

## **A Survey on Switch-and-Lock Equipment Maintenance and Utilization of Point Machines Monitors**

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We carried out a survey on maintenance methods for switch-and-lock equipment in order to search for future research and development. Actual states of facility conditions were investigated through a questionnaire and interview survey to 87 railway operators in Japan. The specific survey items were maintenance methods, maintenance cycles, replacement criteria, benefits of point machine monitoring systems and its tasks. The results of this survey showed that the condition monitoring data from point machines has been used to extend the inspection periods and reduce the number of inspection items. Furthermore, we also confirmed that R&D on condition monitoring may contribute to help today's maintenance issues, such as a shortage of maintenance workers.