Jython Workbook(2012)

Get Jython Download:

- http://sourceforge.net/projects/jython/files/jython/2.5.2/jython_installer-2.5.2.jar/download

Installation

Contents

Jython 2.5.2 and 2.2.x

Basic Install

Jython 2.5.2 and 2.2.1 are distributed as executable jar file installers. After downloading it, either double click the jython_installer-2.5.2.jar or run java with the -jar option
java -jar jython_installer-2.5.2.jar
This will start the regular GUI installer on most systems, or a console installer on headless systems. To force the installer to work in headless mode invoke the installer as:
java -jar jython_installer-2.5.2.jar --console
The installer will then walk through a similar set of steps in graphical or console mode: showing the license, selecting an install directory and JVM and actually copying Jython to the filesystem. After this completes, Jython is installed in the directory you selected. Executing a script in the install directory, jython on Unix-like systems or jython.bat on Windows, will start up the Jython console, which can be used to dynamically explore Jython and the Java runtime, or to run Jython scripts.

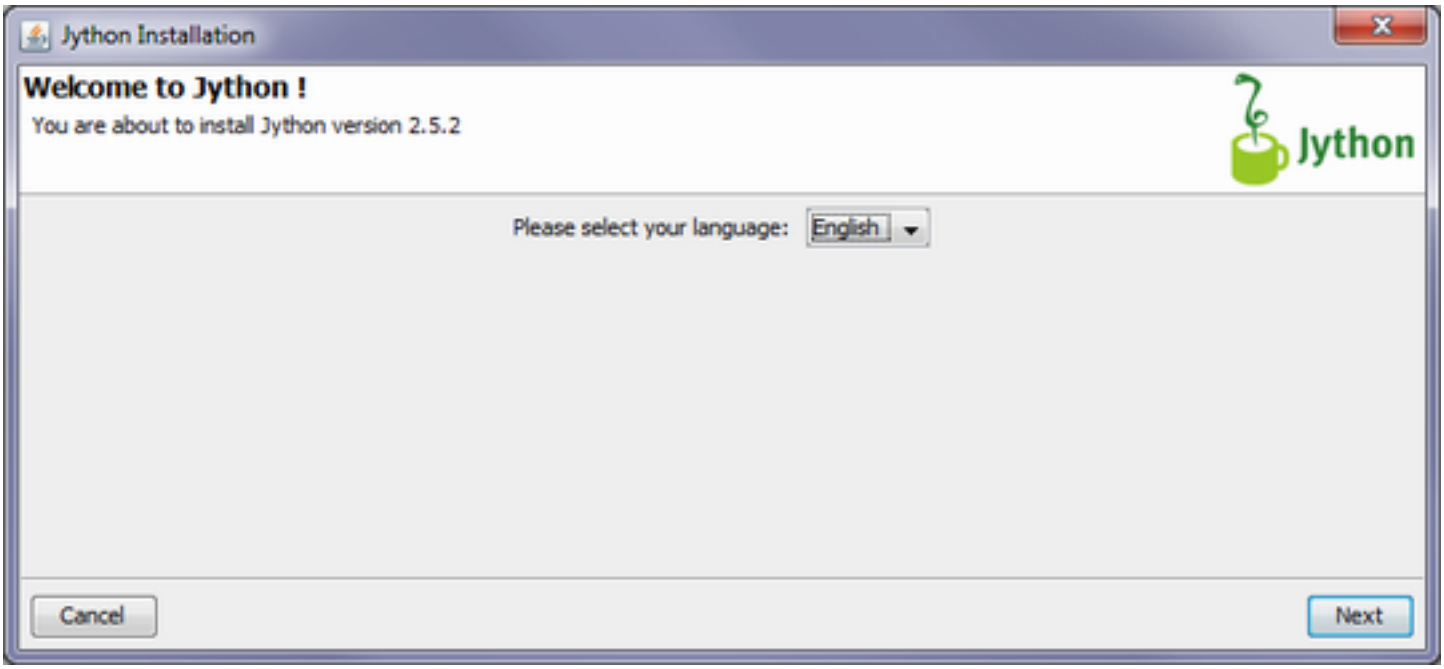
Standalone mode

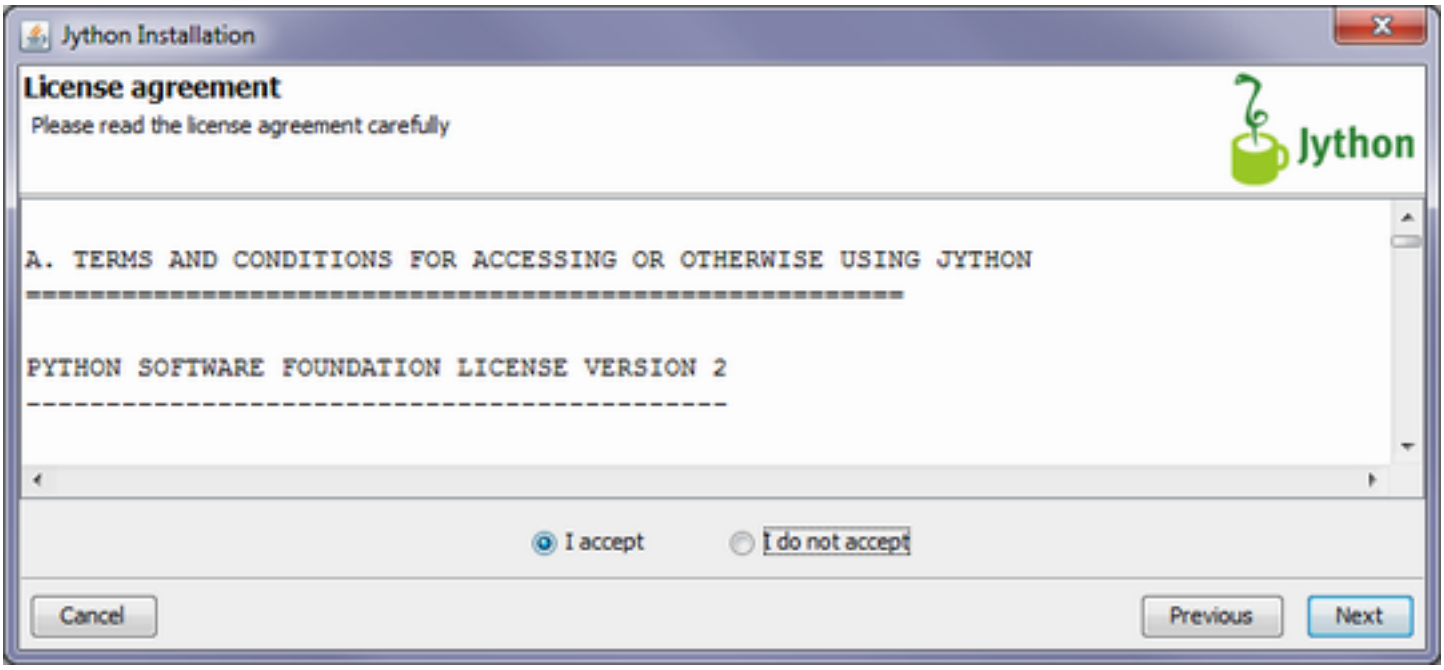
The standalone option does no caching and so avoids the startup overhead (most likely at the cost of some speed in calling Java classes, but I have not profiled it)
You can try it out by running the installer:
$ java -jar jython_installer-2.5.2.jar
then when you come to the "Installation type" page, select "Standalone".
The installation will generate a jython.jar with the Python standard library (/Lib) files included, which can be run as:
$ java -jar jython.jar
Of course you can run scripts just by calling them as you might expect:
$ java -jar jython.jar script.py
Or, add this file to the classpath of your application.

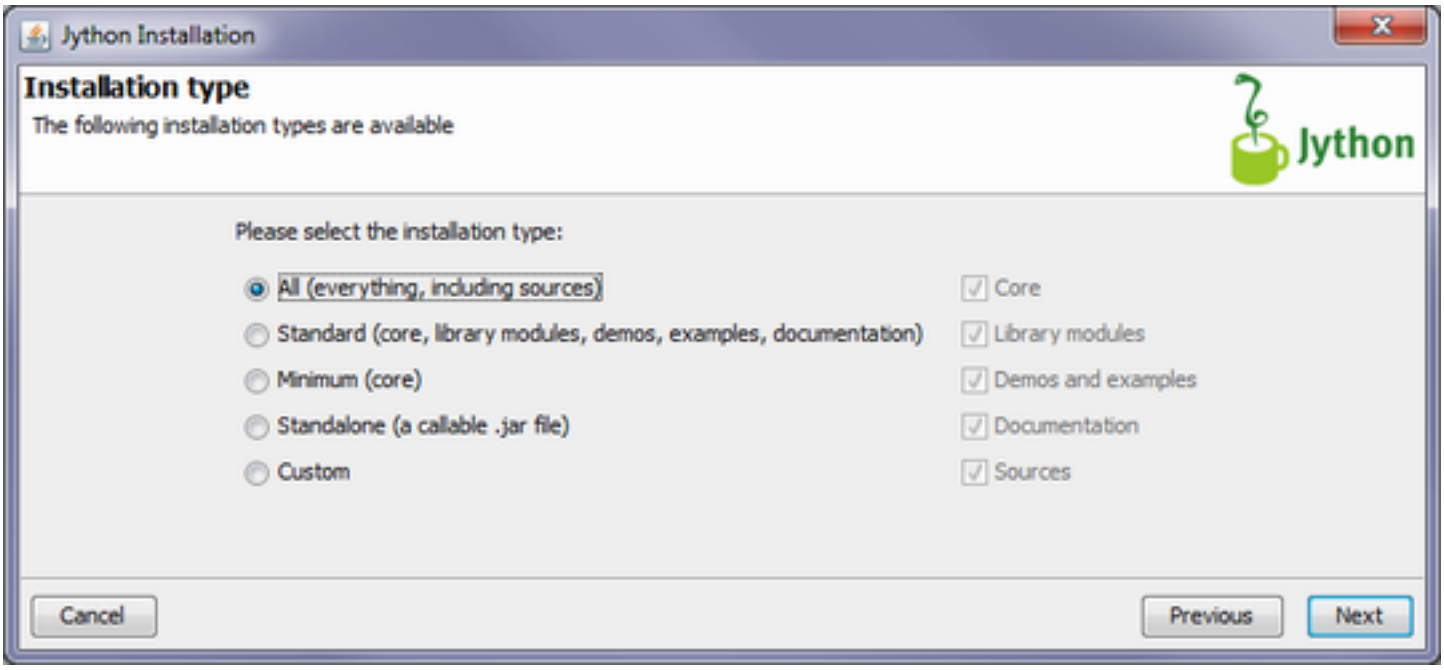
Installation options

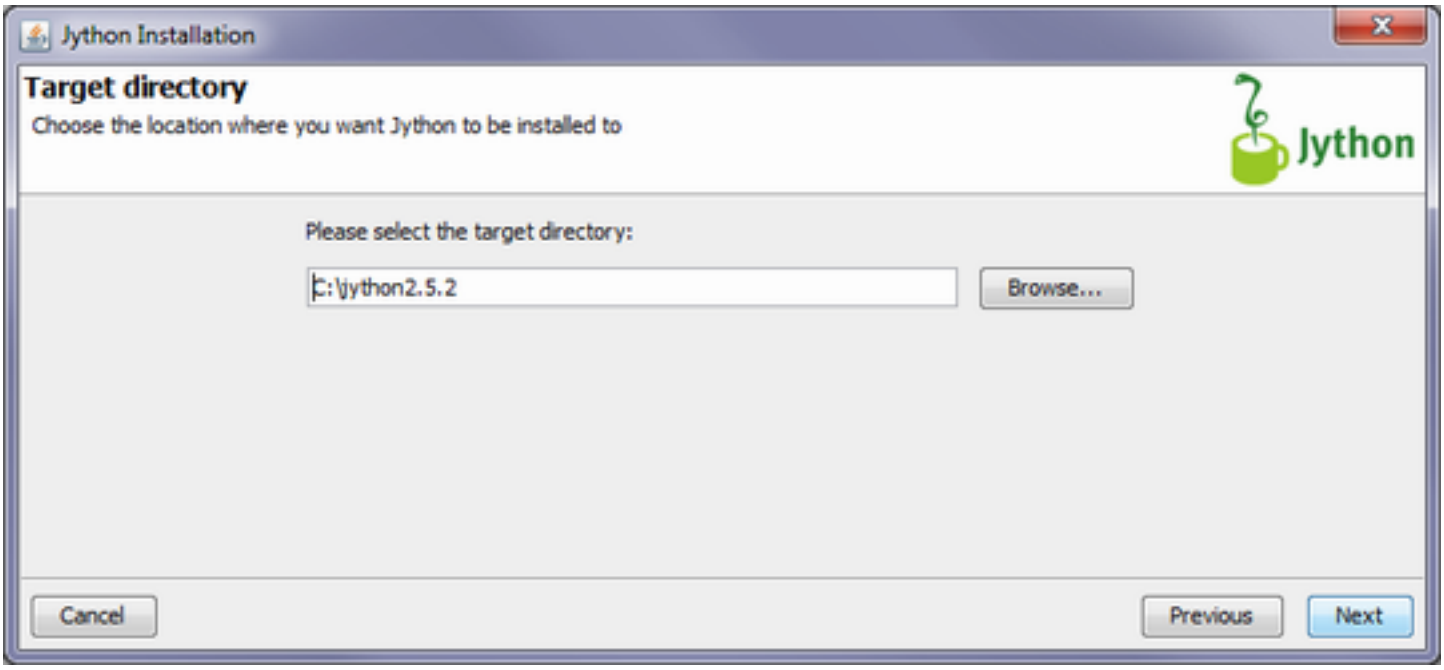
You can get a list of installer options (to install Jython unattended, for example) by running:

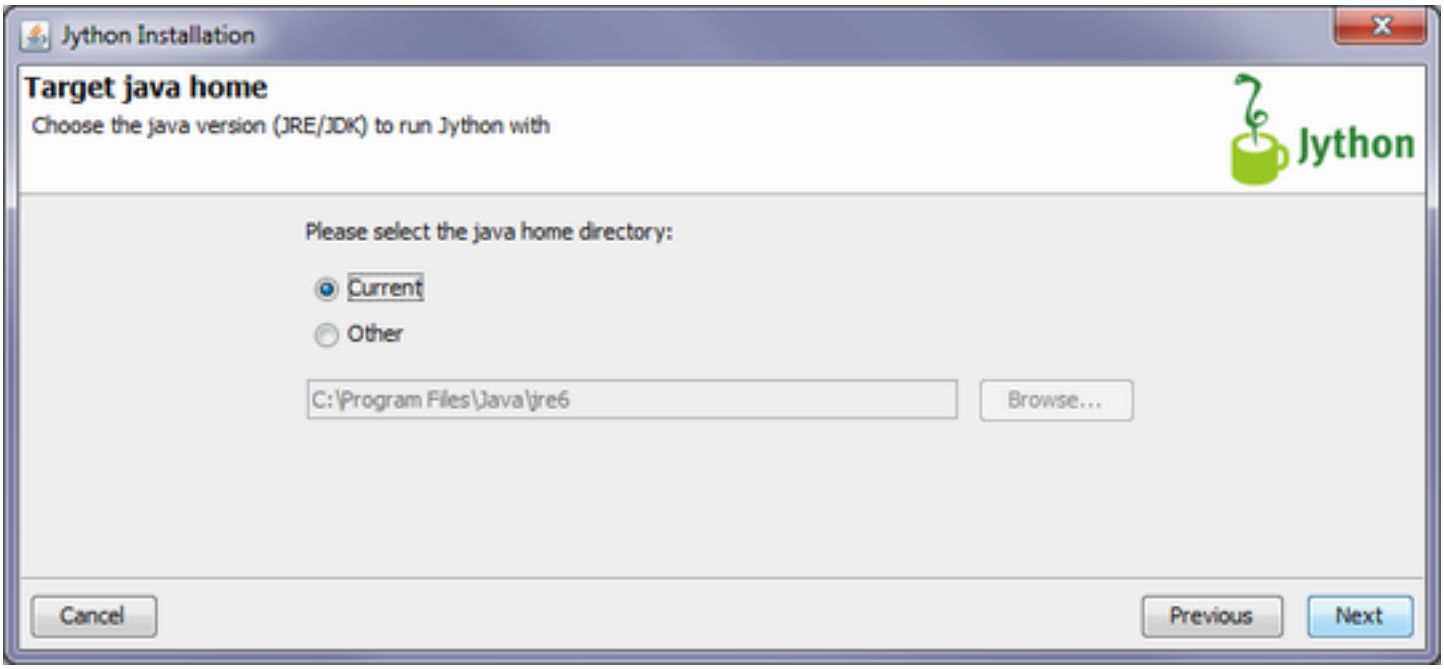
```
$ java -jar jython_installer-2.5.2.jar --help
```

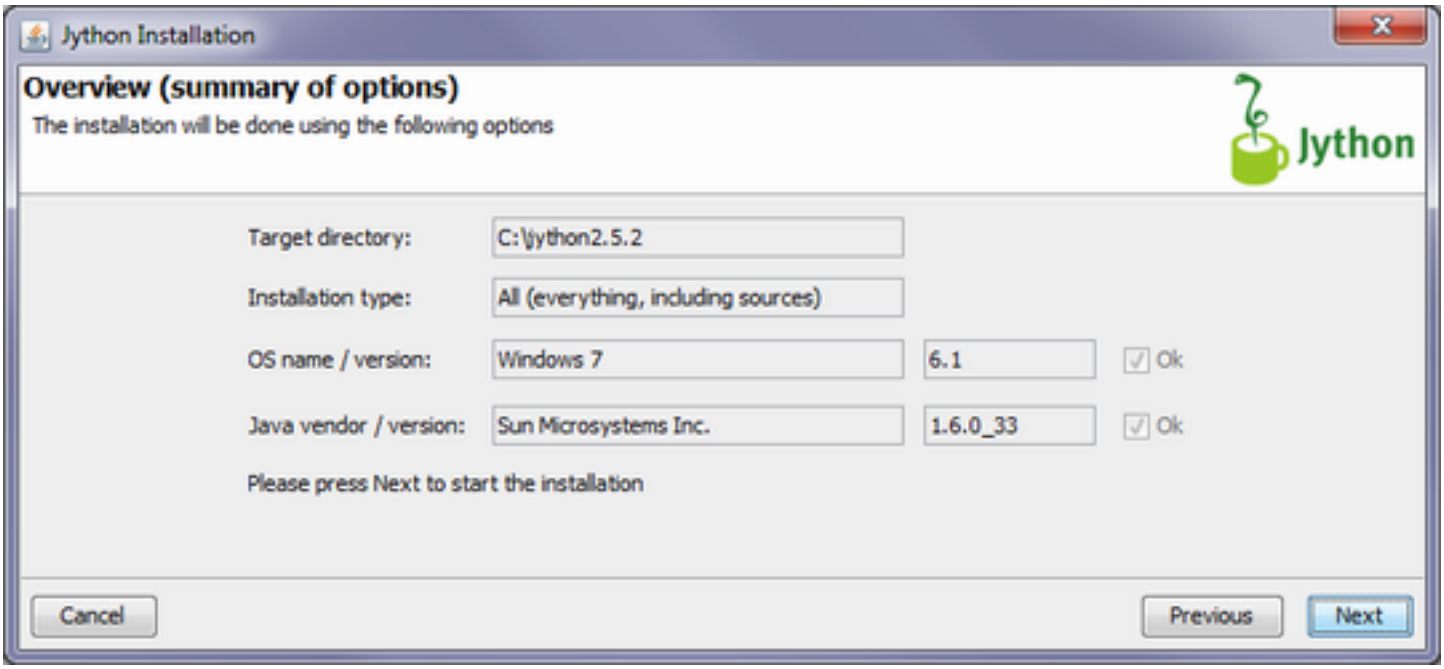


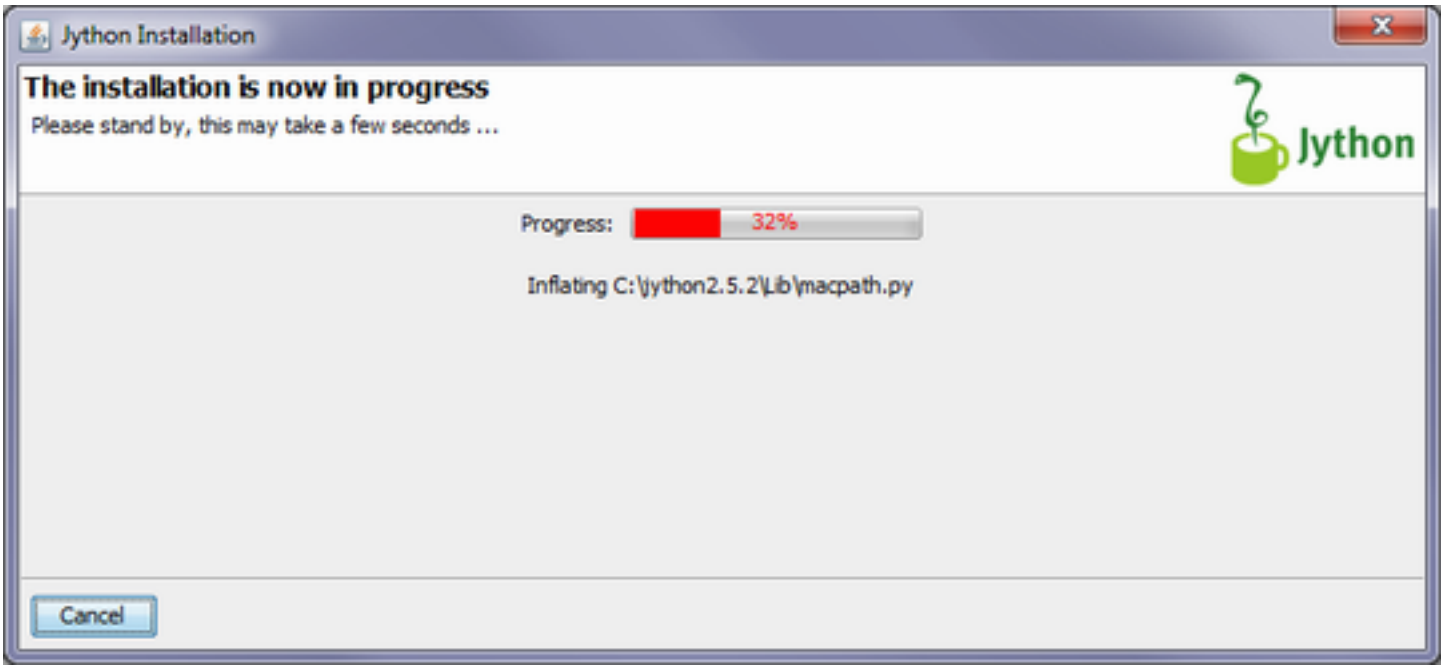


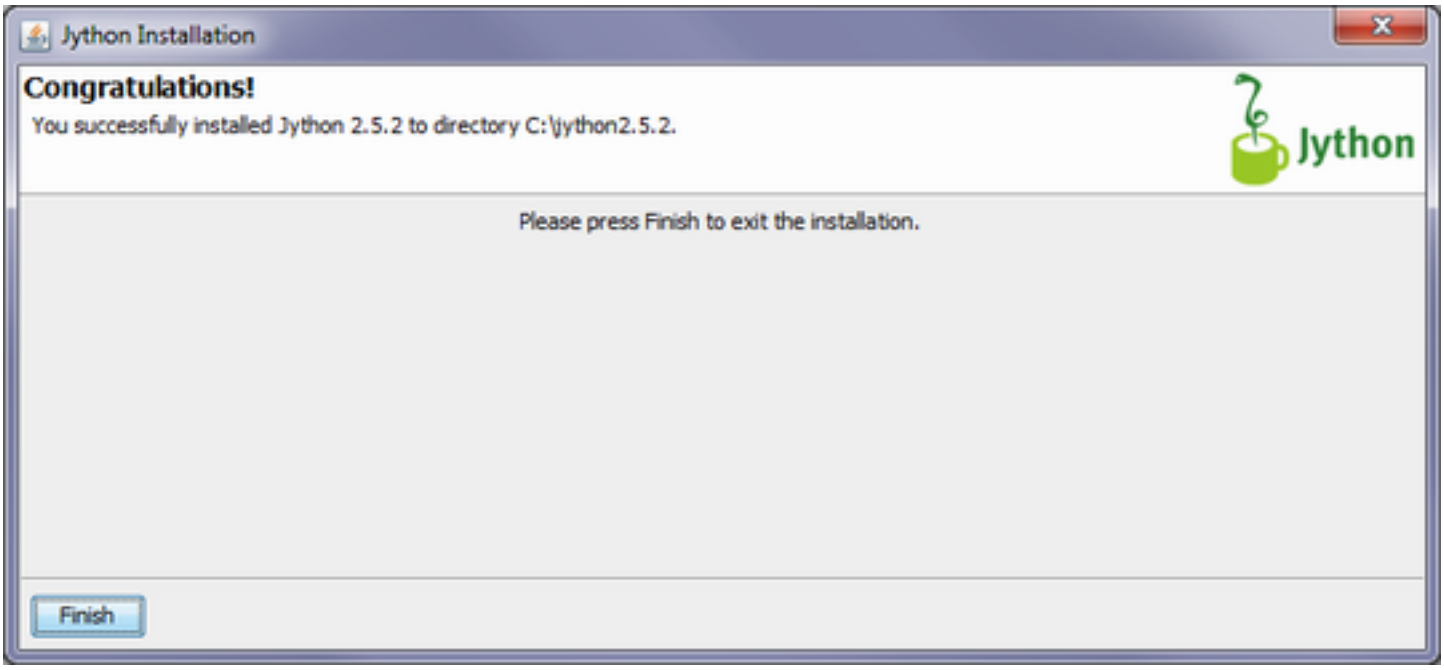

Jython Installation
Installation type
The following installation types are available
Jython
Please select the installation type:
All (everything, including sources)
Standard (core, library modules, demos, examples, documentation)
Minimum (core)
Standalone (a callable .jar file)
Custom
Core
Library modules
Demos and examples
Documentation
Sources
Cancel
Previous
Next


Jython Installation
Target directory
Choose the location where you want Jython to be installed to
Jython
Please select the target directory:
C:\jython2.5.2
Browse...
Cancel
Previous
Next


Jython Installation
Target java home
Choose the java version (JRE/JDK) to run Jython with
Jython
Please select the java home directory:
Current
Other
C:\Program Files\Java\jre6
Browse...
Cancel
Previous
Next


Jython Installation
Overview (summary of options)
The installation will be done using the following options
Jython
Target directory:
C:\jython2.5.2
Installation type:
All (everything, including sources)
OS name / version:
Windows 7
6.1
Ok
Java vendor / version:
Sun Microsystems Inc.
1.6.0_33
Ok
Please press Next to start the installation
Cancel
Previous
Next





Testing Installation

```
C:\jython2.5.2>jython.bat
*sys-package-mgr*: processing new jar, 'C:\jython2.5.2\jython.jar'
*sys-package-mgr*: processing new jar, 'C:\Program Files (x86)
\QuickTime\QTSystem\QTJava.zip'
*sys-package-mgr*: processing new jar, 'C:\Program
Files\Java\jre6\lib\resources.jar'
*sys-package-mgr*: processing new jar, 'C:\Program Files\Java\jre6\lib\rt.jar'
*sys-package-mgr*: processing new jar, 'C:\Program Files\Java\jre6\lib\jsse.jar'
*sys-package-mgr*: processing new jar, 'C:\Program Files\Java\jre6\lib\jce.jar'
```

```
*sys-package-mgr*: processing new jar, 'C:\Program
Files\Java\jre6\lib\charsets.jar'
*sys-package-mgr*: processing new jar, 'C:\Program
Files\Java\jre6\lib\ext\dnsns.jar'
*sys-package-mgr*: processing new jar, 'C:\Program
Files\Java\jre6\lib\ext\localedata.jar'
*sys-package-mgr*: processing new jar, 'C:\Program
Files\Java\jre6\lib\ext\sunjce_provider.jar'
Jython 2.5.2 (Release_2_5_2:7206, Mar 2 2011, 23:12:06)
[Java HotSpot(TM) 64-Bit Server VM (Sun Microsystems Inc.)] on java1.6.0_33
Type "help", "copyright", "credits" or "license" for more information.
>>>
```

- import os <enter>
- import sys <enter>
- for e in sys.path: print e <enter> <enter>
- type exit() <enter> (to leave interactive Jython)

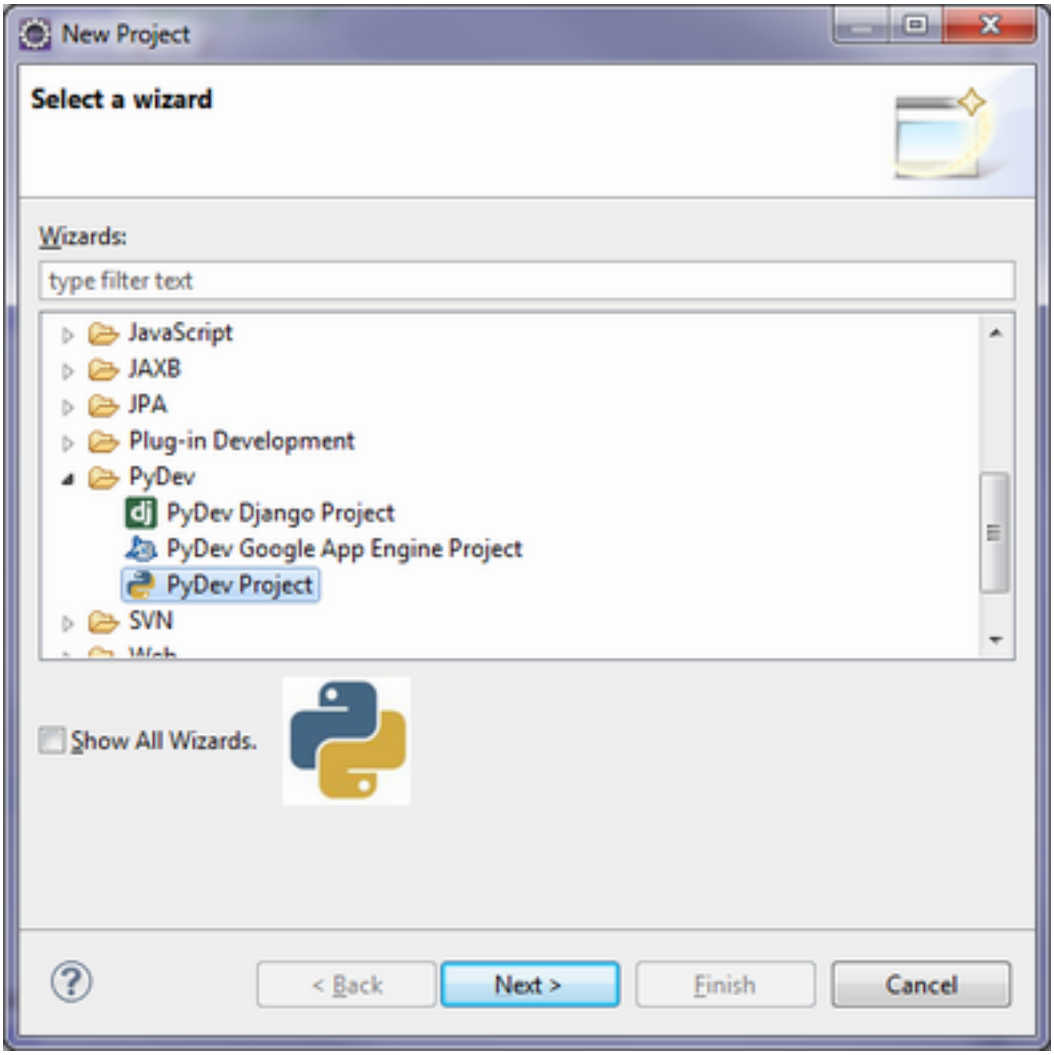
```
>>> import os
>>> import sys
>>> for e in sys.path: print e
...

C:\jython2.5.2\Lib
__classpath__
__pyclasspath__/
C:\jython2.5.2\Lib\site-packages
>>> exit()
```

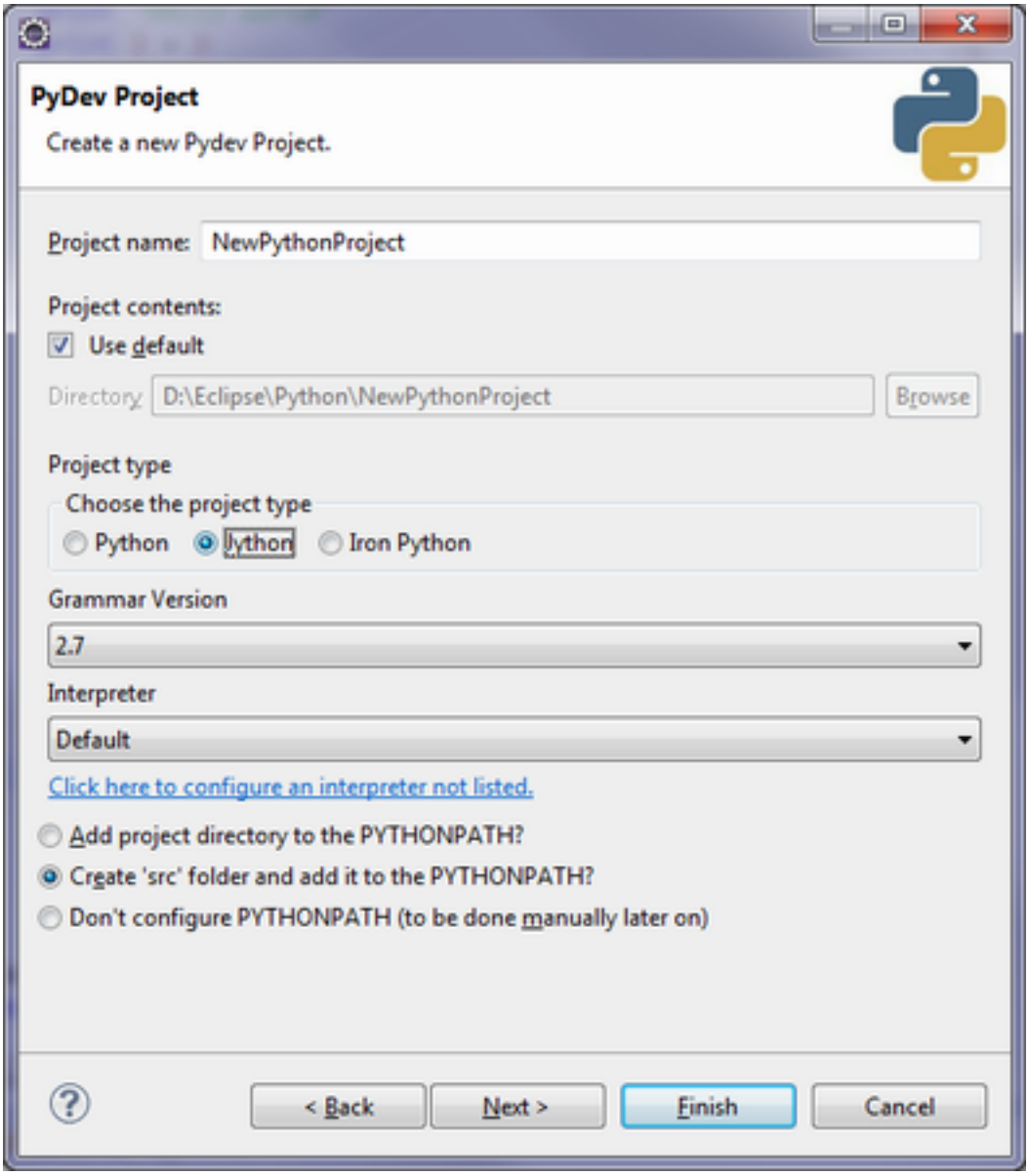
Configuring Eclipse

Open Python Workspace
New > PyDev Project
Jython Interpreter: D:\lib\jython2.5.2\jython.jar

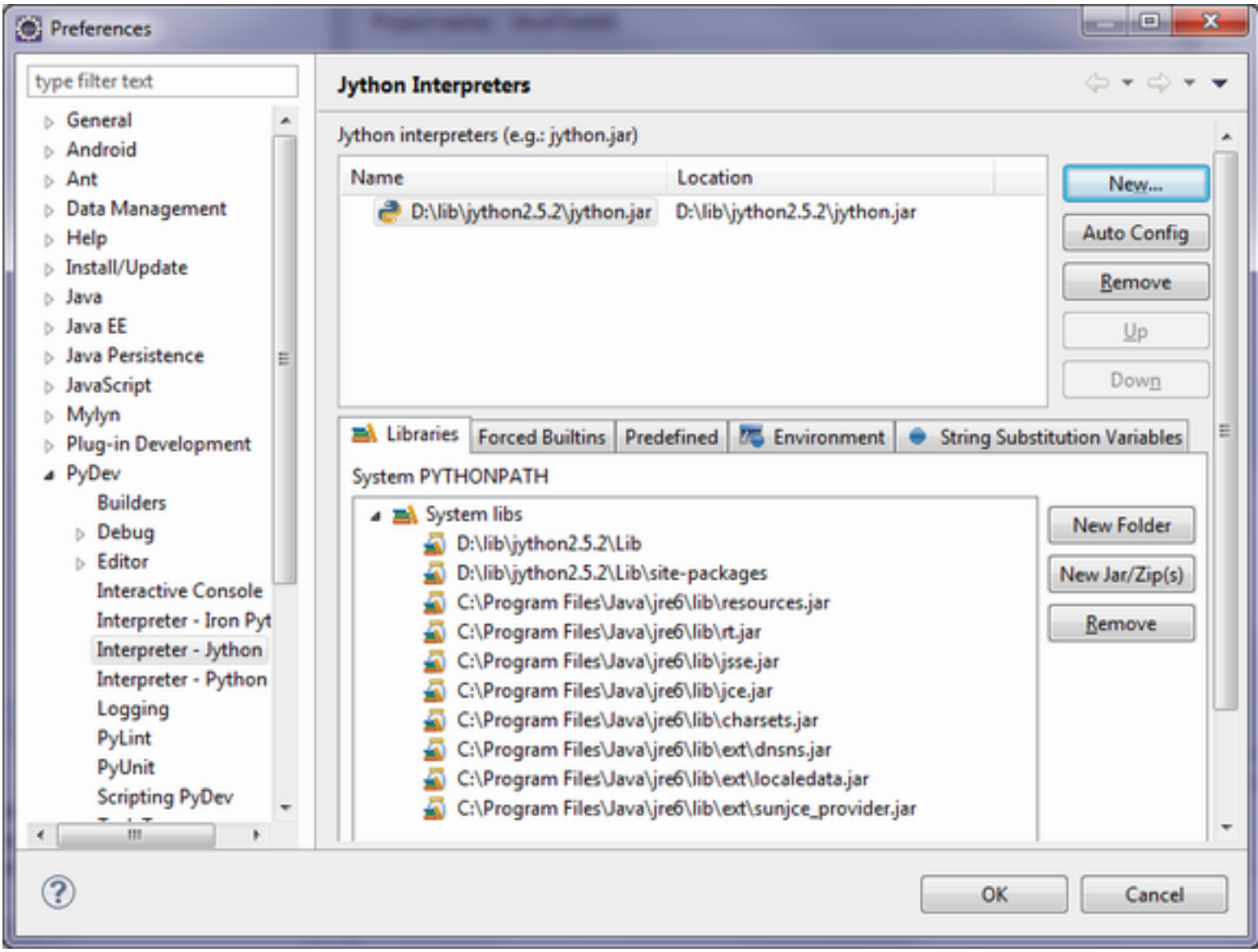
New > PyDev Project



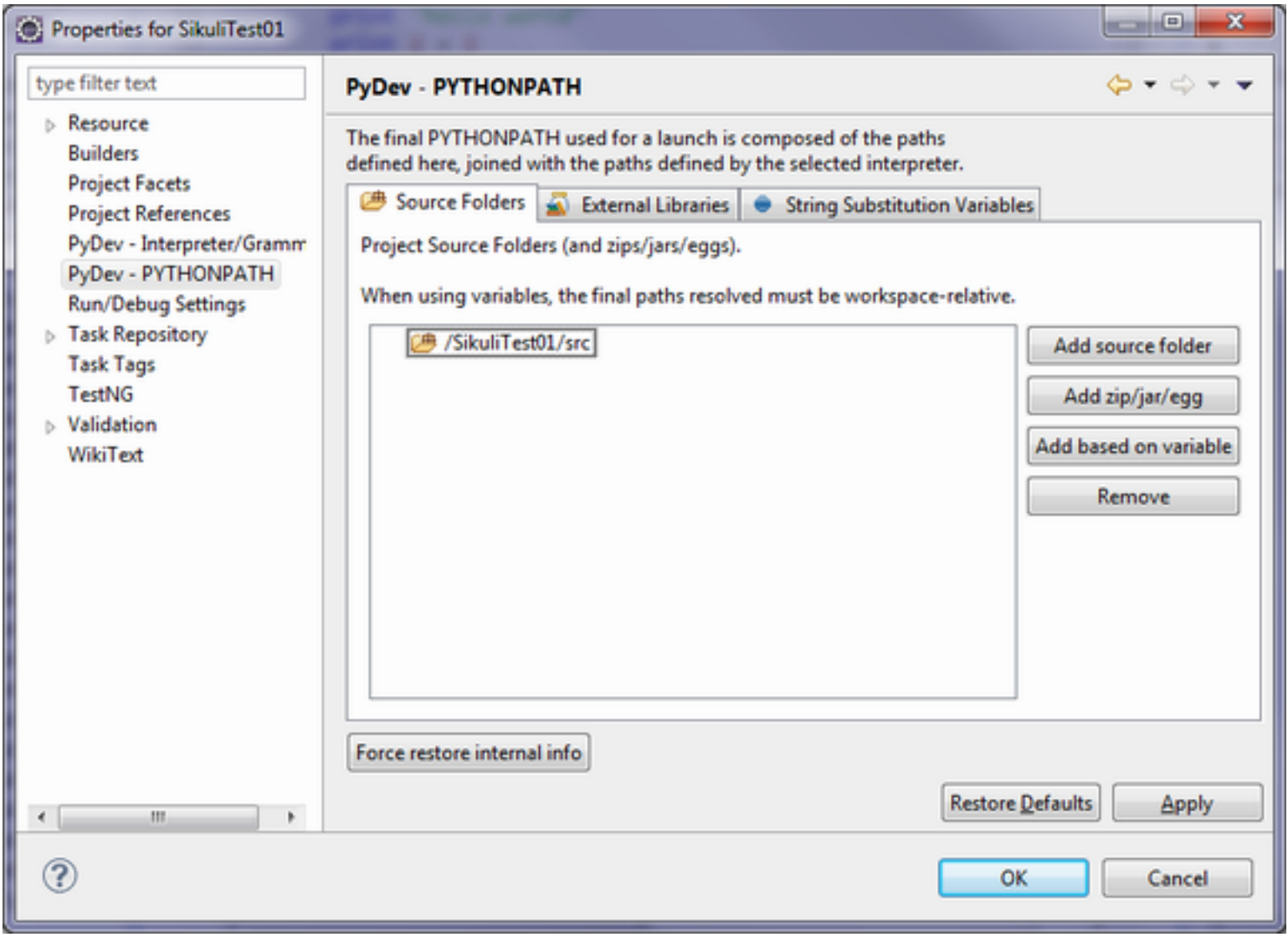
PyDev Project Settings(Jython)



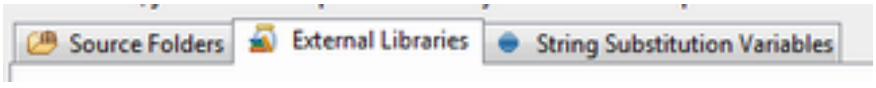
- **Jython Interpreter(jython.jar)**



- **Add sikuli-script.jar**

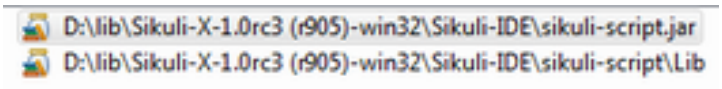


- **Go to External Libraries Tab (Add zip/jar/egg)**
- **Add sikuli-script.jar**
- **Extract '\Lib' from sikuli-script.jar, then add as 'source folder'**



D:\lib\Sikuli-X-1.0rc3 (r905)-win32\Sikuli-IDE\sikuli-script.jar

D:\lib\Sikuli-X-1.0rc3 (r905)-win32\Sikuli-IDE\sikuli-script\Lib



PyDev Projects for Sikuli, need to use the following import:

```
import sikuli.Sikuli import *
```

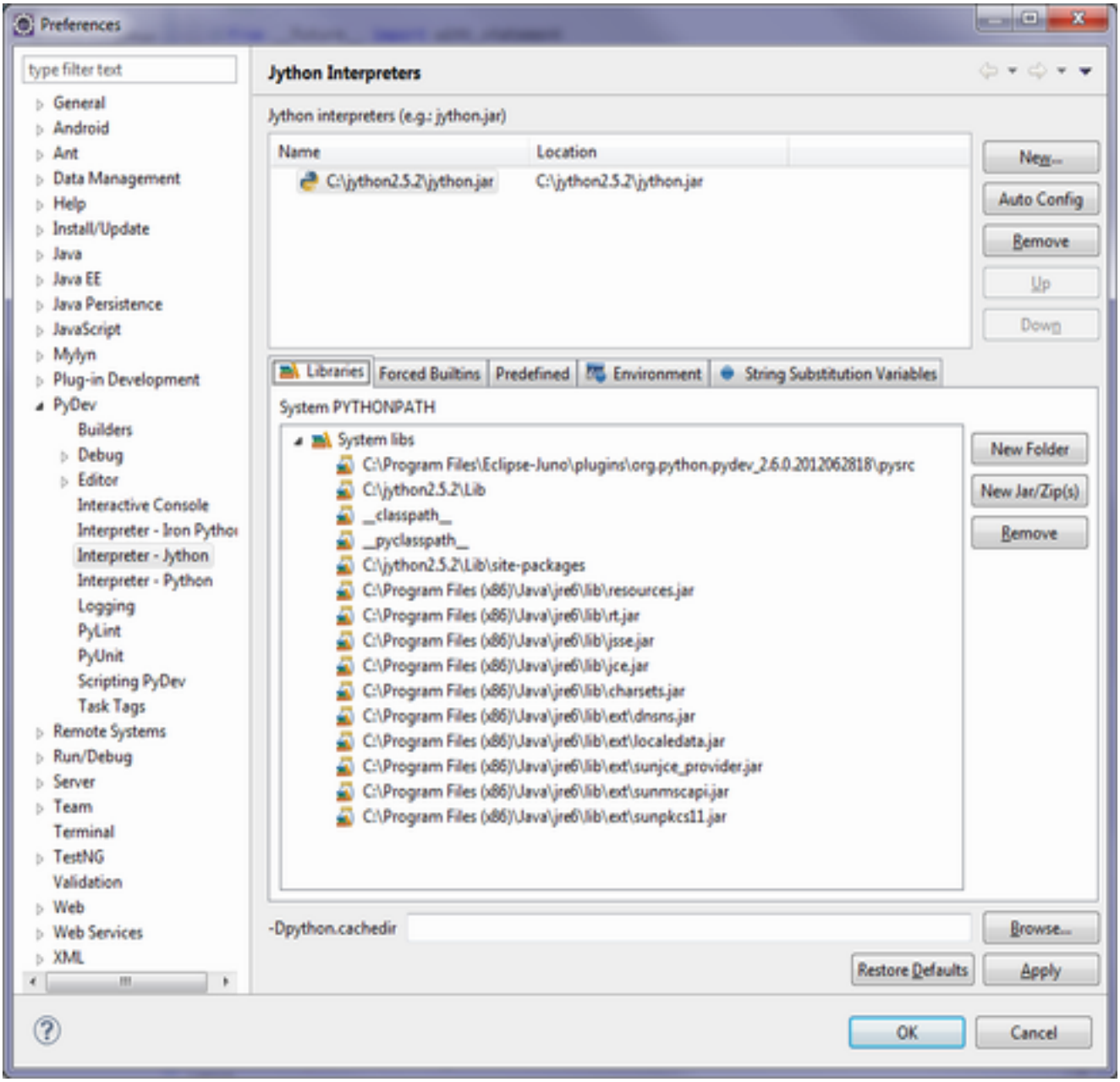
Eclipse Config for Jython/Sikuli

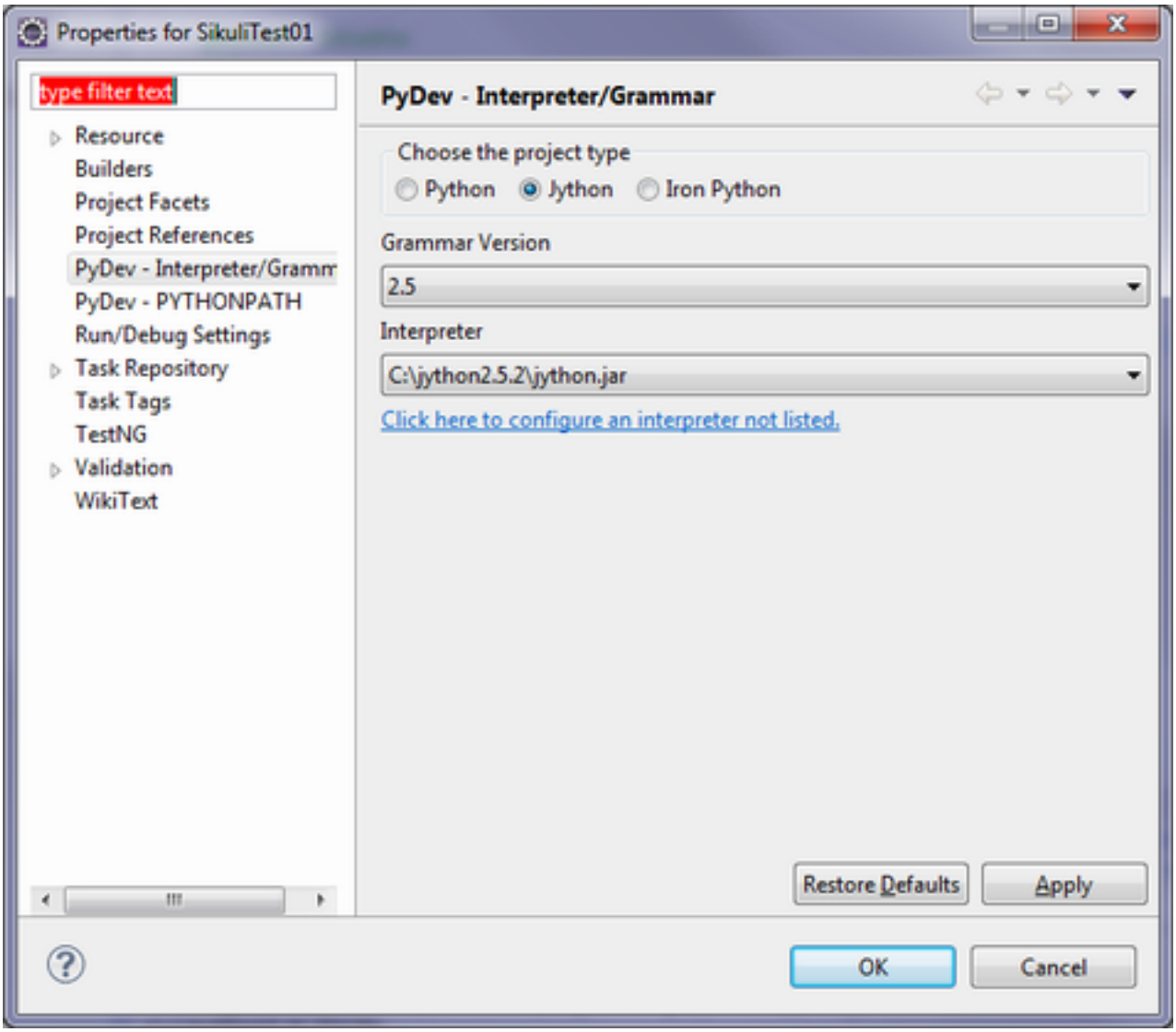
Eclipse > Window > Preferences > PyDev > Interpreter - Jython

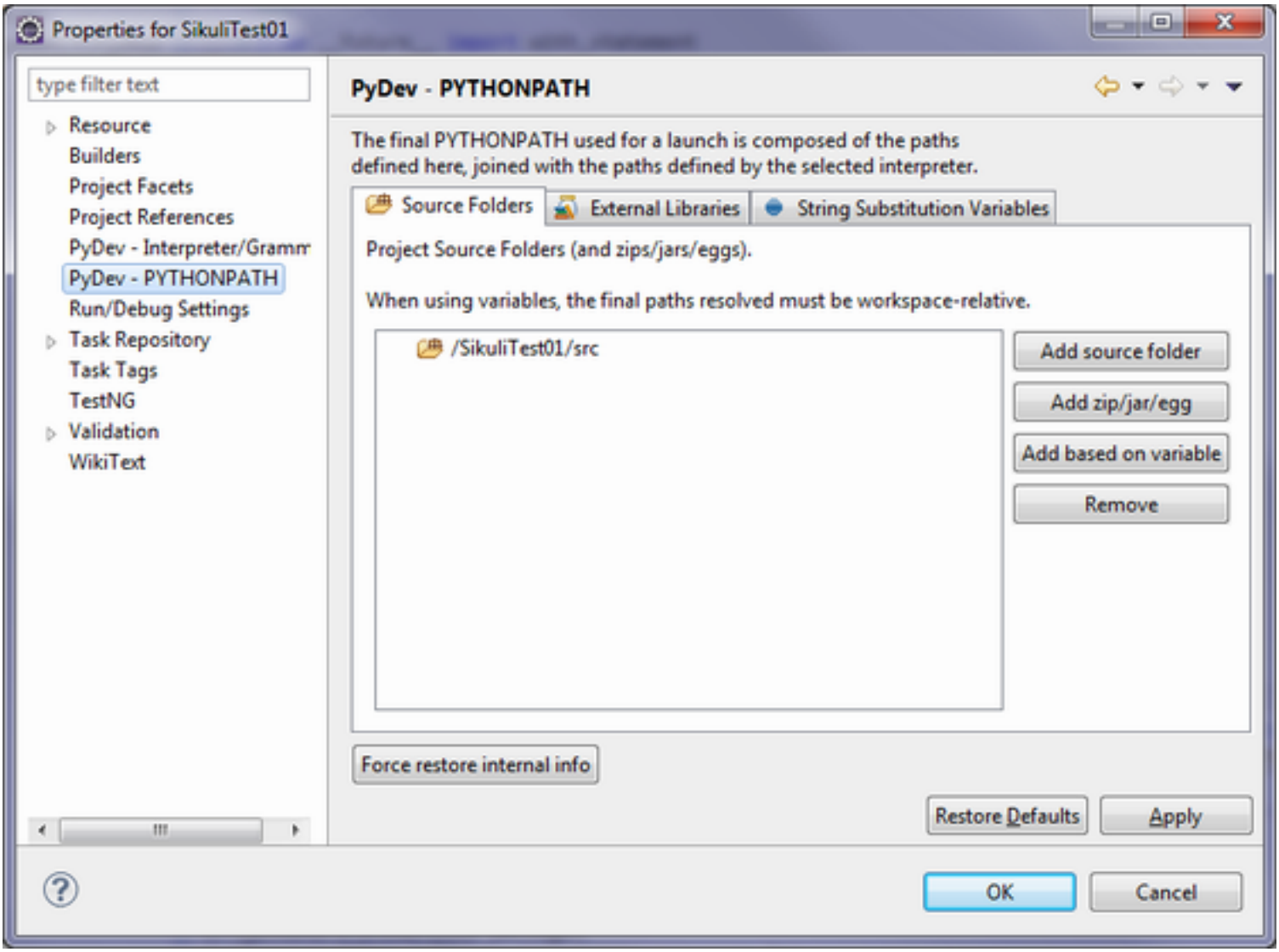
- **Interpreter - Jython** = Jython 2.5.2
- **PATH=**C:\Program Files (x86)\Java\jre6\bin;D:\lib\Sikuli32\Sikuli-IDE\libs;C:\Windows\SysWOW64\java.exe;
    - Without PATH, you will get: **java.lang.UnsatisfiedLinkError:**

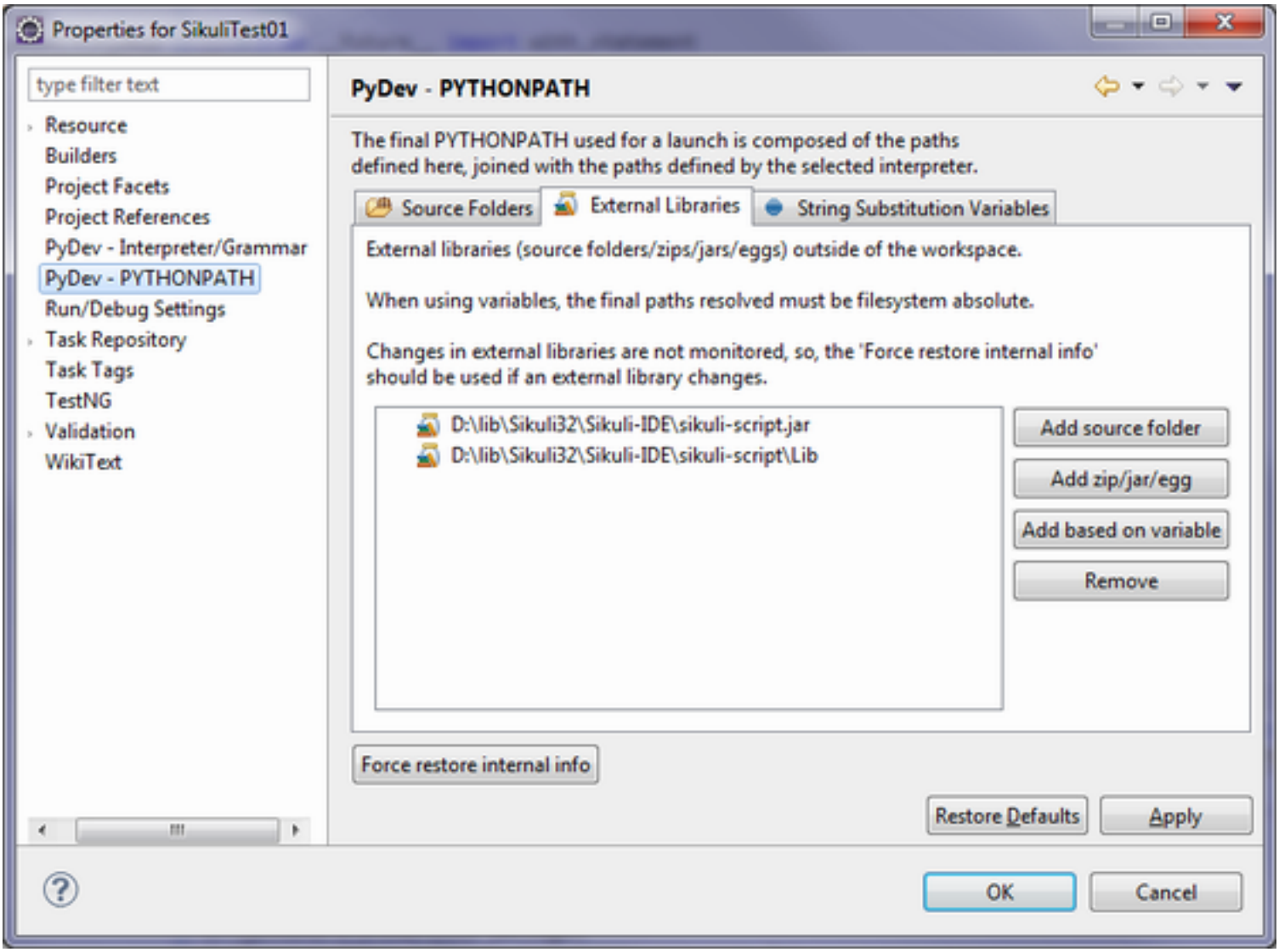
Project Preferences

- **PyDev - PYTHONPATH**
    - **Source Folders** = Project
    - **External Libraries** =
        - sikuli-script.jar
        - sikuli-script\Lib (Pull from siklui-script.jar)


Preferences
type filter text
General
Android
Ant
Data Management
Help
Install/Update
Java
Java EE
Java Persistence
JavaScript
Mylyn
Plug-in Development
PyDev
Builders
Debug
Editor
Interactive Console
Interpreter - Iron Pytho
Interpreter - Jython
Interpreter - Python
Logging
PyLint
PyUnit
Scripting PyDev
Task Tags
Remote Systems
Run/Debug
Server
Team
Terminal
TestNG
Validation
Web
Web Services
XML
Jython Interpreters
Jython interpreters (e.g.: jython.jar)
Name
Location
C:\jython2.5.2\jython.jar
C:\jython2.5.2\jython.jar
New...
Auto Config
Remove
Up
Down
Libraries
Forced Builtins
Predefined
Environment
String Substitution Variables
System PYTHONPATH
System libs
C:\Program Files\Eclipse-Juno\plugins\org.python.pydev_2.6.0.2012062818\pysrc
C:\jython2.5.2\Lib
__classpath__
__pyclasspath__
C:\jython2.5.2\Lib\site-packages
C:\Program Files (x86)\Java\jre6\lib\resources.jar
C:\Program Files (x86)\Java\jre6\lib\rt.jar
C:\Program Files (x86)\Java\jre6\lib\jsse.jar
C:\Program Files (x86)\Java\jre6\lib\jce.jar
C:\Program Files (x86)\Java\jre6\lib\charsets.jar
C:\Program Files (x86)\Java\jre6\lib\ext\dnsns.jar
C:\Program Files (x86)\Java\jre6\lib\ext\localedata.jar
C:\Program Files (x86)\Java\jre6\lib\ext\sunjce_provider.jar
C:\Program Files (x86)\Java\jre6\lib\ext\sunmscapi.jar
C:\Program Files (x86)\Java\jre6\lib\ext\sunpkcs11.jar
New Folder
New Jar/Zip(s)
Remove
-Dpython.cachedir
Browse...
Restore Defaults
Apply
OK
Cancel


Properties for SikuliTest01
type filter text
Resource
Builders
Project Facets
Project References
PyDev - Interpreter/Gramm
PyDev - PYTHONPATH
Run/Debug Settings
Task Repository
Task Tags
TestNG
Validation
WikiText
PyDev - Interpreter/Grammar
Choose the project type
Python
Jython
Iron Python
Grammar Version
2.5
Interpreter
C:\jython2.5.2\jython.jar
Click here to configure an interpreter not listed.
Restore Defaults
Apply
OK
Cancel


Properties for SikuliTest01
type filter text
Resource
Builders
Project Facets
Project References
PyDev - Interpreter/Gramm
PyDev - PYTHONPATH
Run/Debug Settings
Task Repository
Task Tags
TestNG
Validation
WikiText
PyDev - PYTHONPATH
The final PYTHONPATH used for a launch is composed of the paths defined here, joined with the paths defined by the selected interpreter.
Source Folders
External Libraries
String Substitution Variables
Project Source Folders (and zips/jars/eggs).
When using variables, the final paths resolved must be workspace-relative.
/SikuliTest01/src
Add source folder
Add zip/jar/egg
Add based on variable
Remove
Force restore internal info
Restore Defaults
Apply
OK
Cancel


Properties for SikuliTest01
type filter text
Resource
Builders
Project Facets
Project References
PyDev - Interpreter/Grammar
PyDev - PYTHONPATH
Run/Debug Settings
Task Repository
Task Tags
TestNG
Validation
WikiText
PyDev - PYTHONPATH
The final PYTHONPATH used for a launch is composed of the paths defined here, joined with the paths defined by the selected interpreter.
Source Folders
External Libraries
String Substitution Variables
External libraries (source folders/zips/jars/eggs) outside of the workspace.
When using variables, the final paths resolved must be filesystem absolute.
Changes in external libraries are not monitored, so, the 'Force restore internal info' should be used if an external library changes.
D:\lib\Sikuli32\Sikuli-IDE\sikuli-script.jar
D:\lib\Sikuli32\Sikuli-IDE\sikuli-script\Lib
Add source folder
Add zip/jar/egg
Add based on variable
Remove
Force restore internal info
Restore Defaults
Apply
OK
Cancel