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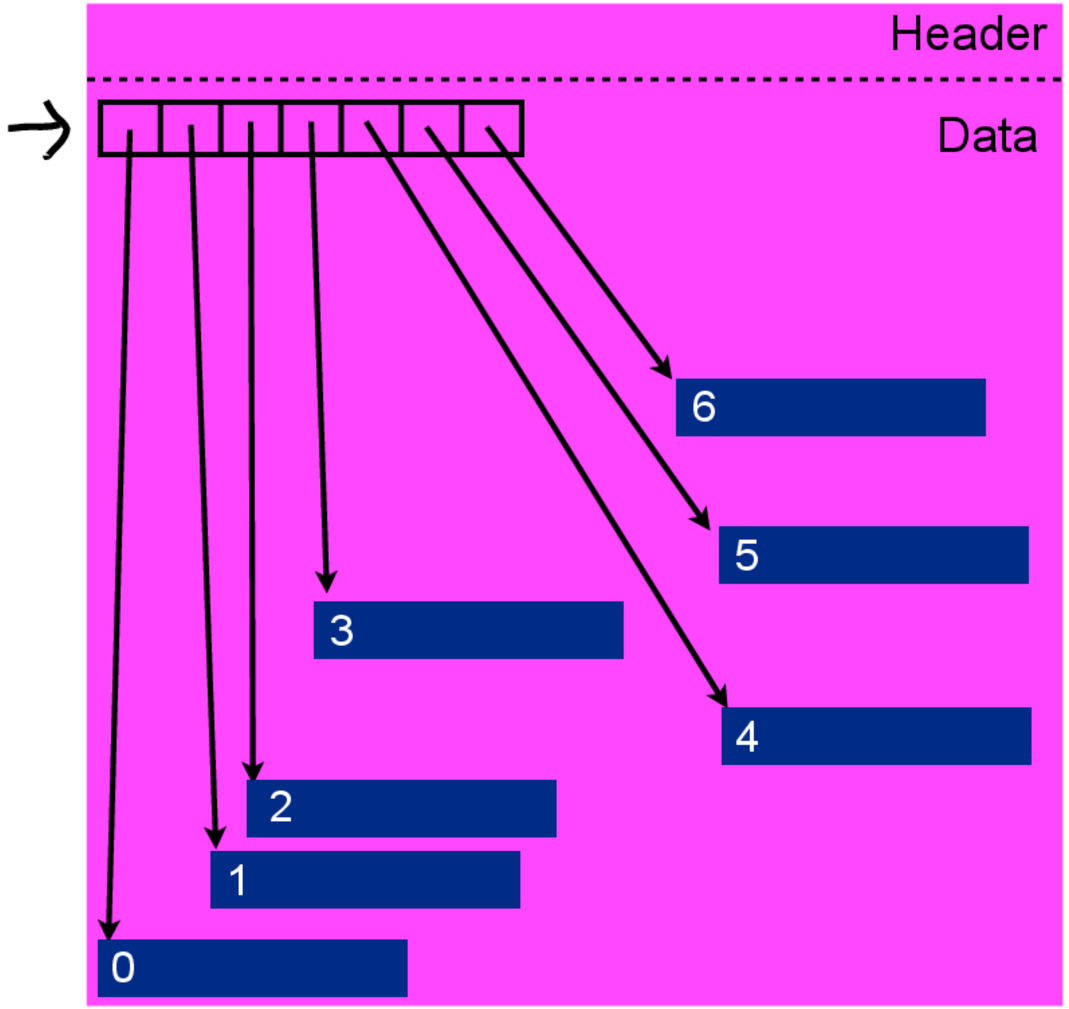
BY NC ND
Jens Dittrich

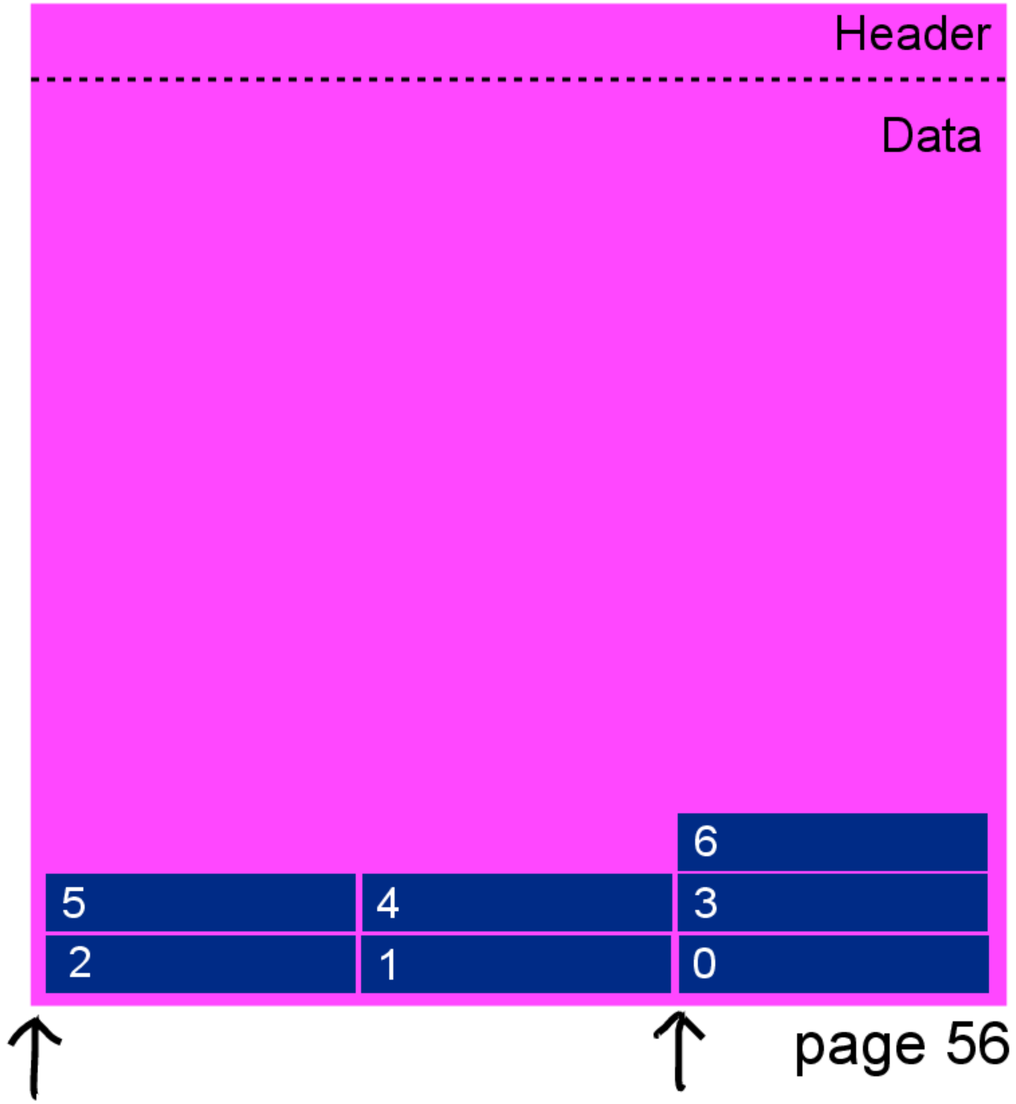
Fixed-size Components



[Fotos] : {[ID: int4, camera: int4, label: char(8)]}

4 + 4 + 8 = 16 Bytes

Linear Addressing

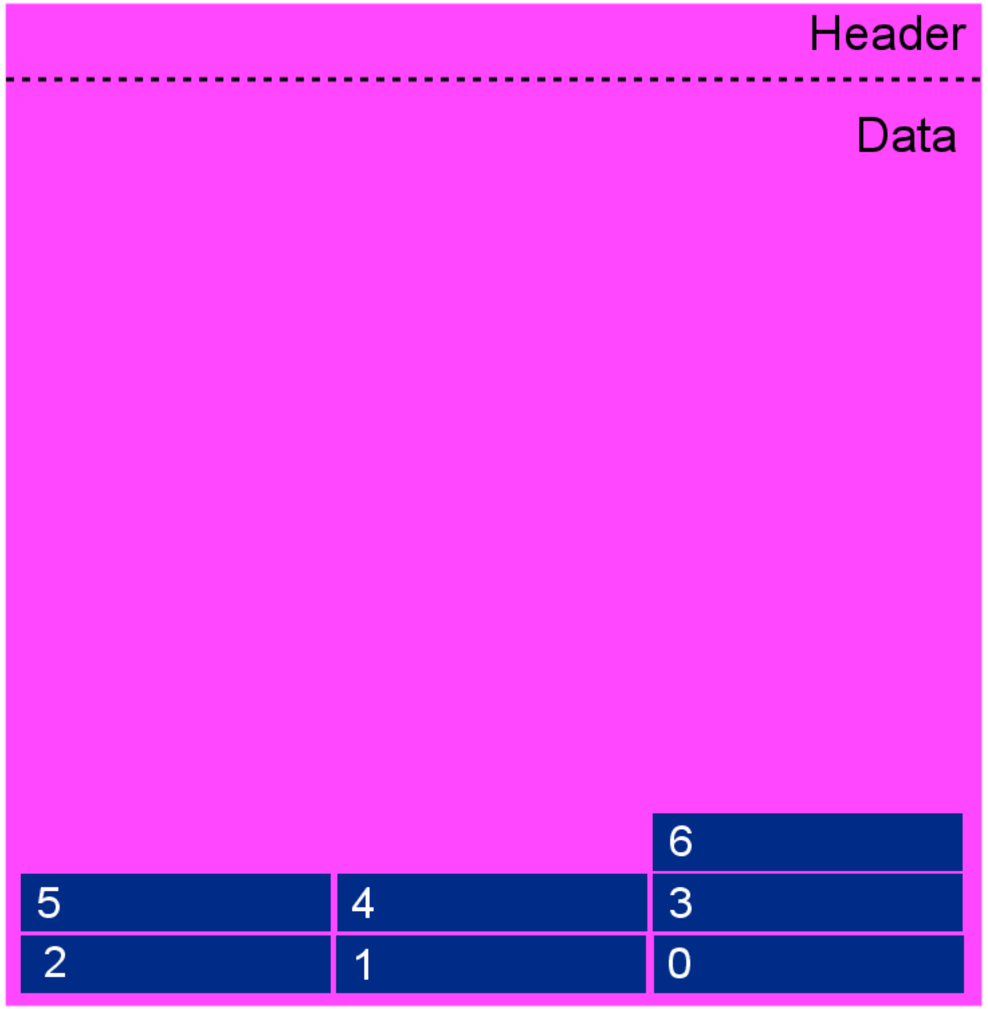


[Fotos] : {[ID: int4, camera: int4, label: char(8)]}

4 + 4 + 8 = 16 Bytes

offset(slotID) := 4096 - 16 × (slotID+1)

Linear Addressing



[Fotos] : {[ID: int4, camera: int4, label: char(8)]}

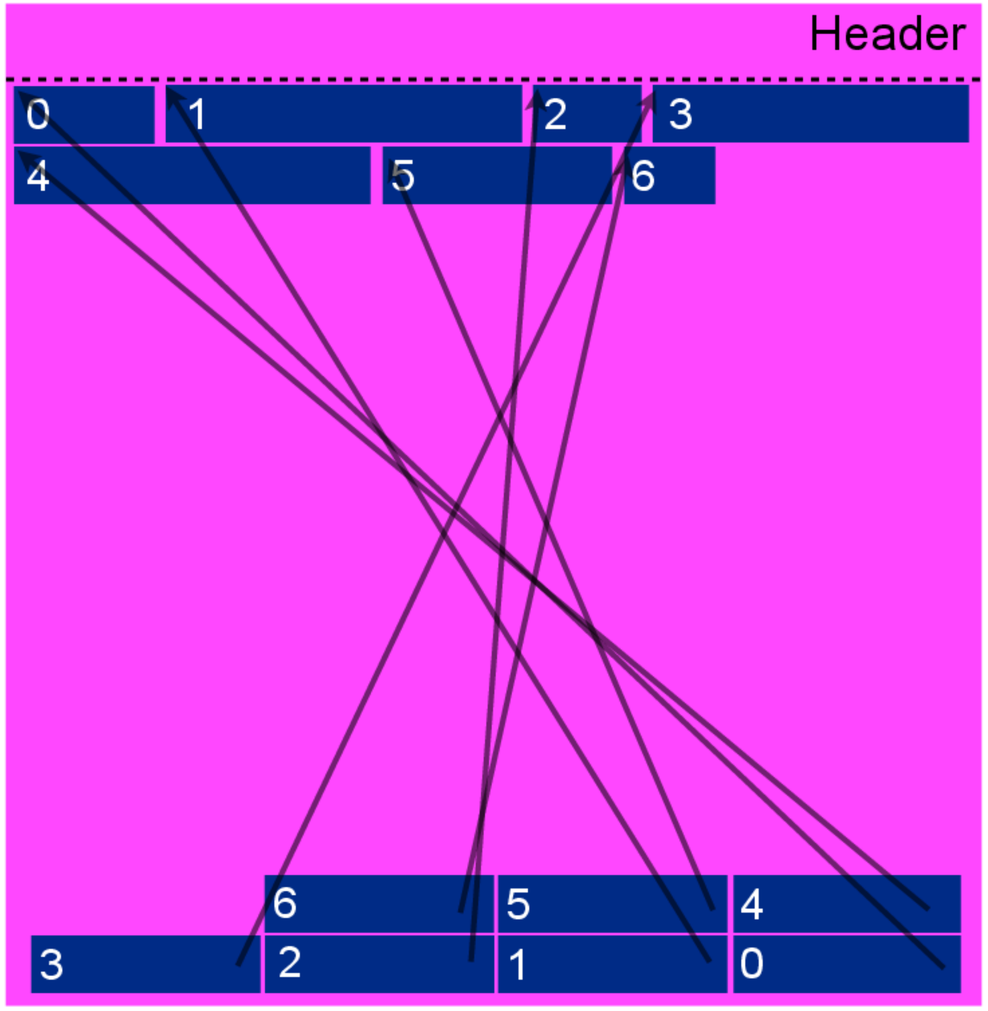
4 + 4 + 8 = 16 Bytes

offset(slotID) := 4096 - 16 × (slotID+1)

(42, 43, ‘dittrich‘)

(11, 23, ‘hello‘)

Variable-Sized Addressing



[Fotos] : {[ID: int4, camera: int4, label: varchar]}

[Fotos‘] : {[ID: int4, camera: int4, labelsize: int2, labeloffset: int2]}

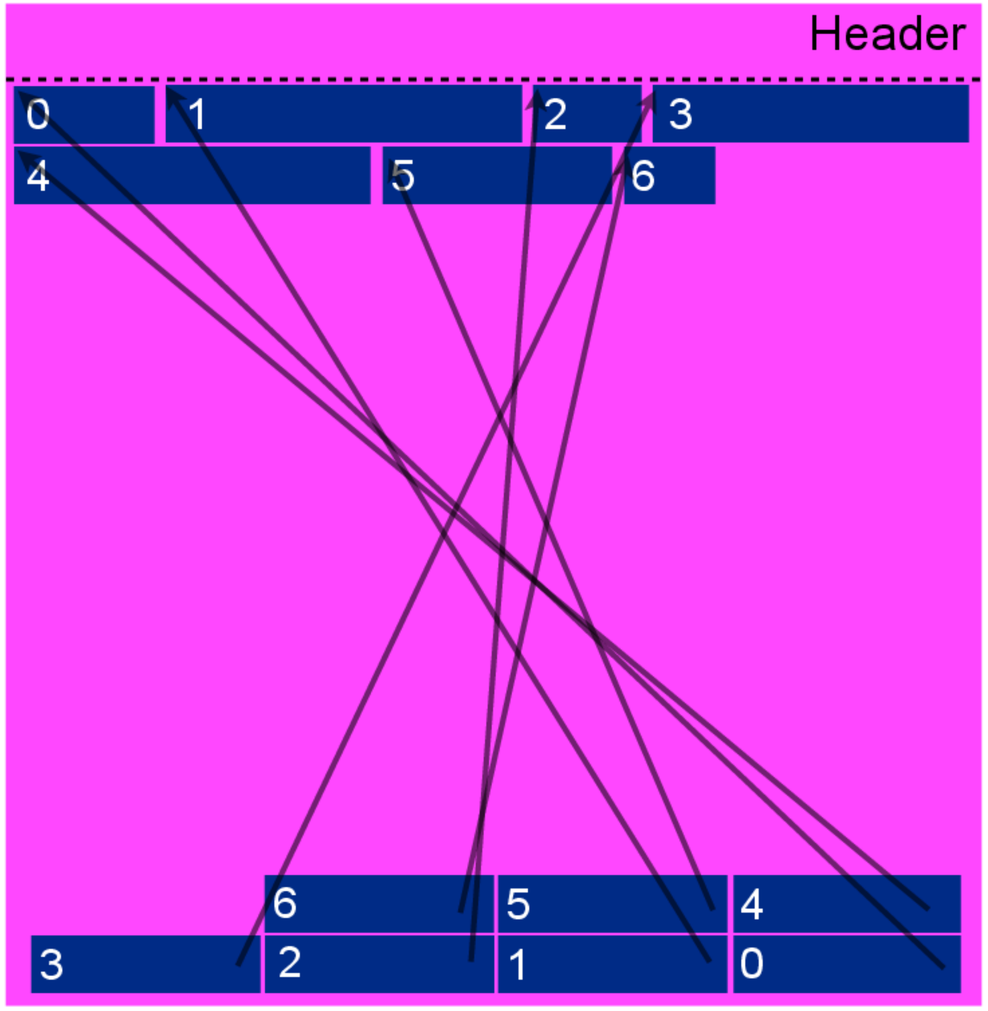
4 + 4 + 2 + 2 = 12 Bytes

8

(42, 43, (11, 277)) ⟶ (‘dittrich‘)

(11, 23, (5, 253)) ⟶ (‘hello‘)

Variable-Sized Addressing



[Fotos] : {[ID: int4, camera: int4, label: varchar]}

[Fotos‘] : {[ID: int4, camera: int4, labelsize: int2, labeloffset: int2]}

4 + 4 + 2 + 2 = 12 Bytes

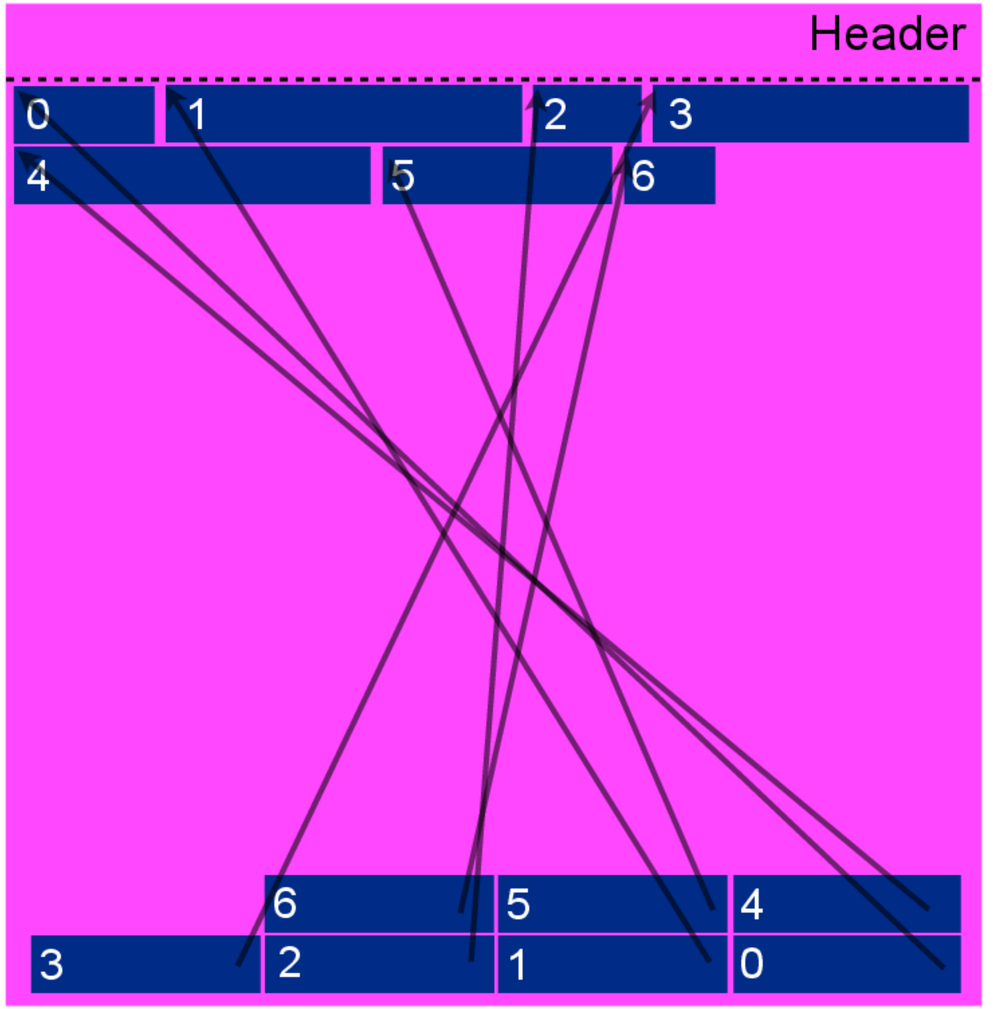
offset(slotID) := 4096 - 12 × (slotID+1)

8

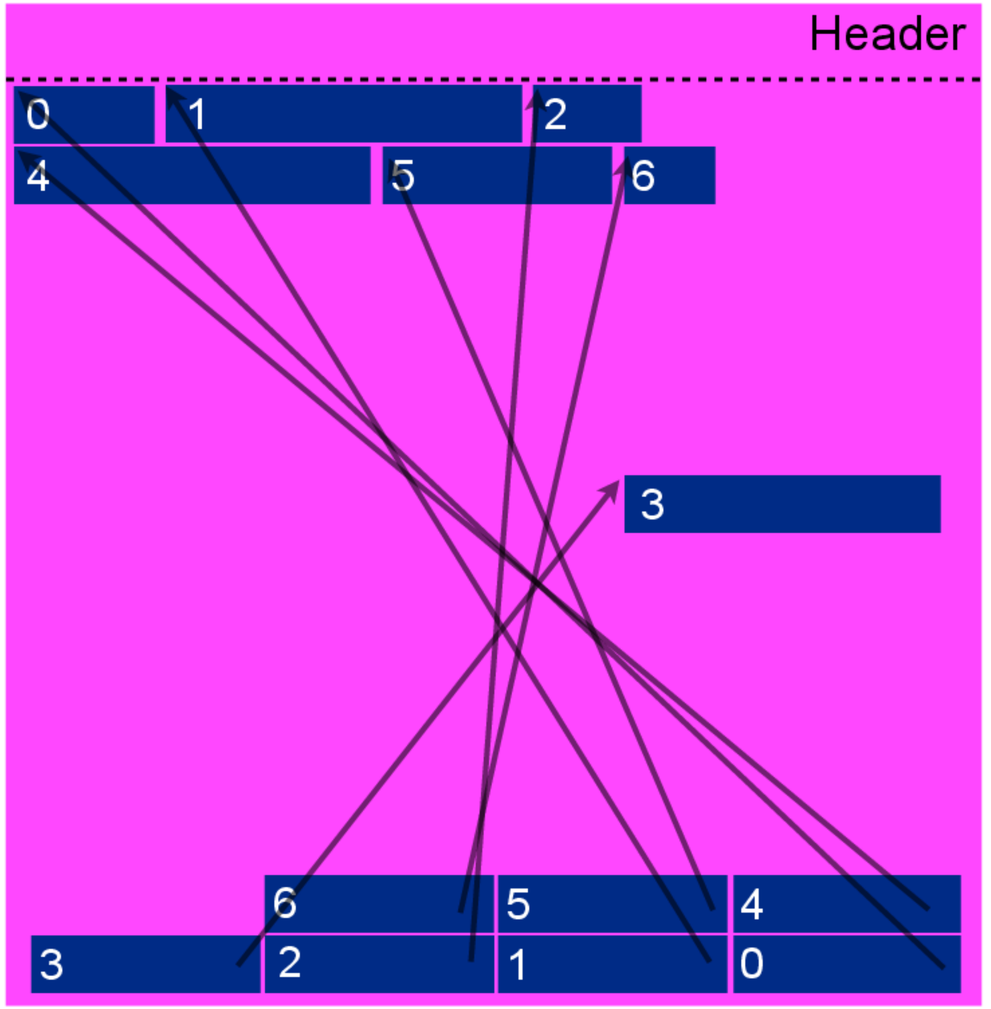
(42, 43, (11, 277)) ⟶ (‘dittrich‘)

(11, 23, (5, 253)) ⟶ (‘hello‘)

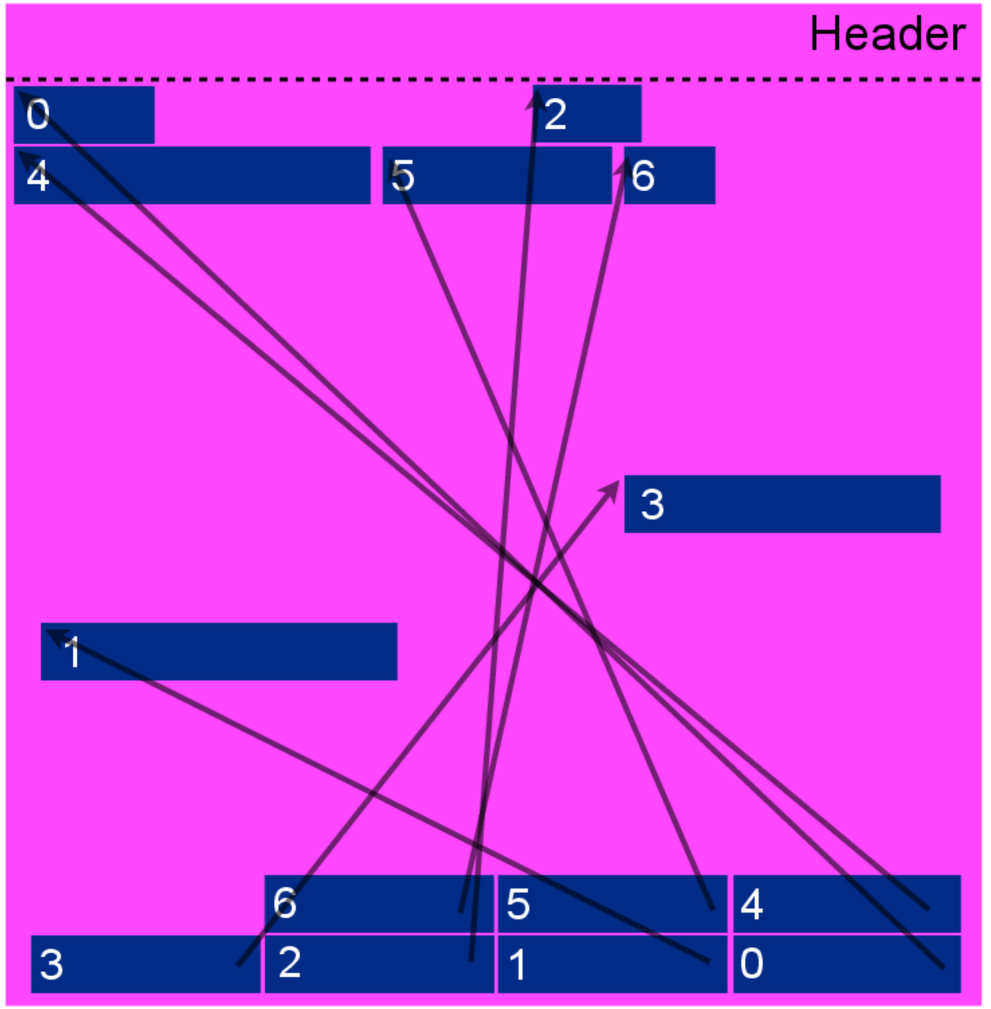
Moving Variable-Sized Components



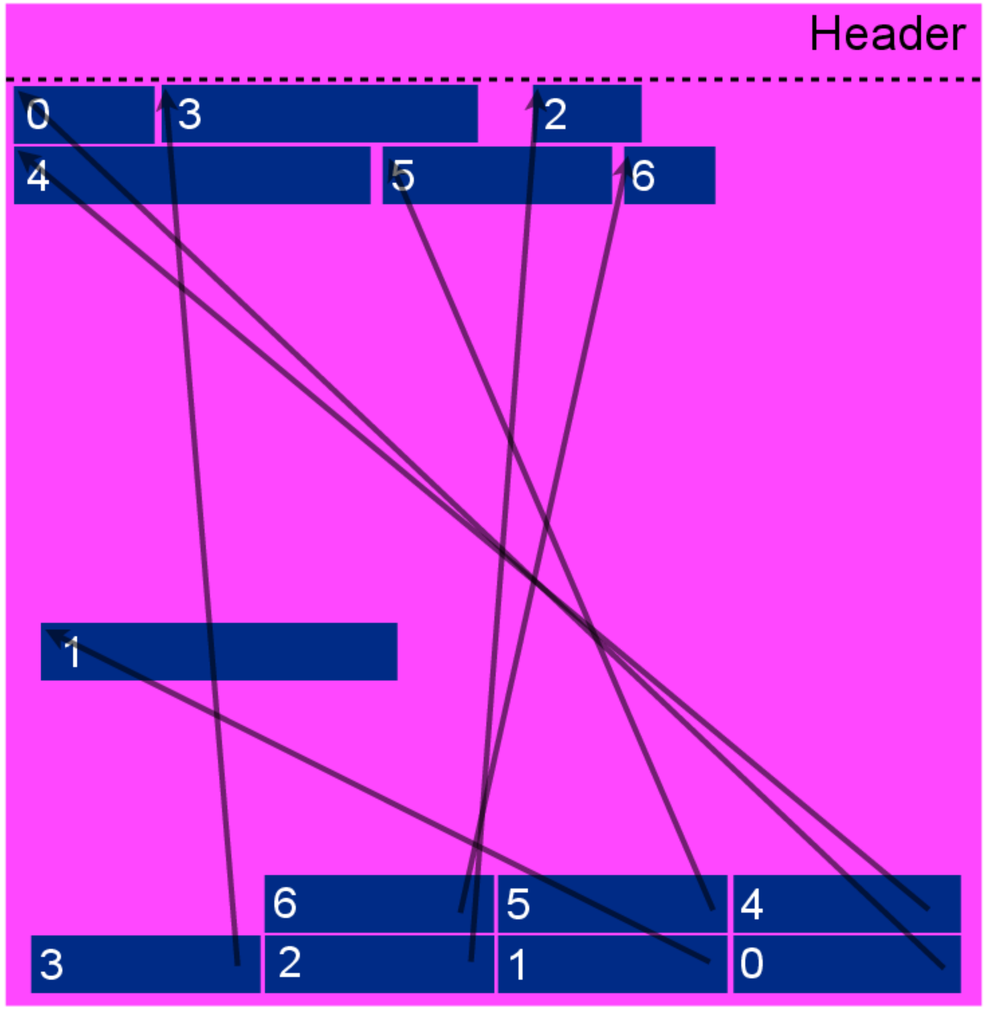
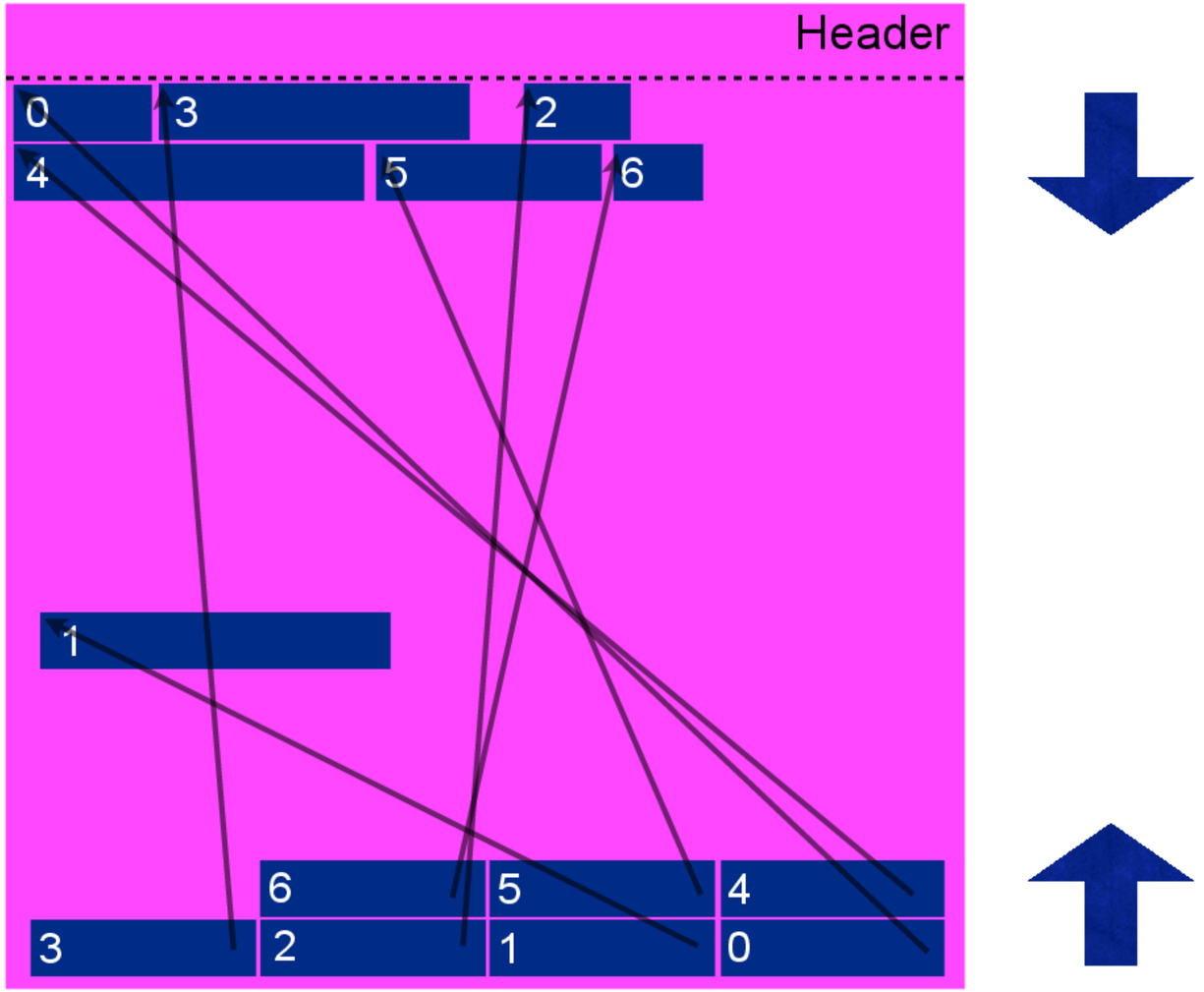
Moving Variable-Sized Components



Moving Variable-Sized Components



Moving Variable-Sized Components



Growth