UsingQR
Format specification
Revision 2
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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/](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.
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:
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: SE48600000000000658159712
- 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:

HANDSESS
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:

<table>
<thead>
<tr>
<th>JSON key</th>
<th>When Type (tp) = 1</th>
<th>When tp = 2</th>
<th>When tp = 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>uqr</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>tp</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>nme</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>cc</td>
<td>✓</td>
<td></td>
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<tr>
<td>cid</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>irref</td>
<td>✓</td>
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<tr>
<td>cur</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>adr</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>Revision</th>
<th>Date approved</th>
<th>Approved by</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>20130425</td>
<td>Visma Spcs</td>
<td>Creation of original document.</td>
</tr>
</tbody>
</table>
8. Examples

8.1. Domestic Swedish payments

Example 1 JSON string:

```json
{"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:

```json
{"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
8.2. Foreign payments

Example 1 JSON string:

```json
{"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 1 JSON string:**

```json
```

**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 1 JSON string:**

```json
```

**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 |
|---|---|---|---|
| Faktumsr | Kundnr | Fakturadatum | Förfallsdatum |

<table>
<thead>
<tr>
<th>Fakturadress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plata AB</td>
</tr>
<tr>
<td>Annedalsvägen 9</td>
</tr>
<tr>
<td>227 54 LUNDE</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GöRi Meddelande</th>
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<tbody>
<tr>
<td>Arget vid betalning</td>
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<tr>
<td>52654</td>
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<table>
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<tr>
<th>Dröjsmilsränta</th>
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<tbody>
<tr>
<td>Vid betalning efter förfallodagen debiteras ränta enligt räntelegen.</td>
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<table>
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<tr>
<th>ArtNr</th>
<th>Benämning</th>
<th>Antal</th>
<th>Enhet</th>
<th>Å-pris</th>
<th>Summa</th>
</tr>
</thead>
<tbody>
<tr>
<td>5685</td>
<td>Konsulthjälp</td>
<td>3,06</td>
<td>tim</td>
<td>600,00</td>
<td>1 800,00</td>
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</table>

<table>
<thead>
<tr>
<th>Exkl moms</th>
<th>moms (25,00 %)</th>
<th>Avrundning</th>
<th>Att betala</th>
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</thead>
<tbody>
<tr>
<td>1 800,00</td>
<td>450,00</td>
<td>0,00</td>
<td>2 250,00</td>
</tr>
</tbody>
</table>

Visma Information AB
Sambandsvägen 5
351 94 Växjö

Organisationsnr
556527-0430

Telefon
0470-704000
Fax

Företagets säte
Växjö

Bankgiro
885-8383
Godkänd för F-skatt

Nomsreg nr
SE56515619601
Hemsida

E-post
# Appendix II

## Pdata AB

### Faktura

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<thead>
<tr>
<th>Fakt.nr / Konto</th>
<th>Fakturadatum</th>
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<tbody>
<tr>
<td>Visma Information AB</td>
<td>Samhällsvägen 5</td>
</tr>
<tr>
<td>351 94 VÄXJÖ</td>
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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Vår referens</td>
<td>Siw Eriksson</td>
</tr>
<tr>
<td>Betalningsvillkor</td>
<td>30 dagar netto</td>
</tr>
<tr>
<td>Förfallsdatum</td>
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<td>Dräjningsranta</td>
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<th>Enh</th>
<th>a-pris</th>
<th>Summa</th>
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<td>Utvecklingsarbete</td>
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<td>90 Tim</td>
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<td>750,00</td>
<td>67 500,00</td>
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</table>

<table>
<thead>
<tr>
<th>Netto</th>
<th>Exkl moms</th>
<th>Moms %</th>
<th>Moms lr</th>
<th>ATT BETALA</th>
</tr>
</thead>
<tbody>
<tr>
<td>67 500,00</td>
<td>67 500,00</td>
<td>25</td>
<td>16 875,00</td>
<td>84 375,00</td>
</tr>
</tbody>
</table>

Vår växel är öppen 08.00 - 17.00

<table>
<thead>
<tr>
<th>Addess</th>
<th>Telefon</th>
<th>M opensslnr</th>
<th>Godkänd för F-skatt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pdata AB</td>
<td>046-384800</td>
<td>SE36515619601</td>
<td></td>
</tr>
<tr>
<td>Anmedåsvägen 9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>227 64 LUND</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td></td>
<td></td>
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<tr>
<td>Lund</td>
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</tbody>
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<table>
<thead>
<tr>
<th>e-post</th>
<th><a href="mailto:info@pdata.se">info@pdata.se</a></th>
</tr>
</thead>
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