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1  |----- MODULE XJupiterH -----|
   | XJupiterH: XJupiter with a history of all list states across the system. |
6  | EXTENDS XJupiter, TLCUtils |
7  |-----|
8  | VARIABLE list |
9  | varsH  $\triangleq \langle vars, list \rangle$  |
11 | TypeOKH  $\triangleq TypeOK \wedge (list \subseteq List)$  |
12 |-----|
13 | InitH  $\triangleq Init \wedge list = \{InitState\}$  |
15 | DoH(c)  $\triangleq Do(c) \wedge list' = list \cup \{state'[c]\}$  |
17 | RevH(c)  $\triangleq Rev(c) \wedge list' = list \cup \{state'[c]\}$  |
19 | SRevH  $\triangleq SRev \wedge list' = list \cup \{state'[Server]\}$  |
20 |-----|
21 | NextH  $\triangleq$  |
22 |    $\vee \exists c \in Client : DoH(c) \vee RevH(c)$  |
23 |    $\vee SRevH$  |
25 | SpecH  $\triangleq InitH \wedge \Box[NextH]_{varsH} \wedge WF_{varsH}(NextH)$  |
26 |-----|
   | Weak List Consistency (WLSpec) |
30 | ASSUME (TLCSet(1,  $\langle \text{"EmptyChannel"}, 0 \rangle$ )) |
31 | WLSpec  $\triangleq (comm!EmptyChannel \wedge TLCCnt(1, 100))$  |
32 |    $\Rightarrow \forall l1, l2 \in list :$  |
33 |      $\wedge Injective(l1)$  |
34 |      $\wedge Injective(l2)$  |
35 |      $\wedge Compatible(l1, l2)$  |
37 | THEOREM SpecH  $\Rightarrow WLSpec$  |
   | Strong List Consistency (SLSpec) |
41 |-----|
   | \ * Modification History |
   | \ * Last modified Sun Oct 14 11:08:39 CST 2018 by hengxin |
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