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# Vehicle Dynamics Simulator Development based on the Real-Time

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In this paper, the results verified the performance of the satellite model, AOCS component models and the algorithm in FSW are introduced using the engineering simulation and the PILS. All model is based on Koreasat-3. Each of the models and the control algorithm are constructed of the modular type which is divided by the independent function. So it is easy to add other new model or to reject the existed model. The PILS is developed to be possible the multi-tasking and real-time processing. That is, each model can process independently but has the limit of the each processing frequency. The essential data of the each model are shared using 'mutual semaphore' and the data between the VDS and the FSW are communicated by MIL-1553B cable and its protocol.