

Phase 3: Updates

Updates

11/18/2014

1. Please download the SPIM from <https://github.com/ostrichjockey/spim-keepstats>.

Instructions on installation:

- 1) clone the code base using the following command:
git clone <https://github.com/ostrichjockey/spim-keepstats>
- 2) change to SPIM directory:
cd spim-keepstats/spim
- 3) build and install spim using the following command:
make
sudo make install
- 4) test your installation:
spim -keepstats -f ../helloworld.s

[sample output]

```
Hello WorldStats -- #instructions : 13
#reads : 2 #writes 0 #branches 2 #other 9
```

Note: With -keepstats flag, you are able to get information on the total number of instructions (#instructions), the number of load instructions (#reads), the number of store instructions (#writes), the number of jump instructions (#branches), and the number of the other instructions (#other).

Please report those statistics in your final report.

2. We will be implementing **fixedpt** base type as **float** type supported in SPIM.

Note: no checking for overflow or underflow is to be implemented. In other words, **fixedpt** type is exactly equal to **float** type.

3. Syntax and usage of system calls:

```
Print_int(k); /* prints integer k to the output */
m = Read_int(); /* returns input in register $v0 which should then be assigned to m */
Print_float(k); /* prints float k to the output */
n = Read_float(); /* returns input in register $f0 which should then be assigned to n */
```

Please refer to the following links for mapping between system calls and corresponding MIPS instructions.

http://oucsace.cs.ohiou.edu/~avinashk/classes/ee461a/SPIM_instr.pdf

<http://www.cs.uic.edu/~troy/spring04/cs366/float.html>