

Matryoshka doll

```
(kali@kali)-[~/picocTF/matryoshka/_dolls.jpg.extracted/base_images]
$ binwalk 2_c.jpg
```

DECIMAL	HEXADECIMAL	DESCRIPTION
0	0x0	PNG image, 526 x 1106, 8-bit/color RGBA, non-interlaced
3226	0xC9A	TIFF image data, big-endian, offset of first image directory: 8
187707	0x2DD3B	Zip archive data, at least v2.0 to extract, compressed size: 196043, uncompressed size: 201445, name: base_images/3_c.jpg
383805	0x5DB3D	End of Zip archive, footer length: 22
383916	0x5DBAC	End of Zip archive, footer length: 22

```
(kali@kali)-[~/picocTF/matryoshka/_dolls.jpg.extracted/base_images]
$ binwalk -e 2_c.jpg
```

DECIMAL	HEXADECIMAL	DESCRIPTION
0	0x0	PNG image, 526 x 1106, 8-bit/color RGBA, non-interlaced
3226	0xC9A	TIFF image data, big-endian, offset of first image directory: 8
187707	0x2DD3B	Zip archive data, at least v2.0 to extract, compressed size: 196043, uncompressed size: 201445, name: base_images/3_c.jpg
383805	0x5DB3D	End of Zip archive, footer length: 22
383916	0x5DBAC	End of Zip archive, footer length: 22

Scan for files with binwalk

Extract files with binwalk -e

```
(kali@kali)-[~/_2_c.jpg.extracted/base_images/_3_c.jpg.extracted/base_images]
$ binwalk -e 4_c.jpg
```

DECIMAL	HEXADECIMAL	DESCRIPTION
0	0x0	PNG image, 320 x 768, 8-bit/color RGBA, non-interlaced
3226	0xC9A	TIFF image data, big-endian, offset of first image directory: 8
79578	0x136DA	Zip archive data, at least v2.0 to extract, compressed size: 65, uncompressed size: 81, name: flag.txt
79787	0x137AB	End of Zip archive, footer length: 22

```
(kali@kali)-[~/_2_c.jpg.extracted/base_images/_3_c.jpg.extracted/base_images]
$ ls
4_c.jpg  _4_c.jpg.extracted
```

```
(kali@kali)-[~/_2_c.jpg.extracted/base_images/_3_c.jpg.extracted/base_images]
$ cd _4_c.jpg.extracted
```

```
(kali@kali)-[~/base_images/_3_c.jpg.extracted/base_images/_4_c.jpg.extracted]
$ ls
136DA.zip  flag.txt
```

```
(kali@kali)-[~/base_images/_3_c.jpg.extracted/base_images/_4_c.jpg.extracted]
$ cat flag.txt
picoCTF{4f11048e83ffc7d342a15bd2309b47de}
```

At the fifth level in, there was a flag.txt file

This could also be done in one command, using the binwalk -M -e flags.

-M specifies binwalk to be recursive, so it would go all the way to the lowest level automatically.