

# A robust DBR management system

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## Abstract

The Drum-Buffer-Rope(DBR) method is the production application of Theory of Constraints(TOC), a global managerial methodology that helps the manager to concentrate on the most critical issues. Three management phases, i.e., planning(scheduling) phase, executing phase and control phase, are required to implement the DBR on a manufacturing plant. Although the DBR method has been studied in some literatures, major focus is only on one management phase. For DBR to gain acceptance as a viable planning and control system, a robust DBR management system is not investigated yet. The purpose of this paper is to provide a robust DBR management system and to describe significance and the relationship among these phases. A prototype was also provided by the eM-Plant simulation model to demonstrate the significance and feasibility of this robust DBR management system. This study especially facilitates the managers who want to implement the DBR system in manufacturing plants.

Keyword : Buffer Management(BM), DBR Management System, Drum-Buffer-Rope(DBR), Theory of Constraints(TOC)