

PLTL_f and PLDL_f to DFA + PDDL Encoding of DFAs

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Agenda

Part I

- Pure-past Linear Temporal and Dynamic Logic on finite traces ($\text{PLTL}_f/\text{PLDL}_f$)
- Translation to Deterministic Finite-state Automaton (DFA)
- Transformation to $\text{LTL}_f/\text{LDL}_f$ and vice versa
- Impact of adopting $\text{PLTL}_f/\text{PLDL}_f$

Part II

- Deterministic and Non-deterministic Planning for Temporally Extended Goals
- Planning Domain Definition Language (PDDL)
- Compile a DFA within PDDL

Project Ideas

- Proof-of-concept implementation of PLTLf/PLDLf to DFA
- Provide other DFA encodings in PDDL
- Test encodings on a dataset using different planners