

An Event-B Specification of PURSE Generated Date: 10 Sep 2008 @ 11:40:57 AM

MACHINE PURSE

SEES CURRENCY

VARIABLES

contents

INVARIANTS

inv1 : $contents \in COINS \rightarrow \mathbb{N}$

EVENTS

Initialisation

begin

act1 : $contents := COINS \times \{0\}$

end

Event receive $\hat{=}$

any

denom

number

where

grd1 : $denom \in COINS$

grd2 : $number \in \mathbb{N}$

then

act1 : $contents(denom) := contents(denom) + number$

end

Event give $\hat{=}$

any

denom

number

where

grd1 : $denom \in COINS$

grd2 : $number \in \mathbb{N}$

grd3 : $number \leq contents(denom)$

then

act1 : $contents(denom) := contents(denom) - number$

end

END