**NemoLib**

**NemoLib –java installation**

1. Installation and testing
   1. Linux
2. NemoLib – You should obtain **nemolib-0.1-SNAPSHOT.jar** library
   1. Log in to your Linux account and go to the directory where you want to copy the file from GitHub
   2. Command as the following: (Make sure you do not have “nemolib” directory in your linux )

git clone <https://github.com/drewandersen/nemolib.git>

* 1. After “nemolib” directory is created, go to the directory

cd nemolib

* 1. Type the following command

mvn package

1. Test Nemolib
   1. Download file

git clone <https://github.com/drewandersen/nemoprofile.git>

1. Install
   1. cd sequentialApp
   2. Modify compile.sh (modify the path for nemolib-0.1-SNAPSHOT.jar)
   3. Modify run.sh (the correct path for for nemolib-0.1-SNAPSHOT.jar)
2. Compile and run (type the followings)

./compile.sh

./run.sh ../data/test01 3 100

* 1. Windows

1. Environment: Netbeans and Cygwin
   1. For Netbeans, need jdk 8.x version (jdk 9.x not work)
   2. Download and install Cygwin (follow the link to learn how to install gcc and g++)

<http://preshing.com/20141108/how-to-install-the-latest-gcc-on-windows/>

* 1. Systems-> advanced->Environment Variables
     + 1. From the path variable, add
       2. C:\Cygwin64\bin (for 64 bit)
       3. C:\cygwin\bin (for 3x2)

1. Nemolib install
   1. Download as zip file

Link: <https://github.com/drewandersen/nemolib>

Open the project in the netbeans: Then build

Remember where is your jar file (target folder):

It will be in nemolib-master/target/ nemolib-0.1-SNAPSHOT.jar

1. Test NemoLib

<https://github.com/drewandersen/nemoprofile>

1. New project 🡪 java with existing code: Main folder is sequentialApp.

Add library jar from nemolib-master/target/ nemolib-0.1-SNAPSHOT.jar

1. Compile nauty and copy the labelg.exe program to sequentialApp/src/main/resources/

(If your project folder is sequentialApp , then no need to change)

The labelg program link is declared in nemoLib Labeler,java file

1. Click project🡪property. Add argument ../data/test01 3 100 (properties->run)
2. Compile nauty

In Windows, labelg program should be separately compiled

<http://pallini.di.uniroma1.it/>

Download nauty26r10.tar.gz

In linux, just follow the Readme file

In windows, use cygwin

Open cygwin-terminal

Go to the downloaded folder (cd /cygdrive/c/users/Wooyoung/programs)

Then use as if it is a linux-shell

If you are using netbeans IDE (using cygwin), just create a project with existing source, will build automatically

**C++ NemoLib (Linux)**

Download the NemoStaticLib.zip

unzip NemoStaticLib.zip

go to the NemoStaticLib directory where “Makefile” should be available.

Type make

Then you can see “libnemostaticlib.a” static library at the following directory.

\NemoStaticLib\dist\

**C++ NemoLib (Windows)**

If you have Cygwin installed, you can just follow the Linux version instruction.

If you want to use IDEs (such as Visual Studio), you can create a new project for static library, and put all the source files (including the files in nauty directory), you can build the library.

If you are using Netbeans and c/c++ plug-in is installed, then you can open the project and build the library

\*Note: You can change the OUTPUT\_PATH , properties->Build->Archiver

**Use NemoLib (Linux)**

Make a test main program (when the main program is inside of the NemoStaticLib folder)

Compile

g++ -std=c++11 -c main.cpp -o main.o -I.

Link

g++ -o main main.o -Ldist/Debug/Cygwin-Windows -lnemostaticlib

If different folder

g++ -std=c++11 -c main.cpp -o main.o –I../../NemoStaticLib/

g++ -o main main.o -L../../NemoStaticLib/dist/ –lnemostaticlib

another different folder

g++ -std=c++11 -c main.cpp -o main.o –I../NemoStaticLib/

g++ -o main main.o -L../NemoStaticLib/dist/ –lnemostaticlib

use absolute path

g++ -std=c++11 -c main.cpp -o main.o -I/home/NETID/kimw6/programs/NemoStaticLib/

g++ -o main main.o -L/home/NETID/kimw6/programs/NemoStaticLib/dist/Debug/Cygwin-Windows -lnemostaticlib

Nauty and Traces

<http://pallini.di.uniroma1.it/>

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If you are using netbeans IDE (using cygwin), just create a project with existing source, will build automatically