Application of Rule Mining Technology for the Rescheduling of Train Order

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One of the technical problems on computational support for the rescheduling of train order is a reflection of conditions or criteria of the judgement which are tacit knowledge that dispatchers have acquired from their experience in conventional rescheduling systems. Therefore, we have developed a method of deriving operations which were performed by dispatchers with high probability under specific conditions as operation arrangement rules (OARs) from operation performance records. Then, we have built a train order rescheduling algorithm which has a reflection mechanism of OARs and confirmed the usability of the rescheduling approach by using OARs by comparison between the actual operation arrangement result and the computational output.