

# 웨이블 시험노력 발행 모델에 관한 연구

## A Study on the Optimum Release Model of a Developed Software with Weibull Testing Efforts

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### - Abstract -

We propose a software-reliability growth model incorporating the amount of testing effort expended during the software testing phase. The time-dependent behavior of testing effort expenditures is described by a Weibull curve. Assuming that the error detection rate to the amount of testing effort spent during the testing phase is proportional to the current error content, a software-reliability growth model is formulated by a nonhomogeneous Poisson process. Using this model the method of data analysis for software reliability measurement is developed. After defining a software reliability, we discuss the relations between testing time and reliability and between duration following failure fixing and reliability are studied in this paper. The release time making the testing cost to be minimum is determined through studying the cost for each condition. Also, the release time is determined depending on the conditions of the specified reliability. The optimum release time is determined by simultaneously studying optimum release time issue that determines both the cost related time and the specified reliability related time.