

$$\begin{aligned}
\text{contract} &::= \text{decl}^+ \\
\text{decl} &::= \text{event_decl} \mid \text{protocol_decl} \mid \text{variable_decl} \mid \text{property_decl} \mid \text{rule_decl} \\
\text{event_decl} &::= \mathbf{event} \text{ event_name } (, \text{ event_name })^* ; \\
\text{protocol_decl} &::= \mathbf{protocol} \text{ protocol } ; ; \\
\text{protocol} &::= \mathbf{any} \mid \text{ event_name } \mid \text{ protocol } ; \text{ protocol } \\
&\quad \mid \text{ protocol } + \text{ protocol } \mid \text{ protocol } * \mid \text{ protocol } ? \\
\text{variable_decl} &::= \mathbf{variable} \left(\text{ var_name } (, \text{ var_name })^* (: \text{ type })^? ; \right)^+ \\
\text{type} &::= \mathbf{bool} \mid \mathbf{max} (\text{ number }) \\
\text{property_decl} &::= \mathbf{property} (\text{ ldl_formula } ;)^+ \\
\text{rule_decl} &::= \mathbf{rule} (\text{ rule } ;)^+ \\
\text{rule} &::= \left(\mathbf{except}^? \mathbf{on} \text{ event_name } (, \text{ event_name })^* (\{ \text{ code } \})^? \right)^? \\
&\quad \left(\mathbf{when} \text{ condition } (\{ \text{ code } \})^? \right)^? \\
&\quad \text{ action } (\{ \text{ code } \})^? \\
\text{condition} &::= \text{ proposition } \mid < \text{ ldl_path } > \text{ condition } \\
\text{action} &::= \mathbf{ensure} \text{ proposition } \\
&\quad \mid \mathbf{raise} \text{ event_name } \\
&\quad \mid \mathbf{preserve} (\text{ var_name } (, \text{ var_name })^*) \\
&\quad \mid \mathbf{do} (\text{ action } (, \text{ action })^+)
\end{aligned}$$