vms Software

Python Packages Kit for VSI OpenVMS I64

VSI-I64VMS-PYTHWHLS-A0000-3-1.PCSI
02-Feb-2021

Introduction

The Python Packages Kit for VSI OpenVMS includes a substantial collection of commonly used Python packages, including modules for web application development, integration, and testing. Additional packages will be included over time in future releases as identified by customer request or other requirements.

Note that it is possible for users of Python on OpenVMS to readily download and install many Python packages directly from the Python Package Index repository (https://pypi.org/) or elsewhere using the Python PIP package installer; however there may be situations where installation from the Packages Kit is more convenient or straightforward.

Changes in this release:

- Updates to the `cryptography` package to use the latest version of OpenSSL for VSI OpenVMS (1.1.1gb)

Requirements

- VSI OpenVMS Version 8.4-1H1 I64 or higher
- The software must be installed on an ODS-5 enabled disk (the installation will fail if this requirement is not met)
- Python 3.8.2 for VSI OpenVMS I64 or higher

Installing the packages kit

The Python packages kit is based on Python wheels (see https://pythonwheels.com/), which provides a flexible and efficient means of installing optional Python packages.

The Python packages kit can be installed by a suitably privileged user using the following command:

```
$ PRODUCT INSTALL PYTHWHLS
```

The installation will then proceed as follows (output may differ slightly from that shown):

```
The following product has been selected:
    VSI I64VMS PYTHWHLS A0.0-3             Layered Product

Do you want to continue? [YES]

Configuration phase starting ...
```

```
You will be asked to choose options, if any, for each selected
product and for any products that may be installed to satisfy
software dependency requirements.

Configuring VSI I64VMS PYTHWHLS A0.0-3: Python wheels collection for
OpenVMS

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* This product does not have any configuration options.

Execution phase starting ...

The following product will be installed to destination:
    VSI I64VMS PYTHWHLS A0.0-3             DISK$I64SYS:[VMS$COMMON.]

Portion done: 0%...10%...60%...70%...90%...100%

The following product has been installed:
    VSI I64VMS PYTHWHLS A0.0-3             Layered Product

VSI I64VMS PYTHWHLS A0.0-3: Python wheels collection for OpenVMS ()

    Post-installation tasks are required.

    To define the Wheels for Python runtime at system boot time, add
    The following lines to SYS$MANAGER:SYSTARTUP_VMS.COM:

        $ file := sys$startup:wheels$startup.com
        $ if f$search("''file'") .nes. "" then @'file'
```

After the installation has successfully completed, include the command displayed at the end of the installation procedure into `SYSTARTUP_VMS.COM` to ensure that the logical names `PYTHON_WHEELS$ROOT` and `PIP_FIND_LINKS` are defined system-wide at system start-up. The logical name `PYTHON_WHEELS$ROOT` specifies the location of the installable wheels packages and the logical name `PIP_FIND_LINKS` is used by the `PIP` Python package installer to find these packages.

After installing the packages kit and ensuring the logical names `PYTHON_WHEELS$ROOT` and `PIP_FIND_LINKS` are correctly defined, individual packages can be installed as follows by a suitably privileged user, where <module-name> is the name of the package that you wish to install.

```
$ python -m pip install --no-index <module-name>
```

A complete list of the packages included in the `PYTHWHLS` kit can be found below, and details about these various packages can be found at https://pypi.org/.

Note that the `--no-index` option needs to be specified when installing packages from the `PYTHWHLS` kit in order to prevent the `PIP` Python package installer from instead trying to download packages from the internet. Alternatively to specifying this option you can define the logical name `PIP_NO_INDEX` as shown below:

```
$ define PIP_NO_INDEX 1
```

When installing packages you should also ensure that the logical name `PYTHONCASEOK` is not defined.

It should be noted that the installation of some packages can consume considerable temporary disk space. By default, the logical name SYS$SCRATCH will be used to determine the location of this temporary storage; however, an alternative location may be specified by defining the logical name TMPDIR to point to the desired location. For similar reasons it may also be desirable to define the logical name PIP_CACHE_DIR, which determines where the PIP Python package installer caches temporary dependency data when installing packages. Values (directory specifications) for these logical names should be specified using UNIX syntax.

List of packages

The following list identifies the packages and package versions that are included in this release of the kit. Note that where a particular package has one or more dependencies on other packages, those other packages are also included in the kit.

- apispec-4.0.0-py2.py3-none-any.whl
- apispec_webframeworks-0.5.2-py2.py3-none-any.whl
- appdirs-1.4.4-py2.py3-none-any.whl
- async_generator-1.10-py3-none-any.whl
- attrs-20.3.0-py2.py3-none-any.whl
- Automat-20.2.0-py2.py3-none-any.whl
- awscli-1.18.192-py2.py3-none-any.whl
- behave-1.2.5-py2.py3-none-any.whl
- betamax-0.8.1-py2.py3-none-any.whl
- blinker-1.4-py3-none-any.whl
- botocore-1.19.32-py2.py3-none-any.whl
- bottle-0.12.18-py3-none-any.whl
- Brotli-1.0.9-py2.py3-none-any.whl
- certifi-2020.11.8-py2.py3-none-any.whl
- cffi-1.14.3-py2.py3-none-any.whl
- chardet-3.0.4-py2.py3-none-any.whl
- cheroot-8.4.5-py2.py3-none-any.whl
- CherryPy-18.6.0-py2.py3-none-any.whl
- click-7.1.2-py2.py3-none-any.whl
- colorama-0.4.3-py2.py3-none-any.whl
- constantly-15.1.0-py2.py3-none-any.whl
- cryptography-3.2-py2.py3-none-any.whl
- cryptography_vectors-3.2.1-py2.py3-none-any.whl
- Cython-3.0-py2.py3-none-any.whl
- decorator-4.4.2-py2.py3-none-any.whl
- distlib-0.3.1-py2.py3-none-any.whl
- docutils-0.15.2-py3-none-any.whl
- elementpath-2.0.4-py3-none-any.whl
- filelock-3.0.12-py3-none-any.whl
- flasgger-0.9.5-py2.py3-none-any.whl
- Flask-1.1.2-py2.py3-none-any.whl
- flex-6.14.1-py3-none-any.whl
- freezegun-1.0.0-py2.py3-none-any.whl
- ftputil-4.0.0-py3-none-any.whl
- httpbin-0.9.2-py2.py3-none-any.whl
- hypothesis-5.35.3-py3-none-any.whl
- idna-2.10-py2.py3-none-any.whl
- incremental-17.5.0-py2.py3-none-any.whl

- iniconfig-1.1.1-py2.py3-none-any.whl
- iso8601-0.1.13-py2.py3-none-any.whl
- itsdangerous-1.1.0-py2.py3-none-any.whl
- jaraco.classes-3.1.0-py2.py3-none-any.whl
- jaraco.collections-3.0.0-py2.py3-none-any.whl
- jaraco.functools-3.0.1-py3-none-any.whl
- jaraco.text-3.2.0-py2.py3-none-any.whl
- Jinja2-2.11.2-py2.py3-none-any.whl
- jmespath-0.10.0-py2.py3-none-any.whl
- jsonpointer-2.0-py2.py3-none-any.whl
- jsonschema-2.5.1-py2.py3-none-any.whl
- jsonschema-3.2.0-py2.py3-none-any.whl
- MarkupSafe-1.1.1-py2.py3-none-any.whl
- marshmallow-3.9.1-py2.py3-none-any.whl
- mistune-0.8.4-py2.py3-none-any.whl
- mock-1.3.0-py2.py3-none-any.whl
- mock-4.0.2-py3-none-any.whl
- more_itertools-8.6.0-py3-none-any.whl
- nose-1.3.7-py3-none-any.whl
- numpy-1.21.0-py2.py3-none-any.whl
- outcome-1.0.1-py2.py3-none-any.whl
- packaging-20.4-py2.py3-none-any.whl
- packaging-20.8-py2.py3-none-any.whl
- parse-1.19.0-py3-none-any.whl
- parse_type-0.5.2-py2.py3-none-any.whl
- path-15.0.0-py3-none-any.whl
- pbr-5.5.1-py2.py3-none-any.whl
- pika-1.1.0-py2.py3-none-any.whl
- Pillow-8.2.0-py2.py3-none-any.whl
- pluggy-0.13.1-py2.py3-none-any.whl
- portend-2.6-py2.py3-none-any.whl
- prance-0.19.0-py2.py3-none-any.whl
- pretend-1.0.9-py2.py3-none-any.whl
- py-1.10.0-py2.py3-none-any.whl
- py-1.9.0-py2.py3-none-any.whl
- pyasn1-0.4.8-py2.py3-none-any.whl
- pyasn1_modules-0.2.8-py2.py3-none-any.whl
- pycparser-2.20-py2.py3-none-any.whl
- Pygments-2.7.2-py3-none-any.whl
- pyparsing-2.4.7-py2.py3-none-any.whl
- pyrsistent-0.17.3-py2.py3-none-any.whl
- pytest-6.0.1-py3-none-any.whl
- pytest_flask-1.1.0-py3-none-any.whl
- pytest_httpbin-1.0.0-py2.py3-none-any.whl
- pytest_httpserver-0.3.6-py3-none-any.whl
- pytest_localserver-0.5.0-py3-none-any.whl
- python_dateutil-2.8.1-py2.py3-none-any.whl
- python_interface-1.6.0-py3-none-any.whl
- pytz-2020.4-py2.py3-none-any.whl
- PyYAML-5.3.1-py2.py3-none-any.whl
- raven-6.10.0-py2.py3-none-any.whl
- reportlab-3.5.59-py2.py3-none-any.whl
- requests-2.24.0-py2.py3-none-any.whl
- responses-0.12.0-py2.py3-none-any.whl

- rfc3987-1.3.8-py2.py3-none-any.whl
- rsa-4.5-py2.py3-none-any.whl
- s3transfer-0.3.4-py2.py3-none-any.whl
- semver-2.13.0-py2.py3-none-any.whl
- service_identity-18.1.0-py2.py3-none-any.whl
- setuptools-50.3.2-py3-none-any.whl
- setuptools_scm-4.1.2-py2.py3-none-any.whl
- simplejson-3.17.2-py2.py3-none-any.whl
- six-1.15.0-py2.py3-none-any.whl
- sniffio-1.2.0-py3-none-any.whl
- sortedcontainers-2.3.0-py2.py3-none-any.whl
- strict_rfc3339-0.7-py3-none-any.whl
- suds_py3-1.4.1.0-py3-none-any.whl
- sure-1.4.11-py3-none-any.whl
- tempora-4.0.1-py3-none-any.whl
- toml-0.10.2-py2.py3-none-any.whl
- tox-2.9.1-py2.py3-none-any.whl
- trustme-0.6.0-py2.py3-none-any.whl
- urllib3-1.25.11-py2.py3-none-any.whl
- validate_email-1.3-py3-none-any.whl
- virtualenv-20.4.0-py2.py3-none-any.whl
- wcwidth-0.2.5-py2.py3-none-any.whl
- Werkzeug-1.0.1-py2.py3-none-any.whl
- wheel-0.24.0-py2.py3-none-any.whl
- wheel-0.35.1-py2.py3-none-any.whl
- wsit-1.0.17-py3-none-any.whl
- xmlschema-1.2.5-py3-none-any.whl
- zc.lockfile-2.0-py2.py3-none-any.whl