VeSyMA Dashboard Animation Video:

A Plug-in Hybrid Fuel Cell Electric Car

Raees B. K. Parambu – Senior Systems (Project) Engineer

Software used: Dymola 2019
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Dymola has very powerful plot and animation features. They can be activated or deactivated during and/or after the simulation of the Modelica model. The animation of the Dymola model can be run at different speeds, halted, single stepped, in parallel with previous/saved animation results and run backwards. For more details about Dymola animation feature, please click this link, https://www.claytex.com/blog/dymola-basics-7-animation/.

For demonstrating Dymola plot and animation features, in this short blog post, an animation video is captured using a plug-in hybrid fuel cell electric car available in the latest version of the commercial VeSyMA library shown in Figure 1.

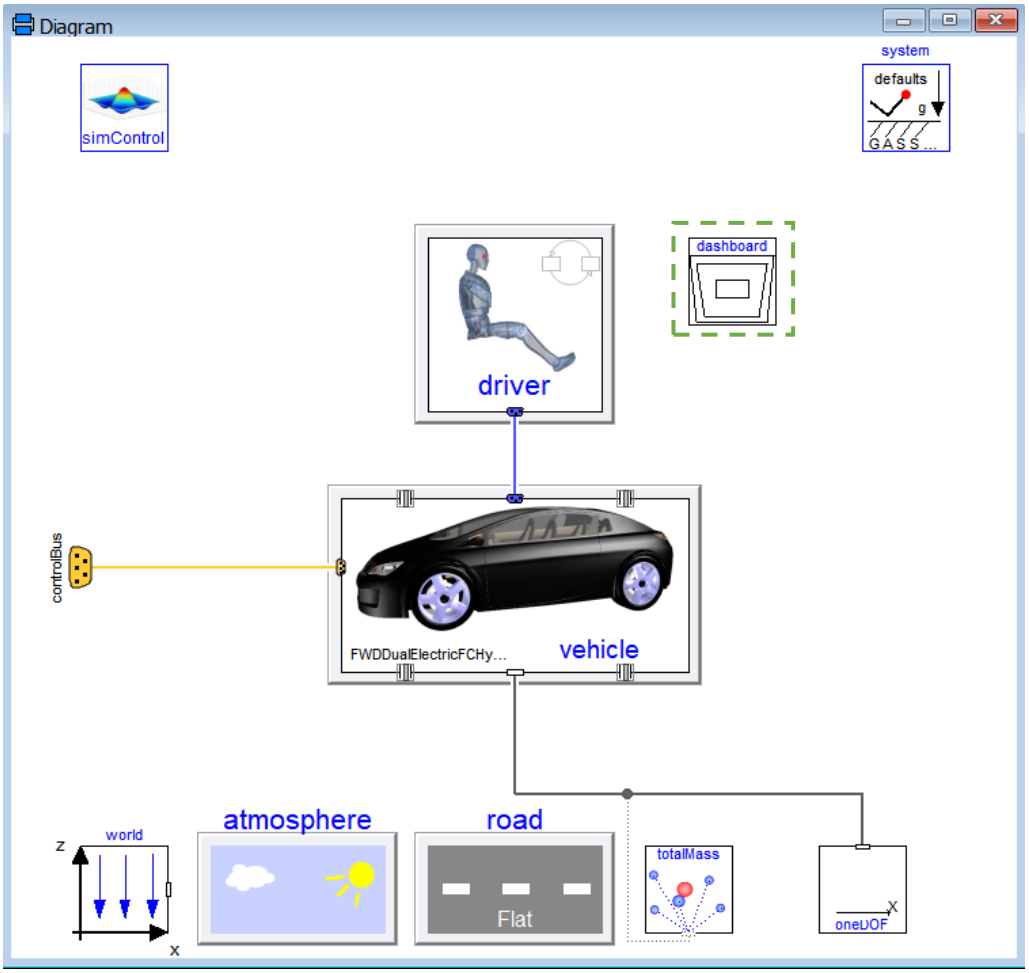

Figure 1 – A hybrid fuel cell electric car with an automatic gearbox available in VeSyMA library.

Path: VeSyMA.Experiments.Examples.DriveCycleDualElectricFC

This car model is simulated with the New European Driving Cycle (NEDC). At the beginning of the simulation, the model is configured as: the battery is at 80% state-of-charge (SOC), hydrogen tank is full, and the vehicle is in EV mode. After the simulation, the **dashboard** model is opened in Dymola Simulation window and the animation is played while recording a video. A screenshot of this video is captured at 866s as shown in Figure 2.

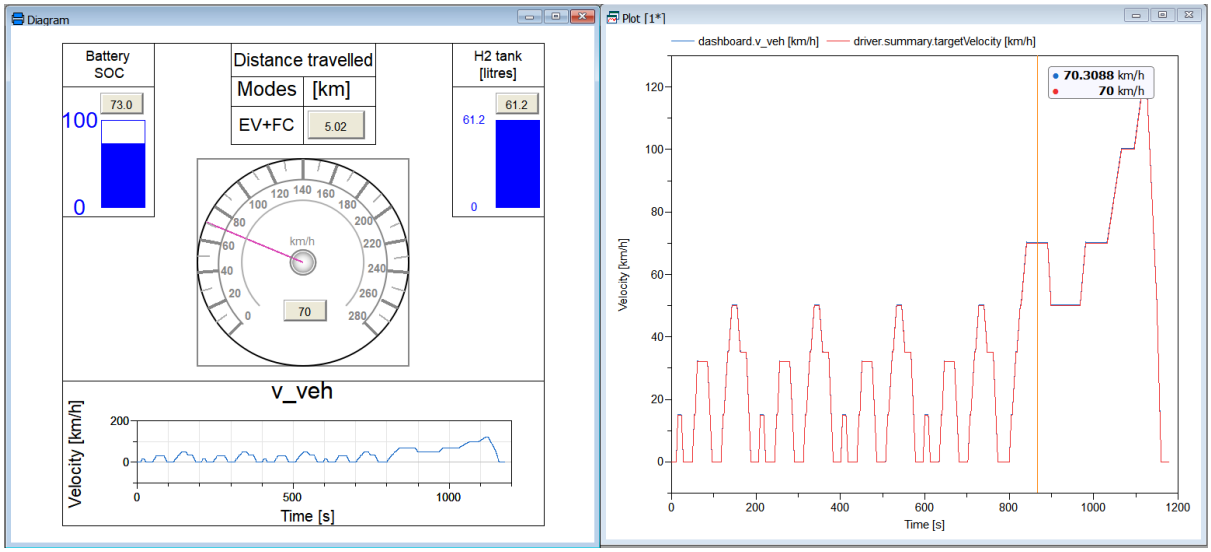

Figure 2 – A screenshot of VeSyMA_Dashboard animation video.

Watch: "[Mahdieh, please insert the YouTube link here]"

In Figure 2, the Diagram window on the left side of the video shows the battery SOC, distance travelled, hydrogen tank level, speedometer and actual velocity (v_veh) of the vehicle. However, on the right-side plot window displays the target and actual velocities of the vehicle with the Dymola Measurement Cursor activated.

For watching our other animation videos and their related blog post, please click the following links;
https://www.youtube.com/watch?v=6rWvxHxjNGM

https://www.youtube.com/watch?v=8iYsuqm2nho

https://www.youtube.com/watch?v=YRmwqhHpYe8

https://www.youtube.com/watch?v=A741zoipqOs

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