1 ──────────────────────── MODULE *BufferStateSpace* ────────────────────────

The buffer (*i.e.*, sequence) representation of state space used in *AJupiter*. This module defines generalized *OT* functions on operation sequences.

6 EXTENDS *Naturals*, *SequenceUtils*

7 ├──

8 RECURSIVE $xFormOpOps(\_, \_, \_)$ Transform *op* against an operation sequence *ops*.
9 $xFormOpOps(xform(\_, \_),\ op,\ ops)\ \triangleq$
10   IF $ops = \langle\rangle$ THEN $\langle op \rangle$ Maintain and return the intermediate transformed operations.
11   ELSE $\langle op \rangle \circ xFormOpOps(xform,\ xform(op,\ Head(ops)),\ Tail(ops))$

13 $xFormOpsOp(xform(\_, \_),\ ops,\ op)\ \triangleq$ Transform an operation sequence *ops* against *op*.
14   LET $opX\ \triangleq\ xFormOpOps(xform,\ op,\ ops)$
15   IN $[i \in 1\ ..\ Len(ops) \mapsto xform(ops[i],\ opX[i])]$

17 $xFormFull(xform(\_, \_),\ op,\ ops)\ \triangleq$
18      $[xop \mapsto Last(xFormOpOps(xform,\ op,\ ops)),$
19      $xops \mapsto xFormOpsOp(xform,\ ops,\ op)]$

21 $xFormShift(xform(\_, \_),\ op,\ ops,\ shift)\ \triangleq$ shift of *ops*
22      $xFormFull(xform,\ op,\ SubSeq(ops,\ shift,\ Len(ops)))$
23 └──

\ * Modification History
\ * *Last* modified *Wed Jan* 16 17:05:53 *CST* 2019 by *hengxin*
\ * Created Sat *Jan* 12 14:55:34 *CST* 2019 by *hengxin*