

Proc ~~recorrido~~ de MáxSupermínimo (inout $S: \text{seq} \langle \text{seq} \langle \mathbb{Z} \rangle \rangle$, out $\text{res}: \mathbb{Z}$) {

Pre { $S = S_0 \wedge |S| > 0 \wedge (\exists k: \text{seq} \langle \mathbb{Z} \rangle) (|k| > 0 \wedge k \in S)$ }

Post { $(\exists f: \mathbb{Z}) (\text{esElSupermínimo}(S, f) \wedge (\forall k: \mathbb{Z}) (0 \leq k < |S| \rightarrow \text{contAporecamos}(S_0[k], f) \leq \text{contAporecamos}(\text{Extra}(S_0[\text{res}-1], f))) \wedge \text{leFaltaElementoN}(S_0, S, \text{res}-1))$ }

~~Prueba~~ ~~Prueba de ElSupermínimo~~ ~~(S: seq seq Z, f: Z)~~ ~~{~~ ~~(\forall k: \mathbb{Z}) (0 \leq k < |S| \rightarrow (\exists l: \mathbb{Z}) (0 \leq l < |S[k]| \wedge S[k][l] < f))~~ ~~}~~

~~Prueba~~ ~~esElSupermínimo~~ ~~(S: seq seq Z, f: Z)~~ ~~{~~ ~~(\exists l: \mathbb{Z}) (0 \leq l < |S| \wedge (\exists r: \mathbb{Z}) (0 \leq r < |S[l]| \wedge S[l][r] = f)) \wedge (\forall k: \mathbb{Z}) (0 \leq k < |S| \rightarrow (\exists h: \mathbb{Z}) (0 \leq h < |S[k]| \wedge S[k][h] < f))~~ ~~}~~

~~aux~~ ~~contAporecamos~~ ~~(S: seq seq Z, f: Z): Z =~~ $\sum_{i=0}^{|S|-1} (\text{if } S[i] = f \text{ then } 1 \text{ else } 0 \text{ fi})$

~~Prueba~~ ~~leFaltaElementoN~~ ~~(S_0, S: seq Z, N: Z)~~ ~~{~~

~~(\text{leFaltaElementoN}(S_0, S, N) \wedge 0 \leq N < |S|) \wedge (\forall x: \mathbb{Z}) (0 \leq x < N \rightarrow S_0[x] = S[x]) \wedge (\forall f: \mathbb{Z}) (N < f < |S| \rightarrow S[f] = S[f-1])~~ ~~}~~