

w-atom-constraint^{0,22}

$$\begin{aligned} & \text{w-atom-constraint}(w) \\ \equiv_{\text{def}} & (\forall i, x:\text{Id}. \text{AtomFree}(\text{Type}; w.\text{T}(i, x))) \\ & \quad \& (\forall i, a:\text{Id}. \text{AtomFree}(\text{Type}; w.\text{TA}(i, a))) \\ & \quad \& (\forall l:\text{IdLnk}, tg:\text{Id}. \text{AtomFree}(\text{Type}; w.\text{M}(l, tg))) \end{aligned}$$

clarification:

$$\begin{aligned} & \text{w-atom-constraint}\{i:l\} \\ & \quad (w) \\ \equiv_{\text{def}} & (\forall i:\text{Id}, x:\text{Id}. \text{AtomFree}(\text{Type}_i; w.\text{T}(i, x))) \\ & \quad \& (\forall i:\text{Id}, a:\text{Id}. \text{AtomFree}(\text{Type}_i; w.\text{TA}(i, a))) \\ & \quad \& (\forall l:\text{IdLnk}, tg:\text{Id}. \text{AtomFree}(\text{Type}_i; w.\text{M}(l, tg))) \end{aligned}$$