1 ────────────────── MODULE *HelloWorld* ──────────────────

2 EXTENDS *Naturals*

5 **--algorithm** *HelloWorld*
6 **variables** $n = 0$ **;**
7 **begin**
8     $n := n + 1$ **;**
9 **end algorithm** ;
11   BEGIN TRANSLATION
12 VARIABLES n, pc

14 $vars \triangleq \langle n, pc \rangle$

16 $Init \triangleq$ Global variables
17         $\wedge\ n = 0$
18         $\wedge\ pc =$ "Lbl_1"

20 $Lbl\_1 \triangleq\ \wedge\ pc =$ "Lbl_1"
21              $\wedge\ n' = n + 1$
22              $\wedge\ pc' =$ "Done"

24 $Next \triangleq\ Lbl\_1$
25           $\vee$ Disjunct to prevent deadlock on termination
26             $(pc =$ "Done" $\wedge$ UNCHANGED $vars)$

28 $Spec \triangleq Init \wedge \square[Next]_{vars}$

30 $Termination \triangleq \diamond(pc =$ "Done")

32   END TRANSLATION

34 $AlgoOK \triangleq\ pc =$ "Done" $\Rightarrow n = 1$

36 └──

\ * Modification History
\ * Last modified Sat *Dec* 02 19:50:29 *PST* 2017 by *satya*
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