MACHINE
BBSLADS_system_Shall
REFINES
GenericMchBBSL
SEES
BBSLADS_system_Deep
VARIABLES $Object$, $stopping\_Order$, act
INVARIANTS
inv1 : $st = Object \mapsto stopping\_Order$
EVENTS
INITIALISATION
WITH
st' : $st' = Object' \mapsto stopping\_Order'$
THEN
act1 : $Object :\in BB2D(\mathbb{Z}, \mathbb{Z})$
act2 : $stopping\_Order :\in Interval(\mathbb{Z})$
act3 : $act :\in actions(ads)$
END

Stop
REFINES $ApplyRule$
WHERE
grd1 : $Object \mapsto stopping\_Order \in hyp(ads)$
grd3 :
$(IoverlapInt(projy2d(Object), stopping\_Order)$
$\vee IleInt(projy2d(Object), stopping\_Order))$
WITH
new_act : $new\_act = Stop$
THEN
act1 : $act := Stop$
END

Non_Stop
REFINES $ApplyRule$
WHERE
grd1 : $Object \mapsto stopping\_Order \in hyp(ads)$
grd3 : $IleInt(stopping\_Order, projy2d(Object))$
WITH
new_act : $new\_act = Non\_Stop$
THEN
act1 : $act := Non\_Stop$
END

Update
REFINES $Update$
WHERE
grd1 : $Object \mapsto stopping\_Order \notin hyp(ads) \vee Object \mapsto stopping\_Order \in bbslcase(ads)^{-1}[\{act\}]$
WITH
st' : $st' = Object' \mapsto stopping\_Order'$
THEN
act1 : $Object :\in BB2D(\mathbb{Z}, \mathbb{Z})$
act2 : $stopping\_Order :\in Interval(\mathbb{Z})$
END

NotHyp
REFINES $NotHyp$
WHERE
grd1 : $Object \mapsto stopping\_Order \notin hyp(ads)$
THEN
act1 : $act :\in NotHypCase(ads)[\{Object \mapsto stopping\_Order\}]$
END

END