Abstract
This phase takes the results obtained in Phase I of the Loading Heuristics, which aims to allocate operations tools and machines within a Flexible Manufacturing System (FMS) with the objective of balancing workloads between machine types, generate flexibility on the routes of production and decrease the exchange of material between machines. Phase I focuses on the allocation of operations to machine types in a way that achieves the objective of balancing work loads. Moreover Phase II seeks to achieve the objectives of decline in the exchange of materials and the increased routing flexibility.

Keywords
Balancing work loads, cluster, routing flexibility, loading heuristics, flexible manufacturing systems.