Installation of VPImodeDesigner 1.0.1

This documents describes several possible approaches to installing VPImodeDesigner 1.0.1, depending on your existing (registered as default Python) 64-bit Python 2.7 environment.

Important Notes

- VPI license server does not work on virtual machines. Therefore, to use VPImodeDesigner 1.0.1 with the *local trial license* provided with this installation, you should install it on a real computer.
- VPImodeDesigner 1.0.1 is available only for *64-bit* versions of the *Microsoft Windows* operating system, being tested to work under Windows 7, Windows 8.1, and Windows 10.
- VPImodeDesigner 1.0.1 is compatible only with *64-bit* version of *Python 2.7*, being fully tested to work with the Python 2.7 distribution provided together with VPImodeDesigner 1.0.1.
- You must have Administrator access with full control permissions to perform the installation.

Download

Please download the installation resources for VPImodeDesigner 1.0.1 from the provided local server or from the following VPIphotonics FTP server:

FTP download URL: ftp://vpi_md:4ecoc2017@www.vpiphotonics.com

or in other browsers: ftp://vpi_md:4ecoc2017@www.vpiphotonics.com/vpi_md/

for FTP clients:

location: www.vpiphotonics.com

login name: vpi_md

password: 4ecoc2017

Before you start, please unpack the provided installation archive "VPImodeDesigner-1.0.1.zip" to some temporary folder – in what follows, we shall refer to it as the *<InstallatorPath>*.

Standard Installation

The standard recommended installation process assumes that you have **no registered** installation of any 64-bit Python 2.7.

In this case, please "Run as administrator" the *"<InstallatorPath>/Setup.exe"* executable, and proceed with the installation as described on pages 4-12 of the "*<InstallatorPath>/*ReleaseNotes.pdf" file.

Please note that *this installation process is also safe* if you have already installed:

- Any 32-bit version of Python
- Any 64-bit version of Python 3.x.
- Any 64-bit version of Python 2.7 which *was not registered as default Python 2.7*.

Otherwise, if you have already installed some alternative distribution of 64-bit Python 2.7 *and registered it as default Python 2.7*, running *"<InstallatorPath>/Setup.exe"* executable *may corrupt* your existing Python installation.

Please either uninstall such Python distribution before installing VPImodeDesigner with the *"<InstallatorPath>/Setup.exe"*, or proceed as described in the sections below.

To install the license, please double-click the file *<InstallatorPath>/SupportFiles/License/md_demo.vpl*
 or save the license as *md_demo.lic* to the directory

 %ALLUSERSPROFILE%/Application Data/VPI/VPIlicenseServer/licenses or
C:/ProgramData/VPI/VPIlicenseServer/licenses.

After you have installed the license file, please restart (!) your computer to initialize the licensing service.

Installation in the presence of other registered Python 2.7 distributions

If you have some other registered 64-bit version of Python 2.7 distribution which you don't want to touch, the best way to install VPImodeDesigner 1.0.1 is to install first the Anaconda Distribution with 64-bit Python 2.7 (download link: https://repo.continuum.io/archive/Anaconda2-4.4.0-Windows-x86_64.exe). Importantly, **do not register it as your default Python 2.7**, as it is illustrated in the figure below:
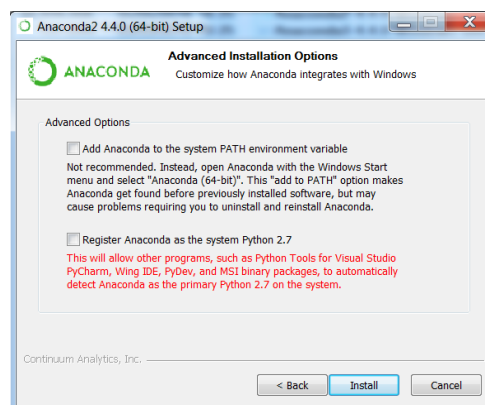
After this, proceed with the installation of VPImodeDesigner 1.0.1 as described in the next section.

Installation for Anaconda Distribution

Currently, the most popular scientific and engineering Python distribution seems to be the **Anaconda Distribution** (see https://docs.anaconda.com/anaconda/).

Assuming that you have already installed a recent version of Anaconda Distribution with 64-bit Python 2.7 (verified for Anaconda 4.4.0 available from https://repo.continuum.io/archive/Anaconda2-4.4.0-Windows-x86_64.exe) to the folder *<AnacondaPath>*, you can install VPImodeDesigner 1.0.1 as follows.

Step 1. Install VPI License Server

For this, run as administrator the *"<InstallatorPath>/SupportFiles/VPIlicenseServer/Setup.exe"* executable and proceed as described in the section "Installing VPIlicenseServer" on pages 11-12 of the "*<InstallatorPath>/*ReleaseNotes.pdf" file.

To install the license, please double-click the file ***<InstallatorPath>/SupportFiles/License/md_demo.vpl*** or save the license as ***md_demo.lic*** to the directory

%ALLUSERSPROFILE%/Application Data/VPI/VPIlicenseServer/licenses or ***C:/ProgramData/VPI/VPIlicenseServer/licenses***.

After you have installed the license file, please restart (!) your computer to initialize the licensing service.
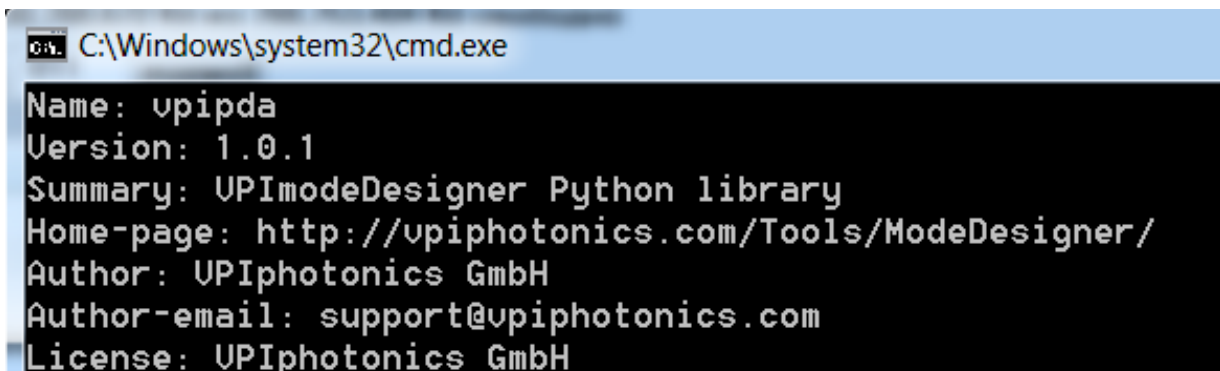
Step 2. Install vpipda Python library

For this, run (as administrator!) the command:

<AnacondaPath>/Scripts/pip.exe install <InstallatorPath>/Anaconda/vpipda-1.0.1-cp27-cp27m-win_amd64.whl

Note that you can verify if vpipda library was installed correctly with the command:

<AnacondaPath>/Scripts/pip.exe show vpipda

After running this command with the windows prompt, you should see the following message:

Step 3. Update matplotlib Python library

The above installed "vpipda-1.0.1" Python library depends on the "matplotlib" Python library for scientific visualization and is fully compatible with its 1.5.3 version.

However, the most recent Anaconda Distribution 4.4.0 installs by default the 2.0.2 version of matplotlib, which is only partially compatible with "vpipda-1.0.1".

To gain the full power of VPImodeDesigner, it is strongly recommended because of this to update matplotlib and install its 1.5.3 version with the following commands (run them as administrator!):

<AnacondaPath>/Scripts/pip.exe uninstall matplotlib

<AnacondaPath>/Scripts/pip.exe install matplotlib==1.5.3

Note that you will need Internet connection to perform this operation.

Importantly, later on you can always safely return to the original version of matplotlib by running the commands:

<AnacondaPath>/Scripts/pip.exe uninstall matplotlib

<AnacondaPath>/Scripts/pip.exe install matplotlib

which will install again the latest available matplotlib version.

Step 4. Copy examples and documentation

VPImodeDesigner provides an extensive documentation and executable application and tutorial examples in the form of Jupyter (IPython) Notebooks. To get access to these documentation and examples from the Anaconda environment, please copy the folder "*<InstallatorPath>/Anaconda/VPImodeDesigner 1.0.1*" into **"%USERPROFILE%"** directory, which is used by default by Anaconda Distribution as the start-up folder for its "Jupyter Notebook" service.

Step 5. Run test examples

Run "Jupyter Notebook" from "Anaconda 2 (64-bit)" folder in the Windows Start menu. It will start the Jupyter Notebook server in a new tab of your default Internet browser.

In this tab, switch to the "*VPImodeDesigner 1.0.1*" folder which you copied at the previous step.

Here, the file "VPImodeDesigner User's Manual.pdf" provides VPImodeDesigner User's Manual. All examples from this manual are available as Jupyter (IPython) Notebooks in the subfolder "Tutorial Examples". Additional application-specific examples are available in the subfolder "Application Examples".

Verify that VPImodeDesigner is installed correctly by running one of its examples – a good starting point for this purpose is the file "VPImodeDesigner 1.0.1\Tutorial Examples\02 - Getting Started.ipynb".