

# Archive Glossary

*This glossary has been created on the basis that someone may read a word or a technical term or an abbreviation within the pages of Archive magazine and think, "What does XXXX mean?". If you think that about a word, look it up in this glossary and then, if it does not appear, please ring, write, fax or email and tell us what it was that you wanted to know.*

*Some of the definitions will be specific to Acorn computers whereas others are also more generally applicable.*

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## !

! -- pronounced "pling" - Under RISC OS, if a directory name starts with a pling, it is taken to be an application.

10base2 -- An Ethernet standard that uses BNC connectors and coaxial cable. Also known as "thin wire" Ethernet.

10base5 -- An Ethernet standard that uses 9-pin D-type connectors and special cable. Also known as "thick wire" Ethernet.

10baseT -- An Ethernet standard that uses telephone connectors and telephone cable. Also known as "Cheapernet".

1MHz bus -- A proprietary (Acorn) parallel digital interface, originally designed for use on the BBC Micro to provide access to complex peripherals such as hard drives. This interface is available on RISC OS computers by using the Acorn I/O card, although its '1MHz bus' operates at 2MHz!

80486 -- Developed from the 80386, 80286, 80186, 8086, 8088, 8008, 4004. The 4004 was designed to operate a washing machine. See Pentium, the version of the processor that can operate a washing machine and heat the water too. (Historically correct, don't ya know!)

## A

Action button -- A button in a dialogue box which causes some action to occur.

ADFS -- Advanced Disc Filing System -- This is the proprietary system used by Acorn for organising and storing data on floppy and hard drives.

AIM -- Another Image Manager -- A suite of image processing software produced by Delft University of Technology in the Netherlands.

ANSI -- American National Standards Institute. The body that, amongst other things, validates the specification for the C language. There is also specify a character set that bears their name.

Application -- The more general use of this word means any job for which the computer may be used, but it has a more specific definition. It is used to refer to a directory (with a name beginning with a "!") which contains a program or programs that work under RISC OS to perform a particular function. When the application is loaded, it usually makes itself available to the user via an icon on the righthand side of the iconbar.

Application directory -- Similar to an ordinary directory in that it contains other files and directories but its name starts with an exclamation mark so that when you double click on the directory, it starts up the application rather than just opening the directory. To open an application directory, double click with <shift> held down.

Apps icon -- This is an icon that appears on the lefthand side of the iconbar (RISC OS 3 onwards). It gives you access to a range of applications such as Draw, Paint, etc that are provided with each Archimedes or Risc PC computer.

Archive -- The best Archimedes magazine ever, or... A backup of some data.

ARM -- Acorn RISC Machine -- This is the original name for the 32-bit RISC processor designed by Acorn Computers Ltd. In the name "ARM Ltd", the company formed between Acorn and Apple, the "ARM" actually stands for Advanced RISC Machine.

ASIC -- Application Specific Integrated Circuit -- A single chip electronic circuit that is specially designed (by computer simulation -- what else?!) for a particular application, e.g. to provide the logic needed to interface a 486 processor on a Risc PC second processor card to the main ARM600 processor and its address and data buses.

Assembler -- A compiler for converting a program written in mnemonics into a machine code executable program.

ATAPI -- (ATA Packet Interface) A development of the IDE standard allowing CD-ROM drives, scanners, etc to be connected more easily.

AUN -- Acorn Universal Networking -- This does not apply to a specific product or even a network user interface but "the overall banner for Acorn's networking policy for the '90s giving the strategic direction of networking for Acorn computers."

## **B**

Back icon -- The icon at the top lefthand corner of a window which allows you to push the window to the back of the desktop.

Backdrop -- This is a desktop background which may be a sprite or just a pattern.

Backplane -- A small printed circuit board with connectors on it that allows you to plug in a number of expansion cards.

Basic -- Beginners All-purpose Symbol Instruction Code -- A commonly-used interpreted high level language. It comes as standard on all Acorn computers.

Baud -- This is a unit of speed for serial data transmission. 1 Baud = 1 binary bit per second.

Bezier curves -- Mathematically defined curves used (amongst other things) by RISC OS to create outline font shapes.

BIOS -- Basic input/output system -- This is the part of a PC compatible's operating system that is held in ROM, allowing the computer to start up and load the rest of its operating system from disc. (cf RISC OS computers where the whole of the operating system, plus a few extra goodies, are held in ROM and are available at switch-on.)

Bit -- Binary digit -- A bit is the smallest unit of binary data. It has two values, 0 and 1. A group of 8 bits of data (referred to as a byte) could be used to represent a single character using, most commonly, the ASCII code or it could represent (part of) an instruction that the computer would execute at some stage or it could represent (part of) a number.

Bit-mapped (graphics) -- It is possible to represent a picture on a computer by using a matrix of (coloured) dots. The resolution of bit-mapped pictures is limited by the numbers of dots used. (This contrasts with vector graphics -- see below. For example, the Paint application produces bit-mapped graphics whereas Draw produces vector graphics.)

BNC connectors -- The bayonet-type (push-and-twist) connectors used in Ethernet installations.

Bpp -- Bits per pixel -- The number of bits used to store the colour of each pixel.

Bubblejet printer -- This is a type of inkjet printer where the patterns on the paper are generated by squirting ink through a series of tiny nozzles in the print head. Functionally, it is the same as an inkjet printer. The ink near the end of the nozzle is heated so that it expands and squirts a small volume of ink out onto the paper.

Bug -- Error in a computer program.

Bullet -- A large black dot --  $\square$  -- used to highlight something within some text.

Bus -- A set of parallel wires or PCB tracks along which data is transmitted in a computer system. The width of the bus refers to the number of parallel tracks -- the wider the bus, the faster data can be transmitted down it.

Byte -- A byte refers to 8 bits of binary data stored within a computer's memory or on a data storage medium.

## C

C -- A high level compiled language.

C++ -- This is an object-oriented version of the C language.

Cache -- An area of RAM set aside for the fast storage and retrieval of a certain type of data e.g. font cache. All Acorn computers since the A5000 have had a cache incorporated into the processor, giving a massive improvement in performance. The ARM 2 and ARM 250 don't have a cache.

CAD -- Computer Aided Design -- A computer-based application that allows users to draw, design and model engineering objects.

Caps -- Short for 'capitals'. See also small caps.

Capslock key -- This is a key on the lefthand side of the keyboard. When it is pressed and the Caps-lock light comes on, all text typed into the keyboard appears in upper case.

Caret -- A red vertical bar in a screen display that marks the point at which text will appear if it is typed in from the keyboard.

CD -- Compact Disc -- A high density digital storage medium originally intended for hi-fi sound reproduction but now applied to storage of text and image data for various computer applications.

CDFS -- Filing system used for accessing CD-ROMs.

CD-ROM -- Compact Disc Read Only Memory -- A CD used for the storage of computer data. It is called a ROM to emphasise that the data on the disc, once written in the manufacturing stage, cannot be modified.

Centronics -- The company that invented the parallel port of the same name.

CFS -- Compression Filing System -- This is a way of accessing a data storage system through a compression/decompression system such that it is transparent to the user, i.e. the user need hardly know that the data is being compressed and decompressed but just sees it as being read from and written to the storage device.

Clear (files) -- A standard format for storing and transferring 24-bit pictures.

CLI -- Command line interpreter -- Pressing <f12> allows you to type command lines into your RISC OS computer. These are then interpreted by the CLI.

Click -- Press the (left hand) button of the mouse.

Close icon -- The icon at the top left of each window, next to the back icon which allows you to close the window.

Concept keyboard -- An input device consisting of a flat panel, usually A4 or A3 sized, that has a matrix of pressure switches below the surface. Different sheets, called overlays, can be placed on top of the panel to show the user which areas to press to get certain responses from the application software that is currently running. They are particularly useful in primary school or special needs situations.

CMYK -- Cyan, Magenta, Yellow, Key -- A method of specifying colour by using the amounts of the three primary (subtractive) colours plus the amount of black (Key).

Colour depth -- Every pixel on a computer screen display has its colour defined by a certain number of bits of data. The colour depth refers to the range of different colours available for each pixel in a particular screen mode. If a single bit were used, it would only allow it to be one of two colours -- usually black or white. If it were defined by two bits, it could have 4 ( $2^2$ ) different colours, four bits would provide ( $2^4$ ) 16 different colours, 8-bit provides 256 ( $2^8$ ) colours, 16-bit gives over 32 thousand colours and 24-bit allows each pixel to have any of about 16.7 million different colours -- about as much as the human eye can distinguish. The 32-bit colour of the Risc PC "only" gives 16 million colours but the extra 8 bits can be used by the computer to produce various different special effects.

Command line -- All Acorn computers now come with a WIMP interface. However, it is possible to give the computer operating system commands by typing them in from the keyboard. If you press <f12>, a star prompt appears. This is the command line. You can enter commands such as CAT<return> to get a catalogue of the current storage device.

Compiler -- In a computer language, instructions that the programmer enters as (vaguely) understandable words have to be translated into series of the very simplest steps that the cpu executes. These simple instructions are called machine code. The job of a compiler is to take the whole of a program and convert it into a single machine code program which can be executed then or at a later stage. This contrasts with an interpreted language in which each individual line of the program is converted into machine code as the program is running. In a compiled language, you have to convert the whole program before you can run any of it whereas in an interpreted language you can run the program at any time, stop it, change the program and run it again. On the other hand, interpreted programs tend to run more slowly because even if one line of the program is run many times, it has to be interpreted into machine code every time it is run.

Configuration -- A collection of settings and option which describe how the computer will operate when it is first switched on.

Control codes -- Special non-printing ASCII codes which cause a device to perform some electronic or mechanical action, e.g. ASCII 10 is linefeed, 13 is a carriage return and 12 ejects the paper or clears the screen.

Coprocessor -- See Second Processor.

Coprocessor -- Also used of any hardware such as an FPA that is used to extend the instruction set of the CPU.

CPS -- Characters per second -- A way of measuring the speed of dot matrix or inkjet printers.

CPU -- Central Processing Unit -- This is the electronic circuitry at the heart of a computer that executes (very rapidly!) a series of simple steps of reading, manipulating and writing information to and from the computer's RAM memory and input/output devices.

CRC -- Cyclic redundancy check -- This is a way of checking for errors in stored and transmitted data.

Crop marks -- In publishing, it is important to define where a printed image appears in relation to the edges of the paper. To do so, the images can be printed on a larger sheet of paper and markers placed on the sheet to show where the corners of the paper will be.

CSV -- Comma Separated Variables -- A standard way in which data is stored in a file where the items of data are separated by commas.

## D

DAT -- (Digital Audio Tape) Originally intended for home audio use, DAT proved suitable for serial storage of large amounts of data. A DAT drive can store Gigabytes on a single tape in a couple of hours -- ideal for back-up. (Also referred to as R-DAT.)

Database -- The definition of this word has changed over the years. It used to mean a unified collection of data files but now it tends to refer to an integrated system of data plus the means of interrogating and manipulating the data -- even to the extent of referring to a database language.

Daughterboard -- See under 'motherboard'.

DEBI -- DMA Extended Bus Interface -- This is a means of connecting expansion cards to the Risc PC. (Depending on which magazine you read, it can support anything between eight and fourteen expansion cards! Currently, the maximum is eight but we think it is theoretically possible to have more.)

Debug -- Remove the bugs (errors) within a program.

Debugger -- An application written to provide tools to aid the process of finding errors in a program.

Decompression -- See under compression.

Default -- The standard setting or option which the computer selects unless the user has specifically told it to do otherwise.

Device -- This is the technical term for any information storage medium (e.g. floppy or hard drive) or transmission system (e.g. network, modem or printer) that can be accessed through the computer. Each currently available device is represented by an icon at the lefthand side of the iconbar.

Dhrystones -- strictly Dhrystones/second -- This is a means of indicating the speed of a processor by testing the number of iterations of a particular test program it can perform each second. For example, the Risc PC 600 with a 30MHz ARM600 processor can perform about 40,000 Dhrystones/second.

Dialogue box -- A window in which you are expected to select various options and/or enter a filename before the computer performs a particular task or operation.

Digitiser -- An electronic circuit which takes an analogue signal such as a sound or a video signal and turns it into digital information which can be stored and/or manipulated within the computer and output again as a sound or video signal.

Direct drive laser printer -- In conventional laser printers, the computer sends information to the printer about what is to be printed, in what position and with what styles etc. The processor and memory in the laser printer are then used to work out what dots to place where on the paper. In a direct drive laser, by contrast, the computer works out what the pattern of dots should be and then sends the dot pattern down to the printer on a high speed ("video") parallel interface. This means that the printer needs little or no memory of its own and the process is faster because ARM

processors tend to be much more powerful than the processors used in laser printers.

Directory -- When data is stored on a storage medium such as a floppy disc, it can be grouped into directories. When the iconbar icon is clicked, a window appears showing the data in the root (i.e. main) directory. This may be items of data (stored as files), applications or other directories. These directories in turn can contain more information and/or further sub-directories. This system of directories within directories is called a hierarchical data structure.

Dithering -- When displaying a picture on a computer screen in, say, a 256 colour mode, it is possible to give the impression of intermediate colours by mixing dots of the different colours in different ratios. This is done using a random displacement of these dots to avoid a patterned effect. This technique is called dithering.

DMA -- Direct Memory Access -- When information is being taken into a computer from an external source, the cpu normally reads a location, or block of locations, in the external device and writes the information into its own RAM memory. With DMA, by contrast, the information is written directly from the external device into the cpu's memory without the cpu being involved. This means that the process is much faster, as the cpu can be doing other things while the information is being loaded automatically into memory.

Dongle -- This is a small electronic circuit, usually held in a plastic connector block, that goes on the parallel port of a computer. It forms an electronic 'key' that allows you to use a particular application (such as Impression or ArtWorks). The application checks every now and then to see if a dongle is present and, if not, it shuts itself down and will not restart.

DOS -- Disc Operating System -- but also now used as shorthand for DR-DOS or MS-DOS -- These are the operating systems most commonly used on IBM PC computers and compatibles. They can be used on Acorn computers by using the PC Emulator or a PC expansion card or, on a Risc PC, a PC processor card. They are command-line operating systems, i.e. they do not use a wimp interface. (For most practical purposes, there is very little difference between DR-DOS and MS-DOS.)

Double-click -- Press the (left hand) button of the mouse twice in quick succession.

Double density floppy discs -- Discs that can store approximately 800Kb of data when formatted.

dpi -- dots per inch -- On a desktop printer, the text and graphics are reproduced by rows and rows of tiny dots. The smaller the dots, the better the definition of the resulting printout. This is usually specified as the number of dots per inch that the printer can lay onto the paper. The same idea is used for scanning. When scanning a picture or diagram, the grey level (see below) of rows of tiny areas of the picture are assessed by the scanner. The closeness of the areas being differentiated is measured in dots per inch.

DPMS -- Display Power Management Signalling -- When monitors are not being used, it is a waste of energy to have them on at normal brightness. RISC OS 3 supports screen blanking which helps to reduce energy consumption, but some monitors can accept special electronic signals from a computer to tell it to drop into a very low power consumption mode if it is not being used. This signalling between computer and monitor is not available in all monitors, although a lot of newer monitors are beginning to provide it.

DPOB -- Dual Processor Open Bus -- On the Risc PC, the processor(s) are held on separate cards which plug into the main PCB or motherboard. It can take two such processor cards and the dual processor open bus is a way of allowing two different (or similar) processors to share the use of the computer's memory and input/output and data storage facilities.

DRAM -- Dynamic Random Access Memory -- This is the most common form of RAM memory used in computers today. 'Dynamic' is a technical term which refers to the way in which the

information is stored within the chips.

DSP -- Digital Signal Processing -- A set of techniques for modifying (sound) signals. It involves digitising the signals, performing various mathematical processes on the data and then turning the resulting data back into an analogue signal.

DTP -- DeskTop Publishing -- As desktop computers have increased in processing power, it has become possible for them to handle both text and graphics, to allow users to manipulate them on-screen and output them to a printer. In this way, "books" can be produced on a desktop computer -- hence the term 'desktop publishing'.

Dual port RAM -- See VRAM.

## **E**

Econet -- This is a means of connecting two or more computers together so that they can exchange information and share the use of peripherals such as printers. It is a type of Local Area Network (LAN) developed in the early '80s by Acorn Computers Ltd.

Editor (1) -- An application that allows you to edit the contents of a file.

Editor (2) -- Someone who is daft enough to take on the task of putting together a massive glossary!

EEPROM -- Electrically Erasable Programmable Read-Only Memory -- A form of non-volatile memory that remains unchanged, even when the power is switched off but which can be altered in situ by using appropriate electronic circuitry i.e. it can be reprogrammed through software.

E-IDE -- (Extended IDE) A development of IDE allowing four drives to be connected at once.

EISA -- the Extended ISA bus.

Email -- Electronic mail -- A means communicating with other computer users via a LAN or through a modem to a national or international computer centre.

EPROM -- Erasable Programmable Read-Only Memory -- A form of non-volatile memory that remains unchanged even when the power is switched off but which can be altered by using ultraviolet radiation to erase the information and high voltages to re-program it. (But see Flash ROM and EEPROM.)

EPS -- Encapsulated PostScript -- This is a type of computer-generated file containing the necessary PostScript commands to reproduce the picture. It usually includes a 'snapshot' of the picture that can be used for positioning purposes. EPS is a defined standard allowing output from one application to be used within another.

Error box -- A special type of dialogue box that gives information to a user about the type of error that has occurred, requiring him to acknowledge that it has been read.

Expansion card -- formerly called podules or peripheral modules -- An extra circuit board fitted to your computer that will allow it to perform various extra functions which cannot be done with software alone.

## **F**

FAST -- Federation Against Software Theft -- An organisation supported by software producers that is dedicated to preventing software piracy.

FAT -- The file allocation table of DOS discs, i.e. it is a map of where all the (bits of) files are located on the disc.

Fax -- abbr. Facsimile -- A method of sending graphical data down a serial communication system (usually a telephone line) that involves (conventionally) scanning a document at one end, transmitting the data via modulated tones and then reproducing the picture at the other end on heat-sensitive paper. Computers are now able to link directly to fax modems to allow computer-generated graphics to be transmitted as if they came from a conventional fax. Similarly, a computer and fax modem can be used to receive a fax transmission whether or not it is originated by a 'real' fax machine. It can then display it on the screen and/or output it via a conventional printer.

Fax modem -- A modem that is used to enable a computer to provide fax-type transmission of data down a telephone line.

File -- A collection of information gathered together and given a filename to identify it. It is stored in a directory in a filing system.

Filer or Filing system -- A system used to handle the storage of information. The ADFS filer and the SCSI filer are the two most common on Acorn machines.

Firmware -- This refers to software, applications and/or data which is stored in a ROM.

Flash ROM -- To change the contents of a conventional EPROM, the chip has to be removed and erased using ultra-violet radiation. It can then be electrically re-programmed. A flash ROM, by contrast, can be re-programmed electrically in situ, i.e. it can be reprogrammed through software.

Floating point numbers -- In order to represent a wider range of numbers than can be done with integers, and to represent fractions, computers use floating point numbers. These use a number of bytes (usually four) to represent the main part of the number and another byte to represent the power of two by which the number is multiplied.

Floppy disc/drive -- This is a data storage medium consisting of a removable flexible (floppy) magnetic disc in a hard plastic case. These discs can be inserted as required into a floppy drive usually housed within the case of the computer. The most common standard of floppy drive used now is 3½". Some 5¼" drives are still in use but the 8" floppies have virtually all been consigned to the museum of computer technology.

FMV -- Full Motion Video -- A term used to refer to displaying video on a computer screen at full speed. Acorn Replay provides FMV at 12.5 or 25 frames per second.

Fonts -- Characters on the screen and on the printed page can take on all sorts of different shapes and styles. A font is a set of characters that have been designed so that all the letters of the alphabet and a whole range of other special characters (200 or more in a complete set) have the same style. There are also sets of related fonts using the same basic style but with the characters angled (italic) or made heavier (bold) or both (bold italic).

Format -- Formatting is preparing a floppy disc or hard disc ready to receive data. Hard discs usually arrive ready-formatted. Floppy discs may be formatted in a number of different ways. Not all formats of floppy disc can be read on all computers. Without any extra software, Acorn computers can read and write various Acorn formats as well as a number of different PC and Atari formats. With extra software, other formats, such as Apple Mac, are also accessible on Acorn computers.

FPA -- Floating Point Accelerator -- This is a hardware add-on to a cpu which enables it to do floating point calculations more quickly by doing them in hardware rather than in software.

FPE -- Floating Point Emulator -- If an application requires full floating point calculations, it is possible to run it on a computer that doesn't actually have an FPA by emulating the FPA's functions in software.



FPU -- Floating Point Unit -- Another name for an FPA.

Function keys -- These are the set of twelve keys at the top of the keyboard, all prefixed with an "F". What they do will depend on the application currently in use.

## G

Gb -- Gigabyte -- Approximately one thousand million bytes of computer data. (Actually, it is  $1K \times 1K \times 1Kb = 2^{30} = 1024 \times 1024 \times 1024 = 1,073,741,824$  bytes.)

Genlock -- This is a device which enables the output from the computer's video system to be synchronised with a normal video signal so that computer-generated text and graphics can be superimposed on the video signal.

Grey levels -- A photograph may have some areas completely white and some completely black. Most areas, however, will be somewhere in between. If you wish to represent that picture electronically, you have to judge the 'greyness' of each part of the picture. If you represent this on a scale of 0 to 15 (16 grey levels), it will not give such a faithful representation of the picture as if 64 or 256 grey levels were used. However, the more grey levels used to represent each point on the picture, the more data is being used. For example, in 256 grey levels, a full A4 picture scanned at 400 d.p.i. could occupy as much as 12Mb!

GUI -- Graphical User Interface -- At one time, virtually all interaction between humans and computers was done on the basis of the human typing words or codes into some form of keyboard, and the displays were only able to show text characters, not graphical images. As computing power became more accessible, it became possible to provide a form of interaction that was based far more on pictures (icons) within windows on the screen. The user could then indicate choice and initiate action by using a mouse or trackerball to move a pointer around the screen.

## H

Hard drive -- A case containing a number of rigid metal discs covered with magnetised material that can be used to store data; it usually has a capacity of several megabytes or even gigabytes.

HD -- Hard drive.

Hierarchical -- This is usually used in referring to the data structure on storage media -- see 'directory'.

High level language -- This refers to a computer language in which instructions that the programmer enters are each converted into a number of machine code instructions by a compiler or an interpreter. Basic, Fortran, C etc are high level languages, whereas assembly language is a low level language.

High density floppy discs -- Discs that can store approximately 1,600Kb of data when formatted under ADFS or up to 1,440Kb when formatted under MSDOS.

HSV -- Hue Saturation Value -- This is a colour-picking system for use in DTP.

Hourglass -- This is the egg-timer thing that appears on the screen all too often, telling you that the application is taking a long time to do something and that it doesn't want interrupting.

## I

Iconbar -- The strip along the bottom of the computer screen that contains icons for devices (to the left) and applications (to the right) that are currently available to the user.

Icons -- Small pictures representing devices, files, directories, applications, etc.

IDC -- Insulation Displacement Connector -- This refers to a connector where the connection between the contacts and the individual wires is made by squeezing a row (or usually two rows) of sharp metal teeth onto a ribbon cable so that the teeth cut into the insulation and make contact with each individual wire.

IDE -- Integrated Drive Electronics -- An electronic standard method of connecting one or two hard drives to a computer system. The standard was set up to provide a simpler and cheaper means of connecting hard drives to IBM and compatible computers than was currently available.

IEEE488 -- An interface standard for connecting scientific instruments to computers as agreed by the Institute of Electrical and Electronic Engineers (USA). 488 is the number of the document. Usually called IEEE interface, but also HPIB and GPIB for Hewlett Packard .... and General Purpose ...., originally designed by HP. It is an 8-bit data bus, allowing up to 16 devices to be addressed, with handshake and interrupt lines. Intelligent Interfaces make a very good IEEE interface for the RISC OS computers, but it won't work with the Acorn Unix boxes because of interrupt latency.

IIC or I<sup>2</sup>C -- Phillips' proprietary 2-wire serial bus interface. One wire is a clock and the other carries serial data. Used internally in Archimedes computers for the real time clock and the CMOS RAM. Difficult to use externally because of buffering problems (it is very difficult to buffer a bidirectional line). IIC is used in TVs and radios, HiFis etc.

Image processing -- If an image is stored on a computer as binary data (such as a sprite file) it is possible to manipulate the data mathematically to enhance, distort, translate or otherwise modify the picture in controlled ways.

Inkjet printer -- This is a type of printer where the patterns on the paper are generated by squirting ink through a series of tiny nozzles in the print head.

Input focus -- The input received from the keyboard can be directed to one and only one window at a time. The window currently receiving information from the keyboard is said to have the input focus. This is indicated by the title bar of the window changing from grey to yellow.

Interlace -- Build up a picture on a monitor screen using two passes, each displaying alternate lines, the aim being to reduce flicker effects.

Interpreter -- A type of high level language in which each instruction is converted into machine executable code line by line, as the program proceeds. (See 'compiler' for more explanation.)

I/O -- Input/Output.

I/O podule -- Acorn's (dual width) interface card that provides RISC OS computers with some of the many interface facilities that were standard on the BBC Micro range of computers. Interfaces include user port, parallel port, analogue post and 1MHz bus.

IOC -- Input/Output Controller -- The I/O chip used on pre-Risc PC Acorn computers was called IOC.

IOMD -- Input Output Memory Device -- This is a computer chip designed by ARM Ltd which allows ARM processors to control input/output devices and to access memory.

ISA Bus -- Industry Standard Architecture -- This is a 'standard' expansion interface as used on PC compatibles. (Also referred to as the AT bus?)

ISO -- International Standards Organisation -- they validate Pascal.

## J

JEDEC -- (Joint European something or other?)

## K

Kb -- Kilobyte -- Approximately one thousand bytes of computer data. (Actually, it is  $2^{10} = 1024$  bytes.)

Kernel -- The main part of the RISC OS operating system.

Kerning -- This refers to the spacing between individual pairs of characters. To improve the look of printed text, certain character pairs need to be printed closer together than others. It can also refer to shifting characters up or down relative to one another.

## L

LAN -- (Local area network -- A general term for a means of connecting computers together on one site so that they can share information. Eiconet and Ethernet are examples of LANs.

Leading -- This refers to the spacing between lines in printed text. The term comes from the days of mechanical typesetting where bits of lead strip were used to separate one line from the next.

Leafname -- The last part of the pathname, i.e. the name of the file or directory being referred to.

Letter box mode -- There are some monitors that were never designed to display screen modes of the like of Acorn modes 12, 15, etc. Some are completely incapable of displaying them whereas others can display them but with a somewhat reduced vertical height, the shape being likened to the mouth of a letter box.

Linker -- When using a compiler, this is the program that joins the object code from various sub-programs, including the library routines, to form the final executable machine code program.

Lisp -- A high level computer language often associated with artificial intelligence programming.

Low level language -- A language which involves programming the computer at the level of one written instruction (or mnemonic) for each machine code instruction.

## M

Magneto-optical -- A technology used to provide read-write data storage with a removable medium. It is slower than the magnetic technology of conventional hard drives, especially in writing. However, magneto-optical discs are much cheaper than the cartridges used for conventional removable hard discs.

Mail merge -- When you want to send the same document to many people, you can use a file which contains the basic text which is to remain constant. The changeable details are then held in a separate file. At the time of printing, the computer will insert the information, such as names and addresses, so that each letter is individually addressed.

Mask -- See Transparency mask.

Mb -- Megabyte -- Approximately one million bytes of computer data. (Actually, it is  $1K \times 1Kb = 2^{20} = 1024 \times 1024 = 1,048,576$  bytes.)

MEMC -- MEMory Controller -- The chip used on pre-Risc PC Acorn computers to control the way the cpu and video controller accessed the computer's memory.

MHz -- MegaHertz or Millions of cycles per second -- This is most often used to refer to the speed of a computer's processor or memory. e.g. the Risc PC 600 has a 30MHz processor which means that it can carry out 30 million program steps each second.

Midi -- Musical Instrument Digital Interface -- A defined standard for the physical link-up between musical instruments and controllers, and also the format of the data transmitted.

MIPS -- Million Instructions Per Second -- A measure of how fast a cpu is running in terms of the number of instructions it can execute each second.

Mnemonic -- A code used in an assembler to represent a machine code instruction.

Mode -- See screen mode.

Monitortype -- A computer variable that determines which ranges of screen modes the computer will attempt to display on your monitor.

Motherboard -- The main circuit board of a computer is sometimes referred to as a motherboard, especially when, as in the Risc PC, many of the functional parts of the computer are on separate PCBs (sometimes called daughterboards) that are plugged into the main or motherboard.

MPC -- Multimedia Personal Computer -- The "standard" multimedia computer used in the PC world.

MTBF -- Mean Time Between Failure -- An indication of how long, on average, it will be before a machine goes wrong.

Multimedia -- A blend of communications elements, usually computer-based, which allow information in such forms as sound, speech, text, still pictures, moving images and animations to be presented to the user so that it can be accessed in an interactive way, the user selecting which piece(s) of information to pursue.

Multisession -- Information stored on a PhotoCD can be added to at a later date with the appropriate (very expensive) equipment. In order to read all the information on these CDs, you need a CD-ROM drive that is multisession capable.

Multisync monitor -- Some monitors are designed (for cheapness) that only display in certain modes. Others can display a range of different modes -- they can synchronise onto a range of different frequency signals and are therefore called 'multisync' monitors.

Multitasking -- An operating system like RISC OS is capable of running a number of different tasks all at the same time. This is multitasking. (Actually, I think it's a bit of a con. The cpu can really only do one job at a time but what it does is to do a little bit of each task every fraction of a second.) There are two basic types of multitasking: preemptive and cooperative. (Can anyone offer me a definition of those two?)

## **N**

Network -- A means of connecting a number of computers together so that they can share data and the use of peripherals.

Nibble -- Four binary bits, i.e. two nibbles make a byte.

NFS -- Network Filing System -- Acorn's filing system for use on networks.

## **O**

Obey file -- A file of commands prepared for execution by the RISC OS command line interpreter.

Object code -- the machine-executable code produced by a compiler.

Object oriented -- The approach used in conventional programming is to have a number of procedures or routines which can work on some data. There is no conceptual connection between the data and the operations which are performed on it. In contrast to this, object-oriented programming works on a concept of objects, which consist both of data fields (similar to a structure in C) and of a list of methods which may be applied to that data. For example, you could define an object point (with data x and y, both integers), and define a move method on it to change these fields.

One of the most useful concepts which may be derived from this is inheritance -- an object can be defined as a sub-type of another object, and in doing so inherit all its methods (and data fields), but may also add its own. As an example, you could define a circle object with data x and y (inherited from the parent point object) but with another data field, radius. Similarly, the circle would inherit the move method (which would not have to be rewritten), but could also have a resize method added to it.

The result of these changes in approach is that it is often easier to implement large programs, since it is harder to get confused about how a piece of data should be used, and less code needs to be rewritten. Object-oriented languages include Modula-3, C++ and Objective C.

OCR -- Optical Character Recognition -- Computers can be trained to examine the shapes of typed or printed characters and work out what the letters, words and sentences are. So, combined with a scanner or camera and digitiser, the computer can 'read' text off books and paper. Because of the difficulty of being 100% accurate, it may take as long to edit out the mistakes as to type the text in from scratch, so OCR programmers are fighting all the time to make their programs more and more accurate without becoming too slow for practical use. This facility will become more viable as we get progressively faster processors.

OLE -- Object Linking and Embedding -- This is a means of linking data of different types (e.g. text, drawfiles, sprites, etc) within one document so that each element can be easily edited. Double-clicking on an element brings up the appropriate editing application (Draw, Paint, ArtWorks, etc) to allow you to make the necessary changes without having to export and then re-import the data.

Operating system -- This is the set of "house-keeping" programs within a computer which handle all the input/output, filing systems, etc. All modern Acorn computers come with the RISC OS operating system as standard (stored in ROM) but it is possible to use alternative operating systems such as DR-DOS and MS-DOS by adding the appropriate software or hardware.

Option icon -- An icon that appears in a dialogue box. Each time you click on it, you will switch a particular option on or off.

OS -- Operating System -- See above.

OSCLI -- Operating System Command Line Interpreter -- The part of the RISC OS operating system that deals with command lines that are either typed in at the keyboard or issued by other programs.

OS graphic unit -- A unit for defining graphics under RISC OS so that they are independent of the current screen mode. There are nominally 180 OS graphics units to the inch.

Outline fonts -- These are fonts that are described mathematically by using equations to define the curves that make up the outline of the character's shape. Using these equations, it is relatively simple to work out how to display any font at any size, either on the screen or on a printer where the shape has to be reproduced as a series of dots.

# P

**Palette** -- This is a set of colours used for the desktop display. If the display has, say, 256 colours, the palette determines which actual physical colour is displayed on the screen for each of the colour numbers from 0 to 255.

**Pane** -- A dialogue box that is attached to a particular window, e.g. the toolbox at the side of a Draw window.

**Parallel** -- A device or communication channel is said to be parallel if the data is sent several bits at a time down several parallel wires -- the printer port sends eight bits of data at a time.

**Parallel processor** -- In some computers, such as the Risc PC, it is possible to have two processors working side-by-side, sharing the use of memory, data storage and peripherals -- such processors are referred to as 'parallel processors'.

**Parent directory** -- The directory within which the directory you are currently dealing with is stored. (It is the opposite of a subdirectory.)

**Parity** -- A method of checking for errors in transmitted or stored data. An extra bit (the parity bit) is added to each ASCII character so that the number of '1' bits is always odd (or always even).

**Pascal** -- A compiled language (what can one say about it?)

**Pathname** -- This is the full name of a file or directory including the filing system, disc name (or number) and the sequence of directories that have to be opened to access that particular file or directory e.g. SCSI::Paul105.\$Archive.Bits.!Glossary.

**PBM (files)** -- Portable Bit-Maps -- A standard format for storing and transferring bit-mapped graphics.

**PCB** -- Printed Circuit Board -- A piece of insulating material covered with conducting tracks, used to interconnect electronic components to make up an electronic circuit.

**PC Card** -- A PC processor on a separate card that can be used as a second processor in a Risc PC.

**PC Emulator** -- A software application that can work within RISC OS or as a separate program taking over the whole of the computer's processing power which enables the computer to pretend to be an IBM PC and run (most of) the programs that are written to run under MS-DOS or DR-DOS on those computers.

**PC Expansion Card** -- An expansion card containing a PC processor plus memory plus some I/O capability that can allow PC programs to be run within the RISC OS environment.

**Pentium** -- This is a 32-bit cpu with a 64-bit data bus produced by Intel Corporation.

**Peripheral** -- An item of hardware such as a monitor or printer that can be connected to your computer.

**Pinboard** -- This is an application that makes use of the blank areas of the desktop. You can 'stick' various files or applications onto it so that they are easily accessible without having the filer windows open for each of the directories in which they are stored.

**Pixel** -- A tiny point of light and colour which is the smallest picture element in a video or computer image. The more pixels making up the image, the better the resolution.

**Podule** -- See 'expansion card'.

**Pop-up menu** -- A menu available by clicking an icon in within a dialogue box. The icon is often placed alongside a display showing the current setting of that option.

**PostScript** -- A page description language used in some laser printers and imagesetters. PostScript is a defined standard so that applications using it can produce output that can be printed on any PostScript device.

**Printer driver** -- This is the program that converts a document or file created by an application into information that your particular printer needs to reproduce the information on paper. The term can be extended to "printing" a file or document via a fax modem. The output is in the form which a fax modem can then transmit, the printed output appearing on the fax at the other end of the phone line.

**Printer manager** -- An application that oversees the printing process.

**Program** -- A set of instructions which tells a computer how to carry out a particular task.

**Prolog** -- A high level computer language often associated with artificial intelligence programming.

**Processor** -- See CPU.

**PRM** -- Programmers Reference Manual -- A set of manuals covering many highly technical programming details of the RISC OS operating system.

## Q

**Quit** -- Close a file or application so that its window(s) disappear from the screen and, in the case of an application, it disappears from the iconbar.

**Qwerty (keyboard)** -- Look at the six characters at the top left of your keyboard and you'll see what it's called a qwerty keyboard. (In France it would be AZERTY and in Germany QWERTZ.)

## R

**Radio icons** -- A group of buttons within a dialogue box, only one of which can be selected at a time.

**RAM** -- Random Access Memory -- This is the place within the computer where information is stored on a temporary basis. When the computer is switched off, information in RAM is lost.

**RAM disc** -- Part of the computer's RAM memory can be set aside so that the user can store files and data on a temporary basis during a computer session. The information is accessed through a filer in the same way that you would access an external storage medium such as a floppy or hard drive.

**Relocatable module** -- A section of computer code that can be used to extend the facilities of the operating system and which can then be used by any application running in the computer.

**Removable hard disc drive** -- This is cross between a hard drive and a floppy drive. It uses a solid metal disc so that it can store large amounts of data (currently up to 270Mb on a single disc) but the disc is held in a plastic case like a thick floppy disc. The cartridge can be taken in and out of the drive so that a number of discs can be used for different purposes, and the data can be transferred easily from one computer to another.

**Removable hard disc drive** -- There is a second type of removable hard drive in which the whole drive mechanism is removed rather than just the cartridge.

**Resolution** -- The complexity of detail that can be seen on a computer screen or a printer can be specified in terms of resolution, i.e. the numbers of dots per inch.

**Resources** -- The various programs and data files which an application uses to perform its task.

**RGB** -- Red Green Blue -- Any colour can be made up of a combination of different amounts of

light of these three primary colours. So colour monitors (RGB monitors) use sets of three coloured phosphor dots of these three colours.

RIP -- Raster Image Processor -- This is a device used in the printing industry to produce a very high resolution output.

RISC -- This is an acronym for Reduced Instruction Set Computer. Companies like Acorn (and many years later, Apple, though not yet, apparently, Intel) realised that the trend to more and more complex computer processors wasn't necessarily the best way to increase the overall speed of computer processing. These complex processors were spending the majority of their time doing simple tasks anyway. Acorn made the processors simpler, which meant they could work much faster doing the simple jobs like pushing text around and drawing dots on the screen. This is partly why RISC processors are so well-suited to DTP applications. (N.B. This explanation is a gross oversimplification which doesn't do justice to the brilliance of the designers of the Acorn RISC processors!)

RISC OS -- This is the operating system used on Acorn's RISC-based computers.

RISC\_OSLib -- A library supplied with Acorn's ANSI C compiler designed to help you program applications that run in the RISC OS desktop.

RMA -- Relocatable Module Area -- The area of RAM set aside for the program modules used by different applications.

ROM -- Read-Only Memory -- A form of non-volatile memory that remains unchanged even when the power is switched off and which cannot (usually) be altered. (But see Flash ROM and EPROM.)

Root directory -- The main directory of a storage device which contains all other directories and files and which is displayed when the iconbar icon of the device is clicked.

RS232/RS423 -- These are two different (but similar) electrical standards for the transmission of serial data.

## **S**

Sampler -- An add-on that takes a sound signal as input and turns it into digital data that can be stored and/or manipulated within the computer and then be output again through a DAC (digital to analogue converter).

Scanner -- An add-on that enables the user to read visual images into the computer from originals such as photographs and books.

SCART -- Syndicat des Constructeurs d'Appareils de Radio et de Television -- well, you wanted to know, didn't you!) A means of connecting computers, video recorders, etc to televisions and monitors using standard connections. (Sometimes referred to as 'Peritel')

!Scrap -- A special directory on which RISC OS makes available for applications to use as temporary storage space. Use of this directory is under the control of the application and the user is normally unaware of it.

Screen blanking -- Within RISC OS 3 is an optional facility (set in the configuration) which switches the screen to black after a user-definable length of time if the computer is not being used. As soon as a key is pressed or the mouse is moved, the screen returns to normal. This reduces the likelihood of monitors having patterns 'burned in' to the face of the tube (and reduces the power consumption of the monitor to some extent).

Screen mode -- Information can be displayed on TV or monitor screens in a number of different



formats. The numbers of pixels that make up the screen may be different (from, say,  $480 \times 512$  to  $1600 \times 1200$  or more) and the colour depth of each pixel may vary. The amount of memory used to display the screen will increase as both the number of pixels and the colour depth are increased. There is a trade-off between the two as the amount of video memory is usually limited. A particular size and colour depth is referred to as a screen mode.

Scroll arrow -- The arrows within a window that are used to allow you to scroll through a document or list or to move around the contents of a window that is too big to display in the current size of window.

Scrolling -- If a file or document is too large to be displayed on the screen all at once, it is displayed in a window with scroll bars and scroll arrows so that you can move around and view different parts of it as necessary.

SCSI -- Small Computer Systems Interface -- This is an agreed standard system for communicating data between computers and data storage and acquisition devices, the data being transmitted along parallel data paths. It is commonly used to link a computer to hard drives, CD-ROMs and/or scanners, but it can also be used to link computers together, subject to the limitation that you can only link a total of eight different 'devices' together.

SCSI 2 -- A faster version of SCSI. Comes in fast, wide and fast/wide versions.

SCSI 3 -- An even faster SCSI, yet to be fully defined, though products are becoming available.

SCSIFS -- A RISC OS filing system used for communicating with devices attached to the SCSI interface.

Second processor -- In computers such as the Risc PC it is possible to have more than one processor working together sharing memory, data storage and peripherals. In the Risc PC, the ARM610 takes charge when the computer is first switched on and it then allows the other processor (the 'second processor') access to memory etc.

Select box -- A rectangular box used to outline an area within which any objects are selected.

Self-test -- When a computer is switched on, it runs through a series of tests to check, as far as it is able, that it is functioning correctly. In a RISC OS 3 (or later) computer, if any of these self-tests fails, it will usually issue some sort of error message. If the system has not managed to get as far as producing a working display on the VDU, it will send a coded message about the likely error by flashing the LED on the floppy drive.

Shovelware -- This is a derogatory term for software and other data of inferior quality that is used to 'pack out' a CD-ROM and make it up to 600Mb, or whatever, to convince the potential purchaser that the disc is worth buying.

Shutdown -- A menu option on the task manager iconbar menu which 'clears up' the computer prior to switching it off. It can also be done by using <ctrl-shift-f12>.

SIMM -- Single In-line Memory Module -- An industry standard plug-in memory card as used in the Risc PC, for example. There are two standard sizes, 30-pin and 72-pin. Risc PCs use 72-pin SIMMs.

Slice -- Single Layer Item of Computer Expansion! -- The name applies to a single extra layer of case in a Risc PC. It includes a new backplane with two more slots than previously and four locking pins longer than the ones they replace.

Smalltalk -- A high level computer programming language that allows you to use object-oriented techniques.

SMD -- (Surface Mount Device) A progression from DIL packaging. ICs, resistors, etc, are directly

mounted onto the PCB tracks, rather than mounted through a hole. This greatly enhances the reliability of the machine, whilst reducing size. All Acorn machines make use of surface mount technology.

Software Interrupt -- See SWI.

SOHO (market) -- Small Office Home Office -- A defined market into which companies try to sell their computer goodies.

Source code -- the name given to the program written in a high level language which is converted by a compiler into machine executable code.

SPDIF -- (Sony/Philips Digital InterFace) A propriety means of connecting digital audio equipment together. Using either optical fibre or co-axial cable, digitised sound can be transferred between computers, digital storage devices and digital effects units.

Sprite -- A graphic made up of coloured pixels.

Sprite pool -- An area of memory used by RISC OS for storing sprites.

SQL -- Structured Query Language -- Language for extracting information from a database.

ST506 -- The type of hard disc interface fitted to pre-A5000 computers. Now obsolete.

Static RAM -- Random Access Memory which does not require a refresh cycle. Data stored can be maintained by a few  $\mu$ A from a battery. This type of RAM is ideal for storing data when a computer is switched off. Acorn computers use static RAM to store default settings.

Subdirectory -- Within any directory, you can store files and other directories. A directory that appears inside another directory is referred to as a subdirectory.

SVGA -- Super VGA -- An enhanced colour graphics standard from the PC world -- 1024 $\times$ 768.

SWI -- SoftWare Interrupt -- A name given to a routine in RISC OS. It can be one provided by the operating system itself or one which an application creates. It is then available to be used by other applications and so is, effectively, an extension to the operating system.

Syquest -- A company making a range of removable hard drives, ideal for back-up and transport of valuable data.

System application (!System) -- An application that contains many of the resources that can be used by any or all other applications.

System disc -- A floppy disc containing a copy of !System.

## **T**

Tapestreamer -- Computer data has, for many years, been stored on magnetic tape. This is a basically inefficient method in the sense that if you are at one end of the tape and the data you want is at the other end, it can take a long time to reach the information. However, it is very efficient in the sense that the medium, magnetic tape, can be very inexpensive per megabyte. A tapestreamer is a glorified (video) tape recorder controlled by the computer and is used mainly for backup storage purposes.

Task manager -- This is the Acorn icon at the far right of the iconbar. It is an application that controls the allocation and use of memory within the computer.

TCP/IP -- Transfer Control Protocol / Interface Protocol -- This is a standard protocol for transferring data between different computers on a LAN or via modem link.

Template -- A set of windows and dialogue boxes that have been designed for use within an application.

Thumb -- An extension of the 32-bit ARM architecture. The Thumb instruction set features a subset of the most commonly used 32-bit ARM instructions compressed into 16-bit wide op-codes. Processors that are 'Thumb-aware' are aimed at embedded control applications, e.g. laser printers, modems etc.

TIFF (files) -- Tagged Image File Format -- A very versatile format for storing and transferring bit-mapped graphics.

Title bar -- The bar along the top of a window that contains the name of that window.

TLB -- Translation Look-Aside Buffer -- This is part of an ARM processor which helps it to access different areas of memory more quickly. Basically, it's the bigger the buffer the better!

Toggle size icon -- The icon at the top righthand corner of a window that is used to extend and contract a window between its maximum size and the size and position to which you last reduced it.

Tokenised -- When a Basic program is stored, it is usually stored with each keyword represented by a single byte rather than as a string of ASCII codes. These single bytes are referred to as tokens.

Toolbox -- A window or pane of tool icons. It may be free-standing or attached to another window.

Toner -- This is the pigment, in the form of a fine powder, used in a laser printer (or photocopier).

TPI -- Tracks per inch -- This is one way of specifying the amount of data you can store on your floppy discs, e.g. 800Kb 3½" discs (DD) are 135tpi.

Tracking -- In some applications, the spacing between individual letters within a block of text can be controlled -- this is called tracking. If the tracking is changed, the spacing between all the characters is increased or decreased. This is distinct from kerning which relates to the spacing between individual pairs of characters.

Transparency mask -- An optional part of a sprite that defines which pixels of that sprite are transparent.

TRM -- Technical Reference Manual -- Term used to refer to the optional hardware manual for Acorn computers.

Trojan -- A sort of virus although it does not replicate itself. It is something which is hidden in a file and, when activated, it does terrible damage -- like a Friday 13th thingy. Obviously named after the Trojan Horse.

TSV -- Tab Separated Variables -- A standard way in which data is stored in a file where the items of data are separated by tab characters.

## U

UART -- (Universal Asynchronous Receiver/Transmitter) A component that manages the reception/transmission of serial data from/to the outside world. It converts it to parallel data suitable for use within the computer.

UPS -- (Uninterruptable Power Supply) A device connected between the mains supply and the computer, which provides a short term supply in the event of a power failure. This gives you a few minutes to shut down your applications and save your data in an orderly fashion. (well, a bit more orderly than phut and a black screen!)

User port -- An 8-bit parallel interface which can be used for the input and/or output of data.

Commonly used for connecting to concept keyboards and for doing control experiments.

## V

Vapourware -- A derogatory term for software that is being advertised but isn't actually available -- it is often said to be available "real soon now"!

VDU -- Visual Display Unit -- The monitor or television used to display the output of the computer.

Vector graphics -- It is possible to represent a picture on a computer by using a series of lines, shapes, characters etc. When such pictures are printed, the resolution of the pictures produced is only limited by the resolution of the output device. (This contrasts with bit-mapped graphics -- see above. For example, the Draw application produces vector graphics whereas Paint produces bit-mapped graphics.)

VESA -- Video Electronics Standards Association.

VGA -- Video Graphics Adapter or Array -- A graphics standard from the PC world -- 640×480.

VIDC20 -- Video Controller -- The video and audio controller designed by ARM Ltd and used in the Risc PC.

Virtual memory -- A method by which an application, which requires more RAM memory than a computer actually has, can still operate. It is done by using parts of a hard drive's memory as an extension of the real memory, the information being swapped in and out by the operating system, as and when it needs to be accessed by the application.

Virus -- A computer program which can replicate itself (unbeknown to the user) in various storage devices and in several places on one storage device. As discs are taken from one computer to another, the virus can be spread to more and more computers. Often, the effect of these programs is to cause malicious damage to data within the computer system.

VLSI -- Very large scale integration -- Refers to integrated circuits with a high packing density of components.

VLSI Ltd -- A silicon fabrication company that has, for many years, been licensed to fabricate ARM chips and associated I/O devices.

VRAM -- Video RAM -- (Sometimes called Dual Port RAM) This is a bank of high speed RAM used to store the information for the screen display. It can usually (as in the Risc PC) be accessed by the computer's processor and by the video controller at the same time. The computer accesses it as necessary to change the screen display and the video controller accesses it on a continuous basis to constantly generate the signals the monitor needs to display the information set up by the computer.

## W

Weight -- This refers to the density of the characters within a typeface -- e.g. bold, light, extra, demibold, extrabold, etc.

WIMP -- Windows, Icons, Menus and Pointer -- A method by which a user can interact with a computer without having to learn lots of special words. It provides a much more intuitive 'view' of the computer and its facilities than non-WIMP operating systems provide.

Winchester -- Old-fashioned term for a hard disc.

Window manager -- This is the official name for the RISC OS WIMP system.

Word -- A group of bytes considered by the cpu to be a unit of data. In Acorn 32-bit computers, a

word is four 8-bit bytes.

WP -- Word-Processing -- In the early days of microcomputers, word-processing was limited to handling text to create documents. These days, however, many of the programs that are referred to as word-processors can also handle pictures, so the distinction between WP and DTP is becoming less clear.

Writable icon -- A submenu into which you can type some information such as a filename.

Write-protect -- Open the tag at the corner of a floppy disc in order to protect the contents from being edited or accidentally deleted.

WYSIWYG -- What You See Is What You Get -- In the days of text-based word-processing, the screen display would only give an indication of which words would appear on a given printed page but often not much more than that. WYSIWYG describes a system where the screen display shows the size and positioning of all the text (and graphics) exactly as it will appear on the printed page.

(WITHIWIG is another version of WYSIWYG but said with tongue in cheek. It applies to those applications which are not quite what they claim!)

Whetstones -- This is a floating point version of the Dhrystones test.

## **X**

X-Modem -- A file transfer protocol.

XGA -- Extended Graphics Adapter or Array -- The definition varies (as well as the name) depending which book you read but it is roughly  $1024 \times 768$  in lots of colours!

## **Y**

Y-Modem -- A file transfer protocol.

## **Z**

Z-Modem -- A file transfer protocol.

## **Sources**

I acknowledge, with grateful thanks, the many Archive subscribers who have contributed ideas and definitions for this glossary. I would also like to acknowledge various books I have consulted that have been most useful in compiling this glossary:

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DTP at a Glance -- Rob Pickering -- Bookmark Publishing -- 1-85550-002-7

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