

# Wild Romance



*A Tale of Digital Passion*

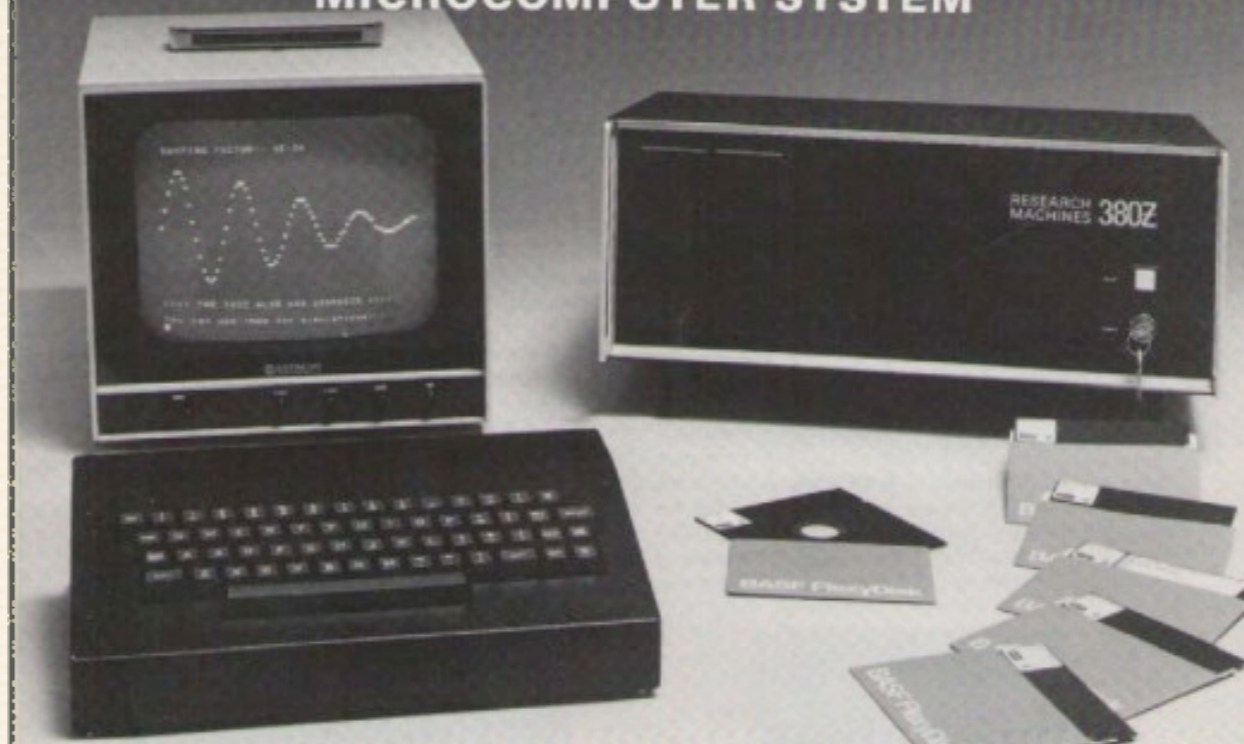
# prologue

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- ❖ pre-1981 computers were for technicians
- ❖ post-1990 computers were for professionals
- ❖ but in the 1980s they belonged to children

i. in the beginning

## RESEARCH MACHINES 380Z MICROCOMPUTER SYSTEM



### RESEARCH MACHINES 380Z A POWERFUL LOW COST COMPUTER

#### SPECIFICATIONS

The RESEARCH MACHINES 380Z is a general purpose computer. It has been developed for professional users, using the latest technology available. The system is designed and manufactured in Oxford, England by RESEARCH MACHINES LIMITED.

The RESEARCH MACHINES 380Z computer system is aimed at supporting the rapidly developing use of low cost computers in the following fields:

EDUCATION As a stand alone computer and as a terminal  
SCIENTIFIC COMPUTING  
INDUSTRIAL AND LABORATORY PROCESS-  
CONTROL  
INSTRUMENTATION AND DATA LOGGING  
Z80 HARDWARE AND SOFTWARE DEVELOP-  
MENT  
DATA PROCESSING

The computing power now available on micro-processor based computers, and the range of software becoming available for them, is such that their performance is directly comparable to that of minicomputers.

The RESEARCH MACHINES 380Z includes VDU (visual display unit), cassette and keyboard interfaces, which means that it is not necessary to purchase a terminal or a teletype. The user only has to provide a domestic television and a suitable

cassette recorder. These and an ASCII encoded keyboard are plugged into sockets at the rear of the computer, and the system becomes fully operational.

#### CPU (Central Processing Unit)

The 380Z uses the Zilog Z80A microprocessor with a 4MHz clock. The bus is fully buffered and all I/O and memory in the system can be read by external devices by DMA (Direct Memory Access). WAIT state circuitry is included which can insert one wait state in every M1 cycle, or one wait state in every memory request cycle. The system is supplied with the latter option selected, so that relatively slow (500 nsec access time) peripherals can be connected to the bus. This gives an average cycle time approximately 60% faster than Z80 or 8080 systems operating with a 2MHz clock without wait states.

#### RAM (Random Access Memory)

The 380Z has sockets and circuitry for two blocks of dynamic RAM. Each block can either use 4K (4000) or 16K bit devices. 4K and 16K blocks can be mixed. Thus the basic 380Z can be supplied with up to 32K

# Computing today

**Having second thoughts? We reveal the truth about Oric!**

**FORTH comes home at last with the Jupiter Ace**

**Which Micro? Our great new guide gives the facts!**

**Spectrum books surveyed - Are you reading the right words?**

**Special £1 voucher offer Save £££s off A&F Software programs**



ORIC 1		£99.95
MEMORY	16K RAM	16K ROM
LANGUAGE	BASIC	
CASSETTE	300 or 2400 baud	
DISC	extra DOS	
KEYBOARD	QWERTY <input checked="" type="checkbox"/>	CURSOR <input checked="" type="checkbox"/> NUMERIC <input type="checkbox"/> FUNCT <input type="checkbox"/>
DISPLAY	TV <input checked="" type="checkbox"/>	MONITOR <input type="checkbox"/> SUPPLIED <input type="checkbox"/>
INTERFACE	PARA <input checked="" type="checkbox"/>	SERIAL <input type="checkbox"/> BUS <input checked="" type="checkbox"/>
GRAPHICS	BLOCK <input checked="" type="checkbox"/>	USER 80
	LINE <input checked="" type="checkbox"/>	RES 200 by 240
	COLOUR 8	TEXT 28 by 40
SOUND	3 channels	

**Notes.** The Oric 1 is a 6502A based micro and is aimed at the ZX Spectrum market. A 48K model is available which has 64K RAM with 16K ROM overlaid. You can attach a printer, communications modem and you can have audio output through your hi-fi. A manual comes with the machine, but make sure that you also get the errata sheet that goes with it. You can buy the Oric by mail order and the supplier is **Oric Products International Ltd.**, Coworth Park London Road, Uxbridge, Middlesex UB5 7SE.



ZX SPECTRUM		£125
MEMORY	16K RAM 16K ROM	
LANGUAGE	Sinclair BASIC	
CASSETTE	1500 baud	
DISC	TBA DOS	
KEYBOARD	QWERTY <input checked="" type="checkbox"/> CURSOR <input type="checkbox"/> NUMERIC <input type="checkbox"/> FUNCT <input type="checkbox"/>	
DISPLAY	TV <input checked="" type="checkbox"/> MONITOR <input type="checkbox"/> SUPPLIED <input type="checkbox"/>	
INTERFACE	PARA <input type="checkbox"/> SERIAL <input type="checkbox"/> BUS <input checked="" type="checkbox"/>	
GRAPHICS	BLOCK <input checked="" type="checkbox"/> USER 21 <input type="checkbox"/>	
	LINE <input checked="" type="checkbox"/> RES 256 by 192	
	COLOUR 8 TEXT 24 by 32	
SOUND	Single channel	

**Notes.** The Sinclair ZX Spectrum is a Z80A based micro with a moulded rubber keyboard. A 48K version is priced at £175. A ZX printer is available and a ZX Microdrive and RS232C interface are expected. Available at High Street stores it is a very popular micro with a wide variety of commercial software to choose from. The supplier is **Sinclair Research**, 6 Kings Parade, Cambridge.

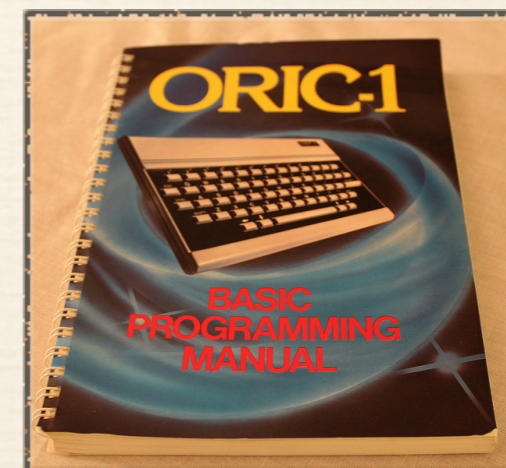
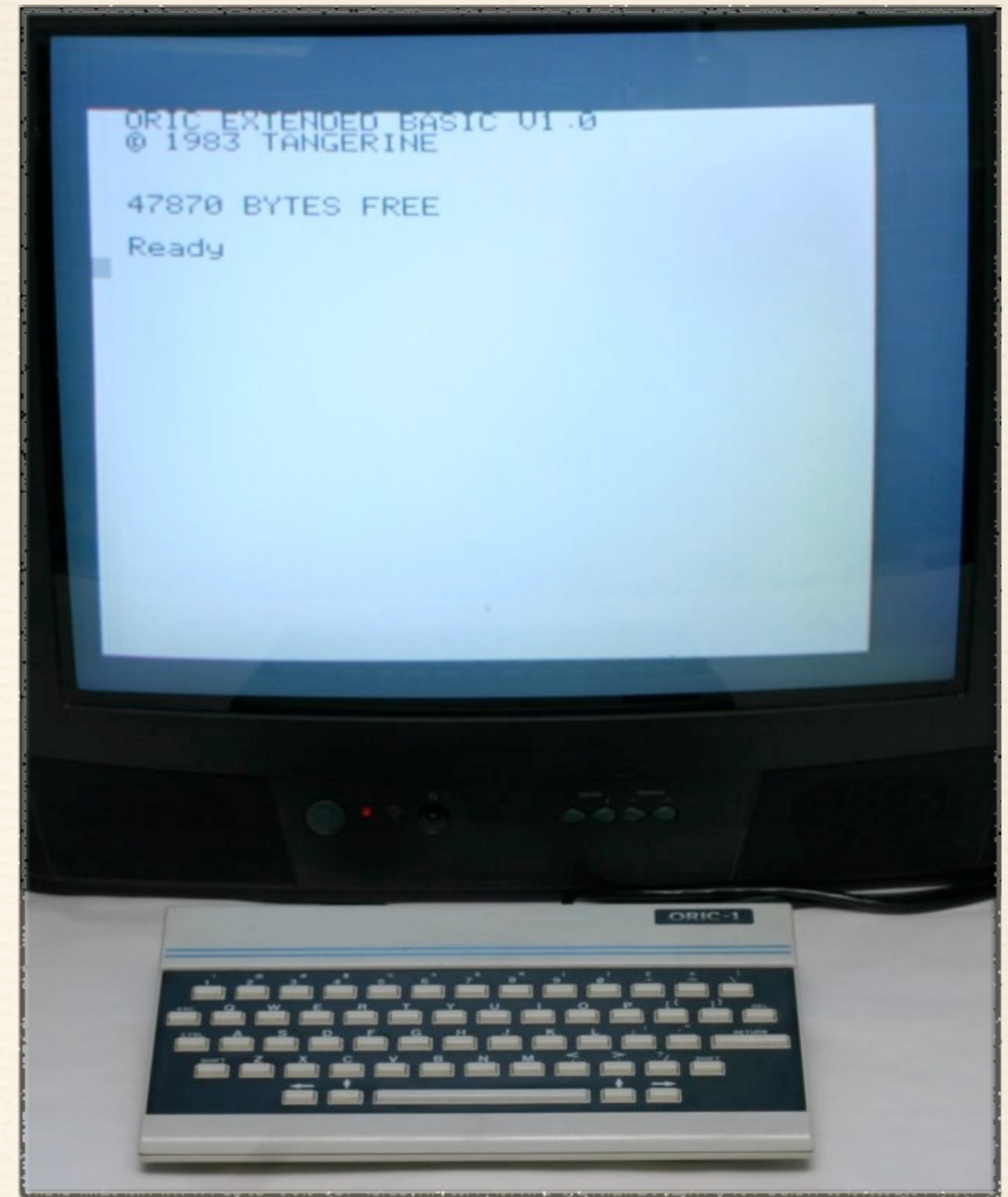
ACORN ATOM		£150
MEMORY	2K RAM	8K ROM
LANGUAGE	BASIC	
CASSETTE	300 baud	
DISC	extra	DOS
KEYBOARD	QWERTY <input checked="" type="checkbox"/>	CURSOR <input checked="" type="checkbox"/> NUMERIC <input type="checkbox"/> FUNCT <input type="checkbox"/>
DISPLAY	TV <input checked="" type="checkbox"/>	MONITOR <input type="checkbox"/> SUPPLIED <input type="checkbox"/>
INTERFACE	PARA <input checked="" type="checkbox"/>	SERIAL <input type="checkbox"/> BUS <input checked="" type="checkbox"/>
GRAPHICS	BLOCK <input checked="" type="checkbox"/>	USER
	LINE <input checked="" type="checkbox"/>	RES 256 by 192
	COLOUR 4	TEXT 16 by 32
SOUND	Single channel	

**Notes.** The Acorn ATOM is a 6802 based micro which has a rather unusual version of BASIC. It was one of the first machines that had a built-in assembler. The supplier is **Acorn Computers**, Fulbourn Road, Cherry Hinton, Cambridge.



SHARP PC-1500		£169.95
MEMORY	3.5K RAM	16K ROM
LANGUAGE	BASIC	
CASSETTE	extra	
DISC	TBA DOS	
KEYBOARD	QWERTY <input checked="" type="checkbox"/>	CURSOR <input type="checkbox"/> NUMERIC <input checked="" type="checkbox"/> FUNCTION <input checked="" type="checkbox"/>
DISPLAY	TV <input type="checkbox"/>	MONITOR <input type="checkbox"/> SUPPLIED <input checked="" type="checkbox"/>
INTERFACE	PARA <input type="checkbox"/>	SERIAL <input checked="" type="checkbox"/> BUS <input checked="" type="checkbox"/>
GRAPHICS	BLOCK <input type="checkbox"/>	USER <input type="checkbox"/>
	LINE <input type="checkbox"/>	RES 120 by 32
	COLOUR <input type="checkbox"/>	TEXT 26 by 1
SOUND	<input checked="" type="checkbox"/>	

**Notes.** The Sharp PC-1500 is an eight-bit CMOS based micro which is small enough to be easily hand-held with an LCD screen. Various additions are available including a plotter, printer and interface, a cassette interface and plug-in chips, allowing the micro to be expanded to 11.5K. An applications and user manual come with the machine and the supplier is **Sharp Electronics (UK) Ltd.**, Thorp Road, Newton Heath, Manchester M10 9BE.





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Amstrad 64K Microcomputer  (v1)
©1984 Amstrad Consumer Electronics plc
and Locomotive Software Ltd.

BASIC 1.0
Ready
  
```

colourful graphics

low-f sound

cheap offline storage

*system in ROM*

booted into BASIC

ii. words & pictures

Elric sent his mind into twisting tunnels of logic, across endless plains of ideas, through mountains of symbolism and endless universes of alternate truths; he sent his mind out further and further and as it went he sent with it the words [...] words that few of his contemporaries would understand...

- Elric of Melniboné, Michael Moorcock

I love BASIC

simple but powerful

looks a bit like English

easy to think about

not an operating system

but fakes it well

easy to think about

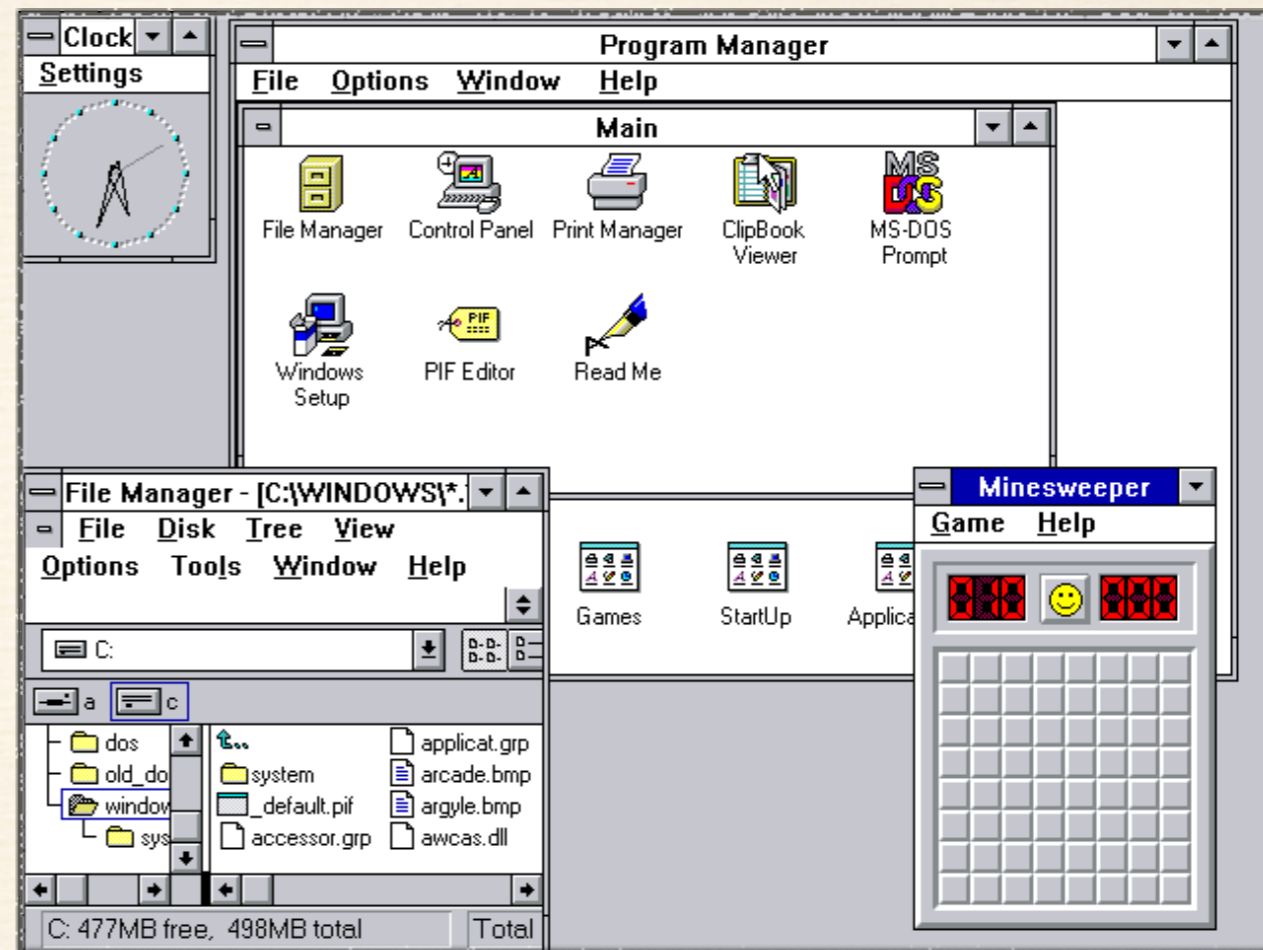
iii. let's get serious



Current date is Fri 10-14-2011  
Enter new date (mm-dd-yy):  
Current time is 21:02:27.52  
Enter new time:

Microsoft(R) MS-DOS(R) Version 3.30  
(C)Copyright Microsoft Corp 1981-1987

A>\_



iii. hackers & gamers





```
Current date is Fri 10-14-2011
Enter new date (mm-dd-yy):
Current time is 21:02:27.52
Enter new time:

Microsoft(R) MS-DOS(R) Version 3.30
      (C)Copyright Microsoft Corp 1981-1987

A>_
```

A&gt;

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Telnet moo.di.uminho.pt

```

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moosaico
Multilingual Virtual Community

http://moosaico.com/
info@moosaico.moo.mud.org
wizards@moosaico.moo.mud.org

oo0 (<) 0oo

=====
Welcome to the oldest multilingual
online text-based environment.
Since January 7, 1994
=====

Type : help ajuda ayuda hilfe aiuto

```

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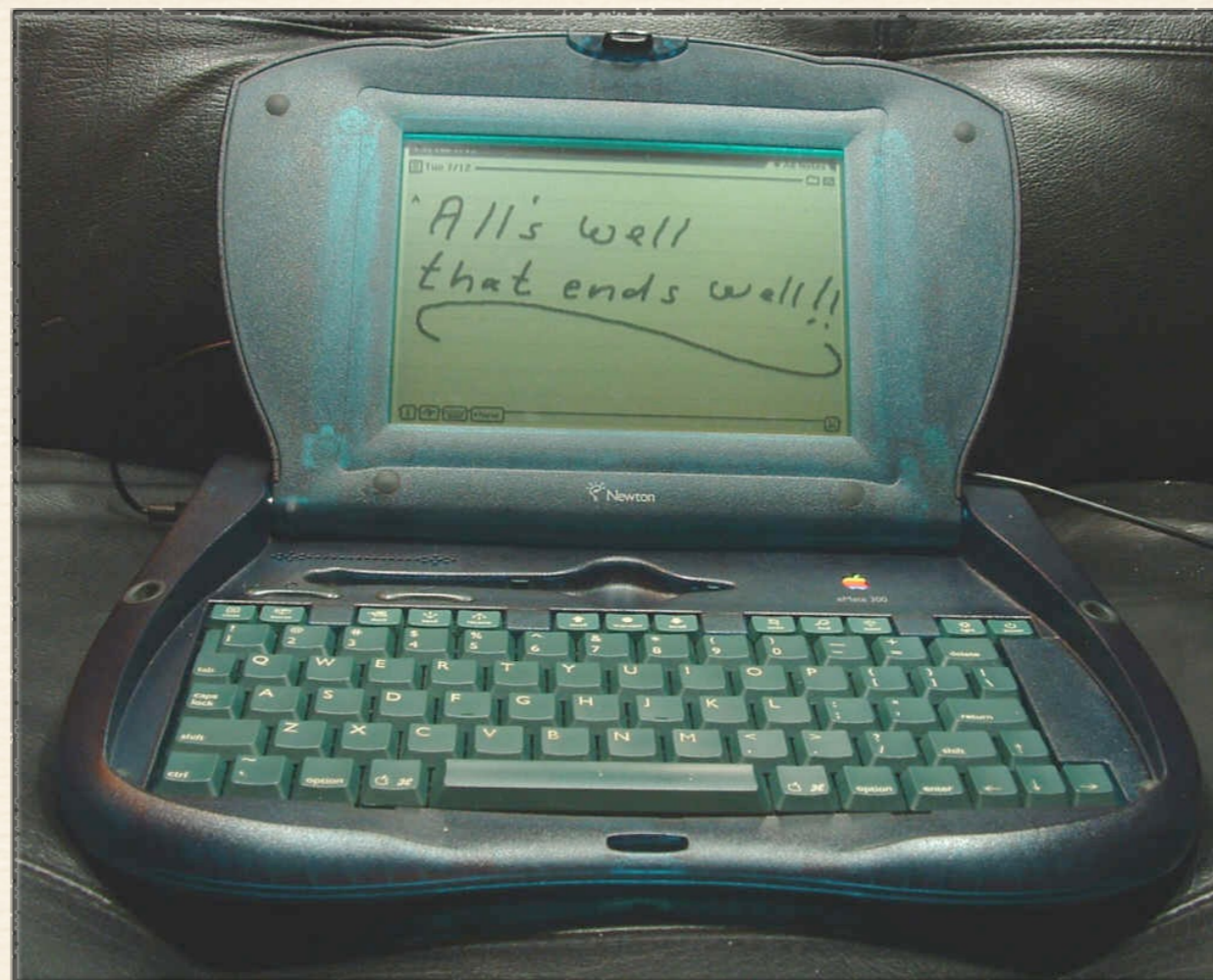
GW-BASIC 3.23
(C) Copyright Microsoft 1983,1984,1985,1986,1987,1988
50300 Bytes free
)k

LIST 2RUN+ 3LOAD" 4SAVE" 5CONT+ 6,"LPT1 7TRON+ 8TROFF+ 9KEY 0SCREEN

```

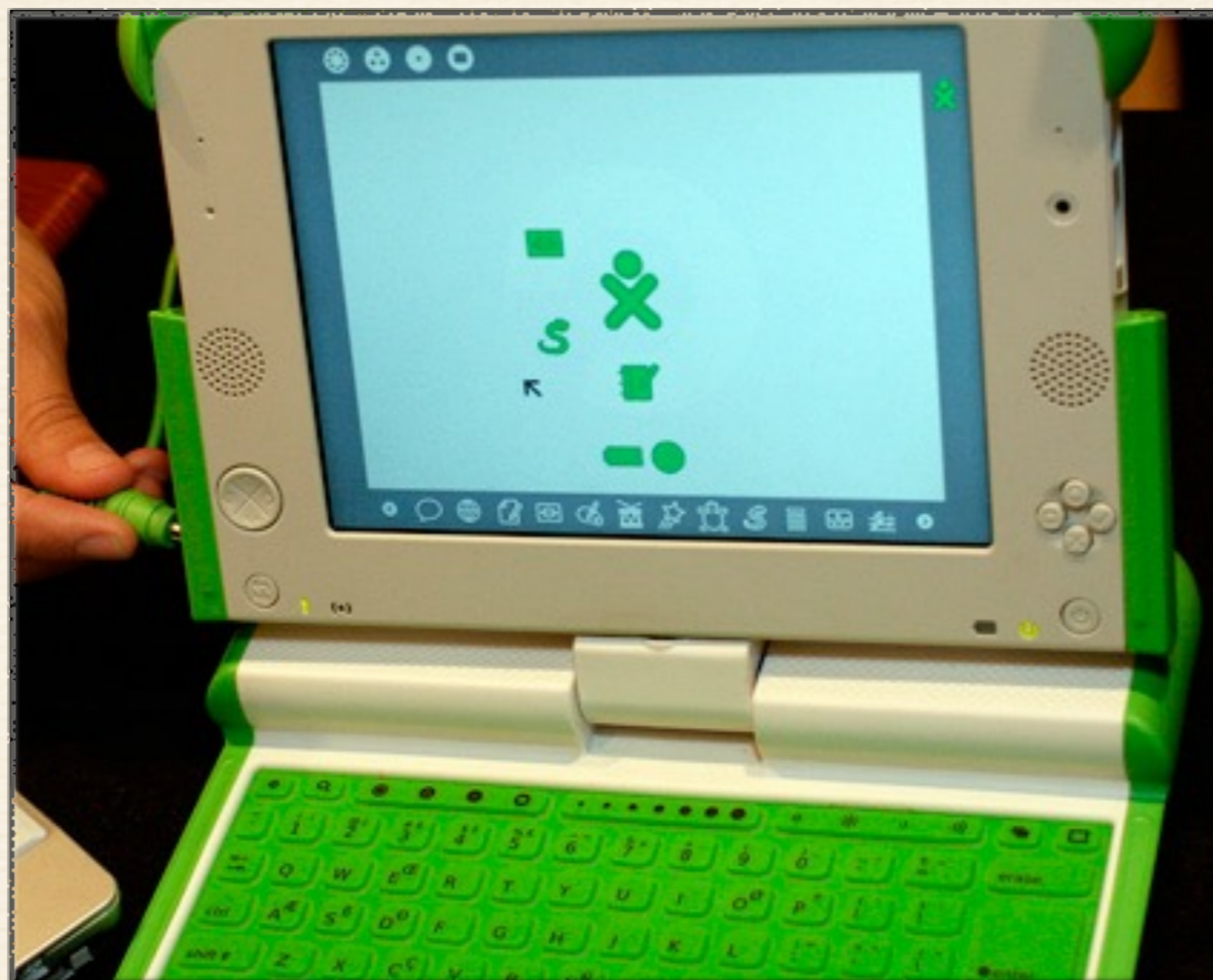
```
The IBM Personal Computer Basic
Version A1.10 Copyright IBM Corp 1981
62940 Bytes free
Ok
```

iv. teach the children









v. hackety hack hack

## Wanna Hack Like in the Movies?

- Code Yourself a Blog in 6 Lines
- Or Your Own IM in About Twice That
- Just Seven Lessons, Totally Conversational
- Let's say: 13 and Up



**HACKETY! HACKY!**

Hey, Wow, Real Kids are Learning!

Our 8th grader reporting in: did Lesson Four in about 10 minutes but kept hacking for another 20 minutes. Today, video games lost the battle with Ruby. Unprecedented!

— Brian D., [Read on...](#)



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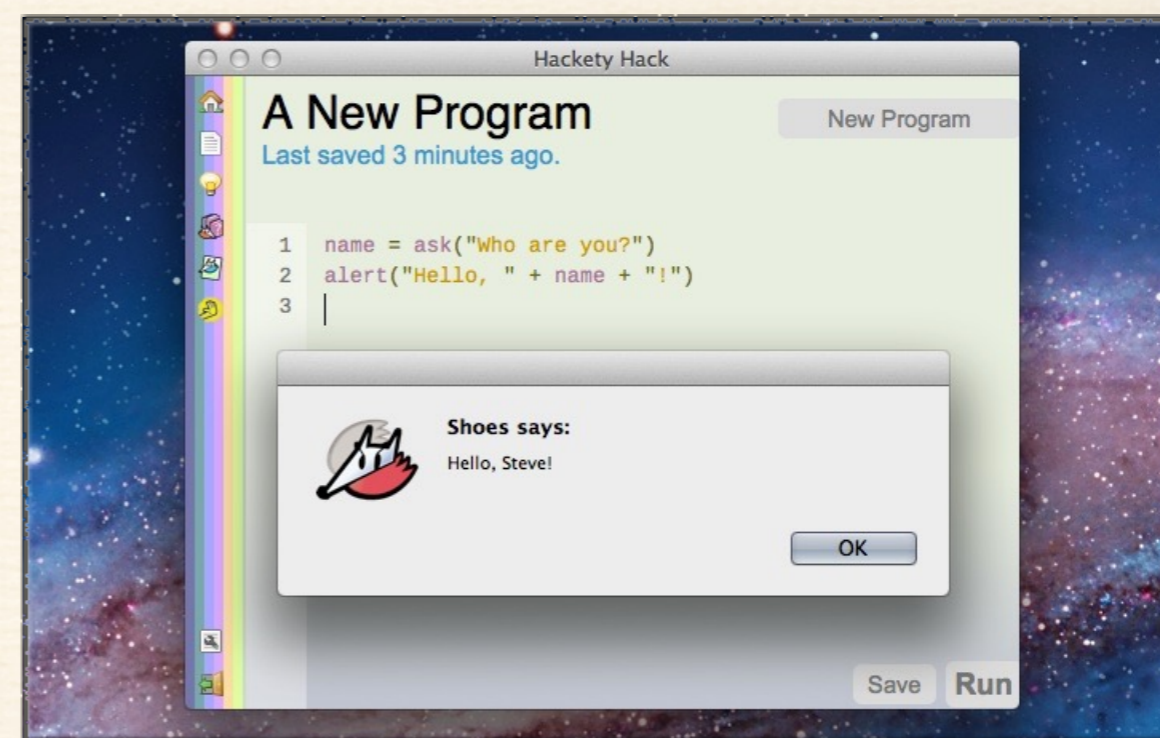
**Download 1.0 today!**

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ví. a slice of raspberrypí

