

## **Automatic Creation and Verification of Circuit Diagram for Relay Interlocking Device**

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There are two types of interlocking devices: electronic interlocking machines and relay interlocking machines. The installation ratios are almost equal in Japan. Since the internal operation of the relay interlocking machine is visible, it is excellent in maintainability, but labor is required for logical design. In order to improve the efficiency of logic design, we developed a system that automatically creates interlocking circuit diagram from interlocking table and also automatically verifies them based on interlock inspection checklists that are automatically created from interlocking table. Automatic verification not only improves the quality of individual interlocking circuit diagrams but also can be used to improve the accuracy of automatic creation logic. In this paper, automatic creation of interlocking circuit diagram and automatic verification method are outlined, and a case is introduced, where automatic verification and automatic creation logic based on the analysis result are reviewed.