



QS-Barcode SDK (32-bit/64-bit)

Description of the sample programs

The QS-Barcode SDK samples described in this document you get along with the **QS Barcode SDK**. You can download the evaluation version of the QS Barcode SDK from of our website www.qualitysoft.de. After running the setup, the samples are available in the installation directory.

Introduction

All samples include the source code and the project data files. Details of the programs are described in readme-files and in the source code comment. As the function calls to set barcode parameters and to read barcodes are very easy, you can easily copy it from other programming languages and modify it, if the required sample is not available in the language which you use. We know from our clients, that QS-Barcode SDK has been integrated for many other languages.

For questions or notes please send us an e-mail, we are going to contact you as soon as possible.

Note: Please be aware that the evaluation version is a demo version and changes results lightly. It reads a “3” as a “1” and a “A” as a “Q” and a “B” as an “S”. For 2D barcodes the text “DEMO” appears intermittent in the results. If you order the license file and copy it into the application directory, you will get the complete version without further programming.

Directory F_DLL(x86/x64)\sample (File - Interface)

The version QSBarDLL_F.dll of the QS-Barcode SDK is used, when QS-Barcode SDK should handle the image file by itself. The data file will be opened and barcode searching and recognition is accomplished with the actual settings.

Note! **File formats**
 The sample programs for the file-interface support many file formats, if they are not using a defined file name. There is a complete list attached to the QS-Barcode SDK documentation, see “14.1 provided formats”

Multipage-files
 Multipage files (multi-tiff or Adobe PDF) will usually be searched only on the first page for barcodes. Please pay attention to the annex “14.2 Multi-page support“ of the QS-Barcode SDK documentation for notes how you can also process the following pages.

Adobe PDF documents
 The Adobe PDF format is supported by QS-Barcode SDK Version 3.8. Please notice the chapter “14.3 Adobe PDF Documents - Special Settings”.

Subdirectory	Language / Environment	Task
X86\Acc00	MS Access 2000, VBA	If you start the MS Access 2000 database, it shows a simple form with a push button. It starts the barcode recognition on the enclosed image <code>sample3.tif</code> . Linear barcodes, PDF417 and DataMatrix can be read, the current results will be shown in a message box. With the key F11 you can access the database and



		you can have a look on the function BarcodeRecognition() in the Module mdlBarcode. The DLL is called from Access. Barcode settings and the file name are fixed in the code.
X86\AccXP	Access XP	see above
X86\c\Default X64\c\Default	C	The program expects a file name of an image as command line parameter. This image will be searched for linear barcodes. Barcode data is written to the standard output. Barcode parameters are fixed in the code. The code for reading 2D barcodes (PDF417, DataMatrix, QR Code or Aztec Code) exists in the source code as a comment. The sample program has been written and tested with MS Visual Studio 2008.
X86\c\Whitepixel X64\c\Whitepixel	C	The image will be searched for linear barcodes. Barcode data is written to the standard output. The barcode searching function is passed a specific configuration file (qsbci.ini) for image enhancement, which corrects the existing errors in the image before recognizing the barcode. Barcode settings are fixed in the code. The sample program has been written and tested with MS Visual Studio 2008.
X86\c\AdvancedSearch X64\c\AdvancedSearch	C	The barcode cannot be read in a standard case. Before reading repairs are carried out on the barcode and the barcode is read with advanced functionality.
X86\c\DynamicThreshold X64\c\DynamicThreshold	C	The image is overall too dark for the standard threshold (160). An automatic determination of the threshold is done which sets the image to a readable state.
X86\c_sharp\default X64\c_sharp\default	C#	Program to enter a file name. Linear (or, after removal of program comments, PDF417 or DataMatrix) barcodes can be read from this file. Results will be shown in a message box.
X86\c_sharp\ AdvancedSearch X64\c_sharp\ AdvancedSearch	C#	The barcode cannot be read in a standard case. Before reading repairs are carried out on the barcode and the barcode is read with advanced functionality.
X86\c_sharp\ DynamicThreshold X64\c_sharp\ DynamicThreshold	C#	The image is overall too dark for the standard threshold (160). An automatic determination of the threshold is done which sets the image to a readable state.
X86\c_sharp\ECI X64\c_sharp\ECI	C#	Reading of ECI codes via QR code
X86\c_sharp\Multi- Threading X64\c_sharp\Multi- Threading	C#	Six different barcode types are read repeatedly in a definable number of concurrent threads.
X86\delphi\Linear	Delphi	Command line - program: reads 10 linear barcodes from the file BarTest.tif and shows the results.
X86\delphi\Data Matrix	Delphi	Sample program for the recognition of Data Matrix barcodes.
X86\java X64\java	Java	Command line - program: reads 10 linear barcodes from the file BarTest.tif and shows the results. The source code contains blocks of code for reading



		2D barcodes (PDF417 and DataMatrix).
X86\VB.NET X64\VB.NET	VB.NET	Program to enter a file name. DataMatrix (or, after removal of program comments, PDF417 or linear) barcodes are read from this file. Results will be shown in a message box.
X86\VB	Visual Basic 6.0	Reading all files from a source directory sequentially. If a barcode is read, its content will be used as file name and the file will be moved to the destination directory.
X86\VB_MultiTiff	Visual Basic 6.0	Reading linear barcodes, DataMatrix and PDF417 barcodes from the assigned file. Multi-tiff files will be read page by page. It is shown how the functions for the determination of the valid license and for the determination of the version can be accessed. The recognition process and results will be written to a list box.



Directory F_OCX\x86\sample (OCX - Interface)

As well as the F_DLL interface the version QSBCOCX.ocx is used by QS-Barcode SDK, if QS-Barcode SDK should handle the image data file by itself. In many environments it is easier to integrate OCX than DLL and OCX can be used more intuitive. The data file will be opened and barcode searching and recognition is accomplished with the actual settings.

Note!	<p>formats The sample programs for the OCX-file-interface provide many formats, if they are not using a defined file name. There is a complete list attached to the QS-Barcode SDK documentation, see „14.1 provided formats“</p> <p>multi-page-file In multilateral files (multi-tiff or Adobe PDF) will usually be searched only on the first pages for barcodes. Please pay attention to the annex „14.2 multi-page support“ of the QS-Barcode SDK documentation for notes how you can also browse the other pages.</p> <p>Adobe PDF documents The Adobe PDF format is supported by QS-Barcode SDK Version 3.8. Please notice the chapter “14.3 Adobe PDF Documents - Special Settings”.</p>
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Subdirectory	Language / Environment	Task
X86\vb6\linear\execute X86\vb6\linear\project	Visual Basic 6.0	Reading all files from a source directory sequentially. If a barcode is read, its content will be used as file name and the file will be moved to the destination directory. The path can be set, as well as some of the barcode parameters.
X86\vb6\DynamicThreshold\execute X86\vb6\DynamicThreshold\project		Sample for the use of the dynamic threshold
X86\elo_script (only de)	Elo Script Basic	Script shows the possibility for integration of QS-Barcode in the Elo Office archive system

Directory H_DLL\x86/x64\sample (Handle on DIB - Interface)

The version of QS-Barcode SDK is used, when the image exists as bitmap in the main memory of the program. Barcode recognition and reading will be accomplished with the actual barcode settings.

Subdirectory	Language / Environment	Task
X86\c\Default X64\c\Default	C	The program expects a file name of an image in monochrome BMP format as command line parameter. For the p_lib Interface the image has to be monochrome. The file will be opened and searched for linear barcodes. Barcode data is written to the standard output. Barcode parameters are fixed in the code. The sample program has been written and tested with MS Visual Studio 2008.
X86\c\WhitePixel X64\c\WhitePixel	C	The image will be searched for linear barcodes. Barcode data is written to the standard output.



		The function to search for barcodes is passed a specific configuration file (qsbci.ini) for image enhancement, which corrects the existing errors in the image before the search. Barcode parameters are fixed in the code. The sample program has been written and tested with MS Visual Studio 2008.
X86\c\AdvancedSearch X64\c\AdvancedSearch	C	The barcode cannot be read in a standard case. Before reading repairs are carried out on the barcode and the barcode is read with advanced functionality.
X86\c\DynamicThreshold X64\c\DynamicThreshold	C	The image is overall too dark for the standard threshold (160). An automatic determination of the threshold is done which sets the image to a readable state.
X86\c_sharp\default X64\c_sharp\default	C#	Open image file with program. Linear barcodes are read (or after removing comments PDF417 or DataMatrix barcodes). The results are displayed via messagebox.
X86\c_sharp\Multi-Threading X64\c_sharp\Multi-Threading	C#	Six different barcode types are read repeatedly in a definable number of concurrent threads.
X86\delphi	Delphi	Command line program: Reads linear barcodes from file "BarTest.bmp" and reports the results.

Directory \P_Lib\x86\x64\Sample (Pointer to Memory - Interface)

The version QSBarDLL_H.dll of QS-Barcode SDK is used, when the image exists as DIB (device independent bitmap) in the main memory of the program. Barcode recognition and reading will be accomplished with the actual barcode settings.

Subdirectory	Language / Environment	Task
X86\c\Example1 X64\c\Example1	C	The program expects a file name of an image in BMP format as command line parameter. A handle to a Windows Device Independent Bitmap (DIB) will be created. This DIB can be monochrome, in gray scales or colored. This DIB will be searched for linear barcodes. Barcode data is written to the standard output. Barcode parameters are fixed in the code. The code for reading 2D barcodes PDF417 or DataMatrix exists in the source code as a comment. The sample program has been written and tested with MS Visual Studio 2008.
X86\c\Example2 X64\c\Example2	C	The image will be searched for linear barcodes. Barcode data is written to the standard output. The barcode searching function is passed a specific configuration file (qsbci.ini) for image enhancement, which corrects the existing errors in the image before recognizing the barcode. Barcode settings are fixed in the code. The sample program has been written and tested with



		MS Visual Studio 2008.
X86\c_dmatrix X64\c_dmatrix	C	Command line program: is reading 2D barcodes of type DataMatrix. The image file name must be passed as a parameter.
X86\c_Multi-Threading X64\c_sharp\Multi-Threading	C	Six different barcode types are read repeatedly in a definable number of concusrrrent threads.
X86\c_pdf417	C	Command line program: is reading 2D barcodes of type PDF417. The image file name must be passed as a parameter.
X86\c_qrcode	C	Command line program: is reading 2D barcodes of type QR Code. The image file name must be passed as a parameter.
X86\delphi	Delphi	Command line program: is reading linear barcodes from the file named <code>BarTest.bmp</code> and shows results.

If you have questions, our support will help quickly.

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