Free Symbols

A free symbol is any symbol appearing in a TLA$^+$ expression other than a bound symbol. A bound symbol is one that is declared locally within the expression. The symbols v and i are bound symbols in the following expressions:

$$\exists\, v \in Msg \;:\; buf' = [buf \text{ EXCEPT } ![p \,\%\, N] = v]$$

$$[i \in 1 \,..\, (p \ominus c) \mapsto buf[(c \oplus (i-1)) \,\%\, N]]$$

Any symbol not bound in an expression or part of the syntax (like $\mapsto$) is free in that expression. For example, 1, $..$, p, $\ominus$, and c are the first 5 free symbols in the second expression. (The symbol $\in$ is part of the syntax of the function construct $[i \in \ldots \mapsto \ldots]$.)

CLOSE