

```

1 |----- MODULE OpOperators -----|
  |Operators for Op.|
5 | EXTENDS Naturals, Sequences, SequenceUtils |
6 |-----|
7 | Nop  $\triangleq$  PickNone(Nat) |
  |
9 | Apply(op, l)  $\triangleq$  |Apply an operation op on the list l.|
10 |   CASE op = Nop  $\rightarrow$  l
11 |      $\square$  op.type = "Rd"  $\rightarrow$  l
12 |      $\square$  op.type = "Del"  $\rightarrow$  DeleteElement(l, op.pos) |Last(l) is deleted if pos > Len(l)|
13 |      $\square$  op.type = "Ins"  $\rightarrow$  InsertElement(l, op.ch, op.pos) |Append(l, ch) if pos > Len(l)|
  |
15 | RECURSIVE ApplyOps(-, -) |Apply an operation sequence ops on the list l.|
16 | ApplyOps(ops, l)  $\triangleq$ 
17 |   IF ops =  $\langle \rangle$ 
18 |     THEN l
19 |     ELSE Apply(Last(ops), ApplyOps(AllButLast(ops), l))
20 |-----|
  |
  | * Modification History
  | * Last modified Mon Dec 31 19:21:16 CST 2018 by hengxin
  | * Created Tue Aug 28 14:58:54 CST 2018 by hengxin

```