

**a.out header**

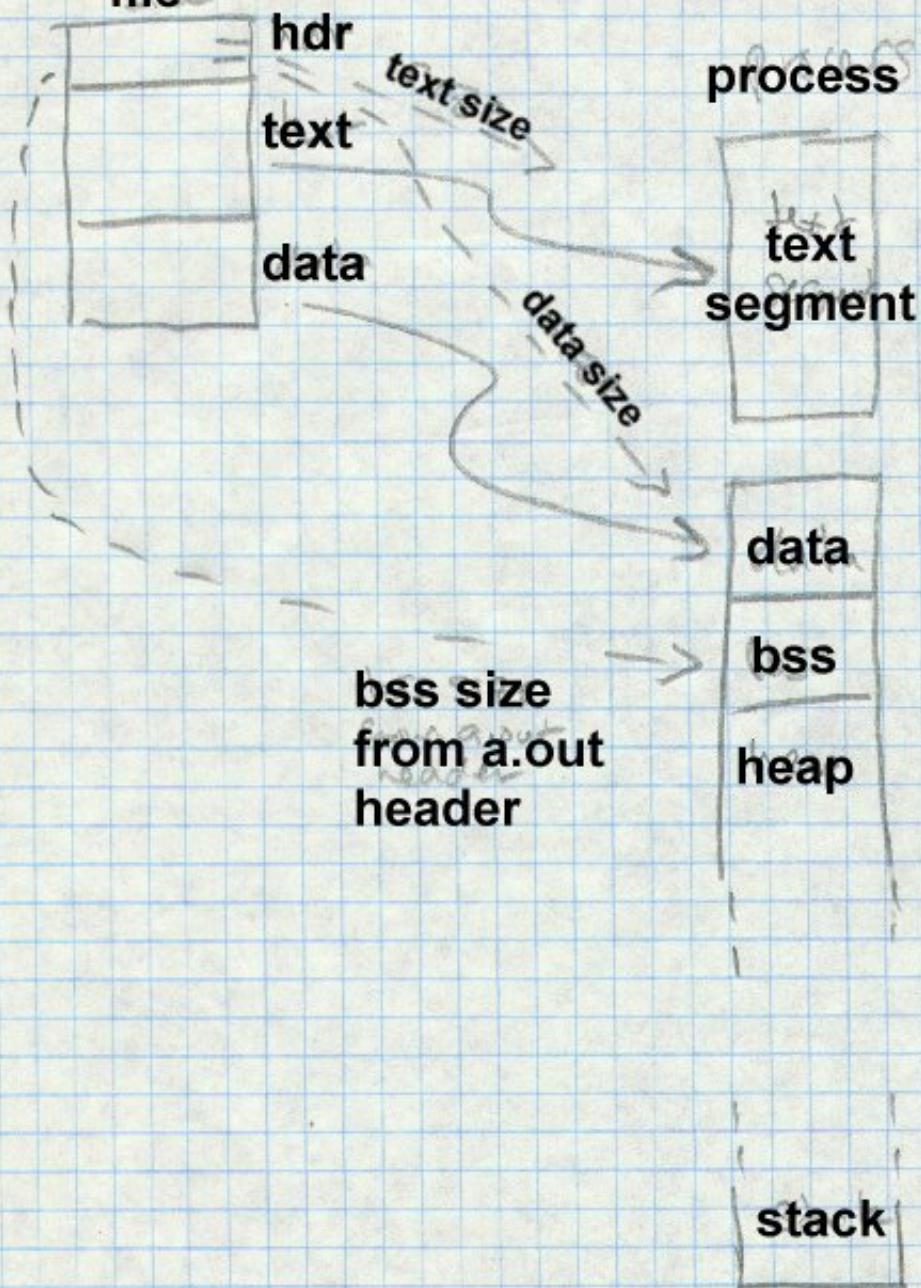
**text section**

**data section**

**other sections**

**a.out  
file**

**3-3**



**pagable**

a.out file

header page  
(not mapped)

process

text  
pages

read only  
mapped pages

address 0  
text  
segment  
(read-only)

data  
pages

copy on write  
mapped pages

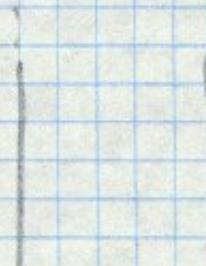
data

read  
write

bss

read  
write

heap



stack

read  
write

# pagable a.out file

3 - 5

header in first  
text page

read only  
mapped pages

last text/first data  
double mapped

copy on write  
mapped pages

# process

page 0 not valid  
address 0x1000

text  
segment  
(read-only)

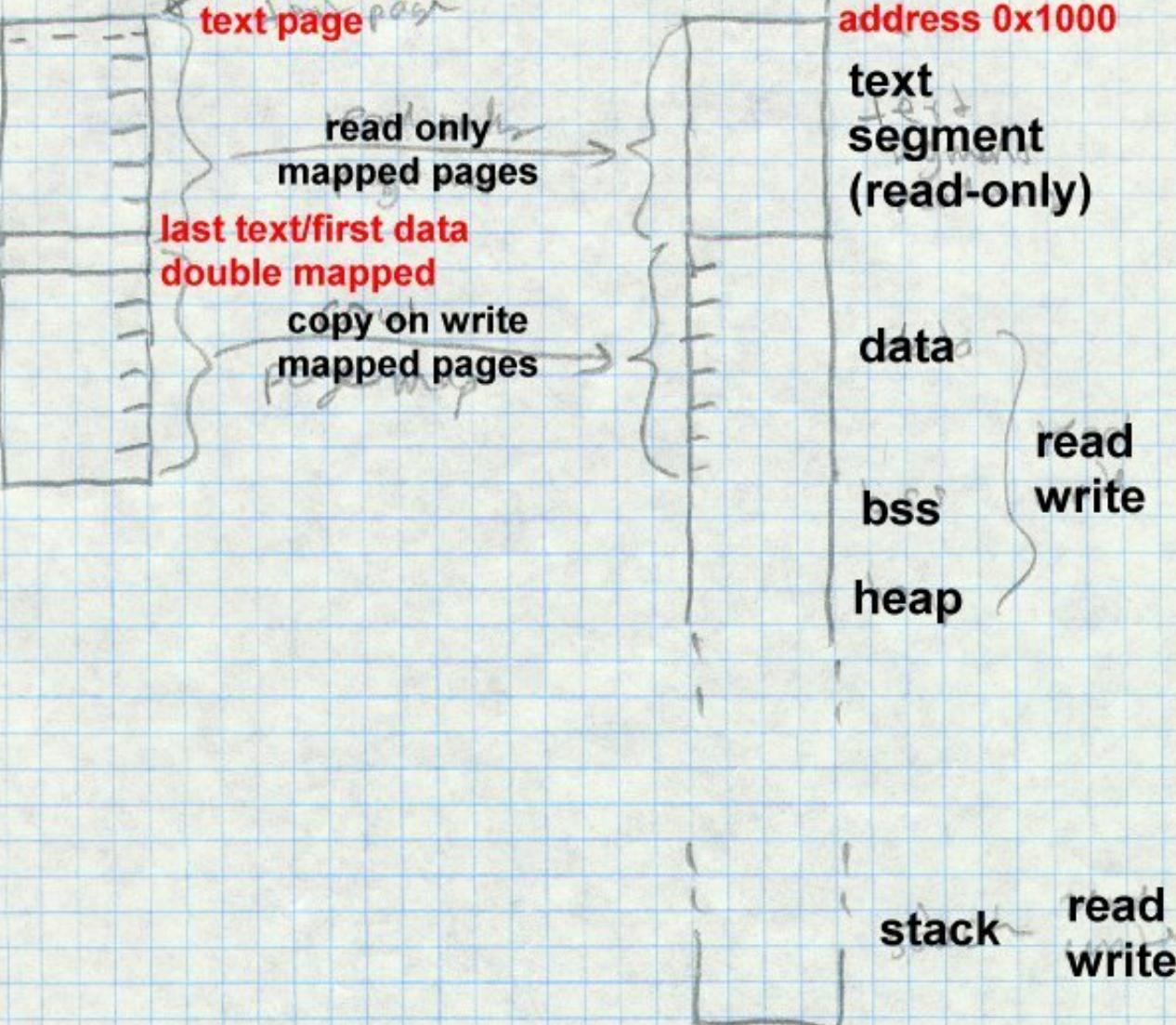
data

bss

heap

stack

read  
write



Note: this figure is supposed to be  
almost the same as 3-4, so I've put the  
different stuff in red.

# a.out header

**text**

**data**

**text  
reloc**

**data  
reloc**

**symbol  
table**

**string  
table**

**address**

**index**

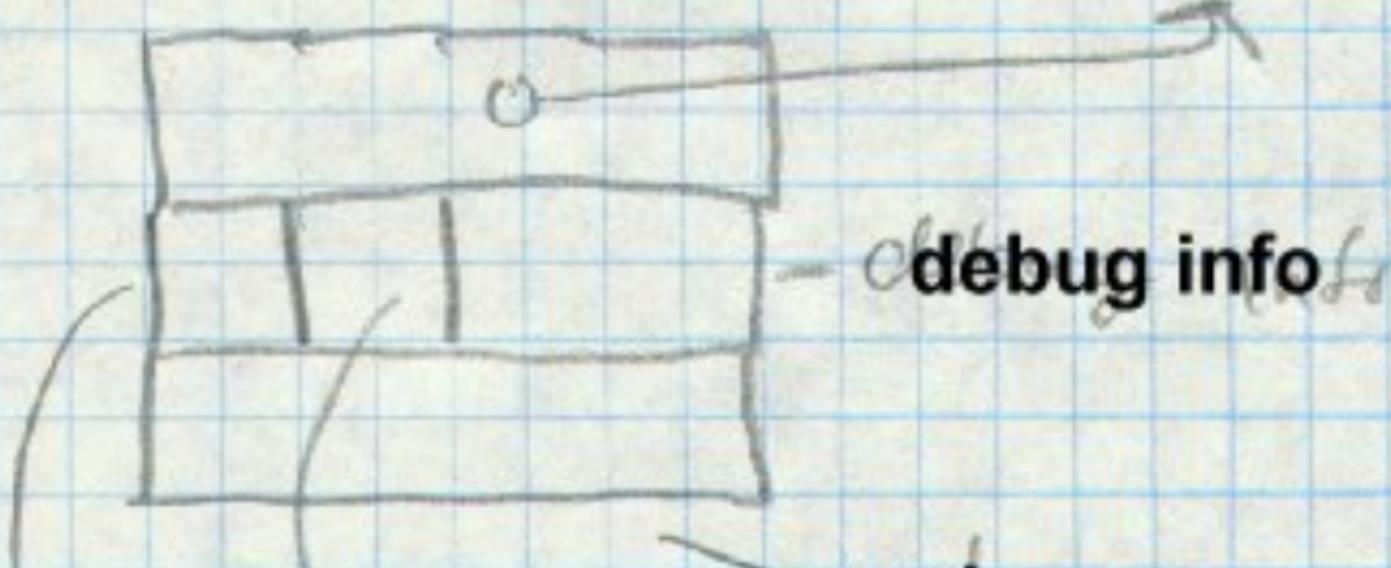
**spare**

**pc rel  
flag**

**length**

**extern  
flag**

**name offset**



~~linkable sections~~

(optional,  
ignored)

~~executable segments~~

ELF header

program header  
table

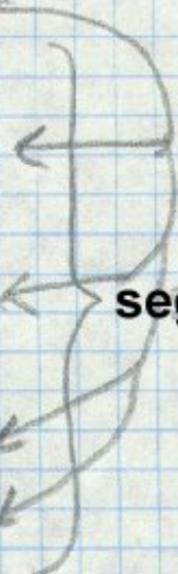
~~describes segments~~

~~sections~~

describes  
sections

section header  
table

(optional,  
ignored)



## ELF header (segment table)

(not considered sections)

.text

.data

.rodata

.bss

.sym

.rel.text

.rel.data

.rel.rodata

.line

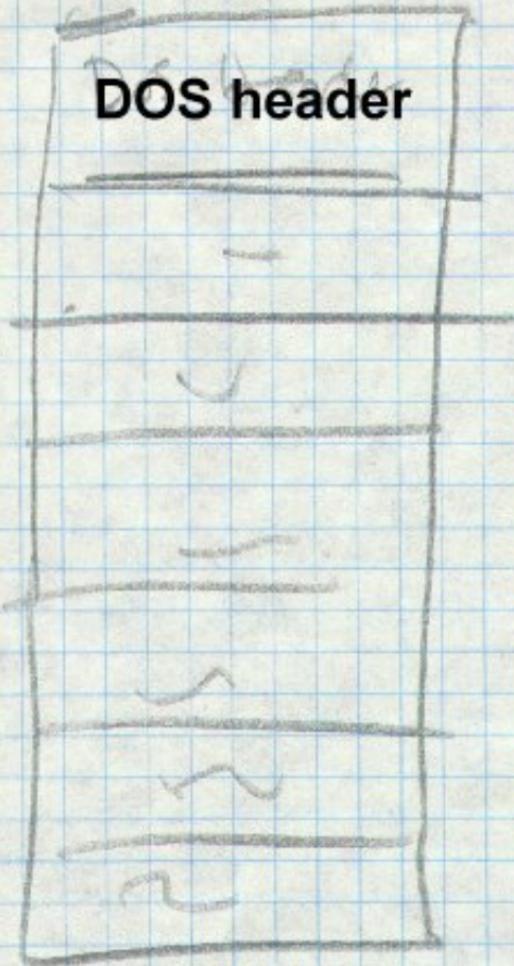
.debug

.strtab

section table

(not considered a section)

## DOS header



See chapter  
file for  
box captions

See callouts in chapter  
for the captions for all  
these boxes.

The diagram illustrates a file record structure composed of four fields. The first field, "record type", is represented by a rectangle divided into two horizontal sections. The second field, "length", is also a rectangle divided into two horizontal sections. The third field, "data", is a large rectangle. The fourth field, "checksum", is a rectangle divided into two horizontal sections. Arrows point from each label to its corresponding field in the structure.

**record type**

**length**

**data**

**checksum**