Algebraická špecifikácia - MSOFT

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Typy

$Route, Location, Housing, Restaurant, RouteBuilder$

Funkcie

$createBuilder : Empty \rightarrow RouteBuilder$
$setStart : RouteBuilder \times Location \rightarrow RouteBuilder$
$setEnd : RouteBuilder \times Location \rightarrow RouteBuilder$
$addStop : RouteBuilder \times Location \rightarrow RouteBuilder$
$addRestaurant : RouteBuilder \times Restaurant \rightarrow RouteBuilder$
$addHousing : RouteBuilder \times Housing \rightarrow RouteBuilder$
$hasStart : RouteBuilder \rightarrow Boolean$
$hasEnd : RouteBuilder \rightarrow Boolean$
$buildable : RouteBuilder \rightarrow Boolean$
$build : RouteBuilder \rightarrow Route$

Axiomy

$\forall rb : RouteBuilder, l1 : Location, l2 : Location, h : Housing, r : Route$

$A1 : \neg buildable(createBuilder())$
$A2 : buildable(setEnd(setStart(rb, l1), l2))$
$A3 : addHousingt(rb, h) = rb$
$A4 : build(rb) = r$

Predpoklady

$addHousing(rb : RouteBuilder, h : Housing)\ requires\ buildable(rb)$
$addRestaurant(rb : RouteBuilder, r : Restaurant)\ requires\ buildable(rb)$
$build(rb : RouteBuilder)\ requires\ hasStart(rb) \wedge hasEnd(rb)$