

**Frodo**

**COLLABORATORS**

	<i>TITLE :</i> Frodo		
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**REVISION HISTORY**

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# Chapter 1

## Frodo

### 1.1 Frodo - Commodore 64 emulator

Frodo v4.1a, AmigaPPC rev 2 (000226)

(C) 1994-1997 Christian Bauer  
AmigaPPC version by Mathias "AmiDog" Roslund 2000

Introduction

- What is this?

Requirements

- What does it require?

Features

- What can it do?

Installation

- How to install?

Usage

- How do I use it?

Options

- What does these do?

Disclaimer

- Who's responsible?

History

- What's new?

Contact

- How to contact me?

Visit the homepage at <http://www.amidog.com/emu/>

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## 1.2 Frodo - Introduction

This is a Commodore 64 emulator written by Christian Bauer.

I made this AmigaPPC port since the only WarpUP port there is of this emulator doesn't have sound, and how fun can a C64 emulator be without sound? No fun at all I must say.

## 1.3 Frodo - Requirements

Hardware:

- \* Amiga with a PowerPC board
- \* AGA or CGFX
- \* 8 MB of RAM
- \* OS 3.0

Software:

- \* WarpUP v4.0
- \* lowlevel.library for joystick support
- \* CGFX and a 384x272 screenmode if you want to see the borders

## 1.4 Frodo - Features

- \* There are three versions of Frodo:

Frodo:

Frodo is a line-based emulation, i.e. the activities that happen in parallel during one video line in the real C64 are emulated one after the other for the different chips. This offers a reasonable degree of precision of the emulation at a decent speed. There are some things that cannot be emulated with this technique, but it works fine with about 80% of all C64 programs and it is also the fastest of the three Frodo versions.

FrodoPC

Frodo PC is also a line-based emulation but it has some improvements over the standard Frodo:

- \* Code in chip registers can be executed
- \* Correct calculation of 6510 instruction cycles
- \* More precise CIA emulation

Programs that don't work on the standard Frodo or that produce an "Illegal jump to I/O space" message might work with Frodo PC. However,

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Frodo PC is a bit slower.

FrodoSC

Frodo SC is a special version of Frodo that doesn't work with a line-based emulation but instead with a cycle-based one. That means that the emulator switches between 6510 and VIC in every emulated 2 clock phase. By doing this, Frodo SC achieves an extreme precision (nearly all \$d011 and \$d016 effects can be emulated), but at the expense of speed.

## 1.5 Frodo - Installation

Just copy it to any place on your HD.

## 1.6 Frodo - Usage

\* Starting Frodo:

1. Open a shell window
2. Increase the stack, 100k (stack 100000 <ENTER>) should be enough
3. Type Frodo.exe <OPTIONS> <ENTER>

\* Keyboard keys:

ESC - Runstop  
F9 - NMI (Restore)  
F10 - Reset  
Most other keys are mapped to C64 ones

\* Keypad keys:

\* - Quit  
+ - Increase frameskip  
- - Decrease frameskip  
/ - Toggle processor-level 1541 emulation  
. - Swap the joystick ports (works as a toggle)  
1..9 - Joystick directions  
0 - Joystick button

## 1.7 Frodo - Options

JOYPAD/S : use joypad/joystick (def: keyboard).  
CGFX/S : use CyberGraphics instead of direct gfxmem access (def: off).  
REQUESTER/S : use screenmode requester (def: CGFX BestModeID/NTSC Lores).  
SCREENMODE/N : use the specified screenmode (def: CGFX BestModeID/NTSC Lores).

FRAMESKIP/N : frameskip 1-9 (def: 1).  
DRIVE8/K : use d64/t64/path as C64 diskdrive 8.  
DRIVE9/K : use d64/t64/path as C64 diskdrive 9.  
DRIVE10/K : use d64/t64/path as C64 diskdrive 10.

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DRIVE11/K : use d64/t64/path as C64 diskdrive 11.

## 1.8 Frodo - Disclaimer

Remember! You use this piece of software at your own risk!  
I can never be held responsible for any sort of damage caused  
to your software or hardware by the use of this product!

Bugreports and suggestions might be sent to one of my addresses.

## 1.9 Frodo - Contact

Bugreports, suggestions, comments or anything else you may  
want to contact me about can preferably be sent by e-mail to:

frodo@amidog.com

You may however also contact me by normal mail:

Mathias Roslund  
Sveav. 2b, nb  
S-702 14 Orebro  
Sweden

## 1.10 Frodo - History

Rev 1 -000220  
-First revision, most features working.

Rev 2 -000226  
-Added two player support using joystick + keyboard.  
-One can now swap the joystick ports using the '.' key on the keypad.  
-Forced joystick with lowlevel.library to try and fix the problems reported ↔  
with  
single button joysticks.

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