
MODULE *BufferStateSpace*

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

EXTENDS *Naturals*, *SequenceUtils*

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

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

$xFormFull(xform(-, -), op, ops) \triangleq$
 $[xop \mapsto Last(xFormOpOps(xform, op, ops)),$
 $xops \mapsto xFormOpsOp(xform, ops, op)]$

$xFormShift(xform(-, -), op, ops, shift) \triangleq$ shift of *ops*
 $xFormFull(xform, op, SubSeq(ops, shift + 1, Len(ops)))$

\ * Modification History
 \ * Last modified Thu Jan 17 10:30:18 CST 2019 by anonymous
 \ * Created Sat Jan 12 14:55:34 CST 2019 by anonymous