

$$\begin{aligned}
& process ::= protocol\_decl^? \; property\_decl^? \; rule\_decl^? \\
& protocol\_decl ::= \mathbf{event} \; (event\_name \; ;)^+ \\
& \qquad \qquad \qquad \mathbf{protocol} \; (protocol \; ;)^+ \\
& protocol ::= event\_name \; | \; protocol \; ; \; protocol \\
& \qquad \qquad \qquad | \; protocol + protocol \; | \; protocol * \; | \; ( \; protocol \; ) \\
& property\_decl ::= \mathbf{variable} \; (var\_name \; ;)^+ \\
& \qquad \qquad \qquad \mathbf{property} \; (ldl\_formula \; ;)^+ \\
& rule\_decl ::= \mathbf{rule} \; rule^+ \\
& \qquad \qquad \qquad rule ::= \mathbf{on} \; event\_name \; (\{ \; code \; \})^? \\
& \qquad \qquad \qquad \qquad \mathbf{when} \; condition \; (\{ \; code \; \})^? \\
& \qquad \qquad \qquad \qquad \qquad \qquad action^+ \\
& condition ::= proposition \; | \; < \; ldl\_path \; > \; condition \\
& action ::= \mathbf{ensure} \; proposition \; (\{ \; code \; \})^? \\
& \qquad \qquad \qquad | \; \mathbf{raise} \; event\_name \; (+ \; event\_name)^* \; (\{ \; code \; \})^? \\
& \qquad \qquad \qquad | \; \mathbf{do} \; \{ \; code \; \}
\end{aligned}$$