Configuring OMERO Clients

Introduction

The OMERO.insight client is a Java based desktop application that runs on Windows, Mac and Unix/Linux. There are a number of ways the client can be configured to improve or extend its functionality.

Note: Configuring your client application depends on the operating system and the client used. Also note that this guide does not cover OMERO.web, which uses a different, server-based, configuration.

Adding third-party JARs to OMERO.insight

OMERO.insight comes bundled with a number of standard Java Archives (JARs). However, functionality can be extended by adding JARs to OMERO.insight and OMERO.server.

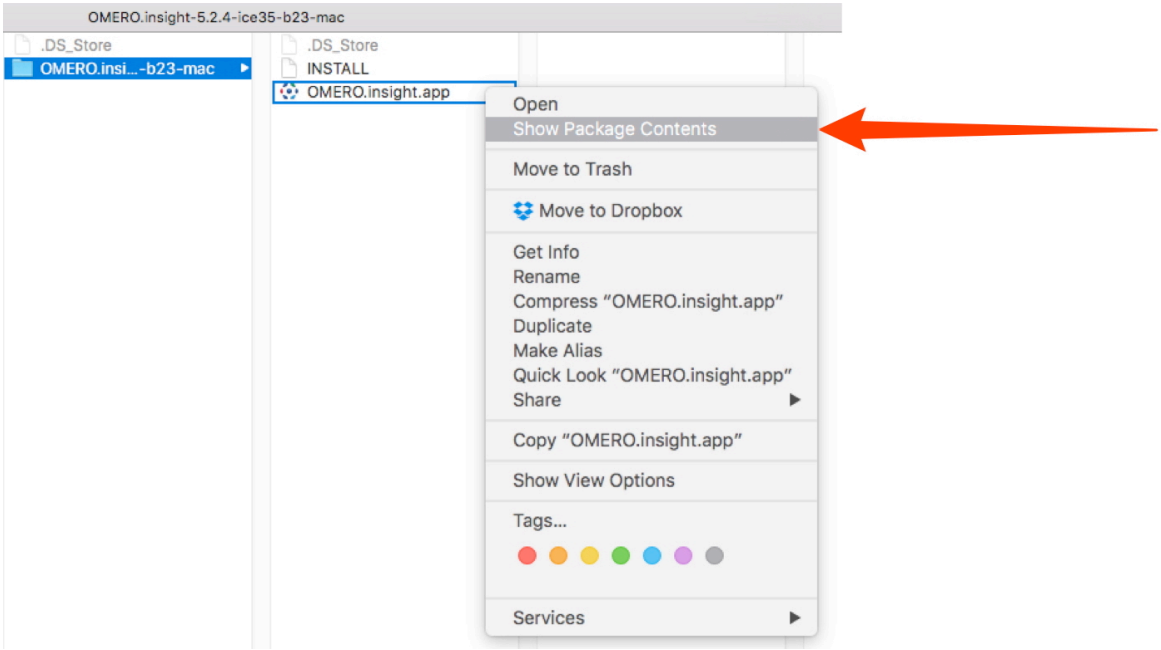
An example of this is where some proprietary file formats require additional readers to enable OMERO to open and read the files. These readers can be provided by the owners of the formats as JARs, which need to be added to OMERO to enable the functionality.

Download the third party JAR from the appropriate source.

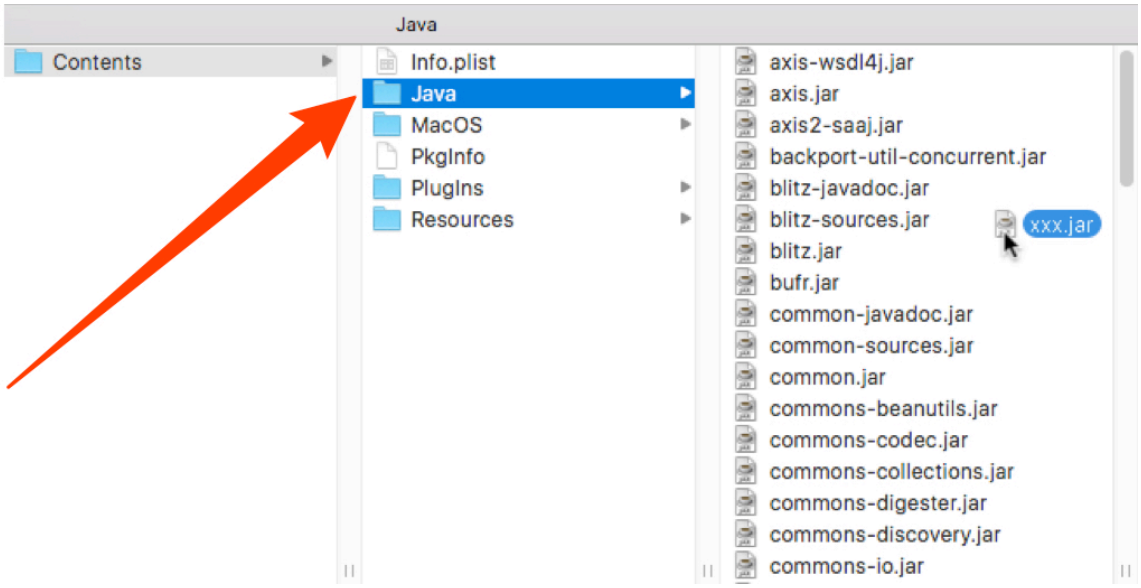
Note: If third-party JARs are related to the Bio-Formats import reader, they will also need to be added to the OMERO.server by your OMERO systems administrator. There is no need to do this if they are simply OMERO.insight update JARs.
The appropriate Bio-Formats version required by the third-party JAR, indicated by the provider, will also need to be installed on your OMERO.server by the administrator.

OMERO.insight on OS X

1 Locate the `OMERO.insight.app` in the Finder and right-click (or ctrl-click) on it. Choose **Show Package Contents** from the contextual menu.



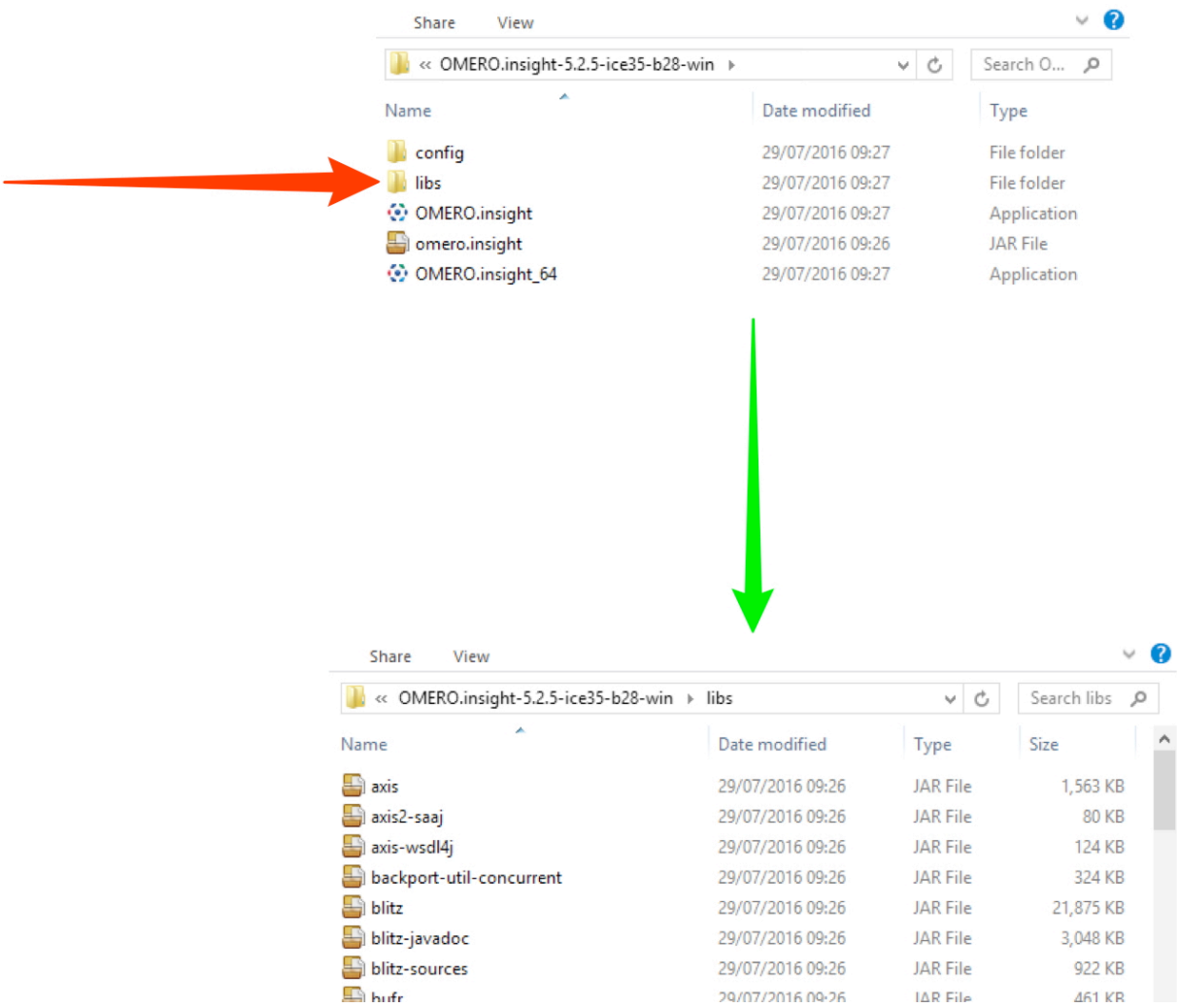
2 Navigate to the **Contents** folder.
Select the **Java** folder.
Drag and drop, or copy, the third-party `.jar` file into the Java folder.



3 Restart OMERO.insight to enable the new JAR's functionality.

OMERO.insight on Windows

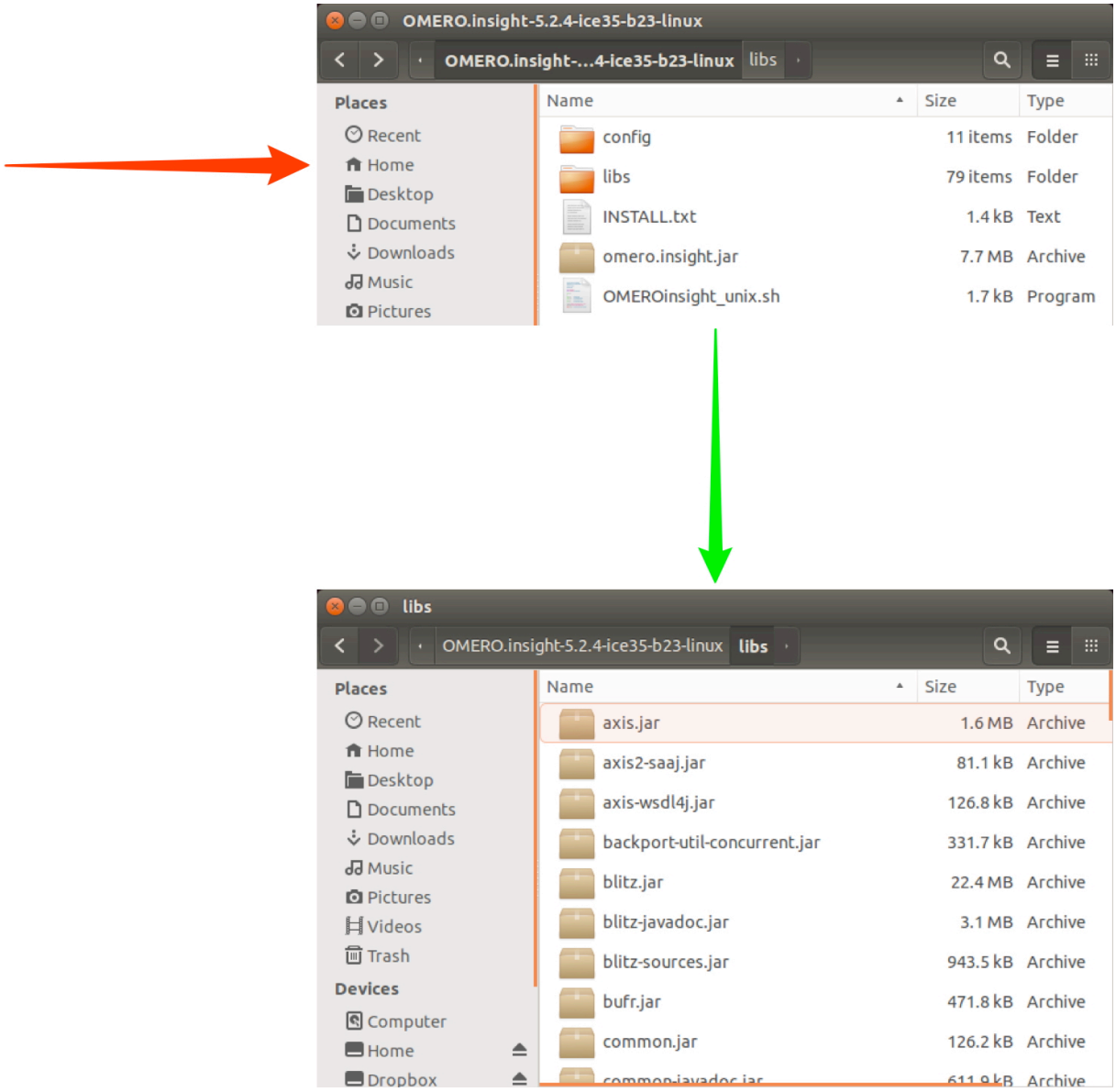
1 Locate the directory that contains the OMERO.insight program in Explorer.
Open the **libs** directory.
Drag and drop, or copy, the third-party `.jar` file into the libs directory.



2 Restart OMERO.insight to enable the new JAR's functionality.

OMERO.insight on Linux

1 Locate the directory that contains the OMERO.insight program.
Open the **libs** directory.
Drag and drop, or copy, the third-party `.jar` file into the libs directory.



2 Restart OMERO.insight to enable the new JAR's functionality.

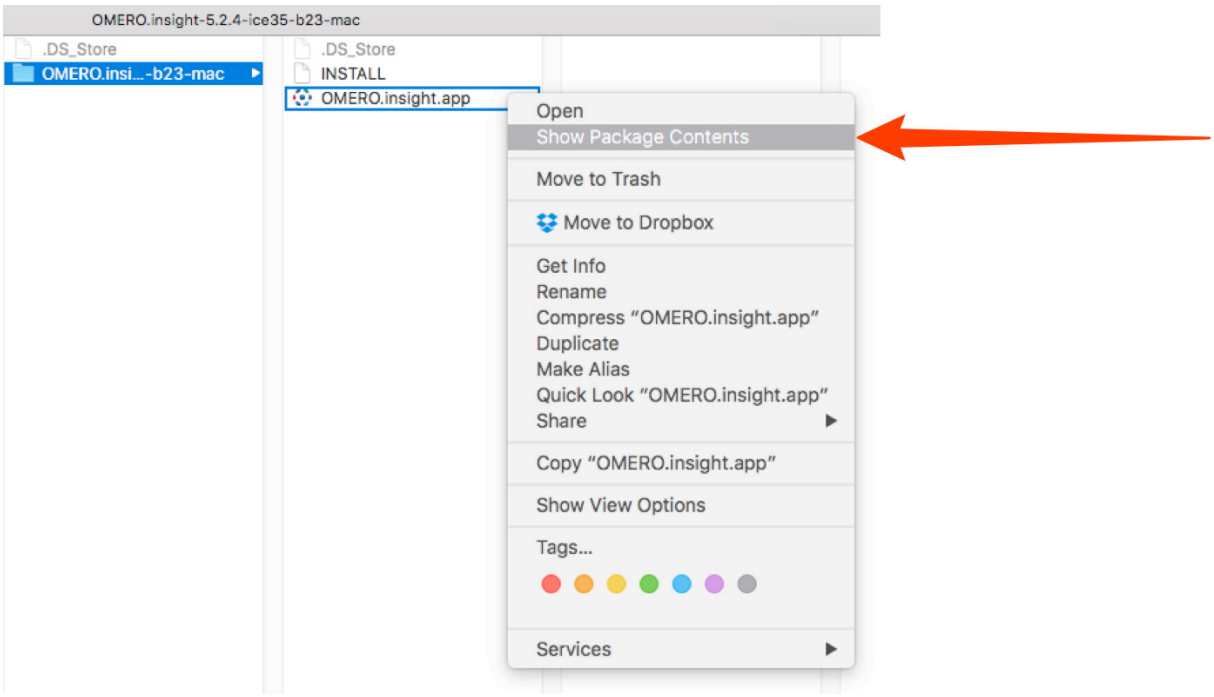
Increasing OMERO.insight memory allocation

By default, the OMERO desktop clients allocate a certain amount of memory for themselves during the start-up process which should be sufficient for most uses.

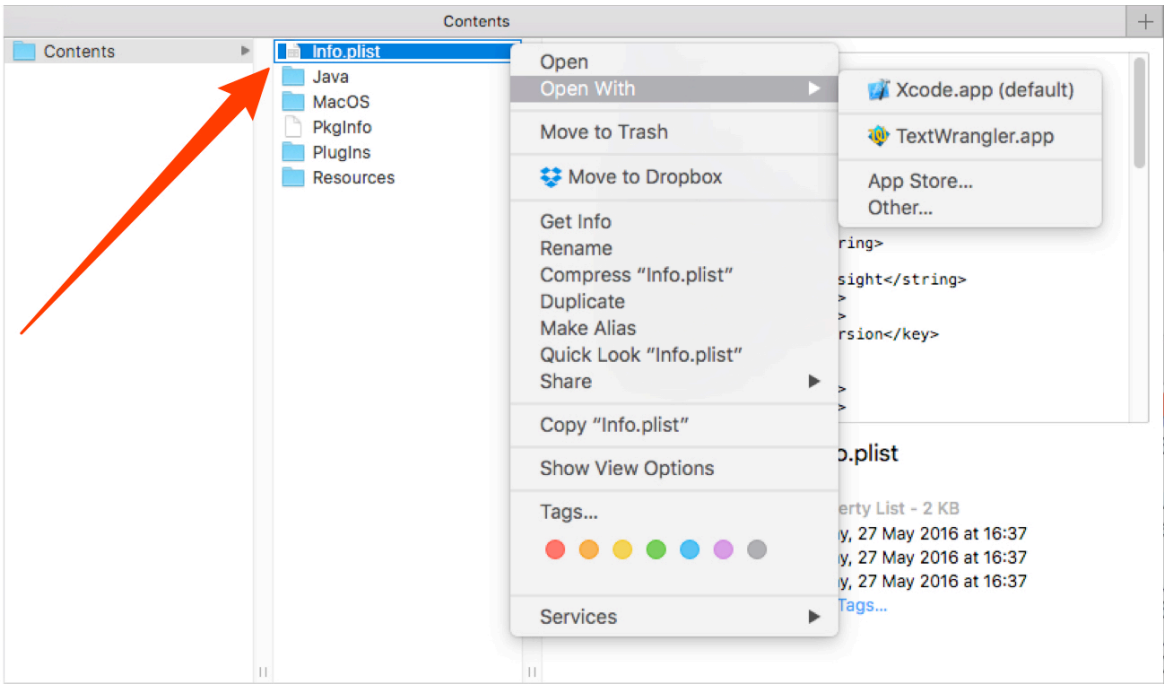
However, you may encounter out of memory exceptions while trying to import or display very large images. In these situations, it is beneficial to increase the memory allocation to the clients as outlined below.

OMERO.insight on OS X

1 Locate the OMERO.insight.app in Finder and right-click (or ctrl-click) on it. Choose **Show Package Contents** from the contextual menu.



2 Navigate to the **Contents** folder.
Right-click on the **Info.plist** file, and select to open it in either Xcode (if installed) or your default text editor.



3 Within Xcode, click and open the **JVMDefaultOptions** node.
Under **Xmx**, you will see a value such as:

`-Xmx1024M`

indicating you currently have 1024 Megabytes reserved for the application to use. Increase this to the amount of memory you wish to allocate, `-Xmx2048M` if you wish to allocate 2048 Megabytes of memory, for example.

Viewing the file in a text editor, line **54** has the maximum memory value set as:

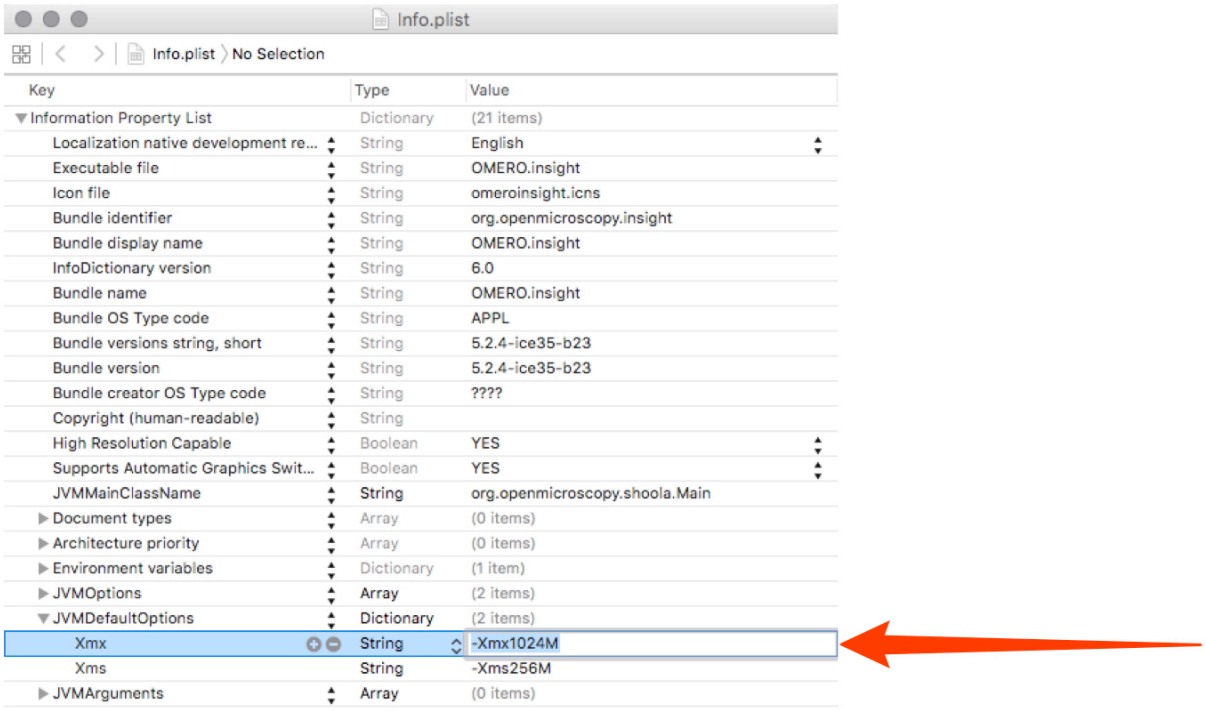
`<string>-Xmx1024M</string>`.

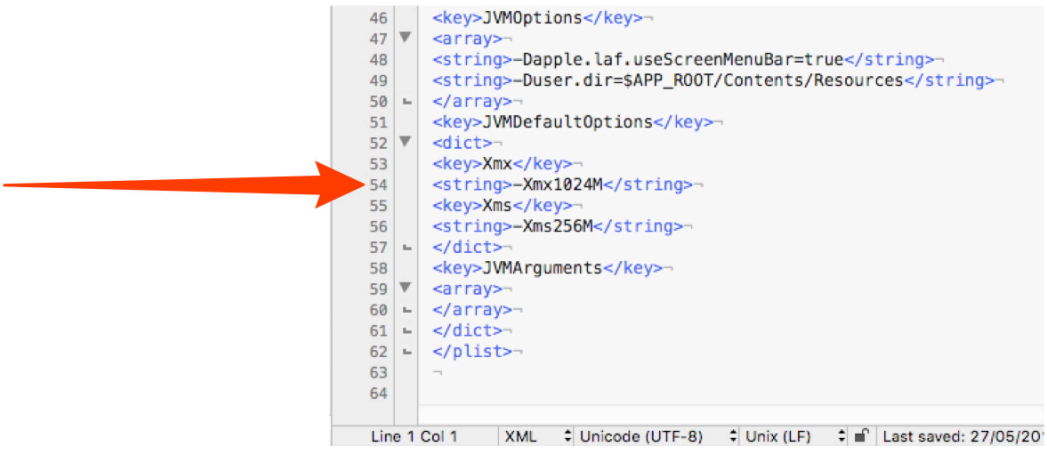
Edit the value to:

`<string>-Xmx2048M</string>`

to increase the allocated memory to 2048 Megabytes.

The minimum memory allocation, the `-Xms` value, should not be changed.
Save the file and close.
Restart OMERO.insight to load the new settings.





OMERO.insight on Windows

To alter the memory allocation of the Windows clients, you must add an optional parameter file to the same folder as the application.

Create a file called `OMERO.insight.vmoptions` in the same directory as your `OMERO.insight_64.exe` or `OMERO.insight.exe` file and insert the text `-Xmx2048M` as the only content. This will allocate 2048 Megabytes of memory as described in the OMERO.insight on OS X section above.

OMERO.insight on Unix/Linux

Changing OMERO.insight memory allocation under Unix requires you to edit the start-up script file, `OMEROinsight_unix.sh` located with the clients.

In the `OMEROinsight_unix.sh` file, edit the maximum value for allocated memory (-Xmx) in the line:

```
java -Xms256000000 -Xmx1024000000 -jar omero.insight.jar
```

with a new maximum memory value.

See the Java online documentation for a full description of these options.
(http://docs.oracle.com/javase/6/docs/technotes/tools/solaris/java.html)