

How to install jems V4 on Mac OSX

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1 Procedure

1.1 Download

Download jemsMacOSX from http://www.jems-saas.ch/home/jemsV4_3010u2015.htm.

1.2 Unzip

Depending on how the download is done you may have to unzip **jemsMacOSX.pkg.zip** in order to get the install package **jemsMacOSX.pkg**.

1.3 Install package

Double click **jemsMacOSX.pkg** to start the installation of jemsMacOSX. By default jemsMacOSX will be installed in folder **/Applications**. Administration rights are required.

Open folder **/Applications/jemsMacOSX/jems/build** and drag the application **jems** to the desktop or the **Dock**. Start jems in order to verify that **java 1.6** is installed on your Mac. When not installed, follow Apple procedure to install it.

1.4 Copy jar files

Open folder **/Applications/jemsMacOsX/jar** and copy **Activation.jar**, **mail.jar**, **mailapi.jar** (Fig. 1) to **/System/Library/Java/Extension** (Fig. 2).

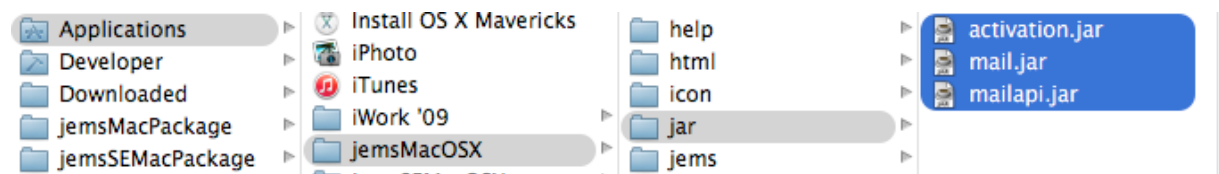


Figure 1: jar files to be copied.

Fig. 2 shows the typical java extensions for OpenGL graphics, mailing, imaging, etc¹.

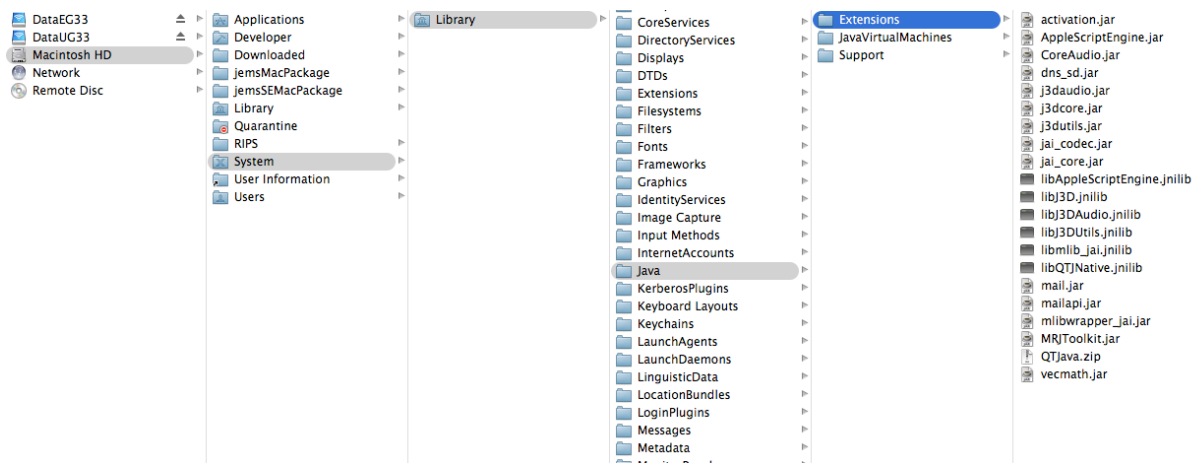


Figure 2: java 1.6 extensions.

1.5 Setting jems preferences

Start jems and select menu **Parameters**, menu item **Preferences** to open [jems Preferences dialogue](#). The preferences are described in file [jemsPreferencesSelection.pdf](#) of folder [/Applications/jemsMacOSX/pdfFiles](#).

In order to send the license request it is necessary to set several preferences found in these tabs:

- **Debug**
 - **Debug options:** in case of problems select checkbox **License** in order to have more info displayed in the console frame.
 - **Number of cpu's:** this number should be set to 8 for Intel i7 4 cores hyperthreading, 4 to Intel i5 2 cores hyperthreading, etc. When hyperthreading is not available select the number of cores.
- **Mail**
 - SMTP server: your company out going mail server.
 - From: your email address.
- **Microscope**
 - Preferred microscope.
 - Transfer function range (0 to 20 will plot the transfer function, the aberrations figure, ... to 0.5 Å).

¹ The other jar files of [/Applications/jemsMacOsX/jar](#) (CoreAudio, j3daudio, j3dcore, j3dutils, jai_codec, jai_core and vecmath) should already be present in [/System/Library/Java/Extension](#) and should not be copied there. They are installed during Apple java VM 1.6 installation.

- **Miscellany**

- **Default crystal:** the crystal that is opened when jems starts. When not selected an error message is displayed².

Do not forget to save the selected preferences (checkbox **Save).** The preferences are saved in folder \sim /*jems* and used when jems is started again.

Close jems and start it again in order to verify the preferences.

1.6 Request the license code

When preferences are set, select menu **Help**, menu item **License**. Select tab **Request** and push **Request** button to display the license request dialogue (Fig. ??). In case this dialogue is **NOT** displayed, check that folder /System/Library/Java/Extensions contains the 3 jar files activation.jar, mail.jar and mailapi.jar (see 1.4).

Very often you have to use **SSL** (Secure Sockets Layer or Transport Layer Security) in order to send the license request email. In case SSL doesn't not work as expected you can copy/paste the content of the dialogue in a regular mail (to be addressed to jems.stadelmann@gmail.com).

1.7 Setting the serial and license code

After receiving the serial and licence code (e-mail from jems.stadelmann@gmail.com) introduce these infos in the dialogue shown in Fig. 4. The license code can be copy/paste. Take care the license code is case sensitive and letters l (small caps "L") and I (large caps "I") looks very much identical. In case of doubt, change the font to "Courier".

1.8 Set read/write access to jems files

Make sure that users have **read/write** access to the whole **jemsMacOSX** folders tree since jems writes info in particular in /**Applications/jemsMacOSX/license** (jemsLicense.txt and in /**Applications/jemsMacOSX/license/jemsData** (Fig. 5).

1.9 WiFi connection

Depending on the WiFi settings, a dynamic **hostname** is attributed to the Mac when connected using WiFi. In such a case when starting, jems will display a **Wrong license code** error message. Your local IT manager can fix the problem (DHCP protocol). Another solution (a bit cumbersome) consists in:

- Stopping jems (when running).
- Disconnecting WiFi.
- Starting jems.
- Connecting WiFi.

You can also try to use DHCP with a manual address (usually possible at home) as shown on Fig. 6.

²When the license code and serial number are not yet provided only a cubic crystal can be set as default crystal.

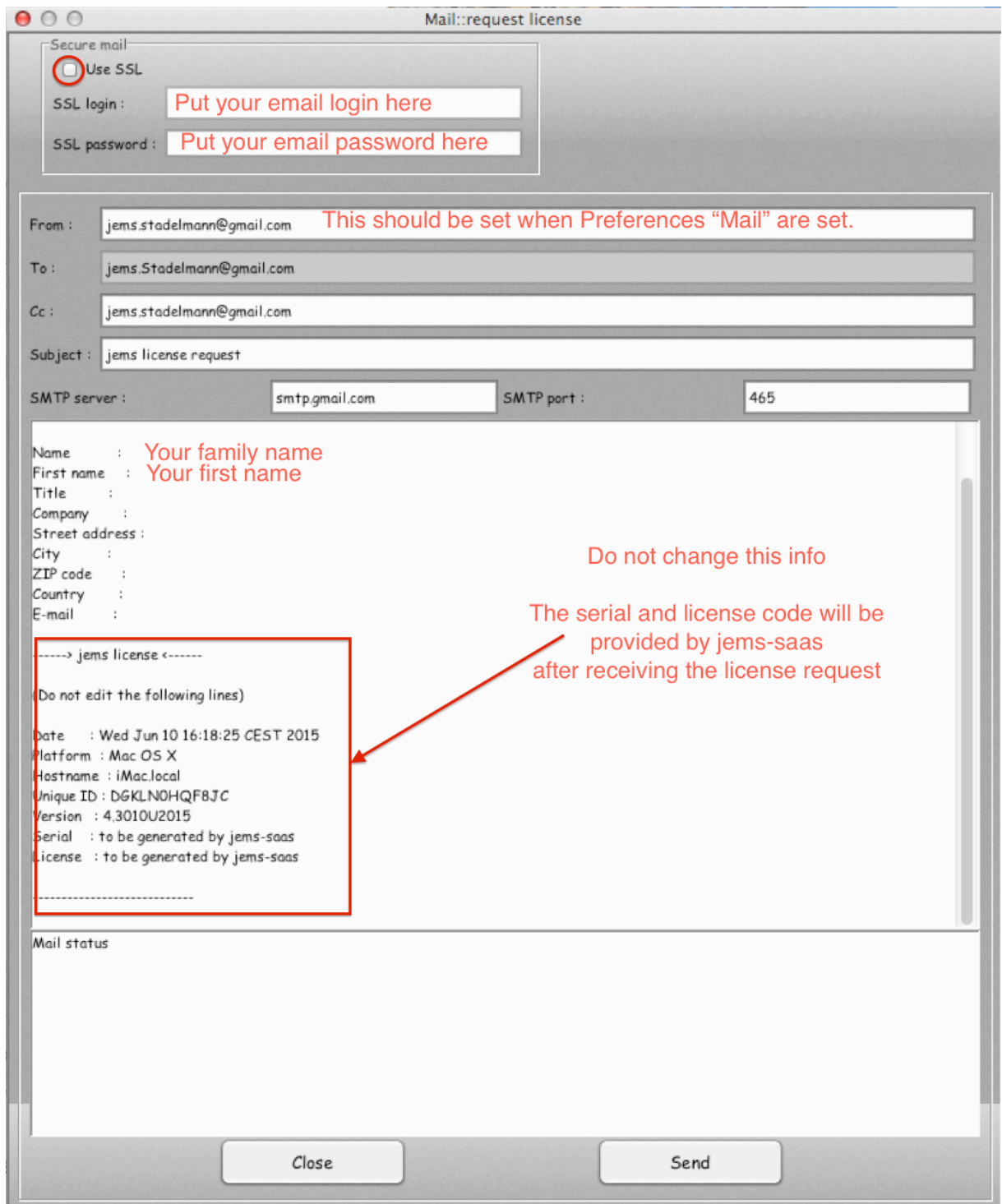


Figure 3: The dialog used to request a serial and license code.

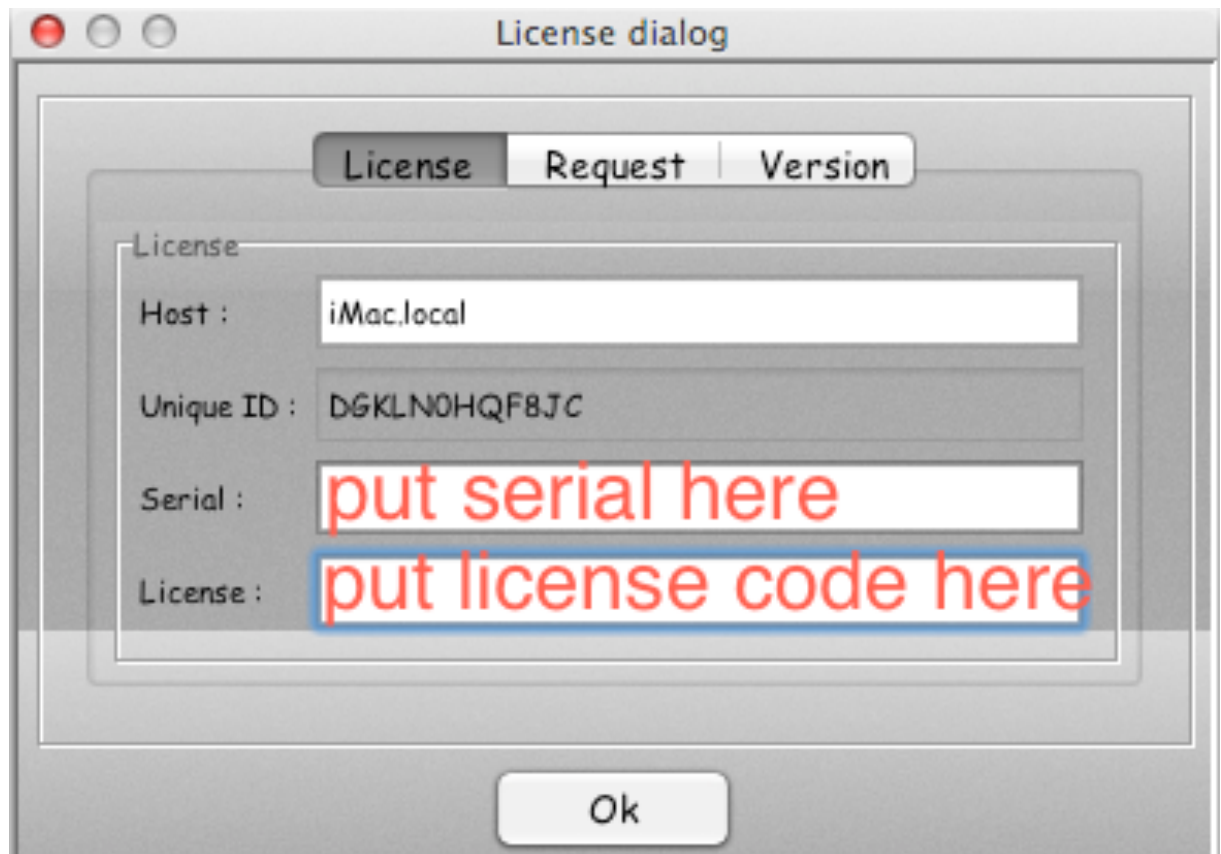


Figure 4: Inserting the serial and license code.

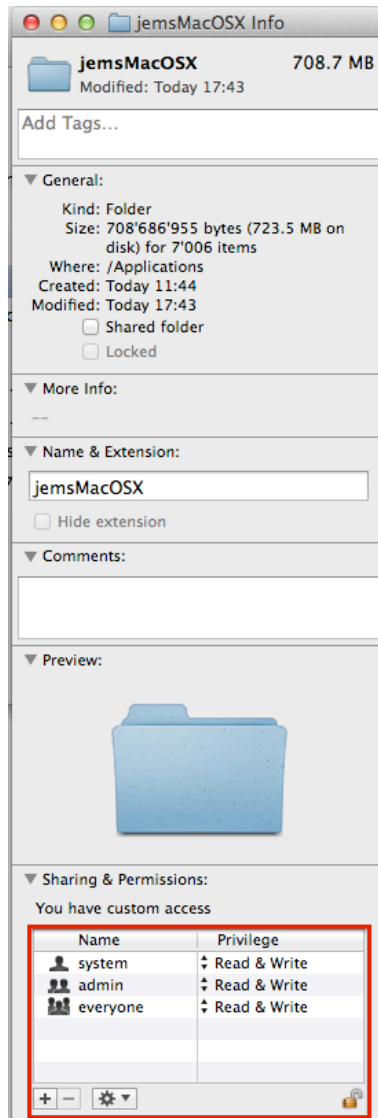


Figure 5: Setting the read/write access to jemsMacOSX folders tree.

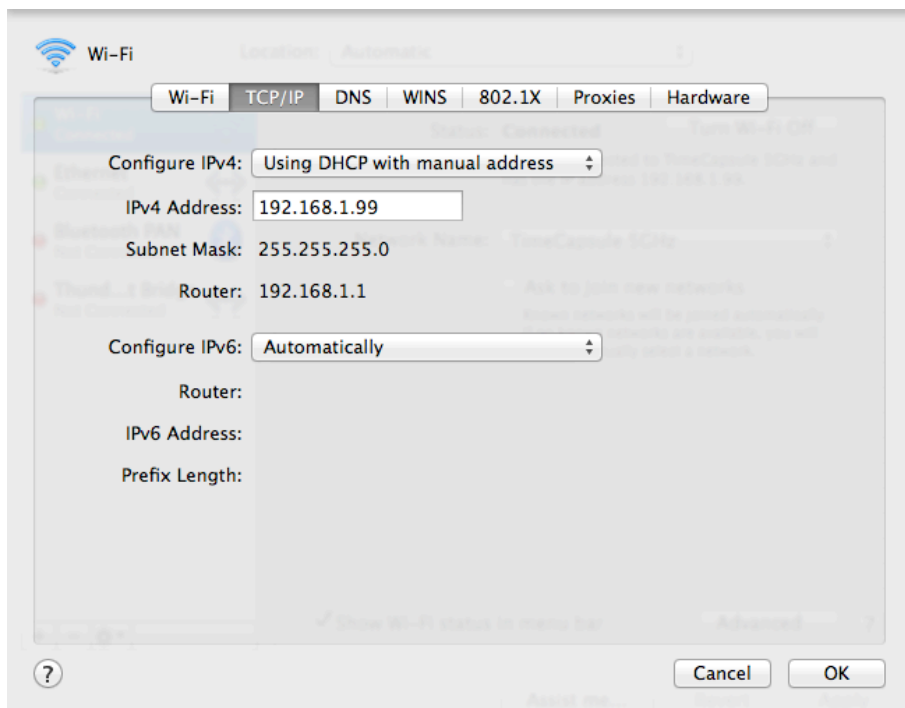


Figure 6: WiFi settings.