

Trabalho 2

Joice Marek e Luis Felipe de Castro

Ferramentas escolhidas

- ▶ static analysis tool
 - ▶ cppcheck
- ▶ Coverage
 - ▶ Gcov
- ▶ Continuous Integration
 - ▶ Travis CI
- ▶ Testing for performance
 - ▶ Gprof

.travis.yml

```
sudo: true
language: cpp
compiler:
  - gcc
addons:
  apt:
    sources:
      - ubuntu-toolchain-r-test
    packages:
      - g++-6
      - cppcheck
before_install:
  - python --version
install:
  - "[ $CXX = g++ ] && export CXX=g++-6 || true"
  - sudo pip install gdown
  - ./instal.sh
script:
  - cd ./software/tests/math/cos
  - make clean
  - make test
  - cppcheck test.c > cppcheck.log
  - gcov hf_riscv_sim.c >gcov.log
  - gprof ./hf_riscv_sim gmon.out >gprof.log
  - head cppcheck.log -n 200
  - head gcov.log -n 200
  - head gprof.log -n 200
```

Instalação RiscV

► install.sh

```
#!/bin/bash
```

```
cd /home/travis/build/
```

```
mkdir RISCv
```

```
cd RISCv
```

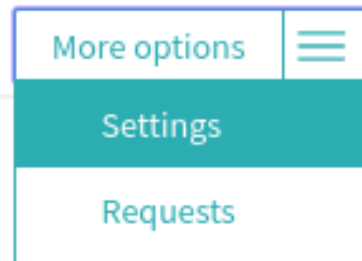
```
gdown 'https://drive.google.com/uc?id=1ntx6Mpor-GWR13CSiAQ47H8RQ0KYeoWJ'
```

```
tar xvzf riscv-gcc.tar.gz --strip-components 2
```

```
riscv32-unknown-elf-cpp --version
```

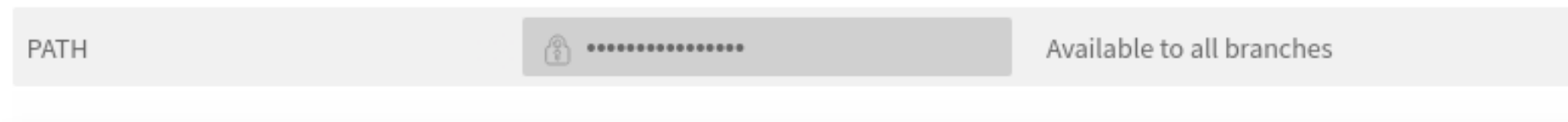
Instalação RiscV

► Variável de ambiente



Environment Variables

Customize your build using environment variables. For secure tips on generating private keys [read our documentation](#)



Travis - OK

✓ **master** Update test.c

🔗 #82 passed

🔄 Restart build

🔗 Commit 978e97d

🔗 Compare 78c5ae5..978e97d

🔗 Branch master

👤 joiceMarek

🕒 Ran for 1 min 12 sec

📅 23 minutes ago

🔗 </> Compiler: gcc C++

```
1204 profiling:/home/travis/build/LuisFelipe96/hf-risc-st/software/tests/math/cos/hf_riscv_sim.gcda:Version mismatch - expected
    504* got 408*
1205
1206 end of simulation - 65678 cycles.
1207 The command "make test" exited with 0.
```

Travis - Erro

✖ master correcoes

❌ #79 failed

🔄 Restart build

🔗 Commit cdcbb77

🔗 Compare a05dc09...cdcbb77

🔗 Branch master

👤 LuisFelipe96

🕒 Ran for 1 min 42 sec

📅 about 13 hours ago

🔧 </> Compiler: gcc C++

```
1206 end of simulation - 65663 cycles.  
1207 makefile:46: recipe for target 'test' failed  
1208 make: *** [test] Error 1  
1209 The command "make test" exited with 2.
```

Cppcheck e Gcov

```
1486 The command "gprof ./hf_riscv_sim gmon.out >gprof.log" exited with 0.  
1487 $ head cppcheck.log -n 200  
1488 Checking test.c...  
1489 The command "head cppcheck.log -n 200" exited with 0.  
1490 $ head gcov.log -n 200  
1491 File '/home/travis/build/LuisFelipe96/hf-risc-st/tools/sim/hf_riscv_sim/hf_riscv_sim.c'  
1492 Lines executed:52.20% of 295  
1493 Creating 'hf_riscv_sim.c.gcov'  
1494
```

0.01s

0.01s

Gprof

```
1852 granularity: each sample hit covers 2 byte(s) no time propagated
1853
1854 index % time    self  children   called    name
1855              0.00   0.00   8130/8130    main [19]
1856 [1]          0.0   0.00   0.00    8130    cycle [1]
1857              0.00   0.00   8130/8130    mem_fetch [2]
1858              0.00   0.00   1049/1049    mem_read [3]
1859              0.00   0.00    717/717    mem_write [4]
1860 -----
1861              0.00   0.00   8130/8130    cycle [1]
1862 [2]          0.0   0.00   0.00    8130    mem_fetch [2]
1863 -----
1864              0.00   0.00   1049/1049    cycle [1]
1865 [3]          0.0   0.00   0.00    1049    mem_read [3]
1866 -----
1867              0.00   0.00    717/717    cycle [1]
1868 [4]          0.0   0.00   0.00     717    mem_write [4]
1869 -----
1870
```