Downloading and installing the Maple "Share Library"

The Maple "Share Library" is a collection of mathematical routines, programs, worksheets, and packages that can be called from Maple. It used to be bundled with new releases of the main Maple program, but that practice has ceased. It can, however, still be used by Maple when installed correctly.

For NMR spectroscopists, included in the Maple Share library is a package named 'pof' (product operator formalism) that allows Maple to use product operators to describe and analyze NMR experiments and elements of NMR experiments (pulses, delays, etcetera).

MacOS:

You will need administrator privileges to install the 'share' library.

The Maple Share Library can be downloaded from our course website ('maple.share.tar.gz').
Once downloaded, put the downloaded file on your Desktop (in your Desktop folder/directory). In some cases, your browser may uncompress the file (to give 'maple.share.tar'), in some cases it may both uncompress and also expand the tar archive (to give a folder named 'share). In other cases you need to do this manually.

You need to install Maple (2018) before you install the 'share' library.

Using a 'terminal' window, use 'cd' to go to the Desktop folder. If the downloaded file is 'maple.share.tar.gz', then use the 'gunzip' command to uncompress the file and return the tar archive ('maple.share.tar'). Then using the 'tar -xf' command, you can expand the tar archive, to give the 'share' folder (see below, for user 'harvey', who has administrator privileges):

```
MacBook-Pro:~ harvey$ pwd
/Users/harvey/
MacBook-Pro:~ harvey$ cd /Users/harvey/Desktop
MacBook-Pro:Desktop harvey$ pwd
/Users/harvey/Desktop
MacBook-Pro:Desktop harvey$ ls -F maple*
maple.share.tar.gz
MacBook-Pro:Desktop harvey$ gunzip maple.share.tar.gz
MacBook-Pro:Desktop harvey$ ls -F maple*
maple.share.tar
MacBook-Pro:Desktop harvey$ tar -xf maple.share.tar
MacBook-Pro:Desktop harvey$ ls -F
maple.share.tar        share/
```

If you list the contents of the 'share' folder/directory, you'll see the 'pof' folder/subdirectory.

For MacOS, the ‘share’ folder has to be placed in the following directory/folder (for Maple 18):

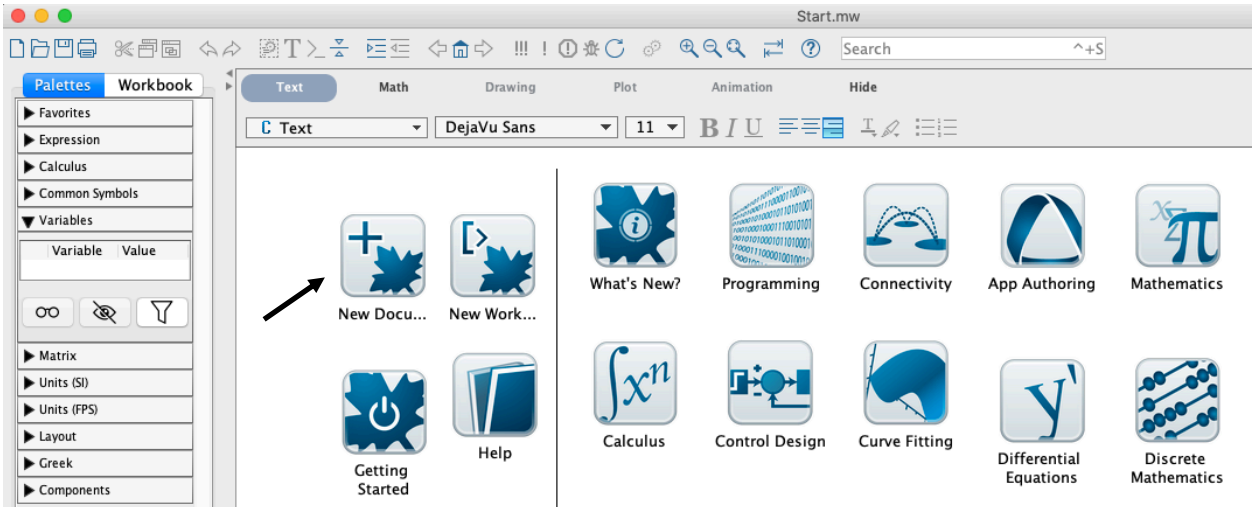
/Library/Frameworks/Maple.framework/Versions/2018

You may want to copy (using ‘cp -r’) the ‘share’ folder into that directory so you can keep the copy on your Desktop as a backup.

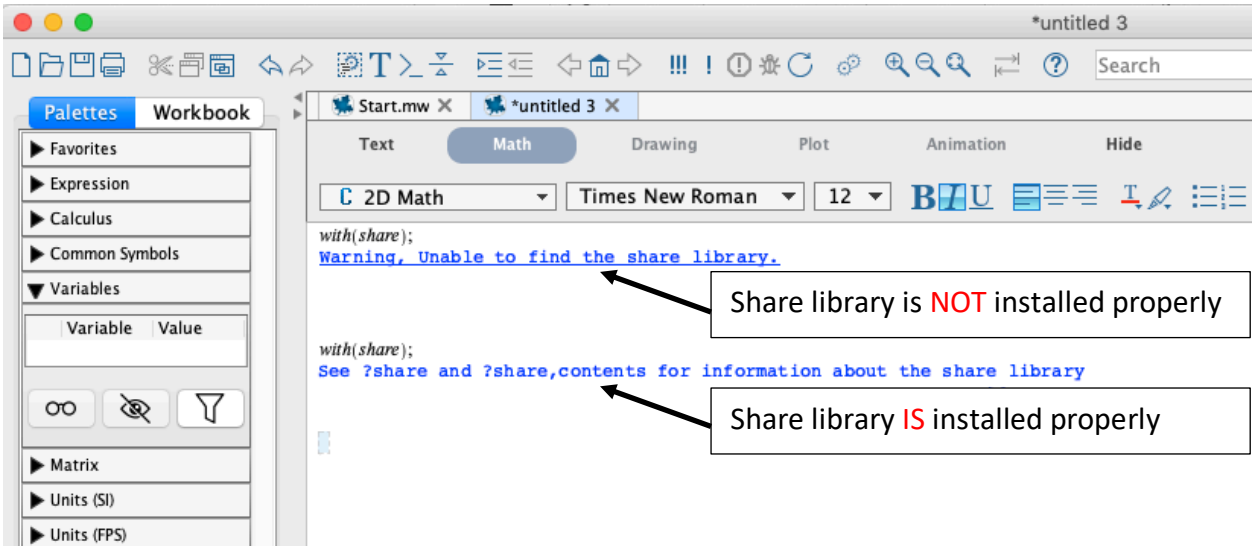
```
MacBook-Pro:Desktop harvey$ pwd
/Users/harvey/Desktop
MacBook-Pro:Desktop harvey$ ls -F
maple.share.tar         share/
MacBook-Pro:Desktop harvey$ cp -r share /Library/Frameworks/Maple.framework/Versions/2018
MacBook-Pro:Desktop harvey$ ls -F /Library/Frameworks/Maple.framework/Versions/2018
Maple_2018_Install_2018_11_28_13_39_01.log  java/
Python.APPLE_UNIVERSAL_OSX/                 jre.APPLE_UNIVERSAL_OSX/
X11_defaults/                               lib/
afm/                                        license/
bin/                                        man/
bin.APPLE_UNIVERSAL_OSX/                    profiles/
data/                                       share/
eBookTools/                                 test/
etc/                                        ninstall/
extern/                                     update/
```

If you list the contents of ‘/Library/Frameworks/Maple.framework/Versions/2018’ (‘ls -F’), as shown above, you should be able to confirm the presence of the ‘share’ library.

It is important test the ‘share’ installation to ensure that it worked properly. To do so, you need to first start the Maple program. In your ‘Applications’ folder/directory is a subfolder/directory called ‘Maple 2018’. In that folder is the ‘Maple 2018.app’ executable. Double-click on that file/icon to start the Maple 2018 program. Click on the ‘New Document’ icon to start a new session.



When you click on the 'New Document' icon to start a new session, you'll be presented a screen where you can enter commands. In order to be able to access the tools in the 'share' folder, the contents have to be loaded by the program. This is done with the 'with' command. In order to load the 'share' library, the command is 'with(share);' (note the semi-colon).



In the above example, the 'with(share);' command was first entered BEFORE installing the 'share' library. The error message indicates Maple cannot find the 'share library' and you cannot use the tools in the folder. After the 'share library' folder was installed properly, the 'with(share);' command was entered again. The message that is returned indicates the 'share' library was properly installed. You now can use tools in the 'share library' with Maple.

Linux:

You will need administrator privileges to install the 'share' library.

The Maple Share Library can be downloaded from our course website ('maple.share.tar.gz').
Once downloaded, put the downloaded file on your Desktop (in your Desktop folder/directory). In some cases, your browser may uncompress the file (to give 'maple.share.tar'), in some cases it may both uncompress and also expand the tar archive (to give a folder named 'share). In other cases you need to do this manually.

You need to install Maple (2018) before you install the 'share' library.

Using a 'terminal' window, use 'cd' to go to the Desktop folder. If the downloaded file is 'maple.share.tar.gz', then use the 'gunzip' command to uncompress the file and return the tar archive ('maple.share.tar'). Then using the 'tar -xf' command, you can expand the tar archive, to give the 'share' folder (see below, for user 'ragnar', on a computer/filesystem called 'viking', who has administrator privileges):

```
[ragnar@viking ~]$ pwd
/home/ragnar
[ragnar@viking ~]$ cd /home/ragnar/Desktop
[ragnar@viking Desktop]$ pwd
/home/ragnar/Desktop
[ragnar@viking Desktop]$ ls -F maple*
maple.share.tar.gz
[ragnar@viking Desktop]$ gunzip maple.share.tar.gz
[ragnar@viking Desktop]$$ ls -F maple*
maple.share.tar
[ragnar@viking Desktop]$ tar -xf maple.share.tar
[ragnar@viking Desktop]$ ls -F
maple.share.tar        share/
```

If you list the contents of the 'share' folder/directory, you'll see the 'pof' folder/subdirectory.

For Linux, the 'share' folder has to be placed in the Maple home directory. For the CentOS installation of Maple 2018, the home directory is:

/opt/Maple2018

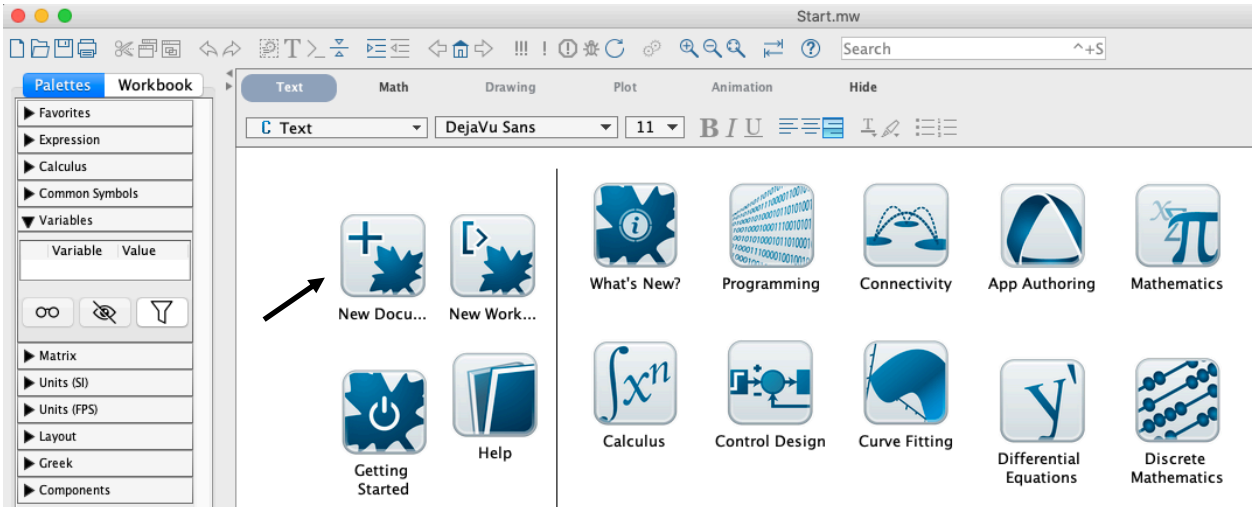
You may want to copy (using 'cp -r') the 'share' folder into that directory so you can keep the copy on your Desktop as a backup.

```
[ragnar@viking Desktop]$ pwd
/home/ragnar/Desktop
[ragnar@viking Desktop]$ ls -F
maple.share.tar        share/
[ragnar@viking Desktop]$ cp -r share /opt/Maple2018
[ragnar@viking Desktop]$ ls -F /opt/Maple2018
```

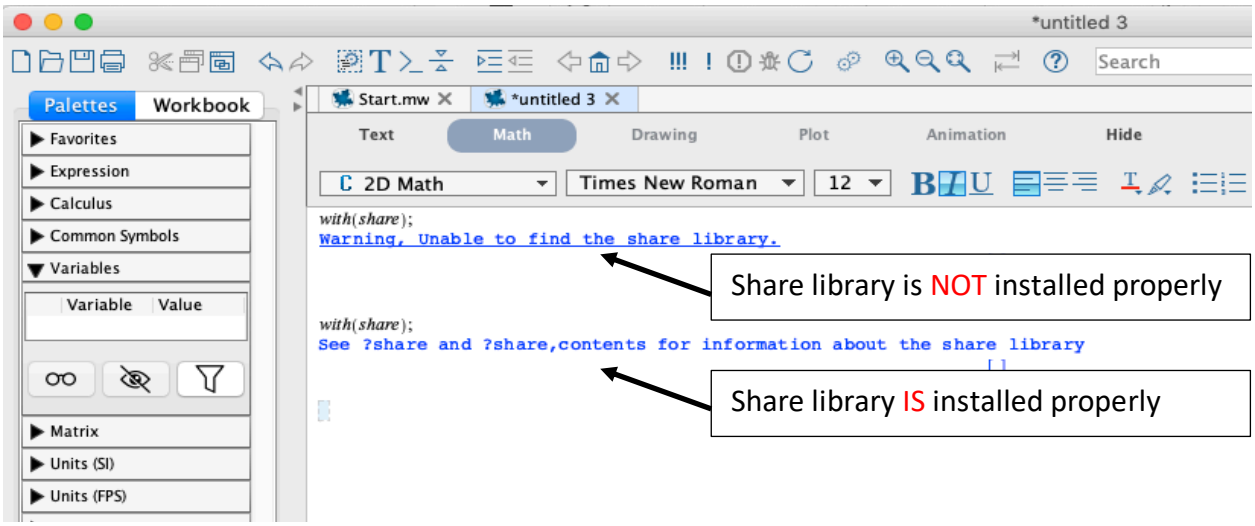
afm/	Install.html	Python.X86_64_LINUX/
bin/	java/	readme.txt
bin.X86_64_LINUX/	jre.X86_64_LINUX/	samples/
data/	lib/	share/
eBookTools/	license/	test/
etc/	man/	uninstall/
EULA.html	Maple_2018_Install_2020_02_01_14_56_54.log	update/
examples/	Maple Cloud Terms of Service.html	X11_defaults/
examplesclassic/	MapleToolbox2018.2LinuxX64Installer.run*	
extern/	profiles/	

If you list the contents of '/opt/Maple2018' ('ls -F'), as shown above, you should be able to confirm the presence of the 'share' library.

It is important test the ‘share’ installation to ensure that it worked properly. To do so, you need to first start the Maple program. You can double-click the shortcut icon on your Desktop, or select the shortcut from the ‘Applications’ menu and the Maple program will start. If you do not have a shortcut, enter ‘/opt/local/maple2018/bin/xmaple’ to start the program (if your Maple 2018 installation was in ‘/opt/local’). Notice the ‘x’ (‘xmaple’). This starts the graphical version of the interface (this is preferred, and it is what you get when you use a shortcut to start the program). Click on the ‘New Document’ icon to start a new session.



When you click on the ‘New Document’ icon to start a new session, you’ll be presented a screen where you can enter commands. In order to be able to access the tools in the ‘share’ folder, the contents have to be loaded by the program. This is done with the ‘with’ command. In order to load the ‘share’ library, the command is ‘with(share);’ (note the semi-colon).



In the above example, the ‘with(share);’ command was first entered BEFORE installing the ‘share’ library. The error message indicates Maple cannot find the ‘share library’ and you cannot use the tools in the folder. After the ‘share library’ folder was installed properly, the ‘with(share);’ command was entered again. The message that is returned indicates the ‘share’ library was properly installed. You now can use tools in the ‘share library’ with Maple.

Windows:

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