ABSTRACT

The development of information systems have been utilized in reducing the level of the company's losses. Nowadays, it has been cultivated several applications of information systems that will facilitate the work and minimize operational costs. One of the operational costs is the cost to perform engine maintenance to keep the engine performance in a stable condition so that it will not burden the company because of too frequent machine downtime. Determining the machine maintenance schedule considers various aspects such as time to failure, downtime, time to repair, component cost and type of engine damage. With so many aspects that affected, it is very possible to have an error in determining the time schedule maintenance decisions. The other problem is that if the number of machines is too much then the calculations manually would consume a lot of time and consequently the company will be disadvantaged because of a long process of determining the decision.

This tool is made based on Risk Based Maintenance methods which are built with the java programming language and My SQL as the database system. This application is able to provide the results of the risk, the total cost of maintenance, reliability and display bathup curve. This engine maintenance tools will produce a machine maintenance time decisions quickly.

The result of calculations using this application is different in providing chosen distribution, because these applications do their own calculations with the determination of distribution algorithms. So that the results by chosen distribution could be different if using AvSim +, but this does not cause problems because the user expert will analyze the results of calculations of this application and as a material consideration for decision making in providing engine maintenance schedule.

Key words: maintenance planning, java, MySQL,Risk Based Maintenance.