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Team id	PNT2022TMID08269
Project Name	Smart Solutions for Railways

# SOFTWARE

This is the stable release of Python 3.10.0

Python 3.10.0 is the newest major release of the Python programming language, and it contains many new features and optimizations.

## Major new features of the 3.10 series, compared to 3.9

Among the new major new features and changes so far:

- [PEP 623](#) -- Deprecate and prepare for the removal of the `wstr` member in `PyUnicodeObject`.
- [PEP 604](#) -- Allow writing union types as `X | Y`
- [PEP 612](#) -- Parameter Specification Variables
- [PEP 626](#) -- Precise line numbers for debugging and other tools.
- [PEP 618](#) -- Add Optional Length-Checking To `zip`.
- [bpo-12782](#): Parenthesized context managers are now officially allowed.
- [PEP 632](#) -- Deprecate `distutils` module.
- [PEP 613](#) -- Explicit Type Aliases
- [PEP 634](#) -- Structural Pattern Matching: Specification
- [PEP 635](#) -- Structural Pattern Matching: Motivation and Rationale
- [PEP 636](#) -- Structural Pattern Matching: Tutorial
- [PEP 644](#) -- Require OpenSSL 1.1.1 or newer
- [PEP 624](#) -- Remove `Py_UNICODE` encoder APIs
- [PEP 597](#) -- Add optional `EncodingWarning`

[bpo-38605](#): `from __future__ import annotations` ([PEP 563](#)) used to be on this list in previous pre-releases but it has been postponed to Python 3.11 due to some compatibility concerns. You can read the Steering Council communication about it [here](#) to learn more.

[bpo-44828](#): A change in the newly released macOS 12 Monterey caused file open and save windows in `IDLE` and other `tkinter` applications to be unusable. As of 2021-11-03, the macOS 64-bit universal2 installer file for this release was updated to include a fix in the third-party `Tk` library for this problem. All other files are unchanged from the original 3.10.0 installer. If you have already installed 3.10.0 from here and encounter this problem on macOS 12 Monterey, download and run the updated installer linked below.

## More resources

 IDLE Shell 3.9.6

File Edit Shell Debug Options Window Help

```
Python 3.9.6 (tags/v3.9.6:db3ff76, Jun 28 2021, 15:26:21) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>> |
```