

## A Control System Modeling and Simulation Framework used in Metro ATO System

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**Abstract:** In recent years, the metro signalling system become more advance and complex, one of its approach is UTO(unattended train operation ) system. In order to assure the safety, many formal mothed related work already done for this kind of system. In the paper, we proposed a modeling and simulation framework in python language and give a sample for simplied ATO (automatic train drive) system, expect to easily program the system model and got the determined result for the real parallel system.