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## Technologies and tools used

We basically used 5 main platforms:

1. CPCtelera: Tool useful to make amstrad games
2. Visual Studio Code: as our main text editor
3. WinApe/RetroVirtual Machine: emulators included by cpctelera to test the game
4. Github: Platform to manage the control version of our project
5. Photoshop/Tiled: Platforms used to make all the art.

## Development Process

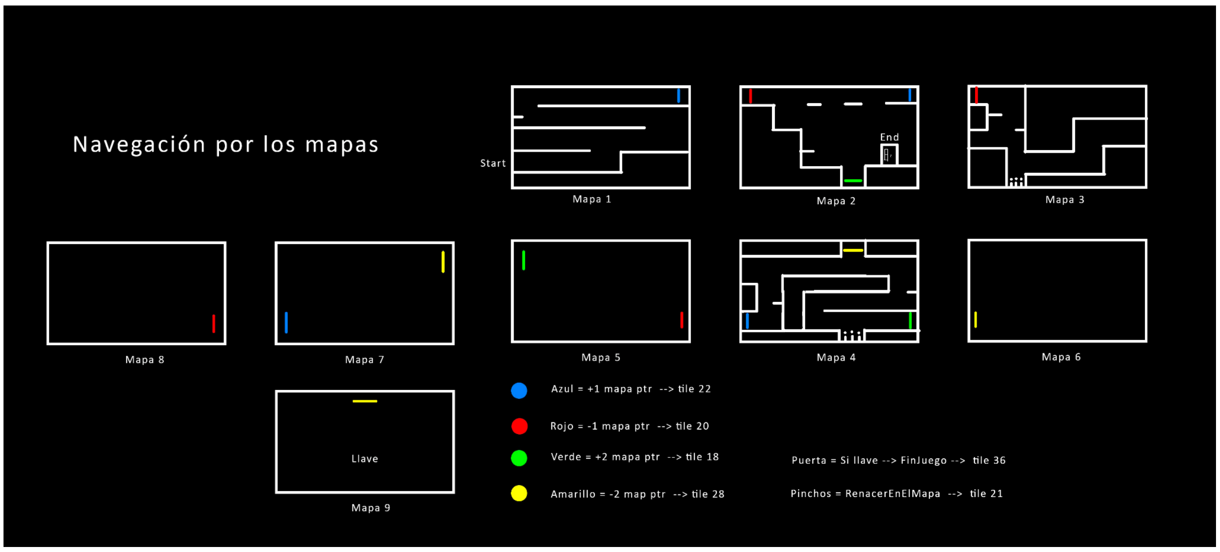
During the early stages we were focusing on the main mechanic of the game, in this case it was going to be Jumping. We were developing the mechanic while we were learning the architecture of z80 assembly, so when we were one week into the project we already had a simple box with the jump mechanic implemented.

Then we started to theorize the collisions with the platforms. In the beginning we thought that if we checked the floor by color (being white/red the colors chosen to be floor) it would be easy to detect the collisions.

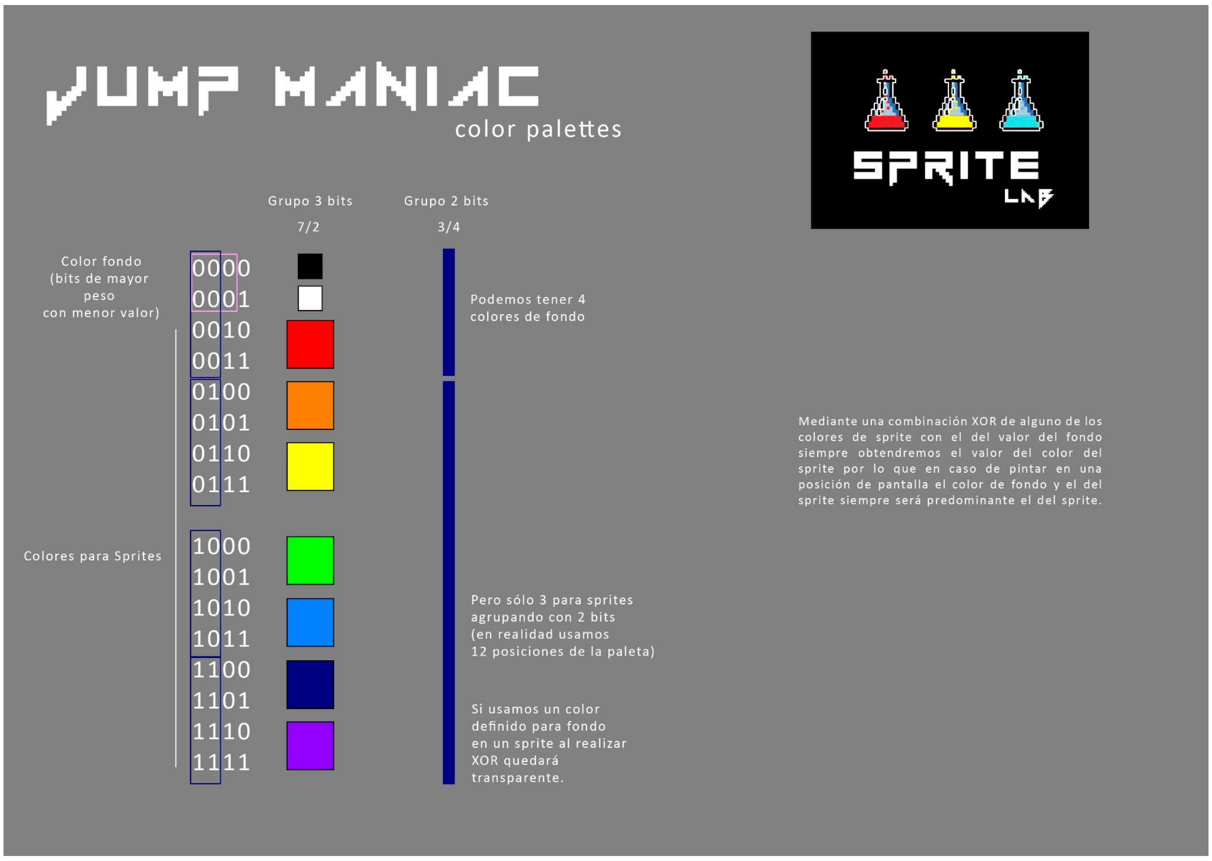
One week passed, and we were confronted with a big limitation in the use of colors, so we decided to shift our approach to tile recognition. That's the moment when we began to make big steps into the development, being able to add different  tilemaps to check if the movement had a bug of some sort, and limit-testing the jump of our player.

In the first stages of development we had the idea of adding a dash, which would be easy to implement once we had the jump mechanic, but after all of this limit-testing we decided that it wasn't necessary due to the quick and smooth movement that we had developed.

Once all the collisions were as we expected them to be, we began adding content in the form of maps, and traps that were placed in strategic places to make the game challenging.


Navegación por los mapas
Start
Mapa 1
End
Mapa 2
Mapa 3
Mapa 8
Mapa 7
Mapa 5
Mapa 4
Mapa 6
Llave
Mapa 9
● Azul = +1 mapa ptr --> tile 22
● Rojo = -1 mapa ptr --> tile 20
● Verde = +2 mapa ptr --> tile 18
● Amarillo = -2 map ptr --> tile 28
Puerta = Si llave --> FinJuego --> tile 36
Pinchos = RenacerEnElMapa --> tile 21

First attempt on creating map navigation



Podemos tener 4 colores de fondo

Pero sólo 3 para sprites agrupando con 2 bits (en realidad usamos 12 posiciones de la paleta)

Si usamos un color definido para fondo en un sprite al realizar XOR quedará transparente.

Mediante una combinación XOR de alguno de los colores de sprite con el del valor del fondo siempre obtendremos el valor del color del sprite por lo que en caso de pintar en una posición de pantalla el color de fondo y el del sprite siempre será predominante el del sprite.

XOR render palette

Finally, we added enemies into some maps to add some extra challenge for advanced gamers, and we spent the last couple of days making sure that the game experience was as neat as you would expect.

## Afterthoughts and conclusions

This was one of the most challenging efforts we had to make in our university degree. We would have loved to add more IA behaviour, or even a better HUD or more levels apart from the house, but we had a short period of time to develop this game so we did the best we could. We also could have added more mechanics, for example: killing enemies, dashing through walls, being able to slide through the walls…

Taking a look back to the past 8 weeks, it's been a challenging moment but we have learned a lot, and if we start the game now, with the knowledge that we have, we would make all the things mentioned above and better.

So maybe it's not a goodbye, it's a see you later!