# Installing Eclipse IDE on Windows for Python Developers

Brief walkthrough for Python developers explains how to install Python IDE in Eclipse on Windows

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## Introduction

Eclipse Python Development Toolkit (PyDev) is an add-on to Eclipse IDE. See more information at https://www.pydev.org/<sup>®</sup>

For more detailed explanation of Eclipse installation, update, configuration, etc. see the companion document "Installing Eclipse IDE on Windows for Java and C/C++ Developers".

There are following steps that you need to perform before you can develop Python programs using Eclipse

- Install Eclipse IDE
- Install Python interpreter
- Install Eclipse Python development toolkit (PyDev) add-on
- Configure Python specific Eclipse workspace preferences

After all components are installed and configured, you shall write a sample Python program in Eclipse and run it.

# **Installing Eclipse IDE**

We recommend to follow the companion document "Installing Eclipse IDE on Windows for Java and C/C++ Developers". But you can install Eclipse in any other way.

Install whatever Eclipse variant you desire, for example, Eclipse IDE for Java. Or you can install Eclipse Platform, Java EE, C/C++ Developers, etc.

You shall perform the following steps before proceeding to Python specific tasks

Step to perform	Companion document section
Overview	Introduction
Install Java SE Development Kit (JDK)	Java Standard Edition (Java SE)
Install Eclipse IDE itself	Installing Eclipse IDE
Run Eclipse IDE	Running Eclipse IDE the First Time

Return to this document after all abovementioned steps are completed.

# **Installing Python Interpreter**

Vendor's instructions are at https://docs.python.org/3.7/using/windows.html#installing-python<sup>®</sup>. Note that 3.7 shall be replaced with the Python version that you intend to install. Also note that if you use Windows version prior to Windows Vista (for example, Windows XP) you shall install Python 3.4.

You shall read the vendor's instructions but do not have to. This document provides enough details.

Use your browser to open https://www.python.org/<sup>®</sup> website. The screenshots were taken when the last version was Python 3.6.3, but you will see more recent version.



Click on the latest Python version in **Download** section.

Firefox is up to d × C/C	C++ Programming ×	🕻 🛛 🕝 Dr. Gary Blank IE 🗙 🗍 🧕 Ir	istall 🗙 🥥 Python Release P 🗙 -	+	
🛈 🔒 Python Software Found	dation (US) https://w	www.python.org/d C Q Sec	irch 👌 👌 🔒 🏠 💟		*
3.6/ReadMe.rtf. There is certificate validation. • macOS users: There is in ull Changelog Files	s important inform	nation there about changes in th	e 3.6 installer-supplied Python, particularly w Tk on macOS here.	vith regard to	SSL
Version	Operating System	Description	MD5 Sum	File Size	GPG
Gzipped source tarball	Source release		e9180c69ed9a878a4a8a3ab221e32fa9	22673115	SIG
XZ compressed source	Source release		b9c2c36c33fb89bda1fefd37ad5af9be	16974296	SIG
Mac OS X 64-bit/32-bit installer	Mac OS X	for Mac OS X 10.6 and later	ce31f17c952c657244a5cd0cccae34ad	27696231	SIG
Windows help file	Windows		a82270d7193f9fb8554687e7ca342df1	8020197	SIG
Windows x86-64 embeddable zip file	Windows	for AMD64/EM64T/x64, not Itanium processors	b1daa2a41589d7504117991104b96fe5	7145844	SIG
Windows x86-64 executable installer	Windows	for AMD64/EM64T/x64, not Itanium processors	89044fb577636803bf49f36371dca09c	31619840	SIG
Windows x86-64 web- based installer	Windows	for AMD64/EM64T/x64, not Itanium processors	b6d61642327f25a5ebd1a7f11a6d3707	1312480	SIG
Windows x86 embeddable zip file	Windows		cf1c75ad7ccf9dec57ba7269198fd56b	6388018	SIG
Windows x86 executable	Windows		3811c6d3203358e0c0c6b6677ae980d3	30584520	SIG
Windows x86 web-based	Windows		39c2879cecf252d4c935e4f8c3087aa2	1287056	SIG

On the next page scroll down to **Files** section and click on **Windows x86-64 executable installer** (or, if you are running older 32bit Windows, **Windows x86 executable installer**).

Save the downloaded file somewhere. Specific file dialogs depend on the browser and the version of Windows. Here is an example for Firefox.

Opening python-3.6.3-amd64.exe	×
You have chosen to open:	
python-3.6.3-amd64.exe	
which is: Binary File (30.2 MB) from: https://www.python.org	
Would you like to save this file?	_
Save File Cancel	

Find the downloaded Python installer and run it.

#### You will see the window below.



You need to decide whether you want to add Python to PATH environment variable. Note that this setting does not affect Eclipse.

When Python is in the PATH and you run Python program from a command line

- If you have exactly one Python version, it easier to run Python
- If you have multiple Python versions, it may become confusing what version is used

Below is assumed that Python is added to PATH. Adjust it as needed.

If you are installing Python for yourself

- Check Add Python 3.N to Path (1)
- Click on Install Now (2A)

If you are doing shared Python installation (so all users can use Python) or need to choose different location or features

- Check Add Python 3.N to Path (1)
- Click on Customize installation (2B)

2. Python 3.6.3 (64-bit) Setup **Optional Features** Documentation 2 Installs the Python documentation file. 🗹 pip Installs pip, which can download and install other Python packages. ✓ tcl/tk and IDLE Installs tkinter and the IDLE development environment. Python test suite Installs the standard library test suite. y launcher for <u>all users</u> (requires elevation) Use Programs and Features to remove the 'py' launcher. python <u>B</u>ack <u>Cancel</u> <u>N</u>ext

If you select custom installation, the following window will appear.

Select desired features (we recommend pip to be always selected). Press Next button.

## Advanced Options window will appear. If you are installing Python for yourself

≌,	Python 3.6.3 (64-bit) Setup	_ (	×
	Advanced Options          Image: Ima		
a python for windows	Customize install location C:\Users\mur\AppData\Local\Programs\Python\Python36 You will require write permissions for the selected location.           Back	B <u>r</u> e <u>C</u> a	owse

- Leave **Install for all users** unchecked ①
- Be sure that Add Python to environment variables is checked (2)
- Select appropriate options and install location (3), defaults are OK
- Press Install button ④

## If you are doing shared Python installation

2	Python 3.6.3 (64-bit) Setup	- 🗆 🗙
	Advanced Options <ul> <li>Install for <u>all users</u></li> <li>Associate files with Python (requires the py launcher)</li> <li>Create shortcuts for installed applications</li> <li>Add Python to <u>environment variables</u></li> <li>Precompile standard library</li> <li>Download debugging <u>symbols</u></li> <li>Download debug binaries (requires VS 2015 or later)</li> </ul>	
python windows	Customize install location C:\Program Files\Python36 <u>B</u> ack	B <u>r</u> owse

- Check Install for all users (1)
- Be sure that Add Python to environment variables is checked (2)
- Select appropriate options and install location (3), defaults are OK
- Press Install button ④

#### Wait until the install process completes.

4	Python 3.6.3 (64-bit) Setup	-		x
	Setup Progress			
	Installing: Python 3.6.3 Standard Library (64-bit)			
python windows		<u>C</u>	ancel	

Press **Close** button to exit the installer.



## Installing Eclipse Python Development Toolkit (PyDev) Add-on

If you have Eclipse IDE for Java or C/C++ Developers or any other Eclipse IDE variant and want to do Python development, you will have to install PyDev add-on.

This document provides detailed installation instructions. If you prefer, you can follow brief instructions at https://www.pydev.org/manual\_101\_install.html<sup>®</sup>. It does not matter which way is used to install PyDev, as long as it is done properly.

To be able to install add-ons (or update), Eclipse requires an Internet access. By default, Eclipse uses the same settings as Windows browser, so if you can browse the Internet, you, very probably, will be able to use install/update features in Eclipse. See the companion's "Appendix 3 - Configuring Eclipse for Internet Access", if you are having Internet connectivity problems in Eclipse.

If you are using Windows 10, 8, 7, or Vista and Eclipse is installed in some folder inside \Program Files or some other similar folder

- You have to run Eclipse as Administrator in order to be able to install Eclipse add-ons or update Eclipse software. In such a case close all open Eclipse windows. Start Eclipse again with "Run as Administrator" option (move mouse pointer over Eclipse icon, right click to open a context menu, select "Run as Administrator"). After a workspace selection window appears, select an appropriately named workspace that is not used for anything else (for example, C:\Users\Kamilla\Workspace\Administrator). See companion's "Appendix 4 Managing Eclipse Software" for details.
- ✓ After Eclipse software is installed/updated exit the Eclipse and start it again regular way.
- ✓ IMPORTANT! Do not run Eclipse "as Administrator" unless you are doing Eclipse software install/update!
- If Eclipse is installed in your user data folder or you are not using Windows 10, 8, 7, or Vista
- ✓ You can install Eclipse add-ons and update Eclipse software by launching Eclipse regular way, using any Eclipse workspace.
- ✓ You can use existing workspace or create new workspace dedicated to Python.

Start Eclipse as Administrator, if needed.

In the Eclipse window, open **Help** menu, select **Install New Software** option.

🕘 Java EE - Eclipse						x
File Edit Navigate Search Project Run Wir	ndow Help		_			
🔁 🕶 🔒 🕒 🔅 🕶 💽 🕶 🍋 🕶 🕄	3 🔹 🚱	Welcome	_R 🗟 😿 💈	· + ₩ + ←	<b>+</b> ⇒ <b>+</b>	
	0	Help Contents		Quick Acces	s 🕴 😭 🙀 Jav	a EE
Project Explorer 🛛 🖳 🗖	2	Search		📴 Outli 😫 🥛	Task 🗖 🗖	
□ 🔄 🔁		Dynamic Help			<b>9</b> ~	3
		Key Assist Ctrl+Shift+L		An outline is not av	vailable.	$\square$
	-	Tips and Tricks				
	樾	Report Bug or Enhancement				
	~					
	~~ ~	Check for Updates				
	- 40× - 624	Installation Details				
	mp	Eclipse Marketplace				
		About Eclipse				
🔝 Mar	rkers 🛛 🗌	Properties   ജ Servers 🎬 Data Source Explorer 🛛	Snippets		<b>₽ ▽ □</b> □	
0 items						
Descrip	otion	Resource	Path	Location	Туре	
0 items selected						

## You will see the following window

• N	Install	×
Available Software		
Select a site or enter the location of a site.		
Work with <sup>®</sup> type or select a site	✓ 2 Add	<u>M</u> anage
type filter text		
Name	Version	
① ① There is no site selected.         Select All         Deselect All		
Details		
Show only the latest versions of available software	1 ☑ <u>H</u> ide items that are already installed	
	What is <u>already installed</u> ?	
Show only software applicable to target environment		
	oftware	
?	< <u>B</u> ack <u>N</u> ext > <u>F</u> inish	Cancel

Check **Hide items that are already installed** (1) if it is not checked already. Press **Add** button (2) to add PyDev update site to Eclipse.

•	Install		×
Available Software Select a site or enter the location of	of a site.		
Work with: type or select a site		Add	Manage
type filter text			
Name	Version		
Select All Deselect All Details	Add Repository		Â
Show only the latest versions of a	available software 🗹 Hide items that are already installed		
<ul> <li>✓ Group items by category</li> <li>☐ Show only software applicable to</li> <li>✓ Contact all update sites during in</li> </ul>	What is <u>already installed</u> ? target environment istall to find required software		
?	< Back Next >	Finish	Cancel

When all components are selected click **Next** button and complete the installation.

After you press Add button (1), you will see the pop-up window above. Enter the following

Name 2	PyDev – Python IDE for Eclipse
Location 3	https://www.pydev.org/updates/

and press **OK** button (4).

Now select **PyDev for Eclipse** and **PyDev Mylyn Integration** and click **Next** button.

•	Install
Available Software Check the items that you wish to install.	
Work with: PyDev - Python IDE for Eclipse - http://ww	ww.pydev.org/updates/ v Add Manage
type filter text	
Name	Version
⊿ ■ 000 PyDev	
PyDev for Eclipse	6.1.0.201711051306
📉 🚯 PyDev for Eclipse Developer Resources	6.1.0.201711051306
<ul> <li>Image: PyDev Mylyn Integration (optional)</li> <li>Pydev Mylyn Integration</li> </ul>	0.6.0
Select All Deselect All 2 items selected	:d
Details	
Python Development Environment	ũ.
Show only the latest versions of available software	✓ Hide items that are already installed
Group items by category	What is already installed?
Show only software applicable to target environment	+
Contact all update sites during install to find required	d software
(?)	< Back Next > Finish Cancel

Note. If you do not see PyDev for Eclipse and PyDev Mylyn Integration, or see "All items are installed" message – it means that PyDev components are already installed. In such a case, just cancel the installation wizard.

You will see a window with a list of components to be installed. You may see more components than shown below if, for example, you installing Mylyn for the first time.

e .	Install	×
Review the items to be installed.		
Name	Version	Id
咏 PyDev for Eclipse 咏 Pydev Mylyn Integration	6.1.0.201711051306 0.6.0	org.python.pydev.feature.feature.group org.python.pydev.mylyn.feature.feature.group
Size: 0 Bytes Details		
		¢
?	< <u>B</u> ack	Next > Einish Cancel

Press **Next** button to continue.

You will see the following window

Install	×
Review Licenses Licenses must be reviewed before the software can be installed. To to complete the install.	his includes licenses for software required
Licenses:	License <u>t</u> ext:
<ul> <li>Eclipse Foundation Software User Agreement</li> <li>Eclipse Public License</li> <li>Eclipse Public License - v 1.0</li> </ul>	Eclipse Foundation Software User Agreement April 9, 2014 Usage Of Content THE ECLIPSE FOUNDATION MAKES AVAILABLE SOFTWARE, DOCUMENTATION, INFORMATION AND/OR OTHER MATERIALS FOR OPEN SOURCE PROJECTS (COLLECTIVELY "CONTENT"). USE OF THE CONTENT IS GOVERNED BY THE TERMS AND CONDITIONS OF THIS AGREEMENT AND/OR THE TERMS AND CONDITIONS OF LICENSE AGREEMENTS OR NOTICES INDICATED OR REFERENCED BELOW. BY USING THE CONTENT, YOU
? < <u>B</u> ack	Next > Einish Cancel

Review the licenses. Select "I accept the terms of the license agreements" ① and press Finish button ②.

💮 Installing Software
Installing Software
Downloading org.eclipse.cdt.gdb
Always run in background
Run in Background Cancel Details >>

Wait until the installation is completed.

If you get the Security Warning popup window below

٢	Security Warning	-		×
4	Warning: You are installing software that contains unsigned content. T or validity of this software cannot be established. Do you want to cont installation?	'he au inue w	thent /ith th	icity 1e
	Install anyway Cancel	De	tails :	>>

press Install anyway button.

When the installation is done you might see another security pop-up window asking to confirm that you want to allow Eclipse an access to the Internet.

Windows Secur	rity Alert	X		
💮 Windo	ws Firewal	l has blocked some features of this program		
Windows Firewall h	as blocked some	e features of eclipse on all public and private networks.		
	Name:	eclipse		
	Publisher:	Unknown		
	Path:	C: \users \kamilla \edipse \luna \edipse \edipse.exe		
Allow eclipse to con	nmunicate on th	ese networks:		
V Private netw	vorks, such as m	y home or work network		
Public netwo because the	rks, such as the se networks oft	ose in airports and coffee shops (not recommended en have little or no security)		
What are the risks of allowing a program through a firewall?				
Allow access Cancel				

Click Allow access button.

Next you will see a window prompting to restart Eclipse.



if Eclipse is running under your username, press **Restart Now** button (A) to restart.

Otherwise, press No button (B), exit Eclipse, and start Eclipse again (as regular user).

✓ If Eclipse is running as Administrator and you pressed **Restart Now** button - do not select a workspace, press **Cancel** button instead to exit Eclipse.

Workspace Launcher	
Select a workspace	
Eclipse stores your projects in a folder called a workspace. Choose a workspace folder to use for this session.	
Workspace: C:\Users\kamilla\workspace\Administrator	Browse
🔲 Use this as the default and do not ask again	OK Cancel

 $\checkmark$  If you prefer the workspace configuration to be done later, that is it.

✓ Otherwise, start Eclipse again in regular way.

## **Python Specific Eclipse Workspace Configuration**

Be sure that you are running Eclipse as regular user. After you restarted (or started) Eclipse, you will see Workspace Launcher window asking to select a workspace.

E EC	clipse Launcher	×			
Select a directory as workspace Eclipse Platform uses the workspace directory to store its preferences and development artifacts.					
Workspace: C:\Users\kamilla\workspace\Pythe	on ✓ <u>B</u> rowse				
<ul> <li><u>U</u>se this as the default and do not ask again</li> <li><u>Recent Workspaces</u></li> </ul>	$\square$				
	2 Launch Cancel				

Select an appropriate workspace. If you use different workspace for different languages you might want to enter new workspace name, for example, Python ①.

Press **OK** button (2). You will see Eclipse splash window.



Wait until the main Eclipse window appears.

After few seconds you will see a welcome window. The specific window depends on what Eclipse version/variant is installed – Eclipse IDE for Java, Java EE, C/C++ Developers, etc.



Eclipse PyDev is installed, but to be able to run and debug Python programs, it is necessary to adjust some Eclipse preferences.

#### ۲ - -Python - Eclipse Platform File Edit Navigate Search Project Pydev Run Window Help 🟠 (> => A\* A\* 🖺 😑 🖻 New Window 🚳 Welcome 😒 Ð Editor ۲ 6 ۲ Appearance 2 Welco Show View ۲ Perspective ۲ Navigation ۲ Preferences Overview Get an overview of the features Tutorials Go through tutorials Samples Try out the samples What's New 623 Find out what is new Migrate Migrate to the new release

## To adjust the preferences, open **Window** menu and select **Preferences** option.

You will see Eclipse preferences window.

•	Preferences	_ 🗆 ×
type filter text General Ant Context Help Install/Update Java Oomph Plug-in Development PyDev Run/Debug SWTBot Preferences Target Platform DSL Team	General  Always run in background  Keep next/previous editor, view and perspective Show heap status Workbench save interval (in minutes): 5  Open mode  Open mode  Open whee click Select on hover Open when using arrow keys Note: This preference may not take effect on all Restore	e Defaults
? 🖲 😨	Apply and	d Close Cancel

Click on a small white triangle (or angle) left to the "**PyDev**" to open PyDev preferences (if you do not see the (tri)angles move mouse pointer to the left (white) panel and they will appear).

e .	Preferences	_ 🗆	×
type filter text	General	<p -="" td="" ⇒<=""><td>- <b>-</b></td></p>	- <b>-</b>
<ul> <li>General</li> <li>Ant</li> <li>Context</li> <li>Help</li> <li>Install/Update</li> <li>Java</li> <li>Oomph</li> <li>Plug-in Development</li> <li>PyDev         Builders</li> <li>Debug</li> <li>Editor</li> <li>Interactive Console</li> <li>Interpreters         Logging         PyUnit         Run         Scripting PyDev         Task Tags</li> <li>Run/Debug         SWTBot Preferences</li> <li>Target Platform DSL</li> <li>Team</li> </ul>	<ul> <li>Always run in background</li> <li>Keep next/previous editor, view and perspectives dialog of</li> <li>Show heap status</li> <li>Workbench save interval (in minutes): 5</li> <li>Open mode</li> <li>Double click</li> <li>Single click</li> <li>Select on hover</li> <li>Open when using arrow keys</li> <li>Note: This preference may not take effect on all views</li> </ul>	ppen s <u>App</u>	ly
? 🖲 😲	Apply and Close	Cance	I

Click on a small white triangle (or angle) left to "Interpreters" preferences to see a list of supported interpreter types.

Click on "Python Interpreter" to select Python interpreter preferences.

•	Preferences	- 🗆 ×
type filter text	General	← ▼ ⇒ ▼
<ul> <li>General</li> <li>Ant</li> <li>Context</li> <li>Help</li> <li>Install/Update</li> <li>Java</li> <li>Oomph</li> <li>Plug-in Development</li> <li>PyDev         Builders         Debug         Editor</li> <li>Interactive Console</li> <li>Interpreters         IronPython Interpreter         Logging         PyUnit         Run         Scripting PyDev         Task Tags</li> <li>Run/Debug         SWTBot Preferences</li> <li>Target Platform DSL</li> <li>Team</li> </ul>	Always run in background Keep next/previous editor, view and perspectives dialog open Show heap status Workbench save interval (in minutes): Open mode Open mode Open wode Select on hover Open when using arrow keys Note: This preference may not take effect on all views Restore Default	s <u>Apply</u>
? • 🛛	Apply and Close	Cancel

•		Preferences		- <b>-</b> ×
type filter text	Python Interpreters			↓ ↓ ↓ ↓
⊳ General ⊳ Ant	Python interpreters (e.g.: python.exe, py	oy.exe). Double-click to rena	ame.	^
<ul> <li>Ant</li> <li>Context</li> <li>Help</li> <li>Install/Update</li> <li>Java</li> <li>Oomph</li> <li>Plug-in Development</li> <li>PyDev</li> <li>Builders</li> <li>Debug</li> <li>Editor</li> </ul>	Name L	ocation		Ne <u>w</u> Quick Auto-Config Advanced Auto-Config <u>R</u> emove <u>Up</u> Dow <u>n</u>
▲ Interpreters	Trackages Libraries Forced E	Suiltins   Predefined   🖾 En	vironment   🖷 String Su	Ibstitution Variables
IronPython Interpre	Library (pip   2 found)	Version		Install/Uninstall with pip
Python Interpreter Python Interpreter Logging PyUnit Run Scripting PyDev Task Tags P Run/Debug SWTBot Preferences Target Platform DSL	pip setuptools	9.0.1 28.8.0	<pip> <pip></pip></pip>	Install/Uninstall with conda
> Team				~
? • 0				Apply and Close Cancel

Press Quick Auto-Config button to add the Python interpreter (that you have previously installed).

The preference window will show a list of found Python interpreters (1). If there are multiple interpreters, be sure to move the interpreter (that you have installed) to the top using **Up** and **Down** buttons.

•		Preferences			_ 🗆 ×
type filter text	Python Interpreters				← < <> < <
⊳ General	Python interpreters (e.g.: python.	exe, pypy.exe). Double-click to rena	ame.		^
> Context	Name	Location			Ne <u>w</u>
⊳ Heip ⊳ Install/Update	e pytnon	C:\Program Files\Python30\pj	ytnon.exe		Quick Auto-Config
⊳ Java ⊳ Oomph					Advanced Auto-Config
Plug-in Development PvDev					<u>R</u> emove
Builders		ĩ			Up
▷ Debug ▷ Editor					Dow <u>n</u>
<ul> <li>Interactive Console</li> <li>Interpreters</li> </ul>	🖶 Packages 🛋 Libraries F	orced Builtins   Predefined   🌆 En	vironment 😑 String S	Substitution Variables	
IronPython Interpre	Library (pip   2 found)	Version		Instal	I/Uninstall with pip
Python Interpreter	pip setuptools	9.0.1 28.8.0	<pip> <pip></pip></pip>	Install/	Uninstall with conda
Logging PyUnit				Load co	nda env vars before run?
Run Scripting PyDey					
Task Tags					
<ul> <li>Run/Debug</li> <li>SWTBot Preferences</li> </ul>					
<ul> <li>Target Platform DSL</li> <li>Team</li> </ul>					
< >					~
2 ( )				2 Apply ar	d Close Cancel
				Apply at	Cancer

Press **Apply and Close** button (2) to save the preferences.

## **Further Reading**

See http://www.pydev.org/manual\_101\_root.html for PyDev manuals.