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- Module XJupiterExtended
 1 [
    XJupiter extended with serial views. This is used to show that XJupiter implements CJupiter.
    EXTENDS XJupiter, JupiterSerial
                      Simulate the behavior of propagating original operations in CJupiter.
    VARIABLES
                            cincoming for CJupiter which contains original operations
 8
                             instead of transformed ones in XJupiter
 9
         sincomingCJ
10
                            (not used)
    commCJVars \triangleq \langle cincomingCJ, sincomingCJ \rangle
12
               \stackrel{\Delta}{=} \langle commCJVars, serialVars, vars \rangle
13
    commCJ \stackrel{\triangle}{=} INSTANCE \ CSComm \ WITH \ Msg \leftarrow Seq(Cop),
15
                            cincoming \leftarrow cincomingCJ, sincoming \leftarrow sincomingCJ
16
17
    TypeOKEx \triangleq
18
         \land TypeOK
19
         \wedge \ commCJ \ ! \ TypeOK
20
         \land TypeOKSerial
21
    InitEx \triangleq
23
         \land Init
24
         \land commCJ!Init
25
         \land InitSerial
26
    DoEx(c) \triangleq
28
            \wedge Do(c)
29
            \wedge DoSerial(c)
30
            \land UNCHANGED commCJVars
31
    RevEx(c) \triangleq
33
         \wedge Rev(c)
34
         \land commCJ! CRev(c)
35
         \land RevSerial(c)
36
    SRevEx \triangleq
38
         \land SRev
39
         \land LET cop \stackrel{\triangle}{=} Head(sincoming)
40
                      c \triangleq ClientOf(cop)
41
                    \land commCJ!SSendSame(c, cop)
42
             SRevSerial
43
             UNCHANGED sincomingCJ
45
    NextEx \triangleq
46
         \lor \exists c \in Client : DoEx(c) \lor RevEx(c)
47
         \lor SRevEx
48
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SpecEx \stackrel{\triangle}{=} InitEx \wedge \Box [NextEx]_{varsEx} \wedge FairnessEx
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