Installation Guide
SciCumulus/C^2

This documents aims to present the installation process to execute SciCumulus/C^2. The steps in this process are characterized by program installations.

1. Java Platform

The executable file of SciCumulus/C^2 is a jar file generated after we compile our project. In this way, it is necessary to install a Java Platform in your machine to execute SciCumulus/C^2. In this way, the Java Runtime Environment (JRE) can be installed accessing the Oracle site (http://www.oracle.com/technetwork/java/javase/downloads/index.html) and downloading a version of this program.

After you installed the Java Platform, it is necessary to check the Java installation. To do that, you should open your terminal or prompt and enter the following command line:

```
java --version
```

Then, you should see an output such that:

```
java version "1.7.0_07"
Java(TM) SE Runtime Environment (build 1.7.0_07-b10)
Java HotSpot(TM) 64-Bit Server VM (build 23.3-b01, mixed mode)
```

If it does not work, it is necessary to configure a system variable in your machine. This system variable is defined as *JAVA_HOME* with value equals to JRE installation directory (with binary subdirectory). Furthermore, this defined system variable needs to be added in your Path system variable. The Figure 1 shows a screenshot with this set of operations.

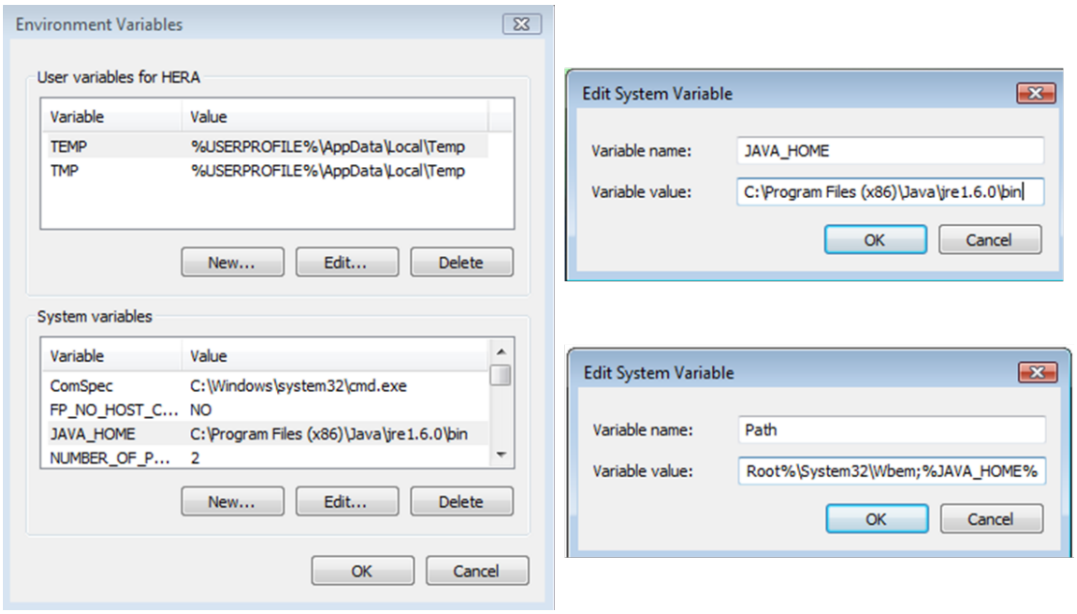

Figure 1. Configuration of system variable

2. PostgreSQL Relational Database System

To correctly execute SciCumulus/C^2, it is also necessary to install PostgreSQL database. This tool is a specific Database Management System (DBMS) that can be downloaded and installed accordingly to PostgreSQL site (http://www.postgresql.org/download/).

After we have installed PostgreSQL database, it is necessary to connect to default server (*localhost*) and create a database (in our example, our database will be called *scc* and the user is *postgres*) as showed in Figure 2.

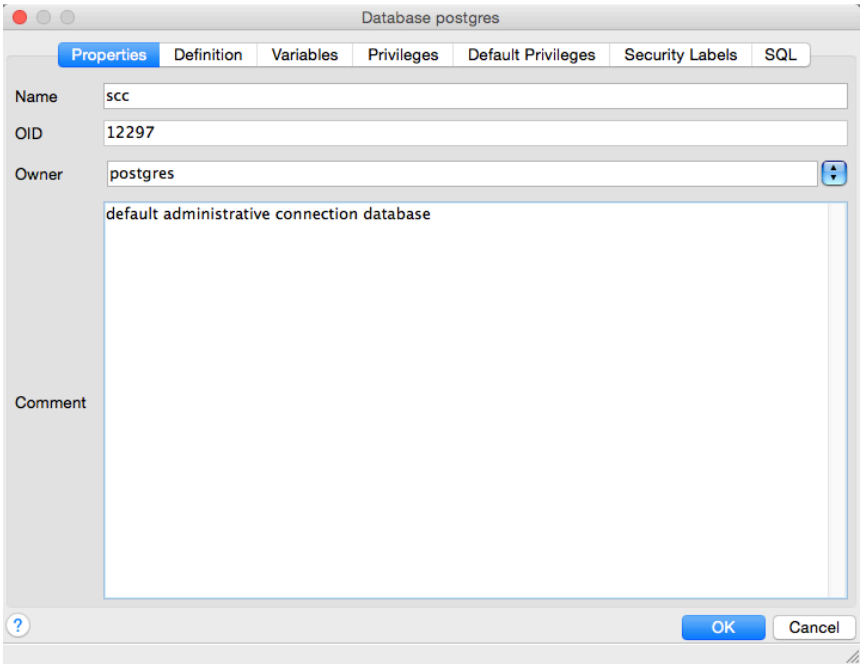

Figure 2. Database properties on PostgreSQL

Also, the next step is responsible to execute an SQL script, which will create a SCC schema database. To execute an SQL script on PostgreSQL, we need to click in SQL icon (Figure 3), open a SQL file with our schema generation script and execute (clicking in play icon). The SQL script to configure SciCumulus/C^2 database can be obtained in this portal.

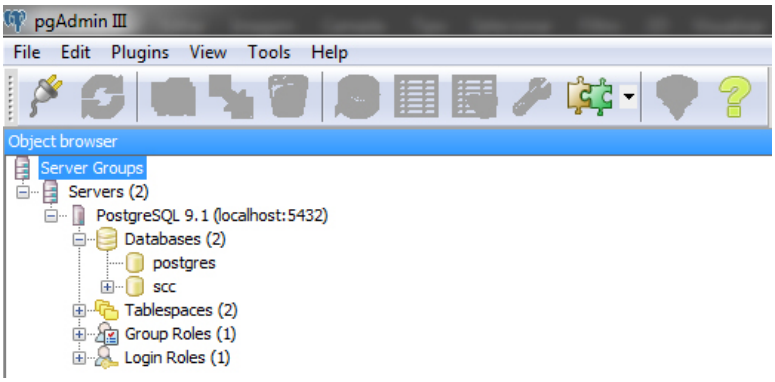

Figure 3. SciCumulus/C^2 database created on PostgreSQL

3. MPJ

This final step is important to improve the parallel performance, when SciCumulus/C^2 s executed. The MPJ is a message passing library, which manipulates files and executes applications using multicore processors. Also, the MPJ installation process can be followed in http://mpj-express.org/readme.html.