



by John R. Carlsen

Color codes indicate microprocessor ("μP") families that enabled generations of personal computers (such as those with textual user interfaces in 1977-1981 and graphical user interfaces in 1983-1985). Links are to [Wikipedia](#) articles. Development locations are denoted via state abbreviations, such as CA (for *Silicon Valley*: Sunnyvale, Cupertino and surrounding area), FL (Boca Raton), MA (Boston), MN (Chippewa Falls), NM (Albuquerque), PA (Norristown and West Chester) and TX (Austin). (Browser troubles? [Download a version of this page in Adobe P.D.F.](#).)

The diagram illustrates the evolution of the personal computer, showing the lineage of various systems from the 1960s to the early 2000s. The chart is organized into a grid-like structure with dashed lines, showing the flow of influence and lineage between different computer families and components.

Key Lineages and Systems:

- IBM 1400 series** (early 1960s) → **IBM S/360** (1964) → **IBM S/370** (1970) → **IBM 801 μP** (1970s) → **IBM ROMP μP** → **IBM (TX) RT (6150)** (1986) → **IBM (TX) POWER μP** → **IBM (TX) System p** (formerly RS/6000) (1990) → **STI (Sony-Toshiba-IBM) (TX) Cell μP** (2005).
- CDC (MN) 160** (late 1950s) → **1604** (1960) → **minicomputer** (1969) → **CDC (MN) 1604** (1960: first transistorized), **3000 series**, **6600** (1964: first supercomputer), **7600** (1969) → **Cray 1** (1976), **2** (1985).
- DEC (MA) PDP series**: **PDP-8** (1965), **PDP-11** → **AT&T Unix** (1970), **C** (1972), **C++** (1979) → **DEC (MA) VAX series** (1977) → **Microsoft** (originally "Micro-Soft") (MA→NM→WA) **BASIC** (also published for the **Apple** – as **Applesoft BASIC** – and **Atari** 8-bit computers).
- Data General (CA) Nova** (1969) → **Xerox (CA) Alto** (1973) → **mouse, GUI** → **Digital Research (CA) GEM** (1985) → **Adobe Systems (CA) PostScript** → **mouse, GUI** → **Apple (CA) Lisa** (1983), **Macintosh** (1984) → **Apple (CA) Macintosh II** (1987) → **Apple (CA) 2006 Intel-based Mac mini, MacBook, Mac Pro, MacBook Air** (2008).
- Motorola (now Freescale) (TX) 6800 μP** (1974) → **MOS Technology (PA)** (acquired by **Commodore** in 1975) **6502 μP** (1975) → **Atari (CA) 8-bit family**: **400 & 800** (1979), **1200XL** (1982), **600XL & 800XL** (1983), **65XE & 130XE** (1985), **XE Game System** (1987) → **mouse, GUI** → **Apple (CA) Lisa** (1983), **Macintosh** (1984) → **Apple (CA) Macintosh II** (1987) → **Apple (CA) 2006 Intel-based Mac mini, MacBook, Mac Pro, MacBook Air** (2008).
- Apple (CA) I, II series** (1977), **III series** → **Commodore (TX) PET** (1977), **VIC**, **20** (1981), **64** (1982) → **mouse, GUI** → **Apple (CA) Lisa** (1983), **Macintosh** (1984) → **Apple (CA) Macintosh II** (1987) → **Apple (CA) 2006 Intel-based Mac mini, MacBook, Mac Pro, MacBook Air** (2008).
- Intel (CA) MCS-4 family** (1971: **4004 μP**) → **MCS-8 family** (1972: **8008 μP**, etc.) → **8080 μP** (1974) → **Intel (CA) 80x86 μP family** (1978: **8086 μP**; 1982: **80286 μP**) → **Microsoft (WA) MS-DOS** (1981) → **IBM (FL) PC/AT 5150** (1981), **PC/XT 5160** (1983) → **Microsoft (WA) Windows** (1985) → **Microsoft (WA) Windows NT** (1993), ..., **95**, ..., **98**, ..., **2000**, ..., **XP** (2001), ..., **Vista** (2006) → **modern commodity computers** → **AMD (TX) K5** (1996), **K7**, **K8** (2007) μPs → **AMD-based variants**.
- Zilog (CA) Z80 μP** (1976) → **RadioShack TRS-80** (1977) → **Digital Research (CA) CP/M** (1977), **DR-DOS** (1988) → **Microsoft (WA) MS-DOS** (1981) → **IBM (FL) PC/AT 5150** (1981), **PC/XT 5160** (1983) → **Microsoft (WA) Windows** (1985) → **Microsoft (WA) Windows NT** (1993), ..., **95**, ..., **98**, ..., **2000**, ..., **XP** (2001), ..., **Vista** (2006) → **modern commodity computers** → **AMD (TX) K5** (1996), **K7**, **K8** (2007) μPs → **AMD-based variants**.
- MITS (NM) Altair 8800** (1975) → **Microsoft (WA) MS-DOS** (1981) → **IBM (FL) PC/AT 5150** (1981), **PC/XT 5160** (1983) → **Microsoft (WA) Windows** (1985) → **Microsoft (WA) Windows NT** (1993), ..., **95**, ..., **98**, ..., **2000**, ..., **XP** (2001), ..., **Vista** (2006) → **modern commodity computers** → **AMD (TX) K5** (1996), **K7**, **K8** (2007) μPs → **AMD-based variants**.
- Commodore (PA) 128** (1985) → **Microsoft (WA) MS-DOS** (1981) → **IBM (FL) PC/AT 5150** (1981), **PC/XT 5160** (1983) → **Microsoft (WA) Windows** (1985) → **Microsoft (WA) Windows NT** (1993), ..., **95**, ..., **98**, ..., **2000**, ..., **XP** (2001), ..., **Vista** (2006) → **modern commodity computers** → **AMD (TX) K5** (1996), **K7**, **K8** (2007) μPs → **AMD-based variants**.
- Apple (CA) Lisa** (1983), **Macintosh** (1984) → **Apple (CA) Macintosh II** (1987) → **Apple (CA) 2006 Intel-based Mac mini, MacBook, Mac Pro, MacBook Air** (2008).
- Atari (CA) ST series** (1985): **520ST & 1040ST** → **mouse, GUI** → **Apple (CA) Lisa** (1983), **Macintosh** (1984) → **Apple (CA) Macintosh II** (1987) → **Apple (CA) 2006 Intel-based Mac mini, MacBook, Mac Pro, MacBook Air** (2008).
- Amiga (CA)** (1985, after acquisition by **Commodore**) → **mouse, GUI** → **Apple (CA) Lisa** (1983), **Macintosh** (1984) → **Apple (CA) Macintosh II** (1987) → **Apple (CA) 2006 Intel-based Mac mini, MacBook, Mac Pro, MacBook Air** (2008).
- Commodore (PA) 128** (1985) → **Microsoft (WA) MS-DOS** (1981) → **IBM (FL) PC/AT 5150** (1981), **PC/XT 5160** (1983) → **Microsoft (WA) Windows** (1985) → **Microsoft (WA) Windows NT** (1993), ..., **95**, ..., **98**, ..., **2000**, ..., **XP** (2001), ..., **Vista** (2006) → **modern commodity computers** → **AMD (TX) K5** (1996), **K7**, **K8** (2007) μPs → **AMD-based variants**.
- Microsoft (WA) Windows** (1985) → **Microsoft (WA) Windows NT** (1993), ..., **95**, ..., **98**, ..., **2000**, ..., **XP** (2001), ..., **Vista** (2006) → **modern commodity computers** → **AMD (TX) K5** (1996), **K7**, **K8** (2007) μPs → **AMD-based variants**.
- IBM (FL) PC/AT 5150** (1981), **PC/XT 5160** (1983) → **Microsoft (WA) Windows** (1985) → **Microsoft (WA) Windows NT** (1993), ..., **95**, ..., **98**, ..., **2000**, ..., **XP** (2001), ..., **Vista** (2006) → **modern commodity computers** → **AMD (TX) K5** (1996), **K7**, **K8** (2007) μPs → **AMD-based variants**.
- Linux** (1991), **FreeBSD** (1993), **NeXT (CA) NeXTcube** (1988), **Apple (CA) Macintosh II** (1987) → **Apple (CA) 2006 Intel-based Mac mini, MacBook, Mac Pro, MacBook Air** (2008).
- AIM (Apple-IBM-Motorola/Freescale) (TX) PowerPC μP** →

See also [The Computer Tree](#) (republished by **Ed Thelen**), which diagrams in great detail computers from the 1945 [ENIAC](#) - "the first modern electronic computer" - to those of the early 1960s.