

Source Code info

In order to assemble PAC MAN transcode for the CoCo 3 please follow the steps below. This works for me on a Mac running OSX 10.12.5. It should work for Linux and Windows (using CYGWIN)

- First make sure you can compile programs with your current system setup.
- You will need to have LWTOOLS compiled and installed
- You will also need to have MAME installed to test and debug with. In the Source_Code folder create a folder called roms. I have the following files in my roms folder coco_fdc_v11.7z, coco.7z, coco3_hdb1.7z
- The loader uses SLZ compression and this file needs to be compiled in the main Source_Code folder. There is a copy ready to go for Mac and Windows (Windows users will have to rename the slz command in makefile to slz.exe) I use the following command to compile slz:
\$ gcc -Wall slz.c -o slz
This is a one warning I get, which can be ignored
slz.c:304:1: warning: type specifier missing, defaults to 'int' [-Wimplicit-int]
main(int argc, char *argv[])
^
1 warning generated.
- Copy two PACMAN ROM files to the main Source_Code folder the files required are pacman.6e and pacman.6f

With everything setup you can assemble it all using the make command

To assemble the program and run it in MAME with the debugger enabled type

```
$ make
```

To assemble the program just to test it type

```
$ make test
```

To update the loader screen (file is loadm.s in the Source_Code folder)

```
$ make newslz
```

A note on the audio samples that are used in PAC MAN transcode

They are 8 bit 6khz mono unsigned samples that have been reversed and then had the bit 0 and 1 stripped off each byte and packed side by side as 6 bit data.

The reason for the weird sample format is to save space and also the method the samples are played back is through the Fast Interrupt Request (FIRQ). Where the data is played back in RAM backwards so the routine doesn't have to use the CMPA and BEQ it just looks for when the pointer to the sample has changed from positive to negative or negative to positive and then stops or loops playback. See the routines at the start of the "pacman_6809_DirectPage_02.asm" file.

SLZ compression is a program that uses LempelZiv compression to pack more space on a floppy disk. It's used as part of the loader for PAC MAN. To find out more about how it's used look in the Source_Code/Big_Loader_SLZ_compression folder.