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1 Introduction

MW6 QRCode .NET CF package has three 100% managed code libraries for Pocket PC, Windows CE and Smartphone platforms, the libraries can generate QRCode format pattern data and your applications can use this pattern data to render QRCode barcode onto any device.

QRCode is designed to pack a lot of information in a very small space, our QRCode .NET CF libraries support Model 2, it is capable of encoding up to 2953 bytes, 4296 alphanumeric characters, or 7089 numeric digits.

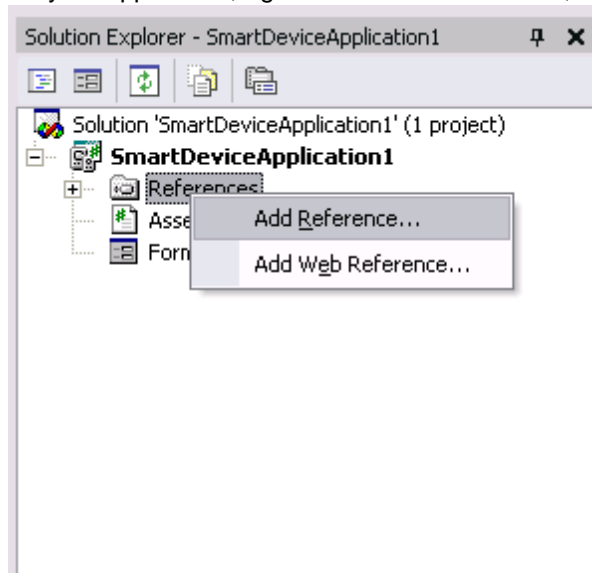
2 Installation

2.1 Trial Version

1. The trial version QRCode .NET CF libraries append "MW6 Demo" to the string encoded with the QRCode format.
2. After the installation for the trial version is finished, depending on your application platform, copy corresponding QRCode .NET CF library file in VB.NET or C# demo sub folder of the destination folder (e.g. "C:\Program Files\MW6 .NET CF\QRCode\Platform_Name") to your project folder.

Platform Name	Library Name
Pocket PC	MW6.QRCodePC.dll
Windows CE	MW6.QRCodeCE.dll
Smartphone	MW6.QRCodeSP.dll

3. In "Solution Explorer" for your application, right-click on "References", click on "Add Reference".



4. In "Add Reference" dialog, click on "Browse", locate QRCode .NET CF library file for your platform, click on "Open" to return to "Add Reference" dialog, click on "OK". If a message box ("The reference MW6.QRCodeXX.DLL may or may not be valid for the active platform...") pops up, click on "OK" and continue.
 5. Add QRCode .NET CF library related code to your application.
-

2.2 Full Version

1. Uninstall the trial version QRCode .NET CF libraries if applicable.
2. Complete the installation for the full version QRCode .NET CF libraries, copy MW6QRCodeNet.dll in VB.NET demo project sub folder or C# demo project sub folder in the destination folder (e.g. "C:\Program Files\MW6 .NET Components\QRCode") to your project folder to replace the trial version QRCode .NET CF libraries .dll file.

3 Reference Guide

3.1 Properties

3.1.1 Data Property

Gets or sets the message to encode with QRCode .NET CF library.

[Visual Basic .NET]

```
Public Property Data As String
```

[C#]

```
public string Data {get; set;}
```

Remarks

The default value is "12".

3.1.2 Level Property

Gets or sets the level of error correction allowing recovery.

[Visual Basic .NET]

```
Public Property Level As enumLevel
```

[C#]

```
public enumLevel Level {get; set;}
```

3.1.3 Mask Property

Gets or sets the mask pattern for improving the readability.

[Visual Basic .NET]

```
Public Property Mask As enumMask
```

[C#]

```
public enumMask Mask {get; set;}
```

3.1.4 Version Property

Gets or sets the version of the QRCode barcode.

[Visual Basic .NET]

```
Public Property Version As enumVersion
```

[C#]

```
public enumVersion Version {get; set;}
```

Remarks

If you set *Version* to *vrAuto* (Auto version), our QRCode .NET CF libraries will automatically choose an appropriate version with enough data capacity to encode the string.

If you set *Version* to other values and the data capacity of the selected version is not big enough to encode the string, our QRCode .NET CF libraries will also automatically choose an appropriate version with bigger data capacity to encode the string.

3.2 Methods

3.2.1 GetPatternData Method

Gets the QRCode barcode pattern matrix data.

[Visual Basic .NET]

```
Public Function GetPatternData(ByRef Buffer() As Char, _  
                               ByRef Size As Long, _  
                               ByRef Rows As Integer, _  
                               ByRef Columns As Integer) As Boolean
```

[C#]

```
public bool GetPatternData(ref char[] Buffer,  
                           ref long Size,  
                           ref int Rows,  
                           ref int Columns);
```

Parameters

Buffer

Pointer to a buffer that receives the character stream ('1's and '0's) storing the QRCode barcode pattern matrix data row by row from the top left matrix corner, '1' indicates the black module and '0' indicates the white module.

If the function fails and the variable pointed to by *Size* returns the required buffer size, in characters.

Size

[in/out] On input, specifies the size, in characters, of the *Buffer*. On output, receives the size, in characters, of the QRCode barcode pattern matrix ('1's and '0's).

Rows

A pointer to the variable that receives the number of the rows for the pattern matrix.

Columns

A pointer to the variable that receives the number of the columns for the pattern matrix..

Return Value

If the function succeeds, the return value is a nonzero value, otherwise the return value is zero.

Remarks

You can use this method to obtain the QRCode barcode pattern matrix data and render the QRCode barcode onto any device such as the printer, only *Data*, *Level*, *Mask* and *Version* properties affect the pattern matrix data output.

If you want to create a rotated barcode (90 degrees, 180 degrees or 270 degrees), rotate pattern matrix accordingly before you render the QRCode barcode onto a device.

3.3 Enumerations

3.3.1 Level Enumeration

An enumeration type for all possible level values.

Members

Name	Comment
lvL	Level L
lvM	Level M
lvQ	Level Q
lvH	Level H

3.3.2 Mask Enumeration

An enumeration type for all possible mask values.

Members

Name	Comment
mkAuto	Auto Mask
mk0	Mask 0
mk1	Mask 1
mk2	Mask 2

mk3	Mask 3
mk4	Mask 4
mk5	Mask 5
mk6	Mask 6
mk7	Mask 7

3.3.3 Version Enumeration

An enumeration type for all possible version values.

Members

Name	Comment
vrAuto	Auto
vr1	21 X 21
vr2	25 X 25
vr3	29 X 29
vr4	33 X 33
vr5	37 X 37
vr6	41 X 41
vr7	45 X 45
vr8	49 X 49
vr9	53 X 53
vr10	57 X 57
vr11	61 X 61
vr12	65 X 65
vr13	69 X 69
vr14	73 X 73
vr15	77 X 77
vr16	81 X 81
vr17	85 X 85
vr18	89 X 89
vr19	93 X 93
vr20	97 X 97
vr21	101 X 101
vr22	105 X 105
vr23	109 X 109
vr24	113 X 113
vr25	117 X 117
vr26	121 X 121
vr27	125 X 125
vr28	129 X 129
vr29	133 X 133
vr30	137 X 137
vr31	141 X 141
vr32	145 X 145
vr33	149 X 149
vr34	153 X 153
vr35	157 X 157
vr36	161 X 161
vr37	165 X 165
vr38	169 X 169

vr39	173 X 173
vr40	177 X 177

4 Data Capacity Tables

4.1 Level L

Version	Capacity (in digits)	Capacity (in alphanumeric characters)	Capacity (in bytes)
1	41	25	17
2	77	47	32
3	127	77	53
4	187	114	78
5	255	154	106
6	322	195	134
7	370	224	154
8	461	279	192
9	552	335	230
10	652	395	271
11	772	468	321
12	883	535	367
13	1022	619	425
14	1101	667	458
15	1250	758	520
16	1408	854	586
17	1548	938	644
18	1725	1046	718
19	1903	1153	792
20	2061	1249	858
21	2232	1352	929
22	2409	1460	1003
23	2620	1588	1091
24	2812	1704	1171
25	3057	1853	1273
26	3283	1990	1367
27	3517	2132	1465
28	3669	2223	1528
29	3909	2369	1628
30	4158	2520	1732
31	4417	2677	1840
32	4686	2840	1952
33	4965	3009	2068
34	5253	3183	2188
35	5529	3351	2303
36	5836	3537	2431
37	6153	3729	2563
38	6479	3927	2699
39	6743	4087	2809
40	7089	4296	2953

4.2 Level M

Version	Capacity (in digits)	Capacity (in alphanumeric characters)	Capacity (in bytes)
1	34	20	14
2	63	38	26
3	101	61	42
4	149	90	62
5	202	122	84
6	255	154	106
7	293	178	122
8	365	221	152
9	432	262	180
10	513	311	213
11	604	366	251
12	691	419	287
13	796	483	331
14	871	528	362
15	991	600	412
16	1082	656	450
17	1212	734	504
18	1346	816	560
19	1500	909	624
20	1600	970	666
21	1708	1035	711
22	1872	1134	779
23	2059	1248	857
24	2188	1326	911
25	2395	1451	997
26	2544	1542	1059
27	2701	1637	1125
28	2857	1732	1190
29	3035	1839	1264
30	3289	1994	1370
31	3486	2113	1452
32	3693	2238	1538
33	3909	2369	1628
34	4134	2506	1722
35	4343	2632	1809
36	4588	2780	1911
37	4775	2894	1989
38	5039	3054	2099
39	5313	3220	2213
40	5596	3391	2331

4.3 Level Q

Version	Capacity (in digits)	Capacity (in alphanumeric characters)	Capacity (in bytes)
1	27	16	11

2	48	29	20
3	77	47	32
4	111	67	46
5	144	87	60
6	178	108	74
7	207	125	86
8	259	157	108
9	312	189	130
10	364	221	151
11	427	259	177
12	489	296	203
13	580	352	241
14	621	376	258
15	703	426	292
16	775	470	322
17	876	531	364
18	948	574	394
19	1063	644	442
20	1159	702	482
21	1224	742	509
22	1358	823	565
23	1468	890	611
24	1588	963	661
25	1718	1041	715
26	1804	1094	751
27	1933	1172	805
28	2085	1263	868
29	2181	1322	908
30	2358	1429	982
31	2473	1499	1030
32	2670	1618	1112
33	2805	1700	1168
34	2949	1787	1228
35	3081	1867	1283
36	3244	1966	1351
37	3417	2071	1423
38	3599	2181	1499
39	3791	2298	1597
40	3993	2420	1663

4.4 Level H

Version	Capacity (in digits)	Capacity (in alphanumeric characters)	Capacity (in bytes)
1	17	10	7
2	34	20	14
3	58	35	24
4	82	50	34
5	106	64	44
6	139	84	58
7	154	93	64
8	202	122	84

9	235	143	98
10	288	174	119
11	331	200	137
12	374	227	155
13	427	259	177
14	468	283	194
15	530	321	220
16	602	365	250
17	674	408	280
18	746	452	310
19	813	493	338
20	919	557	382
21	969	587	403
22	1056	640	439
23	1108	672	461
24	1228	744	511
25	1286	779	535
26	1425	864	593
27	1501	910	625
28	1581	958	658
29	1677	1016	698
30	1782	1080	742
31	1897	1150	790
32	2022	1226	842
33	2157	1307	898
34	2301	1394	958
35	2361	1431	983
36	2524	1530	1051
37	2625	1591	1093
38	2735	1658	1139
39	2927	1774	1219
40	3057	1852	1273

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