tar and zip

tar

Short for "tape archive". (It's been around since tape was the most common way to back up files). Think of a MS-Windows zip file but without compression.

For more on the format, see this page.

creating a tar file

To create a tar file, type:

```
tar cvf filename.tar ItemsToTar
```

For example, suppose that I had a directory called `Lab5` containing files for a particular assignment. To create an archive of these files, I'd go to the parent directory of `Lab5` and type:

```
tar cvf Lab5.tar Lab5
```

`c`
: "create"

`v`
: "verbose"

`f`
: "file" what follows is the name of the file to create

It's not required, but when creating a tarfile, please remember to place the files to archive inside a directory first. Also, be careful not to use any absolute paths. In other words, don't be the creator of tar bombs.

extracting the files from the tar file

```
tar xvf tarfilename
```

`x`
: "extract"

`v`
: "verbose"

`f`
: "file" what follows is the name of the file to create

looking inside a tar file

To see what's inside a tar file, use the `t` switch. For example, if I wanted to see what's inside a tarfile called `junk.tar`, I'd type:

```
tar tvf junk.tar
```

If the output is:

```
$ tar tvf junk.tar
drwxr-xr-x 0 tiger staff 0 Nov 27 15:01 junk/
-rw-r--r-- 0 tiger staff 508 Nov 27 15:00 junk/courses.txt
-rw-r--r-- 0 tiger staff 113 Nov 27 15:00 junk/dates.txt
-rw-r--r-- 0 tiger staff 767 Nov 27 15:00 junk/notes.txt
-rw-r--r-- 0 tiger staff 166645 Nov 27 15:01 junk/receipt.pdf
```

This tells me that the file contains a directory called `junk`, which itself contains files called `dates.txt`, `notes.txt`, `courses.txt`, and `receipt.pdf`.

compression

The two most common compressed file types on a unix box are gzip and bzip2. To compress a file just try "gzip filename" or "bzip2 filename", and to decompress, try "gunzip filename" or "bunzip2 filename".

tar and compression

Note that tar doesn't compress anything. When creating or extracting a tarfile, if you'd like to use gzip compression, add the `'z'` switch, and for bzip2 compression, add the `'j'` switch. Adding to our previous example, we'd have:

```
tar cvzf Lab5.tar.gz Lab5
```

The common suffixes for gzipped tar files are .tar.gz or .tgz.

zip

Instead of creating tar.gz files, you could try the zip program, which creates files compatible with the common zip programs that you'll find on MS-Windows computers.

Suppose that you have a directory called `stuff`. If you go its parent directory and type:

```
zip -r stuff stuff
```

You'll have a single zip file, called stuff.zip, which will contain everything that was in the directory stuff.

To unzip it, you'd simply type:

```
unzip stuff.zip
```