



Dioramas and simulators:

Learning how the railway works through imaginary experiences

A brief history and the current situation of scale-model railway dioramas and train-driving simulators in Japan's railway museums

Driving simulator of JNR Series 205 EMU was one of main attractions for young visitors of Transportation Museum, Tokyo. The museum was closed in 2006, but the collection including this simulator was taken over by the new Railway Museum opened in 2007 in Saitama City, 30 km north of Tokyo.



This paper presents a brief history and the current situation of scale-model railway dioramas and train-driving simulators used by railway museums in Japan. Large railway museums are all sponsored by JR companies, the successors of the former Japanese National Railways (JNR), but there are also some good museums run by private railways and municipalities. Compared with major railway museums in Europe and USA, the number of rolling stock preserved in Japanese museums is smaller, but they are characterized by new methods of presentation such as computer-controlled large model railway dioramas (usually using HO-gauge scale-model trains) and train driving simulators. Such new exhibition methods serve not only as amusement for visitors, but also offer visual and easy-to-understand explanation about how the railway works. The former presents an overall view of railway facilities and trains working in different natural and social circumstances. The latter is a false but most realistic and direct way of showing visitors how to drive a train. The scale-model diorama dates back to Japan's first railway museum opened in Tokyo in 1921 to commemorate the 50th anniversary of Japanese railways. First introduced in 1987, the train-driving simulation was derived from aircraft simulators for training pilots, but became a very popular museum attraction with the development of Japanese mechatronics technologies.



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