



Standard Terminology Relating to Printers¹

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1. Scope

1.1 These terms and definitions are related to printers operated by computers.

2. Terminology

2.1 Definitions:

ball element—an element used in an impact printing device in which the fully formed characters are located on the outer surface of a sphere-like device. Frequently called *golf-ball element*.

ball printer—an impact printing device utilizing a ball element. The paper on the carriage remains stationary while the element is positioned and caused to strike the paper to produce characters in their proper positions.

band printer—a type of printer that employs an endless steel band containing fully formed characters. The band transverse the width of the paper form. Hammers strike the back of the form, synchronized in such a way as to produce the desired characters in their proper position.

bar—See **type bar**.

bar printer—an impact printer in which the type slugs are carried on a **type bar**. *Syn.* print bar.

belt printer—a type of printer that employs an endless belt, the outer surface of which contains fully formed characters. The belt is caused to transverse the width of the paper form. Hammers are caused to strike the back of the form, synchronized in such a way as to produce the desired characters in their proper positions.

black write—a process in electrostatic printing where the photoconductive element is charged with a charge of the same sign as that of the toner. A light beam, used like a “stylus” is used to discharge only those areas that are to receive toner to form the image. In the development process, the charged background areas repel the like charged toner to the discharged areas on the photoconductor.

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chain printer—a type of printer that employs an endless chain, each link of which contains a fully formed character. The chain is caused to transverse the width of the paper form. Hammers are caused to strike the back of the form, synchronized in such a way as to produce the desired characters in their proper position.

copying—the act of producing an image on a document or other receptor media which is a duplication of the image of another document, such as by a photographic, xerographic or facsimile process or by carbon or carbonless papers.

daisy wheel element—an element used in an impact printing device in which the fully formed characters are contained on the ends of finger-like projections radiating out from the center of a disk, the device resembling a daisy.

daisy wheel printer—an impact printing device utilizing a daisy wheel element. The paper on the carriage remains stationary while the element is positioned and caused to strike the paper to produce the characters in their proper positions.

dielectric printing process—a nonimpact printing technique in which specially treated paper consisting of a conductive base layer coated with a nonconductive thermoplastic material is used to hold an electric charge usually applied directly by a set of electrode styli. The electric charge corresponds to the latent image of the original. Following the charging step, the paper is imaged by a toner system similar to that of electrostatic copying devices. This technique is sometimes called electrographic, and is currently employed on general purpose nonimpact printers, plotting and facsimile devices.

dot matrix—a method of character generation in which each character is formed by a pattern of dots selected from a grid or matrix.

drum printer—a type of printer that employs a rotating cylinder or drum, the outer surface of which contains fully formed characters. As the drum rotates in front of the paper form, hammers are caused to strike the back of the form synchronized in such a way as to produce the desired character in their proper position.

electric typewriter—a typewriter in which an electromechanical device causes the type element to be activated when the keys are struck.

electrolytic printer—a facsimile printing device employing a moist, electrolyte-impregnated roll-fed paper. The current (signals) is applied by feeding the paper between a stationary contact and a revolving drum with a helical contractor. The revolving of the drum causes the point of electrical contact between the blade and helical wire to move laterally across the paper, one line per revolution. As the electrical current passes through the paper, it causes a change of coloration at all points of contact.

electronic typewriter—an electric typewriter in which the keyboard input is received by an electronic processor built into the typewriter. This unit then controls the print head and other features to produce the typing action.

electrophotographic printer—a nonimpact printing technique that is similar to the technology employed in typical office copiers, which forms a copy by attracting toner particles to a static charge on the surface of a photoconductor, then transferring the toner image to the surface of a sheet of paper. In the normal office copier, the charged image (latent image) of the original document is formed on the photoconductor simply through exposure of the photoconductor to reflected light from the document. In an electrophotographic printer, the image is formed by a light-source (laser, CRT, LED, LCS, laser diode, or other controlled light source) which erases or discharges a static image charge on the photoconductor according to information being supplied through the input data stream. Each bit of data can be related to a character shape in the memory of the printing system, and in most cases characters are formed by a dot matrix method similar in concept to that of the matrix printer. Paper can be sheet- or roll-fed or continuous form.

electrosensitive printer—a nonimpact printing device employing a double layer coated paper. Imaging is accomplished by touching or nearly touching the paper surface with an electrically charged stylus which burns away the top coating, exposing an undercoating of a contrasting color to produce the desired images. This process is also known as electroerosion printing.

element—the interchangeable type font of an impact printing device: see **thimble, ball, daisy wheel**.

element printer—an impact printer that generates copy via interchangeable “elements” that each contain a full set of characters. Characters are formed when the element strikes the paper itself through an ink ribbon.

impact printer—a printer in which printing is the result of mechanical impacts. See **chain printer, drum printer, element printer, dot matrix**.

imprinter, pressure—any device used to produce or impress marks or patterns on a surface, for example, a device such as that used with credit cards and address plates.

imprinting—(1) The act of using an imprinter;
(2) The output of any imprinter.

ink jet printer—a nonimpact printer in which the characters are formed by projecting droplets of ink onto a substrate.

laser printer—a nonimpact printer that employs a laser light source drive by digital signals to create images on a photoconductor. See **electrophotographic printer**.

letter quality printer—term implies that printer output quality matches that of a typical office electric typewriter.

line-at-a-time printer—*syn.* **line printer**.

line printer—(1) a device that prints a line of characters as a unit. *Syn.* **line-at-a-time printer**;
(2) contrast with character printer, page printer.

nonimpact printer—a printer in which image formation is not the result of mechanical impacts. Examples are thermal printers, electrostatic printers, electrophotographic printers, and ink jet printers.

printer—an output unit that produces durable hard-copy record of data in the form of a sequence of discrete graphic characters belonging to a predetermined character set.

printing—the act of producing an image on a document or other receptor media from a machine or printer designed for that purpose, such as a printing press, thermal printer, or a computer printer such as a laser or ink jet.

stroke—*in character recognition*, a straight line or arc used as a segment of a graphic character.

stroke centerline—*in character recognition*, a line midway between the two edges of a stroke.

stroke device—an input device providing a set of coordinates that record the path of the device.

thimble element—an element used in an impact printing device in which the fully formed characters are located on the ends of finger-like devices that are similar to a daisy wheel except that the device is formed to produce a cup-like or thimble structure.

thimble printer—an impact printing device utilizing a thimble element. The paper on the carriage remains stationary while the element is positioned and caused to strike the paper to produce the characters in their proper positions.

type bar—a bar, mounted on an impact printer, that holds type slugs.

type font—type of a given size and style, for example, 10-point Bodoni Modern.

typewriter—a machine for writing in characters similar to those produced by printers’ type by means of keyboard-operated types striking through an inked ribbon.

white write—a process in electrostatic printing where the photoconductive element is charged with a charge of the opposite sign as that of the toner. A light beam, acting like a “charge eraser” is used to discharge all areas of the photoconductor that are NOT to receive toner to form the image. The toner is attracted to the remaining charged areas of the photoconductor when the latent electrostatic image is developed.

word processors—a combination of pieces of hardware consisting of keyboard, video display, and printer interfaced with a computer for the purpose of combining operator and computer logic control in preparing printed matter.

writing—the act of producing an image on a document or other receptor media, one character or stroke at a time, such as by hand with a pen or pencil or by means of a typewriter or pen plotter.

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