

EXTENDS *Integers, Sequences*

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

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

$a \oplus b \triangleq (a + b) \% 2$

(*****)

--algorithm *Handshake*{

 variable $p = 0, \ c = 0, \ box = \langle \rangle;$

 process (*Producer* = 0)

 { $p1$: while (TRUE)

 { await $p = c$;

$box := Put(box)$;

$p := p \oplus 1$

 }

 }

 process (*Consumer* = 1)

 { $c1$: while (TRUE)

 { await $p \neq c$;

$box := Get(box)$;

$c := c \oplus 1$

 }

 }

}

(*****)