

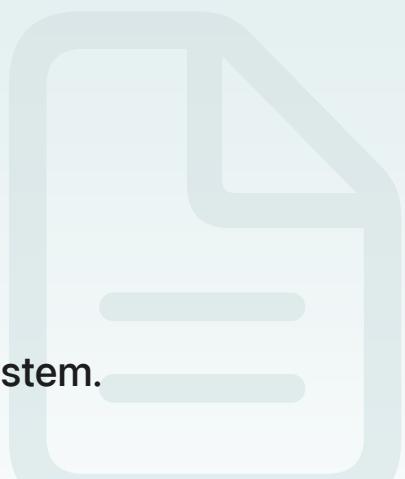
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Article

Compressing single files

Compress a single file and store the result on the file system.



Overview

In this article, you'll learn how to use AppleArchive to compress a single-source file, and write the compressed data to a file.

The code below compresses a file named `myFile.pdf` using the [`Algorithm.lzfse`](#) algorithm, and stores the result in a file named `myFile.pdf.lzfse`.

Create the file stream to read the source file

The [`ArchiveByteStream`](#) class provides static factory methods that create streams for different functions. In this case, use [`fileStream\(path:mode:options:permissions:\)`](#) to create a byte stream that reads the source file:

```
let sourceFilePath = FilePath(NSTemporaryDirectory() + "myFile.pdf")

guard let readFileStream = ArchiveByteStream.fileStream(
    path: sourceFilePath,
    mode: .readOnly,
    options: [ ],
    permissions: FilePermissions(rawValue: 0o644)) else {
    return
}

defer {
    try? readFileStream.close()
}
```

Create the file stream to write the compressed file

You also use `fileStream(path:mode:options:permissions:)` to create the file stream that writes the compressed file to the file system. In this case, use the `writeOnly` mode:

```
let archiveFilePath = FilePath(NSTemporaryDirectory()) + "myFile.pdf.lzfse"

guard let writeFileStream = ArchiveByteStream.fileStream(
    path: archiveFilePath,
    mode: .writeOnly,
    options: [ .create ],
    permissions: FilePermissions(rawValue: 0o644)) else {
    return
}

defer {
    try? writeFileStream.close()
}
```

Create the compression stream

Create the compression stream, and specify the compression algorithm as `lzfse`. Specify the file-writing stream as the stream that receives the compressed data:

```
guard let compressStream = ArchiveByteStream.compressionStream(
    using: .lzfse,
    writingTo: writeFileStream) else {
    return
}

defer {
    try? compressStream.close()
}
```

Compress the source file

Finally, call `process(readingFrom:writingTo:)` to send the output of the file-reading stream to the compression stream. In turn, the compression stream sends its output to the file-writing stream:

```
do {
    _ = try ArchiveByteStream.process(readingFrom: readFileStream,
```

```
writingTo: compressStream)
```

```
} catch {  
    print("Handle `ArchiveByteStream.process` failed."  
}
```

On return, `myFile.pdf.lzfse` exists in `NSTemporaryDirectory()` and contains the compressed contents of `myFile.pdf`.

See Also

Directories, Files, and Data Archives

- 📄 Decompressing single files
Recreate a single file from a compressed file.
- 📄 Compressing file system directories
Compress the contents of an entire directory and store the result on the file system.
- 📄 Decompressing and extracting an archived directory
Recreate an entire file system directory from an archive file.
- 📄 Compressing and saving a string to the file system
Compress the contents of a Unicode string and store the result on the file system.
- 📄 Decompressing and Parsing an Archived String
Recreate a string from an archive file.