

BSP 1:

- 1) 262 144 000KB -> 262 144 000 Blocks
- 2) 262 144 000
- 3)  $\text{LOG}_2(262\,144\,000) = 28\text{BIT} \rightarrow 3,5 \text{ Byte} \rightarrow 2 \text{ Adresses} = 7 \text{ Byte}$
- 4)  $262\,144\,000 * 7 = 1\,792\,000 \text{ KB}$

BSP 2:

2)

a)

$$107\,834\,590 - 256 = 107\,834\,334$$

$$107\,834\,334 - 256^2 = 107\,768\,798$$

$$107\,768\,798 - 256^3 = 90\,991\,582$$

$$90\,991\,582 - 256^4 =$$

b)

Calculate /1024 for your position

$$107\,834\,590 / 1024 = 105\,307 \text{ Blocks}$$

$$107\,834\,590 \% 1024 = 222$$

Skip 105 307 blocks and now skip 222 Bytes to the exact position.

3)

32 bit are 4 byte

1024 addresses for 4kB ( $4096/4$ )

256 addresses for 1kB ( $1024/4$ )

Double indirect

$$1024^2 * 4 = 4194304\text{kB} = 4\text{GB}$$

$$256^2 = 65536\text{kB} = 64\text{MB}$$

512B -> 128 entries

1024B -> 256 entries

4)

$$128^3 * 512 = 1\,073\,741\,824 \text{ B} = 1\,048\,576 \text{ KB} = 1024 \text{ MB} = 1 \text{ GB}$$

$$256^3 * 1024 = 1\,717\,986\,918 \text{ B} = 16\,777\,216 \text{ KB} = 16\,384 \text{ MB} = 16 \text{ GB}$$

Take 1024Byte Blocks