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1 |----- MODULE Op -----|
  |Definition and operator for list operations.
5 | EXTENDS SystemModel
6 |-----|
7 | Rd  $\triangleq$  [type : { "Rd" }]
8 | Del  $\triangleq$  [type : { "Del" }, pos : 1 .. MaxLen] The positions (pos) are indexed from 1.
9 | Ins  $\triangleq$  [type : { "Ins" }, pos : 1 .. (MaxLen + 1), ch : Char, pr : 1 .. ClientNum] pr: priority
11 | Op  $\triangleq$  Ins  $\cup$  Del The set of all operations (now we don't consider Rd operations).
13 | Nop  $\triangleq$  PickNone(Op)
15 | Apply(op, l)  $\triangleq$  Apply operation op on list l.
16 |   CASE op = Nop  $\rightarrow$  l
17 |     □ op.type = "Rd"  $\rightarrow$  l
18 |     □ op.type = "Del"  $\rightarrow$  DeleteElement(l, op.pos)
19 |     □ op.type = "Ins"  $\rightarrow$  InsertElement(l, op.ch, op.pos) append to the end
20 |                                     if op.pos = Len(l) + 1
21 |-----|
  | * Modification History
  | * Last modified Sun Jan 13 10:06:16 CST 2019 by hengxin
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