

# PEP 458 - index files only variant

## Add index files only to targets metadata

Simple index files have a similar purpose as TUF targets metadata, that is to provide integrity information about PyPI packages by listing their names along with their hashes. Akin to targets metadata, simple index files are changed whenever distribution files are added to or removed from the repository. Furthermore, the PEP requires index files to be added to targets metadata. As a consequence, distribution files are protected by tuf targets metadata transitively via simple index files, even if the distribution files are not added to targets metadata.

### Pros

- Reduces metadata overhead in computation, storage and transport
- Does not require any additional repository-side efforts compared to the original PEP
- Simplifies the client implementation – the index files and distribution files have major differences (different base url, different hash prefix handling, hook points in completely different places in the client application): this means the client implementation becomes significantly simpler when only index files are included in metadata
- Carries over to PEP 480, where the project index file is controlled and signed (included in targets metadata) by the project developers

### Cons

- Requires out-of-band final distribution file hash verification on client side, which would otherwise be realized in-band with the python-tuf client.
- No file sizes included, endless data attack possible