Installation of Apache OpenMeetings 3.0.x on Mac El Capitan OS X

It is tested with positive result. We will use the Apache's binary version OpenMeetings 3.0.7 stable, that is to say will suppress his compilation. It is done step by step.

25-3-2016

Starting.…

1)

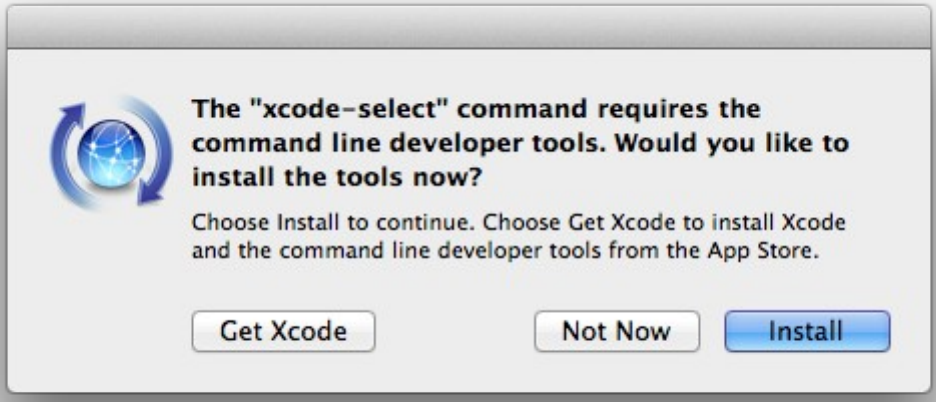
--------- Installation of Command line developer tools ----------

Should install in first place the developer tools, that will help us to compile the sources.

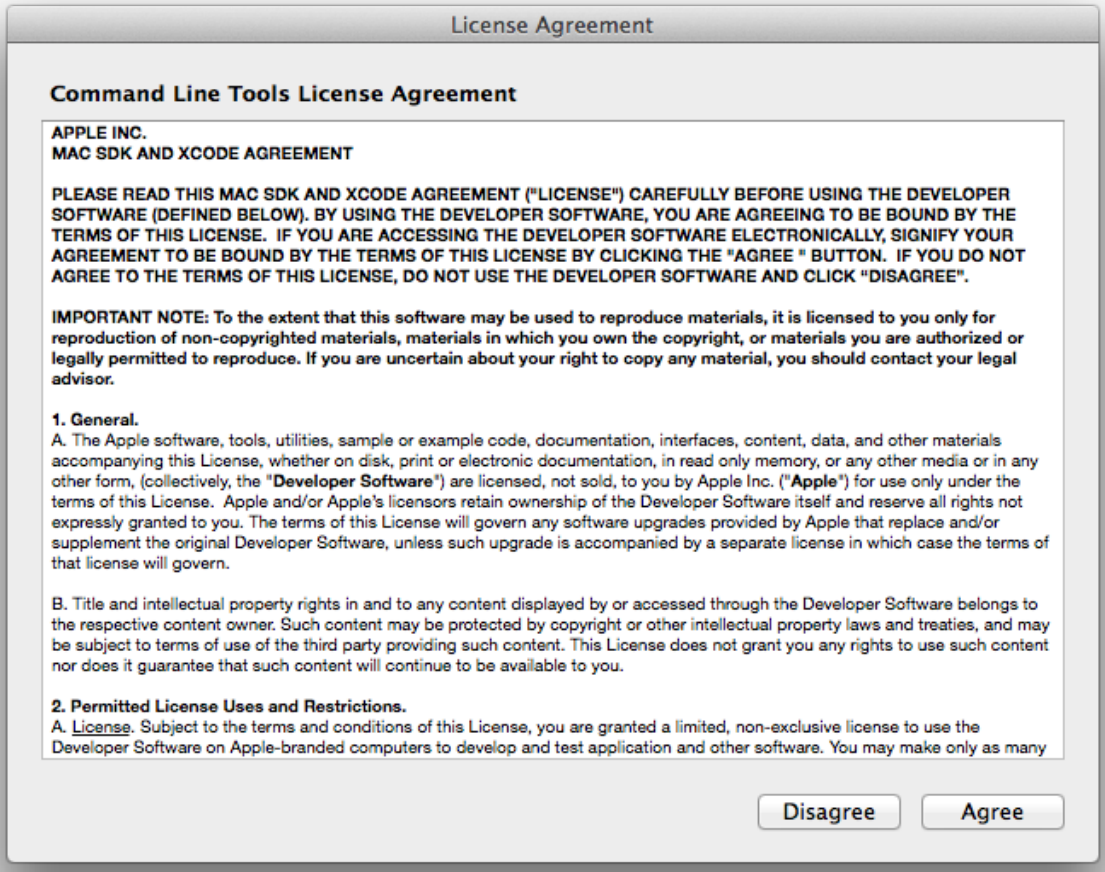
Run the shell as administrator, not as root, and install:

xcode-select --install

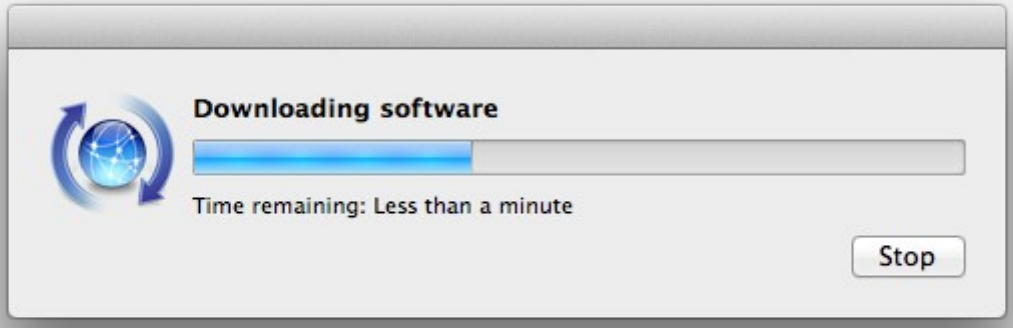
...will open a window informing:



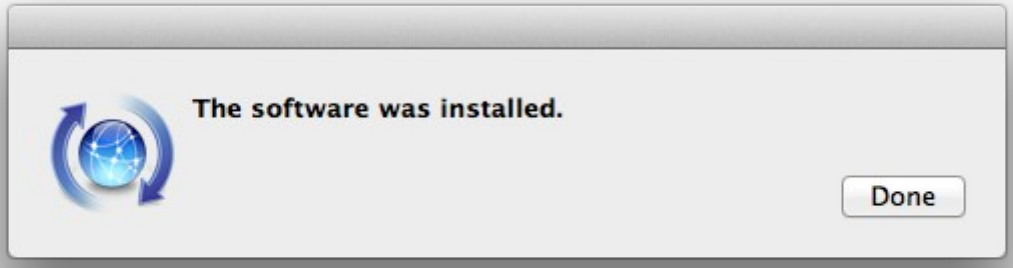
clic **Install** button only, and will open other window. clic **Agree** button



...and will download and install the software



...telling when it finished



...clic **Done**.

2)

--------- Installation of Homebrew ---------

Homebrew install software. It is on Mac the same that apt-get on Debian and yum on Centos or Fedora, for example. Should install it:

ruby -e "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/master/install)"

brew doctor

...and update:

brew update

3)

--------- Installation of need it software ---------

Will install wget to download files, and ghostscript:

brew install wget ghostscript nmap

4)

--------- Installation of Oracle Java ----------

Java is need it to work with Apache OpenMeetings. Will install Oracle Java 1.8:

Please visit:

http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html?ssSourceSiteId=otnes

...clic on:

Agree and proceed

...check:

Accept License Agreement

...and download the file called:

jdk-8u74-macosx-x64.dmg

Once unloaded the file, double clic on it and follow the installation process by default.

5)

--------- Installation of OpenOffice ---------

OpenOffice is need it to convert the office files uploaded to pdf.

To download please visit:

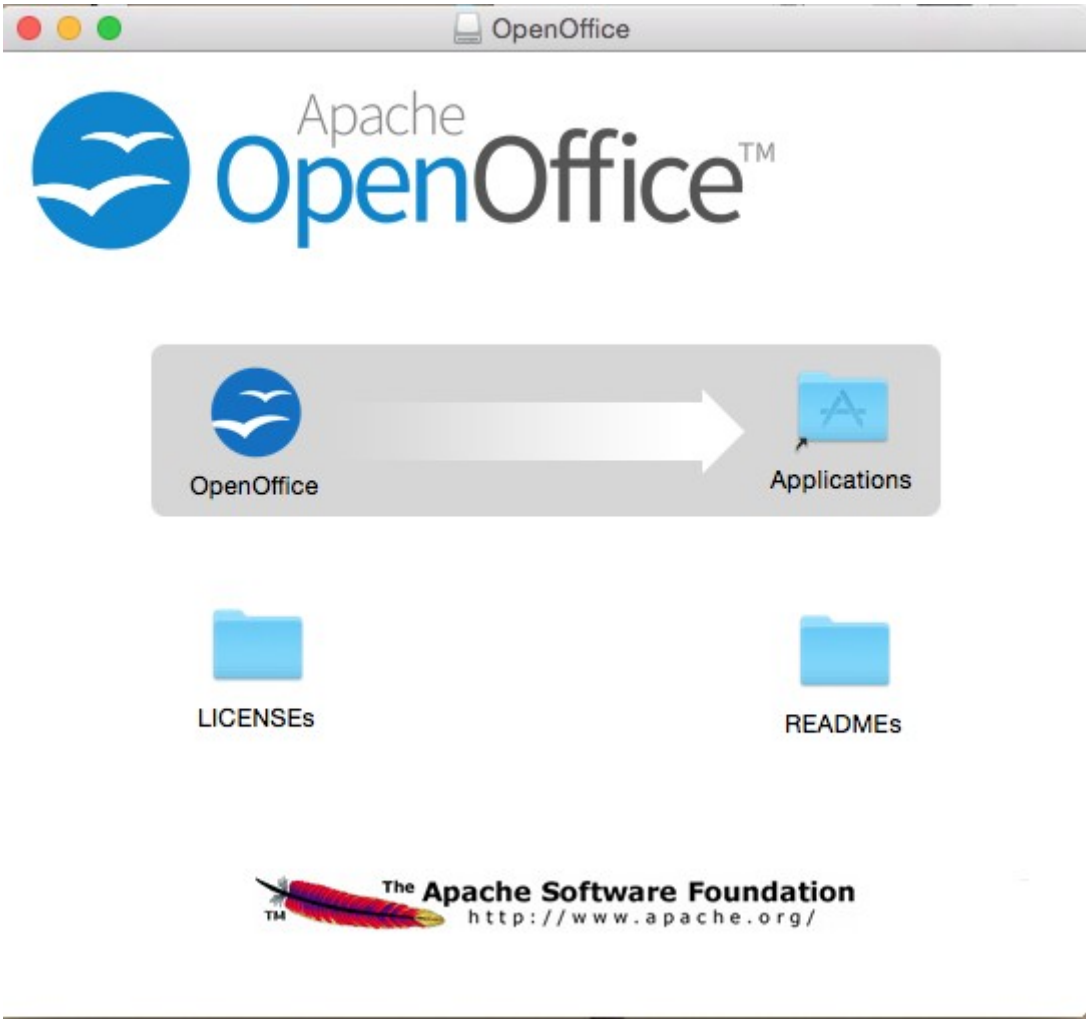
http://www.openoffice.org/download/

...select and download:

OS X (version >= 10-7) (DMG) language 4.1.2

Download full installation

Do double clic on the unloaded file: **Apache_OpenOffice_4.1.2_MacOS_x86-64_install**.... and will open this window:



...please, drag **OpenOffice** icon to right, to **Applications** folder icon.

6)

--------- Installation of ImageMagick, Sox, Swftools and Vlc ---------

ImageMagick work with the image files as png, jpg, gif, etc.

Sox work about sound.

brew install imagemagick sox

ImageMagick and Sox will be installed in: /usr/local/bin

Swftools convert images and pdf files to flash files (swf). These flash files will be showing in the whiteboard, for example. Download from here:

https://flexpaper-desktop-publisher.googlecode.com/files/swftools-0.9.2-1-osx10.6.dmg

...clic on swftools-0.9.2-1-osx10.6.dmg file unloaded and install by default.

Swftools will be installed in: /opt/local/bin

Vlc is the player for the video files we´ll recording.

brew install Caskroom/cask/vlc

7)

--------- FFMPEG compilation ---------

Ffmpeg work about video.We´ll compile it. For it base on a script, an excellent work of Hunter at this url:

http://hunterford.me/compiling-ffmpeg-on-mac-os-x/

...as it is doesn´t works with OpenMeetings. Then i have modificated the script and now it works rightly. Also is updated to 22-3-2016. Should install some paquets before to run it:

brew install mercurial cmake

The script will download, compile and install ffmpeg automatically.

Please, download it from here, the instructions to run it are inside the zip:

https://cwiki.apache.org/confluence/download/attachments/27838216/ffmpeg_compile_El_Capitan_OSX.zip?version=2&modificationDate=1458905206761&api=v2

...run it and after the compilation is finished you can go to **step 8)**

But if you prefere copy and paste, i **do not advise**, leave the text script.
Please respect the spaces between the text blocks when copy. Will ask for password during installation, attention!

nano /Users/**you-user**/ffmpeg-mac.sh

...modify …/**you-user**/... by your real user name.

Copy **from here**:

```
# Create a temporary directory for sources.
SOURCES=$(mktemp -d /tmp/hola)
cd $SOURCES

# Download the necessary sources.
curl -#LO http://sourceforge.net/projects/opencore-amr/files/fdk-aac/fdk-aac-0.1.4.tar.gz
curl -#LO http://downloads.sourceforge.net/project/lame/lame/3.99/lame-3.99.5.tar.gz
curl -#LO http://downloads.xiph.org/releases/ogg/libogg-1.3.2.tar.gz
curl -#LO http://pkg-config.freedesktop.org/releases/pkg-config-0.29.tar.gz
curl -#LO http://downloads.xiph.org/releases/vorbis/libvorbis-1.3.5.tar.gz
curl -#LO http://downloads.xiph.org/releases/theora/libtheora-1.1.1.tar.bz2
# curl -#LO http://downloads.sourceforge.net/project/opencore-amr/vo-amrwbenc/vo-amrwbenc-0.1.1.tar.gz
curl -#LO http://www.tortall.net/projects/yasm/releases/yasm-1.3.0.tar.gz
curl -#LO http://storage.googleapis.com/downloads.webmproject.org/releases/webm/libvpx-1.5.0.tar.bz2
curl -#LO ftp://ftp.videolan.org/pub/x264/snapshots/last_stable_x264.tar.bz2
hg clone https://bitbucket.org/multicoreware/x265
curl -#LO http://downloads.xvid.org/downloads/xvidcore-1.3.4.tar.gz
# curl -#LG -d "p=ffmpeg.git;a=snapshot;h=HEAD;sf=tgz" -o ffmpeg.tar.gz http://git.videolan.org/
curl -#LO http://ffmpeg.org/releases/ffmpeg-3.0.tar.bz2

# Unpack files
for file in `ls ${SOURCES}/*.tar.*`; do
   tar -xzf $file
   rm $file
done

cd fdk-aac-*/
CFLAGS="-D__unix__" ./configure && make -j 4 && sudo make install; cd ..

cd lame-*/
./configure && make -j 4 && sudo make install; cd ..

cd libogg-*/
./configure && make -j 4 && sudo make install; cd ..

cd pkg-config-*/
./configure && make -j 4 && sudo make install; cd ..
```

```
cd libvorbis-*/
./configure --disable-oggtest --build=x86_64 && make -j 4 && sudo make install; cd ..

cd libtheora-*/
./configure --disable-oggtest --disable-vorbistest --disable-examples --disable-asm
make -j 4 && sudo make install; cd ..

# cd vo-amrwbenc-*/

# ./configure && make -j 4 && sudo make install; cd ..

cd yasm-*/
./configure && make -j 4 && sudo make install; cd ..

cd libvpx-*/
./configure --enable-vp8 --enable-pic && make -j 4 && sudo make install; cd ..

cd x264-*
CFLAGS="-I. -fno-common -read_only_relocs suppress" ./configure --enable-pic --enable-shared
&& make -j 4 && sudo make install; cd ..

cd x265/build/linux
cmake -G "Unix Makefiles" -DENABLE_SHARED:bool=off ../../source && make && make
install; cd /tmp/hola

cd xvidcore/build/generic
./configure --disable-assembly && make -j 4 && sudo make install; cd ../../..

# For Lion, we have to change which compiler to use (--cc=clang).
# If you're building on Snow Leopard, you can omit this flag so it defaults to gcc.
cd ffmpeg-*/
CFLAGS="-DHAVE_LRINTF" ./configure --pkg-config-flags="--static" --enable-nonfree
--enable-gpl --enable-version3 --enable-postproc --enable-swscale --enable-avfilter --enable-
libmp3lame --enable-libvorbis --enable-libtheora --enable-libfreetype --enable-libfdk-aac --enable-
libxvid --enable-libx264 --enable-libx265 --enable-libvpx --enable-hardcoded-tables --enable-
shared --enable-pthreads --disable-indevs --cc=clang && make -j 4 && sudo make install

# --enable-libvo-amrwbenc

# FFMpeg creates MP4s that have the metadata at the end of the file.
# This tool moves it to the beginning.
cd tools
gcc -D_LARGEFILE_SOURCE qt-faststart.c -o qt-faststart
sudo mv qt-faststart /usr/local/bin
```

….to here.

Once copied and pasted, clic **Ctrl+X** and will ask to save, clic **Y** and after this clic **Return** (Enter**)** to exit. Concede execution permission:

```
chmod +x /Users/you-user/ffmpeg-mac.sh
```

...remember modify …/**you-user**/....by your real user name

...and execute the script to download, compile and intall ffmpeg:

cd /Users/**you-user**

./ffmpeg-mac.sh

...be patience and wait untill is finished. Some times will look it is stoped...don´t touch anything and wait. Once finished, the installed files are in **/usr/local/bin**

8)

--------- Installation of Adobe Flash Player ---------

Flash Player even is need it for rooms. Download and install it:

http://fpdownload.macromedia.com/pub/flashplayer/latest/help/install_flash_player_osx.dmg

...clic on the install_flash_player_osx.dmg file and install it by default.

9)

--------- Installation of Jodconverter ---------

Jodconverter work to convert uploaded files. (Remember modify you-user by your real user name).

cd /Users/**you-user**

wget http://jodconverter.googlecode.com/files/jodconverter-core-3.0-beta-4-dist.zip

unzip jodconverter-core-3.0-beta-4-dist.zip

10)

--------- Installation of MySQL ---------

We´ll use MySQL as data server. Install it:

brew install mysql

if you get this error: **Error: The `brew link` step did not complete successfully,** do this:

sudo chown -R $(whoami) /usr/local

brew link mysql

...if is not that error then don´t do it.

Once finished, run MySQL:

mysql.server start

...and give a password to root of MySQL:

mysql -u root mysql

This command to give a root password to MySQL, is for 5.7.6 version and later.

...modify your_new_password by the password you like it:

mysql> ALTER USER 'root'@'localhost' IDENTIFIED BY 'your_new_password';

mysql> flush privileges;

...and out:

mysql> quit

11)

--------- Make a data-base for OpenMeetings ---------

Should make a data.base for OpenMeetings.

Run MySQL if not:

mysql.server start

...accede:

mysql -u root -p

...will ask for the password just we made it, and now we´ll make our data-base:

mysql> CREATE DATABASE open311 DEFAULT CHARACTER SET 'utf8';

...also we make an user with a password for this data-base:

(One line only with a space between both)

mysql> GRANT ALL PRIVILEGES ON open311.* TO 'hola'@'localhost'
IDENTIFIED BY '123456' WITH GRANT OPTION;

mysq> quit

- open311 …….. is the data-base name
- hola …..... is the name of the user for this data-base
- 123456 …….. is the password of hola user.

If you like it can modify these data, but remember it! Will need it later.

12)

--------- Installation of OpenMeetings ---------

Well, we are at the installation of OpenMeetings. We´ll do it in: (Remember modify you-user)

/Users/**you-user**/red5311

...then make the folder:

mkdir /Users/**you-user**/red5311

...remember always modify …/**you-user**/... by your real user name.

Download Apache-OpenMeetings file to the installation folder:

cd /Users/**you-user**/red5311

wget http://apache.rediris.es/openmeetings/3.1.1/bin/apache-openmeetings-3.1.1.zip

unzip apache-openmeetings-3.1.1.zip

...save the unloaded file moving it to your home:

mv apache-openmeetings-3.1.1.zip /Users/**you-user**

Download and install the connector file between OpenMeetings and MySQL:

cd /Users/**you-user**

wget http://repo1.maven.org/maven2/mysql/mysql-connector-java/5.1.38/mysql-connector-java-5.1.38.jar

...and copy it to his place:

(In only one line with a space between both)

cp /Users/**you-user**/mysql-connector-java-5.1.38.jar /Users/**you-user**/red5311/webapps/openmeetings/WEB-INF/lib

13)

--------- Configuration of the data-base on OpenMeetings ---------

We´ll configure the file that do connect OpenMeetings with MySQL.

(In only one line without space between both)

nano /Users/**you-user**/red5311/webapps/openmeetings/WEB-INF/classes/META-INF/mysql_persistence.xml

.Modify the **line 72**

, Url=jdbc:mysql://localhost:3306/openmeetings

...to

, Url=jdbc:mysql://localhost:3306/open311

...is the name of our data-base we made it.

Modify the **line 77**

, Username=root

...to

, Username=hola

...is the user name we made for our data-base.

Modify the **line 78**

, Password=" />

...to

, Password=123456" />

...is the password we made for the user called “hola”.

If you have choose any other name for the user, password or data-base, here is where to type it.

clic **Ctrl+X**, will ask to save, clic **Y** and to exit clic **Retutn** (Enter.)

Now, protect the file:

(In only one line without space between both)

chmod 640 /Users/**you-user**/red5311/webapps/openmeetings/WEB-INF/classes/META-INF/mysql_persistence.xml

...remember modify **…/you-user/...**by your real user name.

14)

--------- Script to run red5-OpenMeetings ---------

I suppress to leave here the text script because copy and paste will give errors.
So please download the script to run-stop red5-OpenMeetings.

cd /Users/you-user

(In only one line without a space)

wget https://cwiki.apache.org/confluence/download/attachments/27838216/red5-mac?version=3&modificationDate=1458903758519&api=v2

...once is unloaded press **Ctrl+c**

Rename the script:

mv red5-mac?version=3 red5-mac

It is necessary to modify something inside the script. We edit it and type your real user name:

nano /Users/you-user/red5-mac

...the line:

export RED5_HOME=/Users/you-user/red5311

...press **Ctrl+x** will ask to save, press **Y** and **Return** (Enter)

sudo su

cp /Users/you-user/red5-mac /opt

...concede execution permission:

chmod +x /opt/red5-mac

exit

15)

---------- Run red5-OpenMeetings ----------

Begin with the interface of OpenMeetings.

Run MySQL, if not:

mysql.server start

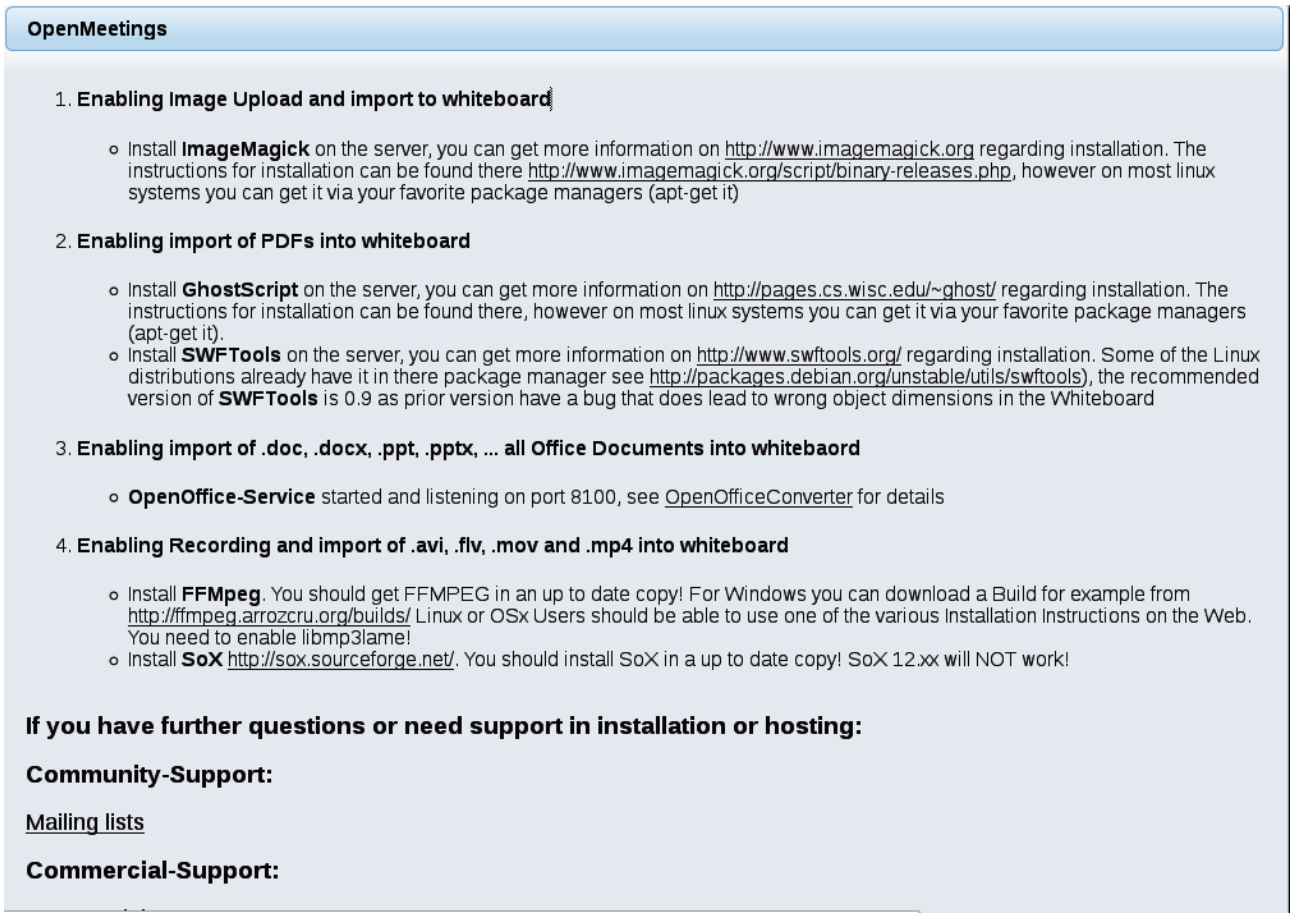
...and run red5-OpenMeetings (maybe in other shell window):

/opt/red5-mac start

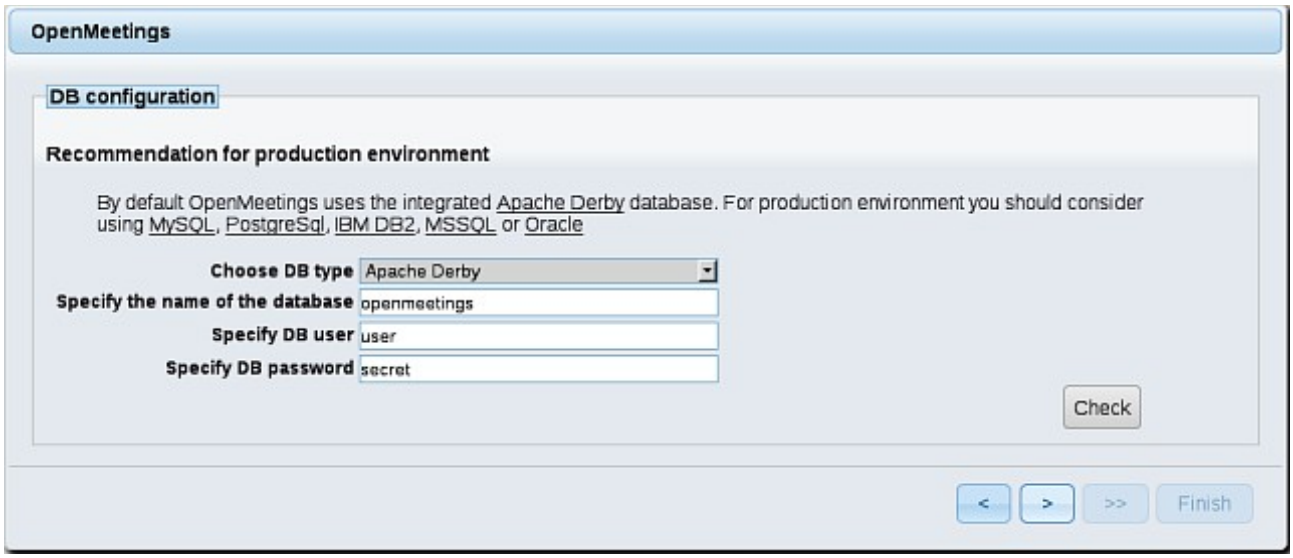
...wait 10 seconds untill is completely running and after this, with the browser go to:

http://localhost:5080/openmeetings/install

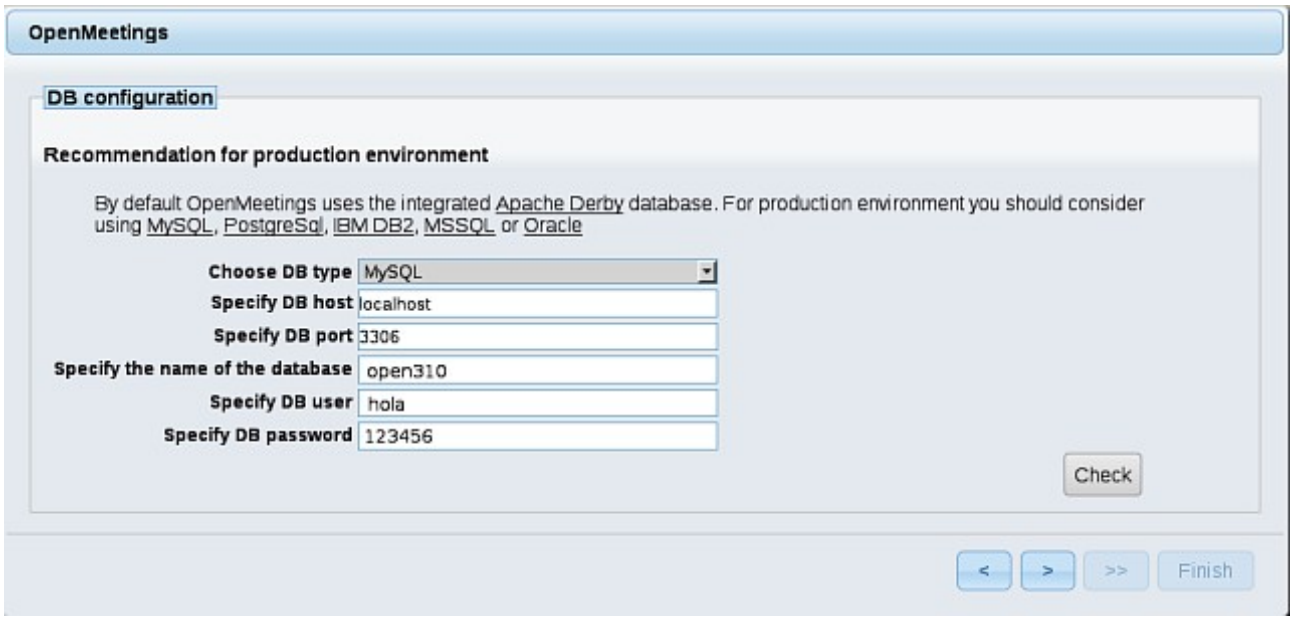
...there will appear a page similar to this one:



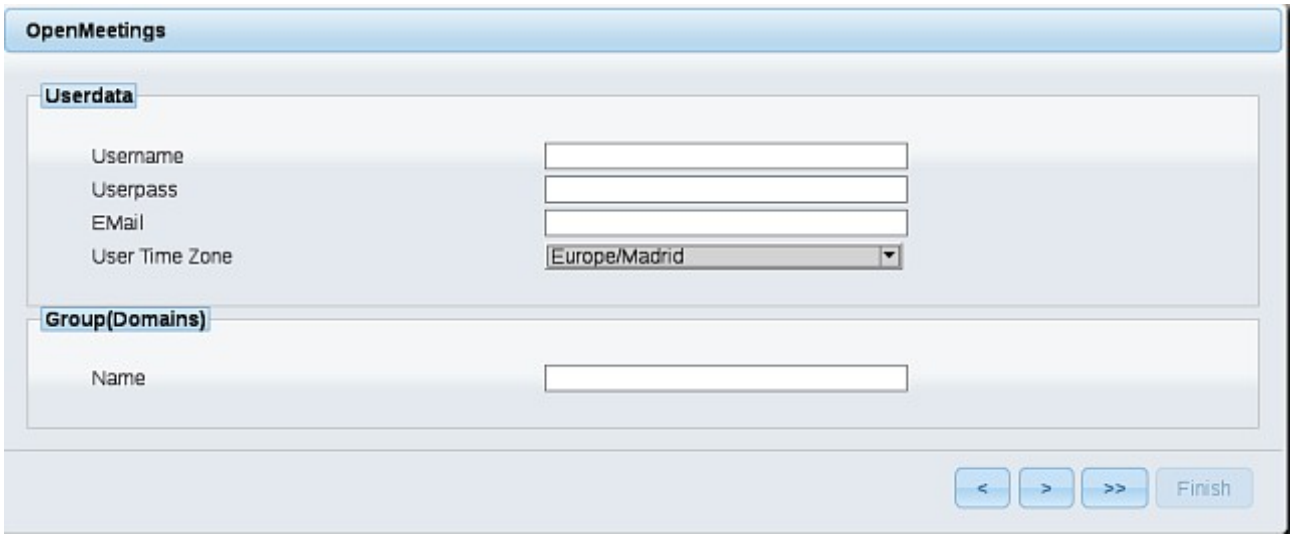
...push on > (bottom), and will show the default database configuration with Derby, but we should use MySQL (MariaDB):



...then, scroll and **Choose DB type** to MySQL:



...will show the data base configuration we made in step 13, or with your own modifications. Please, push > button, and will go to:



Now we must introduce the followings data:

Username = a-name ...this user will be administrator.

Userpass = password ...for the previous user.

Email = email-adress ...of the previous user.

User Time Zone = Country where is this server

Name = example-openmeetings ...group name to choose.

When the installation be finished, should configure the rest.

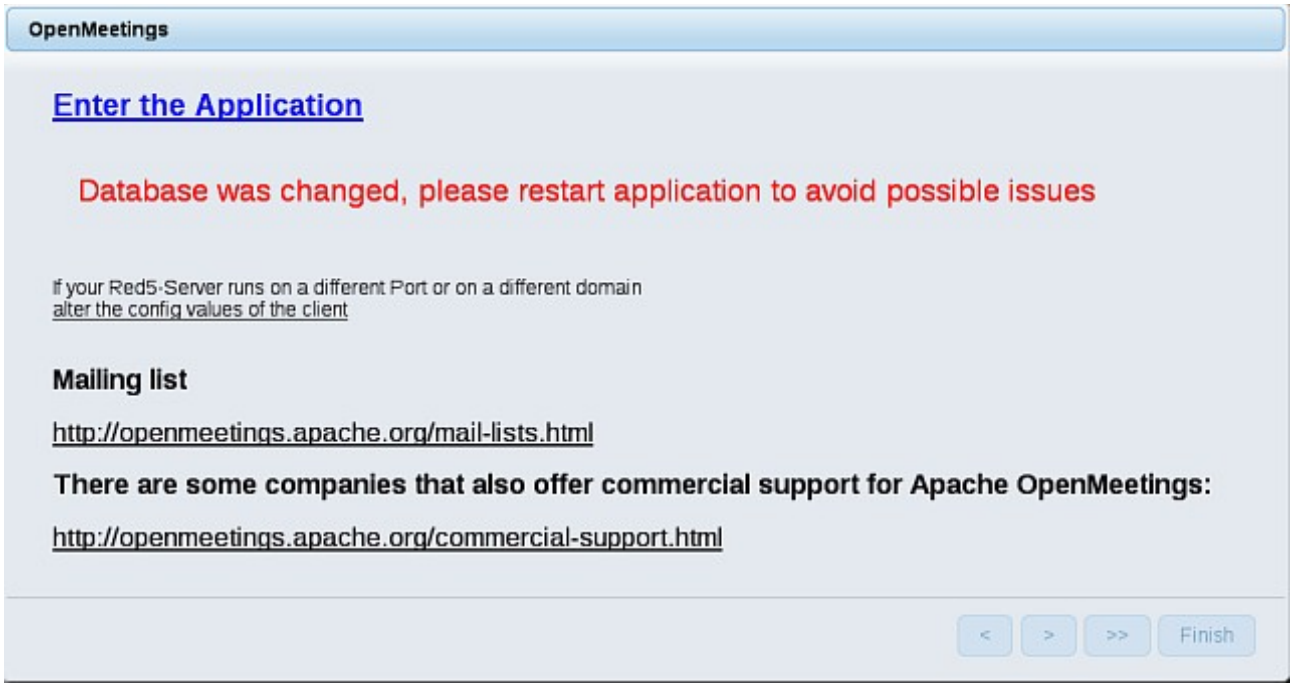
Now go to bottom page and push the button >> (double arrow). Will show this window:

Push **Finish** button ...wait a seconds untill the tables are fill in the database.

When has concluded, this another page will appear. Don´t clic on **Enter the Application**.

First is need it to restart the server. Please, open a new shell window, and run this command:

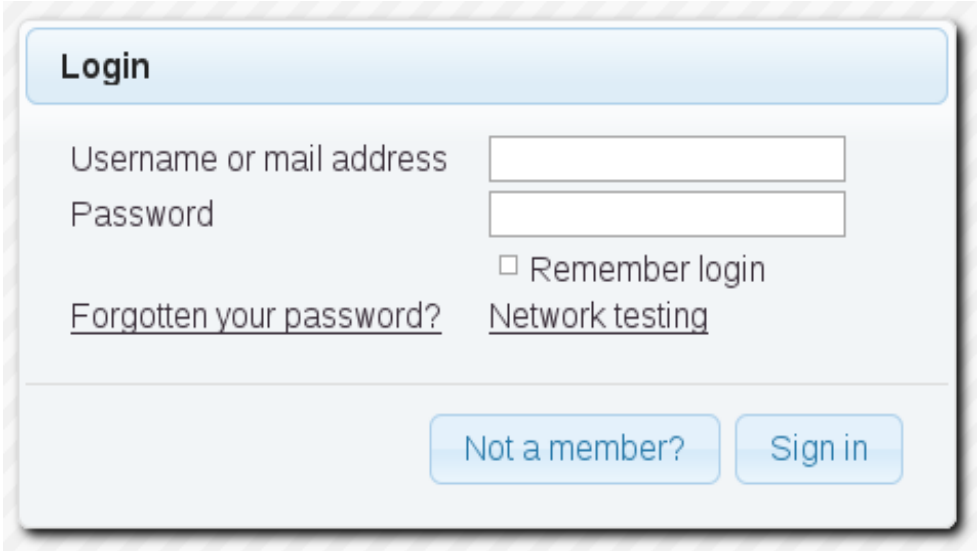
/etc/init.d/red5 restart



Now yes, you can clic on **Enter the Application**, or go with your browser to:

http://localhost:5080/openmeetings

...and will take us to the entry of OpenMeetings:



Introduce the user's name and the password that you have chosen during the installation and...

...**Congratulations!**

The next time that you like to accede to OpenMeetings will be:

http://localhost:5080/openmeetings

Remember to open in the server the two following ports:

5080 1935

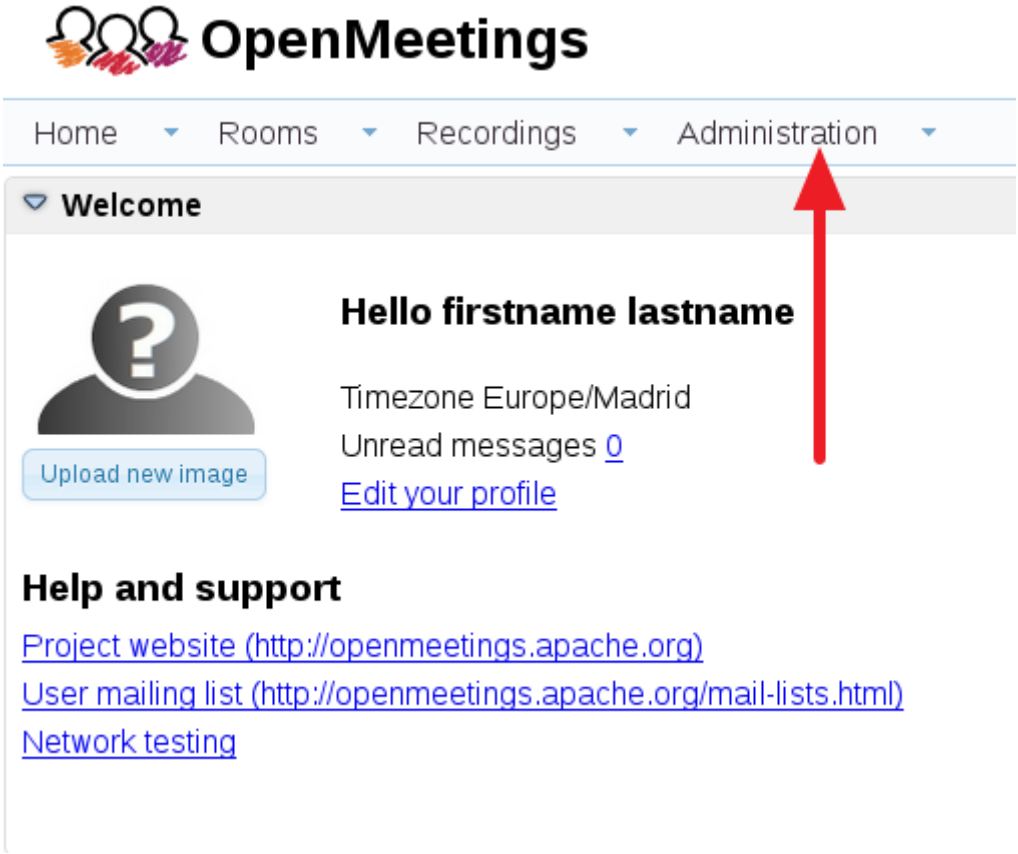
...in order that it could accede to OpenMeetings from other machines, in Lan or Internet.

16)

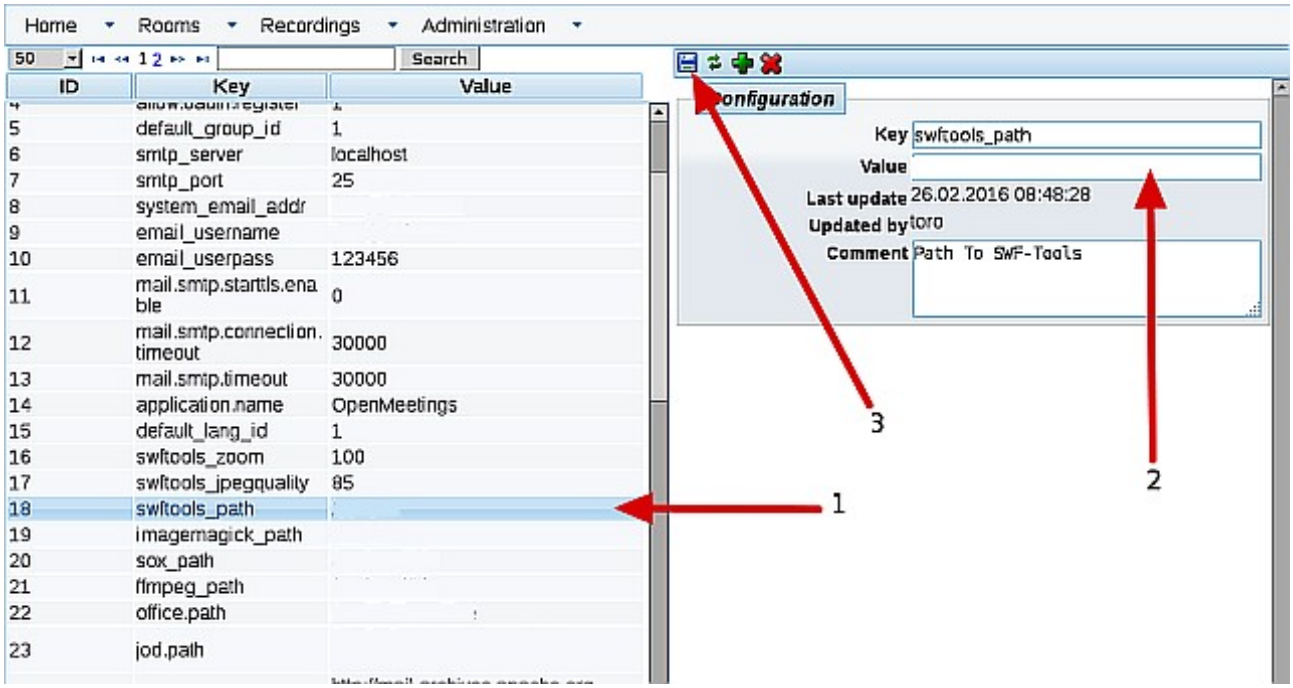
--------- Configuration of OpenMeetings ---------

Once you accede to OpenMeetings, please go to:

Administration → Configuration



...introduce the parameters for the conversion of files, the audio and the video:



Clic on: **swftools_path**...and to right in **Value** type: **/opt/local/bin**

Clic on: **imagemagick_path**...and to right in **Value** type: **/usr/local/bin**

Clic on: **sox_path**...and to right in **Value** type: **/usr/local/bin**

Clic on: **ffmpeg_path**...and to right in **Value** type: **/usr/local/bin**

Clic on: **office.path**...and to right in **Value** type : **/Applications/OpenOffice.app/Contents**

Clic on: **jod.path**...and to right in **Value** type: **/Users/**you-user**/jodconverter-core-3.0-beta-4/lib**
….remember modify …/you-user/... by your real user name :)

Remember save after each change (arrow number **3**, in the up screenshot).

Now there is OpenMeetings ready to work rightly.

And this is all.

If you have some doubt or question, please raise it in the Apache OpenMeetings forums:

http://openmeetings.apache.org/mail-lists.html

Thank you.

Alvaro Bustos