

Advance Computational Design Documentation

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Project setup

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Get Rhino and Sortal Packages

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Documentation regarding Rhinoceros and Sortal API setup.

1. Rhinoceros version 6 in a 2017 MacBook pro.
2. The interpreter project
(<http://andrew.li/>)

Download

Rhino: <https://www.rhino3d.com/download>

Evaluation version works great! You will get to use it for 3 months. Do not use a fake email to download it, the license Key will get to you through it.

The interpreter project Sortal API Packages:

1. [sortal 3D 180904 oAPI](#)
2. [package v190713](#)

Open them up and store the following folders and packages in a folder called "Scripts":

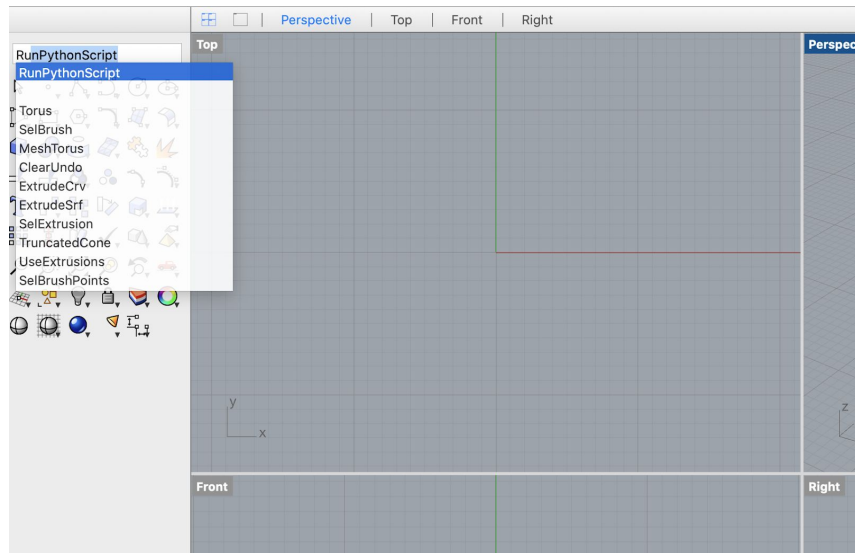
- | | |
|----------------------------------|--------------------------------|
| 1. __pycache__ | 15. libfuturize |
| 2. _dummy_thread | 16. libpasteurize |
| 3. _markupbase | 17. mpmath |
| 4. _thread | 18. mpmath-0.19-py2.7.egg-info |
| 5. builtins | 19. past |
| 6. commands | 20. queue |
| 7. controller | 21. reprlib |
| 8. copyreg | 22. socketserver |
| 9. enum-0.4.6-py2.7.egg-info | 23. sortal |
| 10. enum.py | 24. sortal_lib_api |
| 11. future | 25. sortalgi |
| 12. future-0.16.0-py2.7.egg-info | 26. tkinter |
| 13. html | 27. view |
| 14. http | 28. winreg |
| | 29. xmlrpc |

Sortal setup on Rhino

Setup for Sortal

1. Building Rhino's Python Ecosystem

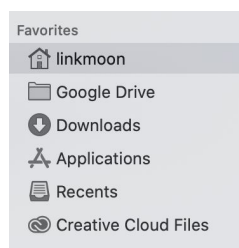
After downloading Rhino and the Shape grammar packages, open Rhino and log in using the license Key you received by mail. Then, open a new document in Rhino and in the “**Command**” panel type “**RunPythonScript**”.



This will setup your Python ecosystem automatically. Make sure you do this, otherwise you will not be able to use the shape grammar set up because you will be saving the files in the wrong folder. If you already have used Rhino, and the sample python scripts inside it, then you can skip this step.

2. Copying the Sortal API Packages in Rhino

Make sure you have the “Home” folder visible. This folder usually has the same name as your Macbook and is the first folder you see when you open any folder.



If is not visible, activated by:

Finder Preferences → Sidebar tab → **enable** showing of your **Home folder**

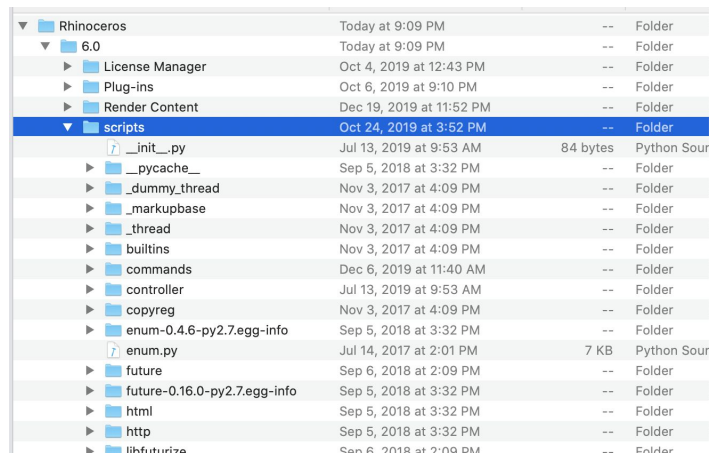
Viewing hidden folders and Testing the Sortal API

After this, enter the “Home” folder and press the following keys to make visible the hidden folders:

Command+Shift+Dot

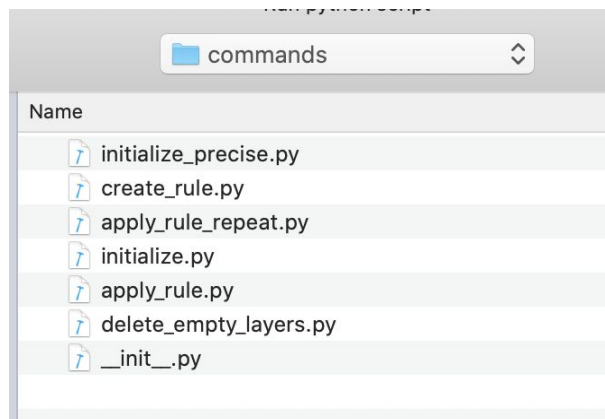
Then, enter the **hidden folder of “Library”** → Application Support → MCNeel → **Rhinoceros** → 6.0 → **scripts**

Once inside the Rhinoceros scripts folder copy and paste inside the Sortal API Packages you downloaded earlier.

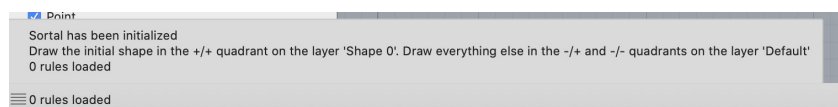


3. Testing the Sortal API Package

Once you have moved all the 29 folders into the script folder, open Rhino again and write “RunPythonScript” on the “Command” panel. This time choose the following script called “initialize.py”. This script is inside the “Commands” you downloaded from the Sortal packages.



The operator will ask you if you want to initialize the document also (meaning that anything inside will be erased) so you can enter “Y or N”. If everything is ok then you will get a notification on the bottom saying “Sortal has been initialized”.



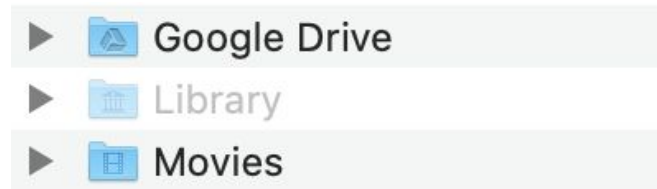
Troubleshooting the Sortal installation

Most common errors

Not finding the correct “script” folder of the Rhino App:

1. You didn’t enter the correct Library folder.

The finder itself has a Library folder to handle none hidden documents and Application Support Files, but the one you need is the hidden one. If you don’t know which one it is, keep in mind that hidden folders look different from the visible ones.



2. You didn’t build the python setup of Rhino.

Make sure the first thing you do is to **run a python script on Rhino once you download it**. If you have used Rhino before with your own scripts from Atom, then the Sortal API won’t work with it because Rhino didn’t build the script ecosystem from the internal folder.

To fix this you will need to uninstall/install Rhino and “RunPythonScript” in the “Command” panel.

3. You didn’t put all the files you need in the correct folder.

Make sure you put all the folders mentioned before in the internal “script” folder inside the “6.0” folder of Rhino.

