

PLANUTILS: Bringing Planning to the Masses

A general library for developing, running, and evaluating planners, planning libraries, and tools.

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Homepage

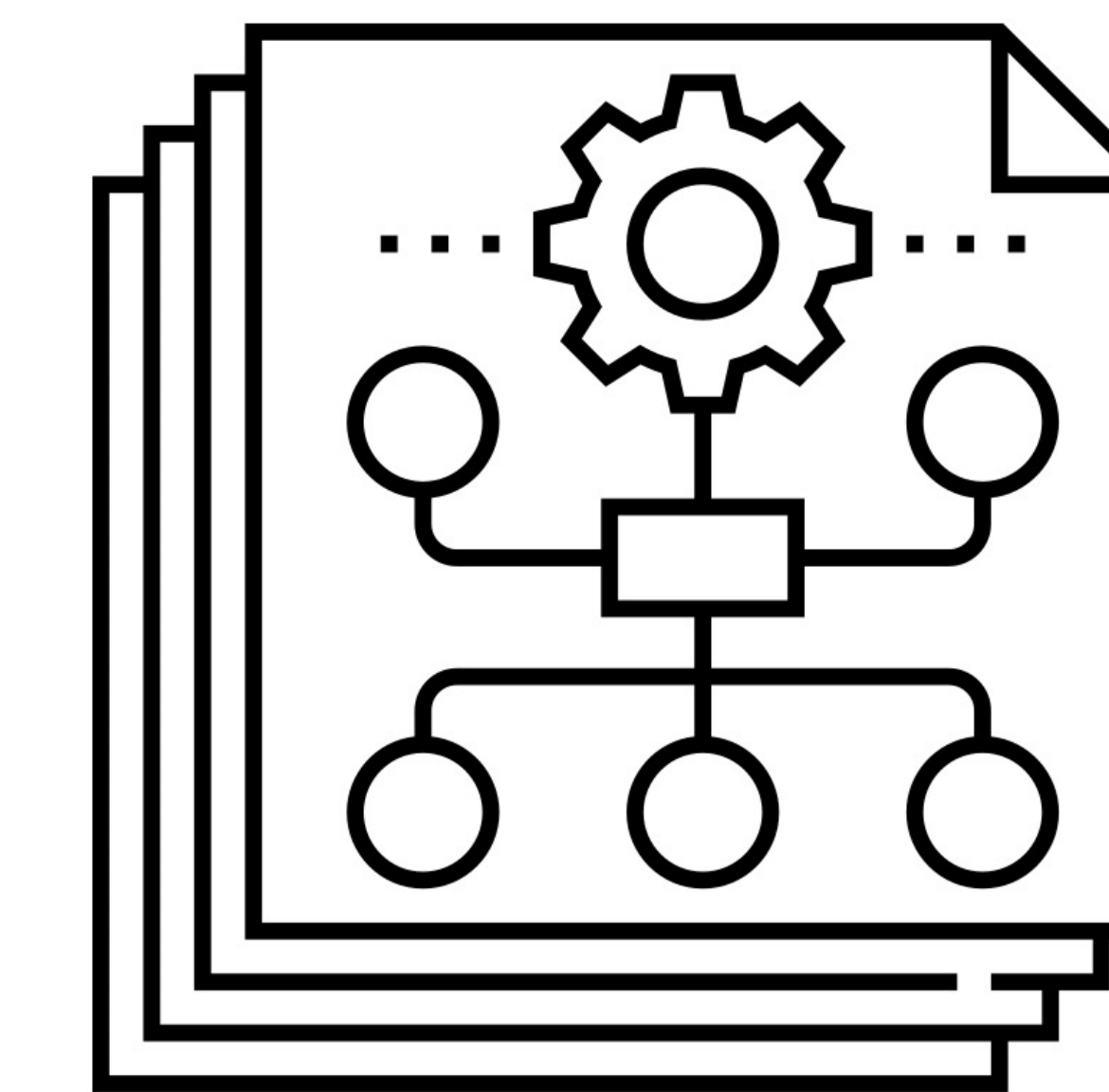
github.com/ai-planning/planutils

Contact

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PLANUTILS is a general library for setting up Linux-based environments for developing, running, and evaluating planners. Over the last decades, the planning community has produced countless solvers for various planning formalisms, as well as many other tools to help the planning practitioner. From state-of-the-art planners, over validators, to parsing libraries, the planning ecosystem has grown quite large. In the demo, we highlight an effort that aims to unify this ecosystem and make it seamless for users to get started with what the ICAPS community has to offer.



Getting Started

```
$ pip install planutils
$ planutils setup
$ planutils activate

Entering planutils environment...
(planutils) $ lama d.pddl p.pddl

Package not installed!
Download & install? [Y/n] Y
lama will be installed.

About to install the following
packages: downward (36M), lama (20K)

Proceed? [Y/n] Y

Installing downward...
INFO:   Downloading shub image
45.84 MiB / 45.84 MiB
[=====] 100.00% 7.30 MiB/s 6s

Finished installing downward (size: 46M)

Installing lama...
Finished installing lama (size: 20K)

Successfully installed lama!

Original command: lama d.pddl p.pddl
Re-run command? [Y/n] Y

INFO   Running translator.
...
```

Docker

```
$ docker pull aiplanning/planutils
$ docker run -it --privileged \
  aiplanning/planutils
$ planutils --help
```

Remote Mirror

```
$ planutils remote lama d.pddl p.pddl
```

Local Server

```
$ planutils server
```

Easy Configuration

manifest

```
{"name": "LAMA",
 "description": "fast-downward.org",
 "install-size": "20K",
 "dependencies": ["downward"]}
```

run.sh

```
#!/bin/bash
planutils run downward -- \
  --alias lama $@
```

install

```
#!/bin/bash
singularity pull --name \
  downward.sif shub://aibasel/downward
```

Packages

dual-bfws-fdparser	forbiditerative-diverse-agl	kstar	planning.domains
dual-bfws-ffparser	forbiditerative-diverse-sat	lama-first	pyperplan
cerberus-agl	enhsp-2018	lama	scorpion
cerberus-sat	enhsp-2019	lapkt	smtplan
cerberus	enhsp-2020	machetli	tarski
delfi	enhsp	macq	tfd
downward	hpddl2pddl	optic	val

What's Next?

- **More packages!** The process is extremely straightforward. Feel free to add your own!
- **Improved Server Coupling:** Currently works, but could be more seamless

Improve Singularity: Ease the use of packages requiring singularity and add more that don't require it

More Environments: Dedicated environments for developers, educators, evaluations, etc...