
Glossary

application program (software)

A program designed to perform a specific function. Examples are word processing, spreadsheet, and database programs.

ASCII

The American Standard Code for Information Interchange. ASCII codes are assigned to particular characters and control codes used in operating computers and printers. The ASCII code table is included in the Appendix.

attribute byte(s)

Parameters used when defining user-defined characters. Depending on the type of printer, the attribute byte can determine the width of a character, beginning and ending columns, and which pins to use in the print head.

automatic tear off

A printer feature that feeds the last page of a print job on continuous paper to a position where paper can be conveniently torn off. When more print data is sent, the paper feeds back to the loading position and begins printing on the following page. This feature is only available when using a push tractor.

bar code

A group of vertical bars and spaces with varying widths that represent numbers and letters. Bar codes are usually used to identify items such as commercial goods, products, and books.

baseline

The imaginary line where the bottom of characters such as A and b are printed (descenders on characters such as g or y descend below the baseline). The baseline on 24-pin printers is located 20/180 inch below the print position; on 9-pin printers, 7/72 inch below the print position.

baud rate

The rate at which data is transferred from one machine to another. The baud rate is adjustable when using a serial interface. Some printers allow adjustment by DIP switch.

bidirectional printing

Printing in which the print head prints in both directions. This method increases the speed of printing. See *high speed printing*.

binary

The base 2 number system. All numbers are represented by a 1 or 0.

binary command mode

A subset of binary printer commands used to control compressed raster graphics printing in the extended raster graphics mode. These commands are available only in ESC . 2 TIFF compressed mode.

bit

A digit (equal to 1 or 0) in the binary number system. A byte of data consists of 8 bits.

bit-image graphics

Graphics composed of a series of dots, printed in vertical columns. The number of dots in the columns depends on the number of dots in the print head. Dots are printed for each bit that equals one.

bold

The font weight that produces characters with thicker lines, making them appear darker.

buffer

The portion of the printer's memory used to store data before printing it. The buffer size can be changed on some printers.

byte

A unit of information consisting of eight bits, representing any value between 0 and 255 (decimal). All data is sent to the printer in bytes.

carriage return

A command (CR) that moves the print position to the left-margin position.

character

A symbol used in a writing system (an alphabet letter, a numeral, or a punctuation mark) or as a component of graphics (a box-drawing character, graphic symbol, or a user-defined character).

character code

A value between 0 and 255 that is assigned to a specific character in the current character table.

character set

A collection of letters, numbers, and symbols that provides you with the characters used in a particular language.

character spacing

The horizontal placement of characters. Two types of character spacing are available: fixed-pitch and proportional spacing.

character table

A collection of up to 256 characters that can be represented by a one-byte character code. EPSON printers produced after 1990 feature a large number of character tables, each representing a particular language, that can be selected by command (ESC/P 2 printers) or DIP switch (non-ESC/P 2 printers).

character traits

Essential characteristics shared by characters in RAM memory (including user-defined characters). Only characters with the same traits can be saved in RAM at the same time.

characters per inch (cpi)

A measure of the size of text characters, sometimes referred to as pitch.

characters per second (cps)

The theoretical measure of the number of characters that can be printed per second on a single line.

CMYK

Cyan (blue-green), magenta, yellow, and black. These colored inks, also known as process colors, are used to create the subtractive system array of printed colors.

compression

A method of reducing the amount graphics data sent to the printer during raster graphics printing. In standard compressed raster graphics, two bytes of data (a counter byte and a data byte) can specify up to 1,016 dots. Also, repetitive and nonrepetitive data can be sent in the same data string. See also *TIFF compressed mode*.

condensed printing

Printing in which the characters are spaced approximately 40% to 50% closer than normal. Useful for fitting wide tables or spreadsheets onto the paper.

continuous paper

Paper that has sprocket-feed holes on each side, is perforated between pages, and comes in a folded stack. Also called fanfold paper.

control code

Special codes used to control printer functions, such as performing a carriage return or line feed. Many control codes also have characters assigned to them; you can print these characters after using commands to change from control-code to character printing.

cpi

See *characters per inch*.

cps

See *characters per second*.

cut sheets

See *single-sheet paper*.

cut-sheet feeder

A device that automatically feeds single sheets of paper into the printer.

decimal

A number expressed in powers of 10. The decimal system uses base 10, in which all numbers are represented by the digits 1 to 9, with 0 used as a place holder.

default

The value or setting that is in effect when a printer is turned on, reset, or initialized. Defaults are sometimes affected by DIP-switch or panel setting.

DIP switch

Stands for dual in-line package switch. Small switches included on most printers used for selecting various features or default settings.

dot matrix

A method of printing in which each character is formed by printing a pattern (matrix) of dots based on the number of dots in the print head.

dots per inch (dpi)

Measures the resolution of an image. See also *resolution*.

double-height printing

Printing in which each character is twice as tall as normal.

double-strike printing

A print enhancement that produces darker-than-normal characters. The print head passes over the paper twice, double-printing the characters.

double-width printing

Printing in which each character is twice as wide as normal.

downloaded characters

See *user-defined characters*.

dpi

See *dots per inch*.

draft printing

A method of printing in which fewer dots are used to form characters. Characters print faster, but have a rougher appearance.

driver

A program used to send commands and transfer data from the computer to the printer. Most application programs include drivers that support EPSON printers.

ESC/P

Abbreviation for EPSON Standard Code for Printers, a system of commands that lets you control your printer using your computer's software. The system is standard for all EPSON printers and is supported by most software programs for personal computers.

ESC/P 2

The enhanced version of the ESC/P printer command language. Commands in this language provide the printer with laser-like features, such as scalable fonts and enhanced graphics printing.

fixed-pitch printing

A type of letter spacing in which characters are printed at equal intervals. Pitch is measured in characters per inch.

font

A complete set of characters or symbols that share the same size and style. In computer terminology, the term font has become confused with typeface to mean the entire family of type including all the sizes and styles.

font cartridges

Options that provide your printer with additional typefaces.

form feed

A control code or control panel button (on most printers) that advances the paper to the next top-of-form position.

graphics

Groups of dots or characters that are used to create a design or image.

graphics mode

The mode in which raster graphics printing is possible. Characters cannot be printed during graphics mode, and character-related commands are ignored.

hexadecimal

The base 16 number system. All numbers are represented by the following numerals: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F. A byte can be defined by any two-digit hexadecimal number.

high-speed draft

A printing mode that uses a minimum number of dots per character to attain extremely high printing speeds.

high-speed printing

Characters are printed in both directions for faster printing

HMI

See *horizontal motion index*.

horizontal motion index (HMI)

A setting that determines the fixed distance to move the horizontal position when printing characters. HMI is measured in inches instead of characters per inch.

initialization

Returns the printer's settings to their original values, or defaults.

INT

The integer (whole number) part of a number. For example, INT(1.8) is 1.

interface

The connection between the printer and the computer. A parallel interface transmits data one character or code at a time, and a serial interface transmits data one bit at a time.

international character set

A set of up to 12 particular characters that corresponds to symbols used in various countries. Each set is referred to by that country's name or language.

italics

The font style in which printed characters slant to the right; also called oblique.

justification

Horizontal alignment of printed text to the left, right, or center of the printing area. Full justification aligns text to both the left and right margins.

Letter Quality (LQ)

A method of printing in which a higher number of dots is used to form characters. Characters print slower but have a more fully-formed appearance.

line feed

A control code or control panel button (on most printers) that advances the paper one line.

line spacing

The distance the vertical print position moves when a LF command is sent.

loading position

The position to which the paper is automatically loaded.

logical page

The settings within the printer concerning the page format.

low nibble

The lower four bits in a data byte (eight bits).

LQ

See *Letter Quality*.

LSB

Least significant bit. The right-most digit in a binary number; the binary digit with the smallest value in a byte.

margin

The area between the edge of the paper and the margin position, whether top, bottom, left, or right. (The top margin can be set on ESC/P 2 printers only.)

margin position

The position of the inner edge of the margin, whether top, bottom, left, or right.

memory

The part of the printer where character information and data are stored.

MicroWeave

Printing in which images are printed in finer increments to reduce the possibility of banding—uniform horizontal lines in graphics—usually associated with serial printers.

MOD

The remainder of a division operation (modulo). For example, dividing 9 by 5 results in 1, with a remainder of 4; so MOD(9÷5) is 4.

MSB

Most significant bit. The left-most digit in a binary number; the binary digit in a byte with the highest value.

multipart forms

Preprinted forms that are two or more sheets thick. Sheets are fastened together so that printing is duplicated on each sheet.

multipoint mode

The mode in which printing of scalable fonts is possible.

Near-Letter Quality (NLQ)

The highest print quality available on 9-pin printers, obtained by using more dots to print characters. Characters print slower but have a more fully formed appearance.

NLQ

See *Near-Letter Quality*.

Parallel interface

An interface that transfers data one byte at a time.

parity

A method for detecting errors during data transmission through a serial interface.

pitch

The font attribute that determines the placement of printed characters. Two types of pitch are available: fixed pitch (characters are printed at equal intervals) or proportional pitch (character placement varies, depending on character width information).

point size

A measure of character height. One point equals 1/72 inch. In ESC/P 2, point size can be set as a font attribute.

print data

Data that causes the printer to actually print characters or graphics. Data that sets the page format, selects printing modes, or changes printer settings is not considered print data.

print job

A collection of data that has a beginning and end, and is sent to the printer in a continuous stream. A standard print job should be composed of one or more pages and should begin and end with an ESC @ (initialize printer) command, with all pages (including the last) ending in a FF command.

printable area

The area of the page on which the printer can print. This area is smaller than the physical size of the page.

printing area

The area of the page within the margins, where printing actually occurs. The printing area is equal to or less than the printable area.

proportional spacing

A type of pitch in which character placement varies, depending on character width information.

pull tractor

A tractor that “pulls” continuous paper through the printer from the exit side.

push tractor

A tractor that “pushes” continuous paper through the printer from the loading side.

RAM

Random access memory. The portion of the printer’s memory used as a buffer and for storage of user-defined characters. RAM memory is lost when you turn off, reset, or initialize the printer.

raster graphics

A type of graphics in which data is sent in one-dot high lines; the printer reorganizes the data internally to correspond to the print head layout. Raster graphics are available only on printers featuring ESC/P 2.

ROM

Read only memory. The portion of the printer’s memory where the printer’s operating system and built-in character data are stored. You cannot erase or modify ROM memory.

RGB

Red, green, and blue. These colors, in phosphors radiated by the computer monitor's electron gun, are used to create the additive system array of screen colors.

reset

Returning the printer's settings to their original values, or defaults. Performed by sending a command or an INIT signal, or by turning the printer off and then back on.

resolution

The number of dots per inch used to represent an image.

roll paper

Paper that comes in rolls and that can be fed through the printer when an optional roll-paper holder is attached.

scalable font(s)

A font that can be selected on the basis of the point size and is available in specific increments over a wide range of values. Scalable fonts are available only on printers featuring ESC/P 2.

SIDM

Serial, impact, dot-matrix. Printers that process data line by line, and form characters by striking small pins against a ribbon that in turn strikes the paper.

SNIJ

Serial, non-impact, ink jet. Printers that process data line by line, and form characters by transferring ink dots onto paper through small ink jets.

single-sheet paper

Single, unconnected sheets of paper that can be fed into the printer by hand, by cut-sheet feeder, or by paper cassette.

style

The font attribute that determines whether or not characters are printed at a slant. Two style settings are available: italics and normal.

subscript

Printing in which each character is printed at about two-thirds the normal height, in the lower part of the character space.

subtractive colors

Colors produced by pigments that absorb some colors of light and reflect others. See also *CMYK*.

superscript

Printing in which each character is printed at about two-thirds the normal height, in the upper part of the character space.

TIFF compressed mode

Extended raster graphics compression mode available on the Stylus COLOR and later printer models. This mode uses TIFF (Tagged-Image File Format) compression.

tof

See *top-of-form*.

throughput

A measure of the number of printed pages per minute that can be produced by a printer.

top-of-form

The first printable vertical position on the paper. Programs should be written so the actual top-of-form position matches the printer's top-of-form setting.

typeface

Refers to a set of characters or symbols that share a common design. Typefaces are referred to by family names such as Roman, Prestige, or Script. In computer terminology, the term typeface is often used interchangeably with font.

unidirectional printing

Printing in one direction only. Unidirectional printing is useful for printing graphics because it allows more precise vertical alignment than bidirectional printing.

user-defined characters

Custom characters that you define and store in RAM memory. By switching to RAM character printing, you can print user-defined characters just as you would normal characters. Also known as downloaded characters.

weight

The font attribute that determines the thickness of the lines composing each character. Two weight settings are bold and normal.

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