

Annex E: Installation (Windows)

1. Run setup widget

Run the setup widget inside the folder 'sortal-setup'. This will install packages such as 'future', 'enum', 'mpmath' and the 'sortal' library, which ensure compatibility between IronPython and the Sortal API.

site-packages	8/14/2017 11:04 A...	File folder	
setup	8/14/2017 10:59 A...	Windows Batch File	2 KB

The computer may prompt for whether to allow the widget to make changes; click 'Yes' or 'Allow'. Wait for it to finish installing the packages.

Alternatively, if you are unable to run the 'setup' widget, you may manually copy-paste the files inside 'sortal-setup' in the following locations:

- sortal-packages -> sortal
 - Copy-paste to **C:\Program Files (x86)\Rhino\Plug-ins\IronPython\Lib** or equivalent on your computer
- site-packages -> all files inside
 - Copy-paste to **C:\Program Files (x86)\Rhino\Plug-ins\IronPython\Lib\site-packages** or equivalent on your computer

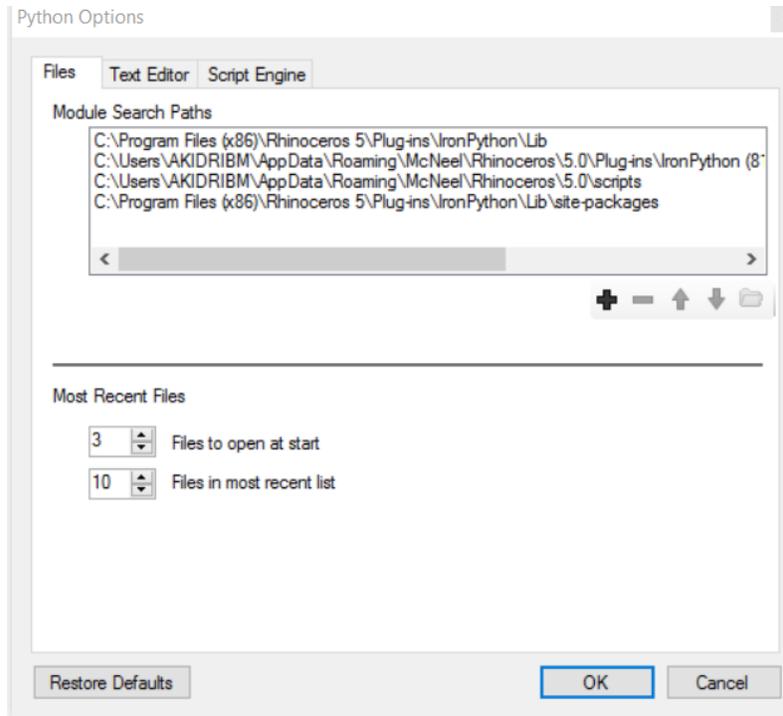
2. Set up link to sortal library

- ➔ Open Rhino
- ➔ Type in the command box: EditPythonScript
- ➔ In the Rhino Python Editor window, go to Tools
- ➔ Select 'Options'
- ➔ Select 'Files' (default tab)

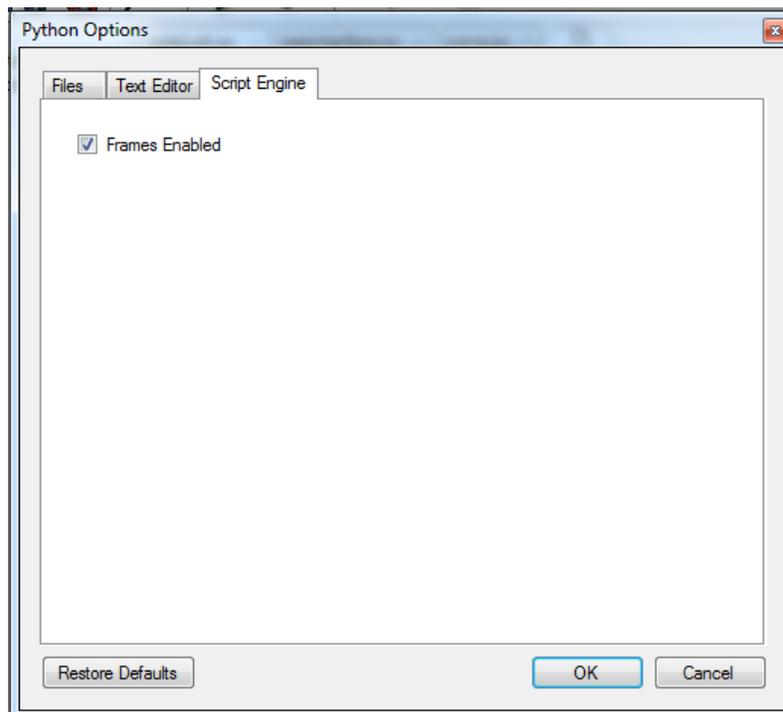
Add in the following directory into Module Search Paths (change accordingly if your Rhino 5's IronPython is installed in a different folder):

- C:\Program Files (x86)\Rhino\Plug-ins\IronPython\Lib\site-packages

The result should look like the Rhino window pictured on the next page.



In the script engine tab, check the Frames Enabled option and click 'OK'.



Then close Rhino (close it totally, not just closing the Python editor) and relaunch it again for the changes to take effect. The Sortal API should then be ready for use; to check if it is, run the script 'set_up_all.py' (available in the 'sortal_3D' folder) and see if you get the response 'Setup complete' in the Rhino Python Editor.

3. OPTIONAL: Setting up SGI components in Rhino Grasshopper

- a) **Install GhPython:** After steps 2 and 3, install GhPython onto Rhinoceros Grasshopper if you are using Rhino 5. The GhPython Grasshopper Assembly file (gha) can be downloaded from Food4Rhino [here](#).
- b) **Set up GhPython:** After downloading the .gha file:
 - ➔ In Grasshopper, choose File > Special Folders > Components folder. Save the gha file there.
 - ➔ Right-click the file > Properties > make sure there is no "blocked" text
 - ➔ Restart Rhino and Grasshopper
- c) **Copy-paste SGI UserObjects:** Copy all the GH User Objects from the folder called 'sgi_components'. Paste these into the folder called 'UserObjects', which can normally be found inside the Grasshopper folder. To illustrate (the User Objects are indicated by the green box):

Me > AppData > Roaming > Grasshopper > UserObjects

Name	Date modified	Type	Size
 Geometry to Shape	7/26/2017 10:58 A...	Grasshopper User ...	5 KB
 SGI Setup	7/26/2017 11:10 A...	Grasshopper User ...	4 KB

Start up Rhino 5, and then Grasshopper. The User Objects should be present as a specific tab in the Grasshopper Components Tab Panel called 'SGI', like below:

