Flood 3
An Open Source Neural Networks C++ Library.
www.cimne.com/flood
Installation Guide

Roberto Lopez

International Center for Numerical Methods in Engineering (CIMNE)

Barcelona, Spain

E-mail: rlopez@cimne.upc.edu

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1 Installing Flood on Linux

Compilation of Flood in Linux is straight-forward, since none external package is used and simple makefiles are here provided. In order to do that, the following steps must be performed:

1. Extract the "Flood3.zip" file to the installation folder.

To install Flood from the download location DOWNLOAD_DIRECTORY into the installation location INSTALLATION_DIRECTORY use the following commands:

```
>cd  DOWNLOAD_DIRECTORY
>unzip Flood3.zip  INSTALLATION_DIRECTORY
```

You can specify any name for the installation folder, but the name Flood3 is recommended. Subsequent instructions in this guide refer to this directory as FLOOD3.

2. Run the test suite makefile.

The folder \FLOOD3\UnitTesting\TestSuite contains a makefile for a test suite of the whole library.

To run that makefile type the following commands on the terminal:

```
>cd \FLOOD3\ UnitTesting \ TestSuite \Make
>make −f TestSuiteMakefile
```

This compiles all the classes included in Flood and builds a test suite for them.

3. Verify the installation.

To verify the installation, run the Flood executable:

```
>./Flood
```

If nothing has been wrong, the following message should appear on the terminal:

```
...
Flood test suite results:
Tests run: 1217
Tests passed: 1217
Tests failed: 0
Test OK
```

4. Removing a Flood Installation

To remove a Flood installation, enter the following command on the terminal:

```
>rm −r f  \$FLOOD3
```

This will delete the whole Flood folder.

2   Installing Flood on Windows

Compiling Flood on Windows is also easy. No external packages are to be installed and the library comes with project files for Microsoft Visual C++ and Bloodshed Dev-C++, for the latest versions of that compilers at the Flood release date. When working with another compiler is needed, a project file for it must be created.

2.1   Microsoft Visual C++

Microsoft Visual C++ 2010 Express Edition is a free, lightweight, easy-to-use, and easy-to-learn tools for the hobbyist, novice, and student developer. It can be downloaded at

http://www.microsoft.com/express

Flood includes the FloodTests.vcproj project file for that compiler in the UnitTesting/FloodTests folder.

To open the Flood project just double click on that file. A similar window than that depicted in Figure 1 should come up.

Pressing Ctrl+F5 will compile, build and run the test suite application. A MS-DOS console should appear with the following message:

```
...

Flood  test  suite  results :
Tests  run :  1217
Tests  passed :  1217
Tests  failed :  0
Test OK
```

A complete set of test cases can be found in the UnitTesting folder. Also, many practical applications are included in the Examples folder.

Note that project files of other versions than Visual C++ 2010 Express Edition are not guaranteed to be opened. In that case a new project should be created. Also, it has been found that very old versions of this compiler are not ANSI C++ compliant, and upgrading to a new one becomes necessary.

2.2   Other Compilers

If neither Dev-C++ nor Visual C++ is to be used, a new Project must be created for the new compiler in order to use Flood.
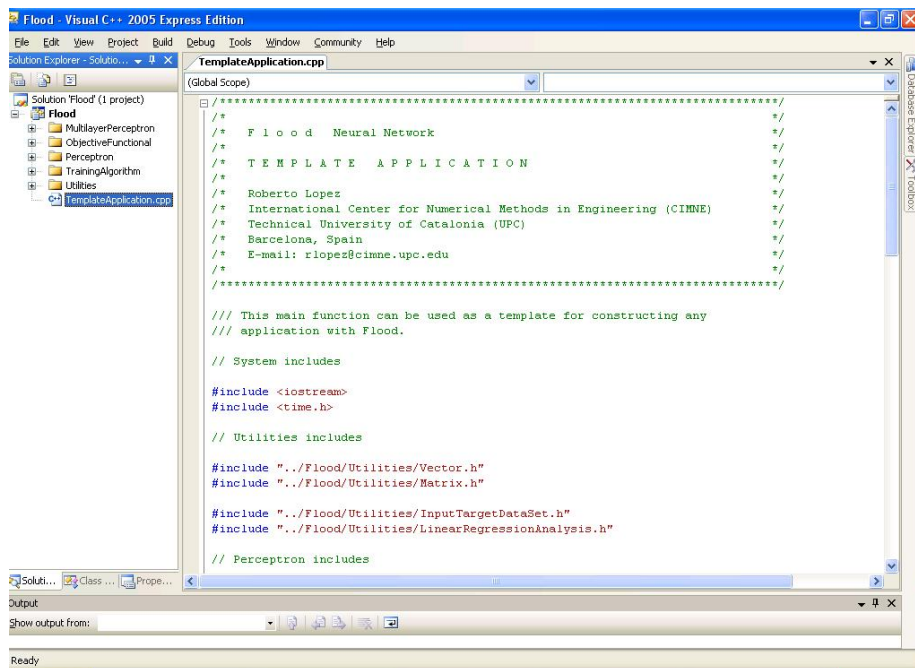
In general, the following steps shall be followed:

Figure 1: Microsoft Visual C++ 2008 project view.

1. Select New Project from the File menu.

2. Create a C++ Empty Project and name it Flood3.

3. Save the project file into a folder.

4. Create a Tree View as that depicted in Figure 2.

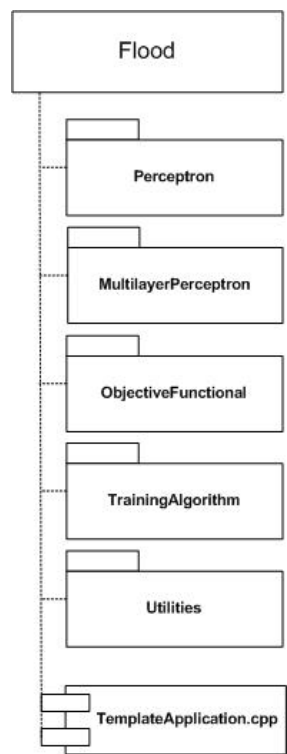5. Add the respective files to each folder from the Flood superfolder.

6. Compile, build and run the application.

Figure 2: General project tree view.