



TEC-IT

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TBarCode

All-In-One Barcode Solution

Version 8.0

Product Overview

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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 70 different symbologies (linear as well as 2D or stacked barcode variants) can be printed or exported as graphics file. All industry formats, in the highest possible resolution and quality, are generated.

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

- ▶ Please update all **TBarCode** installations to this version as soon as possible. See section 4.1 for details.

3.3 Download and Setup

Download **TBarCode** from <http://www.tec-it.com/Download> ▶ *Software* ▶ *Barcode Tools for Microsoft Windows* 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 8

4.1 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.**

4.2 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)

4.3 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.

4.4 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.

5 What's New in Version 7.1

5.1 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.

5.2 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

5.3 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

5.4 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.

6 What's New in Version 7

6.1 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

6.2 .NET Support

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

6.3 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

7 Installed Files

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

7.1 Installation Folder

TBarCode is installed in following folder by default:

C:\Program Files\TEC-IT\TBarCode8

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

7.2 Installed Folders

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

Folder	Description
<i>Bin</i>	Dynamic link libraries (DLLs)
<i>Documentation</i>	Documentation files (including the file you are currently viewing), see “8. Documentation”.
<i>Examples</i>	Several examples, which show you how to use TBarCode ; see “9. Samples”.
<i>Include</i>	C/C++ header files of TBarCode Library .
<i>Lib</i>	C/C++ .lib files of TBarCode Library .
<i>Links</i>	Important links to our website.

7.3 Important Files

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

Folder	Description
<i>TBarCode8.dll</i>	TBarCode Library , the barcode generator library (required in each case)
<i>TBarCode8.ocx</i>	TBarCode OCX , the barcode ActiveX component.
<i>TBarCodeMSWordAddIn.dll</i>	TBarCode MSWord Add-In , a toolbar add-in for Microsoft Word. This toolbar simplifies the use of TBarCode OCX in Microsoft Word.
<i>TECIT.TBarCode.dll</i>	TBarCode .NET , the .NET assembly for the .NET barcode library and controls.
<i>zlib1.dll</i>	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*.

8 Documentation

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

8.1 General Documentation

Documentation	Description
<i>TBarCode Product Overview</i>	this document.

8.2 TBarCode Library Documentation

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

8.3 TBarCode OCX Documentation

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

8.4 TBarCode .NET Documentation

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

8.5 More Information

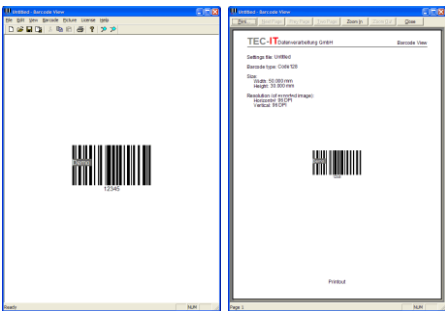

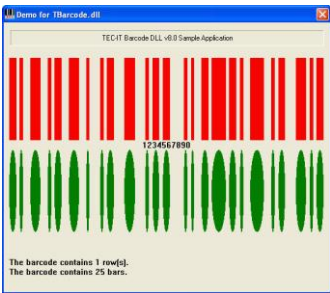
- ▶ If you are new to bar-coding or you need a source for specific information about barcode symbologies and barcode parameters we suggest downloading TEC-IT's *Barcode Reference*: http://www.tec-it.com/download/PDF/Barcode_Reference_EN.pdf
- ▶ If you need further information that you could not find in these documents, please do not hesitate to contact our support: support@tec-it.com.

9 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 website: <http://www.tec-it.com/download>.
- ▶ If you need other samples, please don't hesitate to contact our support: support@tec-it.com.

9.1 TBarCode Library Samples

Sample	Description
<p>BarCode View</p> 	<p>Using TBarCode in a MFC application.</p> <p>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.</p>
<p>TBarCode EXE</p> 	<p>Using TBarCode in a MFC application.</p> <p>This sample shows a dialog written in C++ with MFC. It draws a barcode and contains controls to set important barcode properties.</p>
<p>Custom Drawing</p> 	<p>Using the custom drawing functions of TBarCode in a MFC application.</p> <p>This sample shows how to use callback functions to draw customized barcodes.</p> <p>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.</p>
<p>Delphi Sample</p>	<p>Using TBarCode in a Delphi application.</p> <p>This sample shows a dialog written in Delphi. It draws and prints barcodes.</p>

9.2 TBarCode OCX (ActiveX) Samples

9.2.1 Microsoft Office Samples

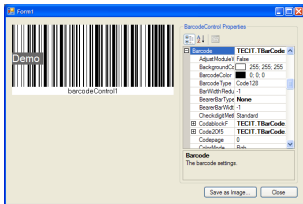
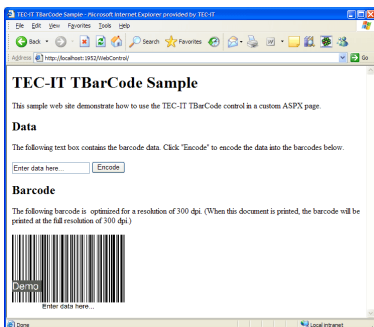
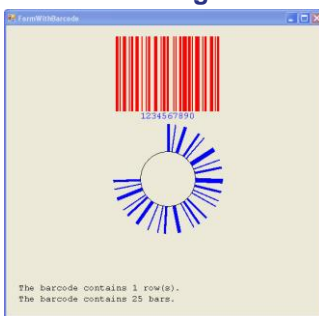
Sample	Description
Microsoft Access Sample	<p>Barcodes in Microsoft Access database applications.</p> <p>This sample shows how to insert barcodes into your report and how to bind barcode data to a specific data field.</p>
Microsoft Excel Samples	<p>Making the most out of TBarCode OCX within Microsoft Excel.</p> <p>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.</p> <p>You must enable Macros to run these samples.</p>
Microsoft Word Samples	<p>TBarCode OCX within Microsoft Word.</p> <p>These samples shows how TBarCode OCX generates all linear, 2D and composite barcodes with just simple mouse clicks.</p> <p>You must enable Macros to run these samples.</p>
Microsoft Infopath Samples	<p>TBarCode OCX within an Infopath Form.</p> <p>This sample shows how use TBarCode OCX in an Infopath form and how to use Infopath controls to fill the barcode control.</p>

9.2.2 General ActiveX Samples

Sample	Description
HTML Sample	<p>Embedding TBarCode OCX in plain HTML pages.</p> <p>This sample shows how a locally installed ActiveX can be embedded in a simple HTML page. Internet Explorer required.</p>
Microsoft ASP Sample	<p>Server-side dynamic generation of barcodes using ASP.</p> <p>Set barcode properties using URL parameters. The barcodes are generated as http-stream. Browser independent and without temporary image files on the server.</p>
PHP Sample	<p>Server-side dynamic generation of barcodes using PHP</p> <p>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)</p>
Visual Basic 6 Sample	<p>Using TBarCode in Visual Basic 6.</p> <p>This sample draws a barcode in a dialog. The barcode</p>

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.

9.3 TBarCode .NET 2.0 Samples

Sample	Description
<p>WindowsFormControl</p> 	<p>Using TBarCode in .NET Windows Forms.</p> <p>This sample demonstrates the usage of the .NET Windows Forms Control called <i>BarcodeControl</i>. The <i>BarcodeControl</i> can be added to any form – simply by using Drag’n Drop.</p> <p>In the sample a form hosts a <i>BarcodeControl</i> and shows a complete list of all properties.</p>
<p>WebControl</p> 	<p>Using TBarCode in ASP.NET web sites.</p> <p>This sample demonstrates the usage of the .NET web control called <i>BarcodeControl</i>. This web control can be easily added to any ASP.NET page.</p> <p>In the sample web site the content of a text-box is encoded in a barcode.</p>
<p>CustomDrawing</p> 	<p>Using TBarCode and custom drawing functions to a draw barcode.</p> <p>This sample demonstrates how to use callback functions with the .NET class <i>Barcode</i> to draw a customized barcode and to get additional barcode information.</p> <p>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.</p>

10 Contact and Support Information

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