

```

proc seEnojó? (in s: señal, in umbral:  $\mathbb{Z}$ , in prof:  $\mathbb{Z}$ , in freq:  $\mathbb{Z}$ , out result: Bool) {
  Pre {umbral > 0  $\wedge_L$  esSeñalAux(s, prof, freq)}
  Post {
    result = umbralEnRango(umbral, prof)  $\wedge_L$ 
    existeUnaSubsecuenciaQueSuperaUmbral(s, freq, umbral)}
}

pred umbralEnRango (umbral:  $\mathbb{Z}$ , p:  $\mathbb{Z}$ ) {umbral  $\geq 2^{p-1} - 1$ }
pred existeUnaSubsecuenciaQueSuperaUmbral (s: señal, freq:  $\mathbb{Z}$ , u:  $\mathbb{Z}$ ) {
  ( $\exists d, h : \mathbb{Z}$ )  $0 \leq d, h < |s| \wedge (d < h) \wedge ((d + freq * 1000 * 5) < h) \wedge_L$ 
  (  $(\forall i : \mathbb{Z}) 0 \leq i < |subseq(s, d, h)| \longrightarrow_L |subseq(s, d, h)[i]| > umbral$ ) }

```