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1 |----- MODULE EagerVotingL -----|
2 | EXTENDS EagerVoting |
3 |-----|
4 | VARIABLE lazyMaxBal |
5 |
6 | TypeOKL  $\triangleq$ 
7 |    $\wedge$  TypeOK
8 |    $\wedge$  lazyMaxBal  $\in$  [Acceptor  $\rightarrow$  Ballot  $\cup$   $\{-1\}$ ]
9 |-----|
10 | InitL  $\triangleq$ 
11 |    $\wedge$  Init
12 |    $\wedge$  lazyMaxBal  $= [a \in \textit{Acceptor} \mapsto -1]$ 
13 |
14 | IncreaseMaxBalL(a, b)  $\triangleq$ 
15 |    $\wedge$  IncreaseMaxBal(a, b)
16 |    $\wedge$  lazyMaxBal'  $= [\textit{lazyMaxBal}$  EXCEPT  $![a] = b]$ 
17 |
18 | VoteForL(a, b, v)  $\triangleq$ 
19 |    $\wedge$  VoteFor(a, b, v)
20 |    $\wedge$  lazyMaxBal'  $= [\textit{lazyMaxBal}$  EXCEPT  $![a] = b]$ 
21 |-----|
22 | NextL  $\triangleq$ 
23 |    $\exists a \in \textit{Acceptor}, b \in \textit{Ballot} :$ 
24 |      $\vee$  IncreaseMaxBalL(a, b)
25 |      $\vee \exists v \in \textit{Value} : \textit{VoteForL}(a, b, v)
26 |
27 | SpecL  $\triangleq$  InitL  $\wedge$   $\Box[\textit{NextL}]_{\langle \textit{votes}, \textit{maxBal}, \textit{lazyMaxBal} \rangle}$ 
28 |-----|
29 | V  $\triangleq$  INSTANCE Voting WITH maxBal  $\leftarrow$  lazyMaxBal
30 |
31 | THEOREM SpecL  $\Rightarrow$  V!Spec
32 |-----|
  | \ * Modification History
  | \ * Last modified Tue Aug 13 21:26:35 CST 2019 by hengxin
  | \ * Created Tue Aug 13 20:16:36 CST 2019 by hengxin$ 
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