Using The ALPHACAM API With Python

This document presents a brief overview of configuring and running ALPHACAM using the API via the Python language. Two Integrated Development Environments (IDE's) will be discussed:

- Microsoft Visual Studio / Visual Studio Community
- PyCharm

The Python code is the same for each IDE. There are subtle differences with the way each IDE handles project files, which will be discussed below.

The project files are in the ALPHACAM Installation Media:

<Installation Media>\ALPHACAM\ExampleFiles\API\Python
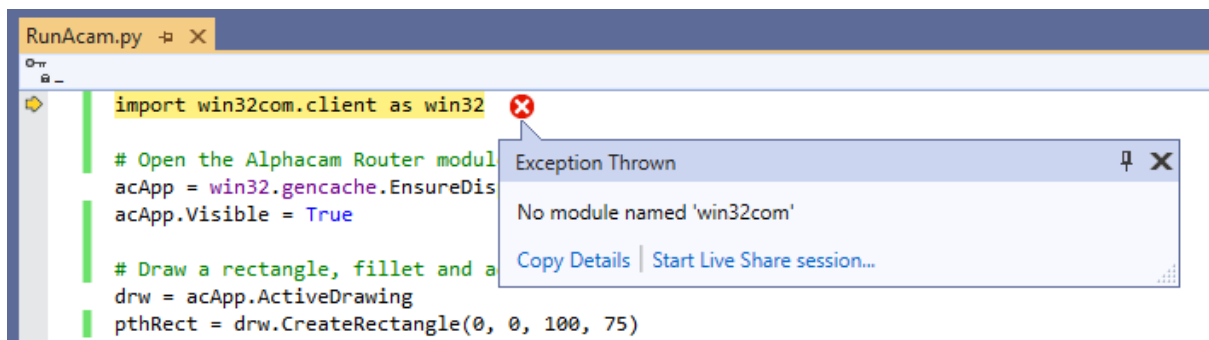
The following examples have been created:

RunAlphacam – A simple example to launch Alphacam and draw a rectangle and some text

SimpleParametricDoor – Asks the user to specify a Width and Height and draws a door to these sizes, and applies machining

NestFromCSV – Reads a CSV file and uses the SimpleParametricDoor example to create doors based on the sizes specified in the file. These are then nested.

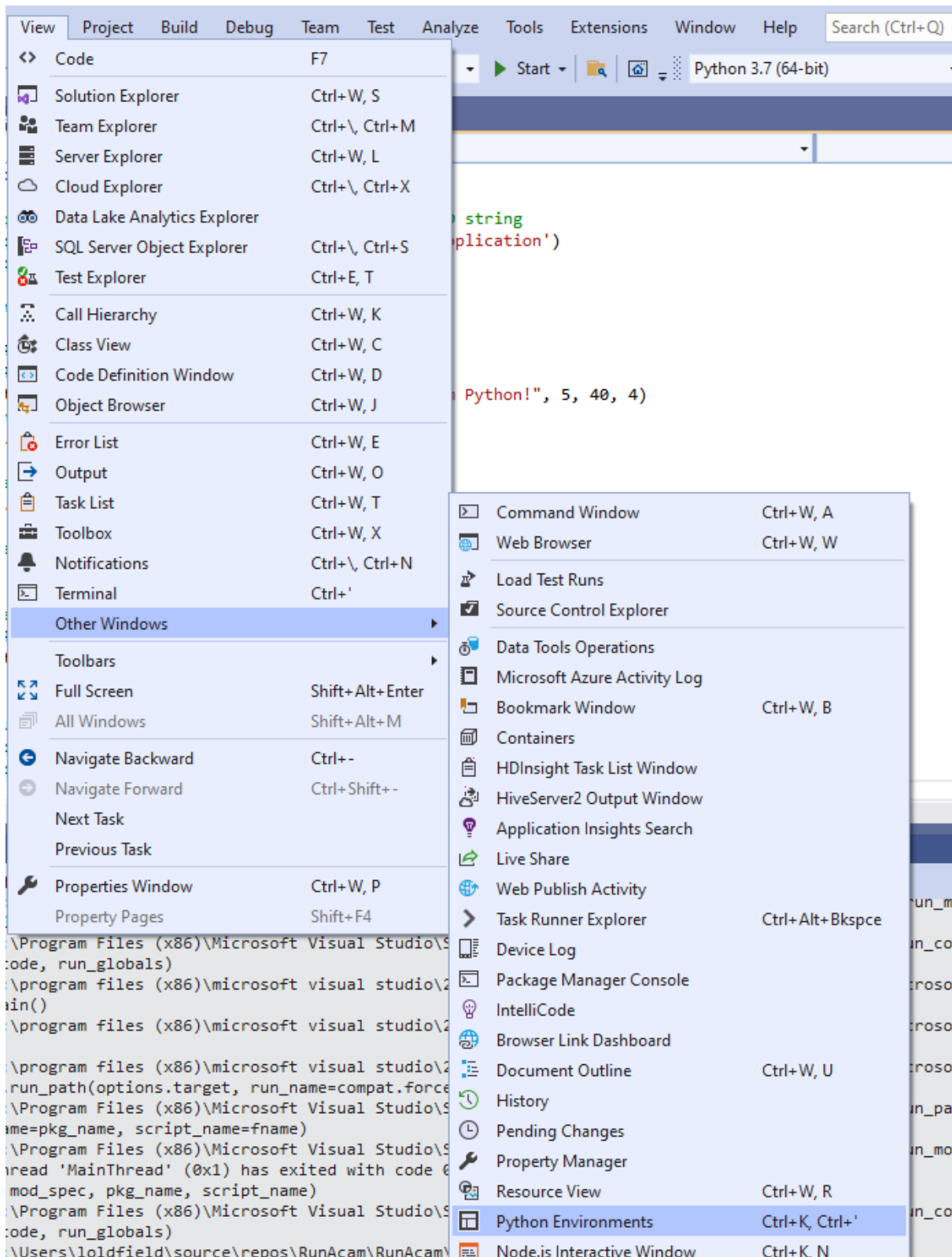## Microsoft Visual Studio / Visual Studio Community

The first time one of the samples is loaded and run, an error may be produced:
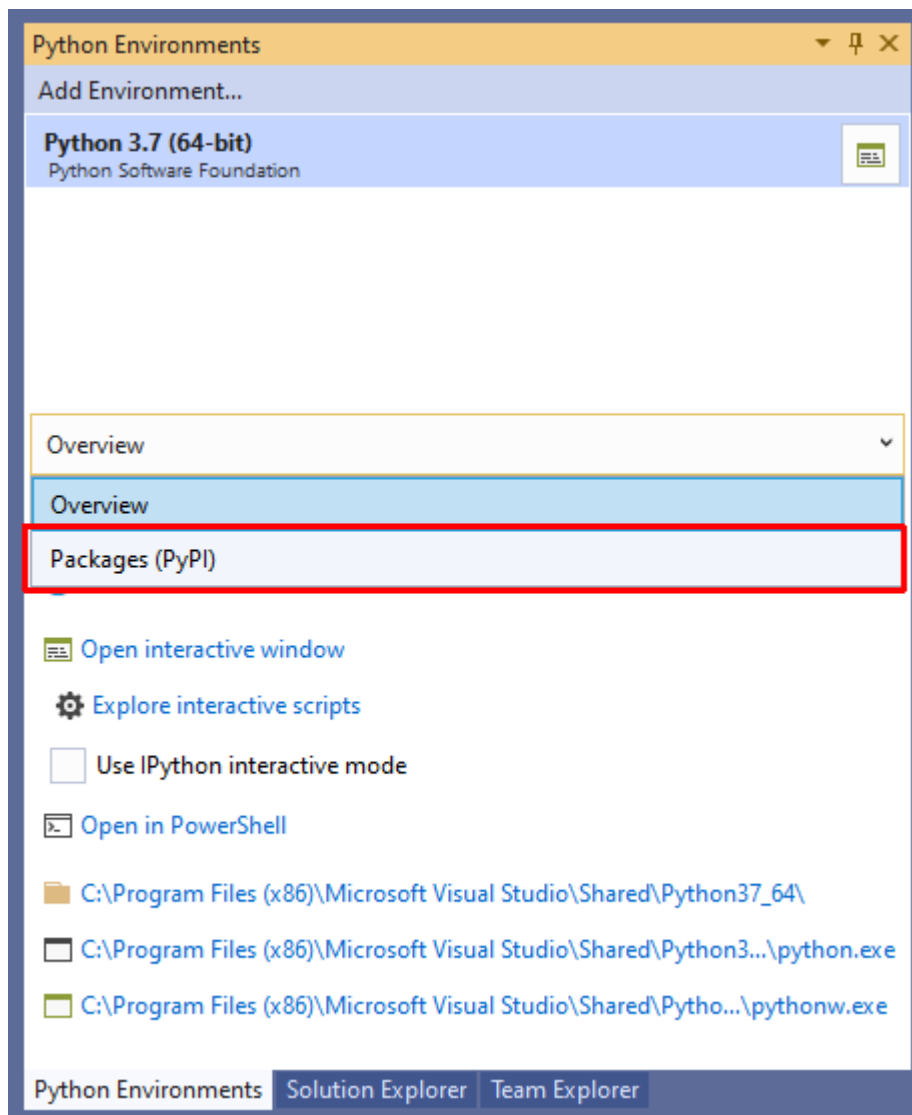

This means that Python needs an external package to be loaded to run this project.

To do this, select:

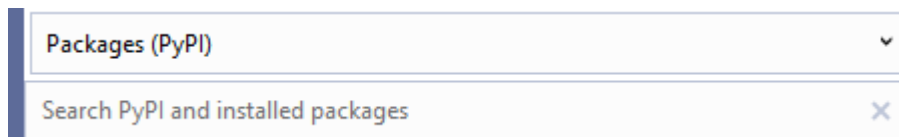View | Other Windows | Python Environments

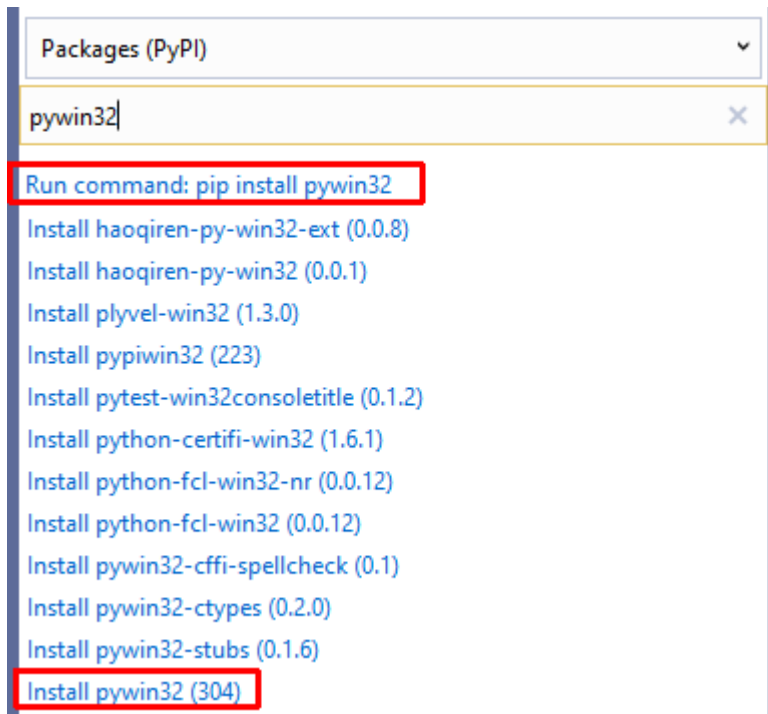This will add a "Python Environments" tab to the Visual Studio Project Explorer:

Select "Packages (PyPI)" from the drop-down.

A search bar will appear:

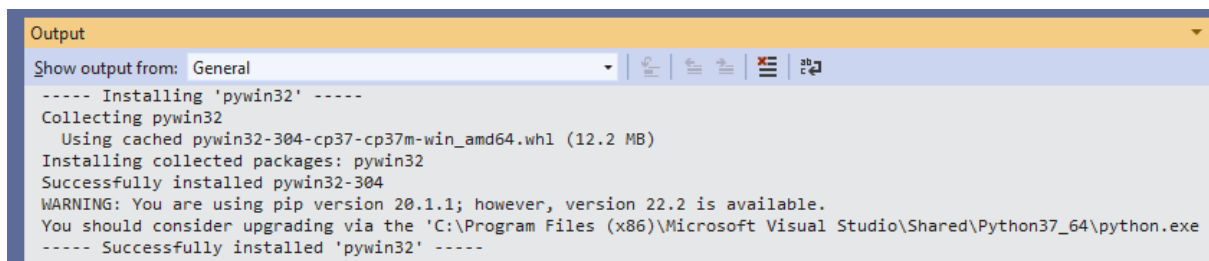Type "pywin32" into the search field.

Either select:

- Run Command: pip install pywin32

Or

- Install pywin32

The visual studio Output window will show:
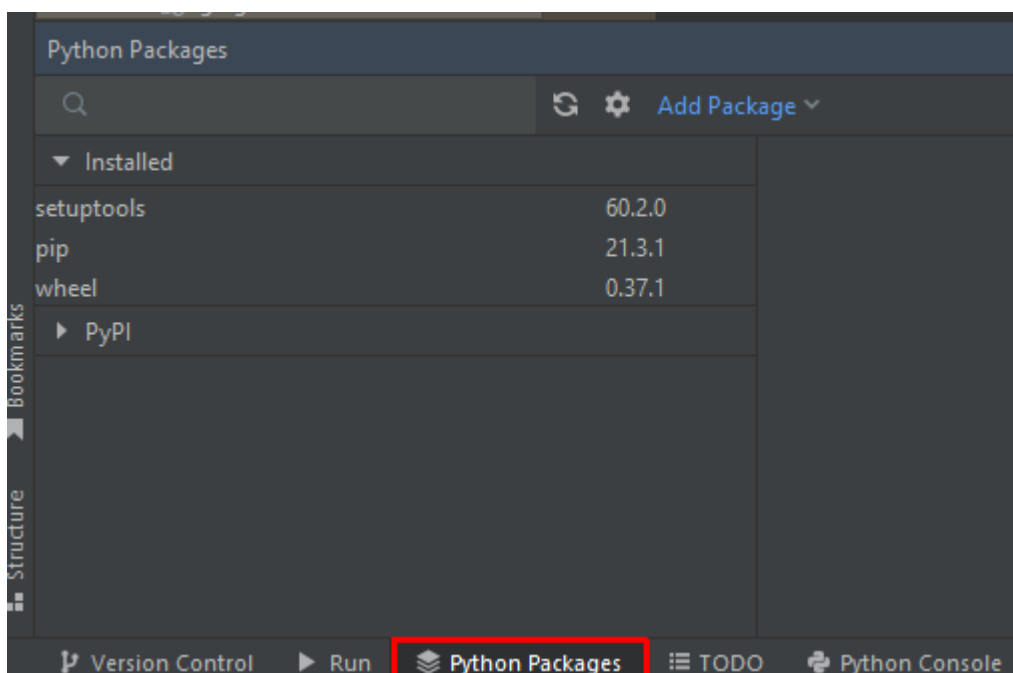

The sample code should now run correctly.

PyCharm

When attempting to run one of the sample files into the PyCharm development environment, the following error may be displayed:
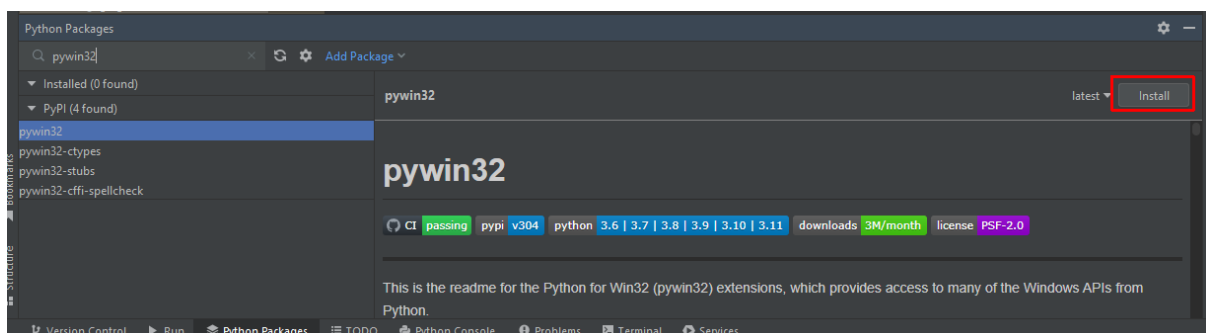

This means that Python needs an external package to be loaded to run this project.

To do this, select "Python Packages":

Type "pywin32" into the search:

Select "pywin32" from the list of results.

Click on the "Install" button to install the package.

The sample code should now run without error.