# Morovia QRCode Fonts & Encoder 5 : Release Notes

## **Table of Contents**

1. New Feature in 5.3.3	. 1
2. New Feature in 5.3	1
3. New Feature in 5.2	1
4. New Features in 5.1	2
4.1. Unicode String Encode	2
4.2. InfoPath support	2
5. Backward Compatibility	
5.1. Font Encoder DLL	2
5.2. Crystal Reports	2
6. New Features in 5.0	2
6.1. Micro QR	2
6.2. Scalable PCL Font	2
6.3. Structural Append	2
6.4. Native 64-bit Support	3
7. Backward Compatibility	3
7.1. Font Encoder DLL	
7.2. Crystal Reports	3
8. List of Minor Updates	

## 1. New Feature in 5.3.3

Version 5.3.3 encodes all Unicode strings by encoding their UTF-8 equivalent, regardless if they are Latin strings. This change may break existing applications if Latin strings are encoded. See the manual for details.

## 2. New Feature in 5.3

Version 5.3 supports center overlay block (feature 50), which allows a bit pattern to be specified at the input to create an overlay image. This feature is required to create Swiss payment QR code.

# 3. New Feature in 5.2

Version 5.2 allows users to fine tune encoder behavior to produce single mode symbols, or trigger an error if the size requested is too small for the data encoded. The feature is added through enhancement of the Version parameter. Existing applications are not affected.

### 4. New Features in 5.1

#### 4.1. Unicode String Encode

QR code 2005 standard support encoding in ISO8859-1 and shift-JIS only, with other language support under ECI. This release added support for Unicode string in a way that is compatible with major smart phones running Android and IOS. Refer to the manual for the details.

This change does not affect existing applications if characters are intended to be interpreted as ASCII or ISO8859-1. This change may affect if strings of other character set are passed as Unicode parameter (such as QRcode ActiveX and Word AddIn).

#### 4.2. InfoPath support

QRCode ActiveX control is enhanced to support insertion to an InfoPath form. InfoPath requires additional interfaces that are not present in the previous release.

# 5. Backward Compatibility

In 5.0 release, several changes were made to accommodate new features and 64-bit support. All executables have both 32-bit and 64-bit version in this release. Unfortunately to make those changes, we have to break the backward compatibility. The following lists the changes that break backward compatibility.

#### 5.1. Font Encoder DLL

The DLL interface has changed in this version. In this version you call encode function to create a result object, and create image files or barcode string through this result object.

If your program calls the DLL API, you must change the code accordingly.

#### 5.2. Crystal Reports

In order to have the single source code for both 32-bit and 64-bit UFLs, the UFL interface is changed. Reports authored in previous 1.x version require update in order to use the new version.

## 6. New Features in 5.0

#### 6.1. Micro QR

The Micro QR Code format (also specified in this International Standard), is a variant of QR Code 2005 with a reduced number of overhead modules and a restricted range of sizes, which enables small to moderate amounts of data to be represented in a small symbol, particularly suited to direct marking on parts and components, and to applications where the space available for the symbol is severely restricted.

In QRCode Fonts & Encoder 5, Micro QR is fully supported in all kinds of API - encoder DLL, ActiveX, GUI encoder and Crystal Reports.

#### 6.2. Scalable PCL Font

A scalable PCL font, documentation and test sample is included in this release so that application can send commands to a PCL printer that print QR code and Micro QR code.

#### 6.3. Structural Append

Structural append feature is enhanced to include parity value calculation and input by the user. The new SA block allows parity value to be specified, such as [1][2,98] where 98 is the parity value.

#### 6.4. Native 64-bit Support

All encoder interfaces, including encoder DLL, ActiveX, GUI encoder, Crystal Reports UFL and Reporting Service Plug-in now have native 64-bit version. You can author reports in Crystal reports and deploy to both 32-bit and 64-bit Crystal runtime.

In order to provide seamless experience to end users, the installer is revamped to provide both 32-bit and 64-bit installers. The new installer automatically selects the one that fits the Windows version.

# 7. Backward Compatibility

In 5.0 release, several changes were made to accommodate new features and 64-bit support. All executables have both 32-bit and 64-bit version in this release. Unfortunately to make those changes, we have to break the backward compatibility. The following lists the changes that break backward compatibility.

#### 7.1. Font Encoder DLL

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If your program calls the DLL API, you must change the code accordingly.

#### 7.2. Crystal Reports

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# 8. List of Minor Updates

After the major release is published, Morovia may publish updates to address specific issues discovered after the major release. Each maintenance release contains all files; you only need the current release for new and update installations.

Tracking Number	Description	Fixed in
828	Fixed a minor bug in Windows installer script.	5.3.4
723	Swiss Payment Standard V2.2 (released in Feb. 2021) requires all QR codes to be UTF-8 encoded. To comply to this requirement, Unicode encode API is modified to use UTF-8 equivalent by default. See section "Unicode String Encode Support" in the manual for details.	5.3.3
713	UFL conflicts with PDF417 Fonts & Encoder 5 (pre 5.0.3)	5.3.2
507	Fixed a bug in Word AddIn that failed to save the value of ECC level.	5.3.1
459	Implement a workaround to Crystal runtime multi-threading UFL issue. When multiple threads calling UFL functions, the calls are mixed which results incorrect barcode string.	5.2.2
435	Documentation Error. The version used in Reporting Service chapter of the manual, -1, is invalid. Should use 0 instead.	5.2.1

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Tracking Number	Description	Fixed in
950	The ActiveX .net demo does not upgrade correctly in Visual Studio 2010 and above. All Visual studio projects are reworked in Visual Studio 2010. VS2010 becomes the baseline for all future examples.	5.1.4
938	Fixed a bug in QRcode ActiveX control. The control can't switch itself to "micro QR" type, because the default value of Text properyt exceeds Micro QR capacity. Even if the type is changed, the micro QR code is unable to persist on a form.	5.1.3
904	Fixed a bug in QRcode Word Addin: user cannot change settting through setup dialog.	5.1.1
813	Version 5.0.0 lacks of the .h and .lib files necessary for building Visual C/C+ + projects. Those files are later published as an addendum on our web site. In 5.1.0 release, header file and import libraries for both 32-bit and 64-bit Windows are included. Moreover, a Visual C++ example which calls the font encoder DLL is included in this release.	5.1.0
820	Automation Error when running VBA code in Excel spreadsheet with QRCode ActiveX controls.	5.0.1 (limited release)
	When running some basic VBA code in Excel spreadsheet with QRCode ActiveX controls, Excel pops up error message - Run-time error '-2147319765 (8002802b)': Automation error Element not found.	
	The reason for this error is that Excel expects an undocumented interface from ActiveX controls that it hosts. Previous QRCode ActiveX implement did not implement this interface. Version 5.0.1 contains the fix.	
826	Some customers want to have an API that produce QR Codes with Unicode string encoded in a way compatible with Android barcode reader.	5.1.0
	Addressed this requirement by converting Unicode string into UTF-8 if the string contains characters outside ISO8859-1.	
828	QRCode ActiveX control can't be used in InfoPath form design. InfoPath displays error message "QRCodeActiveX Control is not declared safe for initializing".	5.1.0
	Added necessary interface to QRCode ActiveX control to satisfy additional requirements by InfoPath. Moreover, added property page support to ActiveX control so that user can modify properties in the form designer.	