

# On Computing Conformant Plans Using Classical Planners: A Generate-And-Complete Approach

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## **Abstract**<sup>1</sup>

Generate-and-complete is an approach to conformant planning that generates a possible plan for one possible world and completes the conformant plan by inserting more actions into the possible plan. The key idea is to exploit the interaction of actions in a plan with different possible worlds. The completion method is based on maintaining executability and effects of actions in different possible worlds while achieving goals. The approach also employs the one-of technique to reduce the number of possible worlds. We develop a system, called GC[LAMA], based on this approach and a classical planner, LAMA 2008. GC[LAMA] shows excellent coverage and performance compared to state-of-the-art conformant planners. The results verify that generate-and-complete is a very strong alternative to belief state space search approach.

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<sup>1</sup> This demonstration corresponds to a paper presented in the main technical track at ICAPS 2012.