

Fix asynchronous generators to handle `GeneratorExit` in `athrow()` correctly

Fixed reset of the `SIGINT` handler to `SIG_DFL` on interpreter shutdown even when there was a custom handler set previously.
Patch by Philipp Kerling.

Fixed a leak when the garbage collector fails to add an object with the `__del__` method or referenced by it into the `:data:'gc.garbage'` list. `:c:func:'PyGC_Collect'` can now be called when an exception is set and preserves it.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Misc\NEWS.d\ [cpython-main] [Misc] [NEWS.d] 3.6.6rc1.rst, line 26); [backlink](#)

Unknown interpreted text role "data".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Misc\NEWS.d\ [cpython-main] [Misc] [NEWS.d] 3.6.6rc1.rst, line 26); [backlink](#)

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Fix signed/unsigned comparison warning in `pyhash.c`.

Fix a leak in `set_symmetric_difference()`.

Fix unaligned accesses in `siphash24()`. Patch by Rolf Eike Beer.

Fix potential memory leak in `normalizestring()`.

Improved error messages in 'async with' when `__aenter__()` or `__aexit__()` return non-awaitable object.

Fix `ma_version_tag` in dict implementation is uninitialized when copying from key-sharing dict.

Fixed jumping when the function contains an `async for` loop.

Fix an unnecessary `ifdef` in the include of `VersionHelpers.h` in `socketmodule` on Windows.

Fix a crash in `ctypes.cast()` in case the type argument is a `ctypes` structured data type. Patch by Eryk Sun and Oren Milman.

Prevent `site.main()` exception if `PYTHONSTARTUP` is set. Patch by Steve Weber.

Datetime instance `d` with non-None `tzinfo`, but with `d.tzinfo.utcoffset(d)` returning `None` is now treated as naive by the `astimezone()` method.

Avoid race condition with debug logging

The concatenation (+) and repetition (*) sequence operations now raise `:exc:'TypeError'` instead of `:exc:'SystemError'` when performed on `:class:'mmap.mmap'` objects. Patch by Zackery Spytz

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System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Misc\NEWS.d\ [cpython-main] [Misc] [NEWS.d] 3.6.6rc1.rst, line 151); [backlink](#)

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System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Misc\NEWS.d\ [cpython-main] [Misc] [NEWS.d] 3.6.6rc1.rst, line 151); [backlink](#)

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Fix `gather` to propagate cancellation of itself even with `return_exceptions`.

Fix a race condition in `SSLProtocol.connection_made()` of `asyncio.sslproto`: start immediately the handshake instead of using `call_soon()`. Previously, `data_received()` could be called before the handshake started, causing the handshake to hang or fail.

Fixed bug where calling `write_eof()` on a `_SelectorSocketTransport` after it's already closed raises `AttributeError`.

Fix `Task.__repr__` crash with Cython's bogus coroutines

Fix `RuntimeError` after closing loop that used `run_in_executor`

Use a better regex when breaking usage into wrappable parts. Avoids bogus assertion errors from custom metavar strings.

Fixed a bug in the Python implementation of the JSON decoder that prevented the cache of parsed strings from clearing after finishing the decoding. Based on patch by c-fos.

tempfile._candidate_tempdir_list should consider common TEMP locations

Prevent uuid.get_node from using a DUID instead of a MAC on Windows. Patch by Zvi Effron

Fix race condition with ReadTransport.resume_reading in Windows proactor event loop.

Minor fixes in typing module: add annotations to NamedTuple.__new__, pass *args and **kwargs in Generic.__new__. Original PRs by Paulius Ąrka and Chad Dombrova.

Updated alias mapping with glibc 2.27 supported locales.

Fix trailing quotation marks getting deleted when looking up byte/string literals on pydoc. Patch by Andr s Delfino.

Update error message when constructing invalid inspect.Parameters Patch by Dong-hee Na.

Fixed crash in the get() method of the :mod:`dbm.ndbm` database object when it is called with a single argument.

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Fix multiprocessing regression on newer glibcs

Fix quoting of the Comment attribute of :class:`http.cookies.SimpleCookie`.

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Upgrade bundled version of pip to 10.0.1.

Fixed a crash in the :mod:`parser` module when converting an ST object to a tree of tuples or lists with line_info=False and col_info=True.

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Fix FD leak in _SelectorSocketTransport Patch by Vlad Starostin.

Fix display of <module> call in the html produced by cgitb.html(). Patch by St phane Blondon.

random.Random.choice() now raises IndexError for empty sequences consistently even when called from subclasses without a getrandbits() implementation.

Update difflib.ndiff() for PEP 479. Convert an uncaught StopIteration in a generator into a return-statement.

End framing at the end of C implementation of :func:`pickle.Pickler.dump`.

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The urllib.robotparser's __str__ representation now includes wildcard entries and the "Crawl-delay" and "Request-rate" fields. Patch by Michael Lazar.

Allow ttk.Treeview.insert to insert iid that has a false boolean value. Note iid=0 and iid=False would be same. Patch by Garvit Khatri.

The ssl module now compiles with LibreSSL 2.7.1.

Release the GIL during fstat() calls, avoiding hang of all threads when calling mmap.mmap(), os.urandom(), and random.seed(). Patch by Nir Soffer.

Fix a regression in :mod:`ipaddress` that result of :meth:`hosts` is empty when the network is constructed by a tuple containing an integer mask and only 1 bit left for addresses.

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System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Misc\NEWS.d\ [cpython-main] [Misc] [NEWS.d] 3.6.6rc1.rst, line 438); [backlink](#)

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Fix wrong redirection of a low descriptor (0 or 1) to stderr in subprocess if another low descriptor is closed.

Fix output of cover files for `trace` module command-line tool. Previously emitted cover files only when `--missing` option was used. Patch by Michael Selik.

If nested log adapters are used, the inner `process()` methods are no longer omitted.

Support arrays ≥ 2 GiB in `mod:'ctypes'`. Patch by Segev Finer.

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pydoc: the `stop()` method of the private `ServerThread` class now waits until `DocServer.serve_until_quit()` completes and then explicitly sets its `docserver` attribute to `None` to break a reference cycle.

Fix broken pypi link

Add missing documentation for `typing.AsyncContextManager`.

Add Korean language switcher for <https://docs.python.org/3/>

Clarify that the `__path__` attribute on modules cannot be just any value.

Modernize documentation for writing C extension types.

Deprecate `Py_UNICODE` usage in `c-api/arg` document. `Py_UNICODE` related APIs are deprecated since Python 3.3, but it is missed in the document.

Document `PyBuffer_ToContiguous()`.

Modify documentation for the `.func:'slice'` recipe to consume initial values up to the start index.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Misc\NEWS.d\ [cpython-main] [Misc] [NEWS.d] 3.6.6rc1.rst, line 565); [backlink](#)

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Update `mod:'zipapp'` documentation to describe how to make standalone applications.

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Documentation changes for `ipaddress`. Patch by Jon Foster and Berker Peksag

Update documentation to clarify that `WindowsRegistryFinder` implements `MetaPathFinder`. (Patch by Himanshu Lakhara)

Add a note about `curses.addch` and `curses.addstr` exception behavior when writing outside a window, or pad.

Clarify meaning of `CERT_NONE`, `CERT_OPTIONAL`, and `CERT_REQUIRED` flags for `ssl.SSLContext.verify_mode`.

Ignore test `_posix_fallocate` failures on BSD platforms that might be due to running on ZFS.

Add test `_bdb.py`.

Move `-Wstrict-prototypes` option to `CFLAGS_NODIST` from `OPT`. This option emitted annoying warnings when building extension modules written in C++.

Ensures module definition files for the stable ABI on Windows are correctly regenerated.

Enable CI builds on Visual Studio Team Services at <https://python.visualstudio.com/cpython>

Add `-Wno-cast-function-type` for gcc 8 for silencing warnings about function casts like casting to `PyCFunction` in method definition lists.

Enable the verbose build for extension modules, when GNU make is passed macros on the command line.

Update Windows installer to OpenSSL 1.0.2o.

Update macOS installer build to use OpenSSL 1.0.2o.

On Windows, add API call saying that tk scales for DPI. On Windows 8.1+ or 10, with DPI compatibility properties of the Python

binary unchanged, and a monitor resolution greater than 96 DPI, this should make text and lines sharper. It should otherwise have no effect.

Clicking on a context line moves that line to the top of the editor window.

IDLE: Use read-only text widget for code context instead of label widget.

Scroll IDLE editor text by lines. Previously, the mouse wheel and scrollbar slider moved text by a fixed number of pixels, resulting in partial lines at the top of the editor box. The change also applies to the shell and grep output windows, but not to read-only text views.

Enable theme-specific color configuration for Code Context. Use the Highlights tab to see the setting for built-in themes or add settings to custom themes.

Display up to maxlines non-blank lines for Code Context. If there is no current context, show a single blank line.

IDLE: Cleanup codecontext.py and its test.

IDLE's code context now recognizes async as a block opener.

IDLE now colors async and await as keywords in 3.6. They become full keywords in 3.7.

Update word/identifier definition from ascii to unicode. In text and entry boxes, this affects selection by double-click, movement left/right by control-left/right, and deletion left/right by control-BACKSPACE/DEL.

IDLE: consistently color invalid string prefixes. A 'u' string prefix cannot be paired with either 'r' or 'f'. Consistently color as much of the prefix, starting at the right, as is valid. Revise and extend colorizer test.

Add docstrings and tests for codecontext.

`program`pygettext.py`` now recognizes only literal strings as docstrings and translatable strings, and rejects bytes literals and f-string expressions.

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Fixed handling directories as arguments in the `pygettext` script. Based on patch by Oleg Krasnikov.

Fix `pystackv` and `pystack gdbinit` macros.

Add an `-n` flag for `Tools/scripts/pathfix.py` to disable automatic backup creation (files with `~` suffix).

Fix 2to3 for using with `--add-suffix` option but without `--output-dir` option for relative path to files in current directory.

Document that `m_traverse` for multi-phase initialized modules can be called with `m_state=NULL`, and add a sanity check