

EMUTOS AND ATARI 16/32 BIT MACHINES

Very briefly ;-)

Christian Zietz – September 2020



1985

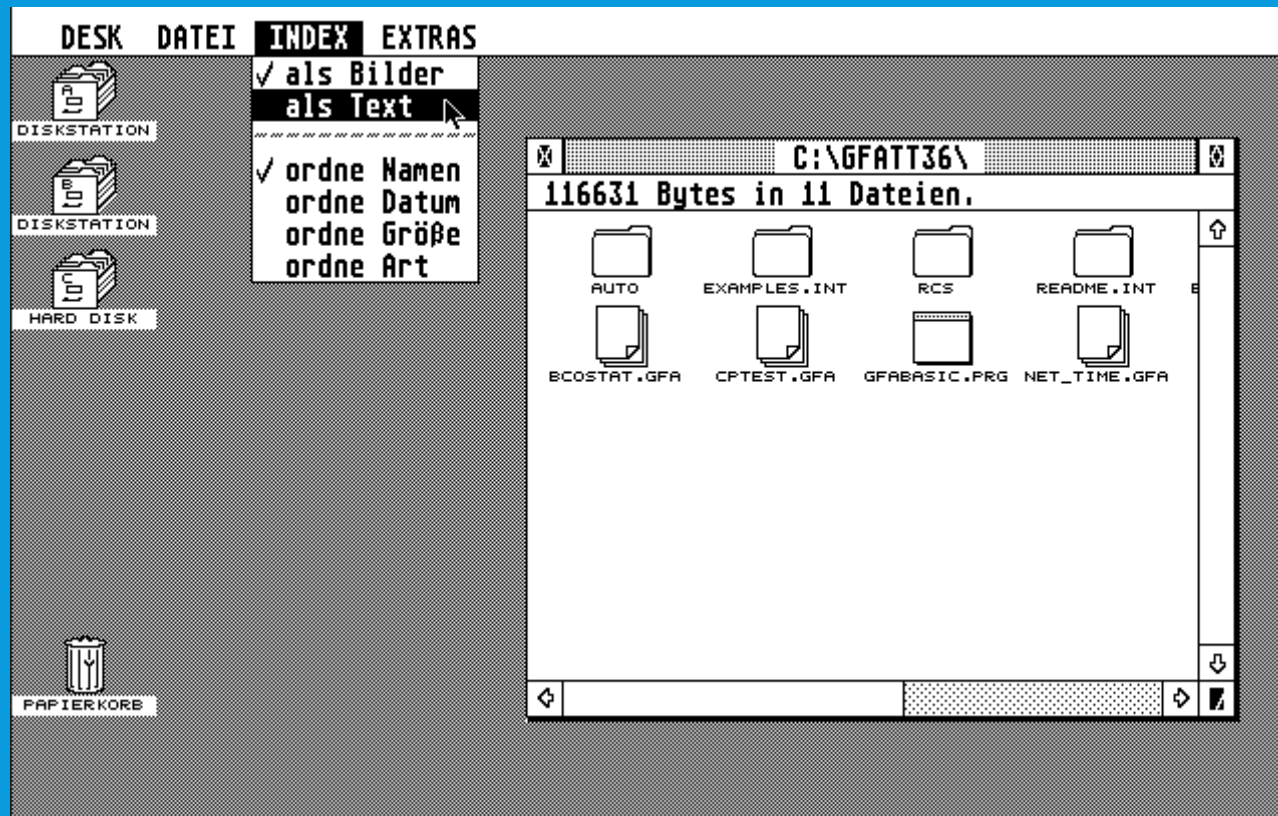


Atari 1040STF – © Bill Bertram, 2006

Atari ST

- 68000 CPU @ 8 MHz
- Initially 512 kB RAM, later up to 4 MB
- 2 color modes and a high-res (640 x 400) monochrome mode
- Initially separate floppy drive, later builtin 720k drive
- MIDI

1985



TOS

- GEM UI and GEMDOS originally licensed from Digital Research
- But independently developed further by Atari
- Entirely in ROM
- Single-task
- GUI with desktop metaphor
- Text mode for command line applications also available

1989

Atari STE

- More colors
- PCM sound
- TOS 1.06/1.62



Sea Of Colour demo by Dead Hackers Society on Atari STE

1990/1991

Atari TT & MegaSTE

- Workstations
- MegaSTE: 16 MHz, FPU, VME bus
- TT: 68030, FPU, more RAM, VME bus, high-res up to 1280 x 960
- TOS 2 & 3



Atari TT – by Tim Kovack

1992

Atari Falcon

- 68030
- DSP
- True-color graphics
- TOS 4



Atari Falcon – © Wikipedia user LosHawlos

1996

Atari Corp. ceases operations

- IP rights go to game company Hasbro / Infogrames / Atari
- Atari TOS is still copyrighted

1999

Caldera releases PC GEM under GPL

- Shares a common ancestor with TOS
- But they diverged
- E.g. restrictions imposed by an Apple lawsuit

2001

EmuTOS development begins

- Born out of necessity: bundle a legal TOS with emulators
- Based on PC GEM code
- Own development of low level BIOS/XBIOS for Atari HW
- Many improvements since!

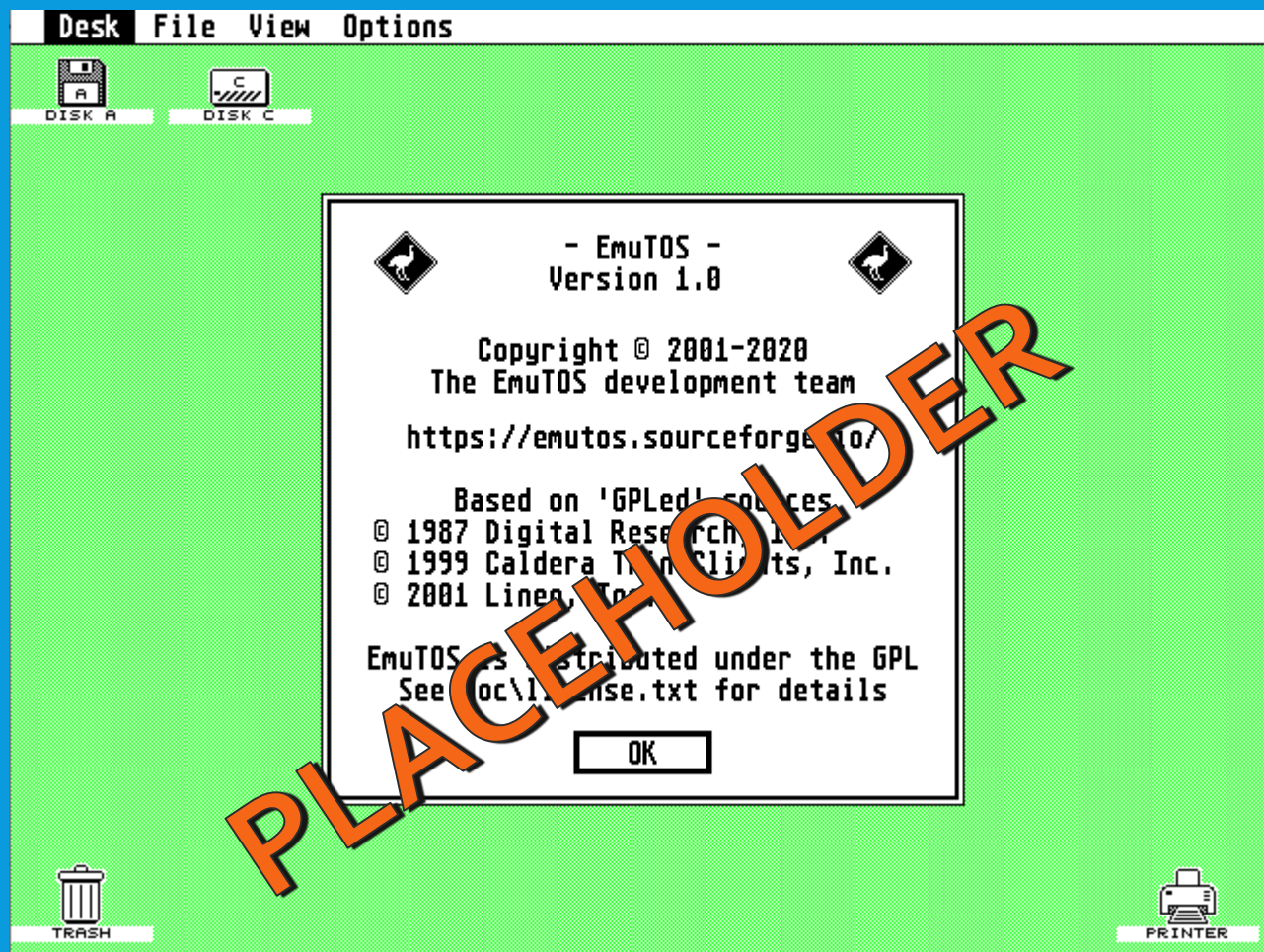
2020: EMUTOS 1.0

What makes EmuTOS special?

- Supports all Atari computers and some non-Atari machines (even Amiga!)
- Also great for emulators, e.g., API to Aranyem and Hatari
- Provided in many variants (ROM & RAM versions) in several languages
- Built-in hard disk driver with PC (FAT16) partition and filesystem support
- Built-in command line interface (EmuCON)
- Support for 3rd party hardware, e.g.
 - RAM upgrades
 - ISA graphics cards
- Free (as in freedom) and open-source



LIVE DEMO



THE FUTURE

Some plans and ideas for after 1.0:

- Improved Falcon support: DSP XBIOS functions, Truecolor video modes
 - Improved Amiga support?
 - Maybe native Atari video modes on the Vampire 4 stand-alone?
 - ... many more ideas ...
-
- User handbook? (volunteers wanted)

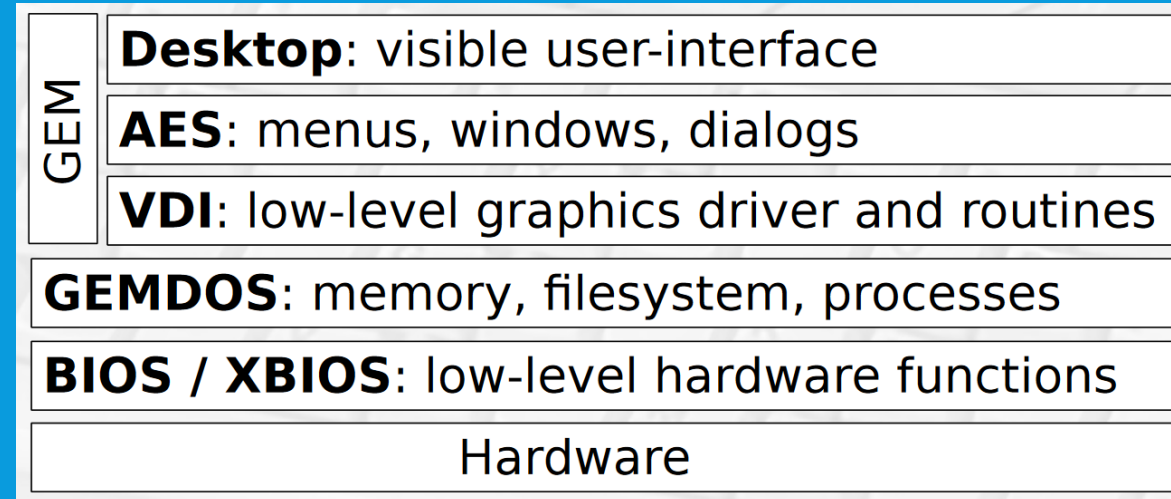
PARTICIPATING IN EMUTOS DEVELOPMENT

- Project website: <https://emutos.sourceforge.io/>
- Facebook page: <https://www.facebook.com/emutos/>
- Source code: <https://github.com/emutos/emutos>
 - Mostly C with some 68k assembler
 - Cross-compiled by gcc (Vincent Rivière's m68k-atari-mint cross-tools) <http://vincent.riviere.free.fr/soft/m68k-atari-mint/>
 - Travis CI for automated snapshot builds
- Mailing list: <https://sourceforge.net/p/emutos/mailman/emutos-devel/>
 - Bug reports and analysis
 - General discussion
 - Preferred way of submission of code contributions

SOURCE CODE STRUCTURE

aes	Update copyright year	8 days ago
bdos	Update copyright year	8 days ago
bios	Update tos.hyp URLs	4 days ago
cli	Update copyright year	8 days ago
desk	Tweak text positions in the About dialog	3 days ago
doc	Update documentation	2 days ago
extras	Add optional cursor & icon sets to distribution	12 months ago
include	Fix whitespaces	8 days ago
obj	Tell Git to ignore all files in obj/	4 years ago
po	Fix whitespaces in translations	8 days ago
tests	Add copyright notice to test/	11 months ago
tools	Fix whitespaces	8 days ago
util	Update copyright year	8 days ago
vdi	Fix bug setting lineA variables in screen driver	3 days ago

- TOS layers:



- EmuTOS strives to be clean code: only use defined interfaces between layers, etc.

QUESTIONS

