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MODULE *ListExtension*

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EXTENDS *Integers, Sequences*

VARIABLE *List, Map, State*

*Init*  $\triangleq$   $\wedge List = \langle \rangle$   
 $\wedge Map = [a \mapsto 4, b \mapsto 5, c \mapsto 6]$   
 $\wedge State = \text{"A"}$

*ExtendListA*  $\triangleq$   $\wedge State = \text{"A"}$   
 $\wedge List' = Append(List, Map[\text{"a"}])$   
 $\wedge \text{UNCHANGED } \langle Map \rangle$   
 $\wedge State' = \text{"B"}$

*ExtendListB*  $\triangleq$   $\wedge State = \text{"B"}$   
 $\wedge List' = Append(List, Map[\text{"b"}])$   
 $\wedge \text{UNCHANGED } \langle Map \rangle$   
 $\wedge State' = \text{"C"}$

*ExtendListC*  $\triangleq$   $\wedge State = \text{"C"}$   
 $\wedge List' = Append(List, Map[\text{"c"}])$   
 $\wedge \text{UNCHANGED } \langle Map \rangle$   
 $\wedge State' = \text{"A"}$

*Invariant*  $\triangleq \wedge Len(List) \neq 20$

*Next*  $\triangleq \vee ExtendListA \vee ExtendListB \vee ExtendListC$

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\ \* Modification History  
\ \* Last modified Sat Apr 20 19:14:07 PDT 2019 by jasondebolt  
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