

**Practical Application of Rail Surface Roughness Continuous Measurement Trolley
for Maintenance of Rail Corrugation**

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The rail corrugation causes not only causing of noise and vibration but also deterioration of track irregularity and track material. Therefore, it is necessary to manage the rail corrugation appropriately. Currently, the rail surface roughness due to the rail corrugation has been managed with a visual inspection or a simple device. In this regard, we have developed “Rail surface roughness continuous measurement trolley” that aims at clarification of the generation mechanism of the rail corrugation and its efficient management. This trolley adopts the asymmetrical chord offset method for measuring the rail surface roughness continuously. Further, we have developed the software for controlling this trolley and processing the measured data. In this paper, we report the details of our development and the usage example of this trolley.