```
agregar_i_1_1
                                               [\operatorname{stock}[1] >= 1]
                                                                                                                    cliente_i
                                                  {carrito[i][1] += 1}
                                                                                                                                                                                 Máquina = depósito || cliente_1 || ... || cliente_l
                                                                                                                                                                                  Variables globales:
                                               agregar_i_1_MAXU
                                                                                                                                                                                 I = #clientes
                                               [stock[1] >= MAXU]
                                               {carrito[i][1] += MAXU}
                                                                                                                                                                                 J = #productos
                                                                                                                                                                                 stock = [0, ..., 0]
                                               agregar_i_J_1
                                                                                                                                                                                 carrito = [[0, ..., 0], ..., [0, ..., 0]]
                                               [stock[J] >= 1]
                                                  \{carrito[i][J] += 1\}
                                                                                                                                                                                 MAXU = cant. max. de unidades
                                                                                                                                                                                 timer_i = timer en min. for i in 1..I
                                               agregar_i_J_MAXU
                                                                                  reservar_i
                                               [stock[J] >= MAXU]
                                                                                  stock[1] >= carrito[i][1]
                                               {carrito[i][J] += MAXU}
                                                                                  stock[J] >= carrito[i][J]
[carrito[i][1] >= 1]
   {carrito[i][1] -= 1}
                                                                                  stock[1] -= carrito[i][1]
quitar_i_1_MAXU
                                                                                 stock[J] -= carrito[i][J]
[carrito[i][1] >= MAXU]
                                                                                  timer_i = 0
{carrito[i][1] -= MAXU}
                                                                                                                    carrito reservado
                                                      armando carrito
                                                                                                                                                                       carrito confirmado
                                                                                                                       timer_i < 10
[carrito[i][J] >= 1]
   {carrito[i][J] -= 1}
                                                                                                                                 terminar_procedimiento_de_compra_i
                                                                                                                                               [timer_i < 10]
quitar_i_J_MAXU
                                                                                  timeout i
[carrito[i][J] >= MAXU]
                                                                                  [timer_i >= 10]
{carrito[i][J] -= MAXU}
                                                                                  stock[1] += carrito[i][1]
                                                                                  stock[2] += carrito[i][2]
                                                                                  stock[J] += carrito[i][J]
                                                                                                                                                                       depósito
                                                                                cancelar_i
                                                                                [timer_i < 10]
                                                                                stock[1] += carrito[i][1]
                                                                                                                                                                                                      ingresar_1_1
                                                                                                                                                                                                      \{ stock[1] += 1 \}
                                                                                stock[J] += carrito[i][J]
                                                                                                                                                                                                      ingresar_1_MAXU
                                                                                carrito[i][1] = 0
                                                                                                                                                 ingresando unidades
                                                                                                                                                                                                      \{stock[1] += MAXU\}
                                                                                carrito[i][J] = 0
                                                                                                                                                                                                      ingresar_J_1
                                                                                                                                                                                                      {\operatorname{stock}[J] += 1}
                                                                                                                                                                                                      ingresar_J_MAXU
                                                                                                                                                                                                      \{\operatorname{stock}[J] += \operatorname{MAXU}\}
```

quitar_i_1_1

quitar_i_J_1