

Developing software on ORIC microcomputers

OSDK, Oricutron & friends

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Hardware



- Atmos (**1983**)
 - 6502 1MHz, 64kB RAM
 - Microsoft 😊 BASIC
- **Cumulus**
 - SD-card floppy emulator
 - Almost OpenHardware



Name Your Emulator!

- Euphoric (DOS x86 assembler)
- XEuphoric (X11 port still with asm code)
- Caloric (SDL)
- Oriculator later renamed into...
- Oricutron (C & SDL1.2 / SDL2, OpenGL effects)



Oricutron

- GPL
- Now on par with Euphoric
- Ported to many platforms (Haiku, AmigaOS...)
- Emulates most hardware
 - ORIC-1, Atmos, Telestrat, Pravetz clone
 - Numerous floppy controllers (Microdisc, Jasmin...)
- Included debugger



OSDK History

- Written by `_Dbug_` (Mickael Pointier) from 2001
 - On... Windows
- Mostly portable code
 - Many calls to `_fopen()` & friends instead of proper POSIX calls
 - Batch files everywhere 🤖
- Initial GNU/Linux porting effort by me
- More fixes by jylam (Jean-Yves Lamoureux)
- Still regularly needs POSIX patching 😊



OSDK Suite

- xa (assembler)
- RCC16 C Compiler (ORIC version of LCC)
 - “decently ANSI compliant”
- Link65 (linker)
- bas2tap BASIC tokenizer to tape dump
- header adds a tape header
- FloppyBuilder disk image creator



OSDK Suite...

- MemMap to visualize memory usage
- PictConv to convert to HIRES format
- FilePack compressor
- Converters for various formats, including YM chiptune
- Batch files is still the official way to use it
- But...



Makefile Engine

- Inspired by the BeOS / Haiku engine
 - GNUstep has a similar feature
- Just a few lines to edit in the template
- Can be used with both make and nmake
- Can even reuse data from .bat files
- Still work in progress, not yet merged in
- Comments welcome



Installation

- (should be as simple as...)
- `svn co http://miniserve.defence-force.org/svn`
- `cd svn/public/pc`
- `make`
- `make install` (hmm not yet)
- `export OSDK=...` in `.bashrc`



TODO

- Fix the docs to mention Linux support
- Cleanup the license ~~mess~~ void
 - LCC is “free for personal use” 😊
 - The rest is mostly unknown
 - Demoscene people generally don't care 😏
- Make a release



Example: devroom schedule



Getting schedule data

- There's an ICS per devroom 😊
- Let's `wget | awk | ... > schedule.h`



I want a nice logo!

- ORIC graphics mode is weird
- PictConv argument wizardry
 - -m0 -f6 -d3 -o4_logof -v1 -n16



Write in C, write in C...

```
void main()
{
    char i;

    hires();
    memcpy((char*)0xa000, logof, 200*240/6);
    puts("RetroComputing Devroom - Feb. 4 2018");
    puts("press a key...");
    getchar();

    text();
    for (i = 0; schedule[i]; i++)
        printf("%s\n\n", schedule[i]);
    getchar();
}
```



Demo Time!

- Sample code on SVN
 - [users/mmu_man/demos/oric/fosdem18](#)



Voila!



FOSDEM '18
Brussels 3 & 4 February 2018
RetroComputing Devroom - Feb. 4 2018
press a key ...
█

CAPS

13:20
Welcome to the Retrocomputing DevRoom

13:30
QOSEMU and FreeDOS: past, present and future

14:05
Developing software on ORIC microcomputers

14:40
Retro-uC

15:15
NetBSD - A modern operating system for your retro battlestation

15:50
Game development for the ColecoVision and Sega 8-bit systems

16:25
ZX Spectrum in the New Millenium

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PRINT “Questions?”

