

Market in NetLogo

*Art galleries, paintings, and collectors*

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## INTRODUCTION

In this final delivery, we’ve decided to model a MAS Market which consists mainly of the **transaction** between **art galleries** and **collectors**, where the specific products that are sold and bought are **paintings**. Communication is done through message passing (which we saw in the last practice).

Although its process has involved the definition of interaction protocols among agents and the design of the interface in NetLogo, the following document explains in detail how the project was coded, and which were the experiments we did to test it.

## CODE ANALYSIS

We’ve declared the following global and agents’ (turtles) variables:

Texto

Descripción generada automáticamente

Like we can see, we’ve declared as global variables which ones that needs to be access to all agents (all the paintings, his authors, his buyers). The attribute *paintings-sold-to-process* is a list for update the market’s interface when a painting be sold.

By the other way, we’ve the turtles’ attributes for galleries, collectors and paintings (the paintings aren’t agents, only is a turtle to see them in the market interface).

In the setup function, we setup the paintings, the galleries and the collectors.

Texto

Descripción generada automáticamente

In the paintings’ setup, we set all paintings attributes and load them in the market’s interface. We set them considering that always have the same two art galleries.

Imagen que contiene Texto

Descripción generada automáticamente

In the following picture, we’ve the galleries’ setup. Here we create two art galleries: the art gallery of Albacete and the art gallery of Madrid. We initialize their attributes and put them in market’s screen.

Interfaz de usuario gráfica, Texto, Aplicación, Teams

Descripción generada automáticamente

In the collectors’ setup, we create N collectors and initialize their attributes. As we can see, the collector’s preferences, which are his money and his preference author, are random.

Texto

Descripción generada automáticamente con confianza media

The ‘go’ function is like the last delivery. First, we swap messages and process them. Then send advertisements and see if a painting was sold to update it (process-paintings-sold).

Texto

Descripción generada automáticamente

In ‘send-ads’,

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Descripción generada automáticamente

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Descripción generada automáticamente

## TESTS AND RESULTS

The influence of the initial value of the

Changing the initial value

## CONCLUSIONS

In conclusion, a better performance