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1  |----- MODULE XJupiterExtended -----|
   |XJupiter extended with serial views. This is used to show that XJupiter implements CJupiter.|
6  EXTENDS XJupiter, JupiterSerial
7  |-----|
8  VARIABLES
   |Simulating the behavior of propagating original operations in CJupiter.|
12  cincomingCJ, cincoming for CJupiter which contains original operations
13                instead of transformed ones in XJupiter
14  sincomingCJ (not used)
16  commCJVars  $\triangleq$   $\langle \textit{cincomingCJ}, \textit{sincomingCJ} \rangle$ 
17  varsEx  $\triangleq$   $\langle \textit{commCJVars}, \textit{serialVars}, \textit{vars} \rangle$ 
18  |-----|
19  commCJ  $\triangleq$  INSTANCE CSComm WITH Msg  $\leftarrow$  Seq(Cop),
20                cincoming  $\leftarrow$  cincomingCJ, sincoming  $\leftarrow$  sincomingCJ
21  |-----|
22  TypeOKEx  $\triangleq$ 
23     $\wedge$  TypeOK
24     $\wedge$  commCJ! TypeOK
25     $\wedge$  TypeOKSerial
26  |-----|
27  InitEx  $\triangleq$ 
28     $\wedge$  Init
29     $\wedge$  commCJ! Init
30     $\wedge$  InitSerial
32  DoEx(c)  $\triangleq$ 
33     $\wedge$  Do(c)
34     $\wedge$  DoSerial(c)
35     $\wedge$  UNCHANGED commCJVars
37  RevEx(c)  $\triangleq$ 
38     $\wedge$  Rev(c)
39     $\wedge$  commCJ! CRev(c)
40     $\wedge$  RevSerial(c)
42  SRevEx  $\triangleq$ 
43     $\wedge$  SRev
44     $\wedge$  LET cop  $\triangleq$  Head(sincoming)
45          c  $\triangleq$  cop.oid.c
46          IN  $\wedge$  commCJ! SSendSame(c, cop)
47     $\wedge$  SRevSerial
48     $\wedge$  UNCHANGED sincomingCJ
49  |-----|
50  NextEx  $\triangleq$ 
51     $\vee \exists c \in \textit{Client} : \textit{DoEx}(c) \vee \textit{RevEx}(c)$ 

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52       $\vee$   $SRevEx$ 
54   $FairnessEx \triangleq$ 
55       $\wedge WF_{varsEx}(SRevEx \vee \exists c \in Client : RevEx(c))$ 
57   $SpecEx \triangleq InitEx \wedge \Box[NextEx]_{varsEx} \wedge FairnessEx$ 
58  |
    \ * Modification History
    \ * Last modified Sat Dec 15 18:01:37 CST 2018 by hengxin
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