

Archival Tools

Zilogic Systems

1. Compression

- Compression refers to the reduction of the size of files by using various encoding algorithms.
- Various compression tools are available in Linux like `bzip2`, `gzip`, `zip`, etc.

Compression	File extension	Decompression Tool
bzip2	.bz2	bunzip2
gzip	.gz	gunzip
zip	.zip	unzip

2. Tools for Compression

- The commands used for compression are as follows.

```
bzip2 <file-name>
gzip <file-name>
```

- The above commands compresses the given file and saves the file as `<file-name>.<bz2/gz>`.
- The commands used for decompression are as follows.

```
bunzip2 <file-name.bz2>
gunzip <file-name.gz>
```

- The above commands deletes the compressed file and saves the extracted file as `<file-name>`.

3. Archiving

- Archiving refers to the combining of multiple files into a single file.

3.1. Creating an Archive

```
$ tar -c -v -f <archive-name> <files/folders>
```

- `-c` - create a new archive
- `-v` - verbose
- `-f` - specify archive file

3.2. Extracting an Archive

```
$ tar -x -v -f <archive-name>
```

- `-x` - extract files from an archive

4. Compressing/Decompressing multiple files

- Multiple files can be compressed by first creating an archive using `tar` and then compressing the archive using any one of the compression methods.

- `tar` utility itself provides options to compress/decompress the archive.
 - `-j` - compression type `bzip2`
 - `-z` - compression type `gzip`

5. ZIP Archives

- For creating a ZIP archive the following commands are used.

```
zip <target file-name> <file-name>  
zip -r <target file-name> <folder-name>
```

- For extracting a ZIP archive the following commands are used.

```
unzip <file-name.zip>
```