

Fast Downward Uniform Portfolio

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The Fast Downward uniform portfolio runs 21 automatically configured Fast Downward instantiations sequentially for the same amount of time. The portfolio is identical to the “uniform” portfolio in Seipp et al. (2012a). Therefore, we only give a high-level description here and refer to the paper for details of its construction and an experimental analysis.

In a nutshell, our uniform portfolio approach works as follows: we used the automatic parameter tuning framework ParamILS (Hutter et al. 2009) to find fast configurations of the Fast Downward planning system for 21 planning domains separately. At runtime we run all found configurations sequentially for the same amount of time, i.e. in the IPC setting with a time limit of 30 minutes, all configurations run for at most 85 seconds.

The details of our approach can be found in Seipp et al. (2012a) and the accompanying technical report (Seipp et al. 2012b).

References

- Hutter, F.; Hoos, H. H.; Leyton-Brown, K.; and Stützle, T. 2009. ParamILS: an automatic algorithm configuration framework. *Journal of Artificial Intelligence Research* 36:267–306.
- Seipp, J.; Braun, M.; Garimort, J.; and Helmert, M. 2012a. Learning portfolios of automatically tuned planners. In McCluskey, L.; Williams, B.; Silva, J. R.; and Bonet, B., eds., *Proceedings of the Twenty-Second International Conference on Automated Planning and Scheduling (ICAPS 2012)*. AAAI Press.
- Seipp, J.; Braun, M.; Garimort, J.; and Helmert, M. 2012b. Learning portfolios of automatically tuned planners: Detailed results. Technical Report 268, Albert-Ludwigs-Universität Freiburg, Institut für Informatik.