Collect Results from Ground Truth

The binaries containing ground truth information is placed under the `testsuite` directory. We use `coreutils` as an example to illustrate how to read ground truth information. The scripts used to read the ground truth information is [here](Copy the files to dockers).

Extract Ground Truth Information from Docker

Pull the docker image

```
$ docker pull bin2415/py_gt
$ docker run -it --privileged --name py_gt -v $PWD/x86-sok:/opt bin2415/py_gt
/bin/bash
```

Extract Ground Truth

First, we need to dump the extra section holding ground truth from the binary using `objcopy`. Then we use a script to read the extracted information and save it into a `protobuf`. The extracted ground truth information is saved into `/tmp/gtBlock_mv.pb` file.

```
# dump the ground truth section from the binary
root@2edffeceacba:/opt/testsuite/linux/utils/coreutils/clang_O2# objcopy --dump-
section .rand=mv.gt.gz mv && gzip -d mv.gt.gz

# Extract basic block information
root@2edffeceacba:/opt/testsuite/linux/utils/coreutils/clang_O2# python3
../../../../../extract_gt/extractBB.py -b mv -m mv.gt -o /tmp/gtBlocks_mv.pb

# Extract xreference information
root@2edffeceacba:/opt/testsuite/linux/utils/coreutils/clang_O2# python3
../../../../../extract_gt/extractXref.py -b mv -m mv.gt -o /tmp/gtXref_mv.pb
```

Read Instructions from Ground Truth

The scripts used from reading instructions, functions, and CFGs are not included in the public Github Repository. **Make sure** you copy those files from my personal repository.

```
root@2edffeceacba:/opt/testsuite/linux/utils/coreutils/clang_O2# python3
../../../../../compare/readInsn.py -b mv -g /tmp/gtBlocks_mv.pb 2>&1 | tee
/tmp/inst.log
```

Read Functions from ground Truth

```
root@2edffeceacba:/opt/testsuite/linux/utils/coreutils/clang_O2# python3
../../../../../compare/readFuncs.py -b mv -g /tmp/gtBlocks_mv.pb 2>&1 | tee
/tmp/func.log
```

Read CFG from Ground Truth

```
root@2edffeceacba:/opt/testsuite/linux/utils/coreutils/clang_O2# python3
../../../../../compare/readCFG.py -b mv -g /tmp/gtBlocks_mv.pb 2>&1 | tee
/tmp/cfg.log
```

Read CFG from Ground Truth

```
root@2edffeceacba:/opt/testsuite/linux/utils/coreutils/clang_O2# python3
../../../../../compare/readXreference.py -b mv -g /tmp/gtXref_mv.pb -i
/tmp/gtBlocks_mv.pb 2>&1 | tee /tmp/xref.log
```