

Abstract

Train is one of the most frequent use main transportation in Indonesia. Because of the frequent use, security factor is an important part of the operation of trains. For that reason, it is important to make a model that can support the security factor of trains. The data for the system is gathered from a field observation in Bandung train station.

Formal method can made an unambiguous specification, because it use a mathematical notation so that won't be any missinterpreter in the system. One of the modeling mothod that can made a good specification with formal method is Z. Z use a set of theory and predicate calculus. Different from an informal method, with those mathematical notation, mistake in the system can be found in earlier stage of the system development.

This final project specified itself in modeling an automatic train track system. The result of this final project shows that an automatic train system can be modeled into formal model with the use of Z notation. To statisfied the requirment of the system, which is safety and fairness, it is needed to amply some condition.

Keywords: formal method, Z, train, automatic, modelling