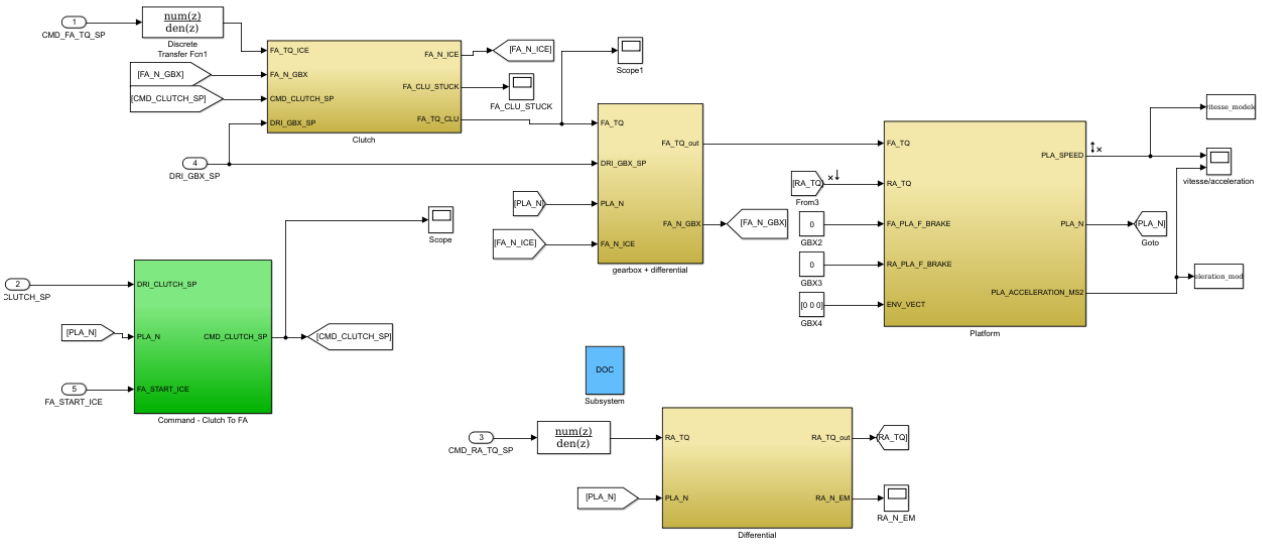
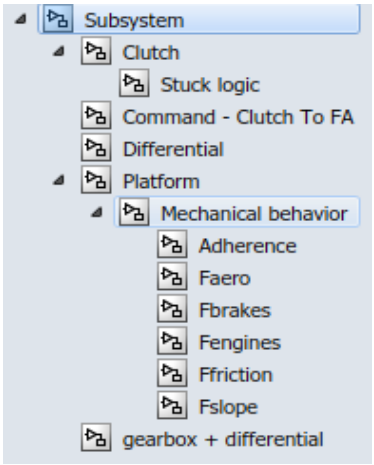
Subsystem (extraction of the useful blocs for the clutch's command)

1 Subsystem description

Model of the car. Only the bloc which concerns the clutch's command.

2 System organization





3 Signals and parameters

Inputs

Name	Description	Note
CMD_FA_TQ_SP	Torque set point for the ICE	N.m
DRI_CLUTCH_SP	Clutch pedal value	Range[0,1]

CMD_RA_TQ_SP	Torque set point for the electrical machine	N.m
DRI_GBX_SP	Gearbox engaged gear	
FA_START_ICE	Command to start the ICE	

Outputs

Name	Description	Note
Speed	Speed of the car	m.s-1
Acceleration	Acceleration of the car	m.s-2

Parameters

Native

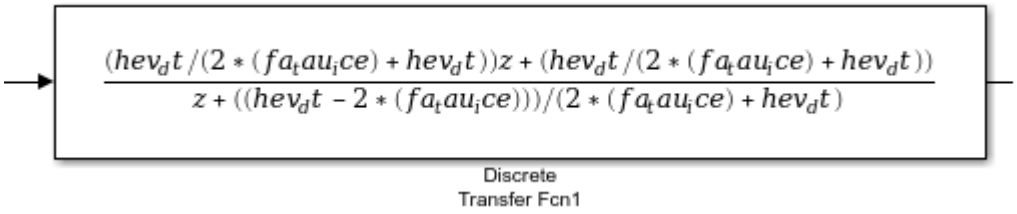
None

Inherited

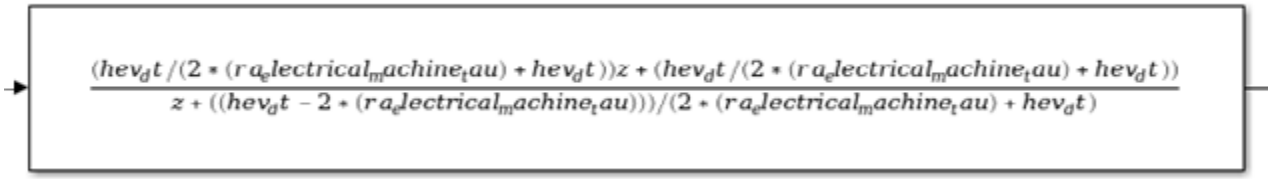
Include all the subsystems

4 Subsystems description

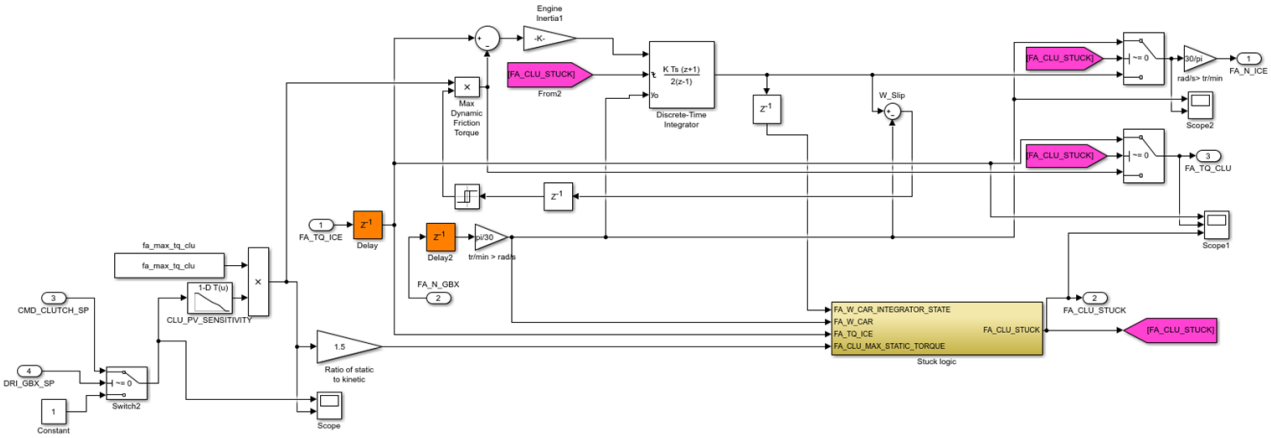
Transfer function of ICE:
We neglect all the losses in the ICE, we only take the transfer function.



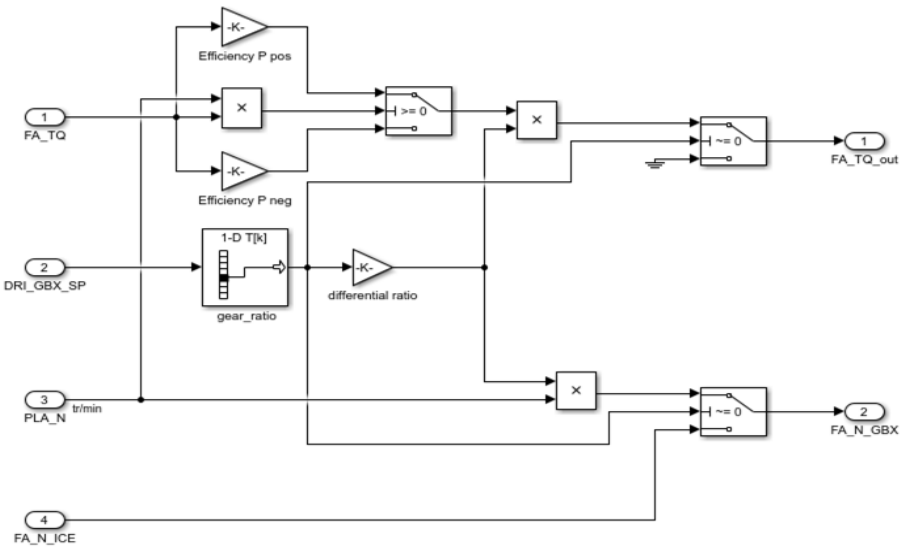
Transfer function of the electrical motor:
We neglect all the losses in the electrical motor, we only take the transfer function.



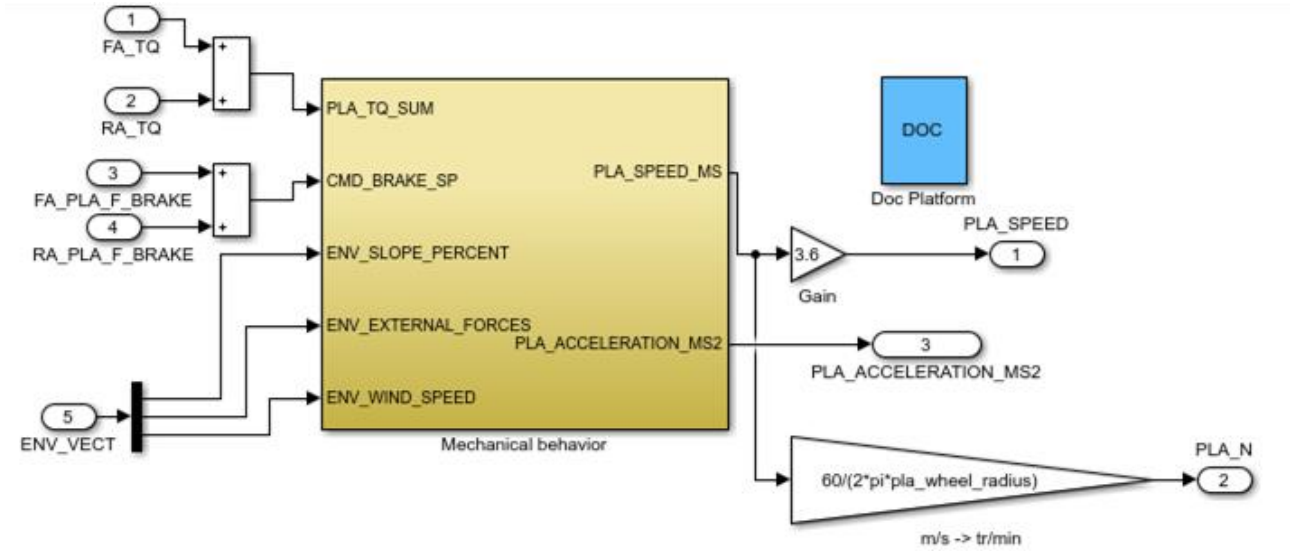
The clutch:
We change nothing in this previous bloc.



The bloc gearbox + differential:
We change nothing in this previous bloc.



The platform:
We do not use the brake and the ENV_VECT.



The command of the clutch:
We change nothing in this previous bloc.