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┌─────────────────────── MODULE XJupiterH ───────────────────────┐
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2 EXTENDS *XJupiter*, *TLCUtils*

3 ├───┤

4 VARIABLE *list*

5 $varsH \triangleq \langle vars, list \rangle$

7 $TypeOKH \triangleq TypeOK \wedge (list \subseteq List)$

8 ├───┤

9 $InitH \triangleq Init \wedge list = \{InitState\}$

11 $DoH(c) \triangleq Do(c) \wedge list' = list \cup \{state'[c]\}$

13 $RevH(c) \triangleq Rev(c) \wedge list' = list \cup \{state'[c]\}$

15 $SRevH \triangleq SRev \wedge list' = list \cup \{state'[Server]\}$

16 ├──┤

17 $NextH \triangleq$

18     $\vee \exists c \in Client : DoH(c) \vee RevH(c)$

19     $\vee SRevH$

21 $FairnessH \triangleq$

22     $\wedge \mathrm{WF}_{varsH}(SRevH \vee \exists c \in Client : RevH(c))$

24 $SpecH \triangleq InitH \wedge \square[NextH]_{varsH}$ $\boxed{\wedge FairnessH}$

25 ├──┤

26 $WLSpec \triangleq$ $\boxed{\text{The weak list specification}}$

27     $Comm!EmptyChannel$

28         $\Rightarrow \forall l1, l2 \in list :$

29             $\wedge Injective(l1)$

30             $\wedge Injective(l2)$

31             $\wedge Compatible(l1, l2)$

33 THEOREM $SpecH \Rightarrow WLSpec$

34 └──┘