# Deploying Python Modules For Spotfire Clients Usage

## Introduction

The purpose of the document is to outline the steps necessary to package Python custom modules, py files, and deploy them onto the Spotfire Server for usage by Spotfire clients.

### *Assumptions*

*You have admin access to the Spotfire server, and you have a Spotfire Developer license.*

## Table of Contents

## Step 1: Create or gather the custom python module file.

In this example, we create a custom python module file.

1. Create a new folder where you will place your custom python module file.
2. Launch a text editor such as Notepad. Add the following function definition:

```
def hello(string):
    return "Hello %s!" % (string,)
```

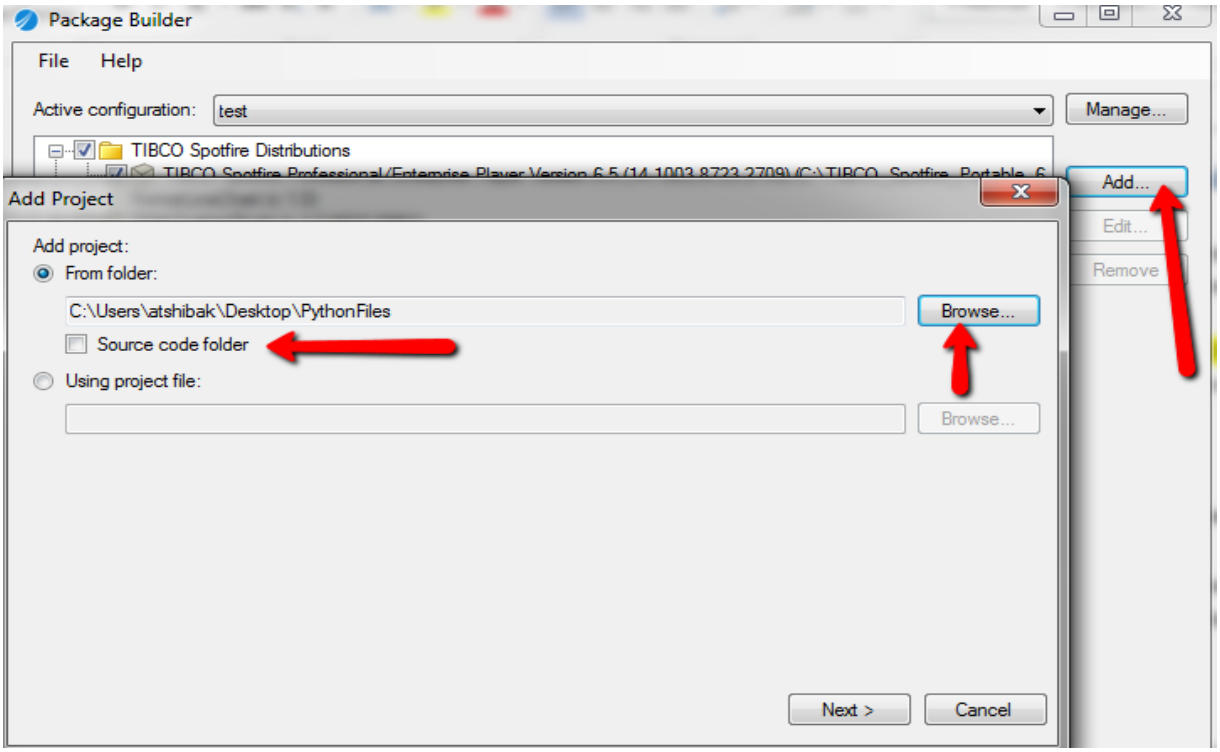
3. Save the file as mymodule.py into the new folder created in the previous step.

## Step 2: Create a package file (*.spk)

This steps requires to use the Spotfire SDK. This is a separate software that can be obtained if you have a Spotfire Developer license.

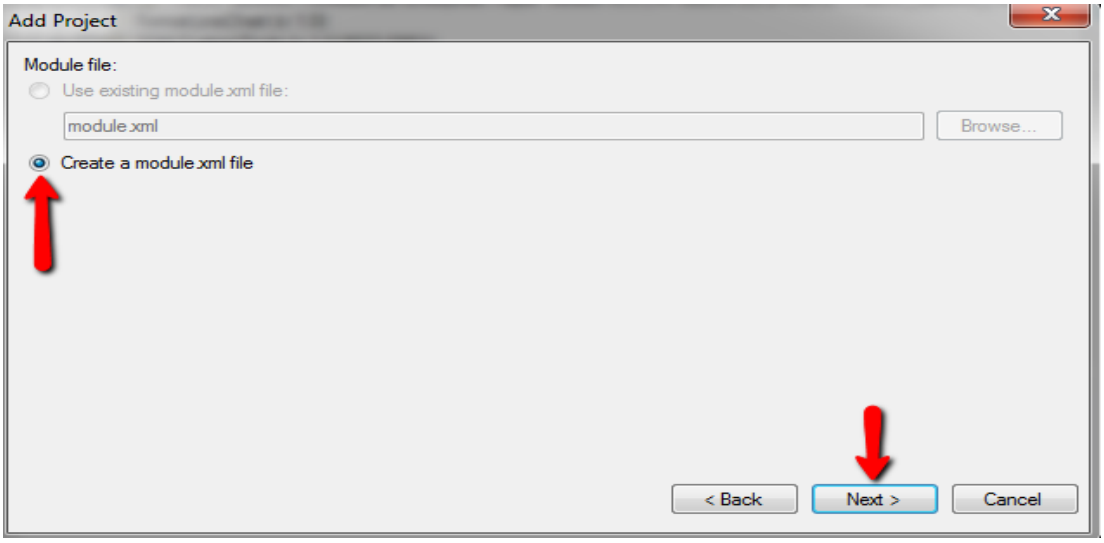
If this is the first time that you use the Spotfire SDK, see the referenced links below for installation instructions.

1. Launch the SDK Package builder
2. Click the 'Add...' button to add a new project
3. On the next window, leave selected the option 'Add project: From folder:' > Click Browse, and select your python files folder (this is the directory where you have kept all the files needed for this implementation)
4. Un-check the button for 'Source code folder'

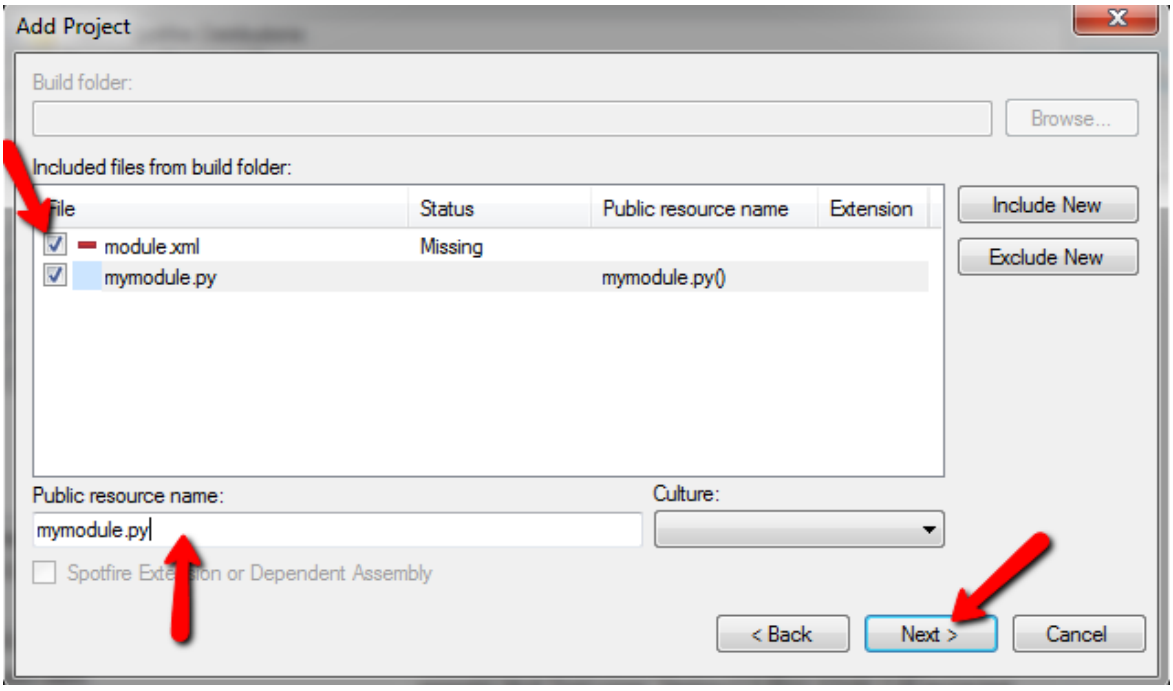



5. Click Next

6. Leave default option for creating the module.xml file

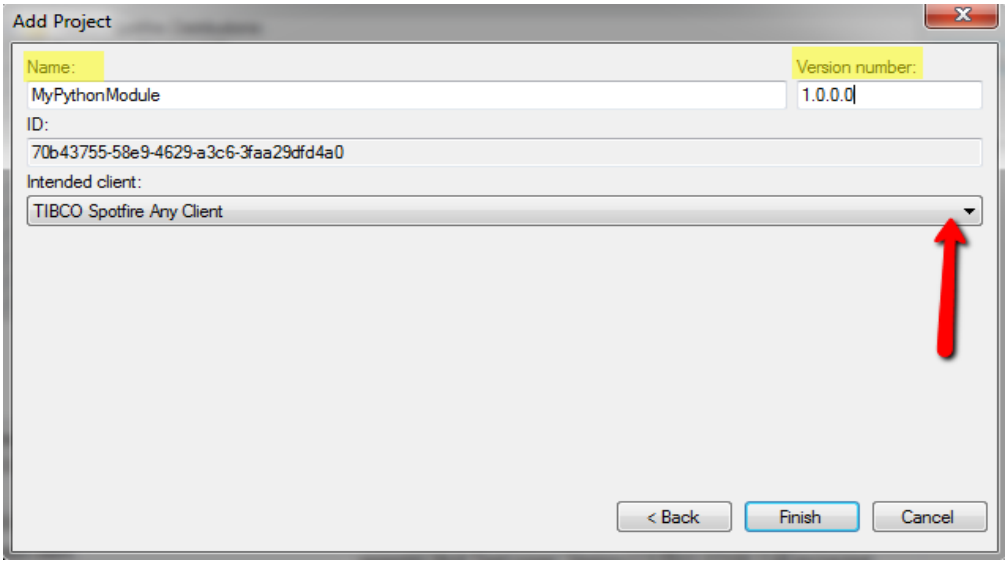



7. Click Next
8. Select your python module file to include within the package.
9. Make sure that you are giving the python module file (*.py file) a Public resource name with the same name.

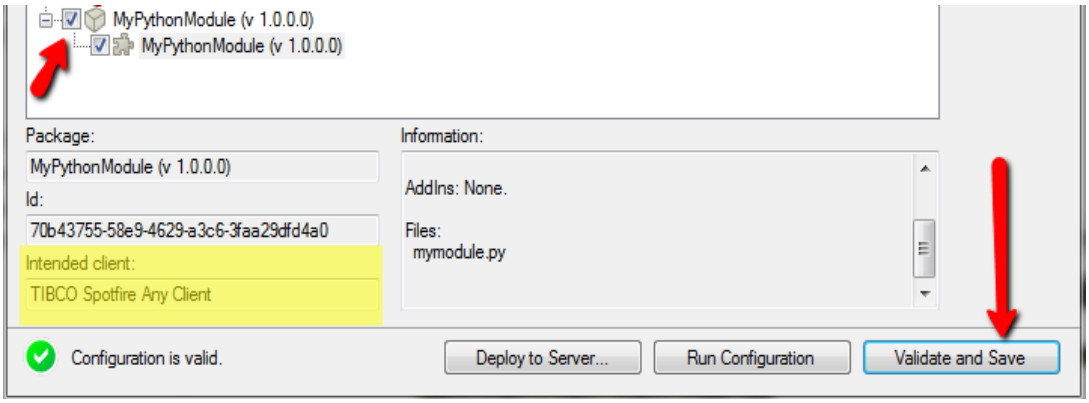



10. Click Next

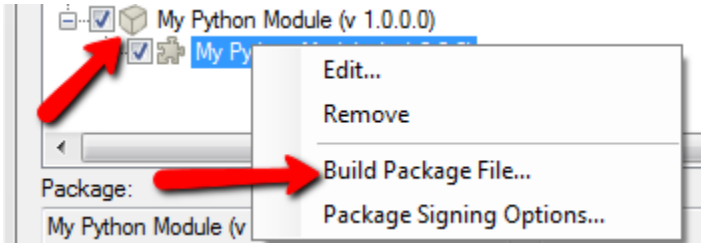
11. Change the intended client to "TIBCO Spotfire Any Client" to use the custom python module on all TIBCO Spotfire clients, and provide other information such as name and version number.




12. Click Finish
13. Click the Validate and Save button

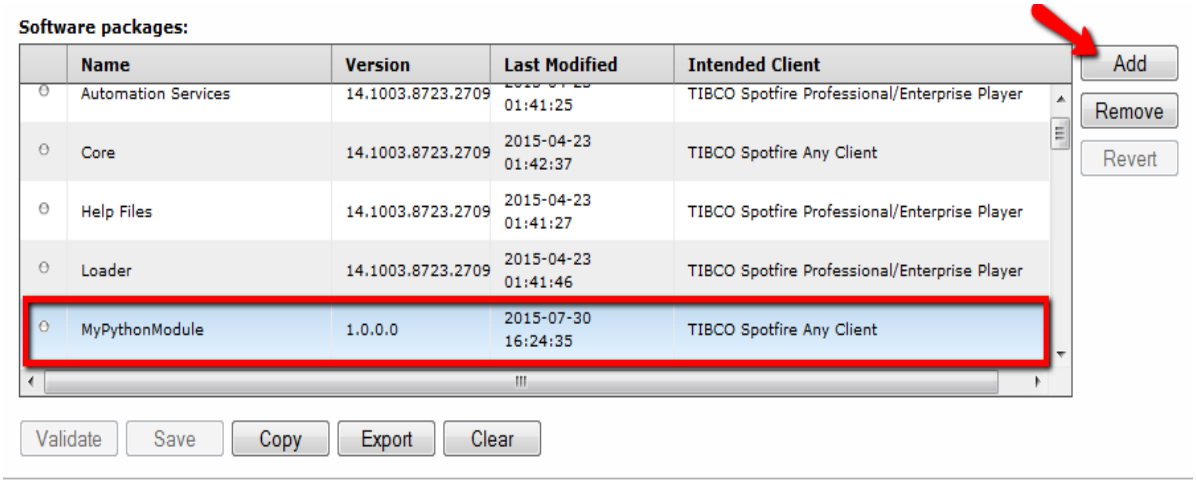



14. Right-click on the module and build an SPK file.



## Step 3: Deploy the Package File onto the Spotfire Server

1. Launch your browser, and navigate to the TIBCO Spotfire Server Administration Console. http://<host>:<port>/spotfire/administration/
2. Click Add.
3. Browse to select the package file that you created.
4. Click OK to the package to the Deployment area.
5. Click Validate
6. Then, click Save.



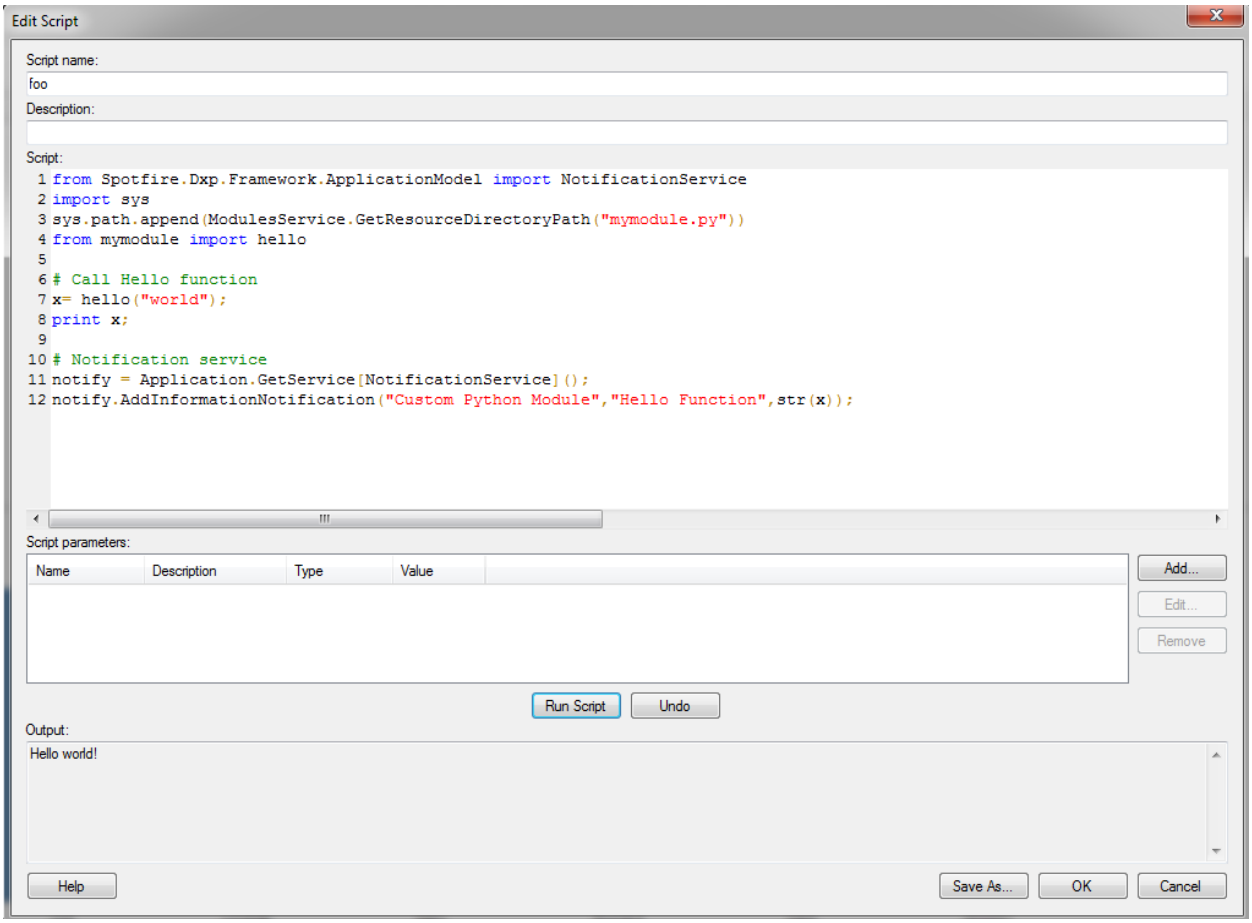
# Step 4: Use your custom python module in Spotfire Clients

1. Start Spotfire Professional/Analyst client, and connect to the Spotfire Server to install the package.
2. Create a script importing mymodule and calling 'hello' function as follow:

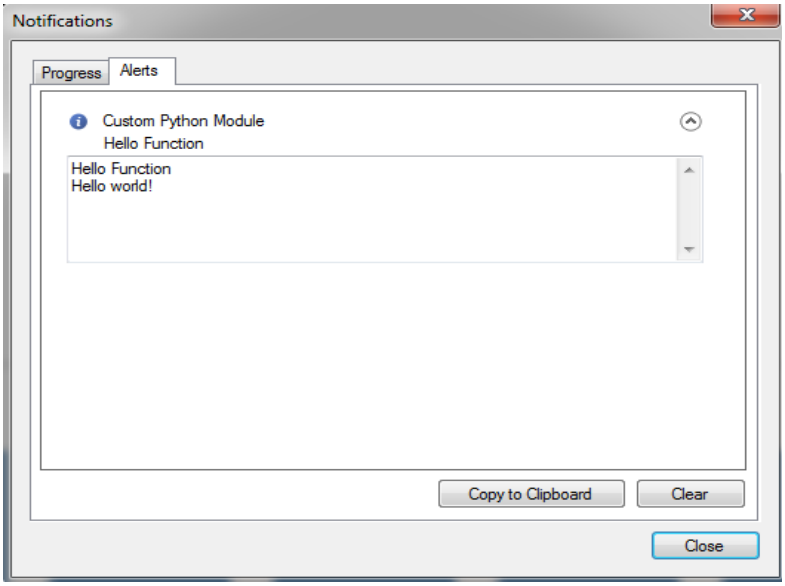
```
from Spotfire.Dxp.Framework.ApplicationModel import NotificationService
import sys
sys.path.append(ModulesService.GetResourceDirectoryPath("mymodule.py"))
from mymodule import hello

# Call Hello function
x= hello("world");
print x;

# Notification service
notify = Application.GetService[NotificationService]();
notify.AddInformationNotification("Custom Python Module","Hello Function",str(x));
```



## Results:




## References

- http://stn.spotfire.com/stn/Configure/ScriptingIntroduction.aspx#Accessing%20Python%20Modules
- http://stn.spotfire.com/stn/Extend/SDKOverview.aspx
- Video resource: http://learn.spotfire.tibco.com/course/view.php?id=106#section-2
- For registered customers,
  See Knowledge Article with ID ***40329*** at TIBCO Support Central (TSC) -https://support.tibco.com/