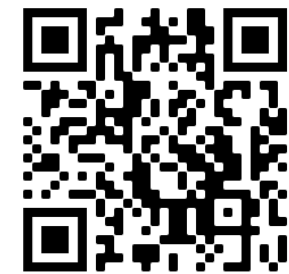


Demystifying Quick Response Codes



17 April 2026



Barcodes vs. Quick Response Codes

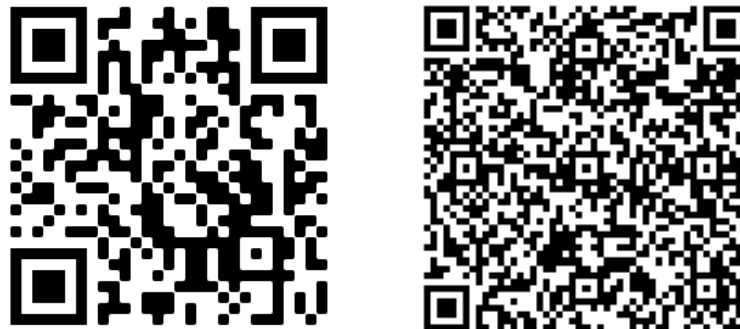
- What is a Barcode
 - A square or rectangular image consisting of a series of parallel black lines and white spaces of varying widths that can be read by a scanner
 - Barcodes are applied to products as a means of quick identification
 - Example uses include supermarket products and suitcases at airports



- A standard one-dimensional barcode has the capability to store up to thirty numbers.

Barcodes vs. Quick Response Codes

- What is a Quick Response Code (QR Code)?
 - An array of black and white squares, that can be read by the camera or a tablet or smartphone
 - QR Codes can include more information than just text, such as the price, quantity and even an image and thus cannot be read by a linear scanner
 - Example uses include marketing and promotion of products, brands and services, rather than identification



- A QR code has the ability to store up to 7,089 numbers

Quick Response Codes



- Why use a QR Code?
 - Think of a QR code as a tiny, pixelated puzzle packed with information. It might look complex, but it's essentially a machine-readable label that, when scanned by a smartphone camera, unlocks a treasure trove of digital content. These codes can hold website addresses, business cards, product details, and much more!
 - In other words they are a convenient way to store all kinds of data in a small space
 - Examples include:
 - URLs (addresses of websites), e.g. www.bookhamseniorscomputerclub.co.uk
 - Links to Facebook, LinkedIn and Twitter Profiles
 - Simple text (like a welcome message at a meeting or conference)
 - Loyalty cards (such as National Trust)
 - Phone numbers, email addresses and other addresses of all kinds.

How QR Codes Work



- QR codes consist of square modules arranged in a grid
- While they may appear simple, QR codes have a meticulously designed structure:
 - Alignment markers (larger squares) help with proper scanning
 - Timing patterns guide the scanner's reading direction
 - Version information indicates the code's size and complexity
 - Format information specifies the type of data encoded (text, URL, etc.)
 - Data and error correction codeword's store the actual information and redundancy for error-free decoding

Quick Response Codes



- How do you scan a QR Code
 - Most smartphones come with built-in QR code scanning capabilities
 - If your phone doesn't, download a free QR code reader app from the appropriate app store (Google Play Store or Apple Store)
 - Most of these Apps are completely FREE (although may contain adverts)
 - You only need one App and usually it only takes a minute or two to install
 - Example App for Android is QR Code Scanner.
 - Open the app, point your phone's camera at the QR code, and let the app do its magic
 - Your smartphone camera or QR code reader app will allow you to connect directly to websites, share the contents via email or SMS (text) and many more (depending on content).

Quick Response Codes



- How do you create a QR Code
 - There are many websites that will create QR codes online for free.
 - Example www.qr-code-generator.com
 - Most work by simply entering your website name, text or picture and produce a picture file (.png) for you to download.

Quick Response Codes



- Demonstration #1



Quick Response Codes



- Demonstration #2



- Example from the May 2024 edition of the Bookhams Bulletin: “Our courses for Summer 2024 is available on our website www.bookhamseniorscomputerclub.co.uk or scan this QR code:”





Questions