Project Proposal - Tamagotchi

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Elements - T05G05
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Description

A Tamagotchi is an online best friend with lots of needs such as eating, bathing, sleeping, having fun and receiving love. The game consists in meeting those needs by clicking buttons and interacting with the Tamagotchi whenever it requests something. When leaving the game, the state of the Tamagotchi's feelings will be stored in a text file for later.

After developing the game, a main menu will be created with a basic interface and three options: "Play Game", "Rules" and "Exit", selectable by the mouse.

Devices

1. Timer
    - Role: Measure time intervals for each activity to be needed by the Tamagotchi.
    - Functionality: Interrupt
2. Keyboard
    - Role: Selection of options in the game (activity for the Tamagotchi).
    - Functionality: Interrupt
3. Video Card in Graphics Mode
    - Role: Show a progress animation for the emotional state of the Tamagotchi (when it needs something it becomes angry) and animations for each activity performed.
    - Functionality: Pixel map
4. Mouse
    - Role: Selection of options in the main menu and interactions with the Tamagotchi (petting its head, for example).
    - Functionality: Interrupts and interpretation of the packets for mouse presses and movements.

Weekly Plan

Since we only have 4 weeks to work on this project, we believe that our game has the correct amount of difficulty while still satisfying the requirements of the Curricular Unit.

I. Week 1

- Video Card: Creating XPM image for the Tamagotchi, the main menu and a button.
- Video Card: Loading XPM images into pixmaps for display.
- Timer: Starting one timer to count time for the Tamagotchi to get hungry or angry.
- Keyboard: Starting to implement keyboard interactions with the button (an arrow will show its selection and the user can trigger the button by pressing ENTER).

II. Week 2

- Mouse: Allowing the user to select the option “Play” or “Exit” in the main menu by pressing the mouse on the button.
- Timer: Getting timer to recognize when a certain action was performed that triggered its restart (when the Tamagotchi just ate, the timer for ‘eating’ restarts).
- Video Card: Starting animations for Tamagotchi’s activities.

III. Week 3

- Video Card: Creating and loading more XPM images for other activities.
- Keyboard: Starting to move the arrow left and right and allowing to select different buttons.
- Timer: Creating new timers for different needs.
- Mouse: Creating interaction between player and Tamagotchi (petting its head or helping it bathe).

IV. Week 4

- Video Card: Improving graphic elements and animations already created.
- Final refinements on code.