MODULE *sum*

EXTENDS *Naturals*, *TLC*, *FiniteSets*, *Functions*, *FiniteSetsExt*

--algorithm *sum*
variables $account = \{1, 2, 3, 4, 5\}$, $count = 0$ **;**
begin
A: $count := Sum(account)$ **;**
B: **print** $count$ **;**
end algorithm

BEGIN TRANSLATION ($chksum(pcal) =$ "$775fc70f$" $\land\ chksum(tla) =$ "$e3665052$")

VARIABLES $account$, $count$, pc

$vars \triangleq \langle account, count, pc \rangle$

$Init \triangleq$ Global variables
$\land\ account = \{1, 2, 3, 4, 5\}$
$\land\ count = 0$
$\land\ pc =$ "A"

$A \triangleq \land\ pc =$ "A"
$\land\ count' = Sum(account)$
$\land\ pc' =$ "B"
$\land$ UNCHANGED $account$

$B \triangleq \land\ pc =$ "B"
$\land\ PrintT(count)$
$\land\ pc' =$ "Done"
$\land$ UNCHANGED $\langle account, count \rangle$

Allow infinite stuttering to prevent deadlock on termination.

$Terminating \triangleq pc =$ "Done" $\land$ UNCHANGED $vars$

$Next \triangleq A \lor B$
$\lor\ Terminating$

$Spec \triangleq Init \land \Box[Next]_{vars}$

$Termination \triangleq \Diamond(pc =$ "Done")

END TRANSLATION

* Modification History
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