

Model: FINAL_91_SIMULATION_WITH_OUTPUT

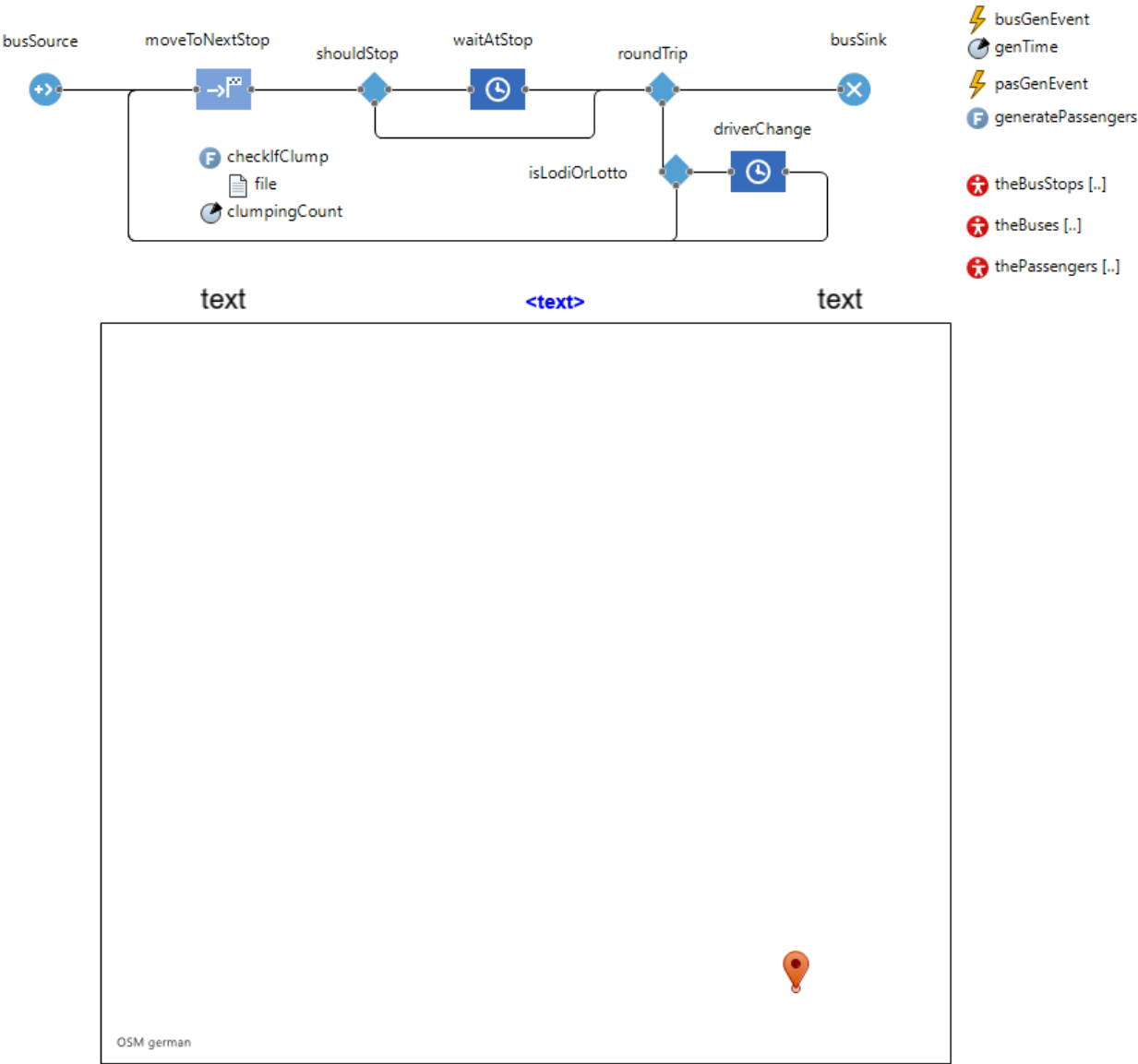
Name	Value
General	
Model time units	minutes
System Dynamics solver	
Differentiation Equations Method	Euler
Algebraic Equations Method	Modified Newton
Mixed Equations Method	RK45+Newton
Absolute accuracy	1.0E-5
Time accuracy	1.0E-5
Relative accuracy	1.0E-5
Fixed time step	0.001
Advanced	
Java package name	_91_gis
File Name	C:\Users\srsud\Models\FINAL_91_SIMULATION_WITH_OUTPUT\FINAL_91_SIMULATION_WITH_OUTPUT.alp

Agent Type: Main

Name	Value
Agent actions	
Startup code	<pre> clumpingCount = 0; File outputFile = new File("C:\\Users\\srsud\\Desktop\\clumping_output.csv"); if (outputFile.exists()) { outputFile.delete(); } PrintWriter file = null; try { file = new PrintWriter(new FileWriter("C:\\Users\\srsud\\Desktop\\clumping_output.csv")); file.println("trail_bus, trail_bus_size, lead_bus, lead_bus_size, stop_nu m, stop_size, time_dff"); file.flush(); } catch (IOException e) { e.printStackTrace(); } </pre>
Destroy code	file.close();
Agent in flowcharts	
Use in flowcharts as	Agent
Dimensions and movement	
Speed	(10 : MPS)
Rotate animation towards movement	true
Rotate vertically as well (along Z-axis)	false
Space and network	
Enable steps	false
Advanced Java	
Import	<pre> import java.io.PrintWriter; import java.io.FileWriter; import java.io.IOException; import java.io.File; </pre>
Generic	false
Advanced	

Name	Value
Logging	true
Auto-create datasets	true
AOC_DATASETS_UPDATE_TIME_PROPERTIES	- Recurring Event Properties
Limit the number of data samples	false

connections



Scale: scale

Name	Value
General	
Unit	meters
Scale	25.0
Type	Defined graphically
Length, pixels	100.0

Name	Value
Show at runtime	false
Lock	false
Public	false
Position and size	
x	0.0
y	-150.0
Rotation	0.0

Parameter: genTime

Name	Value
General	
Array	false
Default value	(time(SECOND) : SECOND)
Unit	seconds
Show at runtime	true
Show name	true
Value editor	
Editor control	Unit editor
Advanced	
System dynamics units	false
Save in snapshot	true

Parameter: clumpingCount

Name	Value
General	
Array	false
Type	int
Show at runtime	true
Show name	true
Value editor	
Editor control	Text
Advanced	
System dynamics units	false
Save in snapshot	true

Function: generatePassengers

Name	Value
General	
Return type:	Just action (returns nothing)
Show at runtime	true
Show name	true
Function body	
Body	<pre>int nS = (int) triangular(15, 16, 30); List<Integer> nList = new ArrayList<>(); while (nList.size() < nS) { int newIndex = uniform_discr(0, 62); if (!nList.contains(newIndex)) {</pre>

Name	Value
	<pre> nList.add(newIndex); } } for (int i = 0; i < nList.size(); i++) { final int stopIndex = nList.get(i); int nP = (int) triangular(0, 1, 3); for (int j = 0; j < nP; j++) { int temp = 0; final int ranDest; try { temp = uniform_discr(stopIndex, 62 + stopIndex); ranDest = temp % 62; TheBusStop gen = theBusStops.findFirst(p -> p.idIndex == stopIndex); TheBusStop dest = theBusStops.findFirst(p -> p.idIndex == ranDest); ThePassenger pas = add_thePassengers(); pas.stopGen = gen; pas.stopDest = dest; if (pas.stopGen.pasAtStop == null) { System.out.println("pasAtStop is null"); } pas.stopGen.pasAtStop.add(pas); } catch (NullPointerException e) { e.printStackTrace(); } } } </pre>
Advanced	
Access type	default
System dynamics units	false

Function: checkIfClump

Name	Value
General	
Return type:	Just action (returns nothing)
Show at runtime	true
Show name	true
Function body	
Body	<pre> if(ag.presentStop.busCounter == 1){ bS.nowArrivalTime = nT; bS.newAgent = ag; } else{ bS.prevArrivalTime = bS.nowArrivalTime; bS.nowArrivalTime = nT; bS.oldAgent = bS.newAgent; bS.newAgent = ag; } double diff = bS.nowArrivalTime - bS.prevArrivalTime; if(bS.newAgent != bS.oldAgent && diff <= 120){ if ((sC == 62 sC == 39) && ag.presentStop.busCounter != 1){ ag.compensate = 250; } if ((sC != 62 sC != 39) && diff <= 120){ clumpingCount += 1; file.print(bS.newAgent + "," + bS.newAgent.pasInBus.size() + "," + bS.oldAgent + "," + bS.oldAgent.pasInBus.size() + "," + bS.idIndex + "," + bS.pasAtStop.size() + "," + diff + "\n"); System.out.println("Lead: " + bS.newAgent + ", Trail: " + bS.oldAgent + ", at: " + bS.idIndex + ", Time diff: " + String.format("%.2f", diff)); } } </pre>

Name	Value
	} }
Advanced	
Access type	default
System dynamics units	false

Arguments:

Name	Type
bS	TheBusStop
nT	double
ag	TheBus
sC	int

Event: busGenEvent

Name	Value
General	
Logging	true
Rate	(6 : PER_HOUR)
Trigger type	Rate
Show at runtime	true
Show name	true
Action	
Action	if (theBuses.size() < 8 && (time(SECOND) - genTime) > 600) { busSource.inject(); genTime = time(SECOND); }

Event: pasGenEvent

Name	Value
General	
Logging	true
Rate	(1 : PER_MINUTE)
Trigger type	Rate
Show at runtime	true
Show name	true
Action	
Action	if (thePassengers.size() < 1000) { generatePassengers(); }

ThePassenger: thePassengers

Name	Value
General	
Initialization Type	Initially empty
Population of agents	true
Initialization Type	Initially empty
Population of agents	true

Name	Value
Show name	true
Initial location	
Place agent(s)	at the agent animation location
Statistics	
Statistics	[]
Advanced	
Show at runtime	true
Public	false
Embedded object collection type	Access by index (ArrayList)
Logging	true

Source: busSource

Name	Value
General	
Population of agents	false
Generic Parameters Substitutes	[Generic Parameter Substitute: TheBus]
Population of agents	false
Generic Parameters Substitutes	[Generic Parameter Substitute: TheBus]
Show name	true
Initial location	
Place agent(s)	at the agent animation location
Advanced	
Show at runtime	true
Public	false
Logging	true

Agent Parameters:

Name	Value
Arrivals defined by	self.MANUAL
Location of arrival	self.LOCATION_NODE
Node	busSourcePoint
Speed	10
New agent	new _91_gis.TheBus()
Change dimensions	false
Add agents to:	true
Population	theBuses
Forced pushing	true
On at exit	agent.stopCounter = 0; agent.lodiWait = 600;

MoveTo: moveToNextStop

Name	Value
General	
Population of agents	false
Generic Parameters Substitutes	[Generic Parameter Substitute: TheBus]
Population of agents	false
Generic Parameters Substitutes	[Generic Parameter Substitute: TheBus]
Show name	true

Name	Value
Initial location	
Place agent(s)	at the agent animation location
Advanced	
Show at runtime	true
Public	false
Logging	true

Agent Parameters:

Name	Value
Agent	self.MODE_MOVE_TO
Destination:	self.DEST_AGENT
Agent	theBusStops.findFirst(b -> b.idIndex == agent.stopCounter)
... with offset	false
Straight movement	true
Movement is defined by:	self.MOVE_SPEED
Set agent's speed	true
Speed	30 - (0.05 * agent.pasInBus.size())
On enter	agent.presentStop = theBusStops.findFirst(b -> b.idIndex == agent.stopCounter); agent.presentStop.busCounter++; checkIfClump(agent.presentStop, time(SECOND), agent, agent.stopCounter);
On exit	<pre> Iterator<ThePassenger> iterator2 = agent.pasInBus.iterator(); while (iterator2.hasNext()) { ThePassenger pas = iterator2.next(); if (pas.stopDest == agent.presentStop) { iterator2.remove(); remove_thePassengers(pas); } } Iterator<ThePassenger> iterator1 = agent.presentStop.pasAtStop.iterator(); while (iterator1.hasNext()) { ThePassenger pas = iterator1.next(); if (agent.pasInBus.size() < 90) { agent.pasInBus.add(pas); iterator1.remove(); } } agent.waitTime = agent.presentStop.pasAtStop.size(); if(agent.waitTime == 0){ agent.waitTime = 20; } </pre>

Delay: waitAtStop

Name	Value
General	
Population of agents	false
Generic Parameters Substitutes	[Generic Parameter Substitute:]
Population of agents	false
Generic Parameters Substitutes	[Generic Parameter Substitute:]
Show name	true
Initial location	

Name	Value
Place agent(s)	at the agent animation location
Advanced	
Show at runtime	true
Public	false
Logging	true

Agent Parameters:

Name	Value
Type	self.TIMEOUT
Delay time	agent.waitTime
Maximum capacity	true
Forced pushing	false
Restore agent location on exit	true
Force statistics collection	false

SelectOutput: roundTrip

Name	Value
General	
Population of agents	false
Generic Parameters Substitutes	[Generic Parameter Substitute:]
Population of agents	false
Generic Parameters Substitutes	[Generic Parameter Substitute:]
Show name	true
Initial location	
Place agent(s)	at the agent animation location
Advanced	
Show at runtime	true
Public	false
Logging	true

Agent Parameters:

Name	Value
Select True output	false
Condition	false
On enter	agent.stopCounter++; if (agent.stopCounter == 63) { agent.stopCounter = 0; agent.shouldStop = true; }

Sink: busSink

Name	Value
General	
Population of agents	false
Generic Parameters Substitutes	[Generic Parameter Substitute:]
Population of agents	false
Generic Parameters Substitutes	[Generic Parameter Substitute:]
Show name	true

Name	Value
Initial location	
Place agent(s)	at the agent animation location
Advanced	
Show at runtime	true
Public	false
Logging	true

Agent Parameters:

Name	Value
Destroy policy:	com.anylogic.libraries.processmodeling.Sink.DESTROY_ONLY_CREATED_IN_SOURCE

TheBus: theBuses

Name	Value
General	
Initialization Type	Initially empty
Population of agents	true
Initialization Type	Initially empty
Population of agents	true
Show name	true
Initial location	
Place agent(s)	at the agent animation location
Statistics	
Statistics	[]
Advanced	
Show at runtime	true
Public	false
Embedded object collection type	Access by index (ArrayList)
Logging	true

Agent Parameters:

Name	Value
stopCounter	0
lodiWait	180
shouldStop	true
waitTime	0
compensate	0

TheBusStop: theBusStops

Name	Value
General	
Parameter To Database Column Mapping	[[ItemReference: _91_gis.TheBusStop.ubicazione (Resolved: true), ItemReference: _91_gis.shp_91_ferm.ubicazione (Resolved: true)], [ItemReference: _91_gis.TheBusStop.idIndex (Resolved: true), ItemReference: _91_gis.shp_91_ferm.id_index (Resolved: true)], [ItemReference: <unresolved>.FAKE_PARAMETER_GIS_LOCATION_LATITUDE_xjal (Resolved: false), ItemReference: _91_gis.shp_91_ferm.lat_y_4326 (Resolved: true)], [ItemReference: <unresolved>.FAKE_PARAMETER_GIS_LOCATION

Name	Value
	long_x_432 (Resolved: true)]]
INITIALIZATION_DATABASE_TYPE	One agent per database record
Initialization Database Table	- Database Table Query
Initialization Type	Loaded from database
Population of agents	true
Parameter To Database Column Mapping	[[ItemReference: _91_gis.TheBusStop.ubicazione (Resolved: true), ItemReference: _91_gis.shp_91_ferm.ubicazione (Resolved: true)], [ItemReference: _91_gis.TheBusStop.idIndex (Resolved: true), ItemReference: _91_gis.shp_91_ferm.id_index (Resolved: true)], [ItemReference: <unresolved>. <unresolved>.FAKE_PARAMETER_GIS_LOCATION_LATITUDE_xjal (Resolved: false), ItemReference: _91_gis.shp_91_ferm.lat_y_4326 (Resolved: true)], [ItemReference: <unresolved>. <unresolved>.FAKE_PARAMETER_GIS_LOCATION_LONGITUDE_xjal (Resolved: false), ItemReference:
INITIALIZATION_DATABASE_TYPE	One agent per database record
Initialization Database Table	- Database Table Query
Initialization Type	Loaded from database
Population of agents	true
Show name	true
Initial location	
Place agent(s)	at the agent animation location
Statistics	
Statistics	[]
Advanced	
Show at runtime	true
Public	false
Embedded object collection type	Access by index (ArrayList)
Logging	true

Agent Parameters:

Name	Value
busCounter	0

SelectOutput: isLodiOrLotto

Name	Value
General	
Population of agents	false
Generic Parameters Substitutes	[Generic Parameter Substitute: TheBus]
Population of agents	false
Generic Parameters Substitutes	[Generic Parameter Substitute: TheBus]
Show name	true
Initial location	
Place agent(s)	at the agent animation location
Advanced	
Show at runtime	true
Public	false
Logging	true

Agent Parameters:

Name	Value
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Agent Parameters:

Name	Value
Select True output	false
Condition	agent.stopCounter == 62 agent.stopCounter == 39

Delay: driverChange

Name	Value
General	
Population of agents	false
Generic Parameters Substitutes	[Generic Parameter Substitute:]
Population of agents	false
Generic Parameters Substitutes	[Generic Parameter Substitute:]
Show name	true
Initial location	
Place agent(s)	at the agent animation location
Advanced	
Show at runtime	true
Public	false
Logging	true

Agent Parameters:

Name	Value
Type	self.TIMEOUT
Delay time	agent.lodiWait + agent.compensate
Capacity	3
Maximum capacity	false
Forced pushing	false
Restore agent location on exit	true
Force statistics collection	false
On enter	<pre> Iterator<ThePassenger> iterator2 = agent.pasInBus.iterator(); while (iterator2.hasNext()) { ThePassenger pas = iterator2.next(); iterator2.remove(); remove_thePassengers(pas); } </pre>
On at exit	agent.compensate = 0;

SelectOutput: shouldStop

Name	Value
General	
Population of agents	false
Generic Parameters Substitutes	[Generic Parameter Substitute:]
Population of agents	false
Generic Parameters Substitutes	[Generic Parameter Substitute:]
Show name	true
Initial location	
Place agent(s)	at the agent animation location
Advanced	

Name	Value
Show at runtime	true
Public	false
Logging	true

Agent Parameters:

Name	Value
Select True output	false
Condition	agent.shouldStop == true

Agent Presentation: busSink_presentation

Name	Value
General	
Show at runtime	true
Public	true
Position and size	
x	0.0
y	0.0
z	0.0
Rotation	0.0
Scale	Automatically calculated
Advanced	
Show in	2D and 3D
Draw agent with offset to this position	false
Show name	false

Text: textBoxTime

Name	Value
General	
Show at runtime	true
Lock	false
Embedded icon	false
Public	true
Text	
Text	text
Dynamic: Text	"Minutes since start: " + (int) time(MINUTE)
Appearance	
Color	black
Alignment	CENTER
Position and size	
x	210.0
y	210.0
z	0.0
Rotation	0.0
Advanced	
Show in	2D only
Show name	false

Text: textBoxHour

Name	Value
General	
Show at runtime	true
Lock	false
Embedded icon	false
Public	true
Text	
Text	text
Dynamic: Text	"Hours since start: " + (int) time(HOUR)
Appearance	
Color	black
Alignment	CENTER
Position and size	
x	660.0
y	210.0
z	0.0
Rotation	0.0
Advanced	
Show in	2D only
Show name	false

Text: text

Name	Value
General	
Show at runtime	true
Lock	false
Embedded icon	false
Public	true
Text	
Dynamic: Text	clumpingCount + 1
Appearance	
Color	blue
Alignment	LEFT
Position and size	
x	430.0
y	215.0
z	0.0
Rotation	0.0
Advanced	
Show in	2D only
Show name	false

Agent Presentation: thePassengers_presentation

Name	Value
General	
Show at runtime	true

Name	Value
Public	true
Position and size	
Latitude	45.51407130832866
Longitude	9.0791579260879
Rotation	0.0
Scale	Automatically calculated
Real size when map scale is under	1000
Fixed size when map scale is under	1000000000
Advanced	
Show in	2D and 3D
Draw agent with offset to this position	false
Show name	false

Agent Presentation: theBuses_presentation

Name	Value
General	
Show at runtime	true
Public	true
Position and size	
Latitude	45.51676846601072
Longitude	9.07385369280881
Rotation	0.0
Scale	Automatically calculated
Real size when map scale is under	1000
Fixed size when map scale is under	1000000000
Advanced	
Show in	2D and 3D
Draw agent with offset to this position	false
Show name	false

Agent Presentation: theBusStops_presentation

Name	Value
General	
Show at runtime	true
Public	true
Position and size	
Latitude	45.51305551215419
Longitude	9.074485149151556
Rotation	0.0
Scale	Automatically calculated
Real size when map scale is under	1000
Fixed size when map scale is under	1000000000
Advanced	
Show in	2D and 3D
Draw agent with offset to this position	false
Show name	false

GIS Map: map

Name	Value
General	
Show at runtime	true
Lock	false
Public	true
Tiles	
Show tiles	true
Tile provider	OSM german
Routing	
Routes are	Requested from OSM server
Routing server	AnyLogic
Routing method	Fastest
Road type	Car
If route not found	Create straight route
Center and scale	
Latitude	45.4706027050914
Longitude	9.182150651960175
Scale	66000
Appearance	
Border color	black
Fill color	white
Position and size	
x	120.0
Width	620.0
y	240.0
Height	540.0
Advanced	
Use custom tile URL	false
Use custom route provider	false
Routes and regions generalization uses Current map scale	true

Text File: file

Name	Value
General	
File mode	Write/Append
Text file name	ResourceReference: _91_gis.C:/Users/srsud/Desktop/clumping_output.csv (Resolved:
Text File Type	File
Show at runtime	true
Show name	true

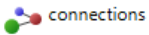
Link to agents: connections

Name	Value
General	
Show at runtime	true

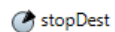
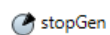
Name	Value
Show name	true
Communication	
Message type	Object
Animation	
Draw line	false

Agent Type: ThePassenger

Name	Value
Agent in flowcharts	
Use in flowcharts as	Agent
Dimensions and movement	
Speed	(10 : MPS)
Rotate animation towards movement	true
Rotate vertically as well (along Z-axis)	false
Space and network	
Space Type	Continuous
Advanced Java	
Generic	false
Advanced	
Logging	true
Auto-create datasets	true
AOC_DATASETS_UPDATE_TIME_PROPERTIES	- Recurring Event Properties
Limit the number of data samples	false



»



Scale: scale

Name	Value
General	
Unit	meters
Scale	10.0
Type	Defined graphically
Length, pixels	100.0
Show at runtime	false
Lock	false
Public	false
Position and size	
x	0.0

Name	Value
y	-150.0
Rotation	0.0

Parameter: stopGen

Name	Value
General	
Array	false
Type	TheBusStop
Show at runtime	true
Show name	true
Value editor	
Editor control	Text
Advanced	
System dynamics units	false
Save in snapshot	true

Parameter: stopDest

Name	Value
General	
Array	false
Type	TheBusStop
Show at runtime	true
Show name	true
Value editor	
Editor control	Text
Advanced	
System dynamics units	false
Save in snapshot	true

3D Object: woman_2

Name	Value
General	
Scale	1.0
Auto scale	true
File Name	ResourceReference: _91_gis.3d/woman_2.dae (Resolved: true)
Show at runtime	true
Lock	false
Public	true
Position and size	
x	0.0
y	0.0
z	0.0
Rotation	0.0
Advanced	

Name	Value
Show in	2D and 3D
Show name	false
Internal lights	Off

Link to agents: connections

Name	Value
General	
Show at runtime	true
Show name	true
Communication	
Message type	Object
Animation	
Draw line	false








Agent Type: TheBus

Name	Value
Agent actions	
Startup code	pasInBus = new ArrayList<ThePassenger>();
Agent in flowcharts	
Use in flowcharts as	Agent
Dimensions and movement	
Speed	(10 : MPS)
Rotate animation towards movement	true
Rotate vertically as well (along Z-axis)	false
Space and network	
Space Type	Continuous
Advanced Java	
Generic	false
Advanced	
Logging	true
Auto-create datasets	true
AOC_DATASETS_UPDATE_TIME_PROPERTIES	- Recurring Event Properties
Limit the number of data samples	false

 main

 connections

 text
 text

 shouldStop
 stopCounter
 lodiWait
 presentStop
 pasInBus
 waitTime
 compensate

Scale: scale

Name	Value
General	
Unit	meters
Scale	10.0
Type	Defined graphically
Length, pixels	100.0
Show at runtime	false
Lock	false
Public	false
Position and size	
x	0.0
y	-150.0
Rotation	0.0

Parameter: stopCounter

Name	Value
General	
Array	false
Default value	0
Type	int
Show at runtime	true
Show name	true
Value editor	
Editor control	Text
Advanced	
System dynamics units	false
Save in snapshot	true

Parameter: lodiWait

Name	Value
General	
Array	false
Default value	180
Type	int
Show at runtime	true
Show name	true
Value editor	
Editor control	Text
Advanced	
System dynamics units	false
Save in snapshot	true

Parameter: presentStop

Name	Value
General	

Name	Value
Array	false
Type	TheBusStop
Show at runtime	true
Show name	true
Value editor	
Editor control	Text
Advanced	
System dynamics units	false
Save in snapshot	true

Parameter: shouldStop

Name	Value
General	
Array	false
Default value	true
Type	boolean
Show at runtime	true
Show name	true
Value editor	
Editor control	Check Button
Advanced	
System dynamics units	false
Save in snapshot	true

Parameter: pasInBus

Name	Value
General	
Array	false
Type	ArrayList<ThePassenger>
Show at runtime	true
Show name	true
Value editor	
Editor control	Text
Advanced	
System dynamics units	false
Save in snapshot	true

Parameter: waitTime

Name	Value
General	
Array	false
Default value	0
Type	int
Show at runtime	true
Show name	true
Value editor	

Name	Value
Editor control	Text
Advanced	
System dynamics units	false
Save in snapshot	true

Parameter: compensate

Name	Value
General	
Array	false
Default value	0
Type	int
Show at runtime	true
Show name	true
Value editor	
Editor control	Text
Advanced	
System dynamics units	false
Save in snapshot	true

3D Object: bus_2

Name	Value
General	
Scale	0.25
Auto scale	true
File Name	ResourceReference: _91_gis.3d/bus_2.dae (Resolved: true)
Show at runtime	true
Lock	false
Public	true
Position and size	
x	0.0
y	0.0
z	0.0
Rotation	270.0
Advanced	
Show in	2D and 3D
Show name	false
Internal lights	Off

Text: text

Name	Value
General	
Show at runtime	true
Lock	false
Embedded icon	false

Name	Value
Public	true
Text	
Text	text
Dynamic: Text	pasInBus.size()
Appearance	
Color	red
Alignment	LEFT
Position and size	
x	15.0
y	-5.0
z	0.0
Rotation	0.0
Advanced	
Show in	2D only
Show name	false

Text: text1

Name	Value
General	
Show at runtime	true
Lock	false
Embedded icon	false
Public	true
Text	
Text	text
Dynamic: Text	compensate
Appearance	
Color	blue
Alignment	LEFT
Position and size	
x	15.0
y	-20.0
z	0.0
Rotation	0.0
Advanced	
Show in	2D only
Show name	false

Link to agents: connections


Name	Value
General	
Show at runtime	true
Show name	true
Communication	
Message type	Object
Animation	

Name	Value
Draw line	false




Agent Type: TheBusStop






Name	Value
Agent actions	
Startup code	pasAtStop = new ArrayList<ThePassenger>();
Agent in flowcharts	
Use in flowcharts as	Agent
Dimensions and movement	
Speed	(10 : MPS)
Rotate animation towards movement	true
Rotate vertically as well (along Z-axis)	false
Space and network	
Space Type	Continuous
Advanced Java	
Generic	false
Advanced	
Logging	true
Auto-create datasets	true
AOC_DATASETS_UPDATE_TIME_PROPERTIES	- Recurring Event Properties
Limit the number of data samples	false

 main

 connections

 pasAtStop.size()

 ubicazione
 idIndex
 busCounter

 prevArrivalTime
 nowArrivalTime
 oldAgent
 newAgent
 pasAtStop

Scale: scale

Name	Value
General	
Unit	meters
Scale	10.0

Name	Value
Type	Defined graphically
Length, pixels	100.0
Show at runtime	false
Lock	false
Public	false
Position and size	
x	0.0
y	-150.0
Rotation	0.0

Parameter: ubicazione

Name	Value
General	
Array	false
Type	String
Show at runtime	true
Show name	true
Value editor	
Editor control	Text
Advanced	
System dynamics units	false
Save in snapshot	true

Parameter: idIndex

Name	Value
General	
Array	false
Type	int
Show at runtime	true
Show name	true
Value editor	
Editor control	Text
Advanced	
System dynamics units	false
Save in snapshot	true

Parameter: pasAtStop

Name	Value
General	
Array	false
Type	ArrayList<ThePassenger>
Show at runtime	true
Show name	true
Value editor	
Editor control	Text
Advanced	

Name	Value
System dynamics units	false
Save in snapshot	true

Parameter: prevArrivalTime

Name	Value
General	
Array	false
Type	double
Show at runtime	true
Show name	true
Value editor	
Editor control	Text
Advanced	
System dynamics units	false
Save in snapshot	true

Parameter: nowArrivalTime

Name	Value
General	
Array	false
Type	double
Show at runtime	true
Show name	true
Value editor	
Editor control	Text
Advanced	
System dynamics units	false
Save in snapshot	true

Parameter: oldAgent

Name	Value
General	
Array	false
Type	TheBus
Show at runtime	true
Show name	true
Value editor	
Editor control	Text
Advanced	
System dynamics units	false
Save in snapshot	true

Parameter: newAgent

Name	Value
General	

Name	Value
Array	false
Type	TheBus
Show at runtime	true
Show name	true
Value editor	
Editor control	Text
Advanced	
System dynamics units	false
Save in snapshot	true

Parameter: busCounter

Name	Value
General	
Array	false
Default value	0
Type	int
Show at runtime	true
Show name	true
Value editor	
Editor control	Text
Advanced	
System dynamics units	false
Save in snapshot	true

Text: text

Name	Value
General	
Show at runtime	true
Lock	false
Embedded icon	false
Public	true
Text	
Text	pasAtStop.size()
Dynamic: Text	pasAtStop.size()
Appearance	
Color	black
Alignment	LEFT
Position and size	
x	20.0
y	0.0
z	0.0
Rotation	0.0
Advanced	
Show in	2D only
Show name	false

Group: store

Name	Value
General	
Show at runtime	true
Lock	false
Embedded icon	false
Public	true
Position and size	
x	0.0
y	0.0
z	0.0
Rotation	0.0
Dynamic: X Scale	0.3
Dynamic: Y Scale	0.3
Advanced	
Show in	2D only
Show name	false

Polyline: _ps268

Name	Value
General	
Polyline closed	true
Show at runtime	true
Lock	false
Public	true
Appearance	
Fill color	new Color(0, 0, 0, 80)
Line width	1.0
Line style	solid
Position and size	
x	0.0
y	12.0
z	0.0
Z-Height	10.0
Advanced	
Show name	false

Polyline: _ps269

Name	Value
General	
Polyline closed	true
Show at runtime	true
Lock	false
Public	true
Appearance	
Fill color	new Color(153, 234, 0)

Name	Value
Line width	1.0
Line style	solid
Position and size	
x	0.0
y	4.0
z	0.0
Z-Height	10.0
Advanced	
Show name	false

Polyline: _ps270

Name	Value
General	
Polyline closed	true
Show at runtime	true
Lock	false
Public	true
Appearance	
Fill color	new Color(131, 200, 0)
Line width	1.0
Line style	solid
Position and size	
x	-12.0
y	6.0
z	0.0
Z-Height	10.0
Advanced	
Show name	false

Polyline: _ps271

Name	Value
General	
Polyline closed	true
Show at runtime	true
Lock	false
Public	true
Appearance	
Fill color	new Color(103, 158, 0)
Line width	1.0
Line style	solid
Position and size	
x	0.0
y	12.0
z	0.0
Z-Height	10.0
Advanced	
Show name	false

Polyline: _ps272

Name	Value
General	
Polyline closed	true
Show at runtime	true
Lock	false
Public	true
Appearance	
Fill color	new Color(65, 100, 0)
Line width	1.0
Line style	solid
Position and size	
x	-10.0
y	7.0
z	0.0
Z-Height	10.0
Advanced	
Show name	false

Line: _ps273

Name	Value
General	
Show at runtime	true
Lock	false
Public	true
Appearance	
Line color	new Color(103, 158, 0)
Line width	1.0
Line style	solid
Position and size	
x	2.0
dX	0.0
y	11.0
dY	-6.0
z	0.0
dZ	0.0
Z-Height	10.0
Advanced	
Show name	false

Line: _ps274

Name	Value
General	
Show at runtime	true
Lock	false
Public	true
Appearance	

Name	Value
Line color	new Color(131, 200, 0)
Line width	1.0
Line style	solid
Position and size	
x	-2.0
dX	0.0
y	11.0
dY	-6.0
z	0.0
dZ	0.0
Z-Height	10.0
Advanced	
Show name	false

Polyline: _ps275

Name	Value
General	
Polyline closed	true
Show at runtime	true
Lock	false
Public	true
Appearance	
Line color	new Color(32, 50, 0)
Line width	1.0
Line style	solid
Position and size	
x	0.0
y	12.0
z	0.0
Z-Height	10.0
Advanced	
Show name	false

Link to agents: connections

Name	Value
General	
Show at runtime	true
Show name	true
Communication	
Message type	Object
Animation	
Draw line	false

Simulation Experiment: Simulation

Name	Value
General	

Name	Value
Bypass Initial Simulation Screen	true
Maximum available memory	512
Agent type	Main
Model time	
Execution mode	Real time with scale
Real time scale	1.0
Stop option	Never
Initial time	0.0
Initial date	Sat Jan 13 00:00:00 GMT 2024
Randomness	
Random Number Generation Type	Random seed (unique simulation runs)
Window	
Title	91_GIS : Simulation
Enable zoom and panning	true
Enable developer panel	true
Show developer panel on start	false
Advanced	
Load root from snapshot	false

91_GIS

Text: text

Name	Value
General	
Show at runtime	true
Lock	false
Text	
Text	91_GIS
Appearance	
Color	royalBlue
Alignment	LEFT
Position and size	
x	50.0
y	30.0
z	0.0
Rotation	0.0
Advanced	
Show name	false

Database: Database

Name	Value
General	
Database shutdown compac	false
Import	
List of tables import data settings	[- Import Settings, - Import Settings]
Log	

Name	Value
Logging	false

Database Table: db_91_fermat_db

Name	Value
Advanced	
Cached database table	false

null	null	null	null	null
db_column	INTEGER	-	-	
id_amat	INTEGER	-	-	
pubicazione	VARCHAR(16777216)	-	-	
linee	VARCHAR(16777216)	-	-	
long_x_4326	DOUBLE	-	-	
lat_y_4326	DOUBLE	-	-	
location	VARCHAR(16777216)	-	-	

Database Table: sorted_91_ferm

Name	Value
Advanced	
Cached database table	false

null	null	null	null	null
id_amat	INTEGER	-	-	
long_x_4326	DOUBLE	-	-	
lat_y_4326	DOUBLE	-	-	
pubicazione	VARCHAR(16777216)	-	-	

Database Table: db_91_final_ferm_db

Name	Value
Advanced	
Cached database table	false

null	null	null	null	null
id_amat	INTEGER	-	-	
long_x_4326	DOUBLE	-	-	
lat_y_4326	DOUBLE	-	-	
ubicazione	VARCHAR(16777216)	-	-	
id_index	INTEGER	-	-	

Database Table: shp_91_ferm

Name	Value
Advanced	
Cached database table	false

null	null	null	null	null
id_amat	INTEGER	-	-	
long_x_432	DOUBLE	-	-	
lat_y_4326	DOUBLE	-	-	
ubicazione	VARCHAR(16777216)	-	-	
id_index	INTEGER	-	-	