MODULE *JupiterOT*

EXTENDS *Naturals*, *FiniteSets*, *Sequences*

CONSTANTS *NumOfClients*, *NumOfOps*

$Clients \triangleq (1 \,..\, NumOfClients)$

$Ops \triangleq (1 \,..\, NumOfOps)$

VARIABLES

op,	Operation in the original or transformed form
vertex,	Vertex of the state space graph
edge,	Edge of the state space graph
stateGraph	The state space graph

$OP \triangleq [type : \{\text{“Ins”}, \text{“Del”}\}, pos : Nat, priority : Clients]$

$Vertices \triangleq \text{SUBSET } Ops$

$Edges \triangleq [elbl : OP, dest : Vertices]$

$TypeInvariant \triangleq$

Ignoring “Read” operations for now

$\land\ op \in OP$

A vertex in the state space graph represents the set of operations it has processed

$\land\ vertex \in Vertices$

$\land\ edge \in Edges$

* Modification History

* Last modified *Wed* May 31 12:08:53 *CST* 2017 by ics-ant

* Created *Wed* May 31 11:13:18 *CST* 2017 by ics-ant

* Specification of the *Jupiter* protocol described in the papers

* “High-Latency, Low-Bandwidth *Windowing* in the *Jupiter* Collaboration System”

* (*UIST* 1995) and “Achieving Convergence in Operational Transformation:

* Conditions, Mechanisms, and Systems” (*CSCW* 2014).