

PENGUIN

CROSS

GAME MANUAL

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INTRODUCTION



Penguin Cross is a video game for Amstrad CPC 464 programmed in assembly by 3 Multimedia Engineering students at the University of Alicante.

In our game we will control a penguin who must reach one of the 4 igloos located at the other side of the map. In order to do so you must overcome different obstacles and enemies. If the character reaches an igloo he will return to the starting point and must go to the others. Once we have reached the 4 igloos we will go to the next level.

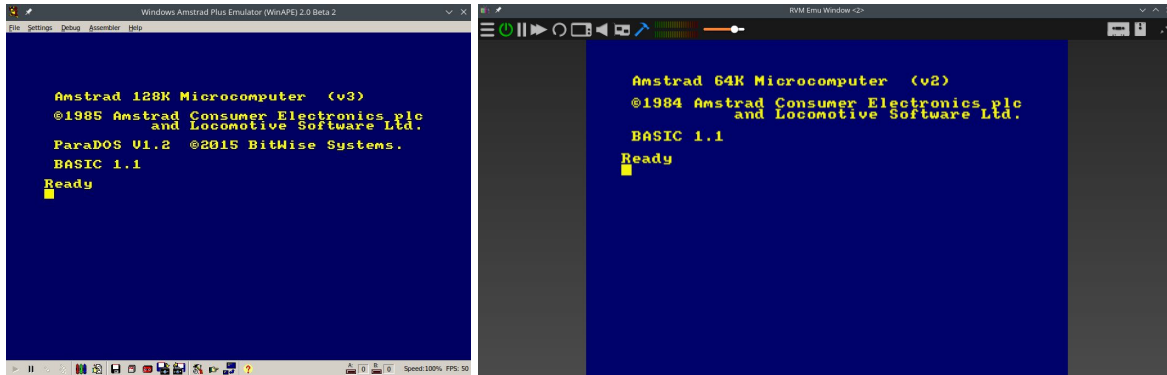
Our video game belongs to the arcade genre.



It is recommended to execute the game through the CDT file because we have implemented a loading screen that in case of executing through the DSK file we would not be able to see.

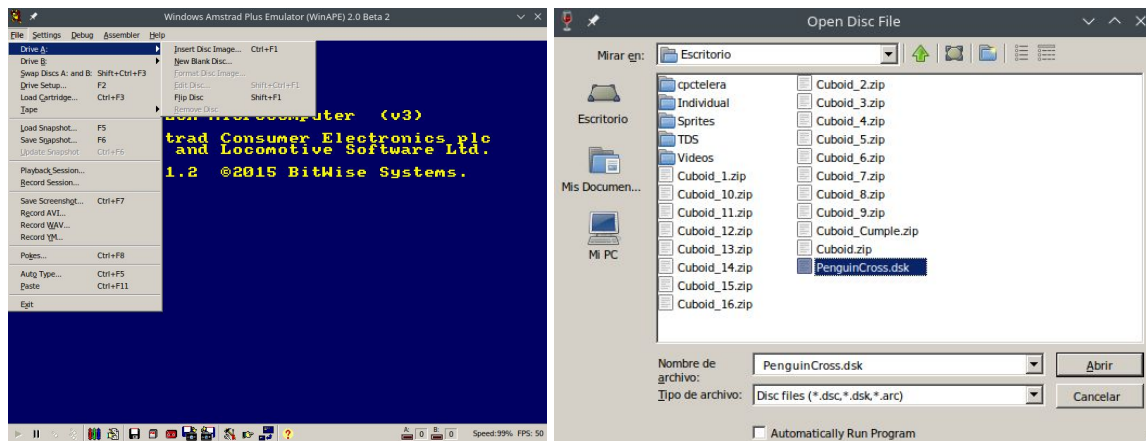
HOW TO PLAY PENGUIN CROSS?

There are different ways to run Penguin Cross using WinAPE and Retro Virtual Machine.

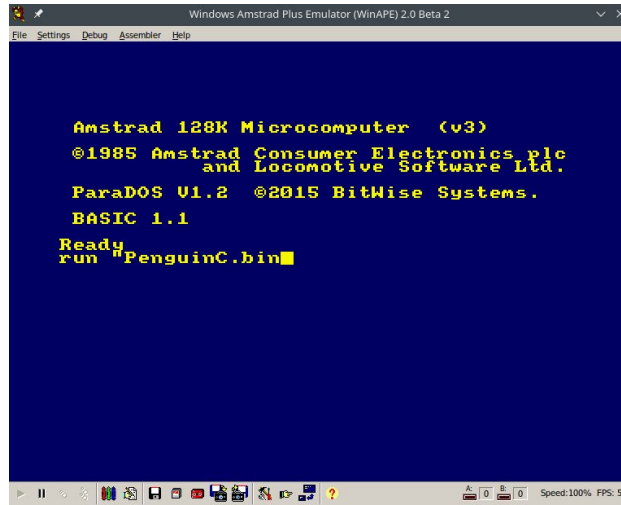


- Loading DSK file:

Using WinAPE we must select the option:
File > Drive A > Insert Disk Image



Later, we must choose the file **PenguinCross.dsk** and write *run "PenguinC.bin"*



We can also run the game by terminal executing the command `$ cpct_winape PenguinCross.dsk` in the folder where DSK file is located and it automatically write `run"penguinc.bin` and load the game.

In case of using RVM, we must write in the terminal in the folder where the DSK file is located:

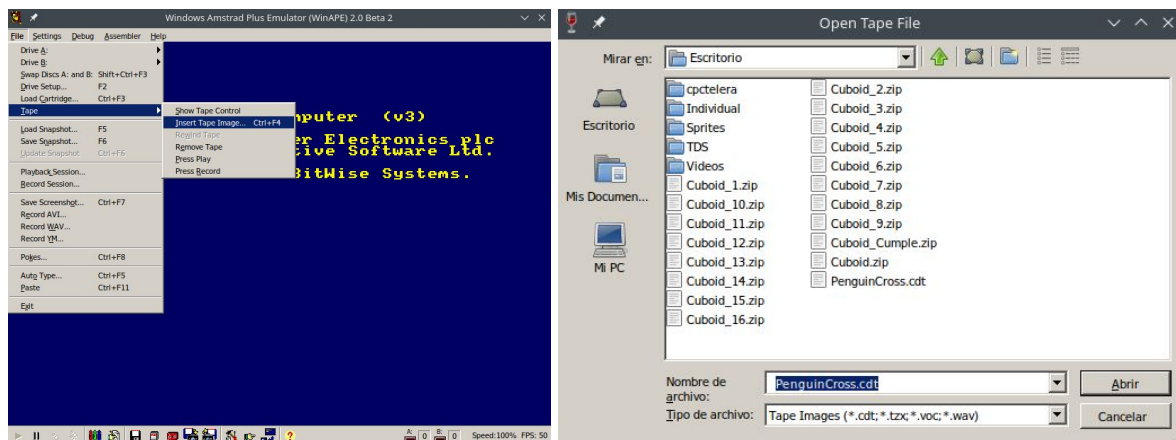
`$ cpct_rvm PenguinCross.dsk`

and it will type automatically `run"PenguinC"` and load the game.

- Loading CDT file:

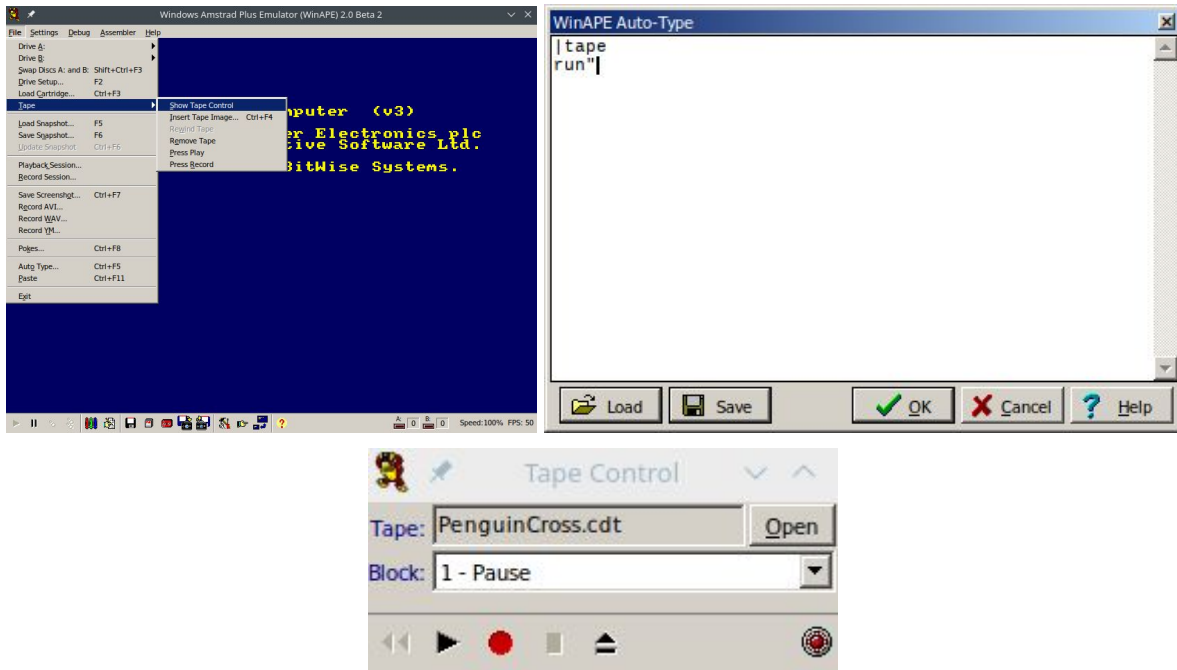
Using WinAPE we must select the option:

File > Tape > Insert Tape Image and choose the file **PenguinCross.cdt**

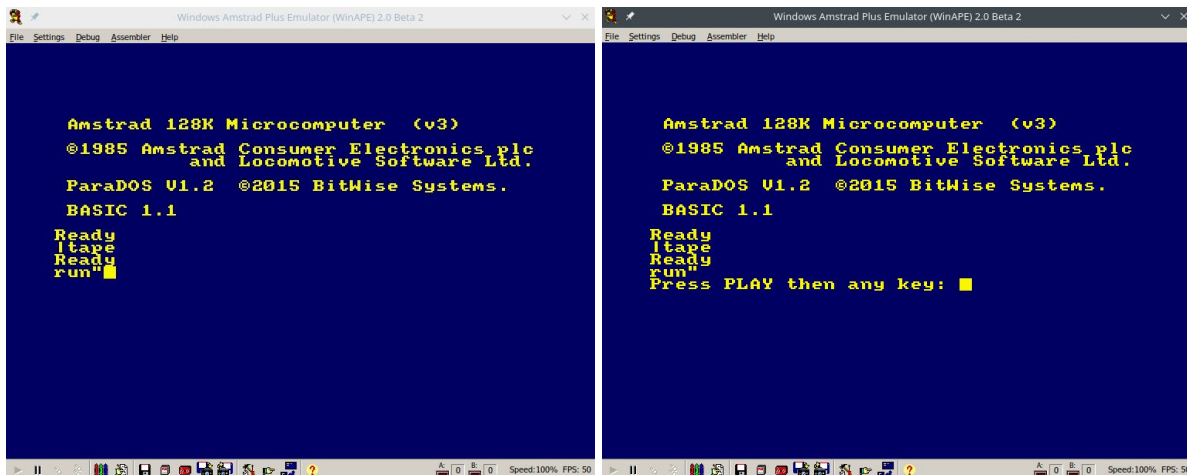


Then, we go to the option **File > Tape > Show Tape Control**. With this window opened we go to the option **File > Auto-Type** or press **Control + F5** to open the WinApe Auto-Type window. Inside the text box we will write:

`/tape
run"`



Press OK and then the Play button at the bottom left of the Tape Control. Now we must press enter within the WinAPE window, then we will be asked to press any key and the game will start to load.



In case of using RVM, we must write in the terminal in the folder where the CDT file is located:

```
$ cpct_rvm PenguinCross.cdt
```

and it will automatically load the game.

- Compiling the source code

In order to compile we must install [CPCTelera](#) and follow the steps indicated in the following video:

[CPCTelera 1.5 development branch installation](#) 

For compiling our game we have used the version:

commit 192995f4c8619c6bfde3e9b566e504555a4136be

Once we have CPCTelera installed, we would execute the command **cpct_winape** or **cpct_rvm** in the terminal to install them in case we don't have them previously installed. We must go to the PenguinCross/Source folder PenguinCross/Source and execute the **make** command that will generate the **.dsk**, **.cdt** y **.sna** files. Once these files are obtained we can execute the commands: **cpct_winape -as**, **cpct_rvm -as** (for SNA file), **cpct_rvm -ac** (for CDT file), **cpct_winape -a** and **cpct_rvm -a** (for DSK file).

On the other hand, as we already have the files, we can do the other 2 ways executing the command **cpct_winape** or **cpct_rvm** and following the indicated steps.

OBJECTIVES AND MECHANICS

MAIN CHARACTER

Character controlled by the player. We can move on both axes, X and Y. Initially, it has 6 lives but it can lose one if it collides with an enemy or drowns in the sea. Your objective is to go to the igloos, although along the way you can pick up items that facilitate the adventure. If we run out of lives, we will lose and we will have to start over from the beginning.



IGLOO



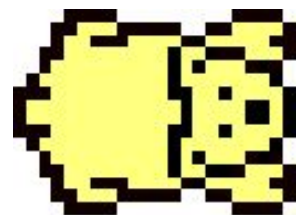
The igloo is a static element that will act as a goal. When the penguin collides with the igloo it will change its sprite and will be occupied by a bigger and stronger penguin that will not let us re-enter at the same igloo and in case we collide with it, we will lose a life and we will return to the point of start. If we occupy the 4 igloos we will pass to the next level.



ENEMIES

BEAR

The bear is in the first 5 rows. Its AI will only allow it to move from left to right or from right to left depending on the side of the screen where it is created. In the first levels their speed will not be very high but as we advance they will be faster and their sprite will change.



BLUE BEAR

First alternative version of our bear. The blue bear will appear from level 2 and will go twice as fast as our original bear, which will make it more dangerous for our penguin. His sprite is based on the ancient paintings that in the past some tribes applied to animals such as elephants.

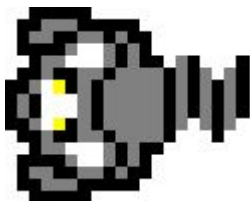


RED BEAR

Second alternative version of our bear. The red bear will appear from level 5 and will go at four times the speed of our original bear. We must be cautious with him since he is the fastest enemy in the game.



RACCOON



The raccoon is much more intelligent than the bear, although we can only find him in row 6. The raccoon, unlike the bears, when he reaches the left or right of the screen will turn around and go to the other side. His AI will allow him to see us and when we are in his line of view his eyes will become red and he will go much faster towards us. So in order to avoid him, it is advisable to go through the side of his back.

PLATFORMS

ICE BLOCK

Between row 6 and the igloos we will find blocks of ice that will serve as a platform and allow us to cross the water to the islets where we find the igloos. From level 2, when we get on them our weight will cause it to sink little by little. If we spend too much time on the top of the block it will sink and we will drown.



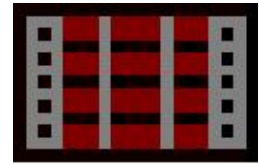
SUNKEN ICE BLOCK



The ice blocks will sink by 3 steps. The time between the second and the third sprite will be much faster than that between the first and the second, so it is recommended that once we see that the block has started to sink, quickly we change to another block or go to land. If we spend too much time on the last sprite we will die since it will definitely sink.

WOOD TABLES

The wooden boards will appear from level 2 and have an identical behavior to the ice blocks but they will be much faster and also smaller, which will increase the difficulty for the player.



SUNKEN WOOD TABLES



The sunken boards have the same behavior as the submerged ice blocks but these being faster may give us the possibility of being able to go to another board or block more easily.

ITEMS

POTION



The potion is the first item the character will find. By taking it the player will obtain an extra life. In this item we find our reference to the *Prince Of Persia* video game. More detailed information on this reference in the section ["Wink: Prince of Persia"](#).

CLOCK



The clock is the second item that we will find and it will allow us to stop time for around 6 seconds. If we stop time in an instant where the ice blocks are aligned and we can avoid the bears, it will be much easier for us to reach the igloo.

TELETRANSPORTATION PORTAL



The portal will be the third item that we will find and will allow us to teleport from one to another. In the levels that we find portals there will always be one in the part of the enemies and another in the part of the platforms. The player will be able to give it a single use in each level. We can use the portal strategically to overcome the number of lines between one and the other, although we must be careful because if the portal at the top does not have a platform underneath we can die by drowning.

CONTROLS

Our game allows different ways to move through the menus and in the player's control. We will explain them in detail below.

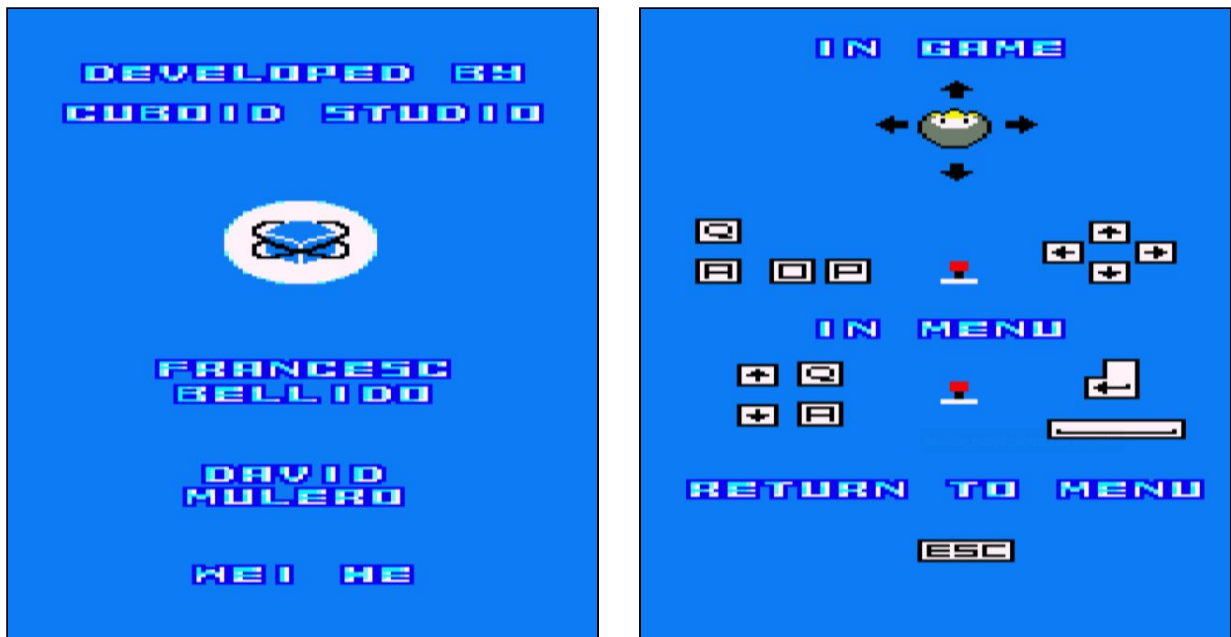
Section "*Menu*"



In order to move through the menu to the option higher than the one marked, we can press the **Q** key, **↑** or move the **joystick** forward. To go to the lower option we can press the **A** key, **↓** or move the **joystick** backwards.

To press the option we can use the *space*, *enter* key or the *joystick* button. In the case of Play, Controls or Credits options we will go to another section but, instead, in the Sound option we will change the mode between **Sound: All** (all sounds activated), **Sound: SFX** (we desactive only the background music) and **Sound: Off** (all sounds deactivated) keeping us in the menu.

Section “*Controls and Credits*”



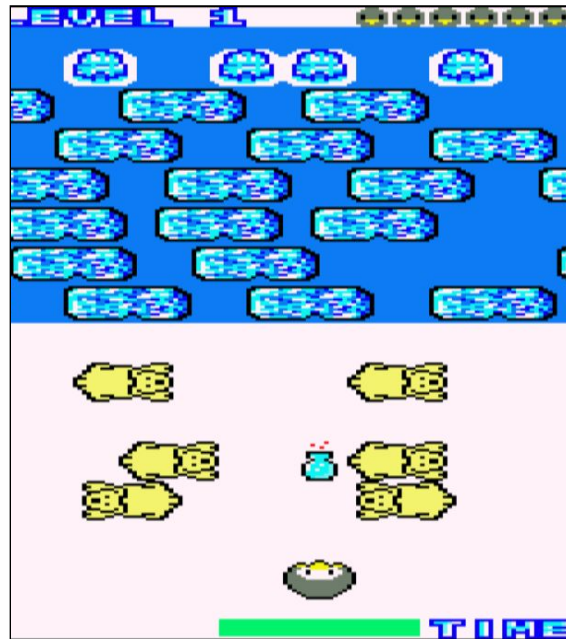
To exit these options we must press the escape key.

Section “**Game Over**”



In this section we can automatically end the animation by pressing the escape, space or enter keys.

Section "Game"



For the movement of the character we can use the following keys:

- Upward movement: **Q**, ↑ or move the **joystick** forward.
- Right movement: **P**, → or move the **joystick** to the right.
- Downward movement: **A**, ↓ or move the **joystick** backward.
- Movement to the left: **O**, ← or move the **joystick** to the left.

In addition to the movement of the character, we have the option to exit the level and return to the menu. To do this, we can press the escape key and go to the Game Over animation and then to the menu.

WINK: PRINCE OF PERSIA

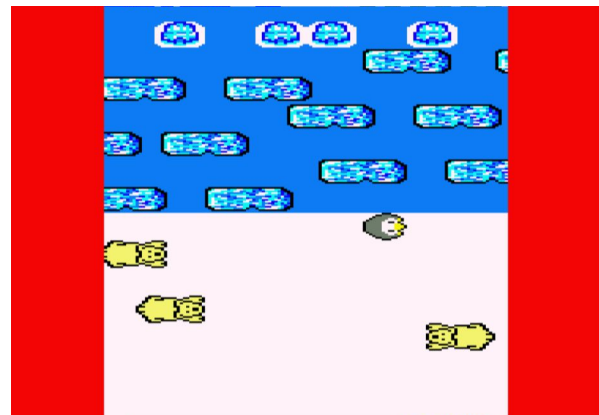
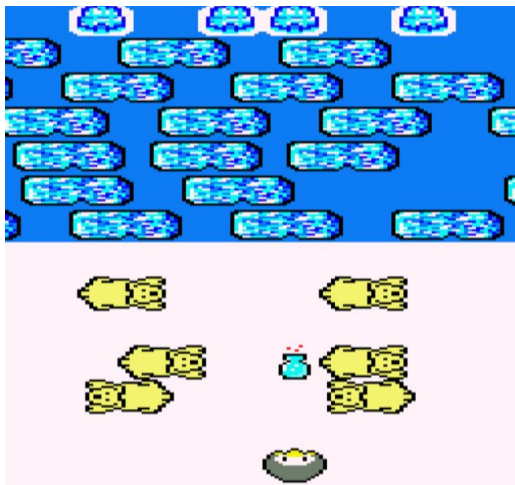


The potion is the first item the character will find. By taking it the player will obtain an extra life. In this item we find our reference to the *Prince Of Persia*.

The sprite we use is similar to the potion in the game, the extra life icon is also similar to the one used for lives (▶) and we incorporated the red blinking by the color of the edge of the screen.



Screenshots of the game *Prince of Persia / Broderbund (1990)*



Screenshots of Penguin Cross

CREDITS

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We are **Cuboid Studio** and you can contact us through Twitter [@CuboidStudio](https://twitter.com/CuboidStudio) 

To carry out version control of our source code we have made use of **Git**.

The sprites, music and source code are self-composed. We have applied a **Creative Commons: Attribution-NonCommercial 4.0 International license** to our image and sound files for free use.

Our program is published under a GNU Versión 3 license. We use the **CPCtelera** library, published under the GNU GPL with Copyright (C) 2018 ronaldo / Fremos / Cheesetea / ByteRealms ([@FranGallegoBR](https://twitter.com/FranGallegoBR)). This library has been obtained from GitHub: [CPCTelera](https://github.com/CPCTelera)