

# **Extended Resource Allocation Models for Project Scheduling in Heavy Industry**

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## **Abstract**

Production plans in large-scale heavy industries, e.g., aerospace, large steel products manufacturing, and shipyard, are often developed by multi-project analysis and planning based upon PDM(Precedence Diagramming Method). Even though the PDM model has overcome certain restrictions in CPM (Critical Path Method), it still has some limitations for handling the real-world planning problems. This paper identifies the deficiencies in the PDM model, and proposes an extended production model for planning multi-projects. Resource allocation problems and techniques based upon the proposed model will be also presented.