$$\begin{array}{c|c}
\mathbf{P}_1 & \xrightarrow{\mathbf{r}} & \mathbf{S}_1 \\
\hline
\mathbf{Pos} & \mathbf{Pos} & \mathbf{g} \\
\mathbf{P}_2 & \xrightarrow{\mathbf{DP}} & \mathbf{S}_2
\end{array}$$