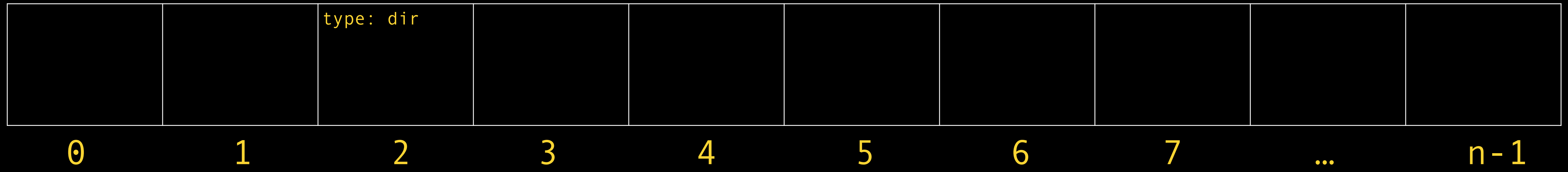


# Directories and Links

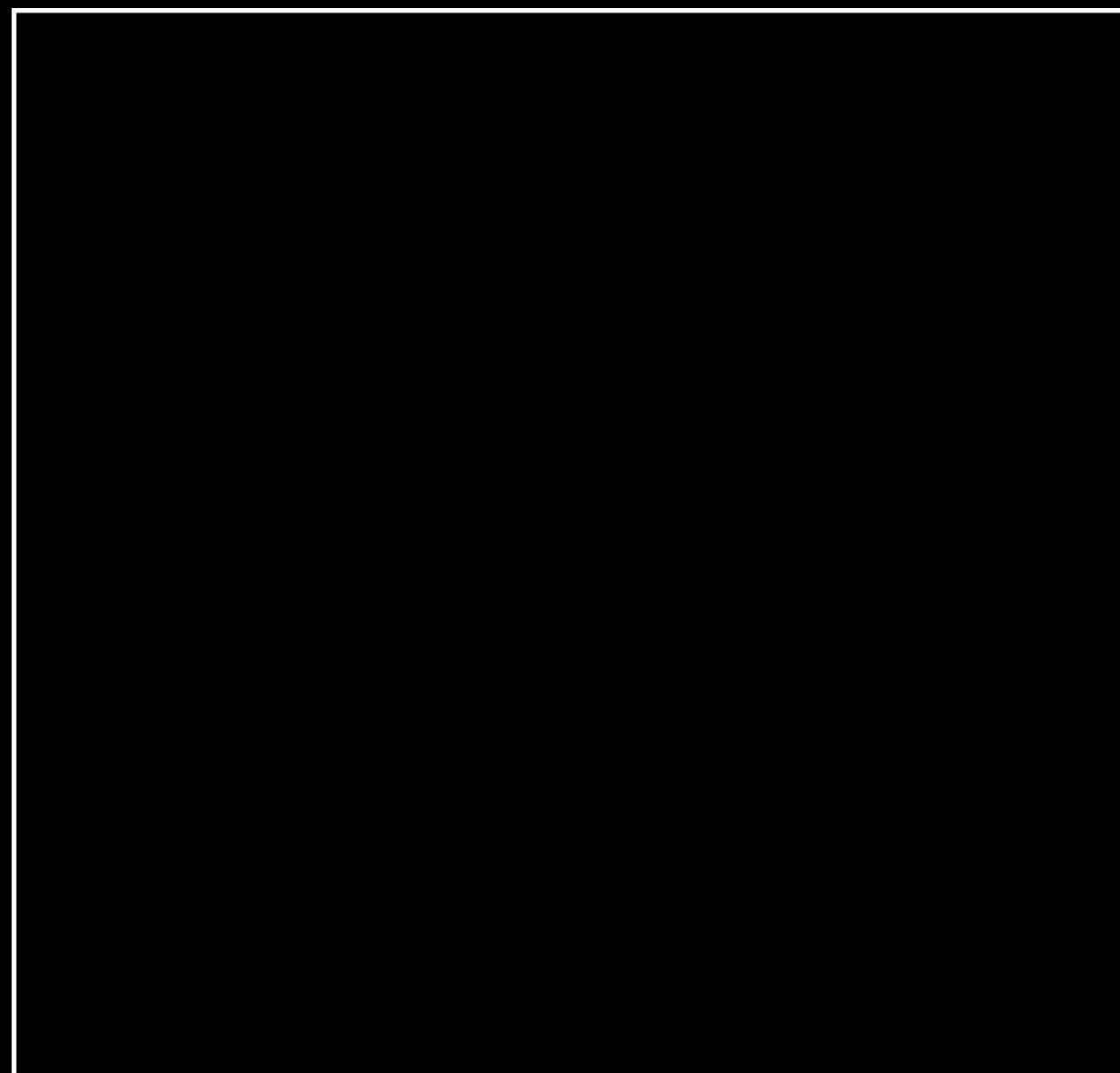
*Directory*  
*/foo/*



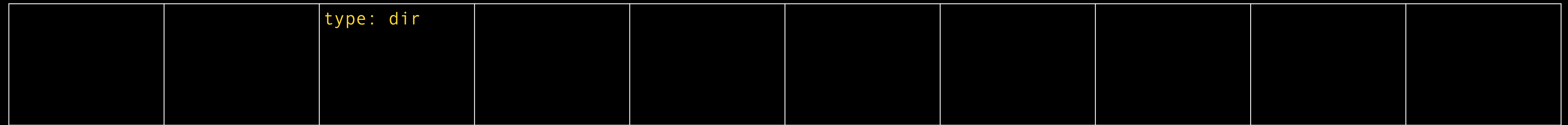
*i-node table*



*Directory*  
*/foo/*



# *i-node table*

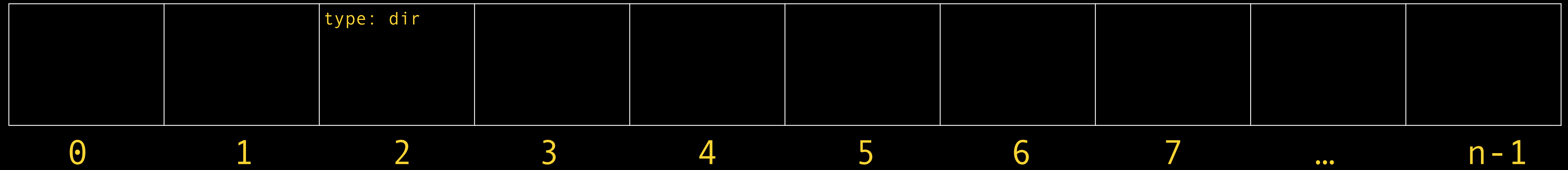


0 1 2 3 4 5 6 7 ... n-1

*Directory*  
*/foo/*

a.txt	3
b.txt	4
...	
z.txt	7

# *i-node table*



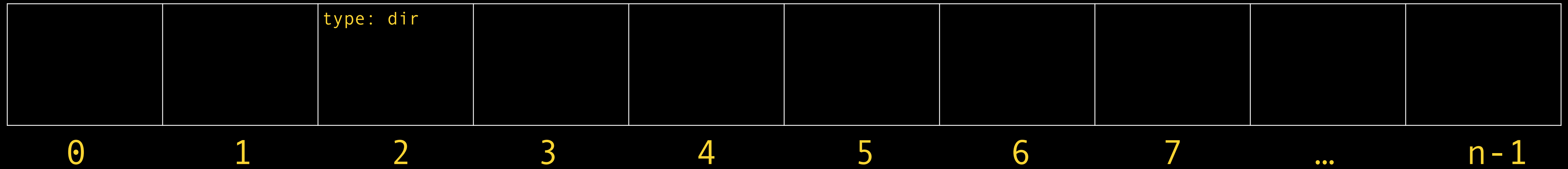
*Directory*  
*/foo/*

a.txt	3
b.txt	4
...	...
z.txt	7

*Directory*  
*/bar/*

...	...
...	...
...	...
...	...

# *i-node table*



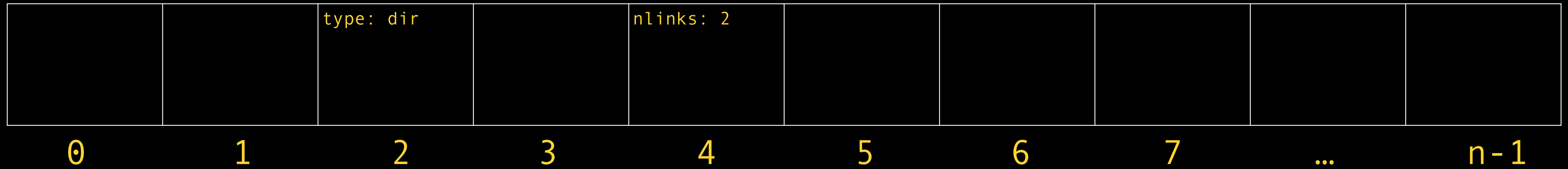
*Directory*  
*/foo/*

a.txt	3
b.txt	4
...	...
z.txt	7

*Directory*  
*/bar/*

...	...
beta.txt	4
...	...
...	...

# *i-node table*



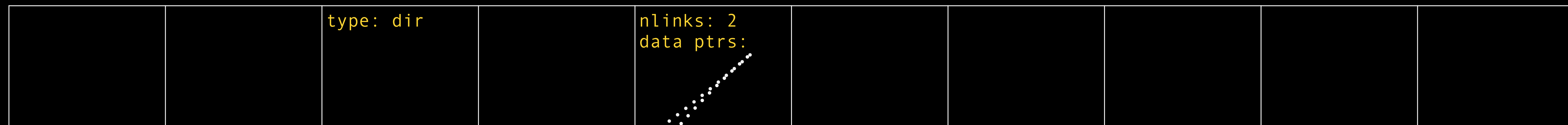
*Directory*  
*/foo/*

a.txt	3
b.txt	4
...	...
z.txt	7

*Directory*  
*/bar/*

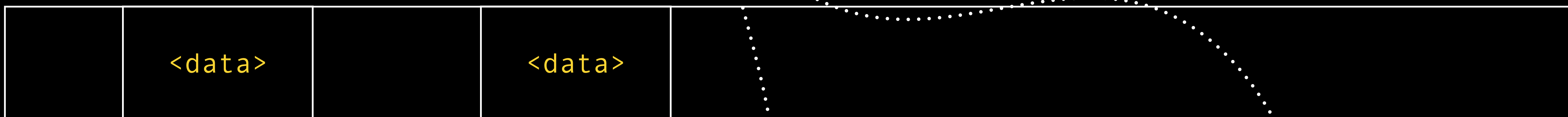
...	...
beta.txt	4
...	...
...	...

# *i-node table*



0 1 2 3 4 5 6 7 ... n-1

## *data blocks*



## *Directory /foo/*

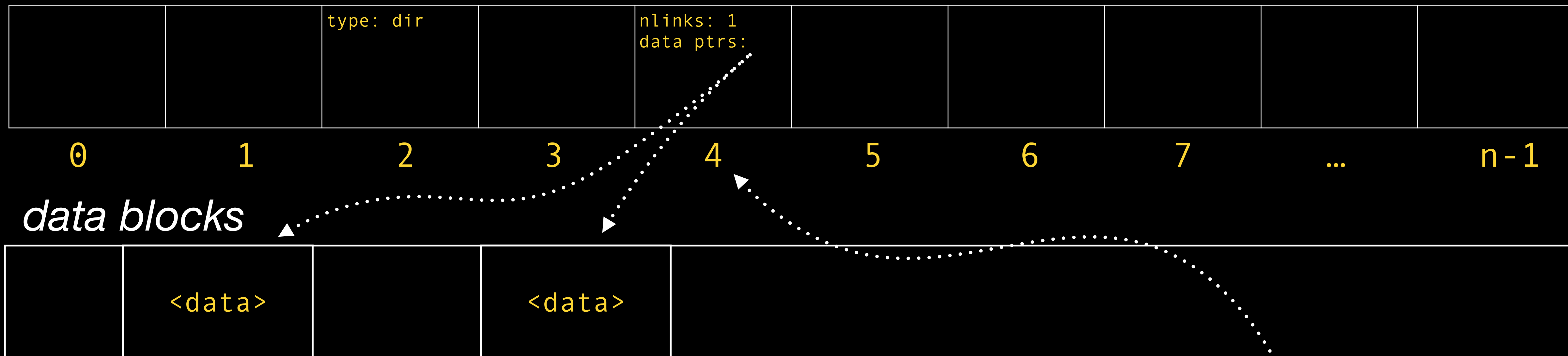
a.txt	3
b.txt	4
...	...
z.txt	7

## *Directory /bar/*

...	...
beta.txt	4
...	...
...	...



# *i-node table*



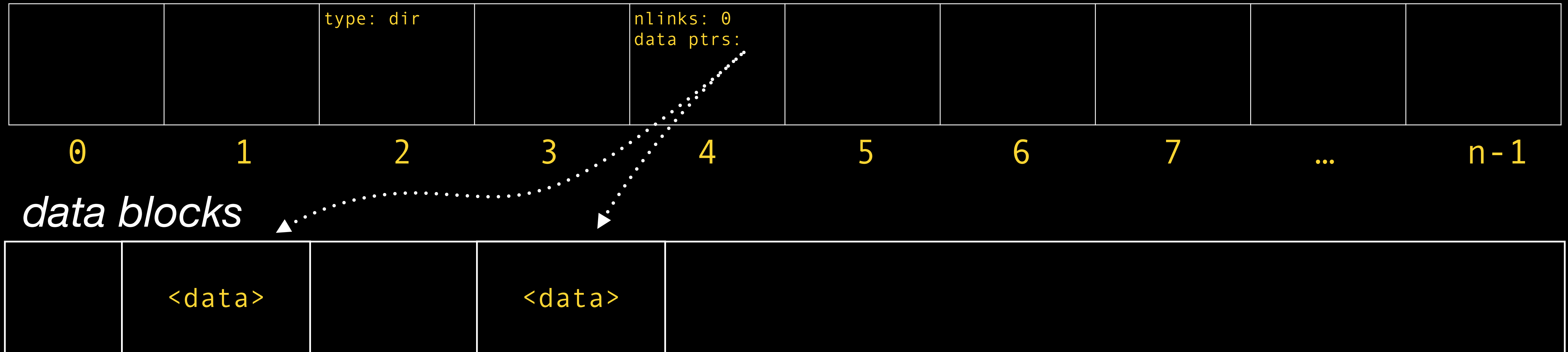
*Directory*  
*/foo/*

a.txt	3
...	...
z.txt	7

*Directory*  
*/bar/*

...	...
beta.txt	4
...	...
...	...

# *i-node table*



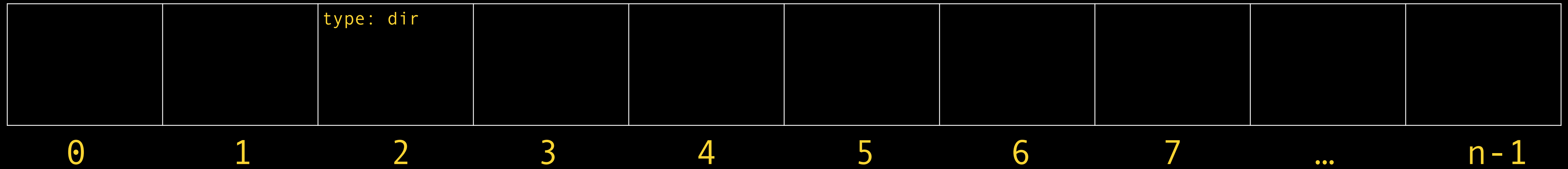
*Directory*  
/foo/

a.txt	3
...	...
z.txt	7

*Directory*  
/bar/

...	...
...	...
...	...

## *i-node table*



## *data blocks*



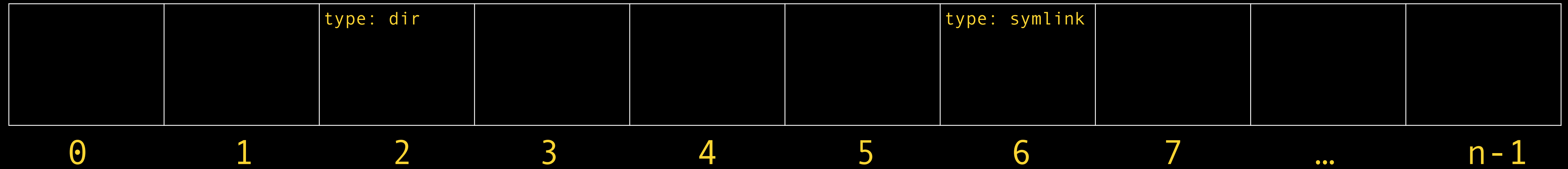
*Directory*  
*/foo/*

a.txt	3
...	...
z.txt	7

*Directory*  
*/bar/*

...	...
...	...
...	...

# *i-node table*



# *data blocks*



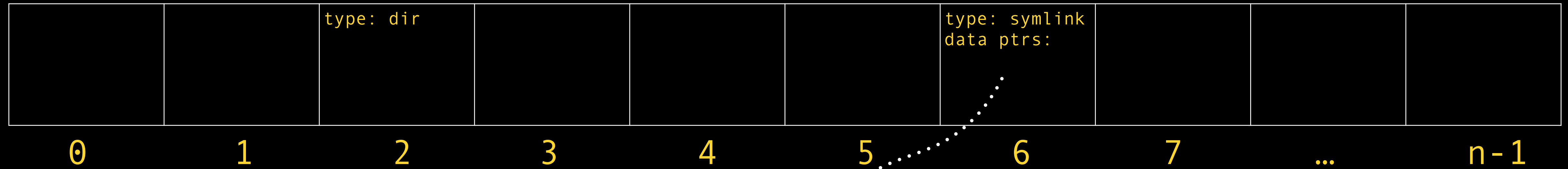
*Directory*  
*/foo/*

a.txt	3
...	...
...	...
z.txt	7

*Directory*  
*/bar/*

...	...
...	...
alpha.txt	6
...	...

# *i-node table*



# *data blocks*



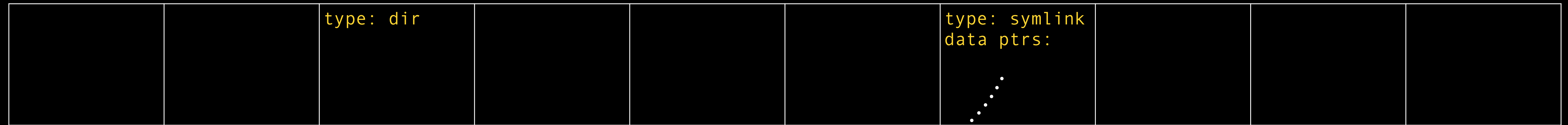
# *Directory /foo/*

a.txt	3
...	...
...	...
z.txt	7

# *Directory /bar/*

...	...
...	...
alpha.txt	6
...	...

# *i-node table*



0      1      2      3      4      5      6      7      ...      n-1

## *data blocks*

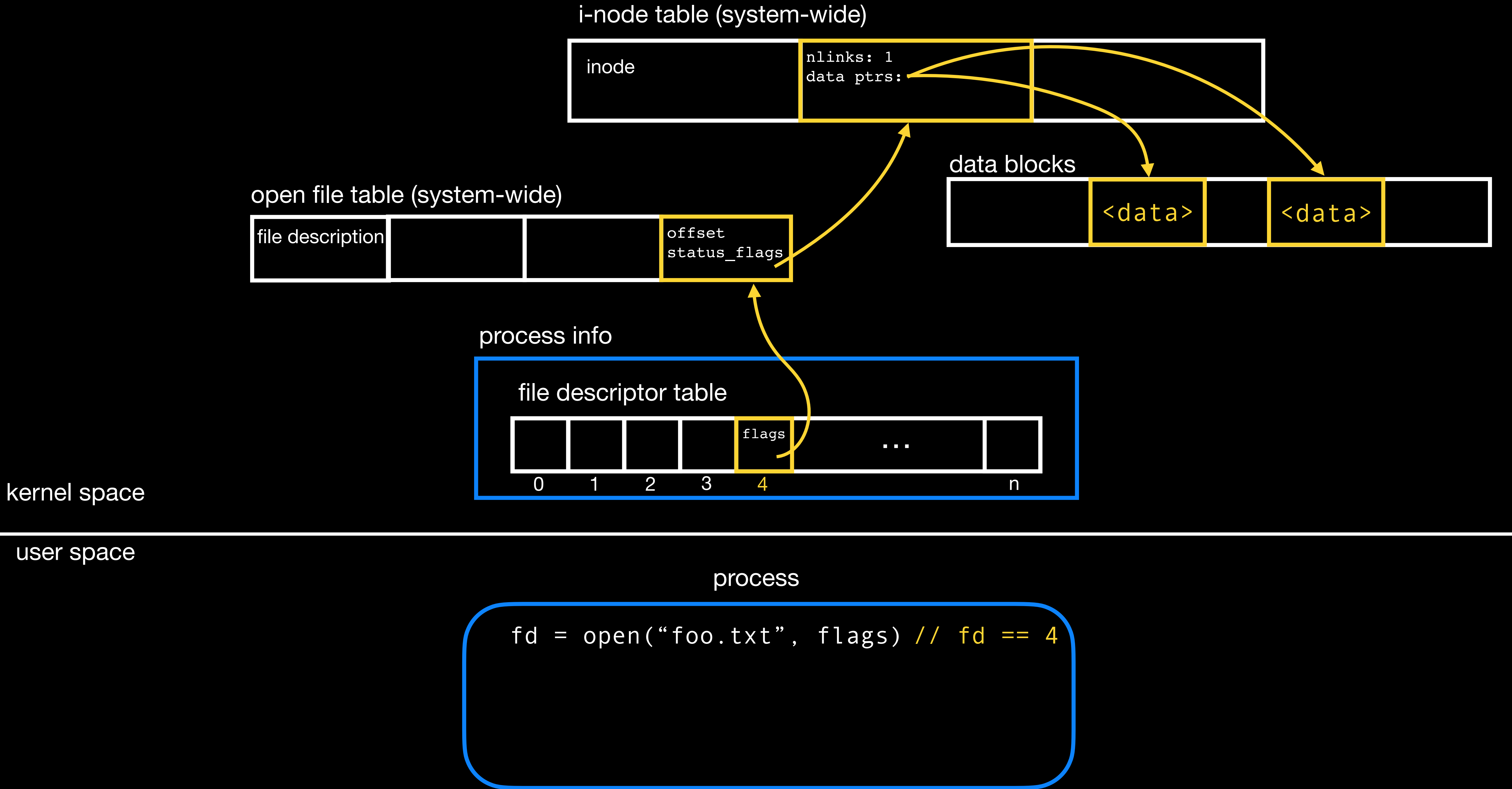


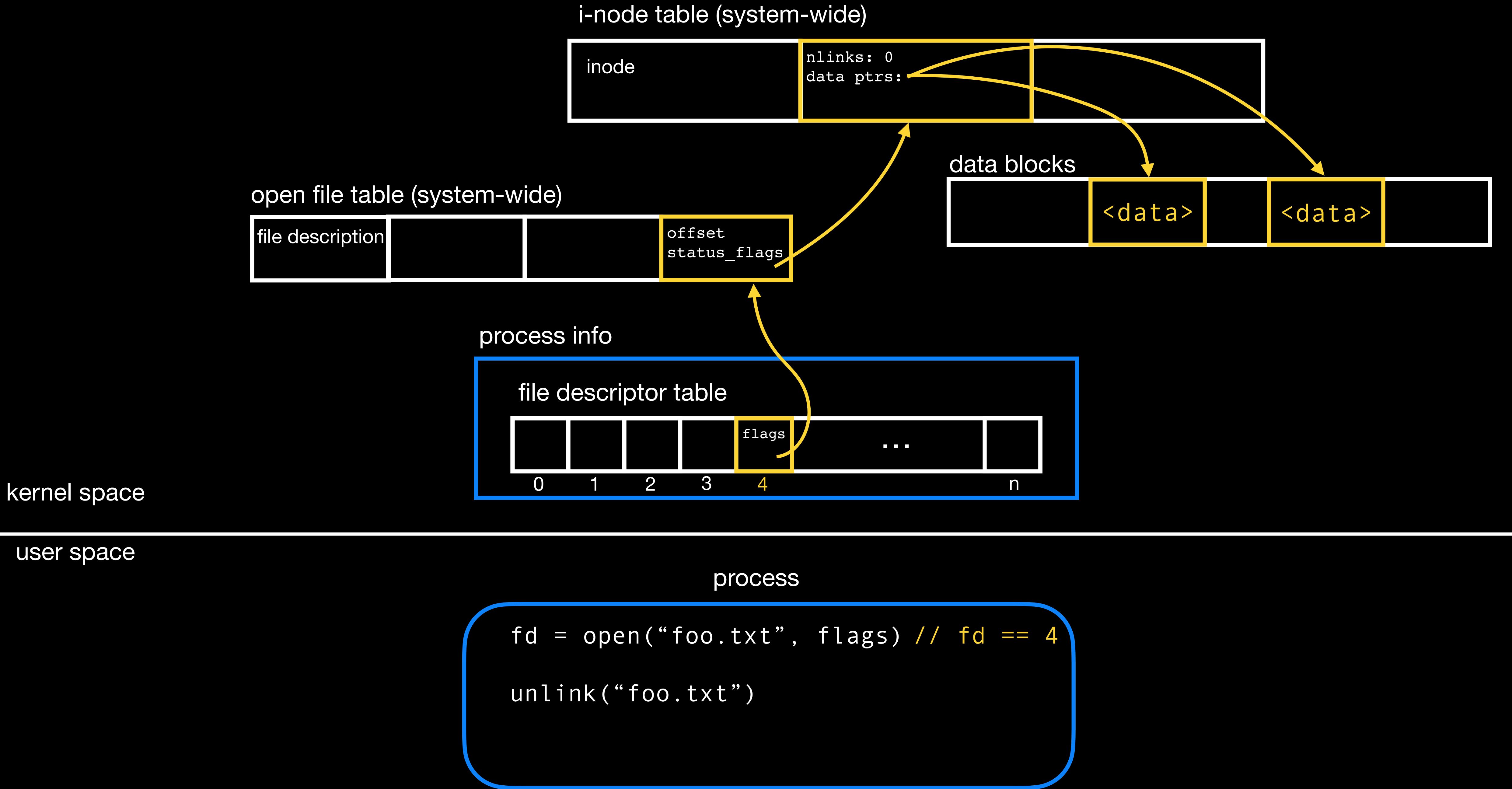
### *Directory /foo/*

...	...
...	...
z.txt	7

### *Directory /bar/*

...	...
...	...
alpha.txt	6
...	...



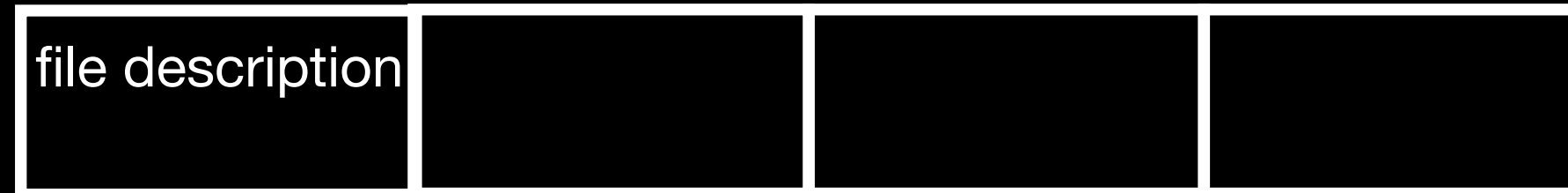




### i-node table (system-wide)



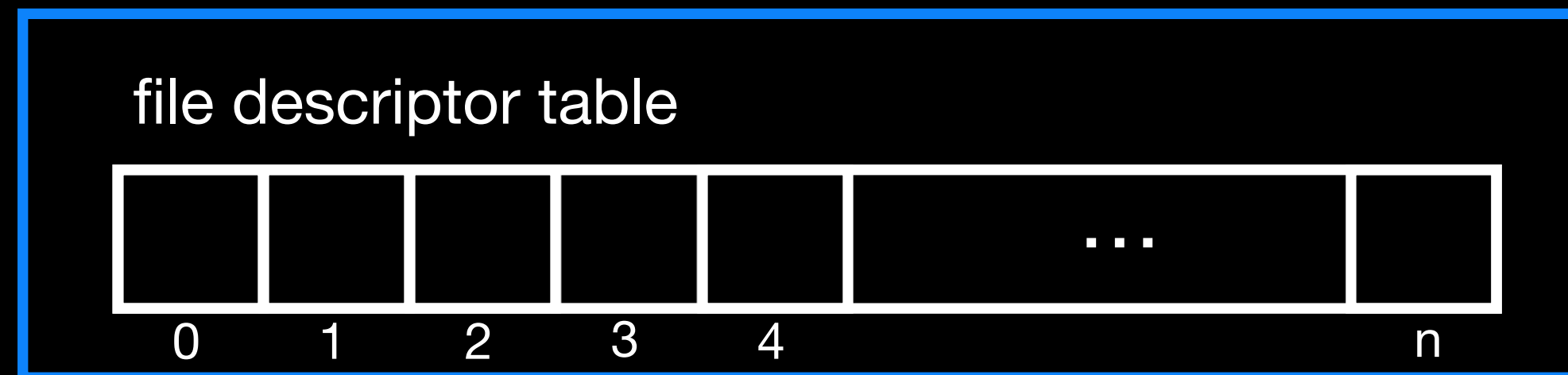
### open file table (system-wide)



### data blocks



### process info



kernel space

user space

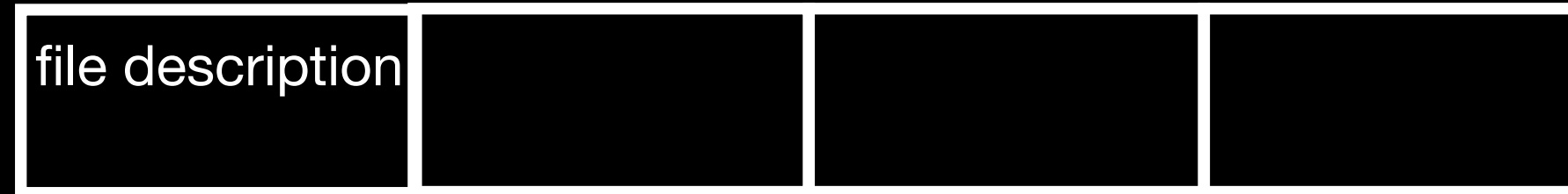
### process

```
fd = open("foo.txt", flags) // fd == 4
unlink("foo.txt")
close(fd)
```

i-node table (system-wide)



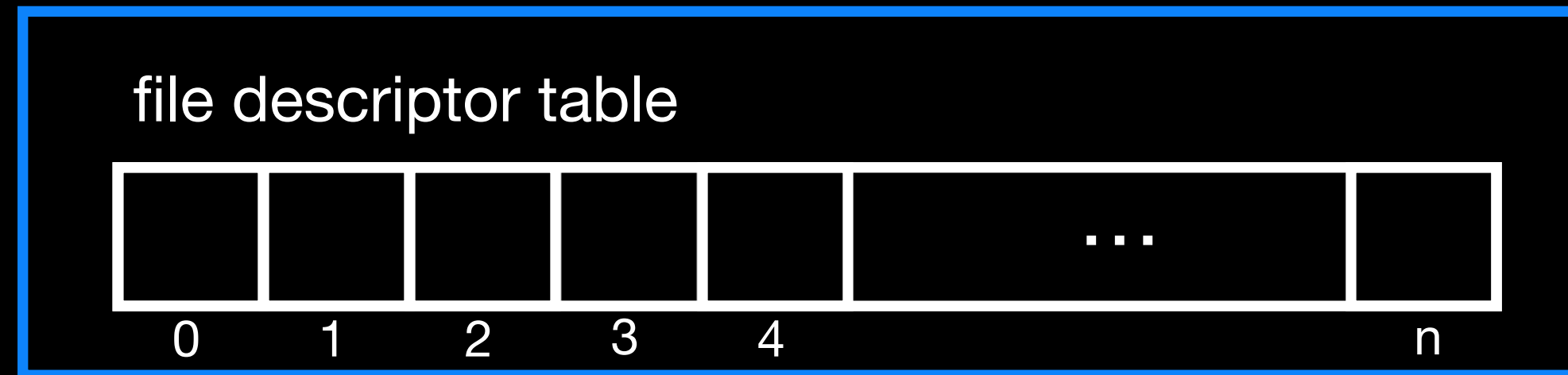
open file table (system-wide)



data blocks



process info



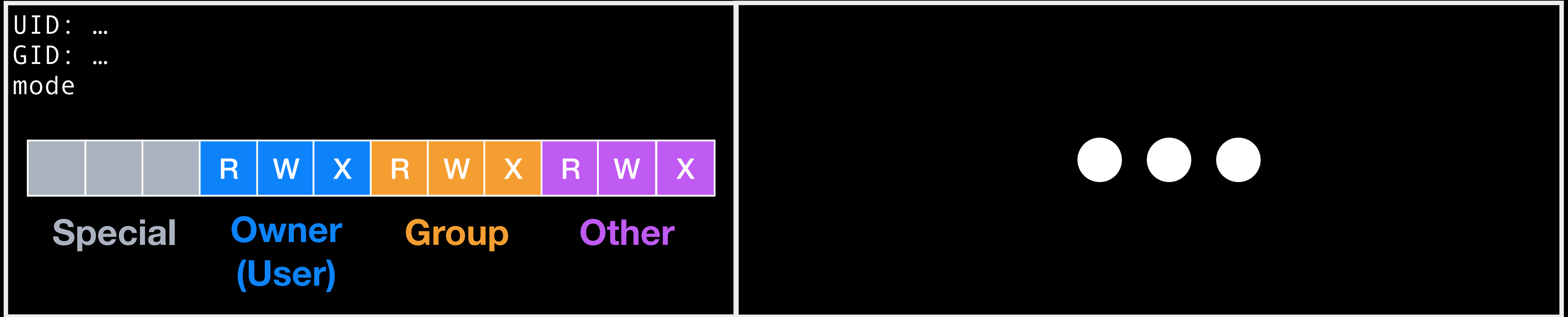
kernel space

user space

process

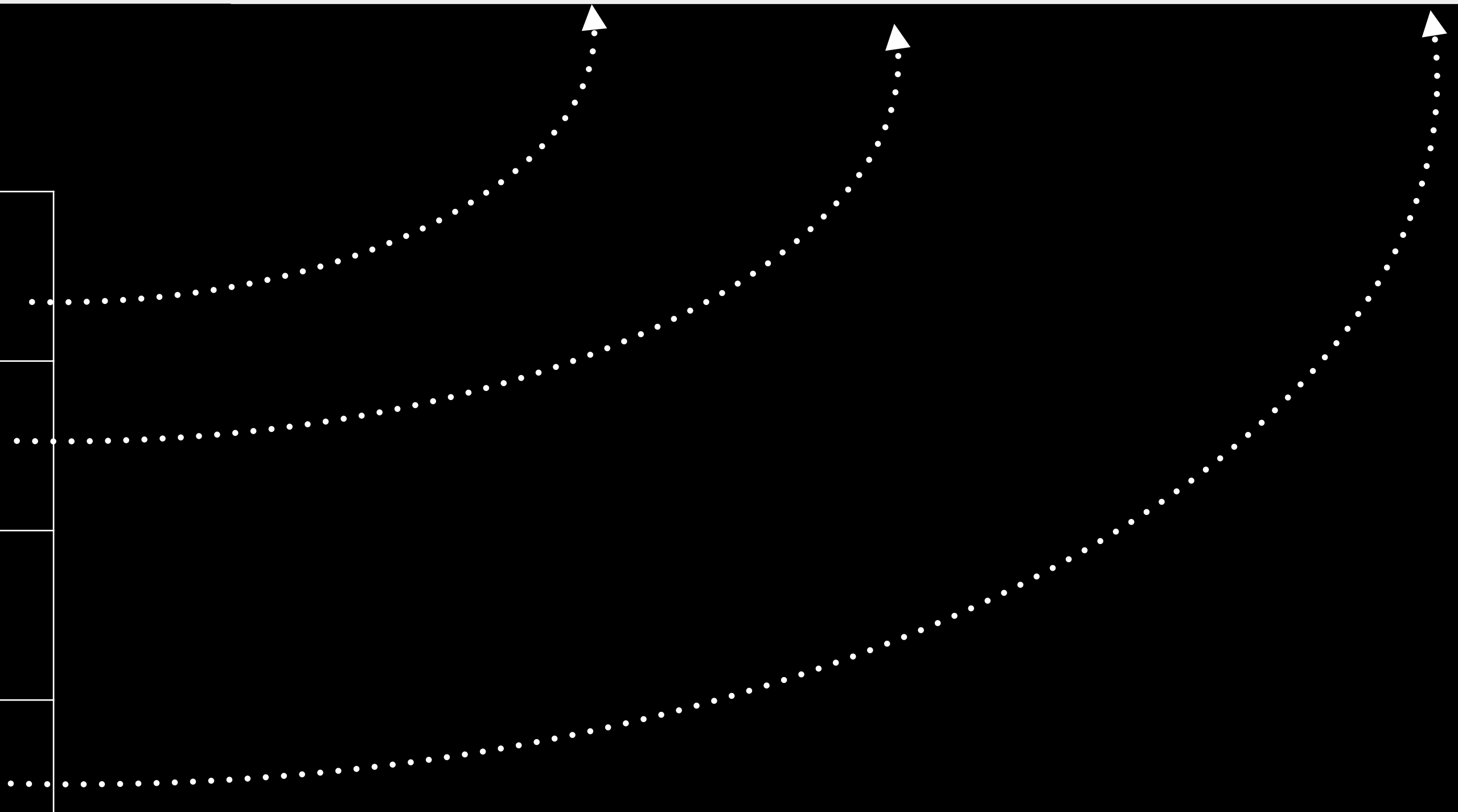
```
fd = open("foo.txt", flags) // fd == 4
unlink("foo.txt")
close(fd)
```

# i-node table

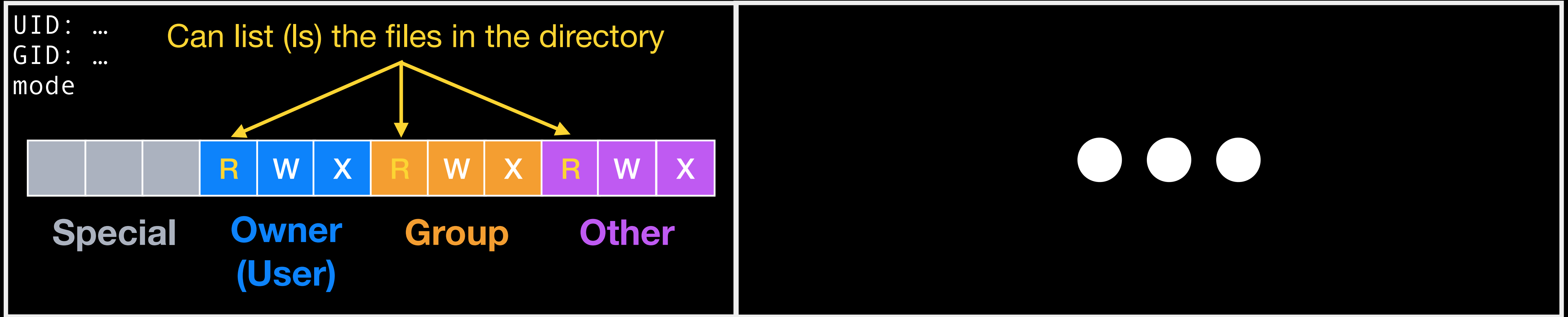


*Directory*  
/foo/

a.txt	3
b.txt	4
...	...
z.txt	7



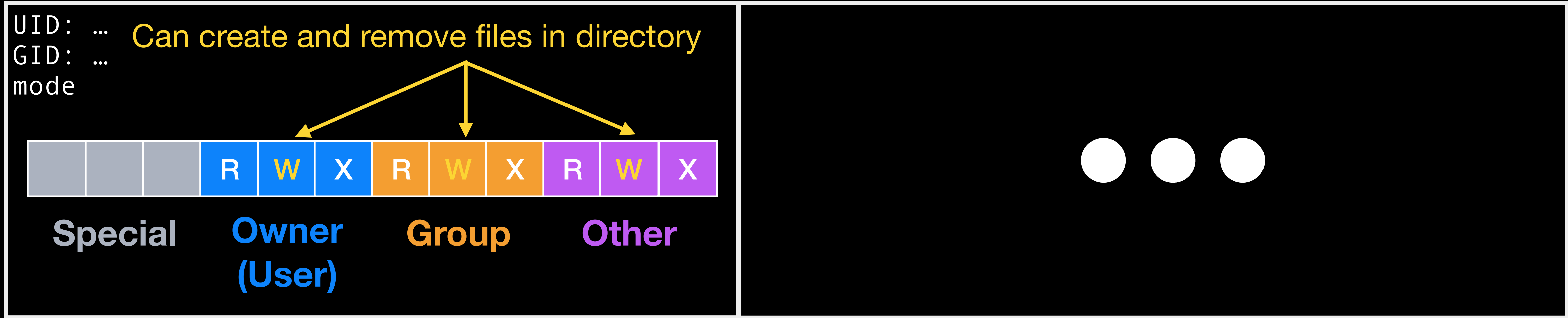
# i-node table



*Directory*  
*/foo/*

a.txt	3
b.txt	4
...	...
z.txt	7

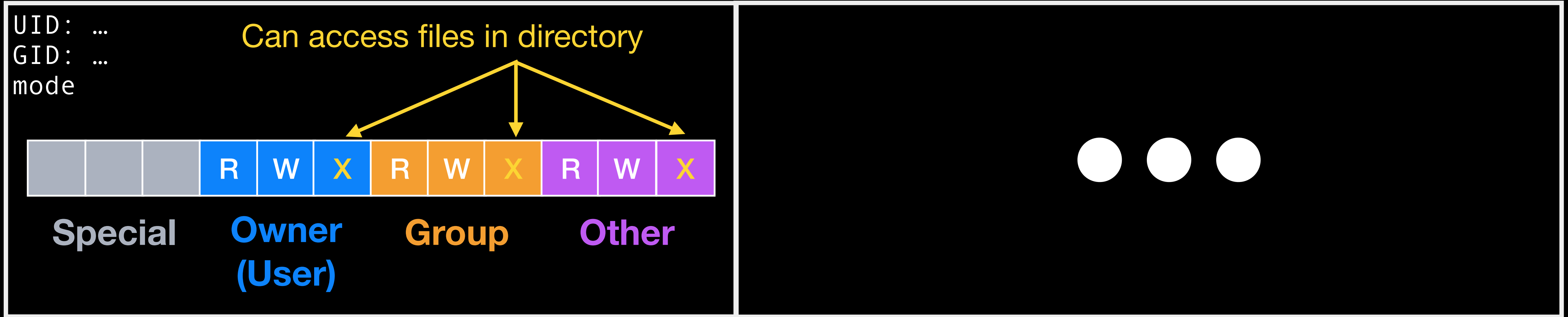
# i-node table



*Directory*  
*/foo/*

a.txt	3
b.txt	4
...	...
z.txt	7

# i-node table



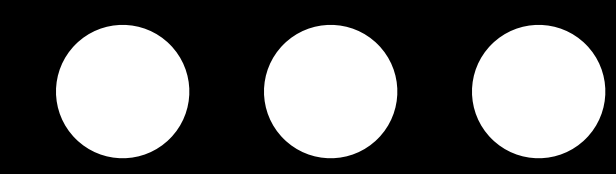
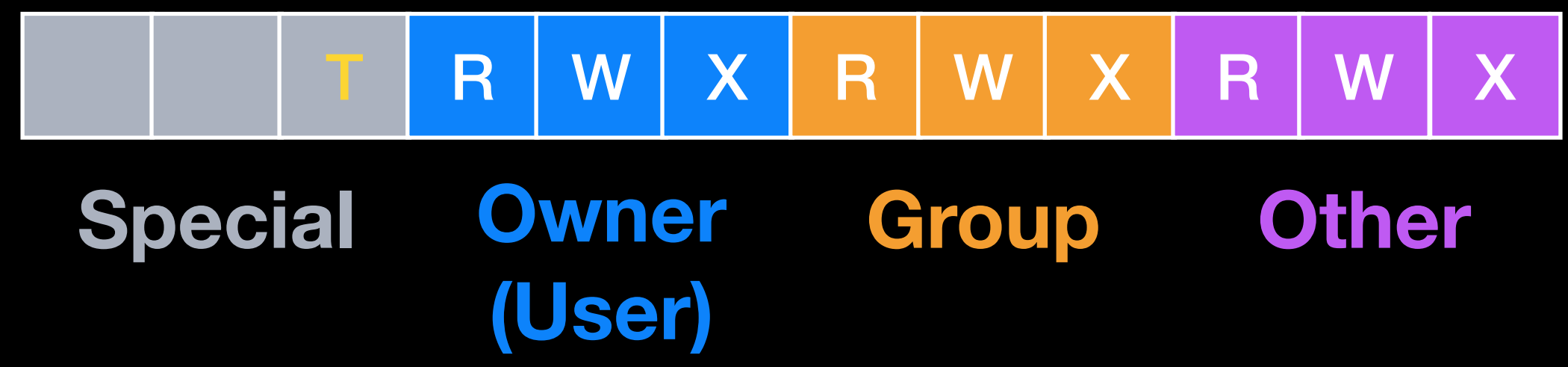
*Directory*  
*/foo/*

a.txt	3
b.txt	4
...	...
z.txt	7

# i-node table

UID: ...  
GID: ...  
mode

**Sticky bit: restricted deletion**  
(can unlink a file only if have W permission on directory and owns either the file or directory)



*Directory*  
*/foo/*

a.txt	3
b.txt	4
...	...
z.txt	7