

EXTENDS *Integers, Sequences*

$Put(s) \triangleq Append(s, \text{"widget"})$

$Get(s) \triangleq Tail(s)$

(\*\*\*\*\*)

--algorithm *Alternate*{

**variable**  $b = 0, box = \langle \rangle$ ;

**process** ( *Producer* = 0 )

        {  $p1$ : **while** ( TRUE )

            { **await**  $b = 0$ ;

$box := Put(box)$ ;

$b := 1$

            }

        }

**process** ( *Consumer* = 1 )

        {  $c1$ : **while** ( TRUE )

            { **await**  $b = 1$ ;

$box := Get(box)$ ;

$b := 0$

            }

        }

}

(\*\*\*\*\*)