High-Level Proof of Step 2

2. ASSUME: $Inv \land (i \in \{0,1\}) \land e2(i)$
   PROVE: Inv'

   2.1. $TypeOK'$

   2.2. $MutualExclusion'$

   2.3. ASSUME: $j \in \{0,1\}$
        PROVE: $InCS(j)' \lor (pc'[j] = \text{"e2"}) \Rightarrow x'[j]$

   2.4. Q.E.D.
        PROOF: By 2.1–2.3 and the definition of Inv.