is defined by the formulas:

$$\langle \rho f\rangle x = f\circ x \quad \text{and} \quad \langle \rho f^{-1}\rangle y = f^{-1}\circ y$$

where x are endoreloids on $\operatorname{Src} f$ and y are endoreloids on $\operatorname{Dst} f$.

PROPOSITION 1162. It is really a funcoid (if we equate reloids x and y with corresponding filters on Cartesian products of sets).

PROOF. $y \not\asymp \langle \rho f\rangle x \Leftrightarrow y \not\asymp f\circ x \Leftrightarrow f^{-1}\circ y \not\asymp x \Leftrightarrow \langle \rho f^{-1}\rangle y \not\asymp x$. □

COROLLARY 1163. $(\rho f)^{-1} = \rho f^{-1}$.

DEFINITION 1164. It can be continued to arbitrary funcoids x having destination $\operatorname{Src} f$ by the formula $\langle \rho^* f\rangle x = \langle \rho f\rangle \operatorname{id}_{\operatorname{Src} f} \circ x = f\circ x$.

PROPOSITION 1165. ρ is an injection.

PROOF. Consider $x = \operatorname{id}_{\operatorname{Src} f}$. □

PROPOSITION 1166. $\rho(g\circ f) = (\rho g)\circ(\rho f)$.

PROOF. $\langle \rho(g\circ f)\rangle x = g\circ f\circ x = \langle \rho g\rangle\langle \rho f\rangle x = (\langle \rho g\rangle\circ\langle \rho f\rangle)x$. Thus $\langle \rho(g\circ f)\rangle = \langle \rho g\rangle\circ\langle \rho f\rangle = \langle(\rho g)\circ(\rho f)\rangle$ and so $\rho(g\circ f) = (\rho g)\circ(\rho f)$. □

THEOREM 1167. $\rho\bigsqcup F = \bigsqcup\langle\rho\rangle^* F$ for a set F of reloids.

PROOF. It's enough to prove $\langle \rho\bigsqcup F\rangle^* X = \left\langle\bigsqcup\langle\rho\rangle^* F\right\rangle^* X$ for a set X.
Really,

$$\begin{aligned}
\left\langle \rho\bigsqcup F\right\rangle^* X &= \\
\left\langle \rho\bigsqcup F\right\rangle \uparrow X &= \\
\bigsqcup F\circ\uparrow X &= \\
\bigsqcup\left\{\frac{f\circ\uparrow X}{f\in F}\right\} &= \\
\bigsqcup\left\{\frac{\langle \rho f\rangle\uparrow X}{f\in F}\right\} &= \\
\left\langle\bigsqcup\left\{\frac{\rho f}{f\in F}\right\}\right\rangle X &= \\
\left\langle\bigsqcup\langle\rho\rangle^* F\right\rangle^* X&.
\end{aligned}$$

□

CONJECTURE 1168. $\rho\bigsqcap F = \bigsqcap\langle\rho\rangle^* F$ for a set F of reloids.

PROPOSITION 1169. $\rho 1^{\mathsf{RLD}}_A = 1^{\mathsf{FCD}}_{\mathscr{P}(A\times A)}$.

PROOF. $\langle \rho 1^{\mathsf{RLD}}_A\rangle x = 1^{\mathsf{RLD}}_A\circ x = x = \left\langle 1^{\mathsf{FCD}}_{\mathscr{P}(A\times A)}\right\rangle x$. □

We can try to develop further theory by applying embedding of reloids into funcoids for researching of properties of reloids.

THEOREM 1170. Reloid f is monovalued iff funcoid ρf is monovalued.