─────── MODULE *XJupiterImplCJupiter* ───────

EXTENDS *XJupiter*

We have omitted the history variables for recording serial views.

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

                       to the 2D digraph produced during its transformation at the server

            c2ssX   *c2ssX*[c]: 2D digraph that has been skipped by client *c*

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$InitImpl \triangleq \wedge Init$

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

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

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

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

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

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

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

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

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

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

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

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

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$CJ \triangleq \text{INSTANCE } CJupiter \text{ WITH } css \leftarrow [r \in Replica \mapsto$

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

$\qquad\qquad\qquad\qquad\qquad \text{ELSE } c2ss[r] \oplus c2ssX[r]]$

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