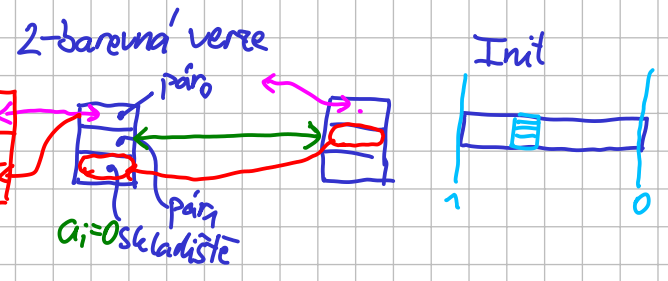
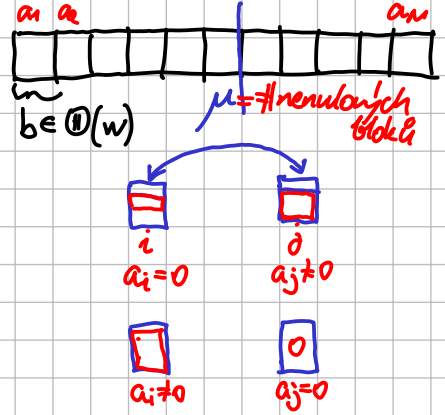
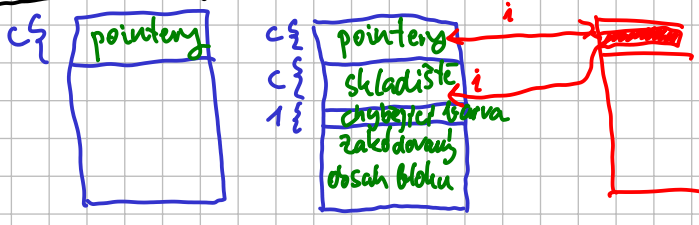


$U = \{1 \dots n\}$
 $X \subseteq U$ Init
 Insert
 Delete
 Choice (Iterate) $n+1$
 prostor $n + O(1)$

$f: U \rightarrow [c]$
 Set Color (x, y)
 Choice_q Init
 Iterate_q

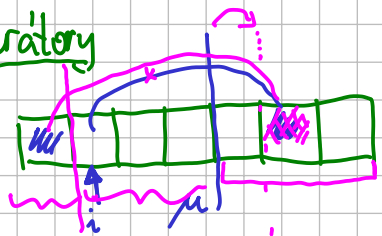


uvoduim $2c+1$ slov



$c = 2^k$ barevna verze
 pokud 1 barva chybi, ucinime c položek o bit zkratit
 $\log(c-1)^c = c \cdot \log(c-1) = c \cdot (\log c + \log(1 - \frac{1}{c}))$
 $\leq -\frac{1}{c} \cdot \frac{1}{\ln 2}$
 $1+x \leq e^x$
 $\ln(1+x) \leq x$
 $\log(1+x) \leq x \cdot \frac{1}{\ln 2}$
 $\leq c \log c - \frac{1}{\ln 2} \leq c \log c - 1$

Iteratory



$O(\log n)$ prostor na iterator
 $O(1)$ nec. amort. čas na další prvek

Konsistentni iteratory

S^+ ... bloky vpravo, kterých si máme všimnout navíc
 S^- ... bloky vpravo, které máme přeskočit
 choice dictionary
 $\frac{n}{\log n}$

$\# \text{dup. bloku} \leq \# \text{Ins} + \# \text{Del}$
 $\# \text{dup. prvků} \leq \frac{O(n)}{O(\log n)} \cdot \# \text{dup. bloku}$