$$\begin{array}{c|ccccc}
\mathbf{P}_1 & \xrightarrow{f_1} & \mathbf{S}_1 \\
f \middle| \mathbf{Pos} & \mathbf{Pos} \middle| g & & \mathbf{P}_1 & \xrightarrow{f_1} & \mathbf{S}_1 \\
\mathbf{P}_2 & \xrightarrow{\mathbf{DP}} & \mathbf{S}_2 & f & h \middle| \mathbf{Pos} & \mathbf{Pos} \middle| k & g \\
h \middle| \mathbf{Pos} & \mathbf{Pos} \middle| k & & \mathbf{P}_3 & \xrightarrow{\mathbf{DP}} & \mathbf{S}_3 \\
\mathbf{P}_3 & \xrightarrow{\mathbf{DP}} & \mathbf{S}_3 & & & & & & & & \\
\end{array}$$