

## f-msg<sup>11,40</sup>

$$\begin{aligned} & \text{f-msg}\{\$wanted:ut2, \$free:ut2, \$z:ut2\} \\ & \quad (es; L; e) \\ \equiv_{\text{def}} & (\text{loc}(e) \in L) \\ & \quad \wedge ((\uparrow\text{es-isrcv}(es; e)) \\ & \quad \quad c \wedge (((\text{es-tag}(es; e) = \text{mkid}\{\$wanted:ut2\}) \vee (\text{es-tag}(es; e) = \text{mkid}\{\$free:ut2\}))) \\ & \quad \quad \wedge (\exists i:\text{Id} \\ & \quad \quad \quad ((i \in L) \wedge (\neg(i = \text{loc}(e))) \wedge (\text{es-lnk}(es; e) = \langle i, \text{loc}(e), \text{mkid}\{\$z:ut2\} \rangle)))))) \end{aligned}$$

*clarification:*

$$\begin{aligned} & \text{f-msg}\{\$wanted:ut2, \$free:ut2, \$z:ut2\} \\ & \quad (es; L; e) \\ \equiv_{\text{def}} & (\text{es-loc}(es; e) \in L \in \text{Id}) \\ & \quad \wedge ((\uparrow\text{es-isrcv}(es; e)) \\ & \quad \quad c \wedge (((\text{es-tag}(es; e) = \text{mkid}\{\$wanted:ut2\}) \in \text{Id}) \\ & \quad \quad \quad \vee (\text{es-tag}(es; e) = \text{mkid}\{\$free:ut2\}) \in \text{Id})) \\ & \quad \quad \wedge (\exists i:\text{Id} \\ & \quad \quad \quad ((i \in L \in \text{Id}) \\ & \quad \quad \quad \wedge (\neg(i = \text{es-loc}(es; e) \in \text{Id})) \\ & \quad \quad \quad \wedge (\text{es-lnk}(es; e) = \langle i, \text{es-loc}(es; e), \text{mkid}\{\$z:ut2\} \rangle \in \text{IdLnk})))))) \end{aligned}$$