Towards the Bakery Algorithm – 2

process ($p \in Procs$)
  variables *unchecked*, *max* ;
  { *ncs*: **while** (TRUE)
       { *e1*:   *unchecked* := $Procs \setminus \{self\}$;
             max := 0 ;
        e2:   **while** (*unchecked* $\neq \{\}$)
             { with ($i \in$ *unchecked*)
                { *unchecked* := *unchecked* $\setminus \{i\}$;
                 if ($num[i] > max$) **{** *max* := $num[i]$ **}**
                }
             } ;
        e3:   **with** ($i \in \{j \in Nat : j > max\}$) **{** $num[self] := i$ **}** ;
             unchecked := $Procs \setminus \{self\}$;
        wait: **while** (*unchecked* $\neq \{\}$)
             { with ($i \in$ *unchecked*)
                { await $\vee\ num[i] = 0$
                       $\vee\ \langle num[self],\ self \rangle \prec \langle num[i],\ i \rangle$;
                 unchecked := *unchecked* $\setminus \{i\}$
                }
             } ;
        cs: **skip ;**   the critical section;
        exit: $num[self] := 0$
       }
  }