

# Glossary

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**application phase** In QuickDraw GX printing, the phase when the application calls QuickDraw GX and interacts with the user by displaying dialog boxes to establish printing parameters, such as page orientation and paper type.

**CMYK color space** A color space whose four components measure the cyan, magenta, yellow, and black elements of a color. Used mostly for printing.

**collection object** An extensible object, managed by the Collection Manager, that is used to hold any kind of information. See **job collection**, **format collection**, **paper-type collection**.

**color matching** A method of accurately converting colors in one color space to another color space, or from display on one device to display on another device.

**color profile** A QuickDraw GX object associated with a transfer mode, color, or bitmap data structure and used for color matching. A color profile usually describes the color response curve of a display device in terms of an objective standard.

**color space** A specification of a particular method for color representation, such as RGB, CMYK, or gray space.

**ColorSync Utilities** A part of Macintosh system software that manages color matching, color profiles, and the drawing of matched colors. QuickDraw GX color profile objects contain ColorSync color profiles, and QuickDraw GX uses the ColorSync Utilities to perform its color matching.

**despool** To open a print file and send its data to a device for printing. See **spooling phase**.

**direct mode** See **job format mode**.

**desktop printer** The representation of a QuickDraw GX printer as an icon on the user's desktop.

**device communications phase** In QuickDraw GX printing, the phase when the data that represents the rendered form of each page is sent to the output device.

**extended item list** A resource that extends an item list ( 'DITL' ) resource by responding automatically to items when they are manipulated by the user.

**flatten** To convert the private, object-based description of an object or set of objects into a public-format data stream suitable for file or clipboard storage. Used when saving a print job. Compare **unflatten**.

**formatting printer** The printer for which a document's format is retained. See also **output printer**.

**format collection** A collection of items that are relevant to a format but are not required to define a format. See also **collection object**.

**format object** An object that represents how pages of a document are to be formatted, including scaling, orientation, and paper type. It allows a form to be associated with a format. See also **paper-type object**, **form**.

**form** A property of a format object that allows a picture shape to be printed as a backdrop to the contents of the page. A form can optionally include a mask shape that defines areas that are not printed.

**forward** To pass a message on to the next message handler in a message chain. See also **message chain**, **message handler**, **override**.

**gamut** The limits of the colors that a device can produce. Different devices have different gamuts, so color matching is necessary when converting colors from one device to another.

**grayscale** Consisting entirely of shades of gray.

**gray space** A color space whose single component is the lightness or brightness of a color.

**halftone** A QuickDraw GX data structure that specifies a pattern and a set of colors. A halftone is used to achieve a greater range of colors that may be otherwise available.

**imaging phase** In QuickDraw GX printing, the phase when each previously spooled page is rendered into a form that can be printed on the output device.

**job collection** A collection of items that are relevant for a print job but not required to define a print job. See also **collection object**.

**job format mode** A mode of printing, either graphics (the QuickDraw GX default), text-only, or PostScript-only. The text and PostScript modes are sometimes called direct-mode printing; used to trade off the ability to redirect output to another printer for faster output on a specific printer.

**job object** An object that represents the parameters associated with printing, such as the printer and page range. These parameters specify a “print job.”

**mapping** A  $3 \times 3$  matrix—a property of a format object that specifies scaling and orientation.

**message** A notice sent by one message handler to another that a certain condition has arisen or that a certain task needs to be accomplished. See also **printing message**.

**message chain** A hierarchy of message handlers eligible to receive and respond to messages.

**message handler** A recipient of messages. In QuickDraw GX printing, applications, printing extensions, printer drivers, and QuickDraw GX are all message handlers, which are part of a message chain.

**message override** The response, by a message handler, of intercepting a message and taking some action. The response to a message is performed by an override function. See also **override function**.

**message-passing architecture** A software system driven by messages that are sent in response to certain conditions or events. The messages activate message handlers, which take action in response to the messages. QuickDraw GX printing uses a message-passing architecture.

**output printer** The printer to which a document is sent to be printed. If the document’s formatting printer is different than the output printer, the print file reflects the output printer’s formatting; however, the document itself retains its original format. See also **formatting printer**.

**override** (n.) See **message override** and **override function**. (v.) To intercept a message and take action on it.

**object** A private QuickDraw GX data structure. An object has specific properties and is accessed through a reference.

**override function** The code, defined in a message handler, that responds to a message. See also **message override**.

**owner** A variable, structure, or QuickDraw GX object that references an object. Many objects can be referenced by more than one variable and can thus have multiple owners.

**panel** A subset of a dialog box used to display and collect related pieces of information. An expanded dialog box may contain one or more panels, each of which is named and associated with an icon. A panel is defined by a panel resource.

**paper-type collection** A collection of items that are relevant to a kind of paper but are not required to define a paper type. See also **collection object**.

**paper-type object** A paper-type object represents the paper for which a page is formatted. It specifies the name of the paper, the size, and the printable area. See also **format object**.

**partial override** An implementation of a printing message override that forwards the message to other message handlers. You typically forward the message at the beginning or end of your override function.

**picture shape** A shape type that represents a collection of other shapes.

**portable digital document (PDD)** A print file that can be viewed without the application or fonts that created it. It is created by printing with the PDD Maker GX printer driver. See also **print file**.

**printer** See **desktop printer**, **formatting printer**, **output printer**.

**printer driver** A program that converts data that is sent by an application program into data and control sequences intended for a specific output device.

**printer object** An object that represents the characteristics of a printer, such as its color space and resolution. The output printer and formatting printer are represented by printer objects.

**print dialog box** A dialog box provided by QuickDraw GX that is both movable and modal. Most print dialog boxes have both a normal and an expanded version. The application can customize print dialog boxes by adding panels. See also **panel**.

**print file** A document or data that has been spooled by actually printing the file. See also **portable digital document**.

**print file object** A representation of a print file, which allows an application to access the contents of the file.

**print job** See **job object**.

**printing extension** An add-on software module that allows you to extend printing functionality provided by applications and printer drivers.

**printing message** A notice that QuickDraw GX sends to the message handlers in a message chain that a certain printing-related condition has arisen or that a certain printing-related task needs to be accomplished. See also **message chain**, **message handler**.

**printing message override** See **message override**.

**property** An item or set of data in a QuickDraw GX object. A property of an object is analogous to a field (or member) of a data structure; however, a field is accessed through its name, whereas a property is accessed through a function.

**reference** A long-word value, neither a pointer nor a handle, through which an application accesses a QuickDraw GX object. References are created by QuickDraw GX and passed to applications.

**scale** To proportionally enlarge or shrink.

**shape** (1) A graphic or typographic item (such as a geometric shape, a bitmap, or a line of text) created and drawn with QuickDraw GX. (2) A set of QuickDraw GX objects that, taken together, describe the type and characteristics of such a graphic or typographic item. A shape consists of a shape object, a style object, an ink object, and a transform object.

**shape object** A QuickDraw GX object that, along with several other objects, describes a QuickDraw GX shape. A shape object specifies the fundamental type and contents of a shape.

**spooling phase** In QuickDraw GX printing, the phase when the application sends the document pages to disk, in preparation for printing. The printer driver stores printable output in a file from which it is subsequently despoiled, rendered, and sent to the output device. See also **despool**.

**synonym** A particular kind of tag object, used by QuickDraw GX to provide an alternate representation of an object for printing. The synonym specifies data, such as alternative PostScript operators, for the printer driver to use instead of the instructions that QuickDraw GX generates.

**tag list** A property of many QuickDraw GX objects. It is an array of references to tag objects associated with the object.

**tag object** A QuickDraw GX object whose purpose, structure, and content are entirely controlled by the application creating it. Tag objects exist to allow custom information and behavior to be attached to standard QuickDraw GX objects. Tag objects are classified by tag type; objects reference their tag objects through a tag list.

**tag type** A longword data type (equivalent to `OSType`) that can be represented by four 1-byte characters, such as 'appl'. Tag types specify the formats of tag objects, such as synonyms.

**total override** An implementation of a printing message override that does not forward the message to other message handlers.

**unflatten** To convert the public, stream-based description of an object or set of objects into the private, native QuickDraw GX object-based format. Used when retrieving a print job. Compare **flatten**.