256

M2_OLDAMP_Y_OUT* 256

M2_WIT_L* 256

M2_WIT_P* 256

M2_WIT_Y* 256

M2_OSEMINF_UL_OUT* 256

M2_OSEMINF_LL_OUT* 256

M2_OSEMINF_UR_OUT* 256

M2_OSEMINF_LR_OUT* 256

M1_MASTER_OUT_T1* 512

M1_MASTER_OUT_T2* 512

M1_MASTER_OUT_T3* 512

M1_MASTER_OUT_LP* 512

M1_MASTER_OUT_RT* 512

M1_MASTER_OUT_SD* 512

M1_DRIVEALIGN_L_OUT* 512

M1_DRIVEALIGN_P_OUT* 512

M1_DRIVEALIGN_Y_OUT* 512

M1_DAMP_L_IN1* 256

M1_DAMP_T_IN1* 256

M1_DAMP_V_IN1* 256

M1_DAMP_R_IN1* 256

M1_DAMP_P_IN1* 256

M1_DAMP_Y_IN1* 256

M1_OSEMINF_T1_OUT* 256

M1_OSEMINF_T2_OUT* 256

M1_OSEMINF_T3_OUT* 256

M1_OSEMINF_LP_OUT* 256

M1_OSEMINF_RT_OUT* 256

M1_OSEMINF_SD_OUT* 256

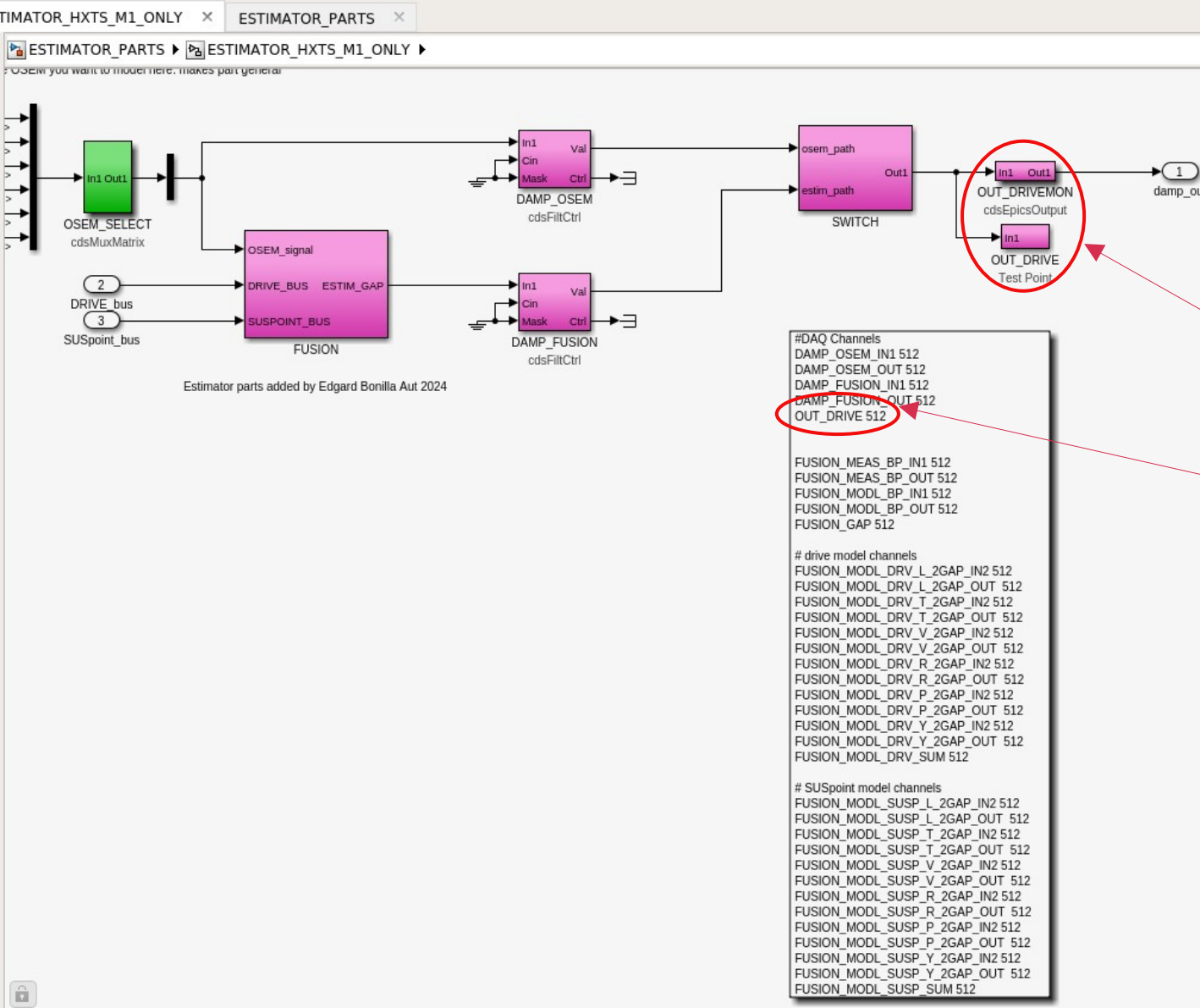
M1_ADD_P_TOTAL* 512

M1_ADD_Y_TOTAL* 512

Summary of changes:

HLTS_MASTER_W_EST.mdl

- Added two DQ channels to monitor the M1 drive requests:
 - M1_ADD_P_TOTAL* 512
 - M1_ADD_Y_TOTAL* 512

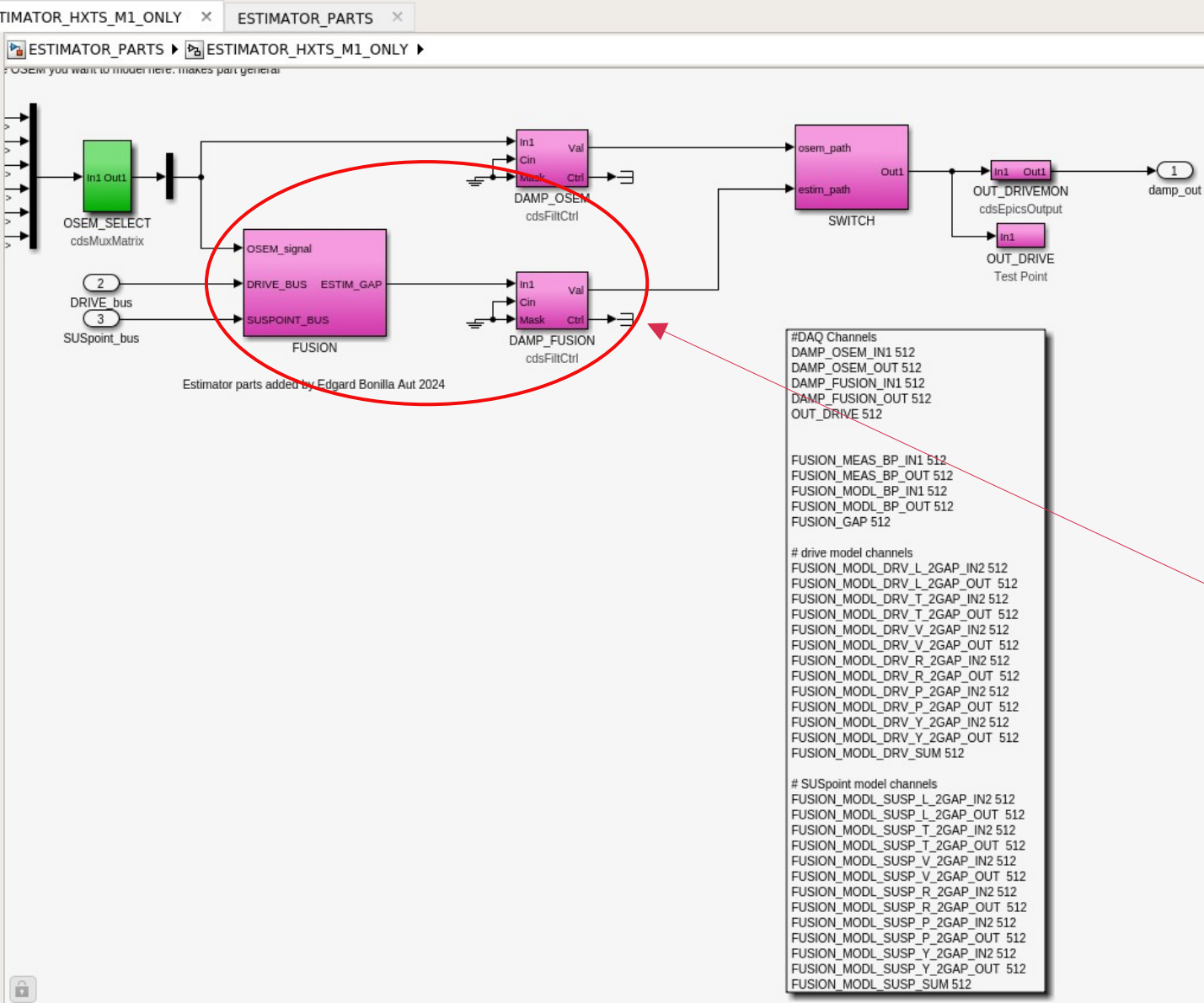


Summary of changes:

ESTIMATOR_PARTS.mdl

> inside ESTIMATOR_HXTS_M1_ONLY

- Changed the names for the output drives:
 - DAMP_SIGMON was changed to OUT_DRIVEMON.
 - DAMP_SIG was changed to OUT_DRIVE.
- Changed the names of the respective DQ channel.

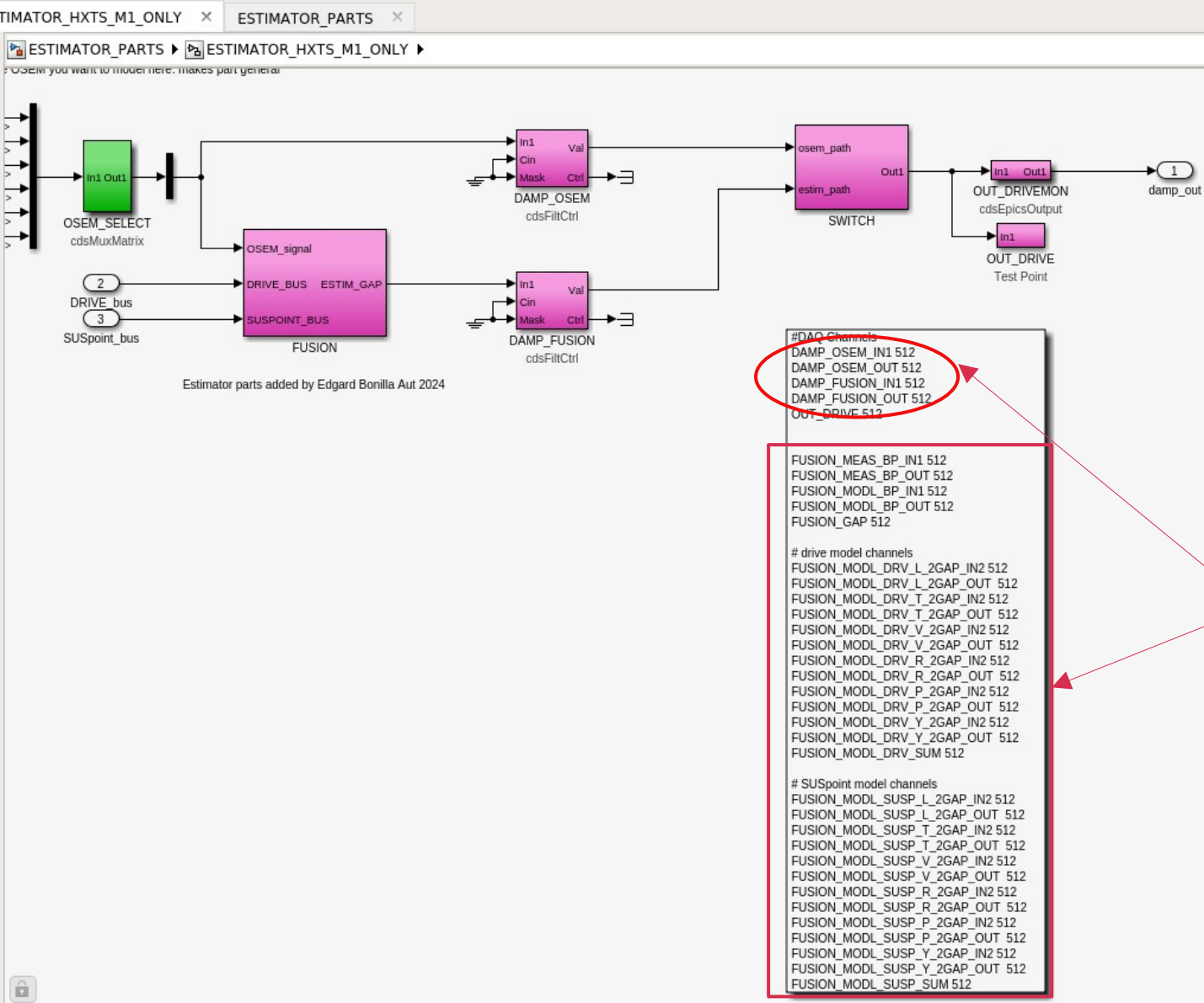


Summary of changes:

ESTIMATOR_PARTS.mdl

> inside ESTIMATOR_HXTS_M1_ONLY

- Changed the names for the output drives:
 - DAMP_SIGMON was changed to OUT_DRIVEMON.
 - DAMP_SIG was changed to OUT_DRIVE.
 - Changed the names of the respective DQ channel.
- Changed the names of the EST and DAMP_EST blocks.
 - EST changed to FUSION
 - DAMP_EST changed to DAMP_FUSION
 - ADDED all of the DQ channels to match

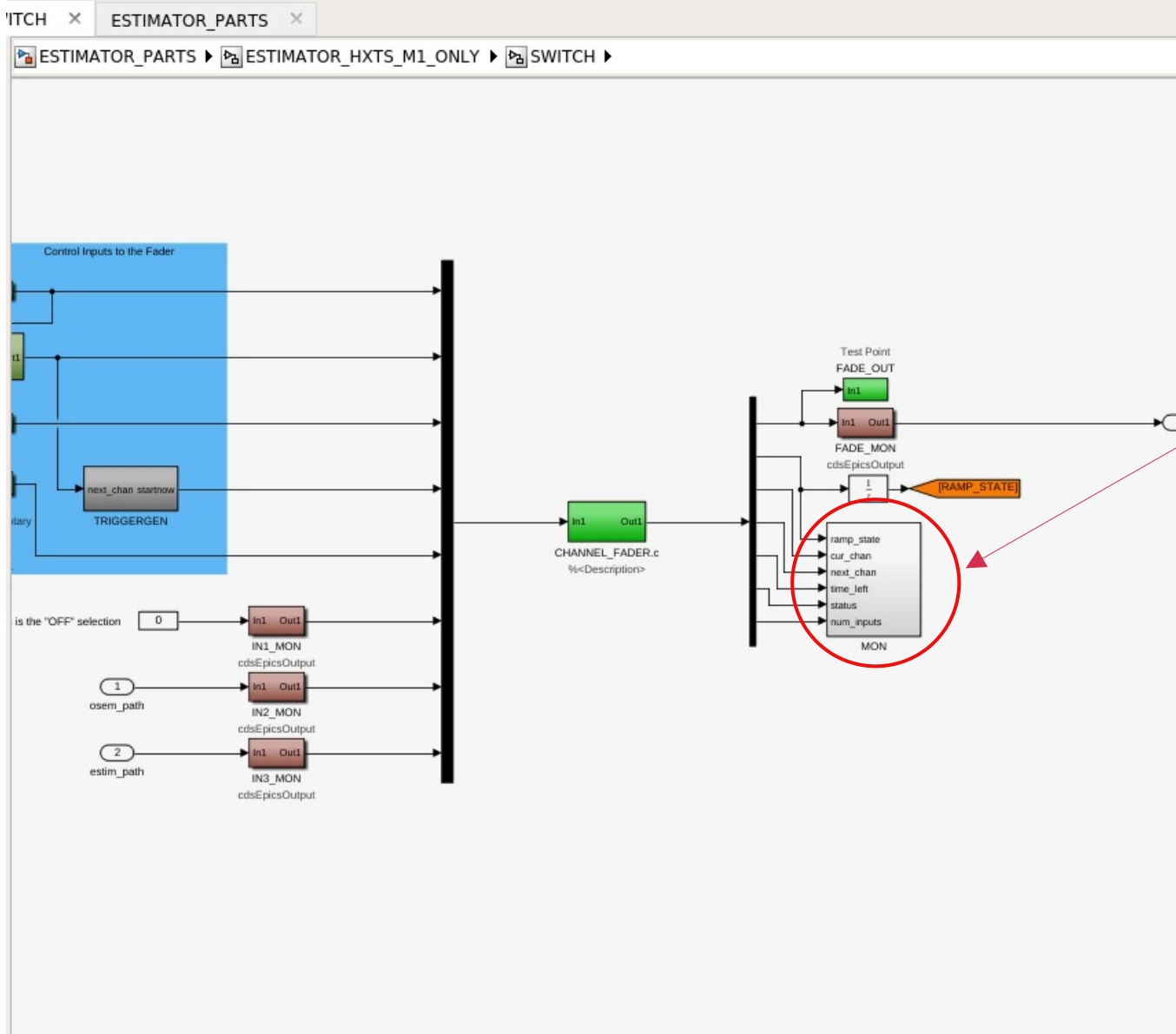


Summary of changes:

ESTIMATOR_PARTS.mdl

> inside ESTIMATOR_HXTS_M1_ONLY

- Changed the names for the output drives:
 - DAMP_SIGMON was changed to OUT_DRIVEMON.
 - DAMP_SIG was changed to OUT_DRIVE.
 - Changed the names of the respective DQ channel.
- Changed the names of the EST and DAMP_EST blocks.
 - EST changed to FUSION
 - DAMP_EST changed to DAMP_FUSION
 - Renamed all of the DQ channels to match

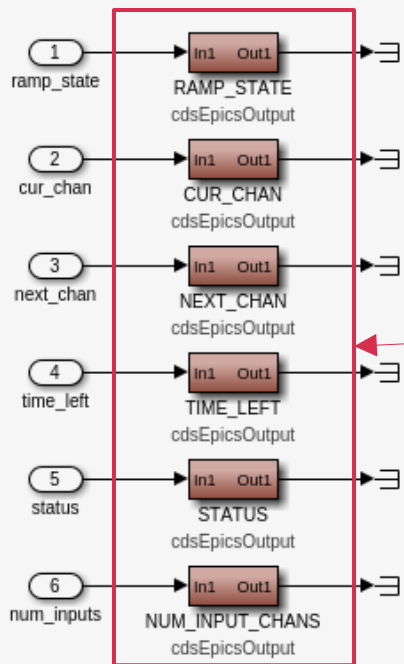


Summary of changes:

ESTIMATOR_PARTS.mdl

> inside ESTIMATOR_HXTS_M1_ONLY
> inside the SWITCH block

- Changed the name of the FADER block to MON.



These channels are the output monitors for the c-code

- (1) ramp_state: 0 = holding, 1 = ramping
- (2) current_channel_num: channel in use, or in use at ramp start (1-N)
- (3) next_channel: channel being switched to (1-N). -1 if not ramping
- (4) time_left: seconds until end of ramp
- (5) status_code: 1 if OK, 2 if bad channel selected.
- (6) NUM_INPUT_CHANS: how many input channels are there? (1-N)

Summary of changes:

ESTIMATOR_PARTS.mdl

> inside ESTIMATOR_HXTS_M1_ONLY

> inside the SWITCH block

> inside the MON block

- Changed the names of the EPICS outputs from '{channel}_MON' to '{channel}'
- RAMP_STATE_MON to RAMP_STATE
- CUR_CHAN_MON to CUR_CHAN
- NEXT_CHAN_MON to NEXT_CHAN
- TIME_LEFT_MON to TIME_LEFT
- STATUS_MON to STATUS
- NUM_INPUT_CHANS_MON to NUM_INPUT_CHANS