abstract states, which are induced for generalizing and abstracting ground examples of schedules, allowing the use of a compact representation of the rescheduling problem. Abstract states and macro-actions for schedule repair facilitate and accelerates learning and knowledge transfer, which is independent of the type of event that has generated a disruption and can be used reactively in real-time. Finally, an additional advantage provided by the relational (deictic) representation of schedule (abstract) states and operators is that, relying in an appropriate and well designed set of background knowledge rules, it enables the automatic generation through inductive logic programming of heuristics that can be naturally understood by an end-user.

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