Debugging complex programs made easier with Machetli

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

EXAMPLE

1. Install

```
pip install machetli
```

2. Reproduce Bug

```
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

```
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.