FIRST VIDEO GAMES

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Game development includes many different areas of programming like code writing, sound design, sprites artist, game design, game engine and much more. Nowadays we have a large variety of tools for making games such as game engines like Game maker, Unity, Unreal engine and others. They have large libraries of pre-made functions that allow you to code fast and simply and even an individual after some trainings and study can make his own game. But what about the past of game development? About 40 years ago we didn't have such handy tools and the internet was not so accessible, so let's discuss this.

It is likely to say that 0X0 is one of the first digital graphical games that was running on a computer. It was developed by Alexander S. Douglas in 1952 at the University of Cambridge [1]. It was simple to operate, because it simulated a game of noughts and crosses. The game was launched on EDSAC computer and rounds alternated between a human player and his computer opponent. The results were displayed on the specific device called cathode ray tube. The program was simple, but it performed its tasks perfectly and met all the requirements of the original game.

Three-dimensional displays became available on computers in early 1960s, but only massive and powerful machines could deal with those screens. However, the things changed after 1980s [2].

Battlezone, a first-person tank game, was made possible by a vector display unit [2]. Even with more modern technologies, the game was not that

simple inside and required three microprocessors to run: one to operate the game play in the whole, the second custom processor for the display and graphics and the third one for the mathematics.

Like in any vector game, all objects in Battlezone is a simple structure of nodes and lines connecting them, there is no entire filled figures but, anyway, it looks very interesting even nowadays. This kind of graphics is called a raster image. Even so, this simple graphics allows to control the occupancy of objects and, in result, the processors load has been reduced. But there are still some bugs, for example, the game has problems with hidden lines: if any object is getting closer to the player camera, some nodes can move out of the screen and this object totally disappears even if some nodes still in vision of a player and must be connected by lines.

As you might have noticed, game development in the early days was not so simple, the games could only be very simple in technical terms due to the resource constraints, they also required a large amount of knowledge including programming and understanding of complex electronic devices. And if you were involved in a conceptually complex project, then you had to deal with a lot of errors and bugs. Nowadays, there has been a strong technological jump and no one even thinks about these problems, but do not forget about the hard work of many people to achieve this.

References

1. OXO game – [Electronic resource]. Mode of access: https://en.wikipedia.org/wiki/OXO_(video_game). Date of access: 29.03.2023

2. Battlezone game – [Electronic resource]. Mode of access: https://spectrum.ieee.org/battlezone. Date of access: 30.03.2023