

**We are privileged**

**to live**

**in a remarkable**

**time**

**Computers are**

**fast**

**and relatively**

**inexpensive**

**We are more**

**productive**

**than ever**

**before**

**However**



**We have lost**

**something**

**along the way**

**When was the  
last time you  
built something  
from scratch?**

**You** should

**learn to program**



**this year**



**highest-selling single computer model of all time**

**1 Mhz CPU**

**64 KB RAM**

**8 bit registers**

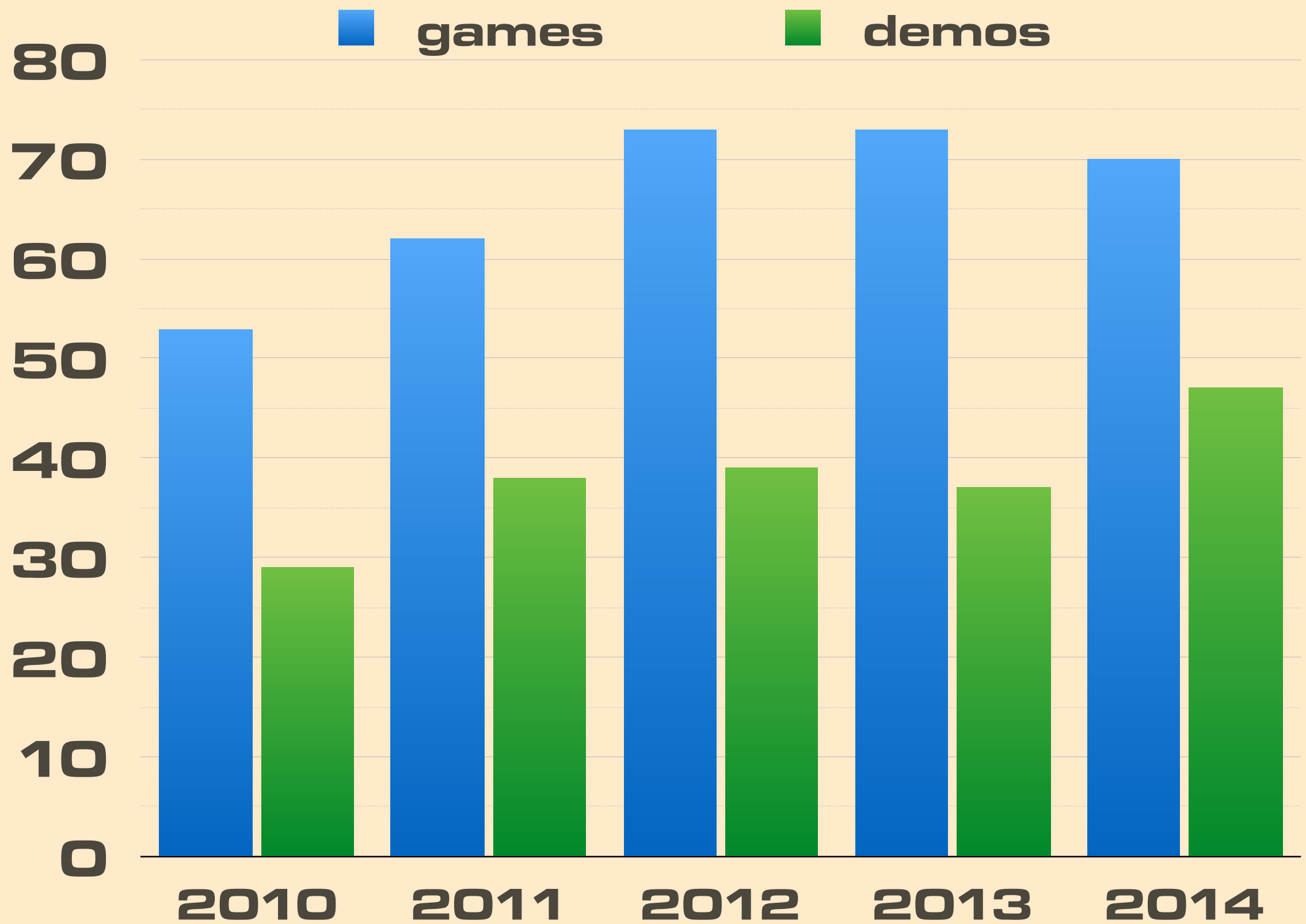
**Not produced  
for more than  
20 years**

**70 games**

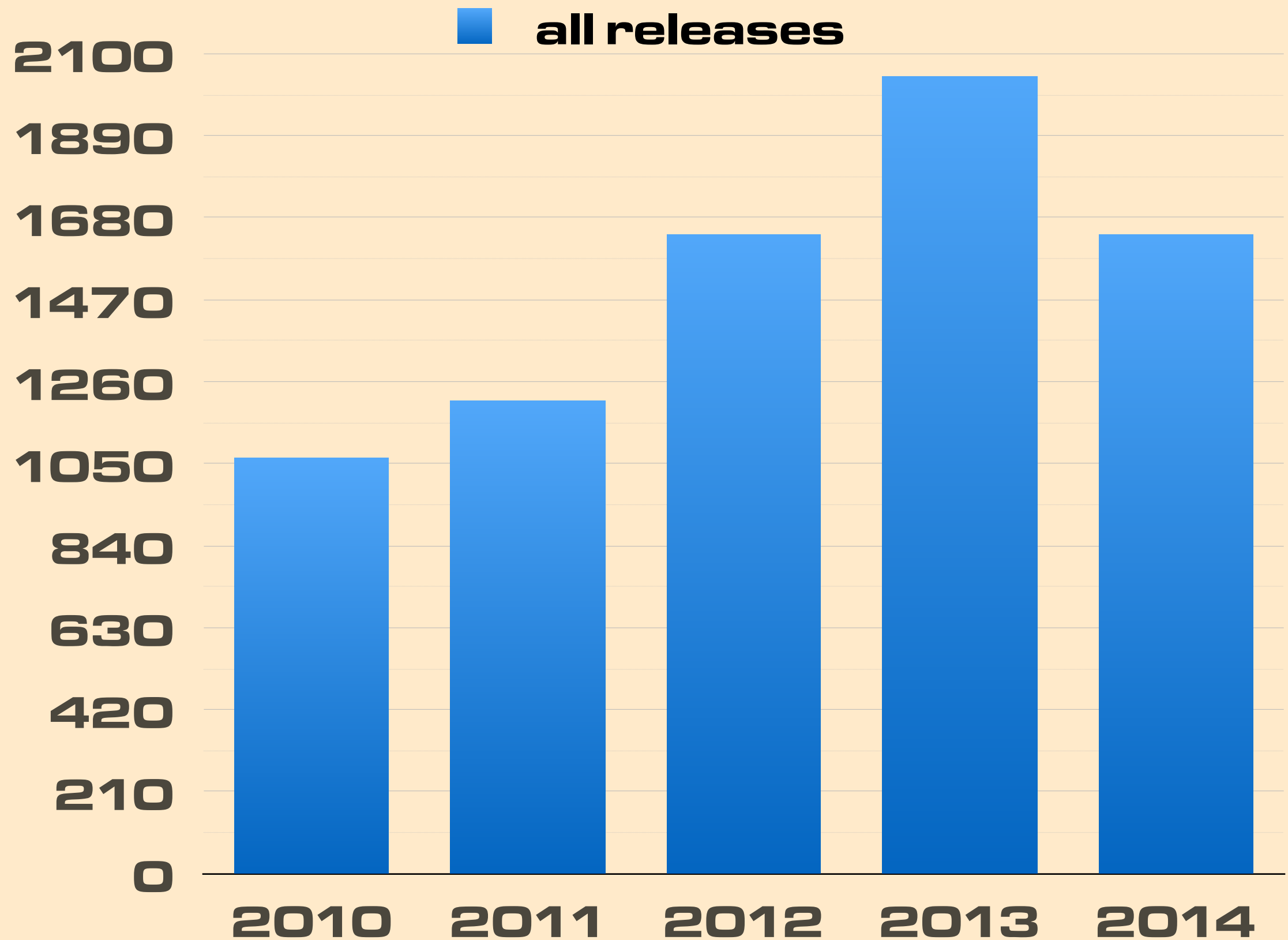
**47 demos**

**released in total**

**last year**







**There are many**

**successful**

**crowdfunding**

**campaigns**

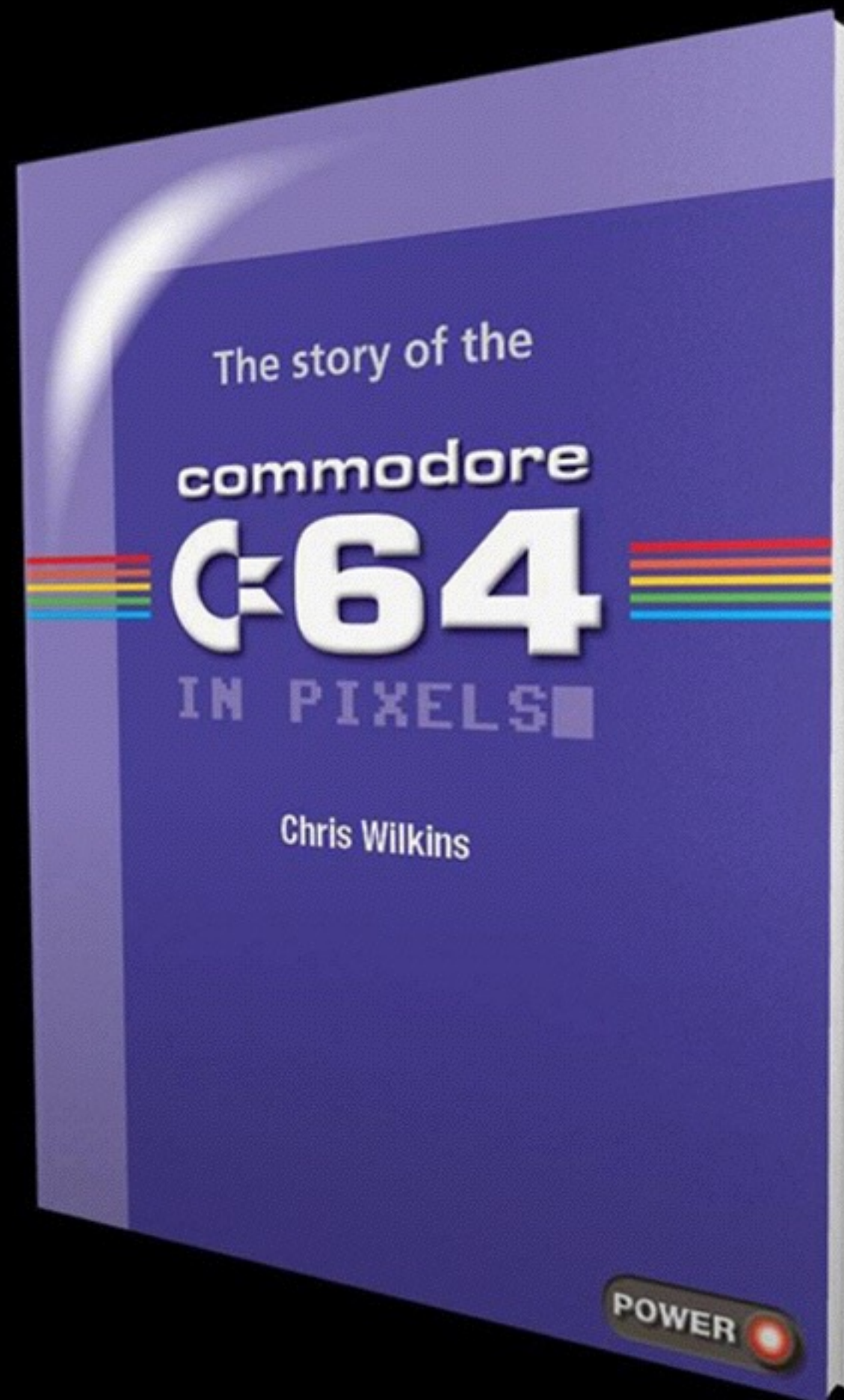
# GENERATION 64

The story of how the Commodore 64  
inspired a generation of Swedish gamers.



Generation 64 translation - <http://kck.st/117Sb4i>





**The Story of C64 in Pixels - <http://kck.st/1I7Sb4i>**



**C64 Compendium by MrSid - <http://kck.st/1fiw8ay>**





New C64C Housings made with Original Molds - <http://kck.st/1M5mPtg>



**Last Ninja 2 Music Remake (and more) by Matt Gray - <http://kck.st/13uFyOb>**



Classic  
C64 tunes.

Live on  
Stage!

# bit brighton 2015



Back in Time Brighton '15 - Live stage show of C64 Music- <http://kck.st/1vwq8pi>

Kickstarter  
bitbrighton.com



**People**

**love**

**Commodore 64**

I

love

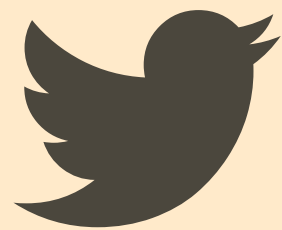
**Commodore 64**

# Michał Taszycki



Founder of  
**64bites.com**

former Web & AAA  
Game Developer



**@mehowte**

**Programming**

**Commodore 64**

**Is among the best**

**hobbies I've had**

```
***** COMMODORE 64 BASIC V2 *****  
64K RAM SYSTEM 38911 BASIC BYTES FREE  
READY.  
10 PRINT "HELLO"  
20 GOTO 10
```

**This is how I started**

```
14  .pc = $0810
15  main:
16      sei
17      ldx #<cycle_colors
18      ldy #>cycle_colors
19      stx INTERRUPT_VECTOR
20      sty INTERRUPT_VECTOR + 1
21      cli
22  loop:
23      jsr cycle_characters
24
25      jsr delay
26
27      rts
```

**This is why I stayed**

# GFX Modes

# Normal Char Mode

**320x200 pixels**

**40x25 characters**

**Each has 1 foreground color**

**1 common background color**

**256 characters to choose from**





Ultima 2 - The Revenge of the Enchantress by Sierra and Lord British

# Multicolor Char Mode

**160x200 pixels**

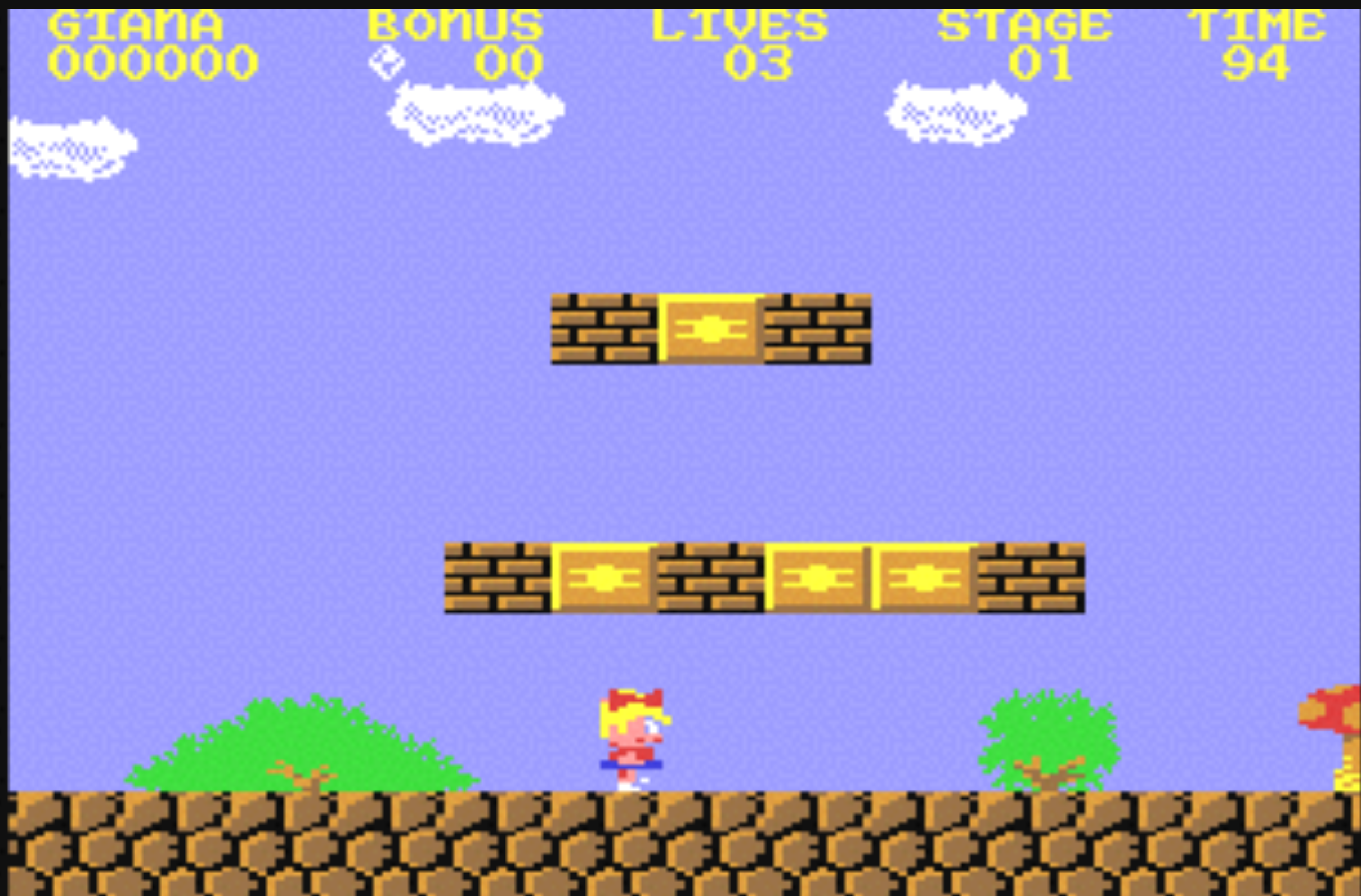
**40x25 characters**

**Each has 3 foreground colors**

**1 common background color**

**256 characters to choose from**





**The Great Giana Sisters by Time Warp Productions**

# Extended Bg Char Mode

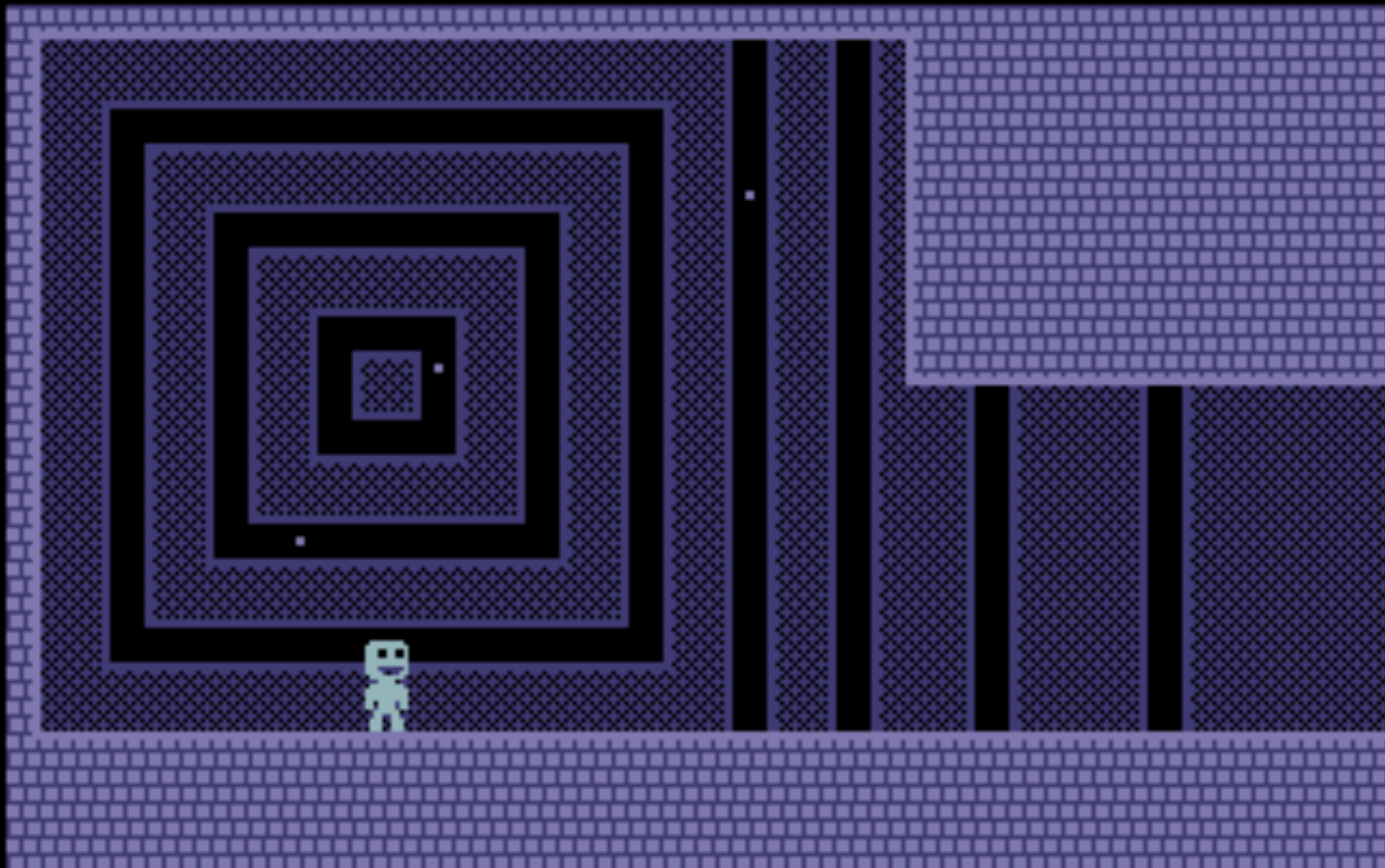
**320x200 pixels**

**40x25 characters**

**Each has 1 foreground color**

**3 common background colors**

**64 characters to choose from**



Welcome Aboard

VVVVVV C64 demake by Paulko64

# Hires (bitmap) Mode

**320x200 pixels**

**40x25 characters**

**Each has 1 foreground color**

**1 common background color**

**1000 characters to choose from**





**Middle Earth by Wayne Schmidt**





**The Mill by Veto / Arsenic / Oxyron**



# **Multicolor bitmap Mode**

**160x200 pixels**

**40x25 characters**

**Each has 3 foreground colors**

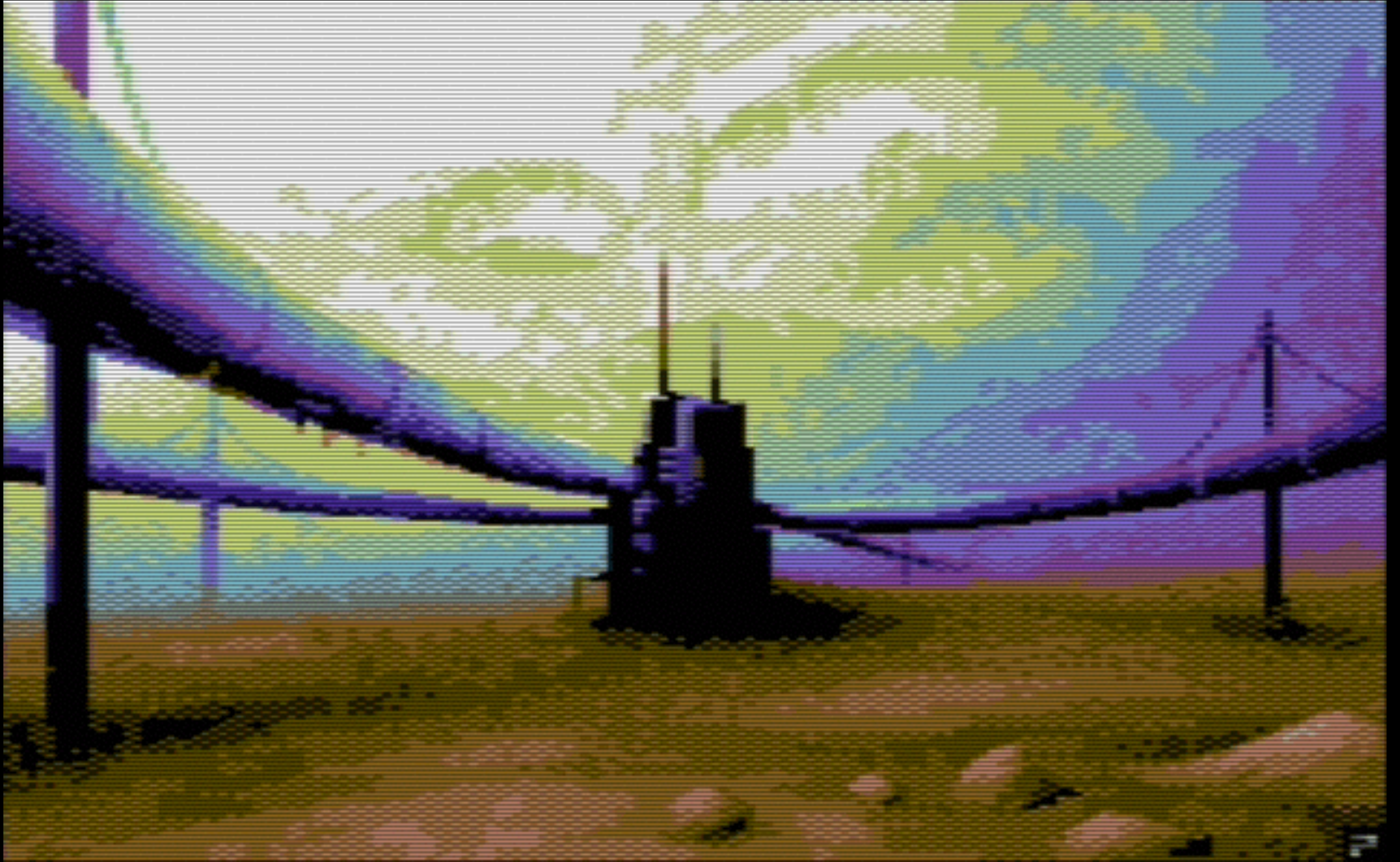
**1 common background color**

**1000 characters to choose from**



**Honey Bear by Veto/Oxyron**





**Cica by Poison/Singular**

# Enhanced Modes

**FLI**

**SHI**

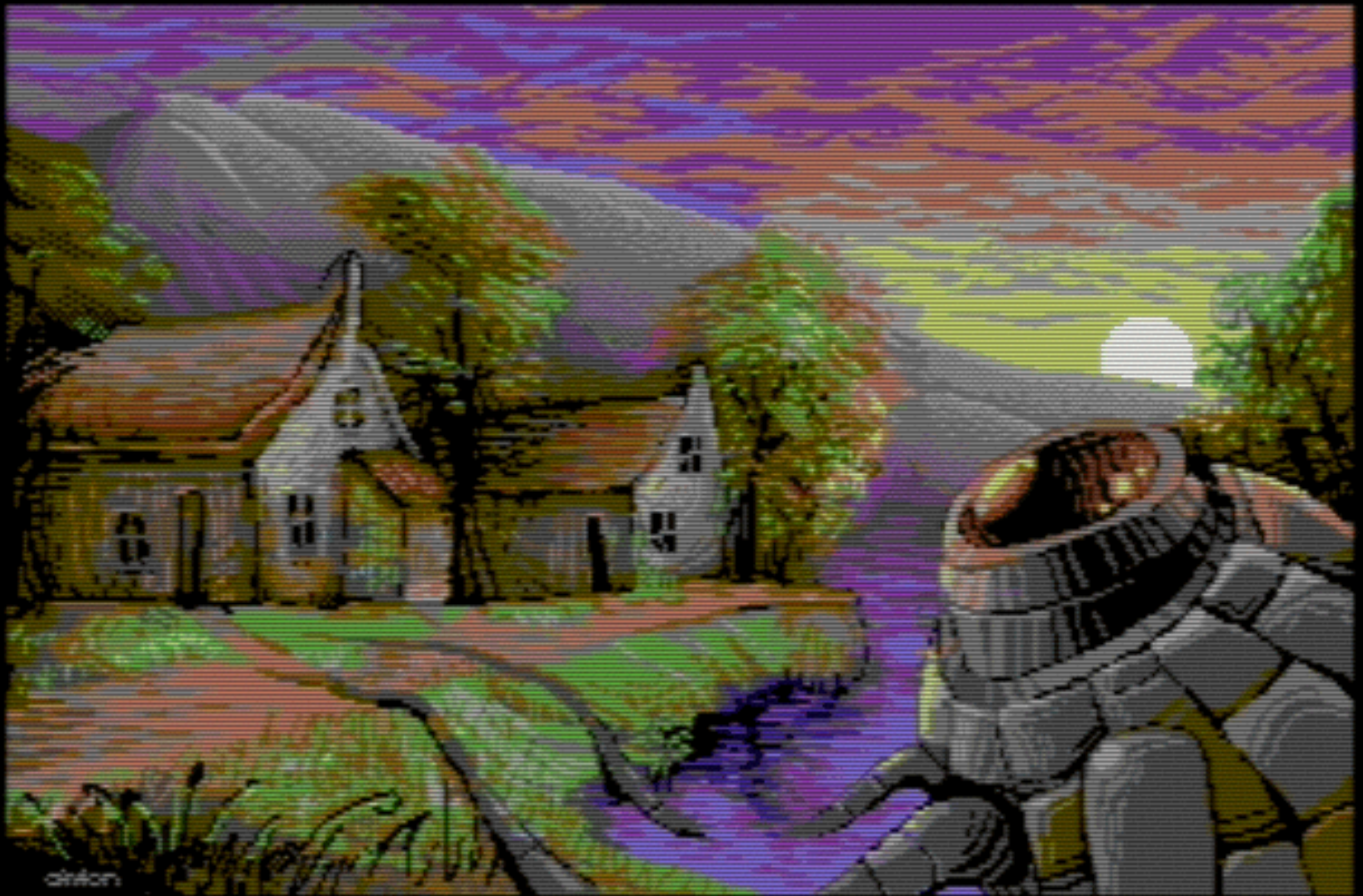
**NUFLI**

**IFLI**

**MUIFLI**

**MUCSU**





**Landing in the Village by Carrion/Elysium**





**25 Years of Yie Ar Kung-Fu by Veto / Arsenic / Oxyron**



# Sprites

**8 hardware sprites**

**24x21 pixels**

**Can be moved freely**

**1 foreground color + transparency**

**Can be stretched in both directions**



**Wizard Of Wor by Midway**



# ...Sprites

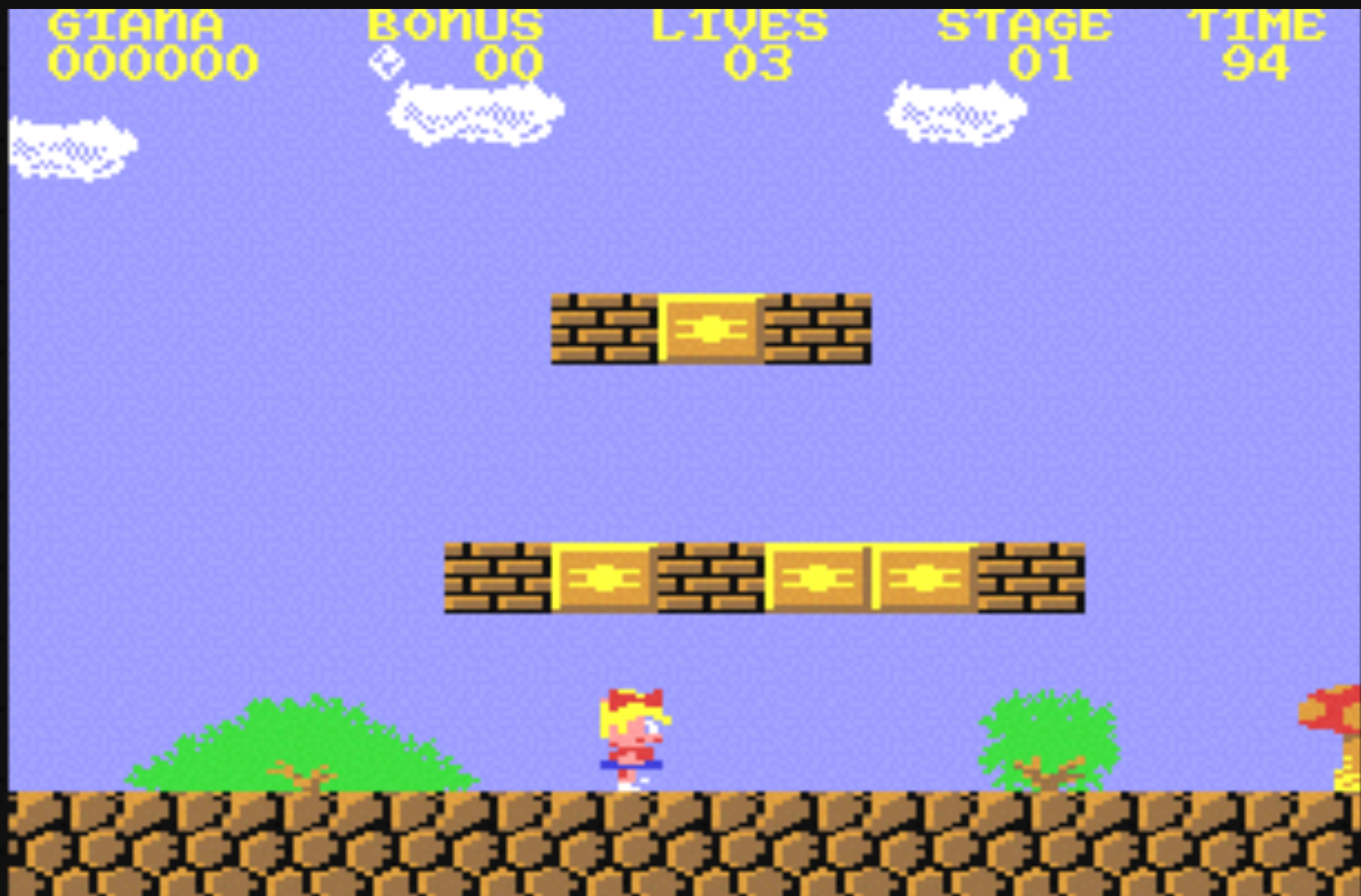
**Can be switched to Multicolor**

**1 foreground color + transparency**

**2 additional common colors**

**12x21 pixels**

**Overlaying is a common technique**



**The Great Giana Sisters by Time Warp Productions**



**Impossible Mission by EPYX**

# Sound

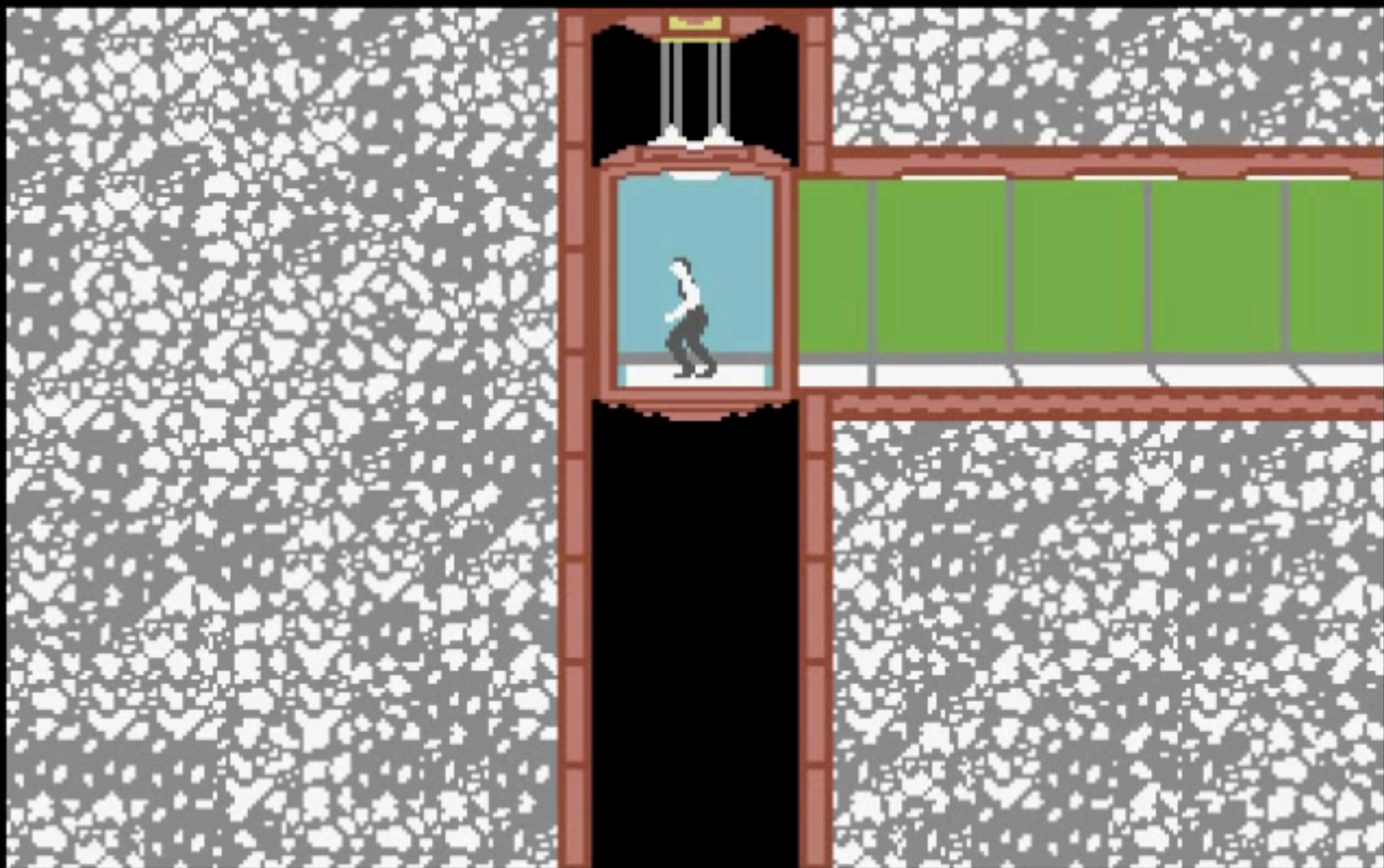
**3 voices**

**4 wave shapes**

**Envelope control**

**Filters**

**Bug in volume setting - 4th sound**



**Impossible Mission by EPYX**



# Tricks

**Sprite Multiplexing**

**Opening Borders**

**Faster scrolling**

**Rasterbars**

**Many more**



1

BONUS

05665

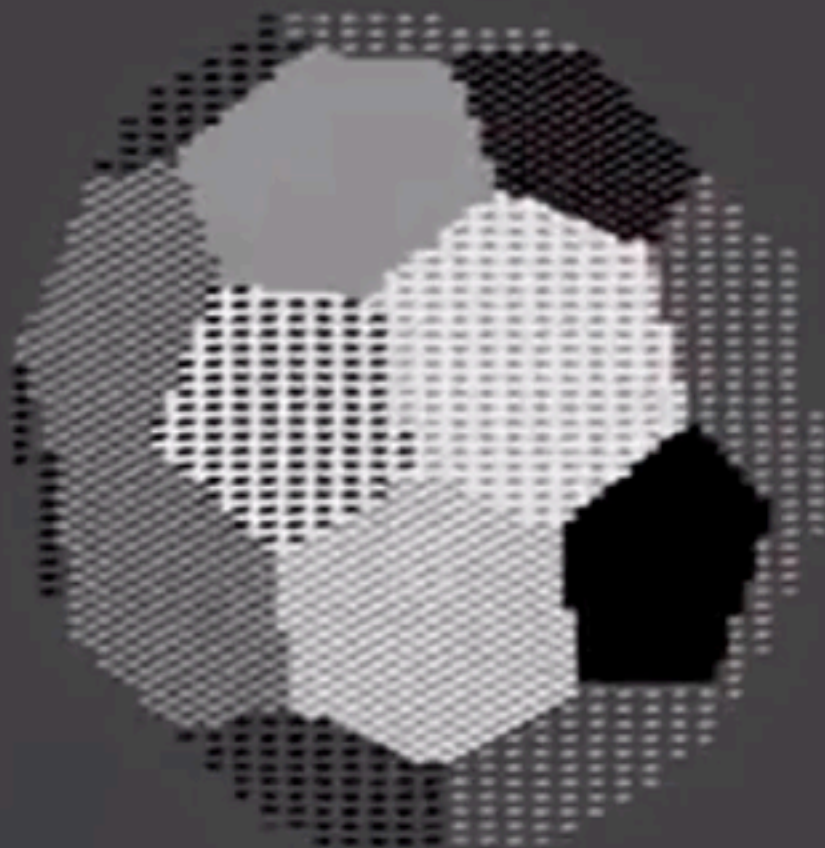






# Modern Demos

**I don't even...**



**Edge of Disgrace by Booze Design**



**Coma Light 13 by Oxyron**





**Comaland by Censor Design & Oxyron**



**We are privileged**

**to live**

**in a remarkable**

**time**

# Programming



is **easier**

than ever before

**Make a game**

**or a demo**

**this year!**

**I can help you**





SHORT AND SWEET  
COMMODORE 64  
PROGRAMMING SCREENCASTS

64bites.com

use **socoded** coupon code  
for 10% discount

```
***** COMMODORE 64 BASIC V2 *****  
64K RAM SYSTEM 38911 BASIC BYTES FREE  
READY.  
LOAD"60-FINAL-GAME-SETUP-LEVEL-BEFORE.PR  
G",8,1:  
SEARCHING FOR 60-FINAL-GAME-SETUP-LEVEL-  
BEFORE.PRG  
LOADING  
READY.  
RUN
```

64bites.com/socoded