Red Hat Enterprise Linux 10-beta

Installing and using dynamic programming languages

Installing and using Python and PHP in Red Hat Enterprise Linux 10

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Legal Notice

Abstract

Install and use Python 3. Install the PHP scripting language, use PHP with the Apache HTTP Server or the ngninx web server, and run a PHP script from a command-line interface.

Table of Contents

RHEL BETA RELEASE

Red Hat provides Red Hat Enterprise Linux Beta access to all subscribed Red Hat accounts. The purpose of Beta access is to:

- Provide an opportunity to customers to test major features and capabilities prior to the general availability release and provide feedback or report issues.
- Provide Beta product documentation as a preview. Beta product documentation is under development and is subject to substantial change.

Note that Red Hat does not support the usage of RHEL Beta releases in production use cases. For more information, see the Red Hat Knowledgebase solution What does Beta mean in Red Hat Enterprise Linux and can I upgrade a RHEL Beta installation to a General Availability (GA) release?.

CHAPTER 1. INSTALLING AND USING PYTHON

Python is a high-level programming language that supports multiple programming paradigms, such as object-oriented, imperative, functional, and procedural paradigms. Python has dynamic semantics and can be used for general-purpose programming.

With Red Hat Enterprise Linux, many packages that are installed on the system, such as packages providing system tools, tools for data analysis, or web applications, are written in Python. To use these packages, you must have the **python*** packages installed.

1.1. PYTHON VERSIONS

Python 3.12 is the default Python implementation in RHEL 10. Python 3.12 is distributed in a non-modular **python3** RPM package in the BaseOS repository and is usually installed by default. Python 3.12 will be supported for the whole life cycle of RHEL 10.

Additional versions of Python 3 will be distributed as non-modular RPM packages with a shorter life cycle through the AppStream repository in minor RHEL 10 releases. You will be able to install these additional Python 3 versions in parallel with Python 3.12.

The unversioned **python** command points to the default Python 3.12 version.

1.2. INSTALLING PYTHON 3

The default Python implementation is usually installed by default. To install it manually, use the following procedure.

Procedure

- To install Python 3.12, enter:

```
# dnf install python3
```

Verification

- Verify the Python version installed on your system:

```
$ python3 --version
```

1.3. INSTALLING ADDITIONAL PYTHON 3 PACKAGES

Packages prefixed with **python3-** contain add-on modules for the default Python 3.12 version.

Procedure

- To install, for example, the **Requests** module for Python 3.12, enter:

```
# dnf install python3-requests
```

- To install the **pip** package installer from Python 3.12, enter:

```
# dnf install python3-pip
```

Additional resources

- Upstream documentation about Python add-on modules

1.4. INSTALLING ADDITIONAL PYTHON 3 TOOLS FOR DEVELOPERS

Additional Python tools for developers are distributed through the CodeReady Linux Builder (CRB) repository.

IMPORTANT

The content in the CodeReady Linux Builder repository is unsupported by Red Hat.

The CRB repository contains, for example, the following packages:

- **python3-pytest**
- **python3-idle**
- **python3-debug**
- **python3-cython**

NOTE

Not all upstream Python-related packages are available in RHEL.

Procedure

1. Enable the CodeReady Linux Builder repository:

```
# subscription-manager repos --enable codeready-builder-for-rhel-10-x86_64-rpms
```

2. Install, for example, the **python3-cython** package:

```
# dnf install python3-cython
```

Additional resources

- How to enable and make use of content within CodeReady Linux Builder

1.5. USING PYTHON

The following procedure contains examples of running the Python interpreter or Python-related commands.

Prerequisites

- Python is installed.
- If you want to download and install third-party applications, install the **python3-pip** package.

Procedure

- To run the Python 3.12 interpreter or related commands, use, for example, the following commands:

```
$ python3
$ python3 -m venv --help
$ python3 -m pip install <package>
$ pip3 install <package>
```

1.6. ADDITIONAL RESOURCES

- Packaging Python 3 RPMs
- Modifying interpreter directives in Python scripts