



## **Installation of Apache OpenMeetings 4.0.1 on Windows 10**

This tutorial is made based on a fresh installations of

### **Windows 10 64bit**

It is tested with positive result. We will use the Apache's binary version OpenMeetings 4.0.1 stable, that is to say will suppress his compilation. It is done step by step.

29-12-2017

Starting...

1)

### **----- Installation of Ghostscript and 7-Zip -----**

Download ghostscript and 7-Zip:

<https://github.com/ArtifexSoftware/ghostpdl-downloads/releases/download/gs922/gs922w64.exe>

<http://www.7-zip.org/a/7z1701-x64.exe>

...please, install both programs by default.

2)

### **----- Installation of Oracle Java 1.8 -----**

OpenMeetings **4.0.1** need Java **1.8** to work. So, we install Oracle Java 1.8.

We download it:

<http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html>

...press the button “**Agree**”, touch “**Accept License Agreement**” and download the file called “**jdk-8u151-windows-x64.exe**”.

Please, install it by default.

3)

----- **Installation of LibreOffice** -----

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

We download it:

[https://www.libreoffice.org/donate/dl/win-x86\\_64/5.3.7/af/LibreOffice\\_5.3.7\\_Win\\_x64.msi](https://www.libreoffice.org/donate/dl/win-x86_64/5.3.7/af/LibreOffice_5.3.7_Win_x64.msi)

...and install it by default.

4)

----- **Installation ImageMagick and Sox** -----

**ImageMagick**, will work the image files, png, jpg, gif, etc. We download it:

<http://www.imagemagick.org/download/binaries/ImageMagick-7.0.7-17-portable-Q16-x64.zip>

...uncompress it in C:\. Will look so:

**C:\ImageMagick-7.0.7-17-portable-Q16-x64**

**Sox**, work the sound. We'll download it:

<https://sourceforge.net/projects/sox/files/sox/14.4.2/sox-14.4.2-win32.exe/download>

...and install it by default.

5)

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

OpenMeetings even need Adobe Flash Player for cam and sound. We install it

<http://get.adobe.com/es/flashplayer/>

...unmark “**Optional oferts**”, and press the button “**Install now**”.  
Will download a file that we must install it.

6)

----- **Compilation of FFmpeg** -----

I've based at this url to compile ffmpeg:

<http://www.thingsiuse.org/2014/06/building-ffmpeg-for-h264-and-aac.html>

Make a folder called **ffb** in the root drive C: or your own.

Look so:

C:\ffb

Download the necessary base to compile (71mb size):

[http://xhmikosr.1f0.de/tools/msys/MSYS\\_MinGW-w64\\_GCC\\_710\\_x86-x64\\_Full.7z](http://xhmikosr.1f0.de/tools/msys/MSYS_MinGW-w64_GCC_710_x86-x64_Full.7z)

Uncompress this file, and inside will find a folder called **MSYS**, move it to C:\ffb.

Look so:

C:\ffb\MSYS

...we go there to, and launch **msys.bat** file:

C:\ffb\MSYS\msys.bat

...will open a terminal and will create automatically two folders called **home** and other with the name of the Windows user. Look so:

C:\ffb\MSYS\home\your-user

A)

Download the files and move them to: C:\ffb\MSYS\home\your-user

<https://sourceforge.net/projects/lame/files/lame/3.100/lame-3.100.tar.gz/download>

<https://sourceforge.net/projects/opencore-amr/files/fdk-aac/fdk-aac-0.1.5.tar.gz/download>

<https://download.videolan.org/pub/x264/snapshots/x264-snapshot-20171214-2245.tar.bz2>

<http://ffmpeg.org/releases/ffmpeg-3.4.1.tar.bz2>

...remember move them..

**B)**

Start the compilation. Spend about 30 to 40 minutes.

Launch the file `C:\ffb\MSYS\msys.bat`, *if the terminal is not open*, and copy and paste:

----- **Lame** -----

```
tar xvfz lame-3.100.tar.gz
```

```
cd ~/lame-3.100
```

(Only one line with space between both)

```
./configure --prefix=/usr/local/x86_64-w64-mingw32 --host=x86_64-w64-mingw32 --enable-static  
--disable-shared --disable-decoder --enable-nasm
```

```
make clean && make
```

```
make install
```

```
cd ~
```

----- **Fdk-aac** -----

```
tar xvfz fdk-aac-0.1.5.tar.gz
```

```
cd ~/fdk-aac-0.1.5
```

(Only one line without space between both)

```
./configure --prefix=/usr/local/x86_64-w64-mingw32 --host=x86_64-w64-mingw32 --enable-  
shared=no
```

```
make clean && make
```

```
make install
```

```
cd ~
```

----- **X-264** -----

```
tar xvjf x264-snapshot-20171214-2245.tar.bz2
```

```
cd ~/x264-snapshot-20171214-2245
```

(Only one line with space between both)

```
./configure --prefix=/usr/local/x86_64-w64-mingw32 --cross-prefix=x86_64-w64-mingw32-
--host=x86_64-w64-mingw32 --enable-static --bit-depth=8 --enable-win32thread
```

```
make clean && make
```

```
make install
```

```
cd ~
```

### ----- FFmpeg -----

```
tar xvjf ffmpeg-3.4.1.tar.bz2
```

```
cd ~/ffmpeg-3.4.1
```

(Only one line. The red text is a command. Lines 3 and 4, and 4 and 5 with space)

```
CPPFLAGS="$CPPFLAGS -I/usr/local/x86_64-w64-mingw32/include" ./configure --extra-
ldflags='-L/usr/local/x86_64-w64-mingw32/lib' --prefix=/usr/local/x86_64-w64-mingw32 --cross-
prefix=x86_64-w64-mingw32- --target-os=mingw32 --enable-w32threads --arch=x86_64
--enable-runtime-cpudetect --disable-debug --enable-static --disable-shared --disable-ffplay
--disable-ffserver --enable-gpl --enable-version3 --enable-nonfree --enable-libbmp3lame --enable-
libfdk-aac --enable-libx264
```

```
make clean && make
```

```
make install
```

```
cd ~
```

....the compilation of Ffmpeg is finished.

You can find the compiled files at:

```
C:\ffb\MSYS\local\x86_64-w64-mingw32\bin
```

...these are: **ffmpeg.exe**, **ffprobe.exe**, **lame.exe** and **x264.exe**

Now we make a folder called **ffmpeg** at **C:.** Look so:

```
C:\ffmpeg
```

...and copy the four compiled files to there.

Later we'll configure his path.

7)

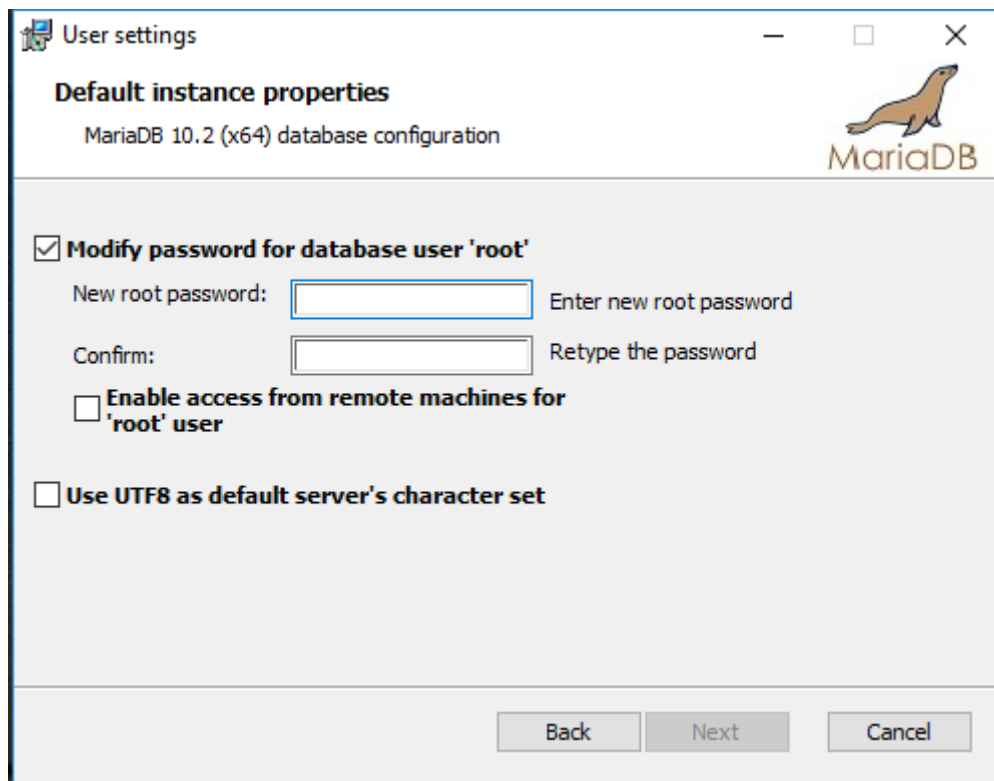
----- Installation of MariaDB data server -----

**MariaDB** is the data server. Will download:

<https://downloads.mariadb.org/interstitial/mariadb-10.2.11/winx64-packages/mariadb-10.2.11-winx64.msi/from/http%3A//tedeco.fi.upm.es/mirror/mariadb/?serve>

...and install the file unloaded “**mariadb-10.2.11-winx64.msi**”.

Install it by default, and will ask for a root MariaDB password, choose one that you like:



When finish, launch the MariaDB terminal:

**Start Menu → MariaDB 10.2 (x64) --> Command Prompt (MariaDB 10.2)**

...make a database with his own user for OpenMeetings:

`mysql -u root -p`

...will ask for the root password that you have just choosen, type it:

MariaDB [(none)]> `CREATE DATABASE open401 DEFAULT CHARACTER SET 'utf8';`

With this command we has created a database called open401.

Now we create an user on this database. User password must be of 8 digits minimum:

(Only one line with space between both)

```
MariaDB [(none)]> GRANT ALL PRIVILEGES ON open401.* TO 'hola'@'localhost'  
IDENTIFIED BY '1a2B3c4D' WITH GRANT OPTION;
```

- \* **open401** .....is the database name.
- \* **hola** .....is the user name for this database.
- \* **1a2B3c4D** ..is the password for this user.

You can change the data...but remember it! Later we'll need it.

Now, we leave MariaDB:

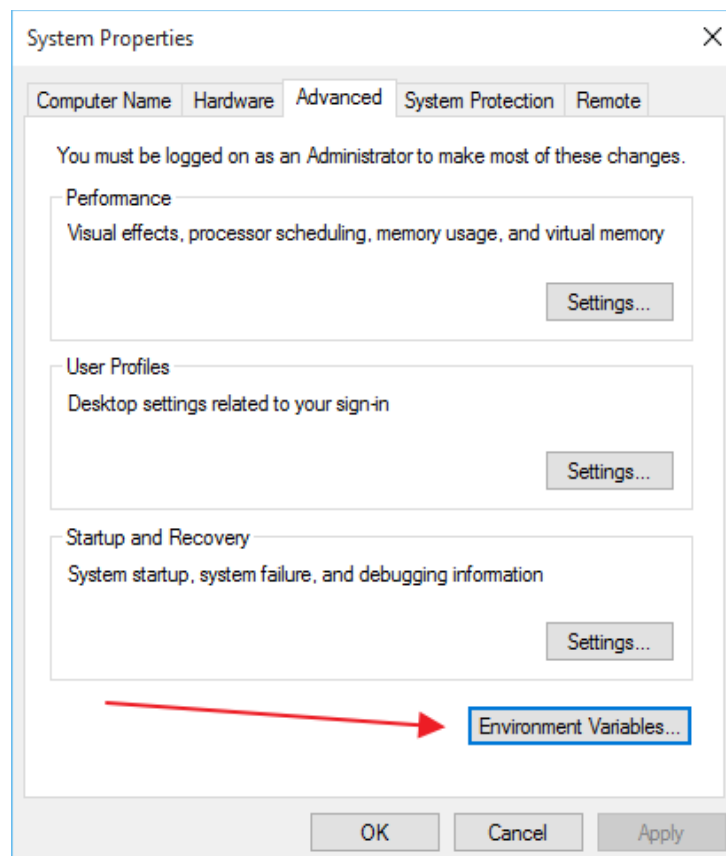
```
MariaDB [(none)]> quit
```

8)

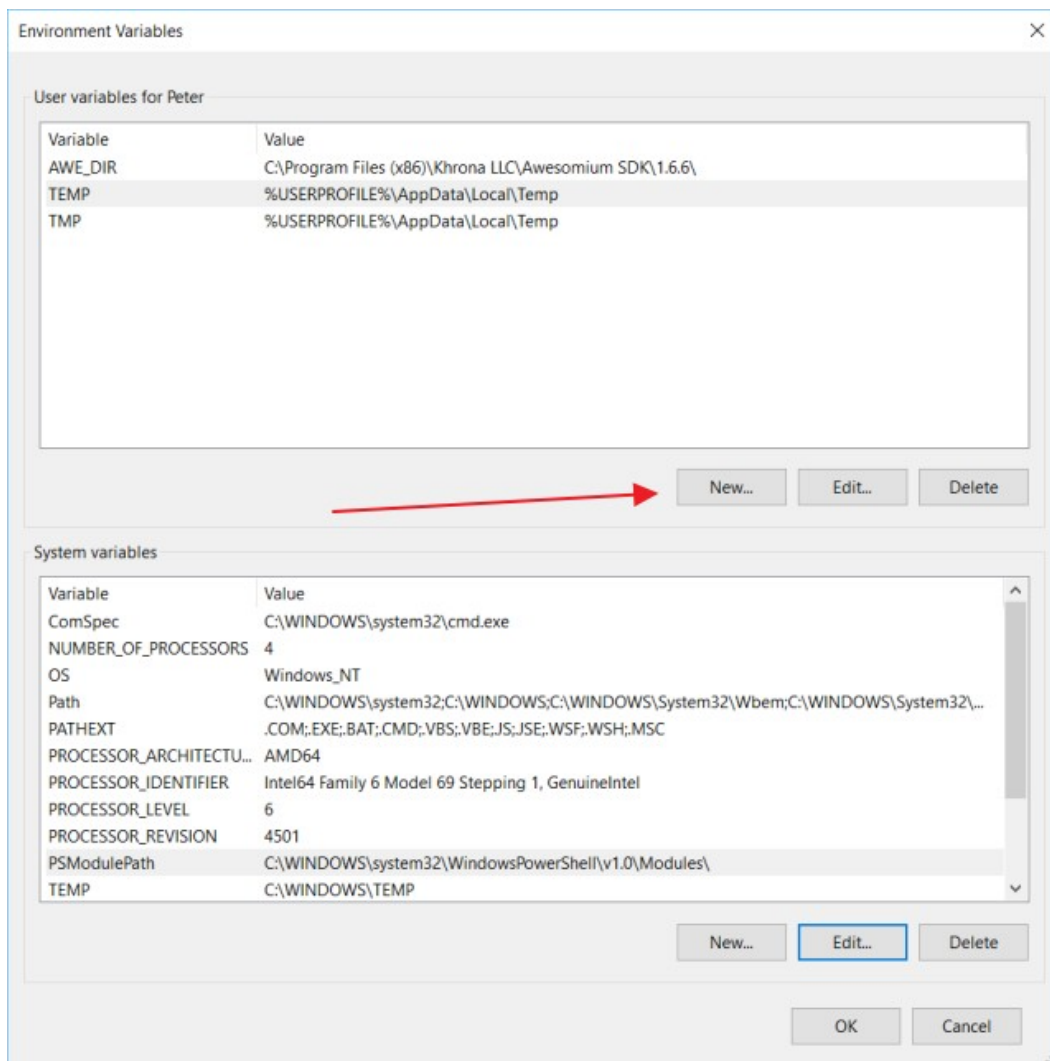
----- **Environment Variables Configuration** -----

Now we configure “Environment Variables”, so Windows will know where find Java and MariaDB

Please go to: **Control Panel** → **System and security** → **System** → **Advanced System Configuration** → **Environment Variables**



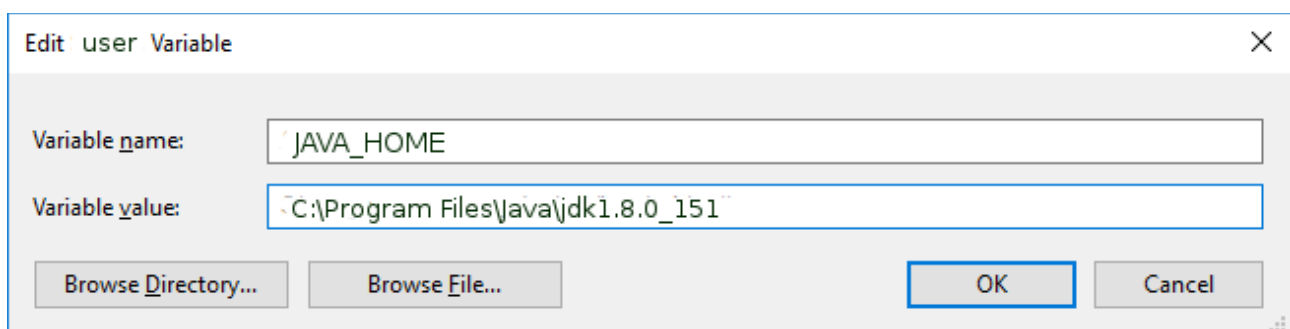
...will show this window:



...press the up button “New” and make a variable:

**Variable name** == JAVA\_HOME

**Variable value** == C:\Program Files\Java\jdk1.8.0\_151



...and press “OK” button.





...press the botton “New” and paste, to left, the **MariaDB** path:

[C:\Program Files\MariaDB 10.2\bin](#)

...press again the botton “New” and paste, to left, the Java path:

[C:\Program Files\Java\jdk1.8.0\\_151\bin](#)

9)

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

Download the red5-OpenMeetings file:

<http://apache.miloslavbrada.cz/openmeetings/4.0.1/bin/apache-openmeetings-4.0.1.zip>

...uncompress it in [C:\](#). Look so:

[C:\apache-openmeetings-4.0.1](#)

...rename it to:

[C:\red5401](#)

Download and install the connector between MariaDB and OpenMeetings:

<http://repo1.maven.org/maven2/mysql/mysql-connector-java/5.1.45/mysql-connector-java-5.1.45.jar>

...and copy-install it to:

[C:\red5401\webapps\openmeetings\WEB-INF\lib](#)

10)

----- **Launch red5-OpenMeetings** -----

Launch MariaDB, if is not. For that press in the keyboard:

**Windows+x --> Execute --> type cmd**

...will open a terminal where we type:

[C:\WINDOWS\system32\services.msc](#)

...will open the **Services** window. Go to **MySQL** (this is our MariaDB), right click on it and click on **Initialize**.

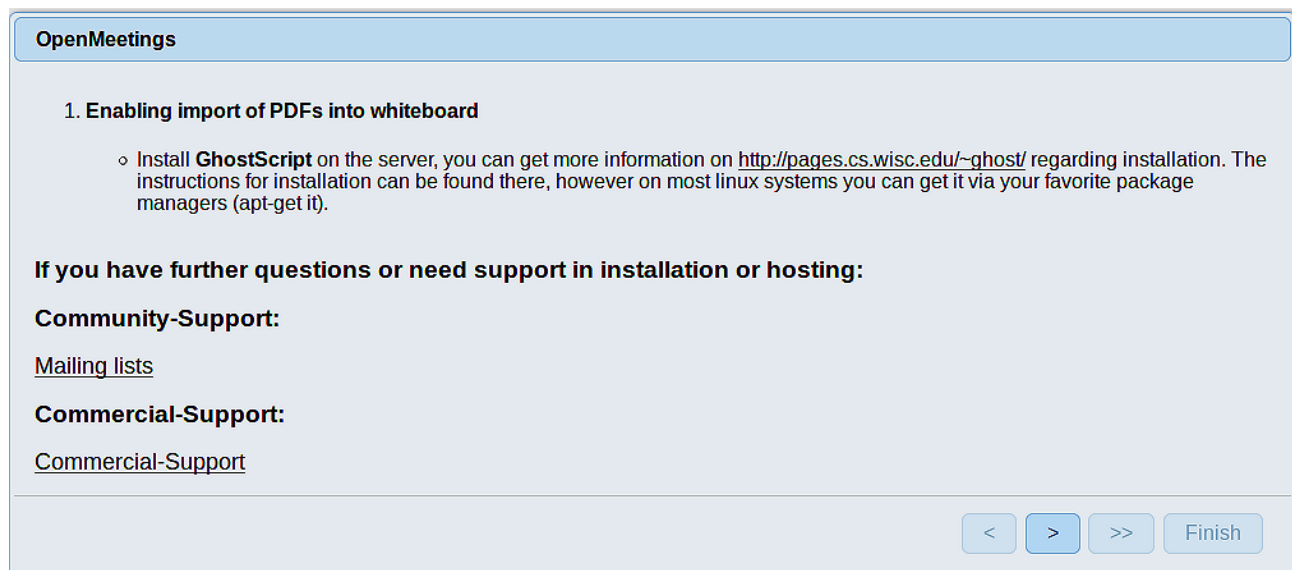
Now we launch red5-OpenMeetings. Please, double click on the file:

[C:\red5401\red5.bat](#)

...wait 40 seconds minimum, till red5 is running completely, later go to:

<http://localhost:5080/openmeetings/install>

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



**OpenMeetings**

**1. Enabling import of PDFs into whiteboard**


- Install **GhostScript** on the server, you can get more information on <http://pages.cs.wisc.edu/~ghost/> regarding installation. The instructions for installation can be found there, however on most linux systems you can get it via your favorite package managers (apt-get it).

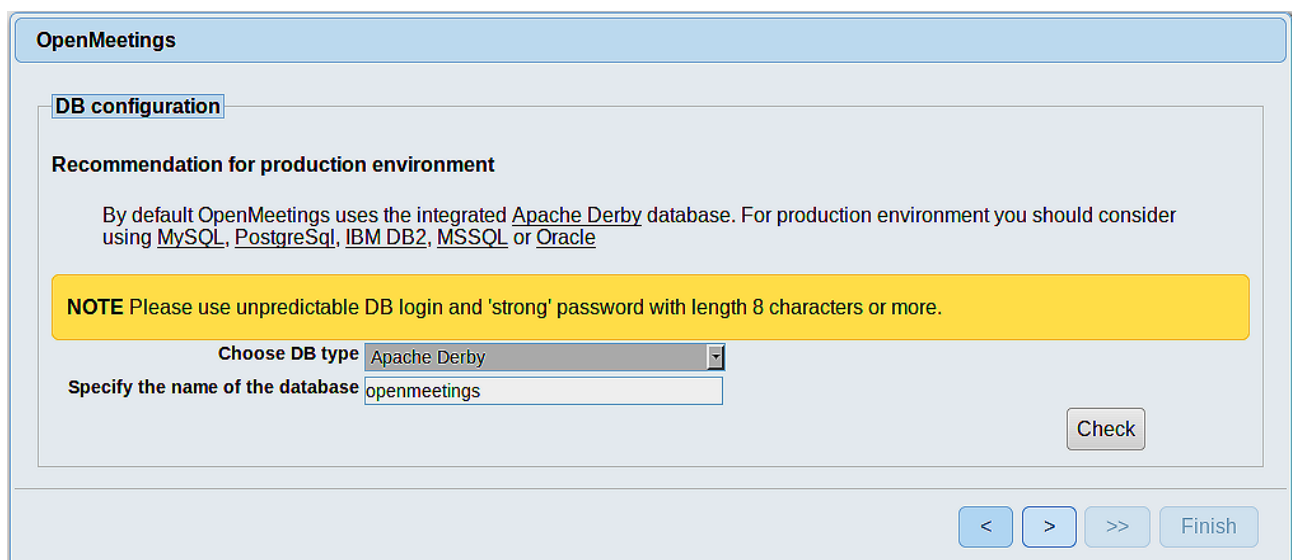
**If you have further questions or need support in installation or hosting:**

**Community-Support:**  
[Mailing lists](#)

**Commercial-Support:**  
[Commercial-Support](#)

< > >> Finish

...press on  button (bottom), and will show the default database configuration with Derby, but we employ MySQL (MariaDB),



**OpenMeetings**

**DB configuration**

**Recommendation for production environment**

By default OpenMeetings uses the integrated [Apache Derby](#) database. For production environment you should consider using [MySQL](#), [PostgreSQL](#), [IBM DB2](#), [MSSQL](#) or [Oracle](#)

**NOTE** Please use unpredictable DB login and 'strong' password with length 8 characters or more.

Choose DB type

Specify the name of the database

Check

< > >> Finish

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

**OpenMeetings**

**DB configuration**

**Recommendation for production environment**

By default OpenMeetings uses the integrated Apache Derby database. For production environment you should consider using MySQL, PostgreSQL, IBM DB2, MSSQL or Oracle

**NOTE** Please use unpredictable DB login and 'strong' password with length 8 characters or more.

Choose DB type: MySQL

Specify DB host: localhost

Specify DB port: 3306

Specify the name of the database: openmeetings

Specify DB user:

Specify DB password:

Check

< > >> Finish

...will show the database name configuration by default.


We must introduce the database name, user name we did for our database, at the step 7, and his password:

**Specify the name of the database** = open401

**Specify DB user** = hola

**Specify DB password** = 1a2B3c4D

...if you choose any other data, type it here.

Please, press  button, and will go to:

**OpenMeetings**

**Userdata**

Username:

Userpass:

EMail:

User Time Zone: Europe/Madrid

**Group(Domains)**

Name:

< > >> Finish

Here, we must introduce a user name for OpenMeetings, and his password. This must have 8 digits minimum, and at least 1 special symbol like: + ( % # ! ...etc.


**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.

Press the button  and will lead us to a new page (below) where you can select the language for your OpenMeetings server, as well as other options such as the configuration of the mail server being used to send invitations or meetings from OpenMeetings:

**OpenMeetings**

**Configuration**

Allow self-registering	<input checked="" type="checkbox"/>
Send Email to new registered Users	<input type="checkbox"/>
New Users need to verify their EMail	<input type="checkbox"/>
Default DB objects of all types will be created (including Rooms, OAuth2 servers etc.)	<input checked="" type="checkbox"/>
Mail-Referer	<input type="text" value="noreply@openmeetings.apache.org"/>
SMTP-Server	<input type="text" value="localhost"/>
SMTP-Server Port(default SmtP-Server Port is 25)	<input type="text" value="25"/>
SMTP-Username	<input type="text"/>
SMTP-Userpass	<input type="text"/>
Enable TLS in Mail Server Auth	<input type="checkbox"/>
Set inviter's email address as ReplyTo in email invitations	<input checked="" type="checkbox"/>
Default Language	<input type="text" value="inglés"/>

A valid example to configure the mail server with Gmail, is as follows:  
(replace **john@gmail.com** with your real Gmail account)

<b>Mail-Refer</b>	==	john@gmail.com
<b>SMTP-Server</b>	==	smtp.gmail.com
<b>SMTP-Server Port (default SmtP-Server Port is 25)</b>	==	587
<b>SMTP-Username</b>	==	john@gmail.com
<b>SMTP-Userpass</b>	==	password of john@gmail.com
<b>Enable TLS in Mail Server Auth</b>	==	...turn green the button to activate
<b>Default Language</b>	==	...select your language

...the rest you can change it as you like.

Now press the button  and a new page will appear:

**OpenMeetings**

**Converters**

Document conversion DPI ⓘ

Document conversion JPEG Quality ⓘ

ImageMagick Path ⓘ

FFMPEG Path ⓘ

SoX Path ⓘ

OpenOffice/LibreOffice Path for jodconverter ⓘ

*see also [Installation](#)*

Here we'll introduce the respective paths for the image, video, audio and conversion of uploaded files:


**ImageMagick Path** == C:\ImageMagick-7.0.7-17-portable-Q16-x64

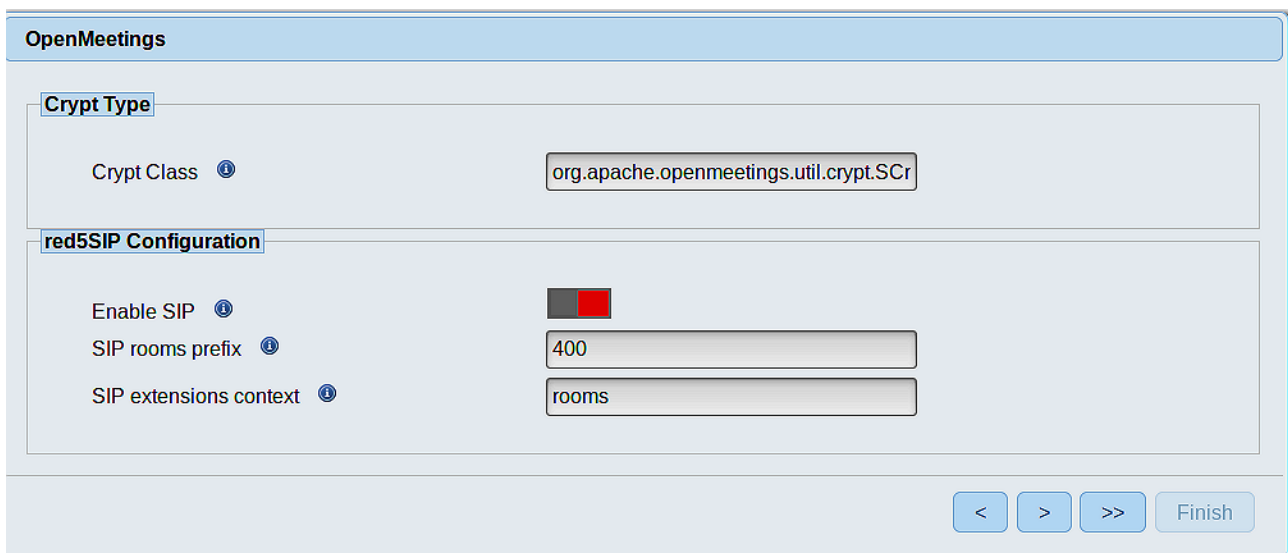
**FFMPEG Path** == C:\ffmpeg

**SOX Path** == C:\Program Files (x86)\sox-14-4-2

**OpenOffice/LibreOffice Path for  
jodconverter** == C:\Program Files\LibreOffice 5

As you go introducing paths, you can check if they are correct by pressing the button labeled **Check**. If it does not display any error message, that is OK.

Once completed the paths, please click the button  and move on to another page that would be to activate the SIP. We will leave it as is, unless you want to activate it knowing what it does:



The screenshot shows the 'OpenMeetings' configuration window. It has a title bar 'OpenMeetings' and a light blue header. Below the header, there are two sections:

- Crypt Type**: A section with a label 'Crypt Class' and a value field containing 'org.apache.openmeetings.util.crypt.SCr'.
- red5SIP Configuration**: A section with three items:
  - 'Enable SIP' with a red and black toggle switch.
  - 'SIP rooms prefix' with a text field containing '400'.
  - 'SIP extensions context' with a text field containing 'rooms'.

At the bottom right of the window, there are four buttons: '<', '>', '>>', and 'Finish'.

Push the button  and will show this window:



The screenshot shows the 'OpenMeetings' configuration window. It has a title bar 'OpenMeetings' and a light blue header. Below the header, there is a message: 'Please click "Finish" button to start installation!'. Below the message is a large empty text field. At the bottom right of the window, there are four buttons: '<', '>', '>>', and 'Finish'.

Press **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.

For that, click on the terminal where we launch red5-OpenMeetings, and press in the keyboard:

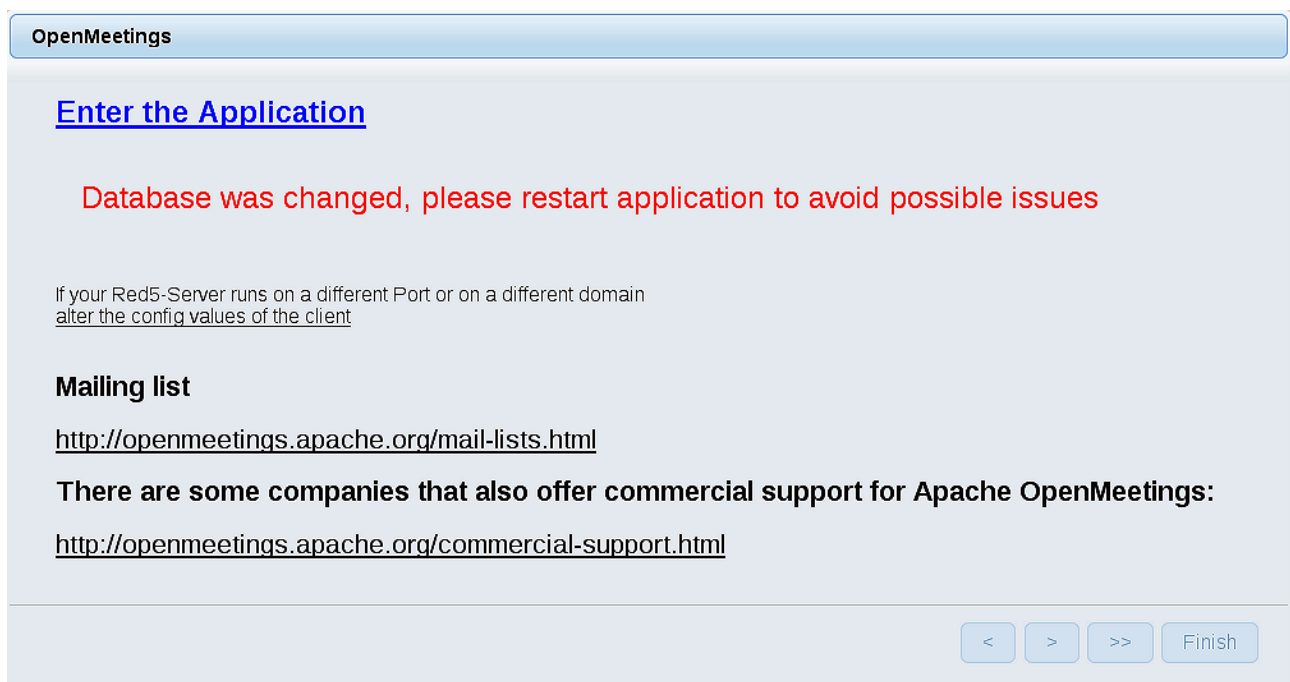
**Ctrl+c**

...will ask something, you type **Y** and press **Enter**.

To launch again, double click on the **red5.bat** file:

`C:\red5401\red5.bat`

...wait a seconds to run red5 completely, and...



...now yes, you can click on [Enter the Application](#), or go with your browser to:

<http://localhost:5080/openmeetings>

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



**Login**

Username or mail address

Password

Remember login

[Forgotten your password?](#) [Network testing](#)

Introduce the user's name and the password that you have chosen during the installation, push **Sign in** button, and...

...**Congratulations!**

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

<http://localhost:5080/openmeetings>

Remember to open in the server the two following ports:

**1935 5080**

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

11)


----- **OpenMeetings's Configuration** -----

Once you acced to OpenMeetings, if you would like to do any modification in the configuration, please go to:

**Administration → Configuration**

Home ▾ Rooms ▾ Recordings ▾ Administration ▾

Welcome



**Hello firstname lastname**

Timezone Europe/Madrid  
Unread messages [0](#)  
[Edit your profile](#)

[Upload new image](#)

**Help and support**

...and following the order of the red arrows:

Home ▾ Rooms ▾ Recordings ▾ Administration ▾

50 [Navigation icons] [Search]

ID	Key	Value
1	crypt.class.name	org.apache.openmeetings.util.crypt.SCryptImplementation
2	allow.frontend.register	true
3	allow.soap.register	true
4	allow.oauth.register	true
5	default.group.id	1
6	mail.smtp.server	localhost
7	mail.smtp.port	25
8	mail.smtp.system.email	noreply@openmeetings.apache.org
9	mail.smtp.user	
10	mail.smtp.pass	
11	mail.smtp.starttls.enable	false
12	mail.smtp.connection.timeout	30000
13	mail.smtp.timeout	30000
14	application.name	OpenMeetings
15	default.lang.id	8
16	document.dpi	150
17	document.quality	90
18	path.imagemagick	
19	path.sox	
20	path.ffmpeg	
21	path.office	
22	dashboard.rss.feed1	http://mail-archives.apache.org/mod_mbox/openmeetings-user/?format=atom
23	dashboard.rss.feed2	http://mail-archives.apache.org/mod_mbox/openmeetings-dev/?format=atom
24	send.email.at.register	false
25	send.email.with.verification	false

**Configuration**

Type: string




Key: path.ffmpeg

Value:

Last update: Oct 17, 2017 5:54:57 PM

Updated by: toro

Comment: Path To FFMPEG

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