Debugging complex programs made easier with **Machetli**

Bug only happens in large task!

Machetli searches through the space of task modifications to find a smaller task where the bug persists.

The resulting task is small enough to debug.
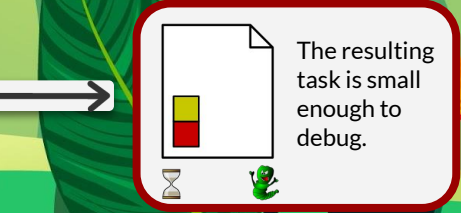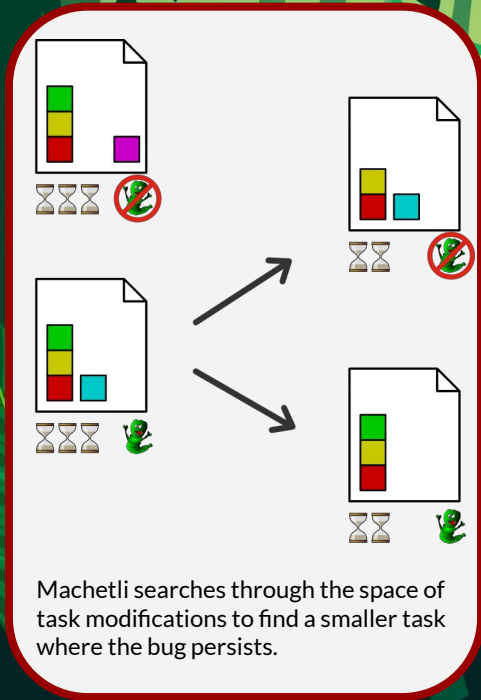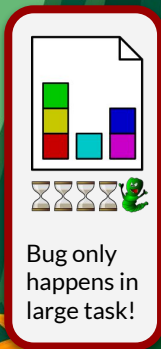
Supports PDDL and SAS+

Easily Extendable (*DDL, tex, LPs, ...)

Search in parallel on a grid

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DOCUMENTATION

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1. Install

```
pip install machetli
```

2. Reproduce Bug

```python
from machetli import pddl, tools

def evaluate(state):
  with pddl.temporary_files(state) as (dom, prob):
    command = ["./bugged-planner/plan", dom, prob]
    run = tools.Run(command)
    stdout, stderr, returncode = run.start()

    return "Wrong task encoding" in stdout
```

3. Search

```python
from machetli import pddl, search

init = pddl.generate_initial_state(
        "large-domain.pddl", "large-problem.pddl")
generators = [pddl.RemoveActions(),
              pddl.RemoveObjects()]
evaluator = "./evaluator.py"
result = search(init, generators, evaluator)
pddl.write_files(result,
        "small-domain.pddl", "small-problem.pddl")
```

4. Enjoy

```
Starting search ...
Removed action 'down'. Remaining actions: 3
Removed object 'p4'. Remaining objects: 20
Removed object 'p2'. Remaining objects: 19
...
Removed object 'f1'. Remaining objects: 2
No improving successor found, terminating search.
```