

$$\begin{aligned}
&\langle \mathbf{I}_{f \circ g}, \text{prov}_{f \circ g}, \text{req}_{f \circ g} \rangle : A \times C \xrightarrow{\quad} \mathbf{Pos} \, \mathcal{P}(\mathbf{I}_f \times_B \mathbf{I}_g) \\
&\langle a^*, c \rangle \mapsto \bigcup_{\substack{(b, b') \in B^{\text{op}} \times B^{\text{op}} \\ b \leq_B b'}} \left[ \langle \mathbf{I}_f, \text{prov}_f, \text{req}_f \rangle (a^*, b) \times \langle \mathbf{I}_g, \text{prov}_g, \text{req}_g \rangle (b'^*, c) \right].
\end{aligned}$$