How to install the Java interface to Pythia 6

Preliminary

You can get the Java interface from pythiaJava.tar.gz.
Put it somewhere and extract with `tar -xvf <filename.tar.gz>` This will create a directory `evtgen` that contains the files.
Please also make sure that you have a proper version of a Java compiler with the JNI interface and that the environment variable $JDK_ROOT points to it.
Make sure the LD_LIBRARY_PATH variable contains the current directory. (.)

Make sure you have the pythia version you want

The distribution contains the file `evtgenpythiaisajet/pythia6xxx.f`. You can replace that file with your favourite version 6.x of Pythia.

Build the program

The program is built in the evtgenpythiaisajet subdirectory.

gcc3

If you have an older version of gcc, you most likely need to link against the g2c library. If you have the library, execute
```
g++ -shared -I$JDK_ROOT/include -I$JDK_ROOT/include/linux *.cpp *.f -lg2c -o ../libpythiaevtgen.so
```

gcc4

Newer versions of gcc come with the gfortran library. You can build the program with
```
g++ -shared -I$JDK_ROOT/include -I$JDK_ROOT/include/linux *.cpp *.f -lgfortran -o ../libpythiaevtgen.so
```

optimization

In tests, we found that the options `-O2 -march=nocona` lead to significant performance improvements.

Running the program

First drop into a bash shell (if you are not already, which would be a shame). Then `source setup.sh`.
Now you can just run the program with `java EvtGen 10` to generate 10 files.
The program is going to read the files `pythia.cmd` and `pythia.cards`. The outputfile is events.stdhep. If you want it to use a different generator, run the command like this. `java EvtGen 10 <name of lib>` where `<name of lib` is resolved to the name `lib<name of lib>evtgen.so`.