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some factor f. This could make the sequence louder ($f \geq 1$) or quieter ($f > 1$). If the scaled value is outside of the minimum or maximum permitted value, it is clipped to the minimum or maximum value.

Algorithm 1 Scaling Amplitude

Require:

$v_{min} \leq s_{0..n} \leq v_{max}$

$0 \leq f$

Ensure:

the elements in the list n meet the requirements for s.

1: **function** SCALE(s, f)
2:      $n \leftarrow$ LIST
3:      **for** $i = 0, i < len(s)$ **do**
4:          $v \leftarrow s_i f$
5:          $v \leftarrow max(v_{max}, v)$
6:          $v \leftarrow min(v_{min}, v)$
7:          $n \leftarrow v$
8:      **end for**
9:      **return** n
10: **end function**