

# Scanner and its Types

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# Scanner and its Types

The scanner is an input device used to read data or information from different sources. The sources or maybe a written document, graphics, price tag even a photograph, etc. The scanner used to read data from different sources and convert them into a form that can understandable by the computer.

Basically there are two types of scanners

Optical Scanner

Optical Reader

Optical Scanner

An optical scanner also known as a scanner.it used light technology to send input.it is used to read or scan information from printed text and graphics translate them into digital form.



The image scanned by the scanner can be used for different purposes

It can be printed in the paper

It can be displayed on the monitor

It can also be sent to anyone through the mail

It can also be posted on a web page


It can also be saved for future used

The image scanner has a resolution of 300 or 600 dpi. The resolution describes the sharpness of an image. If the scanner provides high resolution the image will be more clear and brighter. The quality of the image depends upon the resolution of the scanner.

A large number of dots produce better quality but also create a huge file sizes.

A professional scanner usually scans at 1200 dpi or higher.

Many scanners also provide optical character recognition (OCR) software is used to read images and convert into digital form and can be edited in a word processor.



# Types of Optical Scanner

Different types of an optical scanner are as follow



## Flatbed Scanner

A flatbed scanner is also known as an image scanner. It works the same as a photocopier machine. It inputs one page at a time. The image can be scanned is placed on the glass surface and the scanner reads the image. It is mostly used in homes and offices etc.



# Sheetfed Scanner

A Sheetfed scanner works the same as flatbed scanner but documents are inserted on the top of the scanner the same as a fax machine. This design of the scanner decreases the cost and required of space. it also provides automated sheet feeding. However, this feature also prevents the device from scanning bound-book pages or other documents thicker or larger than a sheet of paper.



# Handheld Scanner

A handheld scanner is a portable type of scanner. It is also known as Half Page scanner because it only scans 2 to 5 inches at a time. These types of scanner are useful in scanning a small amount of data. This scanner is moved by hand over the image to be scanned. These are designed to scan short lines like small web addresses. Some types of handheld scanner used to try to keep the scanner moving in a straight line.



# Photo Scanners

Photo scanner specially designed for scanning large images. These types of a scanner are more expensive than other types of scanners. These types of scanner provide high resolution and provide a high-quality image. Photo scanner usually comes along their own special types of software and also provides an adapter that allows you to work with slides and negatives. Photo scanners are smaller than other scanners but provide high resolution. A typical photo scanner is the same as a sheet-fed scanner that can scan  $3 \times 5$ -inch or  $4 \times 6$ -inch photographs at 300 dpi or higher resolution.





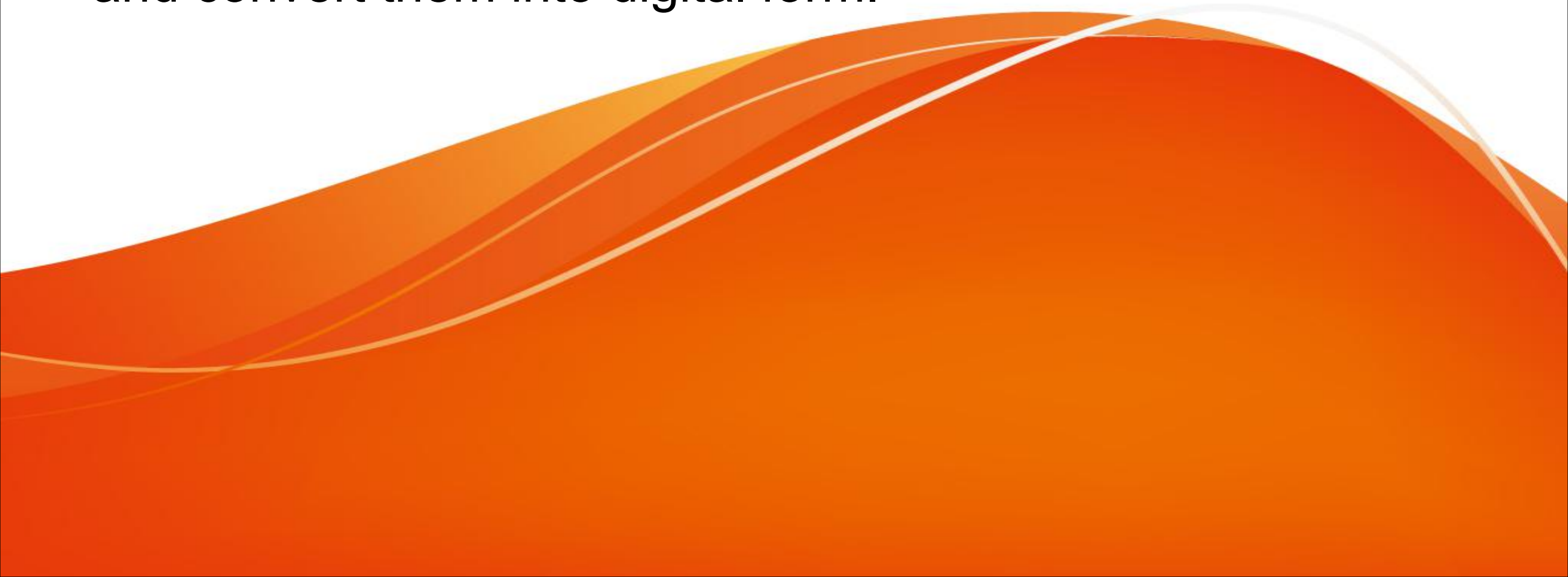
# Multifunctional Scanner Printer Copier

This is also known as a multifunctional printer; this is basically providing a printer, scanner, and copier all in one. It is useful if you do not need a high resolution of images. They also come with many faxing capabilities. These are mostly used in offices. The software is helpful in scanning an image or documents.



# Optical Reader

The optical reader used light to read images, documents and convert them into digital form.



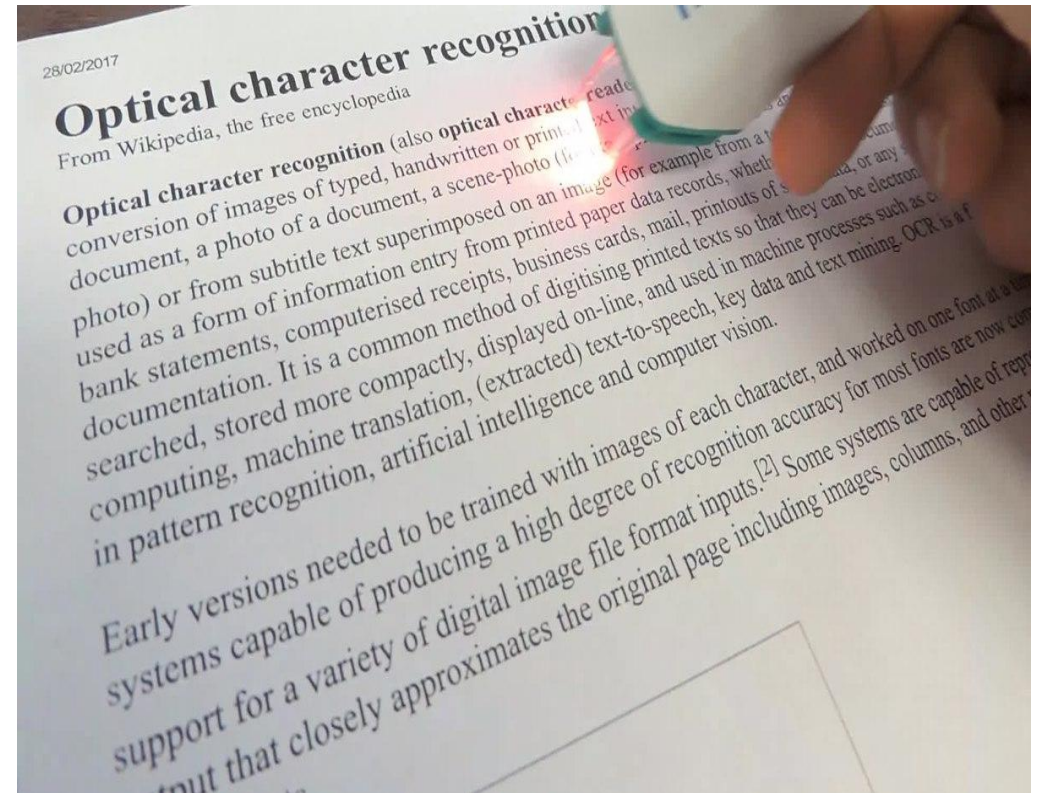
# Types of the optical reader



# Optical Character Recognition (OCR)

Optical character recognition is a technology that used to read handwritten, printed or typewritten characters from documents. It converts the image into a form that the computer can easily understand. It is mostly used in a department store to read price tags by using light.

OCR devices used to read printed characters using an OCR font. The most commonly used OCR font is OCR-A. An OCR device specifies the size and shape of character by detecting a pattern of light and dark.



# Optical Mark Recognition (OMR)

OMR stands for optical mark recognition. It is also known as the mark sensing device. These use light beam technology to read data or characters and convert them into digital signals. These signals are sent into a computer for further processing. These devices are used to read a character printed in circles and rectangles and printed in a special format. It is mostly used in multiple-choice sheets such as SAT and GRE. The student answers the question by filling the circles. The OMR devices are used to read these circles and evaluate them.





# Bar Code Scanner

Bar code scanner used a laser beam to read bar codes, Bar codes consist of vertical lines and spaces of different width. Bar code used to represent data that specify the manufacture of products.

Different products like pharmacy, supplies, groceries, vehicles, mail, books and magazines contain bar codes. The most popular bar code is POSTNET used by the U.S . Postal services and Universal Product Code is used by retail stores.



# Magnetic-Ink Character Recognition Reader (MICR)

Magnetic-Ink character recognition reader is used to read the printed text by using magnetized ink. It is mostly used by banks for check processing. Each check has MICR character at the lower left edge.

This character used to represent bank number, account number, and check number.

