

Cash Flow Optimization in a Multi-Project Environment

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Abstract. In this paper, we address the problem of budget allocation in a multi-project environment under uncertainty. The uncertainty is in the completion time of milestones of individual projects. Companies have the opportunity to invest funds allocated for these projects and also to borrow a predetermined amount of funds to pay the subcontractors at each milestone. The corresponding mathematical model is a linear (dynamic) programming model with stochastic due dates. We propose a heuristic method to solve this problem and the performance of these methods is compared with the optimal solution using a simple numerical example.