Development of Train Simulator for Diesel-hybrid Railway Vehicles

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In developing a diesel-hybrid railway vehicle, it is necessary to evaluate the running performance, the effect of energy conservation and the effect of exhaust emission decrease of the vehicle. As an evaluation method, the authors have developed a train simulator for diesel-hybrid railway vehicles. The simulator enables one to calculate running time, energy consumption and exhaust emissions of various diesel-hybrid system configurations. This paper describes the characteristics of the simulator.