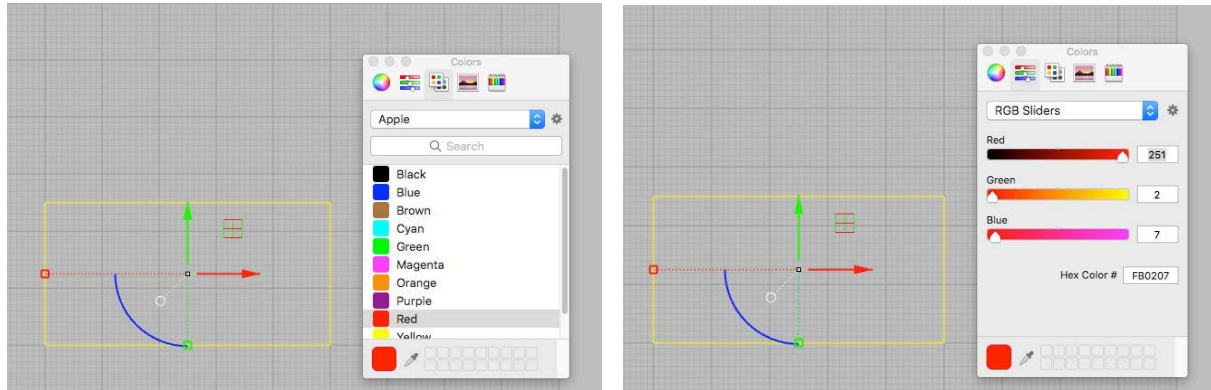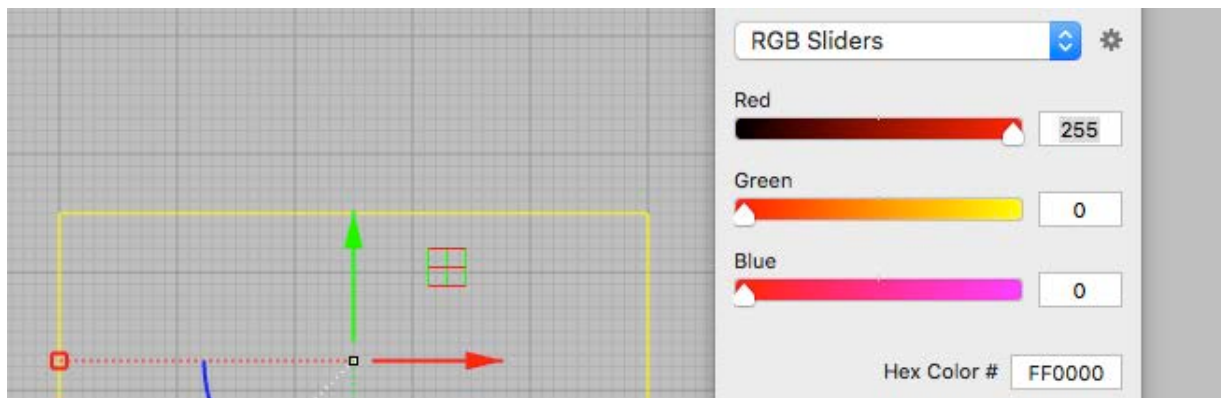# Applying the correct colors for Laser/Zünd cutting in Rhino for Mac

We have noticed a large number of people arriving with incorrect colors for cutting when exporting from Rhino for Mac. This is because the internal "Apple" color palette does not give true "standard" RGB colors. See the following example for "Red":

In reality, you can see that "Apple" Red is not RGB (255,0,0), but instead (251, 2, 7). The same problem affects Green, Magenta and Cyan - only Apple Blue is actually correct (0,0,255).

To fix this, do not use the Apple palette, use the RGB sliders instead to set your colors. It's easy as you only have to slide them all the way to the left for 0 or to the right for 255.
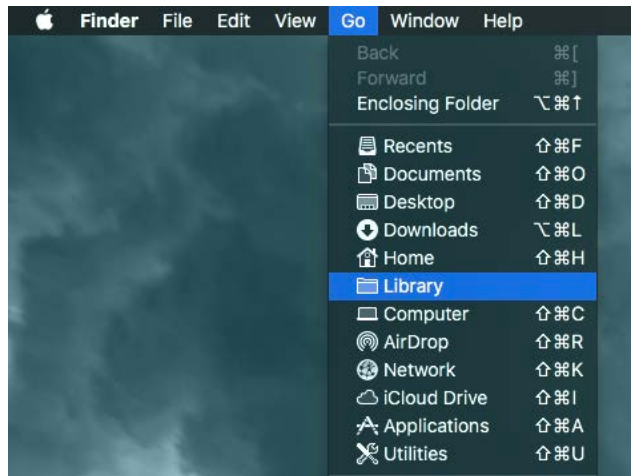

Install shortcuts to go faster…

Otherwise, to make your life easier, we have created a set of small scripts you can install in your Mac Rhino (or even Windows Rhino) which will run from typed *Aliases*. Once installed, you will have the commands **MakeRed**, **MakeGreen**, **MakeBlue**, **MakeMagenta**, **MakeCyan** for the laser plus **MakeDkGreen** for the Zünd (engraving). Selecting some objects and running the script will change them to the correct color. Note that the scripts will not change colors of block instances – which need to be exploded before color change. This needs to be done for export for cutting anyway, as blocks are not accepted. If there are blocks in your selection, you will get a warning message with the number of blocks found.
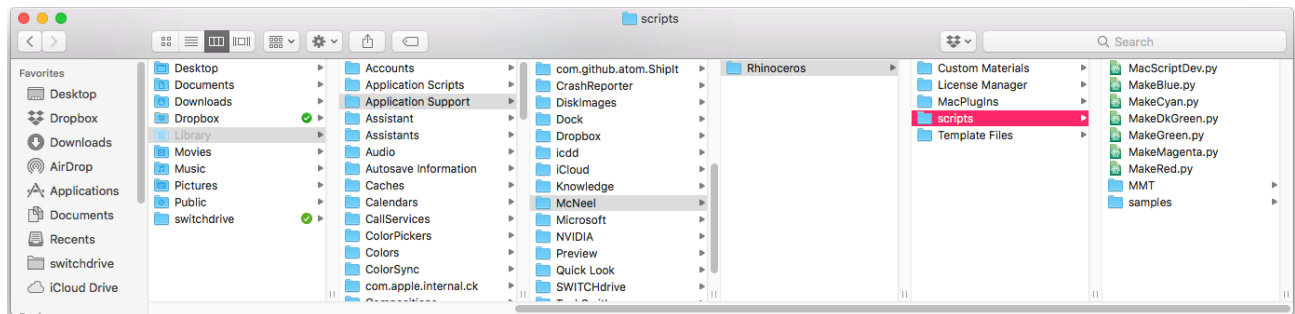
To install on Mac Rhino:

- Download the zip file **MakeColorEPFL** with the 6 scripts and one text file; unzip the file.
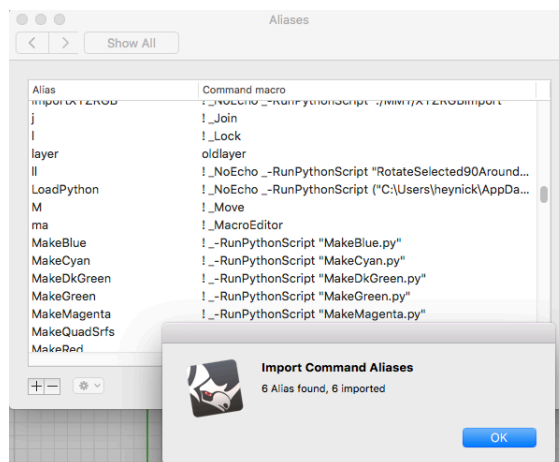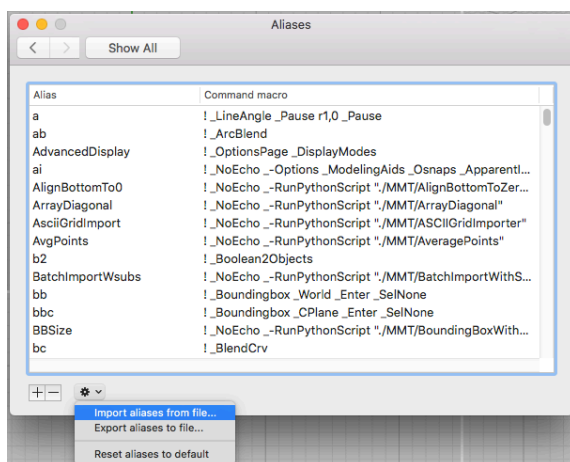- Put the **MakeColorAliases.txt** file on your desktop.

- You will then need to locate your Rhino "scripts" folder for the rest. This is a hidden folder.
- To access it, from Finder, **press the Alt key** and pull down the **"Go"** menu.
  Click on **"Library"** in the menu to open it.

- Then navigate to **Application Support>McNeel>Rhinoceros>scripts**.

- Put all 6 scripts (.py files) in the scripts folder *(not in a subfolder!)*.
- Now, inside Rhino, go to **Preferences>Aliases**.
- Click the little gearwheel icon at the bottom, and choose **"Import aliases from file"**.
- Browse to the **MakeColorAliases.txt** file on the desktop and accept.
- You should see a message "6 aliases imported".

That's all, you should now have the commands installed, select some objects and start typing "Make…"
The commands should autocomplete.