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1 |----- MODULE SystemModel -----|
  | Constants and related definitions describing the system model of Jupiter protocols.
5 | EXTENDS Naturals, SequenceUtils
6 |-----|
7 | CONSTANTS
8 |     Client,      the set of client replicas
9 |     Server,      the (unique) server replica
10 |    Msg,          the set of messages
11 |    Char,         the set of characters
12 |    InitState    the initial state of each replica

14 | ASSUME We assume that all inserted elements are unique.
15 |      $\wedge$     $\text{Range}(\text{InitState}) \cap \text{Char} = \{\}$  due to the uniqueness requirement
16 |-----|
17 |  $\text{Replica} \triangleq \text{Client} \cup \{\text{Server}\}$ 

19 |  $\text{List} \triangleq \text{Seq}(\text{Char} \cup \text{Range}(\text{InitState}))$  all possible lists
20 |-----|
21 | VARIABLES
22 |     cincoming,   cincoming[c]: incoming channel at the client  $c \in \text{Client}$ 
23 |     sincoming    incoming channel at the Server

25 |  $\text{Comm} \triangleq$  INSTANCE CSComm
26 |-----|

  | * Modification History
  | * Last modified Mon Jan 14 17:24:11 CST 2019 by hengxin
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