

# QS-Barcode Recognition

QS QualitySoft GmbH offers effective software for recognizing barcodes from digital images and Adobe PDF documents. The images are scanned or faxed forms or from digital cameras. Various barcode types can be recognized. The most common use for barcode reading is fast and reliable identification and indexing of documents for archiving.

## Linear barcodes with QualitySoft:

- all common types are possible
- unlimited numbers of barcodes can be recognized on one image
- all angles (even 45°) are possible
- checks on suspected barcodes increases reliability



Even **two dimensional** bar codes can be recognized. These barcodes use little space and can contain much information. You can code both alpha-numeric characters and binary data. Due to integrated error correction 2D barcodes are more tolerant towards data errors that occur while printing or scanning. The common industry standards "PDF 417", "Data Matrix" (ECC200 and ECC000, ECC050, ECC080, ECC100, ECC140) and QR Code are supported.



Data Matrix was designed for small parts marking and is currently used for small electrical parts, by the pharmaceutical industry for unit dose packaging, by the automotive industry and by NASA.

The PDF417 barcode consists of several lines. You can encode the whole character set, up to 1850 characters. It is variable in width and height.



The **QR Code** (Quick Response Code) was designed in Japan and can contain a lot of Japanese characters (Kanji). It is often used in Asia.

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## Linear Barcodes supported

Code 39 / Code 39 extended, Code 2/5 interleaved, Code 2 of 5 industry and many others  
Code 11, Code 32 / Italian Pharmacode, Code 93 / Code 93 extended, Codabar  
Code 128 / Codablock F  
EAN 128 / UCC 128  
EAN 8 / EAN 13 with addons  
UPC A / UPC E  
Patchcode, Pharmacode (one track)  
Two Track Pharmacode and 2D Pharmacode **on demand**

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2D Barcodes	Length
<b>Data Matrix</b>	up to 3116 digits, up to 2335 alphanum.characters, up to 1556 byte binary data
<b>PDF417</b>	depending on the error level and compression, up to 1850 characters
<b>QR Code</b> (Model 2)	40 formats, 4 error levels, up to 7.089 digits, 4.296 alphanumeric characters, 1.817 Kanji characters

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Download our **freeware** barcode reader **bcTester** ( <http://www.bctester.de/en> ) and discover whether your barcodes can be read with "QS-Barcode"!

## Technique / Barcode Quality

Scanning for archives is usually done with a resolution of 200 or 300 dpi. For correct barcode reading at such low resolutions, barcodes must be printed clearly; in particular, the bars must not be too narrow. Recommended is a maximum of 2 characters/cm at 200 dpi and 3 characters/cm at 300 dpi. E.g. an 8-digit bar code should have a width of 4 cm to be read properly at 200 dpi.

For scanning 2D barcodes you may need to use a resolution of 400 dpi if the bar code is small printed. One module ("data rectangle") should be at least 5 pixels after scanning.

In addition to scanner resolution and barcode width, reliable recognition also depends on other factors such as quality of printer and paper, scanner preferences, barcode type, height and width of barcode, number of characters in the barcode. For more details have a look at our white paper **bcTips\_en.pdf** in the download area on <http://www.qualitysoft.de>.

Before "QS-Barcode" is used in daily routine, it is strongly recommended to perform a larger test using the suggested bar code under real production conditions.

## Barcode Recognition - Products

QualitySoft offers two products powered by the QS-Barcode software technology.

**"Barcode Recognition - No Programming Required!"** - „**QS-DocumentAssembler**“ works true to this motto. This Windows application recognizes barcodes from scanned documents and processes documents automatically based on barcode data. Document sorting, indexing and grouping is performed based on the selected settings.

**"Use barcode recognition in your own application"** - With **QS-Barcode SDK** (software development kit) it is quick and easy to integrate barcode recognition in any environment. The SDK comes with many integration examples (C, C#, Java,...). Extensive developer documentation details the integration process and contains all relevant interface information.

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Download a free evaluation copy of „QS-Barcode SDK “ or “QS-DocumentAssembler” from [http://www.qualitysoft.de/en/download\\_eval\\_form.htm](http://www.qualitysoft.de/en/download_eval_form.htm)

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## Availability and Prices :

Get the latest information on prices and what's available by visiting [www.qualitysoft.de](http://www.qualitysoft.de)

## A Selection of Our Valued Customers

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