

# Assignment 1

This is the "read me" documentation for assignment 1. It explains how to execute the three systems and contains a guide to the organization of source code.

## How to execute the systems

*In short*

On Windows(x64):

```
Double click the A1UI.exe inside the distribution folder
```

On OS X:

```
chmod +x distribution/runSystem*.sh
./distribution/runSystemA.sh
./distribution/runSystemB.sh
./distribution/runSystemC.sh
```

*In detail*

The three systems (system A, B and C) are already built and are placed in the **distribution** folder. See **systemA.jar**, **systemB.jar** and **systemC.jar**. All three files are executable java jars that would expect one argument when you run it: the absolute file path of the **distribution** folder. The folder contains the input files (already there) and will be used to output the result.

In addition, to avoid run time issues, the **distribution** folder also contains Java runtimes for **Mac OS X** and **Windows (x64)**.

Assuming **\$P** is the file path to the distribution folder. To run the system manually on Windows (x64):

```
distribution/jre/Windows/bin/java.exe -jar distribution/systemA.jar $P
distribution/jre/Windows/bin/java.exe -jar distribution/systemB.jar $P
distribution/jre/Windows/bin/java.exe -jar distribution/systemC.jar $P
```

To run the system manually on Mac OS X:

```
distribution/jre/osx/Contents/Home/bin/java -jar distribution/systemA.jar $P
distribution/jre/osx/Contents/Home/bin/java -jar distribution/systemB.jar $P
distribution/jre/osx/Contents/Home/bin/java -jar distribution/systemC.jar $P
```

## Guide to source code

The source code are separated into four folders: **common**, **systemA**, **systemB** and **systemC**.

- **common** contains the filter framework, shared filters and utilities.
- **systemA** contains filter and plumber specific to system A.
- **systemB** contains filter and plumber specific to system B.

- `systemC` contains filter and plumber specific to system C.

For each folder, source code are located under `src/main/java`.

The main class for system A, B and C are:

- `systemA/src/main/java/system/SystemAPlumber.java`
- `systemB/src/main/java/system/SystemBPlumber.java`
- `systemC/src/main/java/system/SystemCPlumber.java`

To get started, the filter frameworks are located in `common/src/main/java/framework` folder.