

$$\langle \textcolor{brown}{I}_{f \mathbin{\dot{\times}} g}, \textcolor{green}{prov}_{f \mathbin{\dot{\times}} g}, \textcolor{red}{req}_{f \mathbin{\dot{\times}} g} \rangle : \textcolor{green}{A} \times \textcolor{red}{C} \xrightarrow{\text{blue}} \mathbf{Pos} \, \mathcal{P}(\textcolor{brown}{I}_f \times_B \textcolor{brown}{I}_g)$$

$$\langle \textcolor{green}{a}^*, \textcolor{red}{c} \rangle \mapsto \bigcup_{\substack{(b, b') \in B^{\text{op}} \times B^{\text{op}} \\ b \leq_B b'}} \left[\langle \textcolor{brown}{I}_f, \textcolor{green}{prov}_f, \textcolor{red}{req}_f \rangle (\textcolor{green}{a}^*, \textcolor{red}{b}) \times \langle \textcolor{brown}{I}_g, \textcolor{green}{prov}_g, \textcolor{red}{req}_g \rangle (\textcolor{green}{b'}^*, \textcolor{red}{c}) \right].$$