DESIGN AND DEVELOPMENT OF MXML GENERATOR FROM EVENT LOGS WITH TXT AND LOG EXTENSION

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Abstract

Event log is a history record that contains data from a case activity sequence that has been executed by an information system. Event logs could be valuable information with a technique called process mining. With this technique, the business processes of an enterprise can be modeled from its event logs. Thus, companies can conduct an evaluation of the existing business processes to achieve the expected business processes. However, there is no standard for event logs to be followed among information system so that there are differences in content and format. In addition, various types of process mining algorithms that are used also add to the complexity of this technique. Therefore, it is important to represent the event logs into a flexible standard, which is XML.

Working methods of this final project is to study the scientific journal literature. Then it will be the standardization of event logs. After that, do the design and construction of generator applications. And at the end of the testing will be conducted verification of application’s function and validate the output of the application.

This thesis aims to build a generator that can convert event logs from various formats (. log. txt) to the XML standard called
Mining XML (MXML). Case study used the event logs of the ERP by Informatics Engineering of Sepuluh Nopember Institute of Technology. The results of this thesis produces log output in the form of MXML that can provide input for process mining techniques.

The output of this application is validated by the program PROM and mining process shows that the output is valid and can be used to process mining. Trials to standard metamodel element metamodel also shows that the standard required in the mining process.

Key words: Event logs, Mining XML, XML, Generators, ERP