

UsingQR

Format specification

Revision 2



Table of content

- 1. General Information 3
 - 1.1. Common information 3
 - 1.2. QR Code placement 3
- 2. Data conventions 4
 - 2.1. Dates 4
 - 2.2. Amounts 4
 - 2.3. Character coding..... 4
 - 2.4. Immunity to extreme data..... 5
- 3. QR String format 5
- 4. Country specific information 12
 - 4.1. Sweden 12
 - 4.2. Norway..... 12
 - 4.3. Denmark 12
 - 4.4. Countries that have implemented SEPA payment standard 12
- 5. Mandatory and voluntary fields 12
- 6. Versioning 13
- 7. Revision history..... 13
- 8. Examples 14
 - 8.1. Domestic Swedish payments 14
 - 8.2. Foreign payments 15
 - 8.3. Domestic Swedish invoice, for import in ERP solution 17
 - 8.4. Domestic Norwegian invoice, for import in ERP solution 17
- Appendix I 19
- Appendix II 20

1. General Information

1.1. Common information

The UsingQR format is designed to send payment information in a machine readable language directly on printed invoices. It can also be used to facilitate and partially automate bookkeeping of invoices. It aims to be a compact format that can easily fit in a relatively small QR code.

When creating the QR-code, the data in the QR code shall convey the same information as the printed invoice, as far as is possible. The same rules that apply when creating the invoice shall also be applied when creating the QR-code. The information regarding payments shall be included in the QR code if it is present on the invoice. If more than one payment method is present on the printed invoice, the user must select the preferred payment method to be used on the QR code, since the format only handles a single payment method.

The first version will be entirely dedicated to sending payment information, but the format can also be used to send more invoice information in the future.

UsingQR uses a JSON (JavaScript Object Notation) string encoded in the QR code. This document describes the name/value pairs that are used within UsingQR. For more information on JSON formatting, see <http://www.json.org/> or the examples section within this document.

The QR code used for the UsingQR format is QR code model 2 specified in ISO 18004:2006.

The format is free for anyone to implement and use but modification is prohibited. Any supplier that chooses to support this format must implement the specification in its entirety.

The format will be updated as new requirements are taken into consideration.

1.2. QR Code placement

To make customers aware of the new format, it is recommended that a standardized placement of the QR code is adopted. The QR code should be placed in the immediate vicinity of the due amount. See invoice example below.

The QR code must be surrounded by a “quiet zone” that is at least 4 QR modules in width. The modules are the (typically) black squares and rectangles that make up the code.

See Appendix I and II for more invoice examples.



Faktura 2012521

Åkeässons frakt AB
Box 168
Storgatan 168
355 55 Växjö

Er referens: Åke Åkesson
Vår referens: Bengt Bengtsson
Dröjsmålsranta: Enligt lag
Fakturadatum:
Kundnummer:

Förfallodatum: 2013-03-26
OCR:

Arb nr	Benämning	Arb kost	Antal	Å pris	Summa
101	Arbetskostnad fönsterputs	X	1	1 101,79	1 101,79
105	Arbetskostnad fylltstäd	X	1	8 000,00	8 000,00

Denna faktura avser husharbete, där du som kund uppgett att du har rätt till en preliminär skattereduktion på 5 617,00 kr.
För att vi ska kunna göra en ansökan till Skatteverket ska du betala 5 617,00 kr. Som köpare blir du betalningskyldig för
icke godkänt belopp om Skatteverkets avslag beror på omständigheter som kan härledas till dgs om köpare.

Ant personer 1 Personnummer 19761023-2725

Moms specifikation:		
Pris exkl moms	Moms	
8 000,00 (25%)	2 000,00	
1 101,79 (12%)	131,21	
Exkl moms	Moms	Avrundning
9 101,79	2 132,21	0,00

Totalbelopp:	
11 234,00	
Skattereduktion:	
5 617,00	
Att betala: 5 617,00	



Adressuppgifter Övingsjöstråket Storgatan 1 355 55 Växjö Organisationsnr 555555-5555

Telefon 0470-111 22 070-111 22 33 Företagets e-kort Växjö

Besöksnr 433-8778 Momsreg nr 8202222222201

Godkänd för F-skatt info@ovingsjostraiget.se www.ovingsjostraiget.se

2. Data conventions

2.1. Dates

Dates are written in ISO standard with all special characters omitted in the format YYYYMMDD.

2.2. Amounts

All amounts must be written without whitespaces or special characters. Dot (.) is used to mark decimal places. All digits with no significance can be omitted. It is not possible to have more decimals in the amount fields than you have on the original invoice.

500.00 is written as 500

500.10 is written as 500.1

2.3. Character coding

The JSON string must be encoded using UTF-8.

As the default character encoding for data stored in a QR-code is not UTF-8, an Extended Channel Interpretation (ECI) code must be used. This code tells the decoder which character encoding to use. The ECI code for UTF-8 is 000026. Failure to specify the ECI code may lead to character decoding problems as the written byte array may be valid in more than one encoding and the QR-standard specifically specifies that JIS8 is to be used if no character encoding is specified using the ECI code.

The storage mode, or character input set, must be set to Binary/Byte.

2.4. Immunity to extreme data

The format in itself does not contain any limitations on number fields or string lengths. The interpreting application must implement satisfactory error handling to be able to handle large values and long strings.

3. QR String format

For information on mandatory and voluntary fields, see Chapter 5. The header for each attribute consists of the JSON key within quotation marks. This is followed by the name of the field, and then the JSON data type within parentheses.

The sending party is the one creating the QR code.

"uqr" UsingQR Version (Number)

Format:

2

Description:

1. Describes the version.
2. The first version of the format is 1. Following releases will be made in integer increments of one.

"tp" Type (Number)

Format:

1

Description:

1. 1 = Payment information/Invoice. Indicates that the QR code is dedicated for sending payment information.
2. 2 = Credit invoice. Cannot be used by banking apps.
3. 3 = Cash paid invoice. Cannot be used by banking apps.
4. Also indicates which JSON keys are mandatory. See chapter 5.

“nme” Name (String)

Format:

Test company

Description:

1. Company name of the sending party.

“cc” Country Code (String)

Format:

DK

Description:

1. This is the country of the sending party.
2. Country code must adhere to ISO standard for country codes
 - a. Used if pt is:
 - i. IBAN
 - ii. BBAN, and bc contains a Bank code

“cid” Company ID (String)

Format:

555555-5555

998870283

88644072

131052-308T

Description

1. Corporate identification number of sending party.
2. Allowed characters include hyphens, blank spaces and latin characters.

“iref” Invoice reference (String)

Format:

1000000000132

Description:

1. Invoice reference number is typically an OCR/KID number or an invoice number depending on the sending system.
2. Invoice reference length can vary according to national standards.
3. If the invoice reference is an OCR/KID number, the last number is always a checksum calculated with MOD10 or MOD11.

“cr” Credit invoice reference (String)

Format:

101

Description:

1. A reference to the invoice being credited.
2. Only used when tp=2.

“idt” Invoice Date (String)

Format:

20130403

Description:

1. The creation date on the invoice.
2. Date format is ISO without hyphen in the format YYYYMMDD.

“ddt” Due date (String)

Format:

20130425

Description:

1. The due date on the invoice.
2. Date format is ISO without hyphen in the format YYYYMMDD.

“due” Due amount (Number)

Format:

450.5

-450.5

Description:

1. This is the total amount on invoice (The amount to be paid). That includes any VAT.
2. The amount can be negative if tp = 2 or 3. In this case, the hyphen shall be directly before the amount.
3. If tp = 1, the due amount must always be positive.

“cur” Currency (String)

Format:

SEK

Description:

1. Currency format on the invoice in ISO 4217 standard.
2. If the invoice is domestic this field can be omitted.

“vat” Total VAT amount (Number)

Format:

100.25

-100.25

Description:

1. The total VAT amount on the invoice.
2. The amount can be negative if tp = 2 or 3. In that case, the hyphen shall be directly before the amount.
3. If tp = 1, the due amount must always be positive.

“vh” High VAT amount (Number)

Format:

80

-80

Description:

1. For countries that define VAT percentages, this field can be used to define the high VAT amount on the invoice.
2. The amount can be negative if tp = 2 or 3. The hyphen shall be directly before the amount.
3. If this field is used, the vat field has to be omitted.

“vm” Medium VAT amount (Number)

Format:

80

-80

Description:

1. For countries that define different VAT percentages, this field can be used to define the medium VAT amount on the invoice.
2. The amount can be negative if tp = 2 or 3. The hyphen shall be directly before the amount.
3. If this field is used, the vat field has to be omitted.

“vl” Low VAT amount (Number)

Format:

80

-80

Description:

1. For countries that define different VAT percentages, this field can be used to define the low VAT amount on the invoice.
2. The amount can be negative if tp = 2 or 3. The hyphen shall be directly before the amount.
3. If this field is used, the vat field has to be omitted.

“pt” Payment type (String)

Format:

IBAN
BBAN
BG
PG

Description:

1. The field describes the preferred payment method and the type of account contained in the acc field.
2. Valid types are:
 - IBAN (International Bank Account Number)
 - BBAN (Basic Bank Account Number)
 - BG (Bankgiro) (Only used in Sweden)
 - PG (Nordea/Plusgiro) (Only used in Sweden)
 - a. If pt = IBAN, write IBAN number in acc, BIC in bc and company address in adr
 - b. If pt = BBAN
 - i. And Invoice is domestic: Write account number in acc and bank name in BIC form in bc.
 - ii. And Invoice is international: Write account number in acc , bank code in bc and Company address in adr
 - c. If pt= BG, write Bankgiro number in acc
 - d. If pt =PG, write Plusgiro number in acc

“acc” Account (String)

Format:

IBAN: SE4860000000000658159712
IBAN: DK7030004073013887
Bg: 885-8383
Pg: 176099-0
Account: 8169-5 9139876057
Account: 6000658159712

Description:

1. Contains the deposit account on the invoice sender in the format specified in pt.

2. Formats include BG (Sweden), PG (Sweden), IBAN (International), BBAN (International)
3. The type of the account is defined in the field pt.

“bc” Bank code (String)

Format:

**HANDESS
ACIXUS33XXX**

Description:

1. Bank code field can contain different bank codes according to the rules in the field pt.
2. Bank code can be BIC/SWIFT or Bank code.
3. If the invoice requires payment to a domestic account (BBAN is used both for foreign and domestic payments), write BIC here. BIC will be used to identify the bank.

“adr” Address (String)

Format:

10500 Solna

Description:

1. Sender party address.
2. Address is required for certain foreign payments (defined by the pt value).
3. Address is composed of postcode and city.

4. Country specific information

4.1. Sweden

Domestic payments in Sweden are virtually always made using PG (Plusgiro) or BG (Bankgiro). It is therefore recommended to use one of these payment methods if possible. Only if the sender didn't provide either a PG or BG number should BBAN be used. IBAN is the preferred method for foreign payments.

4.2. Norway

The preferred payment method for Norway is BBAN. Preferred payment method for foreign invoices is IBAN.

4.3. Denmark

The preferred payment method for Denmark is BBAN. Preferred payment method for foreign invoices is IBAN.

4.4. Countries that have implemented SEPA payment standard

For countries that already have implemented the SEPA payment standard, the preferred payment method for domestic payments is IBAN.

5. Mandatory and voluntary fields

The following fields are mandatory:

JSON key	When Type (tp) = 1	When tp = 2	When tp = 3
uqr	√	√	√
tp	√	√	√
nme	√	√	√
cc			
cid	√	√	√
iref	√	√	
cr			
idt			
ddt	√		
due	√		
cur			
vat			
vh			
vm			
vl			
pt	√		
acc	√		
bc			
adr			

6. Versioning

To enable efficient format updates, any application that reads UsingQR codes must ignore tags that it does not recognize. It is recommended that the uqr tag always is the first tag and that tp is the second in the JSON string, for easy visual interpretation.

7. Revision history

Revision	Date approved	Approved by	Description
1	20130425	Visma Spcs	Creation of original document.
2	20130605	Visma Spcs	Minor adjustments to Tp level 3. More info about char coding. Examples updated.

8. Examples

8.1. Domestic Swedish payments

Example 1 JSON string:

```
{"uqr":1,"tp":1,"nme":"Test company AB","cid":"555555-5555","iref":"52456",  
ddt":"20130408","due":5,"pt":"BG","acc":"433-8778"}
```

Example 1 raw data:

```
uqr: 1  
tp: 1  
nme: Test company AB  
cid: 555555-5555  
iref: 52456  
ddt: 20130408  
due: 5  
pt: BG  
acc: 433-8778
```



Example 2 JSON string:

```
{"uqr":1,"tp":1,"nme":"Test company AB","cid":"555555-  
5555","iref":"52456","idt":"20130408","ddt":"20130508","due":5,"pt":"BBAN",  
"acc":6000658159712,"bc":"HANDSESS"}
```

Example 2 raw data

```
uqr: 1  
tp: 1  
nme: Test company AB  
cid: 555555-5555  
iref: 52456  
idt: 20130408  
ddt: 20130508
```

due: 5
pt: BBAN
acc: 6000658159712
bc: HANDSESS



8.2. Foreign payments

Example 1 JSON string:

```
{"uqr":1,"tp":1,"nme":"Test company AB","cid":"555555-5555","cc":"SE","iref":"934000000000159","idt":"20120215","ddt":"20120215","due":10.75,"cur":"DKK","pt":"IBAN","acc":"DK4830004073013895","bc":"DABADKKK","adr":"1092 Köpenhamn"}
```

Example 1 raw data:

```
uqr: 1  
tp:1  
nme: Test Company AB  
cid: 555555-5555  
cc: SE  
iref: 934000000000159  
idt: 20120215  
ddt: 20120215  
due: 10.75  
cur: DKK  
pt: IBAN  
acc: DK4830004073013895  
bc: DABADKKK  
adr: 1092 Köpenhamn
```



Example 2 JSON string:

```
{"uqr":1,"tp":1,"nme":"Test Company","cid":"98-0202855","cc":"US","iref":"934000000000159","ddt":"20120215","due":1.75,"cur":"USD","pt":"BBAN","acc":"6000658159712","bc":"ACIXUS33XXX","adr":"12405,Acra"}
```

Example 2 raw data:

```
uqr: 1  
tp:1  
nme: Test Company  
cid: 98-0202855  
cc: US  
iref: 934000000000159  
ddt: 20120215  
due: 1.75  
cur: USD  
pt: BBAN  
acc: 6000658159712  
bc: ACIXUS33XXX  
adr: 12405, Acra
```



8.3. Domestic Swedish invoice, for import in ERP solution

Example 1JSON string:

```
{"uqr":1,"tp":1,"nme":"Test Company AB","cid":"555555-5555","iref":"0470-706000","idt":"20130424","ddt":"20130524","due":4500,"vat":900,"cur":"SEK","pt":"BG","acc":"433-8778"}
```

Example 1 raw data:

uqr: 1
tp: 1
nme: Test Company AB
cid: 555555-5555
iref: 0470-706000
idt: 20130424
ddt: 20130524
due: 4500
vat: 900
cur: SEK
pt: BG
acc: 433-8778



8.4. Domestic Norwegian invoice, for import in ERP solution

Example 1JSON string:

```
{"uqr":1,"tp":1,"nme":"Test Company AS","cid":"123456789MVA","iref":"00001","idt":"20130424","ddt":"20130524","due":240,"vh":25,"vm":15,"cur":"NOK","pt":"BBAN","acc":"86011117947","bc":"DNBANOK K332","adr":"0687 Oslo"}
```

Example 1 raw data:

uqr: 1
tp: 1
nme: Test Company AS
cid: 123456789MVA
iref: 00001

idt: 20130424
ddt: 20130524
due: 240
vh: 25
vm: 15
cur: NOK
pt: BBAN
acc: 86011117947
bc: DNBANOKK332
adr: 0687 Oslo



Appendix I

Visma Information AB

Faktura

Fakturanr	Kundnr	Fakturadatum	Förfallodatum
526	5	2013-04-24	2013-05-24

Fakturaadress
Pdata AB
Annedalsvägen 9
227 64 LUND

Er referens Siw Eriksson

OCR/ Meddelande 52654
Anges vid betalning

Ert Momsreg nr SE556515619601

Dröjsmålsränta Vid betalning efter förfallodagen debiteras ränta enligt räntelagen.

Artnr	Benämning	Antal	Enhet	Å-pris	Summa
6685	Konsulthjälp	3,00	tim	600,00	1 800,00



Exkl moms	Moms (25,00 %)	Avrundning	Att betala
1 800,00	450,00	0,00	2 250,00

Visma Information AB
Sambandsvägen 5

351 94 VÄXJÖ
Organisationsnr
556357-0430

Telefon
0470-706000
Fax

Företagets säte
Växjö

Bankgiro
885-8383

Momsreg nr
SE5563570430

Godkänd för F-skatt

Hemsida

E-post

Appendix II

Pdata AB

Faktura

Fakt nr / Kundnr

768 123

Fakturadatum

2013-04-24

Fakturaadress

Visma Information AB
Sambandsvägen 5

351 94 VÄXJÖ

Er referens

Ert ordernr

Leveransvillkor

Leveranssätt

Leveransdatum

Fritt vårt lager

2013-04-24

Vår referens

Betaltingsvillkor

Förfalldatum

Dröjsmålsränta

Siw Eriksson

30 dagar netto

2013-05-24

9,00 %

Artnr	Benämning	Lev ant	Enh	å-pris	Summa			
318	Utvecklingsarbete	90	Tim	750,00	67 500,00			
Avvik leveransdatum								
Netto								
67 500,00	Exkl moms	67 500,00	Moms %	25	Moms kr	16 875,00	ATT BETALA	84 375,00

Vår växel är öppen 08.00 - 17.00

Adress
Pdata AB
Annedalsvägen 9

227 64 LUND

Telefon
046-384080Företagets säte
LundBankgiro
5973-2545
Organisationsnr
556515-6196Momsreg.nr
SE556515619601

Godkänd för F-skatt

e-post
info@pdata.se