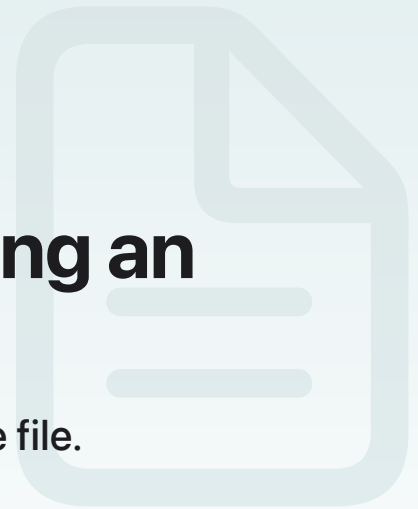


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Article

Decompressing and extracting an archived directory

Recreate an entire file system directory from an archive file.



Overview

In this article, you'll learn how to use `AppleArchive` to decompress and extract a previously compressed file system directory.

The code below decompresses the file generated using the steps explained in [Compressing file system directories](#) and writes the files to a directory named `dest`.

Create the file stream to read the source archive

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 archiveFilePath = FilePath(NSTemporaryDirectory() + "directory.aar")

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

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

Create the decompression stream

Create the decompression stream. Specify the file-reading stream as the input stream that provides the compressed data:

```
guard let decompressStream = ArchiveByteStream.decompressionStream(readingFrom: readFrom) {
    return
}
defer {
    try? decompressStream.close()
}
```

Create the decoding stream

Create a decoding stream that provides archive elements from the raw, decompressed data:

```
guard let decodeStream = ArchiveStream.decodeStream(readingFrom: decompressStream) {
    print("unable to create decode stream")
    return
}
defer {
    try? decodeStream.close()
}
```

Specify the destination

Specify a destination path for the decompressed directory contents. The following code checks that the destination directory exists and creates the destination if necessary:

```
let decompressPath = NSTemporaryDirectory() + "dest/"

if !FileManager.default.fileExists(atPath: decompressPath) {
    do {
        try FileManager.default.createDirectory(atPath: decompressPath,
                                                withIntermediateDirectories: false)
    } catch {
        fatalError("Unable to create destination directory.")
    }
}
```

```
}
```

```
let decompressDestination = FilePath(decompressPath)
```

Create the extract stream

Create an extract stream that receives archive elements, and extracts to the specified directory:

```
guard let extractStream = ArchiveStream.extractStream(extractingTo: decompressDestination,
                                                       flags: [ .ignoreOperationNotPossible ])

return
}

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

Decompress and extract the archived directory

Finally, call `process(readingFrom:writingTo:)` to write the output of the decode stream to the extract stream. In turn, the extract stream extracts each archive element to the decompression destination:

```
do {
    _ = try ArchiveStream.process(readingFrom: decodeStream,
                                  writingTo: extractStream)
} catch {
    print("process failed")
}
```

On return, the operation recreates the contents of the directory previously archived in `directory.aar` in `NSTemporaryDirectory() + "dest/"`.


See Also

Directories, Files, and Data Archives





Compressing single files

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

 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.

 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.