

A heuristic procedure for solving multi-plant, multi-item, multi-period capacitated lot-sizing problems

ABSTRACT

This paper presents a heuristic procedure for solving multi-plant, multi-item, capacitated lot sizing problems with inter-plant transfers. The solution procedure uses the solution for the uncapacitated problem as a starting point. A smoothing routine has been employed to remove capacity violations. The smoothing routine consists of two modules. Extensive experimentation has been conducted comparing the heuristic solution procedure and LINDO. The heuristic has been implemented on IBM 3090 mainframe using FORTRAN.

Keyword: Capacitated lot sizing; Heuristics; Multi-plant production planning