

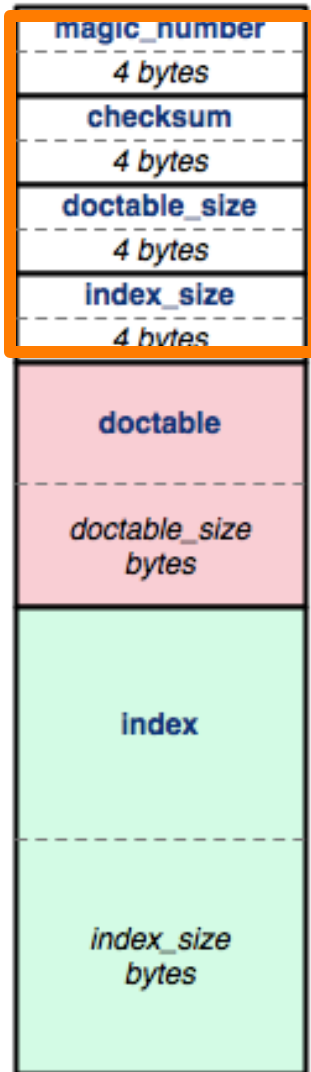


# CSE 333 – SECTION 7

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- HW3 Hex View

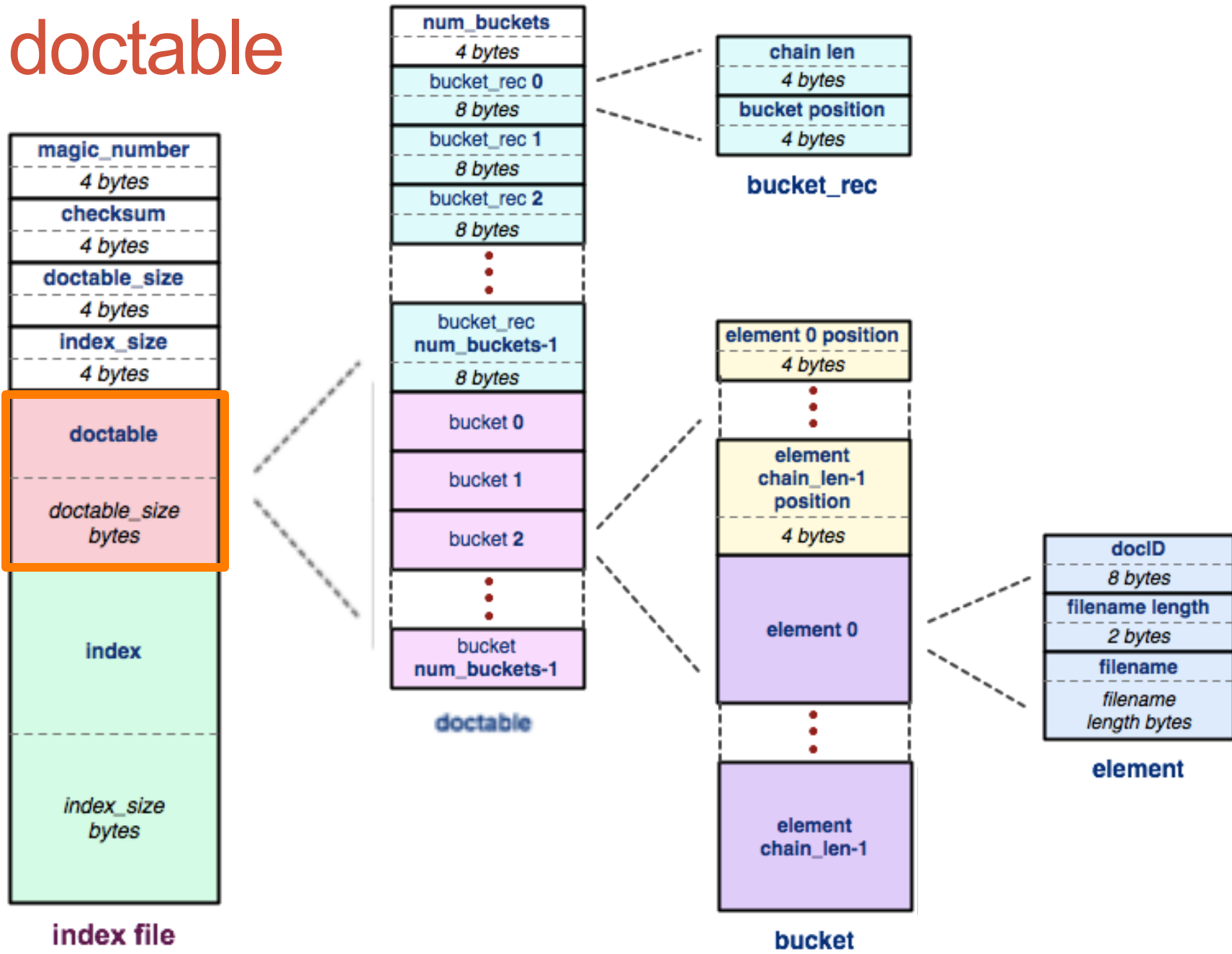
# HW3



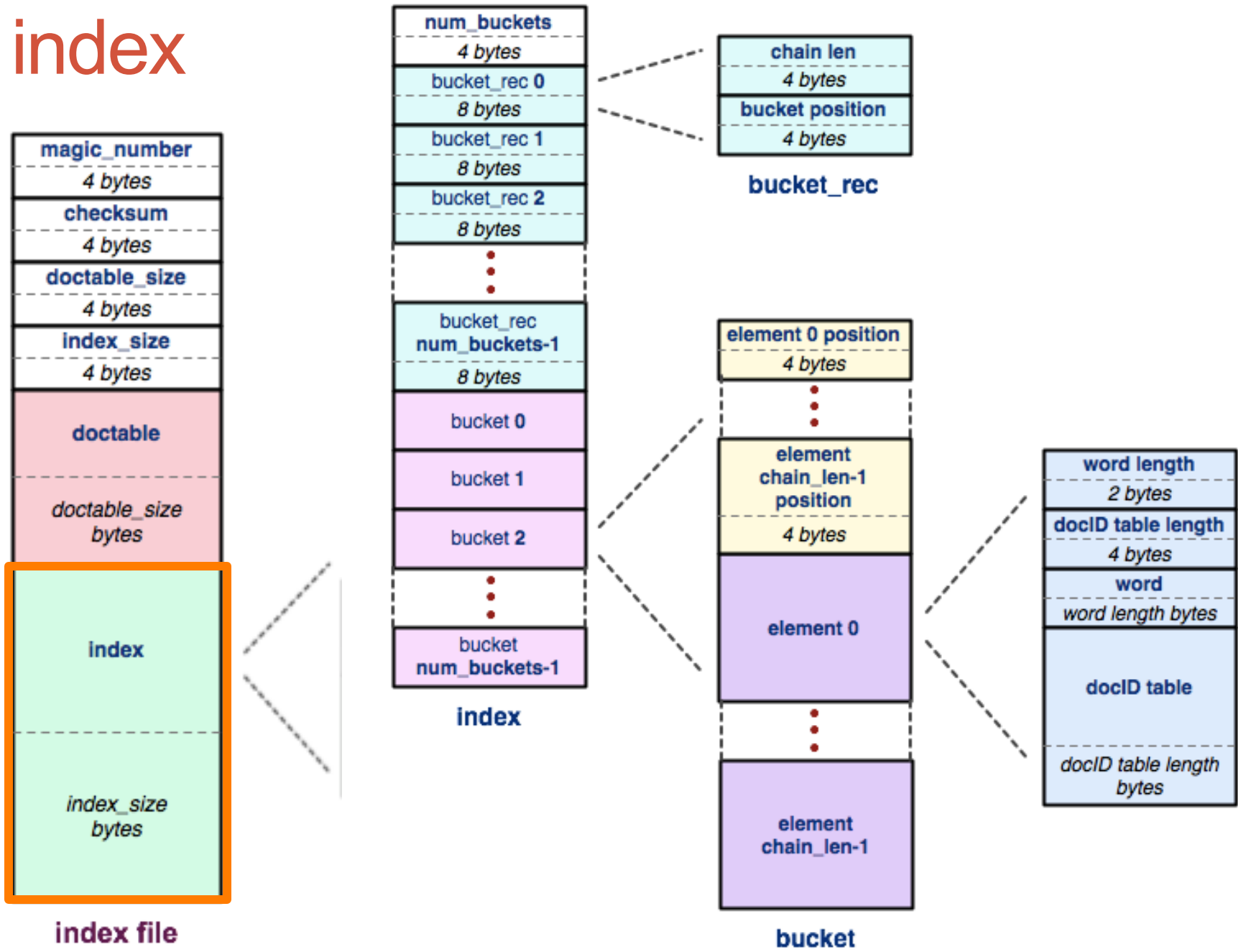
**index file**

- magic\_number: 0xCAFEF00D
- checksum: mathematical signature
- doctable\_size
- index\_size

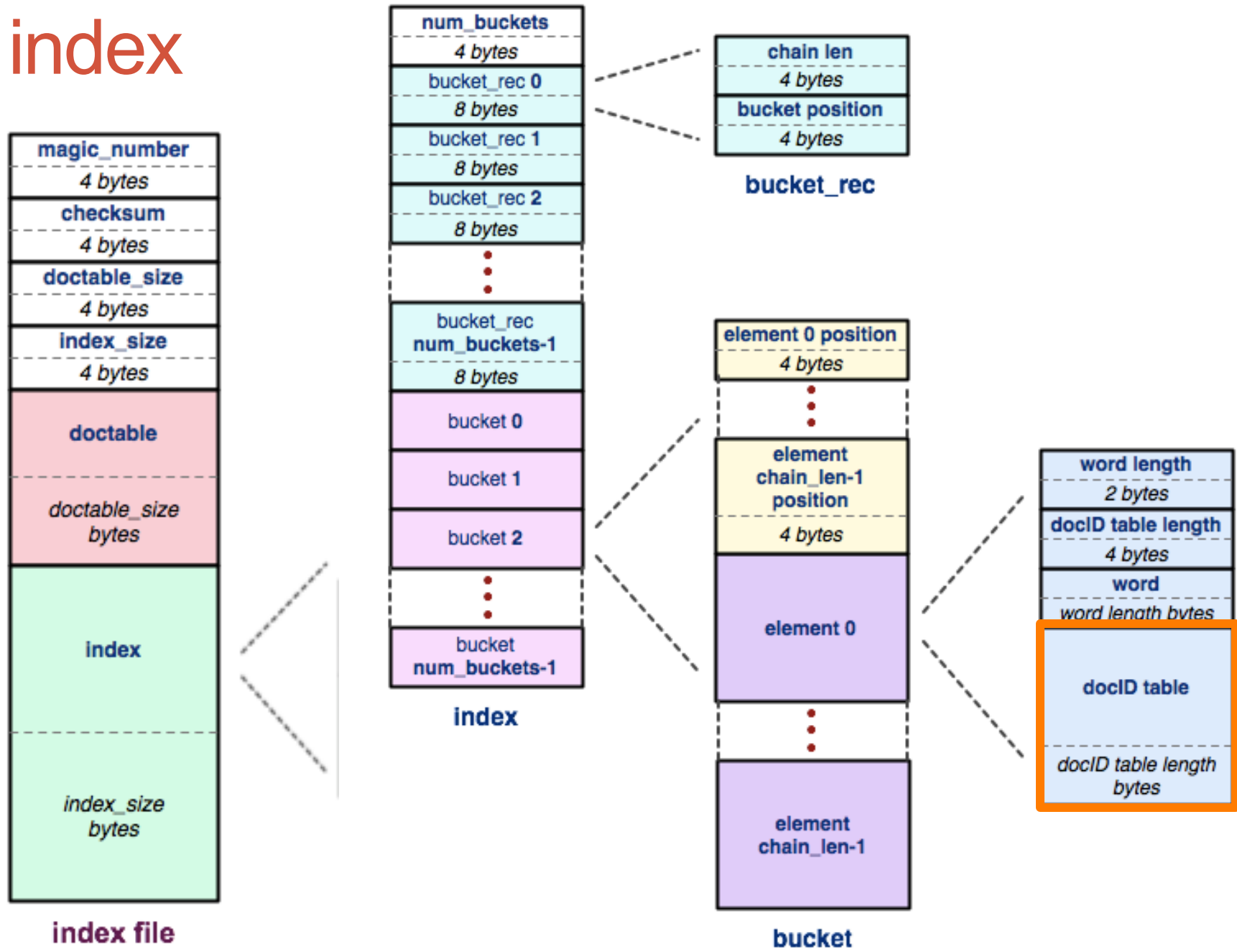
# doctable



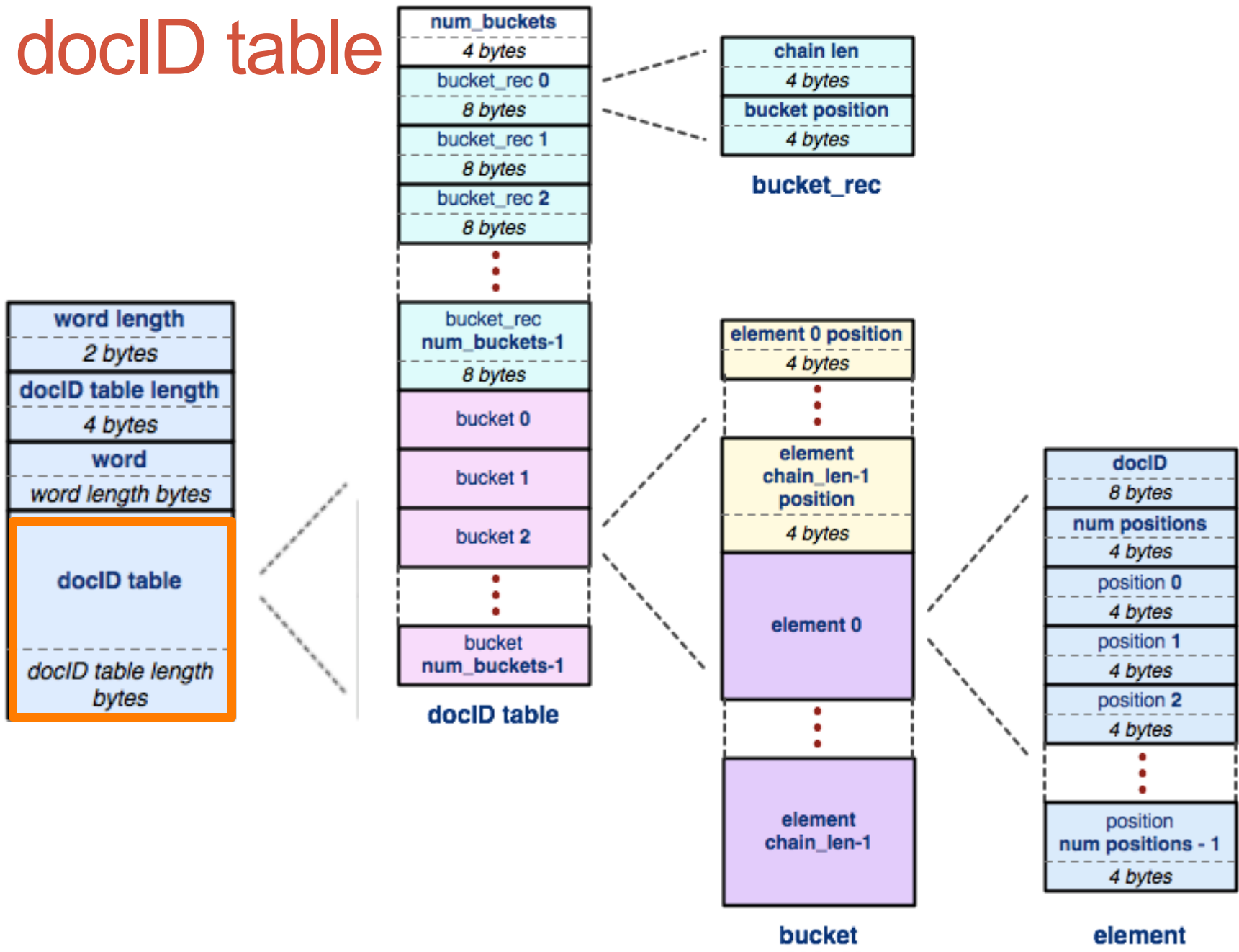
# index



# index



# docID table





# Hex View

- emacs “M-x hexl-mode”

```
File Edit Options Buffers Tools Hexl Help
87654321 0011 2233 4455 6677 8899 aabb ccdd eeff 0123456789abcdef
00000000: cafe f00d ce52 0578 0000 205e 0000 0944 .....R.x.. ^...D
00000010: 0000 0400 0000 0000 0000 2014 0000 0001 .....
00000020: 0000 2014 0000 0001 0000 2032 0000 0001 .. ..... 2....
00000030: 0000 2050 0000 0000 0000 206e 0000 0000 .. P..... n....
00000040: 0000 206e 0000 0000 0000 206e 0000 0000 .. n..... n....
00000050: 0000 206e 0000 0000 0000 206e 0000 0000 .. n..... n....
```

- vim “:%!xxd”

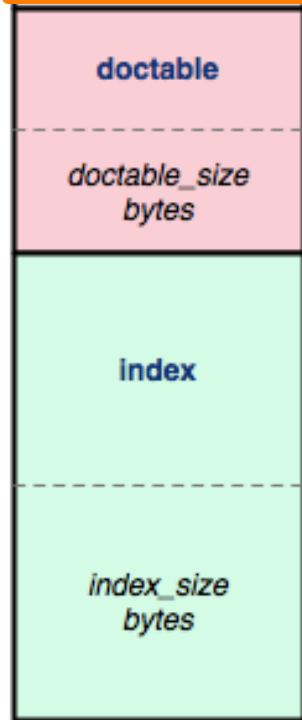
```
0000000: cafe f00d 1c42 4620 0000 205b 0000 075d .....BF .. [...]
0000010: 0000 0400 0000 0000 0000 2014 0000 0001 .....
0000020: 0000 2014 0000 0001 0000 2031 0000 0001 .. ..... 1....
0000030: 0000 204e 0000 0000 0000 206b 0000 0000 .. N..... k....
0000040: 0000 206b 0000 0000 0000 206b 0000 0000 .. k..... k....
0000050: 0000 206b 0000 0000 0000 206b 0000 0000 .. k..... k....
```



# header

<b>magic_number</b>
4 bytes
<b>checksum</b>
4 bytes
<b>doctable_size</b>
4 bytes
<b>index_size</b>
4 bytes

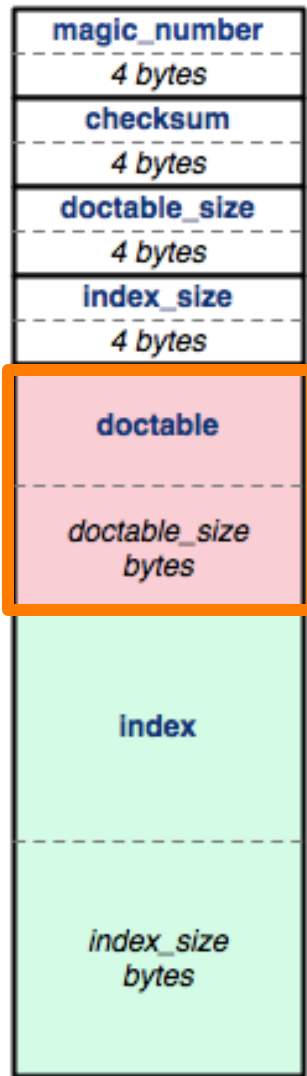
```
00000000: cafe f00d 1c42 4620 0000 205b 0000 075d  ....BF .. [...]
00000010: 0000 0400 0000 0000 0000 2014 0000 0001  ....
00000020: 0000 2014 0000 0001 0000 2031 0000 0001  .. ..... 1....
00000030: 0000 204e 0000 0000 0000 206b 0000 0000  .. N..... k....
00000040: 0000 206b 0000 0000 0000 206b 0000 0000  .. k..... k....
00000050: 0000 206b 0000 0000 0000 206b 0000 0000  .. k..... k....
```



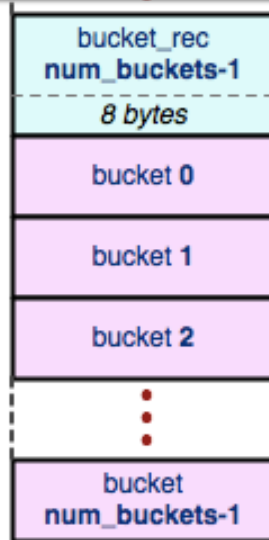
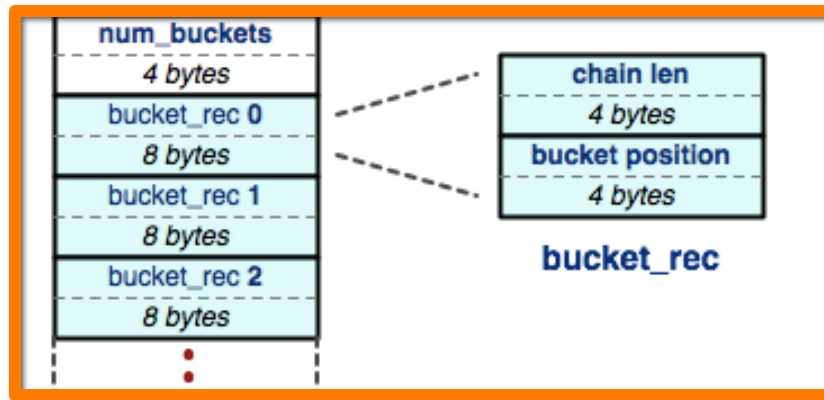
Magic word    Checksum    Doctable size    Index size

index file

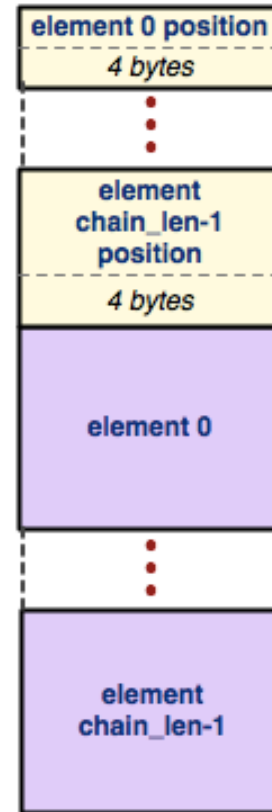
# doctable



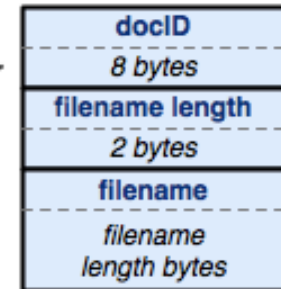
index file



doctable

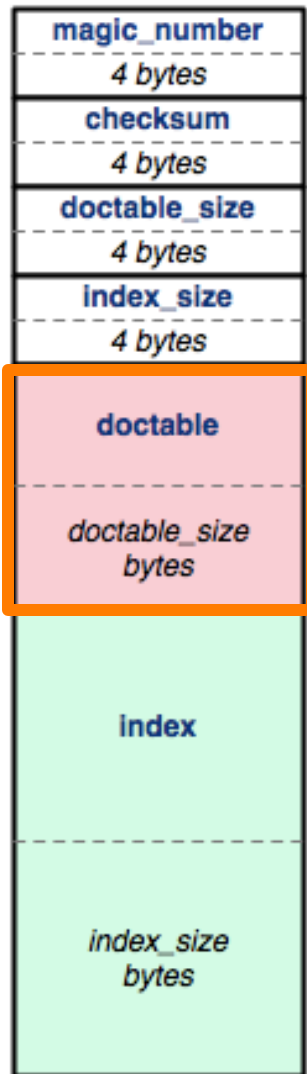


bucket

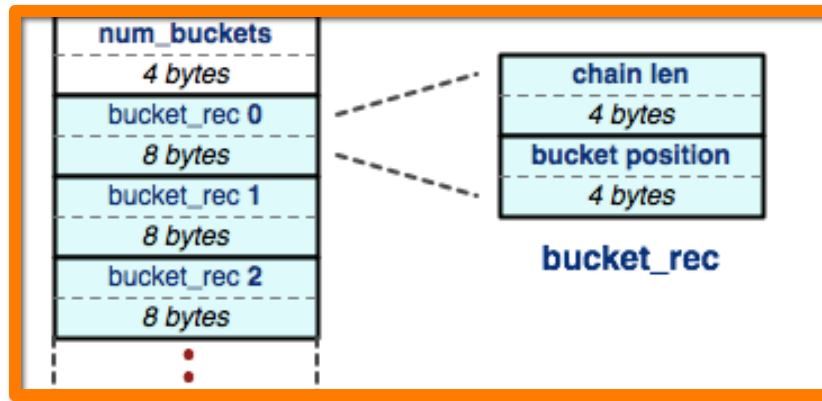


element

# doctable



index file



```

0000000: cafe f00d 1c42 4620 0000 205b 0000 075d  ....BF .. [...]
0000010: 0000 0400 0000 0000 0000 2014 0000 0001  .....
0000020: 0000 2014 0000 0001 0000 2031 0000 0001  .. ..... 1....
0000030: 0000 204e 0000 0000 0000 206b 0000 0000  .. N..... k....
0000040: 0000 206b 0000 0000 0000 206b 0000 0000  .. k..... k....
0000050: 0000 206b 0000 0000 0000 206b 0000 0000  .. k..... k....
0002000: 0000 206b 0000 0000 0000 206b 0000 0000  .. k..... k....
0002010: 0000 206b 0000 2018 0000 0000 0000 0001  .. k.. .....
0002020: 000f 736d 616c 6c5f 6469 722f 632e 7478  ..small_dir/c.tx
0002030: 7400 0020 3500 0000 0000 0000 0200 0f73  t.. 5.....s
0002040: 6d61 6c6c 5f64 6972 2f62 2e74 7874 0000  mall_dir/b.txt..
0002050: 2052 0000 0000 0000 0003 000f 736d 616c  R.....smal
0002060: 6c5f 6469 722f 612e 7478 7400 0000 8000  l_dir/a.txt....
0002070: 0000 0000 0024 6f00 0000 0000 0024 6f00  ....$o.....$o.
    
```

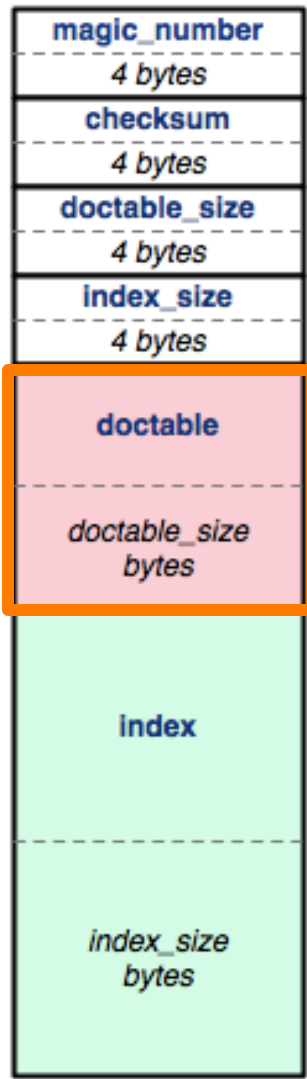
The doctable (part 1):  
 Num buckets ( Chain len Bucket offset )\*

# doctable

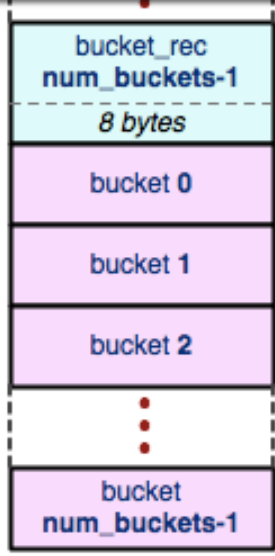
$( (\text{Element offset})^n ( \text{DocID} \quad \text{Filename len} \quad \text{Filename} )^n )^*$

```

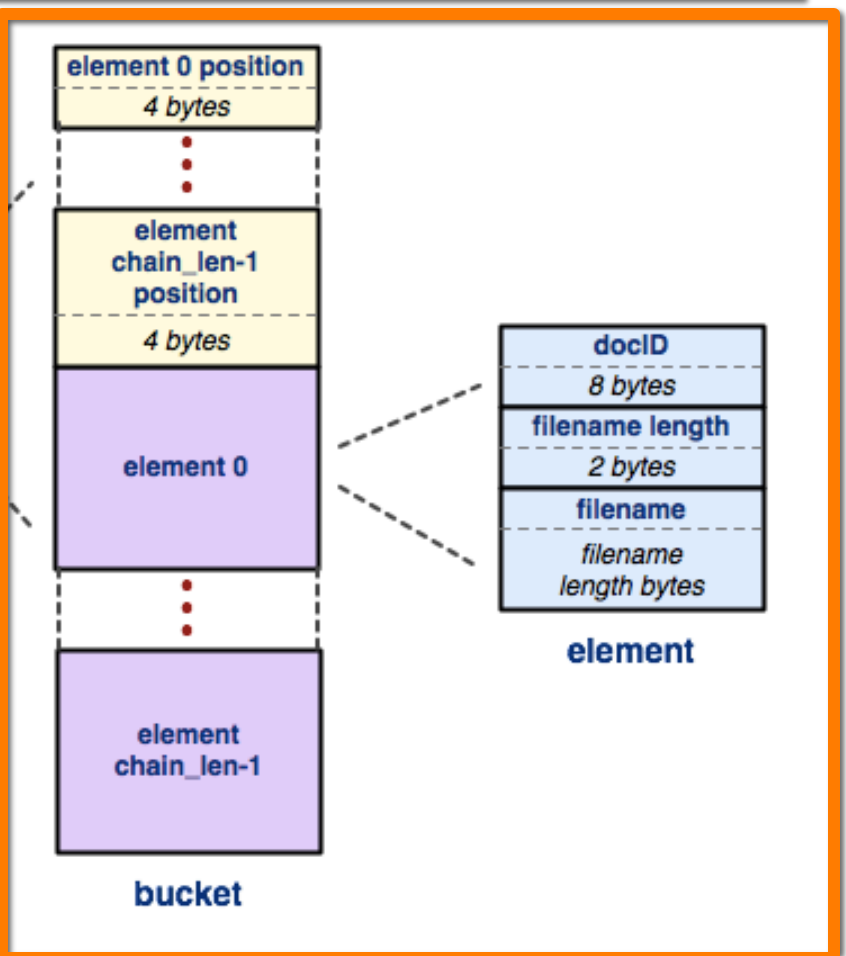
0002000: 0000 206b 0000 0000 0000 206b 0000 0000  .. k..... k....
0002010: 0000 206b 0000 2018 0000 0000 0000 0001  .. k.. .....
0002020: 000f 736d 616c 6c5f 6469 722f 632e 7478  ..small_dir/c.tx
0002030: 7400 0020 3500 0000 0000 0000 0200 0f73  t.. 5.....s
0002040: 6d61 6c6c 5f64 6972 2f62 2e74 7874 0000  mall_dir/b.txt..
    
```



index file

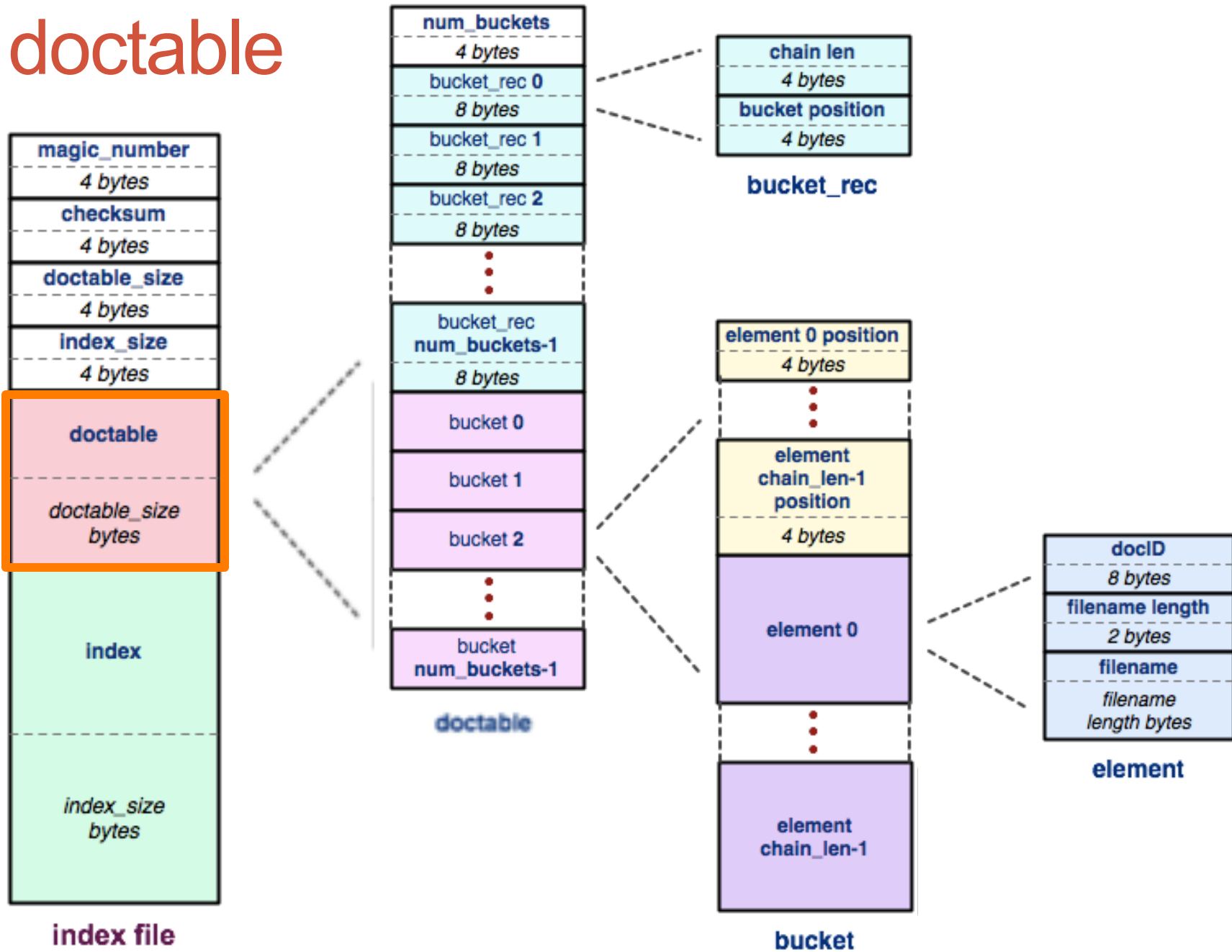


doctable

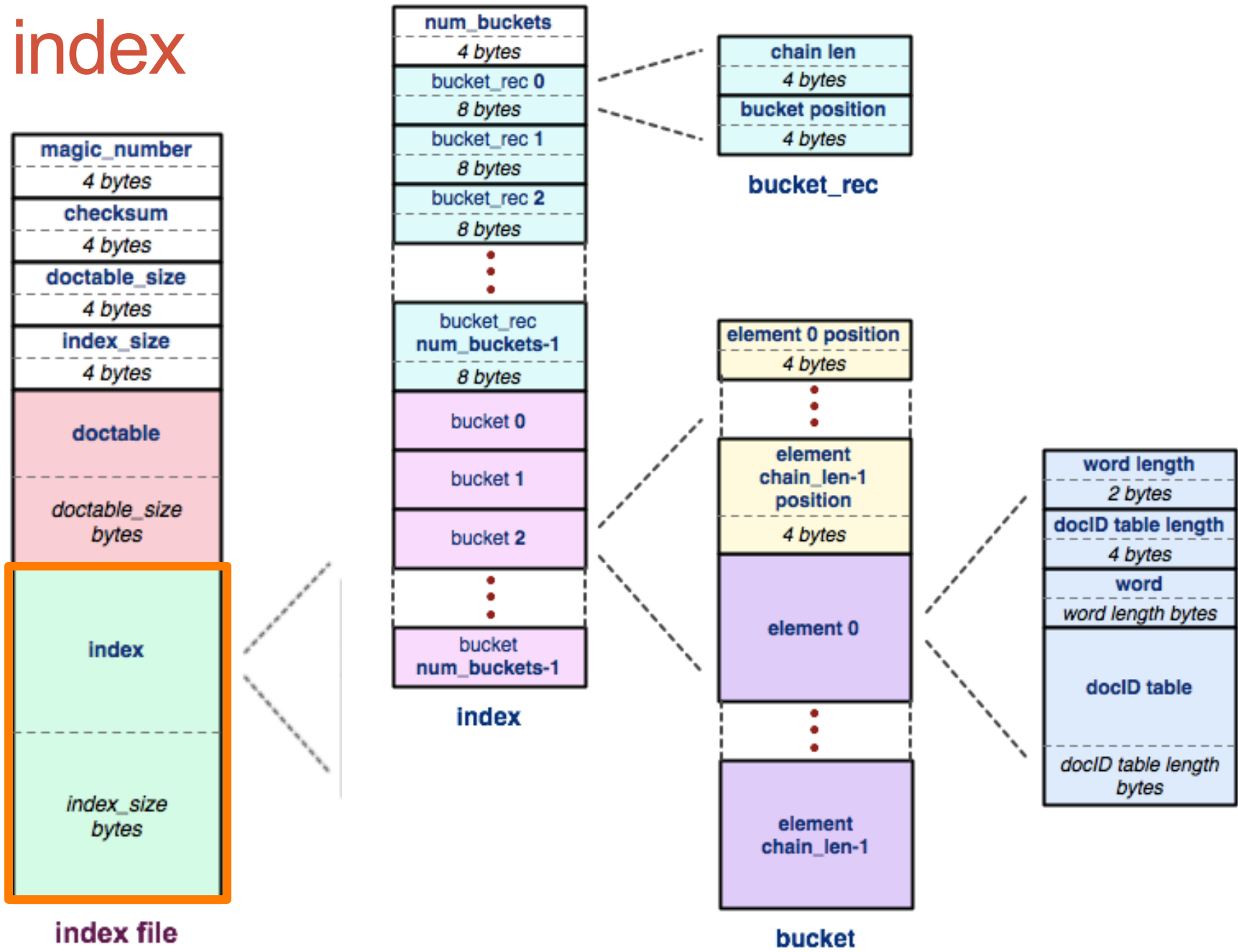


bucket

# doctable



# index



# docID table

