Joint Financial and Operating Scheduling/Planning in Industry
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Abstract
This paper addresses the implementation of financial cross functional links with the supply chain operations and investment activities at plant level when scheduling and budgeting in short term planning in batch process industries. The target is to obtain trade-off solutions preserving at most the profit and liquidity while satisfying customers. The platform built combines a deterministic cash management model with an advanced schedule algorithm by MILP formulation. This methodology heightens the decision-making capacity of the CEO (chief executive officer) and CFO (chief financial officer) in complex scenarios. The benefits of this work are shown through a case study that illustrates the modelling framework and procedures necessary to implement a financial/supply chain methodology to aid top-level staff when planning and budgeting

Keywords: Planning, budgeting, cash management, batch industry, retrofitting