

$$\begin{aligned}
\textit{process} &::= \textit{decl}^+ \\
\textit{decl} &::= \textit{event\_decl} \mid \textit{protocol\_decl} \mid \textit{variable\_decl} \mid \textit{property\_decl} \mid \textit{rule\_decl} \\
\textit{event\_decl} &::= \mathbf{event} \textit{event\_name} (, \textit{event\_name})^* ; \\
\textit{protocol\_decl} &::= \mathbf{protocol} (\textit{protocol} ; ;)^+ \\
\textit{protocol} &::= \mathbf{any} \mid \textit{event\_name} \mid \textit{protocol} ; \textit{protocol} \\
&\quad \mid \textit{protocol} + \textit{protocol} \mid \textit{protocol} * \mid \textit{protocol} ? \mid ( \textit{protocol} ) \\
\textit{variable\_decl} &::= \mathbf{variable} \left( \textit{var\_name} (, \textit{var\_name})^* ( : \textit{type} )^? ; \right)^+ \\
\textit{type} &::= \mathbf{prop} \mid \mathbf{nat} ( \textit{max} ) \\
\textit{property\_decl} &::= \mathbf{property} (\textit{ldl\_formula} ;)^+ \\
\textit{rule\_decl} &::= \mathbf{rule} \textit{rule}^+ \\
\textit{rule} &::= \mathbf{except}^? \mathbf{on} \textit{event\_name} (, \textit{event\_name})^* ( \{ \textit{code} \} )^? \\
&\quad \left( \mathbf{when} \textit{condition} ( \{ \textit{code} \} )^? \right)^? \\
&\quad \textit{action}^+ \\
\textit{condition} &::= \textit{proposition} \mid < \textit{ldl\_path} > \textit{condition} \\
\textit{action} &::= \mathbf{ensure} \textit{proposition} ( \{ \textit{code} \} )^? \\
&\quad \mid \mathbf{raise} \textit{event\_name} (+ \textit{event\_name})^* ( \{ \textit{code} \} )^? \\
&\quad \mid \mathbf{do} \{ \textit{code} \} \\
&\quad \mid \mathbf{preserve} \textit{var\_name} (, \textit{var\_name})^*
\end{aligned}$$