TBarCode

Barcode Generator Components

Version 9.0

Product Overview

WWW.TEC-IT.COM

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3 Product Overview

3.1 What is TBarCode?

TBarCode is a set of professional tools for the generation of barcodes. More than 80 different symbologies (linear barcodes, 2D barcodes and stacked barcode variants) can be printed or exported as graphics files. All industry formats are supported. The barcodes can be generated in the highest possible resolution and quality.

TBarCode is available in several versions for different operating systems, applications and programming environments. The following versions are included in this setup:

TBarCode OCX	A Microsoft® ActiveX® compliant barcode control. It can be used with Microsoft® Office applications as well as by software developers.
TBarCode .NET	A .NET barcode library for software developers. It includes barcode controls for Windows Forms and ASP.NET 2.0.
TBarCode Library	A DLL for Windows platforms for software developers. (A DLL for Windows CE/Windows Mobile is available on request. Please contact us with your platform details.)

3.2 Important Security Notice

> ► If you are using the **TBarCode OCX** control on a web page you should update to TBarCode 8 or newer as soon as possible. See section 5.1 for details.

3.3 Download and Setup

Download **TBarCode** from http://www.tec-it.com/Download ► *TBarCode* and execute the setup application. Depending on your selection one or more of the above mentioned components are installed – along with documentations and sample applications.

> ► Administrative rights are required to install **TBarCode.**
> ► **TBarCode OCX** is an ActiveX control. ActiveX controls must be registered within the Microsoft Windows operating system before they can be used. This registration is executed automatically by the setup application. On demand you can register the OCX file manually with the command line tool *"regsvr32.exe".*

3.4 Scope of this Document

This document provides an overview regarding the installed files, sample applications and documentation of **TBarCode.**

Depending on your role (Microsoft Office user, web developer, Microsoft SharePoint developer, traditional software developer, etc.) more detailed information is available in the related documentation and sample applications.

Additional barcode software (e.g. for Linux®, UNIX®, SAP®, Oracle®, PostScript® compatible printers, …) is available on http://www.tec-it.com.

4 What's New in Version 9

4.1 New Barcode Types

- Micro QR Code
- HIBC LIC/PAS 128
- HIBC LIC/PAS 39
- HIBC LIC/PAS DataMatrix
- HIBC LIC/PAS QR-Code
- HIBC LIC/PAS PDF417
- HIBC LIC/PAS MicroPDF417
- HIBC LIC/PAS Codablock-F
- Full implementation of Aztec Code

4.2 Features/Enhancements

- Improved quiet zone adjustment. The quiet zone works for all barcodes now. It can be specified in mm, mils and pixels. All four sides may be adjusted separately.
- Improved bar width reduction handling (uses decimals and lets the user choose between several units).
- New function for calculating the optimal bitmap sizes for export.
- New function for retrieving the length of compressed barcode data.
- New PDF output feature.
- DataMatrix: Added the possibility to enforce binary encoding.
- Changed naming of "RSS" barcodes to "GS1 DataBar".
- OCX property dialog: The property „Notch Height" was replaced by „Bar Width Reduction".

4.3 Bug Fixes

- The resolution for barcodes with more than 300 dpi is stored correctly into barcode images (e.g. jpeg, png) now.
- Fixed a problem with the bar width when creating EMF images in "Compatible" draw mode.
- Pharmacode: Fixed a problem related to the encoding of color sequences.
- KIX Barcode: Right aligned text is now properly aligned.
- Fixed an issue with the adjustment of composite components in the standard property list (Microsoft Word, Excel, …).

5   What's New in Version 8

5.1   Security Enhancements (enhanced solution)

- The ActiveX control TBarCode OCX is now a site-locked ActiveX control. This security enhancement was implemented in response to a reported possible security leak in conjunction with Internet Explorer and an installed **TBarCode** OCX. It is strongly recommended to update all TBarCode installations as soon as possible.
As part of the fix the **TBarCode** OCX methods *SaveImage()* and *SaveImageEx()* now are restricted to specific internet zones. This happens only if **TBarCode** OCX runs in Microsoft Internet Explorer as part of a web-page. The allowed zones can be specified in the registry. In addition these functions append the correct image filename extension if the file extension specified by the user does not match the supported image formats.
Please refer to the TBarCode OCX Developer Reference for details.

5.2   New Barcode Types

- Aztec Code (binary encoding support)
- DPD Code ("Deutscher Paket Dienst GmbH & Co. KG")
- Italian Postal Code (2of5)
- DAFT Code (this is not a bar-code by itself. It allows low level (bar by bar) encoding of several postal codes)

5.3   Features/Enhancements

- MaxiCode : Callback functions for custom drawing are now available.
- PDF417: This symbology can now be forced to use binary encoding only.
- Printing Problems: A new property named "Drawing Mode" helps the user to avoid problems with certain printer drivers.
- Microsoft Word Add-In: Bar code insertion and serial letter support was improved.
- The default encoding scheme or codepage depends on the barcode type. The user has the possibility to specify custom encoding schemes.
- **TBarCode** DLL: ASCII and Wide Character versions of API functions.
- Bearer bars can now be drawn on the top or the bottom of the bar code.

5.4   Bug Fixes

- PDF417: An encoding error was corrected if a space follows a punctuation character at the end of the data stream.
- Data Matrix: A bug in EDIFACT mode was corrected.
- Error messages refers now to correct position in the input text if it contains escape sequences.
- **TBarCode** DLL: a call to *BCDraw* now fails if *BCCreate* was not called successfully before.

6 What's New in Version 7.1

6.1 Security Enhancements (fundamental solution)

- A fix was implemented in response to a reported security leak (a malicious web-site in conjunction with Internet Explorer and an installed **TBarCode** OCX).
  Up to now no real threat is known, but it is strongly recommended to update all TBarCode installations as soon as possible.
  As part of the fix the **TBarCode** OCX methods *SaveImage()* and *SaveImageEx()* now append the according filename extension to the filename in each case.

6.2 New Barcodes and Check-Digits

- Telepen
- KIX (Dutch Postal Barcode)
- Add new GS1 code names (e.g. GS1-128 was formerly named EAN-128)
- Codabar Mod-16 Check Digit

6.3 Bug Fixes

- **TBarCode** OCX: Help File Button in ActiveX Property Pages
- **TBarCode** OCX: "Suppress Error Messages" property (general tab) is now saved correctly
- **TBarCode**.NET: a memory leak was fixed
- Documentation error for Licensing (wrong Product codes)
- PDF417: **TBarCode** hangs when using a wrong character in the File-ID (happened only when using structured append)
- PDF417: binary sequences are encoded in a wrong way (If the input data was encoded in Punctuation mode and **TBarCode** have had to shift to Byte mode, it incorrectly returned to Punctuation instead of Alpha mode).
- PDF417/MicroPDF: Compaction now always uses binary mode for barcode creation. This avoids error messages "Barcode does not fit…."
- Data Matrix: catastrophic failure with \F (FNC1)
- Code128: FNC1 was not encoded in the actual sub set (only happened with user specified subsets)
- Escape sequences are handled now before a possible data compression and before a check-digit is computed (previous versions incorrectly computed check-digits in this situation)
- SaveImage()/SaveImageEx() now returns correct error codes

6.4 Improvements for Windows Vista

- License data is now written to HKEY_CURRENT_USER by default. But license data is read from ini-file, HKEY_LOCAL_MACHINE, and HKEY_CURRENT_USER (in this order). If you need a license which is valid for a complete system (regardless of the user), then use ini-file licensing or move the license key from HKCU to HKLM.

7   What's New in Version 7

7.1   General Enhancements

- Improved Microsoft Office support
- Add-In for Microsoft Word
- Compatible with Microsoft Office 2007
- Support for Microsoft InfoPath XML (Microsoft InfoPath 2003, Microsoft InfoPath 2007)
- Simpler User-Interface, revised property pages for **TBarCode** OCX
- New barcodes: USPS OneCode (4-State Customer Barcode) and Plessey Code with bidirectional reading support
- Additional methods for check-digits computation
- Rectangular bearer bars (e.g. for ITF-14)
- GIF image support
- Chinese Compaction option for QR Code

7.2   .NET Support

- .NET barcode library
- .NET control for Windows Forms
- .NET control for ASP.NET 2.0

7.3   Advanced Features

- Multiple 2D Barcodes - automatic encoding of large barcode data into a series of barcodes
- Growing bounding box feature (for Microsoft InfoPath)
- Compression of barcode data (Deflate, GZip, etc.)
- Additional color modes for Postscript output (RGB, CMYK, ...)
- Native PCL output (HP-GL/2 dependencies are removed)
- Automatic optimization of barcode size for given resolution and decoder type
- Functions for more flexible computation and use of check-digits
- TBarCode DLL: Revised callback mechanism for custom drawing
- TBarCode OCX: Revised API and property pages
- Automatic conversion of input data into the default character set of the desired 2D symbology
- Unified source-code for Linux/UNIX/Windows CE/Windows Mobile/Windows

8 Installed Files

Here is an overview of the files and folders that were installed with **TBarCode.**

8.1 Installation Folder

TBarCode is installed in following folder by default:

```
C:\Program Files\TEC-IT\TBarCode9
```

During the setup, you have the option to change this folder.

8.2 Installed Folders

Following files and folders are installed in the chosen installation folder:

Folder	Description
Bin	Dynamic link libraries (DLLs)
Documentation	Documentation files (including the file you are currently viewing), see "*9. Documentation*".
Examples	Several examples, which show you how to use **TBarCode;** see "*10. Samples*".
Include	C/C++ header files of **TBarCode Library**.
Lib	C/C++ .lib files of **TBarCode Library**.
Links	Important links to our website.

8.3 Important Files

The *Bin* folder contains the dynamic link libraries which are required to use **TBarCode**:

Folder	Description
TBarCode9.dll	**TBarCode Library**, the barcode generator library (required in each case)
TBarCode9.ocx	**TBarCode OCX**, the barcode ActiveX component.
TBarCodeMSWordAddIn.dll	**TBarCode MSWord Add-In,** a toolbar add-in for Microsoft Word. This toolbar simplifies the use of **TBarCode OCX** in Microsoft Word.
TECIT.TBarCode.dll	**TBarCode .NET**, the .NET assembly for the .NET barcode library and controls.
zlib1.dll	Compression library.

If you want to redistribute **TBarCode** with your own application, you will have to include some of these files in the setup of your application. This is explained in the according *Developer Manual* or *Developer Reference*.

9 Documentation

Here is an overview of the documentation files which are installed in the *Documentation* folder.

9.1 General Documentation

Documentation	Description
TBarCode Product Overview	this document.

9.2 TBarCode Library Documentation

Documentation	Description
TBarCode Library Developer Manual	explains how you can use the DLL in your own applications and provides sample source code.
TBarCode Library Developer Reference	describes the API (application programming interface) of **TBarCode Library**.

9.3 TBarCode OCX Documentation

Documentation	Description
TBarCode OCX User Manual	shows how to use **TBarCode OCX** (ActiveX component) in applications like Microsoft Office. Further, the ActiveX property pages and the *TBarCode Office Add-In* are explained in detail.
TBarCode OCX Developer Manual	shows how to use **TBarCode OCX** with various IDEs (integrated development environments), like Visual Studio.
TBarCode OCX Developer Reference	describes the API of **TBarCode OCX**.

9.4 TBarCode .NET Documentation

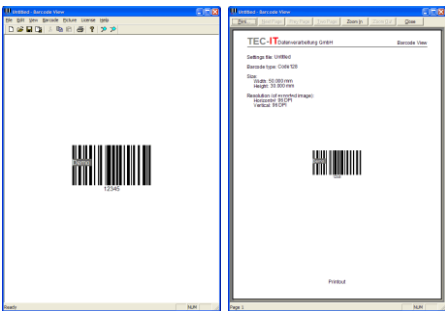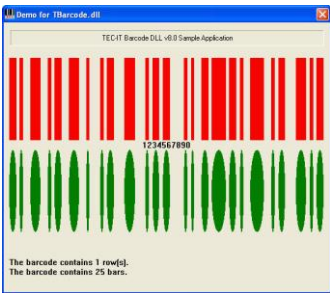| Documentation	Description
TBarCode .NET Developer Manual	shows how to create barcodes in own .NET applications (Windows Forms and ASP.NET 2.0).
TBarCode .NET Developer Reference	describes the API of **TBarCode .NET**.

9.5 More Information

► If you are new to bar-coding or you need a source for specific information about barcode symbologies and barcode parameters we suggest downloading TEC-IT´s *Barcode Reference*: http://www.tec-it.com/download/PDF/Barcode_Reference_EN.pdf

► If you need further information that you could not find in these documents, please do not hesitate to contact our support: support@tec-it.com.

10 Samples

Here is an overview of the samples that come with the **TBarCode** setup and are installed in the *Examples* folder.

> ► More samples are available on our webpage: http://www.tec-it.com/download.
>
> ► If you need other samples, please don't hesitate to contact our support: support@tec-it.com.

10.1 TBarCode Library Samples

Sample	Description
BarCode View	Using **TBarCode** in a MFC application. This is a rather complex sample that shows how the DLL can be used by an MFC application written in C++. It shows drawing of barcodes in a document, a print-preview, and a printed document, and how to set various barcode properties.
TBarCode EXE	Using **TBarCode** in a MFC application. This sample shows a dialog written in C++ with MFC. It draws a barcode and contains controls to set important barcode properties.
Custom Drawing	Using the custom drawing functions of **TBarCode** in a MFC application. This sample shows how to use callback functions to draw customized barcodes. **Important**: Callback functions are disabled in the Demo version. A valid license key is required to run this sample. Please, contact TEC-IT if you need a temporary license key for evaluation.
Delphi Sample	Using **TBarCode** in a Delphi application. This sample shows a dialog written in Delphi. It draws and prints barcodes.

10.2 TBarCode OCX (ActiveX) Samples
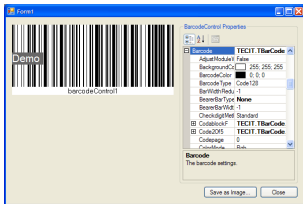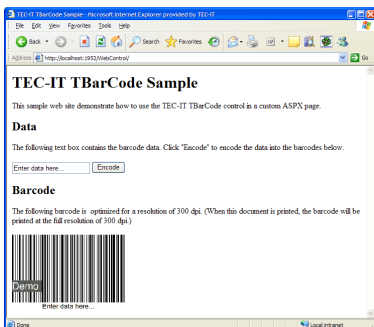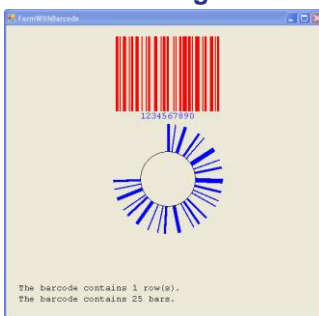
10.2.1 Microsoft Office Samples

Sample	Description
Microsoft Access Sample	Barcodes in Microsoft Access database applications. This sample shows how to insert barcodes into your report and how to bind barcode data to a specific data field.
Microsoft Excel Samples	Making the most out of **TBarCode OCX** within Microsoft Excel. These samples demonstrate the functions of **TBarCode OCX** for generating barcodes. Linking a cell to a barcode is shown as well as sophisticated VBA programming. You must enable Macros to run these samples.
Microsoft Word Samples	**TBarCode OCX** within Microsoft Word. These samples shows how **TBarCode OCX** generates all linear, 2D and composite barcodes with just simple mouse clicks. You must enable Macros to run these samples.
Microsoft Infopath Samples	**TBarCode OCX** within an Infopath Form. This sample shows how use **TBarCode OCX** in an Infopath form and how to use Infopath controls to fill the barcode control.

10.2.2 General ActiveX Samples

Sample	Description
HTML Sample	Embedding TBarCode OCX in plain HTML pages. This sample shows how a locally installed ActiveX can be embedded in a simple HTML page. Internet Explorer required.
Microsoft ASP Sample	Server-side dynamic generation of barcodes using ASP. Set barcode properties using URL parameters. The barcodes are generated as http-stream. Browser independent and without temporary image files on the server.
PHP Sample	Server-side dynamic generation of barcodes using PHP The barcode properties can be set using URL parameters. The barcodes are generated as temporary image files which are deleted after use. Linear barcodes are demonstrated as well as all major 2D codes. The principle is browser-independent. (Needs PHP4 or later installed on Windows)
Visual Basic 6 Sample	Using **TBarCode** in Visual Basic 6. This sample draws a barcode in a dialog. The barcode

Sample	Description
	can be modified, copied to the clipboard, printed, and saved as image.
Visual Basic Script Sample	Displaying the license dialog of **TBarCode OCX** using Visual Basic Script.

10.3 TBarCode .NET 2.0 Samples

Sample	Description
WindowsFormControl 	Using **TBarCode** in .NET Windows Forms. This sample demonstrates the usage of the .NET Windows Forms Control called *BarcodeControl*. The *BarcodeControl* can be added to any form – simply by using Drag´n´Drop. In the sample a form hosts a *BarcodeControl* and shows a complete list of all properties.
WebControl 	Using **TBarCode** in ASP.NET web sites. This sample demonstrates the usage of the .NET web control called *BarcodeControl*. This web control can be easily added to any ASP.NET page. In the sample web site the content of a text-box is encoded in a barcode.
CustomDrawing 	Using **TBarCode** and custom drawing functions to a draw barcode. This sample demonstrates how to use callback functions with the .NET class *Barcode* to draw a customized barcode and to get additional barcode information. **Important**: Callback functions are disabled in the Demo version. A valid license key is required to run this sample. Please, contact TEC-IT if you need a temporary license key for evaluation.

11 Contact and Support Information

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