

# Archive Creation Procedure

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## Introduction

A **gzipped tarball** is a compressed archive file commonly used in UNIX-like operating systems. It combines multiple files into a single archive (using the **tar** command) and compresses the archive (using the **gzip** command). These files usually have the **.tar.gz** or **.tgz** extension. This document explains the steps to create and decompress a gzipped tarball.

## Creating a Gzipped Tarball

To create a gzipped tarball, use the following command:

```
tar -czvf archive_name.tar.gz file1 file2 directory/
```

## Explanation of Flags

- **-c**: Creates a new archive.
- **-z**: Compresses the archive using **gzip**.
- **-v**: Enables verbose mode (displays files as they are added).
- **-f**: Specifies the output file name (e.g., **archive\_name.tar.gz**).

## Example

To archive **file1.txt**, **file2.txt**, and the directory **myfolder**, use:

```
tar -czvf my_archive.tar.gz file1.txt file2.txt myfolder/
```

## Decompressing a Gzipped Tarball

To extract the contents of a gzipped tarball, use the following command:

```
tar -xzvf archive_name.tar.gz
```

## Explanation of Flags

- **-x**: Extracts files from the archive.
- **-z**: Decompresses the **gzip**-compressed archive.
- **-v**: Enables verbose mode (displays files as they are extracted).
- **-f**: Specifies the input file name (e.g., `archive_name.tar.gz`).

## Example

To extract the contents of `my_archive.tar.gz`, use:

```
tar -xzvf my_archive.tar.gz
```

## Advanced Options

### Extract to a Specific Directory

Use the **-C** option to extract files to a specific directory:

```
tar -xzvf archive_name.tar.gz -C /path/to/destination/
```

### Exclude Certain Files When Creating an Archive

To exclude specific files (e.g., log files) when creating an archive:

```
tar --exclude="*.log" -czvf archive_name.tar.gz directory/
```

### List the Contents of a Tarball

To view the contents of a tarball without extracting:

```
tar -tzvf archive_name.tar.gz
```

## Conclusion

Gzipped tarballs are a powerful tool for efficient storage, transfer, and preservation of file collections. They are widely used for backups, software distribution, and file packaging in UNIX-like environments.