Installing SimpleScalar

To install SimpleScalar, download [Ubuntu 12.04.5 LTS (Precise Pangolin)](), 32-bit version. This is the version of Ubuntu I've worked with SimpleScalar. Make sure you download the 32-bit version since SimpleScalar will not work on 64-bit versions!

Once you have done, copy the following scripts (simple1 and simple2) and save them on a file. Make sure you make the file executable with the following command. Make sure you're in the directory you saved the files in.

1. chmod +x simple1 simple2

Then, run simple1 first with the following command.

2. ./simple1

You have to wait for simple1 to complete successfully. Once it has done so, run simple2.

3. ./simple2

SimpleScalar should have installed successfully. Make sure to run the test simulation to make sure everything works correctly!

Scripts

simple1

```
NAME=Simplescalar
PACKAGE=simplescalar
TOOL=simpletools-2v0
UTIL=simpleutils
SIM=simplesim
sudo apt-get update
sudo apt-get install flex-old bison build-essential
cd
mkdir $NAME
cd $NAME
wget 'http://csrl.unt.edu/downloads/'$PACKAGE.tgz
tar xvfz $PACKAGE.tgz
export CC="gcc"
export HOST=i686-pc-linux-gnu
export TARGET=sslittle-na-sstrix
export IDIR=~/$NAME
cd ~/$NAME
tar xvfz $TOOL.tgz
rm -rf gcc-2.6.3
cd ~/$NAME
tar xvfz $UTIL-990811.tar.gz
cd $UTIL-990811
./configure --host=$HOST --target=$TARGET --with-gnu-as --with-gnu-ld --prefix=$IDIR
make CC=gcc
sudo make install CC=gcc
cd ~/$NAME
tar xvfz $SIM-3v0d.tgz
cd $SIM-3.0
make config-pisa
make CC=gcc
cd ~/$NAME
tar xvfz gcc-2.7.2.3.ss.tar.gz
cd ~/$NAME/gcc-2.7.2.3
export PATH=$PATH:$IDIR/simpleutils-990811/ssli¬ttle-na-sstrix/bin
./configure --host=$HOST --target=$TARGET --with-gnu-as --with-gnu-ld --prefix=$IDIR
```

simple2

```
NAME=Simplescalar
PACKAGE=simplescalar
TOOL=simpletools-2v0
UTIL=simpleutils
SIM=simplesim

export CC="gcc"
export HOST=i686-pc-linux-gnu
export TARGET=sslittle-na-sstrix
export IDIR=~/$NAME

cd ~/$NAME
tar xvfz gcc-2.7.2.3.ss.tar.gz
cd ~/$NAME/gcc-2.7.2.3
export PATH=$PATH:$IDIR/simpleutils-990811/ssli¬ttle-na-sstrix/bin
./configure --host=$HOST --target=$TARGET --with-gnu-as --with-gnu-ld --prefix=$IDIR
make LANGUAGES="c c++" CFLASS=-O3 CC="gcc"

sed -i 's/return \"FIXME\\n/return \"FIXME\\n\/g' ~/$NAME/gcc-2.7.2.3/insn-output.c

sed -i 's/\<varargs\.h\>/\<stdarg\.h\>/g' ~/protoize.c

sed -i 's/\-I\.\/include/\-I\.\/include \-I\/usr\/include \-I\/usr\/include\/i386\-linux\-gnu/g'
~/Makefile

sudo cp ./patched/sys/cdefs.h ../sslittle-na-sstrix/include/sys/cdefs.h
sudo cp ../sslittle-na-sstrix/lib/libc.a ../lib/
sudo cp ../sslittle-na-sstrix/lib/crt0.o ../lib/

wget http://www.ict.kth.se/courses/IS2202/ar
wget http://www.ict.kth.se/courses/IS2202/ranlib
chmod 700 ar
chmod 700 ranlib
sudo cp ar $IDIR/sslittle-na-sstrix/bin/ar
sudo cp ranlib $IDIR/sslittle-na-sstrix/bin/ranlib
rm ar
rm ranlib
chmod +w ~/$NAME/gcc-2.7.2.3/obstack.h
sed -i 's/next_free)++/next_free++)/g' ~/$NAME/gcc-2.7.2.3/obstack.h
make LANGUAGES="c c++" CFLASS=-O3 CC="gcc"
make enquire CC=gcc
sudo make install LANGUAGES="c c++" CFLASS=-O3 CC="gcc"
PATH=$PATH:~/$NAME/bin
```