



A GRASP algorithm to optimize Operational Costs and Regularity of Production in mixed-model sequencing problems with forced interruption of operations*

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Abstract—We present a GRASP algorithm to solve a problem that involves the sequencing of mixed products in an assembly line. The objective of the problem is to obtain a manufacturing sequence of models that generates a minimum operational cost with a forced interruption of operations and that is regular in production. The implemented GRASP is compared with other procedures using instances of a case study of the Nissan engine manufacturing plant in Barcelona.

Index Terms—GRASP, Bounded Dynamic Programming, Work overload, Operational Cost, Mixed-model Sequencing Problems