

Concurrency Memory Bug Prediction Benchmarks

Source Code Download

Please use the following commands to download the source code.

```
cd program_srcs
./get_src.sh
```

Compiling

In the [CVE-Benchmark](#), use the following command to compile the programs:

```
/path/to/clang++ -DSLEEP_FOR_RACE /path/to/input -o /path/to/output
```

In [httrack-3.43.9](#), see the file [INSTALL](#) for details.

In [lbzip2](#), use the following commands to compile:

```
./build-aux/autogen.sh
configure --prefix=/path/to/install
make -j10 install
```

In [libvpx](#) and [x264](#), use the following commands to compile:

```
configure --prefix=/path/to/install
make -j10 install
```

In [libwebp](#) and [pixz](#), use the following commands to compile:

```
./autogen.sh
configure --prefix=/path/to/install
make -j10 install
```

In [mysql-5.7.36](#), use the following commands to compile:

```
mkdir bld
cd bld
cmake ../ -DDOWNLOAD_BOOST=1 -DWITH_BOOST=../boost -DWITH_TREC=1 -DWITH_DEBUG=1 -
```

```
DCMAKE_INSTALL_PREFIX=/path/to/install  
make -j10 install  
cd ..
```

In `pbzip2-0.9.4` and `pigz`, modify the `Makefile` by replacing the `CC` with the path to your clang compiler, and the `PREFIX` with the path to your installation directory. Then run `make -j10 install` to compile and install the program.

In `x265`, use the following commands to compile:

```
cd build  
cmake ../source  
make -j10  
cd ..
```

Program Running

Here we provide the commands used to run the programs. `${filename}` denotes the path to the input file.

`CVE-benchmark`:

```
/binary/file/path
```

`httrack`: see the `INSTALL` file in its directory for details.

`lbzip2`:

```
lbzip2 -k -t -9 -z -f -n4 ${filename}
```

`libvpx`:

```
vpxdec -t 4 -o ${filename%.*}.y4m ${filename}
```

`libwebp`:

```
cwebp -mt $filename -o ${filename%".png"}.webp
```

`pbzip`:

```
pbzip -k -f -p3 $filename
```

pigz:

```
pigz -p 4 -b 32 -k ${filename}
```

pixz:

```
pixz -9 -k -p 4 ${filename}
```

x264:

```
x264 --threads=4 -o ${filename%.*}.out" $filename
```

x265:

```
x265 --input $filename --pools 4 --frame-threads 2 -o ${filename%.*}.out"
```

mysql:

```
cd /mysql/install/directory  
cd mysql-test  
./mysql-test-run --record 1st.test  
./mysql-test-run --record almost_full.test
```