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- MODULE A Jupiter H
1
     AJupiter with a history of all list states across the system.
 6 EXTENDS AJupiter
    Variable list
    varsH \triangleq \langle vars, list \rangle
     TypeOKH \stackrel{\triangle}{=} TypeOK \land (list \in SUBSET\ List)
    InitH \stackrel{\triangle}{=} Init \wedge list = \{InitState\}
    DoH(c) \stackrel{\triangle}{=} Do(c) \wedge list' = list \cup \{cstate'[c]\}
    RevH(c) \stackrel{\triangle}{=} Rev(c) \wedge list' = list \cup \{cstate'[c]\}
    SRevH \triangleq SRev \land list' = list \cup \{sstate'\}
19
20
    NextH \stackrel{\triangle}{=}
21
          \lor \exists c \in Client : DoH(c) \lor RevH(c)
22
          \vee SRevH
23
    SpecH \stackrel{\Delta}{=} InitH \wedge \Box [NextH]_{varsH} \wedge WF_{varsH}(NextH)
25
26 |
    Termination
     Termination \triangleq
30
          \land \ comm \, ! \, Empty Channel
31
    Weak List Consistency (WLSpec)
     WLSpec \triangleq
36
          \land Termination \Rightarrow \forall l1, l2 \in list:
37
38
                                         \wedge Injective(l1)
                                         \land Injective(l2)
39
                                         \land Compatible(l1, l2)
40
    THEOREM SpecH \Rightarrow WLSpec
    Strong List Consistency (SLSpec)
46
     \* Modification History
     \* Last modified Thu Aug 30 21:44:27 CST 2018 by hengxin
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