

# **Simple and Capacitated Plant Location Problem: Forward and Reverse Logistics**

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## **Abstract**

Locating warehouses and plants so that one is able to consider the forward and reverse flow as well is an important problem. In this paper we consider locating plants that directly supply to markets and are located so that forward and reverse flows are considered. We seek to min cost of location and distribution (forward and reverse). We give novel strong linking constraints that are extensions of traditional SPLP & CPLP (simple plant and capacitated plant location problems). This is expected to provide better performance of the branch and bound algorithms.

## **Keywords**

Capacitated Plant Location, Forward and Reverse Logistics, Branch and Bound Algorithm