1971

Kenbak-1

    First commercially assembled personal computer.
    Small and large integrated circuits
    Memory capacity of 256 bytes
    switches for input/ lights for output[1]
    limited input/output capabilities[2]

1972

1973

MCM-70

    Intel 8008 processor
    2 kB RAM, 14kB ROM
    cassette drive[3]

1974

Altair 8800

    2 MHz Intel 8080 microprocessor
    Memory 256 bytes expandable to 64kB
    open 100line bus structure[4]
    Space for 18 cards[5]

1975

BASIC

    Originally designed for the Altair computer.
    Required 6k of memory
    Other versions were created at 4k, 8k, and 12k
    The software was licensed to MITS and Microsoft received royalties on the sale
        of each computer with the Operating System installed.
(Many versions of BASIC were written since it worked as na interpreter and therefore
had to change depending on the hardware and the original language. Other interpreters
were written after BASIC for the programming languages COBOL, FORTRAN,
PASCAL. It was originally written to work with the CP/M system but versions were

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[1] http://www.computerhistory.org/timeline/ ; (page accessed in November and December of 2007)
[2] A History of the Personal Computer, Roy A. Allan, Allan Publishing London, 2001. pg. AA/7
[3] Chronology of Personal Computers http://www.islandnet.com/~kpolsson/comphist/index.htm ; (page
accessed in November and December of 2007)
[4] http://www.computerhistory.org/timeline/ ; (page accessed in November and December of 2007)
[5] A History of the Personal Computer, Roy A. Allan, Allan Publishing London, 2001. pg. AA/7

written to work with other systems as well. Each company would contract with Microsoft, and license the right to use the system on their machine)[6]

1976

Altair 680b

      Motorola 6800 processor[7]
      Memory 256 bytes expandable to 64kB
      open 100line bus structure
      space for 18 cards

IBM 5100

      Originally Released in Japan
      16 kB RAM expandable to 64 kB
      BASIC
      tape storage drive holding 204 kB per tape
      keyboard
      built-in 5-inch screen[8]

1977

TRS-80

      Zilog Z80 microprocessor
      4kB RAM 4kB ROM
      tape cassette
  Stopped in 1981 due its failure to meet new FCC radio frequency interface regulations[9]

VDP-80

      Intel 8085
      3 MHz RAM
      48 or 64 KBROM
      CP/M 1.4 to 2.2
      Two PERSCI 8" FDD[10]

[6].A History of the Personal Computer, Roy A. Allan, Allan Publishing London, 2001. pp. 6/5-6/12.
[7] Chronology of Personal Computers http://www.islandnet.com/~kpolsson/comphist/index.htm ; (page accessed in November and December of 2007)

[8] Chronology of Personal Computers http://www.islandnet.com/~kpolsson/comphist/index.htm ; (page accessed in November and December of 2007)
[9] Chronology of Personal Computers http://www.islandnet.com/~kpolsson/comphist/index.htm ; (page accessed in November and December of 2007)
[10] http://www.old-computers.com/museum/default.asp (accessed in November and December of 2007)

1978

Atari 400

       MOS 6502 microprocessor at 1.8 MHz

       8kB of RAM (expandable to 16)

       Display: 16lines of 32 characters

              high resolution 320 by 192 Pixels[11]

Atari 800

       MOS 6502 microprocessor at 1.8 MHz

       8kB of RAM (expandable to 16)

       Improved keyboard over the 400[12]

1979

TRS-80 Model II

       4 MHz Zilog Z80 A

       32 / 64 KB RAM depending on models

       TRS-DOS[13]

TI-99/4

       TI9940 16bit microprocessor[14]

1980

XENIX OS

       advanced version of UNIX

       Uses Intel8086, Zilog Z8000, Motorola M68000, or DECPDP-11

       Not available to individual consumers, it is only licensed

       More stable than GUI since the code is simpler[15]

DEC Data system 408

       separate dual density disk drive unit[16]

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[11] A History of the Personal Computer, Roy A. Allan, Allan Publishing London, 2001. pg. AA/4
[12] A History of the Personal Computer, Roy A. Allan, Allan Publishing London, 2001. pg. 4/18
[13] http://www.old-computers.com/museum/default.asp (accessed between November and December of 2007)
[14] Chronology of Personal Computers http://www.islandnet.com/~kpolsson/comphist/index.htm ; (page accessed in November and December of 2007)
[15] The History and Future of Microsoft Operating Systems
   http://www.thezac.com/MicrosoftHistory/index.htm ; (page accessed in November and December 2007)
[16] Chronology of Personal Computers http://www.islandnet.com/~kpolsson/comphist/index.htm ; (page accessed in November and December of 2007)

Jennifer Pondo
Digital Preservation
Fall 2007

Atom
    British
    6502 CPU1 mHz
    6847 Video Display Generator, PIA 8255 (keyboard & tape)
    2 KB RAM(up to 12 KB, or 32 KB using external RAM expansion kit.)
    6 K VRAM
    8 KB ROM (up to 16kB)
    Atom BASIC and COS[17]

TRS-80 Model III
    Zilog Z80 processor
    4kB RAM[18]

1981
MS-DOS
    Requires 136K bytes of storage[19]
    Command line driven
    can support up to 320kB disk size
    can not support hierarchical directory structure
    can not support hard drives
    can not support double sided floppy disks or High density floppy disks
    Originally shipped with the IBM personal Computer[20]

XEROX 8010 Star Information System
    bitmapped screen
    WYSIWYG word processor
    SmallTalk language
    Ethernet
    mouse

XEROX 820
    Z80 CPU
    CP/M and BASIC

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[17] http://www.old-computers.com/museum/default.asp (accessed November and December 2007)
[18] Chronology of Personal Computers http://www.islandnet.com/~kpolsson/comphist/index.htm ; (page accessed in November and December of 2007)
[19] A History of the Personal Computer, Roy A. Allan, Allan Publishing London, 2001. pg. AB/1
[20] The History and Future of Microsoft Operating Systems
   http://www.thezac.com/MicrosoftHistory/index.htm ; (page accessed in November and December 2007)

IBM PC 5150
>4.77MHz Intel 8088 microprocessor CPU
>16kB RAM (expandable to 256kB)
>40kB ROM
>one 5.25 inches floppydrive (160kB)
>MS-DOS operating system
>Offered options of PC-DOS, Microsoft BASIC, VisiCalc, UCSD Pascal, CP/M-86, and Easywirter1.0[21]

1982

MS-DOS 1.1
>Additions to previous versions:
>Requires two disk drives
>Enabled writing on both sides of a disk (doubles capacity from 160K to 320K bytes)[22]

MS-DOS 1.25
>Same as 1.1 but made for IBM compatible computers[23]

TRS-80 Model 16
>Zilog Z80 A + Motorola MC 68000 CPU 4 MHz (Z80) + 6 MHz (68000)
>128 KB (up to 512 KB) RAM
>New DOS / Xenix
>Memory cards up to 7 MB[24]

Compaq Portable PC
>compatible with the IBM PC
>4.77 MHz Intel 8088 processor
>128 kB RAM
>320 kB 5.25-inch disk drive
>9-inch monochrome monitor[25]

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[21] Chronology of Personal Computers http://www.islandnet.com/~kpolsson/comphist/index.htm ; (page accessed in November and December of 2007)

[22] A History of the Personal Computer, Roy A. Allan, Allan Publishing London, 2001. pg. AB/1

[23] A History of the Personal Computer, Roy A. Allan, Allan Publishing London, 2001. pg. AB/1

[24] http://www.old-computers.com/museum/default.asp (accessed November and December 2007)

[25] Chronology of Personal Computers http://www.islandnet.com/~kpolsson/comphist/index.htm ; (page accessed in November and December of 2007)

Commodore 64

>6510 processor
>64 kB RAM, 20 kB ROM
>Microsoft BASIC
>custom SID sound chip
>8 sprites
>16-color graphics
>40-column screen
>First personal computer with an integrated sound synthesizer chip[26]

1983

MS-DOS 2.0

>Additions to previous versions:
>>Support for IBM 10MB hard drives
>>360kB double density 5.25inches floppy disk[27]
>>Hierarchical directories
>>UNIX features
>>limited multitasking for printing[28]

IBM PC XT

>Intel 8088 processor
>10 MB hard drive
>128 kB RAM, 40 kB ROM
>double-sided 360 kB floppy drive
>eight expansion slots
>serial port[29]

IBM 5160 Model 588

>Intel8088 CPU
>768 kB RAM 40 kB ROM
> 360 KN disk drive
>10 MB hard drive
>double-sided 360 kB floppy drive
>eight expansion slots
>serial port
>add-in card containing an Intel 8087 math coprocessor
>two Motorola 68000 chips to execute or emulate System/370 instructions[30]

[26] Chronology of Personal Computers http://www.islandnet.com/~kpolsson/comphist/index.htm ; (page accessed in November and December of 2007

[27] The History and Future of Microsoft Operating Systems
  http://www.thezac.com/MicrosoftHistory/index.htm ; (page accessed in November and December 2007)

[28] A History of the Personal Computer, Roy A. Allan, Allan Publishing London, 2001. pg. AB/1

[29] Chronology of Personal Computers http://www.islandnet.com/~kpolsson/comphist/index.htm ; (page accessed in November and December of 2007)

1984

MS-DOS 2.1

        Extends foreign and character support[31]

MS-DOS 2.11

        Same as 2.0 but for International use:

                supports commas instead of decimal points and varied date format[32]

MS-DOS 3.0

        Added features:

                High density 1.2MB 5.25 inches High Density Floppy Disk

                32MB hard drive[33]

                volume names

                RAM disk

                ATTRIB command[34]

MS-DOS 3.1

        Added features:

                networking capabilities for Microsoft MS-NET and IBM PC Network[35]

IBM PCjr

        Intel 8088 CPU

        64 kB RAM (expandable to 128kB)

        detached keyboard

        two cartridge slots

        joystick

        light pen

        serial port

        5.25-inch floppy drive

        PC-DOS 2.1 operating system available as an option[36]

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[30] [30] Chronology of Personal Computers http://www.islandnet.com/~kpolsson/comphist/index.htm ; (page accessed in November and December of 2007)

[31] The History and Future of Microsoft Operating Systems
http://www.thezac.com/MicrosoftHistory/index.htm ; (page accessed in November and December 2007)
[32] A History of the Personal Computer, Roy A. Allan, Allan Publishing London, 2001. pg. AB/1
[33] The History and Future of Microsoft Operating Systems
http://www.thezac.com/MicrosoftHistory/index.htm ; (page accessed in November and December 2007)
[34] A History of the Personal Computer, Roy A. Allan, Allan Publishing London, 2001. pg. AB/2
[35] A History of the Personal Computer, Roy A. Allan, Allan Publishing London, 2001. pg. AB/2
[36] Chronology of Personal Computers http://www.islandnet.com/~kpolsson/comphist/index.htm ; (page accessed in November and December of 2007)

IBM PC/AT

> 6 MHz 80286 processor
> PC-DOS 3.0
> 5.25-inch 1.2 MB floppy drive
> 256 or 512 kB RAM
> optional 20 MB hard drive
> monochrome or color monitor
> *XENIX* operating system from Microsoft is also available[37]

1985

Windows 1.01

> requires 192kB RAM
> acts as the GUI
> taskbar
> tiled windows
> drop down menus
> Is really a shell enhancement that runs on top of MS-DOS
> Can't detect hardware so the user has to specify the I/O address of all the
> additional hardware the computer may have[38]

Commadore 128 PC

> Three computers in one:
> Z80 processor
> 128 kB RAM
> 8502 processor
> complete Commodore 64
> a CP/M mode
> new 128 kB mode
> ROM cartridge port[39]

Amiga 1000

> Motorola 68000 CPU
> 256 kB RAM
> 880 kB 3.5-inch disk drive
> multitasking, windowing operating system
> color graphics with a 4096-color palette
> stereo sound[40]

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[37]) Chronology of Personal Computers http://www.islandnet.com/~kpolsson/comphist/index.htm ; (page accessed in November and December of 2007

[38] The History and Future of Microsoft Operating Systems
   http://www.thezac.com/MicrosoftHistory/index.htm ; (page accessed in November and December 2007)

[39] Chronology of Personal Computers http://www.islandnet.com/~kpolsson/comphist/index.htm ; (page accessed in November and December of 2007

1986

MS-DOS 3.2

       Support for 720kB 3.5 inch floppy disk[41]

MS-DOS 3.25

       support for 1.44MB 3.5 inch High density Floppy Disk
       Allows for hard drive partitions[42]

MS-DOS 4.0

       Requires 1.1 MB of storage
       Added features:

              Can be used with a mouse due to new DOS shell or graphical user interface
              support for hard disk partitions over 32 megabytes[43]
              Hard Drive limit of 2GB
              extended memory above 1024kB of RAM
              Extended memory allowed programmers to write larger and more complex code.[44]

IBM RT PC

       One of the first commercially-available 32-bit RISC-based computers
       1 MB RAM
       40 MB hard drive
       1.2 MB floppy[45]

1987

MS-DOS 3.3

       Added features:

              Improved foreign character support
              Accommodates multiple partitions
              Supports a 32MB hard disk[46]

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[40] Chronology of Personal Computers http://www.islandnet.com/~kpolsson/comphist/index.htm ; (page accessed in November and December of 2007

[41] The History and Future of Microsoft Operating Systems
http://www.thezac.com/MicrosoftHistory/index.htm ; (page accessed in November and December 2007)

[42] The History and Future of Microsoft Operating Systems
http://www.thezac.com/MicrosoftHistory/index.htm ; (page accessed in November and December 2007)

[43] A History of the Personal Computer, Roy A. Allan, Allan Publishing London, 2001. pg. AB/2

[44] The History and Future of Microsoft Operating Systems
http://www.thezac.com/MicrosoftHistory/index.htm ; (page accessed in November and December 2007)

[45] Chronology of Personal Computers http://www.islandnet.com/~kpolsson/comphist/index.htm ; (page accessed in November and December of 2007)

Windows 2.0
>Added features:
>>Overlapping resizable windows
>>Ability to drag and drop icons to new positions on desktop
>>Taskbar removed
>>Integrated utilities: clock, calculator, and paint[47]

Amiga 500
>68000 processor
>512 kB RAM
>floppy disk drive
>custom chips for animation, video, and audio[48]

IBM PS/2
>8 MHz 8086 processor
>640 kB RAM
>720 kB 3.5-inch floppy drive
>20 MB hard drive
>three expansion slots
>PC-DOS 3.3[49]

1988

Windows/286 2.1
>Added features:
>>Able to run multiple DOS applications at the same time[50]

Windows/386 2.1
>Added features:
>takes advantage of Intel 80386 CPU
>Is able to run multiple DOS applications at the same time[51]

IBM PS/2 Model 30 286
>10 MHz 286
>512 kB RAM

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[46] A History of the Personal Computer, Roy A. Allan, Allan Publishing London, 2001. pg. AB/2

[47] The History and Future of Microsoft Operating Systems
http://www.thezac.com/MicrosoftHistory/index.htm ; (page accessed in November and December 2007)

[48] Chronology of Personal Computers http://www.islandnet.com/~kpolsson/comphist/index.htm ; (page accessed in November and December of 2007)

[49] Chronology of Personal Computers http://www.islandnet.com/~kpolsson/comphist/index.htm ; (page accessed in November and December of 2007)

[50] The History and Future of Microsoft Operating Systems
http://www.thezac.com/MicrosoftHistory/index.htm ; (page accessed in November and December 2007)

[51] The History and Future of Microsoft Operating Systems
http://www.thezac.com/MicrosoftHistory/index.htm ; (page accessed in November and December 2007)

       20 MB hard drive
       VGA
       uses the AT-bus[52]

1989

IBM PS/2 Model P70 386
       20 MHz 80386
       60 MB hard drive
       MCA slots[53]
IBM PS/2 Model 55 SX
       16 MHz 80386SX processor
       MCA slots
       30 MB hard drive
       2 MB DRAM
       1.44 MB 3.5-inch floppy drive
       VGA
       13-inch color monitor[54]

1990

Windows 3.0
       Improved GUI graphics
       VGA support
       Program Manager
       File Manager
       Can run in three modes: 8086-real mode, 286 standard mode, and 386 enhanced
           mode
       8086 and 286 have memory limits of 640kB and 16MB
       386 can utilize a page file which sits on the hard drive and can be used by the OS
           as a substitute for RAM[55]

PS/2 Model 90 XP 486- OJ5,OJ9,OKD
       25 MHz 80486 processor
       17-ms 80 MB hard drive
       4 MB RAM
       8 kB caching controller
       1.44 MB floppy drive

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[52] Chronology of Personal Computers http://www.islandnet.com/~kpolsson/comphist/index.htm ; (page accessed in November and December of 2007)

[53] Chronology of Personal Computers http://www.islandnet.com/~kpolsson/comphist/index.htm ; (page accessed in November and December of 2007)

[54] Chronology of Personal Computers http://www.islandnet.com/~kpolsson/comphist/index.htm ; (page accessed in November and December of 2007)

[55] The History and Future of Microsoft Operating Systems
  http://www.thezac.com/MicrosoftHistory/index.htm ; (page accessed in November and December 2007)

       one parallel port
       two serial ports
       mouse port
       XGA video graphics on system board
       four 32-bit Micro Channel slots
       Processor Complex board
       two memory boards
       three 3.5-inch drive bays
       one 5.25-inch drive bay[56]

PS/2 Model 95 XP 486- OJ9, OJD, OKD
       25 MHz 80486 processor
       16-ms 160 MB SCSI hard drive
       4 MB RAM
       8 kB caching controller
       1.44 MB floppy drive
       one parallel port
       two serial ports
       eight SIMM sockets
       XGA Display Adapter/A
       eight 32-bit Micro Channel slots
       Processor Complex board
       two memory boards
       two 3.5-inch drive bays
       five 5.25-inch drive bay[57]

PS/2 Model 75
       33 MHz 486
       8 MB RAM
       160 MB SCSI hard drive
       1.44 MB floppy drive
       10-inch gas-plasma VGA screen[58]

Amiga 3000
       2 MB RAM
       40 or 100 MB hard drive
       Motorola 16 or 25 MHz 68030
       68881 or 68882 math coprocessor

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[56] Chronology of Personal Computers http://www.islandnet.com/~kpolsson/comphist/index.htm ; (page accessed in November and December of 2007)

[57] Chronology of Personal Computers http://www.islandnet.com/~kpolsson/comphist/index.htm ; (page accessed in November and December of 2007)

[58] Chronology of Personal Computers http://www.islandnet.com/~kpolsson/comphist/index.htm ; (page accessed in November and December of 2007)

       Zorro III bus
       AmigaDOS v2.0
       AmigaVision authoring system
       new Enhanced Chip Set[59]

1991

MS-DOS 5.0
       Added features:
              Kernel that would load into HMA
              Limited switching capabilities
              New Shell
              Improved multitasking
              On-line help
              Full screen editor
              80386 memory management[60]
              MS-DOS editor
              QBASIC[61]

1992

Microsoft Windows for Working Groups 3.1
       16bit 64kB
       True Type Fonts
       ability to "Drag and Drop" in the File Manager
       Object Linking and Embedding
       multimedia support: sound, graphics, animation, video, CD-ROM
       Provides full networking support[62]

PS/2 Ultimedia Model M57SLC
       20 MHz IBM 386SLC processor
       4 MB RAM
       160 MB SCSI hard drive
       VGA
       six MCA slots
       XGA video adapter
       M-Audio audio board
       3.5-inch 2.88 MB floppy drive
       600 MB SCSI CD-ROM drive[63]

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[59] Chronology of Personal Computers http://www.islandnet.com/~kpolsson/comphist/index.htm ; (page accessed in November and December of 2007)

[60] A History of the Personal Computer, Roy A. Allan, Allan Publishing London, 2001. pg. AB/2

[61] The History and Future of Microsoft Operating Systems
http://www.thezac.com/MicrosoftHistory/index.htm ; (page accessed in November and December 2007)

[62] The History and Future of Microsoft Operating Systems
http://www.thezac.com/MicrosoftHistory/index.htm ; (page accessed in November and December 2007)

Thinkpad series
300:
25 MHz 386SL processor
700:

monochrome 9.5-inch display
25 MHz 486SLC
80/120 hard drive
4 MB RAM
700C:
 4 MB RAM
removable 120 MB hard drive
Microchannel bus
10.3-in TFT active-matrix VGA
DOS 5.0
TrackPoint II integrated pointing device[64]

1993

Windows NT 3.1
32bit
Maximum of 4GB
First version of Windows NT released
First true operating system (not just a shell on top of MS-DOS)
Has two parts the workstation and the server
Workstation is the desktop PC
Server Primarily controls network logons and security
User interface is the same as Windows 3.1
except: existence of Personal and Common Program Manager Groups
New Control Panel Icons
Administrative tools program group
Able to accommodate longer file names[65]

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[63] Chronology of Personal Computers http://www.islandnet.com/~kpolsson/comphist/index.htm ; (page accessed in November and December of 2007)

[64] Chronology of Personal Computers http://www.islandnet.com/~kpolsson/comphist/index.htm ; (page accessed in November and December of 2007)

[65] The History and Future of Microsoft Operating Systems
   http://www.thezac.com/MicrosoftHistory/index.htm ; (page accessed in November and December 2007)

MS-DOS 6.0
>Requires 8.4MB of storage
>Added features:
>>Improved memory management
>>Multi-configuration support on startup
>>Improved SmartDrive
>>File transfer utility: Interlink
>>DoubleSpace disk compression
>>Anti-virus and undelete utilities (licensed from Central Point Software
>>>Inc.)
>>Backup and defrag utilities (licensed from Symantec Corporation)[66]

1994

MS-DOS 6.21
>Deletes DoubleSpace[67]
>Added:
>>Scandisk
>>Double Guard[68]

MS-DOS 6.22
>Adds DriveSpace (disk compression system)[69]

Windows NT Workstation 3.5, Server 3.5
>New and updated networking components:
>Account lockout feature
>network administration can remotely boot computer
>OLE support
>Open GL support[70]

IBM ThinkPad 755
>First Portable computer with a CD-ROM drive[71]

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[66] A History of the Personal Computer, Roy A. Allan, Allan Publishing London, 2001. pg. AB/3
[67] A History of the Personal Computer, Roy A. Allan, Allan Publishing London, 2001. pg. AB/3
[68]The History and Future of Microsoft Operating Systems
   http://www.thezac.com/MicrosoftHistory/index.htm ; (page accessed in November and December 2007)
[69] A History of the Personal Computer, Roy A. Allan, Allan Publishing London, 2001. pg. AB/3
[70] The History and Future of Microsoft Operating Systems
   http://www.thezac.com/MicrosoftHistory/index.htm ; (page accessed in November and December 2007)

[71] Chronology of Personal Computers http://www.islandnet.com/~kpolsson/comphist/index.htm ; (page accessed in November and December of 2007)