

$$\begin{aligned}
& (\forall X. (BOX0F(X) \wedge \\
& \Box_F((DIAMOND2P(X) \leftrightarrow \Diamond_F MinorP(X)) \wedge \\
& (\bigcirc_F DIAMOND1F(X) \leftrightarrow (DIAMOND1F(X) \vee \bigcirc_F MinorF(X))) \wedge \\
& (BOX0F(X) \leftrightarrow \Box_F BOX5F(X)) \wedge \\
& (BOX4P(X) \leftrightarrow \Box_F (AdultP(X) \rightarrow DIAMOND2P(X))) \wedge \\
& (\bigcirc_F BOX5F(X) \leftrightarrow (BOX5F(X) \wedge \\
& \bigcirc_F (AdultF(X) \rightarrow DIAMOND1F(X)))) \wedge \\
& (\bigcirc_F BOX3P(X) \leftrightarrow (BOX3P(X) \wedge \\
& \bigcirc_F BOX4P(X)))) \wedge \\
& (MinorF(X) \leftrightarrow MinorP(X)) \wedge \\
& (DIAMOND1F(X) \leftrightarrow DIAMOND2P(X)) \wedge \\
& (AdultF(X) \leftrightarrow AdultP(X)) \wedge \\
& (BOX0F(X) \leftrightarrow BOX3P(X)) \wedge \\
& (BOX5F(X) \leftrightarrow BOX4P(X))))
\end{aligned}$$