# Steps for the compilation of the TFSAP toolbox on Mac OS

1. Installation of Matlab.

2. Installation of Xcode (currently version 8.0) using the AppStore.

3. Link Matlab to Xcode as starting with Xcode version 8.0 it is not done automatically. To create a link, go to the folder ***…/MATLAB_R2015b.app/bin/maci64/mexopts***[1] (the one in ***Volumes/Untitled***) and edit the files ***clang++_maci64.xml*** and ***clang_maci64.xml.***
   In both of those files, search for lines containing the string MacOSX10.10.sdk or ***MacOSX10.11.sdk*** . Duplicate the line and change it to ***MacOSX10.12.sdk*** . You will need to change 4 lines total in each of the two files, a line that mentions dirExists then a line that mentions cmdReturns and then the same two again. (Note that in new MacOSx version e.g. **10.13** the **12** should be replaced by **13**.)
4. Now, you need to check if the linkage is done by typing the following command in the Matlab command window:

   ***Mex –setup C***
   If it is done you will get the following message:
   ***MEX configured to use 'Xcode with Clang' for C language compilation.***
5. The user should set the Matlab Path generally it is:

   ***Volumes/User_name/Applications/MATLAB_R2015b.app***[1]
   And also set the variable Arch and MEXEXT as follows:
   ***Arch = maci64*** (or maci32)
   ***MEXEXT = mexmaci64*** (or mexmaci32)
6. Finally, using terminal go to the TFSAP folder and follow the instruction at the top of the Makefile, i.e.:
   a. Type ***make –fMakefile.mac all***
   b. Then, ***make –fMakefile.mac install***
   c. Finally, ***make –fMakefile.mac clean***

[1] The Matlab file name "MATLAB_R2015b" will depend on the version installed by the user, and "\bin\maci64" should be "\bin\maci32" when using a 32 bit OS.