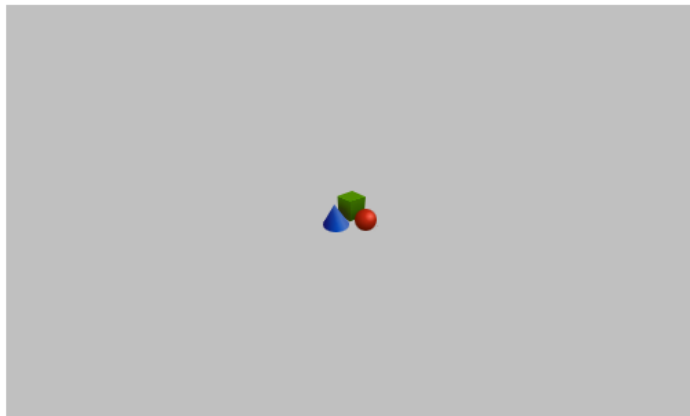
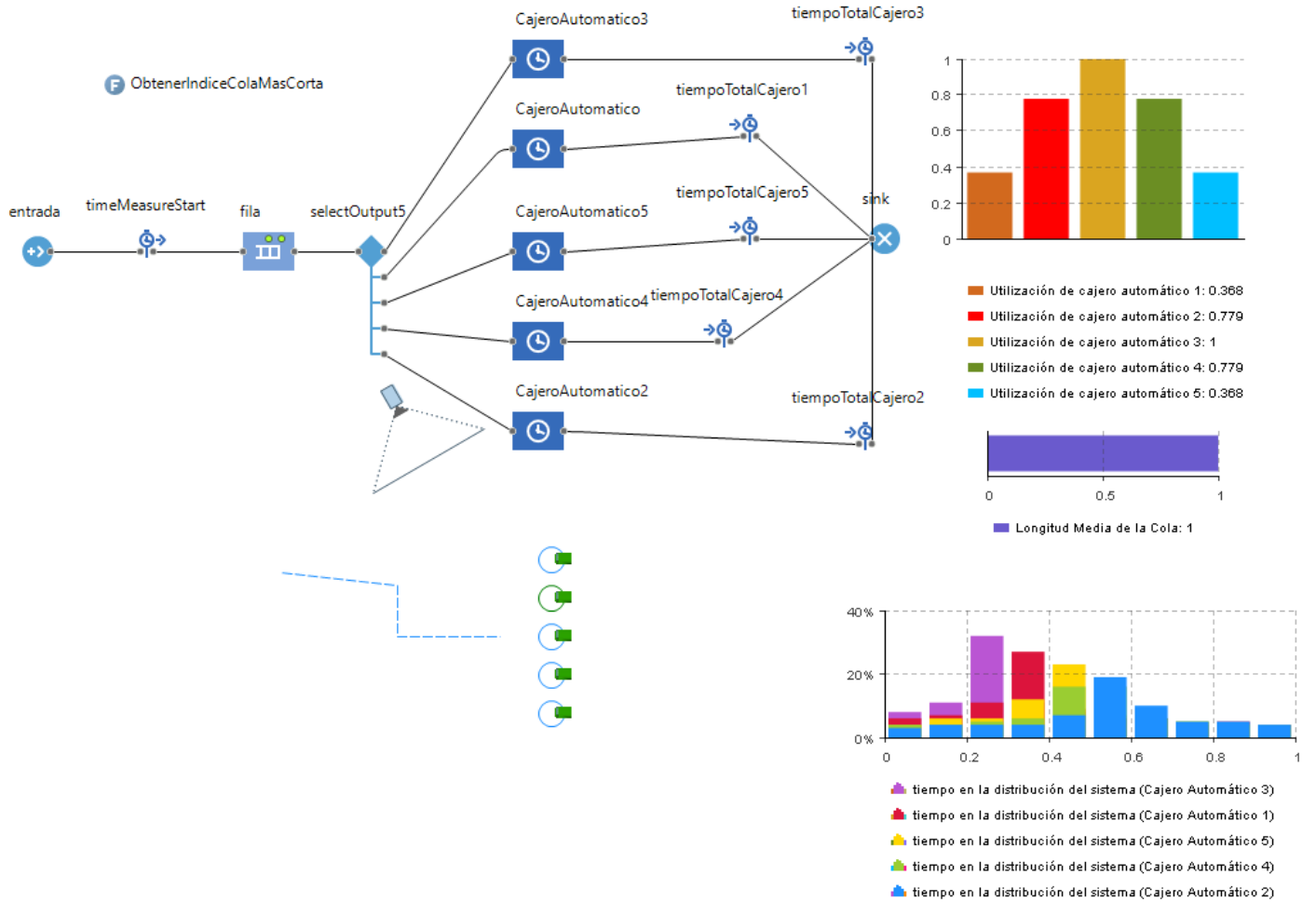


Model: Banco

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	banco
File Name	C:\Users\facu_\OneDrive\Escritorio\Facultad\4to Año 1er cuatri\Integrador-Modelo y simu - Ingenieria de Software 3\Proyecto-Intercatedra\Banco.alp

Agent Type: Main

Name	Value
Agent in flowcharts	
Use in flowcharts as	Agent
Dimensions and movement	
Speed	(1 : 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

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

Function: ObtenerIndiceColaMasCorta

Name	Value
General	
Return type	int
Return type:	Returns value
Show at runtime	true
Show name	true
Function body	
Body	<pre>int[] cajeros = new int[]{CajeroAutomatico3.size(), CajeroAutomatico.size(), CajeroAutomatico5.size(), CajeroAutomatico4.size(), CajeroAutomatico2.size()}; int cajeroVacio = (int) Math.round(uniform(1, 5)); for (int i = 0; i < cajeros.length; i++) { if (cajeros[i] == 0) { cajeroVacio = i + 1; break; } } return cajeroVacio;</pre>
Advanced	
Access type	default
System dynamics units	false

Source: entrada

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
Arrivals defined by	self.RATE
Arrival rate	1.5
Set agent parameters from DB	false
Multiple agents per arrival	false
Limited number of arrivals	false
Location of arrival	self.LOCATION_NOT_SPECIFIED
New agent	new banco.Persona()
Change dimensions	false
Custom time of start	false
Add agents to:	false
Forced pushing	true

Queue: fila

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
Maximum capacity	true
Agent location	path
Queuing	self.QUEUEING_FIFO
Enable exit on timeout	false
Enable preemption	false
Restore agent location on exit	true
Force statistics collection	false

Sink: sink

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

SelectOutput5: selectOutput5

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
Use:	self.TYPE_EXIT_NUMBER
Exit number [1..5]	ObtenerIndiceColaMasCorta()

Delay: CajeroAutomatico3

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
------	-------

Agent Parameters:

Name	Value
Type	self.TIMEOUT
Delay time	triangular(0.0, 5.0, 1.2)
Capacity	1
Maximum capacity	false
Agent location	ATM3
Forced pushing	false
Restore agent location on exit	true
Force statistics collection	false

Delay: CajeroAutomatico

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	triangular(0.0, 5.0, 1.2)
Capacity	1
Maximum capacity	false
Agent location	ATM
Forced pushing	false
Restore agent location on exit	true
Force statistics collection	false

Delay: CajeroAutomatico5

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
Type	self.TIMEOUT
Delay time	triangular(0.0, 5.0, 1.2)
Capacity	1
Maximum capacity	false
Agent location	ATM5
Forced pushing	false
Restore agent location on exit	true
Force statistics collection	false

Delay: CajeroAutomatico4

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	triangular(0.0, 5.0, 1.2)
Capacity	1
Maximum capacity	false
Agent location	ATM4
Forced pushing	false
Restore agent location on exit	true
Force statistics collection	false

Delay: CajeroAutomatico2

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

Name	Value
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	triangular(0.0, 5.0, 1.2)
Capacity	1
Maximum capacity	false
Agent location	ATM2
Forced pushing	false
Restore agent location on exit	true
Force statistics collection	false

TimeMeasureStart: timeMeasureStart

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

TimeMeasureEnd: tiempoTotalCajero3

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

Name	Value
Public	false
Logging	true

Agent Parameters:

Name	Value
TimeMeasureStart blocks	{ timeMeasureStart }
Dataset capacity	100

TimeMeasureEnd: tiempoTotalCajero2

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
TimeMeasureStart blocks	{ timeMeasureStart }
Dataset capacity	100

TimeMeasureEnd: tiempoTotalCajero1

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
TimeMeasureStart blocks	{ timeMeasureStart }
Dataset capacity	100

TimeMeasureEnd: tiempoTotalCajero4

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
TimeMeasureStart blocks	{ timeMeasureStart }
Dataset capacity	100

TimeMeasureEnd: tiempoTotalCajero5

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
TimeMeasureStart blocks	{ timeMeasureStart }
Dataset capacity	100

Bar Chart: chart

Name	Value
General	
Scale type	Auto
Lock	false
Public	true
Data update	

Name	Value
Analysis auto update	true
ANALYSIS_UPDATE_TIME_PROPERTIES	- Recurring Event Properties
Appearance	
Bars relative width	0.8
Labels vertical position	DEFAULT
Labels Text Color	darkGray
Chart Area Grid Color	darkGray
Position and size	
x	660.0
Width	300.0
y	10.0
Height	300.0
Legend	
Show legend	true
Legend size	100.0
Legend text color	black
Chart area	
Chart Area: X Offset	50.0
Chart Area: Width	220.0
Chart Area: Y Offset	30.0
Chart Area: Height	140.0
Chart Area: Background Color	white
Chart area border color	black
Advanced	
Show name	false

Chart Items:

Title	Color	Value
Utilización de cajero automático 1	chocolate	CajeroAutomatico.statsUtilization.mean()
Utilización de cajero automático 2	red	CajeroAutomatico2.statsUtilization.mean()
Utilización de cajero automático 3	goldenRod	CajeroAutomatico3.statsUtilization.mean()
Utilización de cajero automático 4	oliveDrab	CajeroAutomatico4.statsUtilization.mean()
Utilización de cajero automático 5	deepSkyBlue	CajeroAutomatico5.statsUtilization.mean()

Bar Chart: chart1

Name	Value
General	
Scale type	Auto
Lock	false
Public	true
Data update	
Analysis auto update	true
ANALYSIS_UPDATE_TIME_PROPERTIES	- Recurring Event Properties
Appearance	

Name	Value
Bars relative width	0.8
Labels horizontal position	DEFAULT
Labels Text Color	darkGray
Chart Area Grid Color	darkGray
Position and size	
x	680.0
Width	260.0
y	300.0
Height	125.0
Legend	
Show legend	true
Legend size	30.0
Legend text color	black
Chart area	
Chart Area: X Offset	50.0
Chart Area: Width	180.0
Chart Area: Y Offset	30.0
Chart Area: Height	35.0
Chart Area: Background Color	white
Chart area border color	black
Advanced	
Show name	false

Chart Items:

Title	Color	Value
Longitud Media de la Cola	slateBlue	fila.statsSize.mean()

Histogram: chart2

Name	Value
General	
Show mean	false
Show CDF	false
Show PDF	true
Lock	false
Public	true
Data update	
Analysis auto update	false
Appearance	
Bars relative width	0.8
Labels vertical position	DEFAULT
Labels Text Color	darkGray
Chart Area Grid Color	darkGray
Position and size	
x	600.0
Width	400.0
y	460.0
Height	249.0

Name	Value
Legend	
Show legend	true
Legend size	110.0
Legend text color	black
Chart area	
Chart Area: X Offset	50.0
Chart Area: Width	320.0
Chart Area: Y Offset	10.0
Chart Area: Height	99.0
Chart Area: Background Color	white
Chart area border color	black
Advanced	
Show name	false

Histogram Data Items:

Title	Dataset	PDF Color	CDF Color	Mean Color	Width	Low % Color	High % Color
tiempo en la distribución del sistema (Cajero Automático 3)	tiempoTotalCajero3.distribution	mediumOrchid	crimson	slateGray	1	chocolate	darkKhaki
tiempo en la distribución del sistema (Cajero Automático 1)	tiempoTotalCajero1.distribution	crimson	gold	darkMagenta	1	goldenRod	mediumTurquoise
tiempo en la distribución del sistema (Cajero Automático 5)	tiempoTotalCajero5.distribution	gold	yellowGreen	orange	1	oliveDrab	lightSlateBlue
tiempo en la distribución del sistema (Cajero Automático 4)	tiempoTotalCajero4.distribution	yellowGreen	dodgerBlue	darkKhaki	1	deepSkyBlue	deepPink
tiempo en la distribución del sistema (Cajero Automático 2)	tiempoTotalCajero2.distribution	dodgerBlue	violetRed	mediumTurquoise	1	mediumOrchid	darkOrange

3D Object: atm

Name	Value
General	
Scale	1.0
Auto scale	true
File Name	ResourceReference: banco.3d/atm.dae (Resolved: true)
Show at runtime	true
Lock	false
Public	true
Position and size	
x	400.0
y	430.0
z	0.0
Rotation	0.0
Advanced	
Show in	2D and 3D
Show name	false

Name	Value
Internal lights	Off

3D Object: atm1

Name	Value
General	
Scale	1.0
Auto scale	true
File Name	ResourceReference: banco.3d/atm.dae (Resolved: true)
Show at runtime	true
Lock	false
Public	true
Position and size	
x	400.0
y	460.0
z	0.0
Rotation	0.0
Advanced	
Show in	2D and 3D
Show name	false
Internal lights	Off

3D Object: atm2

Name	Value
General	
Scale	1.0
Auto scale	true
File Name	ResourceReference: banco.3d/atm.dae (Resolved: true)
Show at runtime	true
Lock	false
Public	true
Position and size	
x	400.0
y	490.0
z	0.0
Rotation	0.0
Advanced	
Show in	2D and 3D
Show name	false
Internal lights	Off

3D Object: atm3

Name	Value
General	
Scale	1.0
Auto scale	true
File Name	ResourceReference: banco.3d/atm.dae (Resolved: true)

Name	Value
Show at runtime	true
Lock	false
Public	true
Position and size	
x	400.0
y	520.0
z	0.0
Rotation	0.0
Advanced	
Show in	2D and 3D
Show name	false
Internal lights	Off

3D Object: atm4

Name	Value
General	
Scale	1.0
Auto scale	true
File Name	ResourceReference: banco.3d/atm.dae (Resolved: true)
Show at runtime	true
Lock	false
Public	true
Position and size	
x	400.0
y	550.0
z	0.0
Rotation	0.0
Advanced	
Show in	2D and 3D
Show name	false
Internal lights	Off

Camera: camera

Name	Value
General	
Rotation Z	60.0
Rotation X	0.0
Show name	false
Position and size	
x	270.0
y	310.0
z	40.0

3D Window: window3d

Name	Value
General	

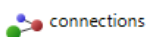
Name	Value
Navigation type	Full
Follow camera	false
Camera	camera - Camera
Lock	false
Position and size	
x	50.0
Width	500.0
y	780.0
Height	300.0
Advanced	
Make Default View Area	true
Show name	false
Far Clipping Distance	2000.0

Link to agents: connections

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

Agent Type: Persona

Name	Value
Agent in flowcharts	
Use in flowcharts as	Agent
Dimensions and movement	
Speed	(1 : 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
y	-150.0
Rotation	0.0

3D Object: person

Name	Value
General	
Scale	1.0
Auto scale	true
File Name	ResourceReference: banco.3d/person.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	
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

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	Thu May 30 00:00:00 GMT 2024
Randomness	
Random Number Generation Type	Fixed seed (reproducible simulation runs)
Seed value	1
Window	
Title	Banco : Simulation
Enable zoom and panning	true
Enable developer panel	true
Show developer panel on start	false
Advanced	
Load root from snapshot	false

Banco

Text: text

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