

$e.\text{ultimoAcesso} = \text{saltKey} (e.\text{ultimoAcesso} \neq \text{hubsRobot}())$

$\{ \text{proc limpiarChavesVencidas (inout c:=TTL<K>)} \}$

requiere  $\{ c = co \}$

asegura  $\{ \}$

$(\exists d: \text{dict}(k, z)) ( \forall e_1: k) (e_1 \in d \rightarrow$

$(e \in co.\text{ultimoAcesso}) \wedge (e \in co.\text{data}) \wedge$

$(\text{hubsRobot} - co.\text{ultimoAcesso}[e] < co.\text{tiempoValidaMax}) \wedge$

$(d[e] = co.\text{ultimoAcesso}[e])$

$) \wedge co.\text{ultimoAcesso} = d \wedge (\exists d_2: \text{dict}(k, v)) ($

$(\forall e_2: k) (e_2 \in d_2 \rightarrow e_2 \in d \wedge e_2 \in co.\text{data})$

$\wedge d_2[e_2] = co.\text{data}[e_2]) \wedge co.\text{data} = d_2)$

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TAD Robot  $\{ \}$

obs posuio:  $\text{Coord}(z, z)$

obs posuio:  $\text{dict}(\text{Coord}(z, z), z)$

proc nuevo (i: Robot  $\{ \}$

asegura  $\{ \text{res. posuio} = \text{Coord}(0, 0) \wedge$

$\text{res. keyfho} = \text{saltKey}(\{ \{ 3, \text{Coord}(0, 0), 1 \} \}$

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