build_determinism

Build determinism analysis for targets

May 17, 2020

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Introduction

When evaluating the determinism of building certain targets use this tool. It runs various bazel query commands to construct spawn information for all of the subcommands. These subcommands are analyzed for nondeterminism.

Installation

Software can be installed through apt-get. The following commands will add the ppa and install the software.

```
sudo curl -s --compressed -o /etc/apt/sources.list.d/build_determinism.list 'https://raw.git
sudo apt update
sudo apt install build_determinism
```

The debian file can also be installed/uninstalled directly. To uninstall you can use:

```
sudo apt remove build_determinism
```

Command Line

The tool can be used from the command line.

```
test for build determinism on a particular target:
  --target arg          what you would pass to bazel build
  --url arg             git url to clone with
  --run_dirs arg        which directories to run the analysis
  --branches arg        which branches to run the analysis
  --synthesize_problems synthesize the nondeterminism problems in a human
                        friendly way
  --environment_scan arg try the A/B tests in different environments n number
                        of times to evaluate any flakiness of nondeterminism
  --augment_scan arg    try the A/B tests with different augmentations on the
                        environment n number of times to evaluate any
                        flakiness of nondeterminism
  --output_dir arg      the directory to output artifacts
  --bazel arg           the name of the bazel runner (useful if repo has a
                        bazel wrapper or using bazelisk)
  --verbose             show verbose progress
  -h [ --help ]         produce this help message
  -v [ --version ]      display version
```