

The `sys.path[0]` initialization change for bpo-29139 caused a regression by revealing an inconsistency in how `sys.path` is initialized when executing `__main__` from a zipfile, directory, or other import location. This is considered a potential security issue, as it may lead to privileged processes unexpectedly loading code from user controlled directories in situations where that was not previously the case. The interpreter now consistently avoids ever adding the import location's parent directory to `sys.path`, and ensures no other `sys.path` entries are inadvertently modified when inserting the import location named on the command line. (Originally reported as bpo-29723 against Python 3.6rc1, but it was missed at the time that the then upcoming Python 3.5.4 release would also be affected)

Fixed possible integer overflow in `PyBytes_DecodeEscape`, CVE-2017-1000158. Original patch by Jay Bosamiya; rebased to Python 3 by Miro Hrončok.

Upgrade `libexpat` embedded copy from version 2.2.1 to 2.2.3 to get security fixes.

Fix potential crash during GC caused by `tp_dealloc` which doesn't call `PyObject_GC_UnTrack()`.

Fixed issues with binary plists: Fixed saving bytearray. Identical objects will be saved only once. Equal references will be load as identical objects. Added support for saving and loading recursive data structures.

expat: Update `libexpat` from 2.2.3 to 2.2.4. Fix copying of partial characters for UTF-8 input (libexpat bug 115):

<https://github.com/libexpat/libexpat/issues/115>