How to make a piano in AMOS BASIC (when you don't know AMOS BASIC)

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ReAnimate 2024

Summary

1. The idea

2. Overview of AMOS BASIC

- Keyboard Shortcuts
- Commands we will use

3. Hands-on

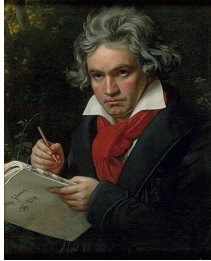- Challenge 1
- Challenge 2

4. Play some (excerpts of) songs

The Idea - Timeline of Important Events

1987

Amiga 500
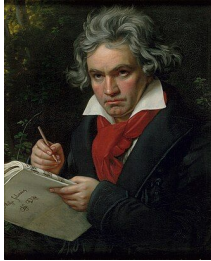was released

The Idea - Timeline of Important Events

1827

Death of Ludwig
van Beethoven

1987

Amiga 500
was released

The Idea - Timeline of Important Events

1827

Death of Ludwig
van Beethoven

1867

Beethoven's
Für Elise is released
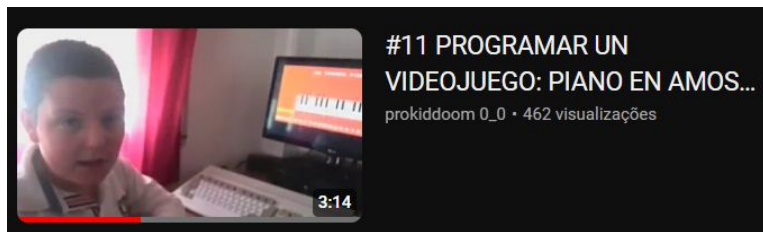to the public

1987

Amiga 500
was released

The Idea - Overview

Platform-Game-Engine by alpyre

- Developing/changing an existing game (a bit harder than we anticipated)

- What are the basic building blocks of a video game?
  - Graphics
  - Sound
  - Input

The Idea - Why a Piano?

#11 PROGRAMAR UN VIDEOJUEGO: PIANO EN AMOS...
prokiddoom 0_0 · 462 visualizações
3:14

1. Why not?

2. Nostalgic

3. Found a partial implementation on YT

4. Not exactly a game, but a good opportunity to use all AMIGA multimedia features together

AMOS BASIC - Overview

1. There are no functions (only subroutines)

2. There is no event management (you must use busy waiting, no keyup)

3. Error messages suck (e.g., Bar command)

4. (I did not manage to) ~~cannot~~ play several sounds concurrently

5. Drawing in a loop causes some flickering (I should have used double buffering!)

AMOS BASIC - Keyboard Shortcuts

- **Amiga** + **SHIFT** + **L:** Load a project

- **CTRL** + **SHIFT** + **UP:** scroll to top of the document

- **CTRL** + **SHIFT** + **DOWN:** scroll to bottom of the document

- **F1:** run the code

- **CTRL** + **B:** enter block mode

- **CTRL** + **S:** store (copy)

- **CTRL** + **C:** cut, stop execution

- **CTRL** + **P:** paste

AMOS BASIC - Commands

- **Inputs**: Key State

- **Graphics**: Ink, Text, Bar

- **Audio**: Play, Wave

AMOS BASIC Piano - Hands-on

- **Challenge 1:** detect inputs

- **Challenge 2:** draw the keys (whites and blacks)

Songs You Can Try

Song	Keys
Twinkle, Twinkle Little Star	Q Q I I P P I
Beethoven - Für Elise	O P O P O P T I Y E
Daft Punk - Da Funk	I Y I P E Q E Y Q

Note To Key Mapping (For People Who Can Actually Read Music, Unlike The Presenter)

C	C#	D	D#	E	F	F#	G	G#	A	A#
Q	W	E	R	T	Y	U	I	O	P	[

Note: there is no B :(

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