

Restored optimization of `bytes.rfind()` and `bytearray.rfind()` for single-byte argument on Linux.

Make [PEP 448](#) dictionary evaluation more consistent.

Fix crash when set is mutated while being updated.

Fix crash when dict is mutated while being updated.

New approach for tokenizing `async/await`. As a consequence, it is now possible to have one-line `'async def foo(): await ..'` functions.

Plug ref leak on `SyntaxError` in function parameters annotations.

`memoryview`: Allow arbitrary formats when casting to bytes. Patch by Martin Panter.

`rcompleter` now prints a tab character instead of displaying possible completions for an empty word. Initial patch by Martin Sekera.

Fixed crashes in `_json` functions called with arguments of inappropriate type.

`shutil.copytree()` now correctly handles symbolic links that point to directories. Patch by Eduardo Seabra and Thomas Kluyver.

Fixed segmentation fault when `gc.collect()` is called during constructing `lru_cache` (C implementation).

Fix a regression in `traceback.print_exception()`. If `exc_traceback` is `None` we shouldn't print a traceback header like described in the documentation.

`Random.setstate()` now validates the value of state last element.

Fixed an issue that caused `inspect.getsource` to return incorrect results on nested functions.

Improve `unittest` docs. Patch from Martin Panter and evilzero.

Symbolic group references to open group in `re` patterns now are explicitly forbidden as well as numeric group references.

Fixed `__eq__` and `__ne__` methods of `inspect` classes.

Fixed regression in the `timeit` module with multiline setup.

`unittest.mock.mock_open().reset_mock` would recurse infinitely. Patch from Nicola Palumbo and Laurent De Buyst.

`unittest.mock` `side_effects` can now be exceptions again. This was a regression vs Python 3.4. Patch from Ignacio Rossi

`chunk.Chunk.read()` now always returns bytes, not str.

Fixed reading out of the buffer in the `re` module.

`tarfile` now raises a `ReadError` if an archive is truncated inside a data segment.

`SMTP.auth()` and `SMTP.login()` now support RFC 4954's optional initial-response argument to the SMTP AUTH command.

Fix `inspect.getsource()` for `'async def'` functions. Patch by Kai Groner.

`ast.get_docstring()` for `'async def'` functions.

Update Windows builds and OS X 10.5 installer to use OpenSSL 1.0.2d.