



## reaction blank node

- ("index" : int/string)



## reaction edge

- id : int/string)
- source : string target : string lable : "in/out"



## metabolit node

- ("index" : int/string)
  name : string
  quantity\_compartment A : uint
  quantity\_compartment B : uint
  quantity\_compartment X : uint



## gen node

- $\hbox{- index}: int$
- name : stringand : Array<gen node index>



id : int/string)source : stringtarget : string



reaction graph



subsystem graph







