─── MODULE *XJupiterImplCJupiter* ───

EXTENDS *XJupiter*

We have omitted the history variables for recording serial views.

VARIABLES $op2ss$,　a function mapping an operation (identifier)

$\qquad\qquad\qquad$ to the 2D digraph produced during its transformation at the server

$\qquad\quad c2ssX$　$c2ssX[c]$: 2D digraph that has been skipped by client c

─────────

$InitImpl \triangleq \wedge Init$

$\qquad\qquad\quad \wedge$ on history variables for serial views

$\qquad\qquad\quad \wedge op2ss = \langle \rangle$ the empty function expressed in TLA$^+$

$\qquad\qquad\quad \wedge c2ssX = [c \in Client \mapsto EmptyGraph]$

$DoImpl(c, op) \triangleq \wedge Do(c, op)$

$\qquad\qquad\qquad\qquad \wedge$ on history variables for serial views

$RevImpl(c, cop) \triangleq \wedge Rev(c, cop)$

$\qquad\qquad\qquad\qquad \wedge$ on history variables for serial views

$\qquad\qquad\qquad\qquad \wedge c2ssX' = [c2ssX \text{ EXCEPT } ![c] = @ \oplus op2ss[cop.oid]]$

$SRevImpl(cop) \triangleq \wedge SRev(cop)$

$\qquad\qquad\qquad\qquad \wedge$ on history variables for serial views

$\qquad\qquad\qquad\qquad \wedge \text{ LET } xform \triangleq xForm(NextEdge, Server, cop, s2ss[ClientOf(cop)])$

$\qquad\qquad\qquad\qquad\quad \text{ IN } \quad op2ss' = op2ss @@ (cop.oid :> xform.xg)$

─────────

$CJ \triangleq$ INSTANCE *CJupiter* WITH $ss \leftarrow [r \in Replica \mapsto$

$\qquad\qquad\qquad\qquad\qquad$ IF $r = Server$ THEN $SetReduce(\oplus, Range(s2ss), EmptyGraph)$

$\qquad\qquad\qquad\qquad\qquad\qquad$ ELSE $\quad c2ss[r] \oplus c2ssX[r]]$

─────────