

Dunsmore, Ian R.; Wright, David E.

A decisive predictive approach to the construction of sequential acceptance sampling plans for lifetimes. (English) [Zbl 0584.62164](#)

J. R. Stat. Soc., Ser. C 34, 1-13 (1985).

A sequential batch acceptance sampling scheme is derived in which measurements are exponential lifetimes and at each stage one can either scrap the batch, accept the batch or test another component of the batch. The approach uses the Bayesian predictive distribution and a utility structure which depends on the lifetimes of the untested components. The sampling scheme is obtained through a dynamic programming formulation.

Reviewer: [S.N.U.A.Kirmani](#)

MSC:

[62P30](#) Applications of statistics in engineering and industry; control charts
[62F15](#) Bayesian inference
[62L99](#) Sequential statistical methods
[62L10](#) Sequential statistical analysis
[90C39](#) Dynamic programming

Cited in **1** Document

Keywords:

decisive prediction; sequential batch acceptance sampling scheme; exponential lifetimes; Bayesian predictive distribution; utility structure

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