

# Silencios

## silencios

```
1 vector<intervalo > silencios(senial s, int prof, int freq, int umbral) {
2     vector<pair<int,int> > intervalos;
3     int i=0;
4     while(i < (s.size() - 1)){
5         if(abs(s[i]) < umbral ){
6             int j = i + 1;
7             while(j < s.size() && (abs(s[j]) < umbral)){
8                 j++;
9             }
10            if(j > (i + 1)){
11                intervalos.push_back(make_pair(i,(j - 1)));
12            }
13            i = j + 1;
14        }
15        else{
16            i++;
17        }
18    }
19    return intervalos;
20 }
```

$c_1$	1
$c_2$	1
$c_3$	$1 + n - 1$
$c_4$	$n - 1$
$c_5$	$n - 1$
$c_6$	$1 + n - 1$
$c_7$	$n - 1$
$c_8$	$n - 1$
$c_9$	$n - 1$
$c_{10}$	$n - 1$

- $n = |s|$
- $T_{\text{silencios}}(n) = c_1 + c_2 + c_3 \cdot n + c_4 \cdot (n - 1) + c_5 \cdot (n - 1) + c_6 \cdot n + c_7 \cdot (n - 1) + c_8 \cdot (n - 1) + c_9 \cdot (n - 1) + c_{10} \cdot (n - 1)$
- $T_{\text{silencios}}(n) \in O(n)$