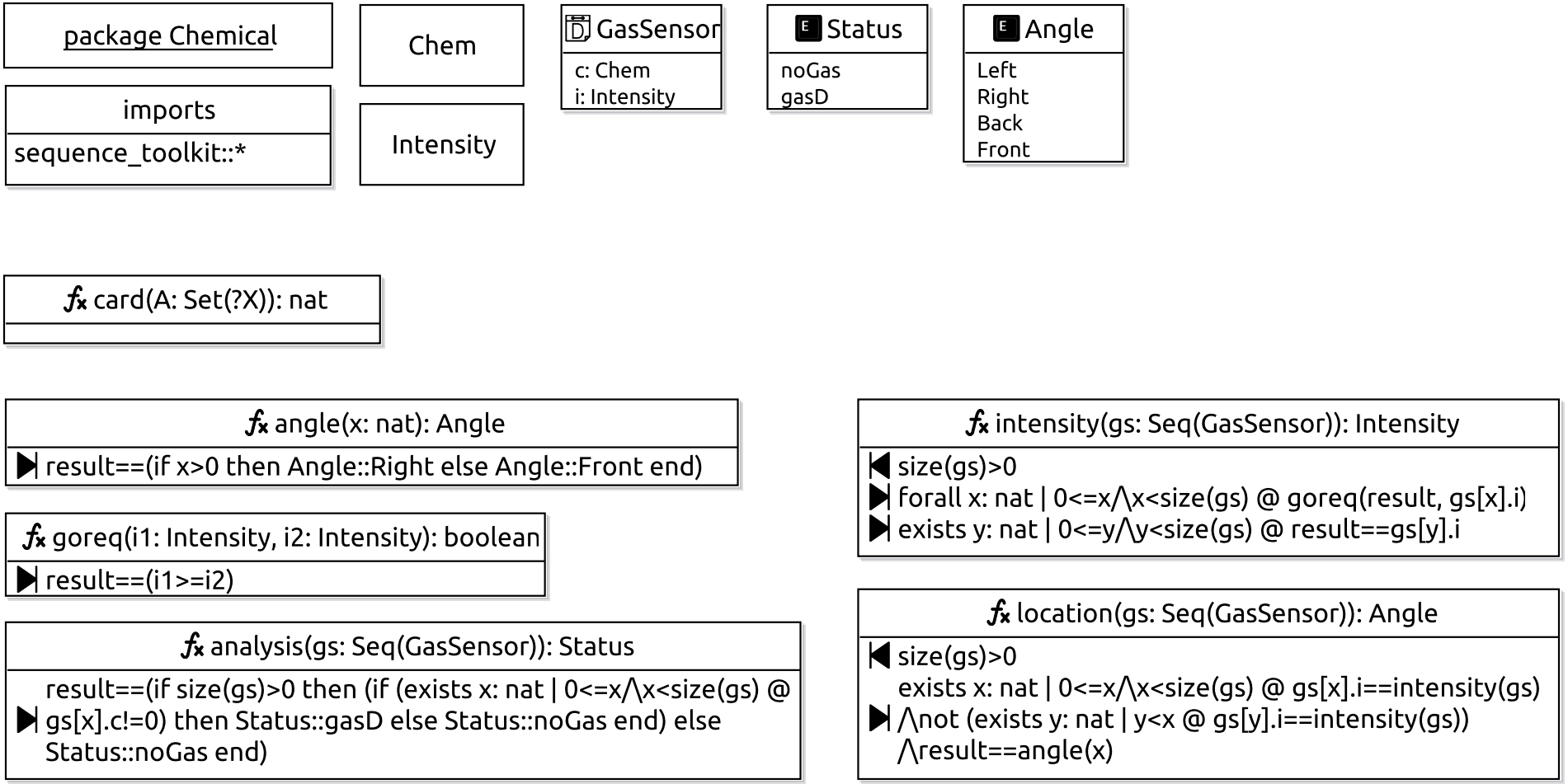
package Chemical
imports
sequence_toolkit::*
Chem
Intensity
GasSensor
c: Chem
i: Intensity
Status
noGas
gasD
Angle
Left
Right
Back
Front
card(A: Set(?X)): nat
angle(x: nat): Angle
result==(if x>0 then Angle::Right else Angle::Front end)
goreq(i1: Intensity, i2: Intensity): boolean
result==(i1>=i2)
analysis(gs: Seq(GasSensor)): Status
result==(if size(gs)>0 then (if (exists x: nat | 0<=x/\x<size(gs) @ gs[x].c!=0) then Status::gasD else Status::noGas end) else Status::noGas end)
intensity(gs: Seq(GasSensor)): Intensity
size(gs)>0
forall x: nat | 0<=x/\x<size(gs) @ goreq(result, gs[x].i)
exists y: nat | 0<=y/\y<size(gs) @ result==gs[y].i
location(gs: Seq(GasSensor)): Angle
size(gs)>0
exists x: nat | 0<=x/\x<size(gs) @ gs[x].i==intensity(gs)
/\not (exists y: nat | y<x @ gs[y].i==intensity(gs))
/\result==angle(x)