

steps for installing Mathematica with ROOT on a Mac: pedestrian version.

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1) Download the latest version of ROOT (eg to your Desktop) which makes a folder called "root" on your Desktop.

2) From a terminal cd to .../Desktop/root and type the example from the ROOT page:

```
. $ROOTSYS/bin/thisroot.sh
```

3) Download Mathematica (8.0 unless you have an old PowerPC processor- ie a G5 Desktop, in which case you will have to use Version 7).

If you're in a hurry there is a 15 day trial at the Wolfram website.
Most labs and Universities that have a site license also maintain a mirror site for the download. Ask your IT admin how to access the .dmg file (~650 Mb) and the license server (or ask for a home use license).

4) Download and unzip the Mathematica_ROOT package (eg. to your Desktop) from the location provided on the CERN ROOT page or at Wolfram.com.

5) edit the file "makefile.mac64" (or 32, depending on your machine) which is in the ROOT subfolder of this folder and find the line where you need to set ROOTSYS which you will now assign to your location of root. ie.

```
ROOTSYS = /Users/white/Desktop/root
```

now save this as simply "makefile" in the same directory.

6) from a terminal window cd to this directory and type:

```
make clean
```

```
make
```

(the gnu compiler is required to build the ROOT importer so you should first install the free Xcode to get the compiler if it is not already on your Mac)

7) Exit terminal and say "Sayonara" to the UNIX environment.

8) Launch Mathematica and in a Notebook type:

```
$UserBaseDirectory (then shift+return to evaluate)
```

You will now want to create subdirectories(folders) substituting the folder which Mathematica returns- ie \$UserBaseDirectory/SystemFiles/Formats

9) Now copy the whole ROOT subdirectory (of Mathematica_ROOT) that you just modified into this folder.

10) **You are now ready to analyze ROOT data files with Mathematica!!**

11) In Mathematica open the notebook "Mathematica_ROOT_M8_Usage.nb" in the Examples subfolder of Mathematica_ROOT. Evaluate the notebook and examine the evaluated cells.

Spend a couple hours getting good at Mathematica.