

Transaction Banking  
Bulk Payment Services  
GIRO File Format  
Guide  
For BIBPlus

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## 1. Introduction

This document describes the implementation guide for Bulk GIRO file in Nordea.

The purpose of this implementation guide is to provide guidance on how information is to be structured in the exchange between the customer and Nordea.

| Version | Date        | Description       |
|---------|-------------|-------------------|
| 1.00    | 28 Jun 2016 | Document Creation |

## LEGEND OF COLUMN

| Column Name              | Explanation  |
|--------------------------|--|
| <b>FIELD DESCRIPTION</b> | Indicates the field name.  |
| <b>PICTURE</b>           | Indicates the field format.<br>1) “9” indicates a <u>numeric</u> field.<br><ul style="list-style-type: none"> <li>Only numbers (0-9) are allowed to input.</li> </ul> 2) “V” represents <u>decimal place</u><br><ul style="list-style-type: none"> <li>The decimal point should not be included the field.</li> <li>E.g. number 123.45 in format 9(13)V9(2) must be coded as “000000000012345”.</li> </ul> 3) “X” indicates it is a <u>character</u> field |
| <b>POSITION</b>          | Indicates the starting position of the field.  |
| <b>LENGTH</b>            | Indicates the length of the field.   |
| <b>MANDATORY</b>         | “Y” indicates a mandatory field<br>“N” indicates an optional field<br>“C” indicates fields which are conditional i.e. mandatory only if certain field are used. We have indicated this scenario under Remarks column.  |
| <b>REMARKS</b>           | List the possible values, constraints, further explanations, etc.  |

## 2. File format

**Record Size : 615**

File Name: UGBIddmmNN.txt

|      |   |
|------|---|
| U    | Mandatory code  |
| GB   | GIRO Payment Instruction file   |
| I    | Incoming file (indicates that the file is being sent from customer to Nordea) |
| ddmm | Date and month that the file was created                                      |
| NN   | Sequence number   |

e.g. UGBI251001.TXT

The above file name indicates that this is a GIRO payment instruction file sequence number 01 and was created on the 25<sup>th</sup> of October.

Each GIRO Payment Instruction file will consist of:

- 1 Batch Header
- Transaction Detail Records
- 1 Batch Trailer

|            |                                  |
|------------|----------------------------------|
| <b>1</b>   | <b>Batch Header</b>              |
| <b>2.1</b> | <b>Transaction Detail Record</b> |
| <b>2.2</b> | <b>Transaction Detail Record</b> |
| <b>9</b>   | <b>Batch Trailer</b>             |

## 2.1 Batch Header

| FIELD DESCRIPTION               | PICTURE | POSITION | LENGTH | MANDATORY | REMARKS   |
|---------------------------------|---------|----------|--------|-----------|---|
| Record Type                     | 9(1)    | 1        | 1      | Y         | <ul style="list-style-type: none"> <li>• Must be "1".</li> </ul>  |
| File Name                       | X(10)   | 2        | 10     | Y         | <ul style="list-style-type: none"> <li>• Left justified with trailing spaces.</li> <li>• Must match with filename excluding the ".txt" extension:<br/>e.g.<br/>"UGBI251001".</li> </ul> |
| Payment Type                    | X(1)    | 12       | 1      | Y         | <ul style="list-style-type: none"> <li>• Must be either of the below:<br/>"P" – Payment<br/>"R" – Payroll</li> </ul>  |
| Service Type                    | X(10)   | 13       | 10     | Y         | <ul style="list-style-type: none"> <li>• Left justified with trailing spaces.</li> <li>• Must be "NORMAL"<br/>(GIRO Normal Service)</li> </ul>  |
| Processing Mode                 | X(1)    | 23       | 1      | N         | <ul style="list-style-type: none"> <li>• Leave as blank</li> </ul>  |
| Company ID                      | X(12)   | 24       | 12     | N         | <ul style="list-style-type: none"> <li>• Not validated (can be blank)</li> </ul>  |
| Originating BIC Code            | X(11)   | 36       | 11     | Y         | <ul style="list-style-type: none"> <li>• Originating Bank Identifier Code:<br/>"NDEASGSGXXX"</li> </ul>   |
| Originating A/C No.<br>Currency | X(3)    | 47       | 3      | Y         | <ul style="list-style-type: none"> <li>• Must be "SGD".</li> </ul>  |
| Originating A/C No.             | X(34)   | 50       | 34     | Y         | <ul style="list-style-type: none"> <li>• Left justified with trailing spaces.</li> <li>• Must be the 10 digit Nordea Account Number only.</li> </ul>                                    |
| Originating A/C Name            | X(140)  | 84       | 140    | Y         | <ul style="list-style-type: none"> <li>• Left justified with trailing spaces.</li> </ul>  |
| Creation Date                   | 9(8)    | 224      | 8      | Y         | <ul style="list-style-type: none"> <li>• CCYYMMDD</li> <li>• Must be numeric and a valid date.</li> <li>• Must not be later than current date.</li> </ul>                               |

|                               |        |     |     |   |   |
|-------------------------------|--------|-----|-----|---|---|
| Value Date                    | 9(8)   | 232 | 8   | Y | <ul style="list-style-type: none"> <li>• CCYYMMDD</li> <li>• Must be numeric and a valid date.</li> <li>• Cannot be 30 calendar days later than current date.</li> </ul>  |
| Ultimate Originating Customer | X(140) | 240 | 140 | N | <ul style="list-style-type: none"> <li>• Left justified with trailing spaces.</li> <li>• Must be different from Originating A/C Name.</li> </ul>  |
| Bulk Customer Reference       | X(16)  | 380 | 16  | Y | <ul style="list-style-type: none"> <li>• Left justified with trailing spaces.</li> <li>• Will be printed on Originating Bank Account Statement.</li> <li>• Below list of characters are not allowed<br/>` ~ ! @ # \$ % ^ &amp; * _ = &lt; &gt; [ ] { } \  </li> </ul> |
| Software Label                | X(10)  | 396 | 10  | N | <ul style="list-style-type: none"> <li>• Left justified with trailing spaces.</li> <li>• Indicates Software Label or ODIS Version.</li> </ul>   |
| Filler                        | X(210) | 406 | 210 | N | <ul style="list-style-type: none"> <li>• To fill with spaces.</li> </ul>  |

Note:

- 1) File is rejected if there is a duplicate header record.

## 2.2 Batch Detail

| FIELD DESCRIPTION      | PICTURE    | POSITION | LENGTH | MANDATORY | REMARKS   |
|------------------------|------------|----------|--------|-----------|---|
| Record Type            | 9(1)       | 1        | 1      | Y         | <ul style="list-style-type: none"> <li>• Must be "2".</li> </ul>  |
| Receiving BIC Code     | X(11)      | 2        | 11     | Y         | <ul style="list-style-type: none"> <li>• Left justified with trailing spaces.</li> <li>• Receiving Bank Identifier Code.</li> </ul> |
| Receiving Bank A/C No. | X(34)      | 13       | 34     | Y         | <ul style="list-style-type: none"> <li>• Left justified with trailing spaces.</li> <li>• Must be numeric.</li> </ul>                |
| Receiving A/C Name     | X(140)     | 47       | 140    | Y         | <ul style="list-style-type: none"> <li>• Left justified with trailing spaces.</li> <li>• Name of receiving account.</li> </ul>      |
| Currency               | X(3)       | 187      | 3      | Y         | <ul style="list-style-type: none"> <li>• Must be "SGD".</li> </ul>  |
| Amount                 | 9(16)V9(2) | 190      | 18     | Y         | <ul style="list-style-type: none"> <li>• Right justified with leading zeros.</li> </ul>   |

|                                 |        |     |     |   |   |
|---------------------------------|--------|-----|-----|---|---|
| End to End ID                   | X(35)  | 208 | 35  | Y | <ul style="list-style-type: none"> <li>Left justified with trailing spaces.</li> <li>Reference to be printed on Receiving Bank A/C Statement.</li> <li>Below list of characters are not allowed<br/>` ~ ! @ # \$ % ^ &amp; * _ = &lt; &gt; [ ] { } \  </li> </ul> |
| Mandate ID                      | X(35)  | 243 | 35  | N | <ul style="list-style-type: none"> <li>Leave as blank</li> </ul>  |
| Purpose Code                    | X(4)   | 278 | 4   | Y | <ul style="list-style-type: none"> <li>Left justified with trailing spaces.</li> <li>To be printed on Receiving Bank A/C Statement.</li> </ul>  |
| Remittance Information          | X(140) | 282 | 140 | N | <ul style="list-style-type: none"> <li>Left justified with trailing spaces.</li> <li>Additional Payment Details.</li> <li>Below list of characters are not allowed<br/>` ~ ! @ # \$ % ^ &amp; * _ = &lt; &gt; [ ] { } \  </li> </ul>                              |
| Ultimate Payer/Beneficiary Name | X(140) | 422 | 140 | N | <ul style="list-style-type: none"> <li>Left justified with trailing spaces.</li> <li>Must be different from Receiving Account Name.</li> </ul>  |
| Customer Reference              | X(16)  | 562 | 16  | N | <ul style="list-style-type: none"> <li>Left justified with trailing spaces.</li> <li>Only for internal reference.</li> <li>Below list of characters are not allowed<br/>` ~ ! @ # \$ % ^ &amp; * _ = &lt; &gt; [ ] { } \  </li> </ul>                             |
| Filler                          | X(38)  | 578 | 38  | N | <ul style="list-style-type: none"> <li>To fill with spaces.</li> </ul>  |

## 2.3 Batch Trailer

| FIELD DESCRIPTION            | PICTURE    | POSITION | LENGTH | MANDATORY | REMARKS   |
|------------------------------|------------|----------|--------|-----------|---|
| Record Type                  | 9(1)       | 1        | 1      | Y         | <ul style="list-style-type: none"> <li>Must be "9".</li> </ul>  |
| Total Amount                 | 9(16)V9(2) | 2        | 18     | Y         | <ul style="list-style-type: none"> <li>Right justified with leading zeros.</li> </ul>   |
| Total Number of Transactions | 9(7)       | 20       | 7      | Y         | <ul style="list-style-type: none"> <li>Right justified with leading zeros.</li> <li>Total number of record with type "2".</li> </ul>  |
| Hash Total                   | 9(16)      | 27       | 16     | Y         | <ul style="list-style-type: none"> <li>Right justified with leading zeros.</li> <li>File Check Summary for validating file integrity.</li> <li>Refer to Appendix 2 for Hash Algorithm.</li> </ul> |
| Filler                       | X(573)     | 43       | 573    | N         | <ul style="list-style-type: none"> <li>To fill with spaces.</li> </ul>  |

Note:

- 1) Total transactions and total payment amount must tally with the trailer counts and total payment amount.

### 3. Appendix 1 Hash Algorithm

The algorithm describes in this appendix is to be used for computing the “Hash Total” value as required in the Batch Trailer for the File Format.

The computation will only include the Batch Header Record and ALL the Batch Detail Records.

**For Batch Header Record:**

- 1) Originating BIC Code:
  - Set Hash Index = 11
  - Compute Field Check Summary Total as Sum1
- 2) Originating Account No.:
  - Set Hash Index = 34
  - Compute Field Check Summary Total as Sum2
- 3) Originating Account Name:
  - Set Hash Index = 140
  - Compute Field Check Summary Total as Sum3
- 4) **Total1** = Sum1 + Sum2 + Sum3
- 5) Set Hash Code to Zero
- 6) If Payment Type = “P”

Set Payment Code to 20

Else If Payment Type = “R”

Set Payment Code to 22

Else if Payment Type = “C”

Set Payment Code to 30



**For Each Detail Records:**

If Hash Code = 9

Set Hash Code to 1

Else

Add 1 to Hash Code

End If

1) Receiving BIC Code

- Set Hash Index = 11
- Compute Field Check Summary Total as Sum1

2) Receiving Account Number

- Set Hash Index = 34
- Compute Field Check Summary Total as Sum2
- $\text{Sum2} = \text{Sum2} * \text{Hash Code}$

3) Receiving Account Name

- Set Hash Index = 140
- Compute Field Check Summary Total as Sum3
- $\text{Sum3} = \text{Sum3} * \text{Hash Code}$

4) Currency

- Set Hash Index = 3
- Compute Field Check Summary Total as Sum4

5) Amount

- Set Hash Index = 18
- Compute Field Check Summary Total as Sum5

6) Purpose Code

- Set Hash Index = 4
- Compute Field Check Summary Total as Sum6

7)  $\text{Sum7} = \text{Sum1} + \text{Sum2} + \text{Sum3} + \text{Sum4} + \text{Sum5} + \text{Sum6} + (\text{Payment Code} * \text{Hash Code})$

8) **Total2** = **Total2** + Sum7 (i.e. accumulate Sum7 to Total2)

**For Batch Trailer Record:**

Final Check Sum = **Total1** + **Total2**

This Final Check Sum will be the New Hash Total at the trailer.

**Compute Field Check Summary Total:**

Set COLUMN NUMBER to 1.

Loop 1

If COLUMN NUMBER not > Hash Index

Retrieve the ASCII VALUE of the COLUMN NUMBER. (*refer Notes pt. 2 below* )

Compute SUM = SUM + COLUMN NUMBER x ASCII VALUE

Increase COLUMN NUMBER by 1.

Go to Loop1.

The SUM <sup>#</sup> will be the field check summary Total.

**Notes**

1. COLUMN NUMBER represents a single position in one field ranging between 1 to max 140 depending on the field size.
2. The BYTE CODE is the **ASCII value** of the byte regardless of the operating system. For example, OS/400 operation system uses EBCDIC code; it must be converted to ASCII code value to compute the check summary. This is to avoid the algorithm to be platform dependent. Refer to **ASCII Table** below for a list of ASCII values.  
For example, if the byte contains the character "A", the ASCII value is 65.
3. All Numeric fields must be filled leading Zeroes.

### Example of Check Summary Computation:

| Fields                | Header   | Detail Line 1  | Detail Line 2                | Detail Line 3                     |
|-----------------------|--|--|------------------------------|-----------------------------------|
| BIC Code (Sum1)       | UOVBSGSGXXX<br>(5,395)<br>Refer to <sup>1</sup> for detailed calculation | DBSSSGSGXXX<br>(5,411)   | OCBCSGSGXXX<br>(5,309)       | HSBCSGSGXXX<br>(5,334)            |
| Account Number (Sum2) | 1013320075<br>(20,076)   | 301234567<br>(19,959)  | 50140399867195<br>(42,610)   | 234908439123<br>(61,779)          |
| Account Name (Sum3)   | ABC SINGAPORE PTE LTD<br>(324,369)                                       | Tan Ah Kow<br>(318,778)  | Ronald Lee<br>(637,986)      | Susan Wong Sui Cheng<br>(984,168) |
| Payment Type          | P  | 20*1<br>(20)   | 20*2<br>(40)                 | 20*3<br>(60)                      |
| Currency (Sum4)       | N.A.   | SGD<br>(429)   | SGD<br>(429)                 | SGD<br>(429)                      |
| Amount (Sum5)         | N.A.   | 000000000000120000<br>(8249)<br>Refer to <sup>2</sup> for detailed calculation | 000000000000240050<br>(8375) | 000000000000321030<br>(8,341)     |
| Purpose Code (Sum6)   | N.A.   | COMM<br>(764)  | BONU<br>(798)                | COMM<br>(764)                     |
| Summary Total         | 349,840 ( <b>Total 1</b> )   | 353,610 (Sum7)   | 695,547 (Sum7)               | 1,060,875 (Sum7)                  |

**Total2** = Summation of all Sum7  
= 353,610 + 695,547 + 1,060,875 = 2,110,032

Final Check Summary Total = **Total1** + **Total2**  
= 349,840 + 2,110,032 = 2,459,872

<sup>1</sup>UOVBSGSGXXX

| Column No.     | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  |
|----------------|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| BIC Code       | U   | O   | V   | B   | S   | G   | S   | G   | X   | X   | X   |
| ASCII          | 85  | 79  | 86  | 66  | 83  | 71  | 83  | 71  | 88  | 88  | 88  |
| Column x ASCII | 85  | 158 | 258 | 264 | 415 | 426 | 581 | 568 | 792 | 880 | 968 |
| SUM 1          | <b>5,395</b> = 85 + 158 + 258 + 264 + 415 + 426 + 581 + 568 + 792 + 880 + 968 |     |     |     |     |     |     |     |     |     |     |

<sup>2</sup> 000000000000120000

| Column No.     | 1  | 2  | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  | 14  | 15  | 16  | 17  | 18  |
|----------------|--|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Amt            | 0  | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 1   | 2   | 0   | 0   | 0   | 0   |
| ASCII          | 48   | 48 | 48  | 48  | 48  | 48  | 48  | 48  | 48  | 48  | 48  | 48  | 49  | 50  | 48  | 48  | 48  | 48  |
| Column x ASCII | 48   | 96 | 144 | 192 | 240 | 288 | 336 | 384 | 432 | 480 | 528 | 576 | 637 | 700 | 720 | 768 | 816 | 864 |
| SUM 5          | <b>8,249</b> = 48 + 96 + 144 + 192 + 240 + 288 + 336 + 384 + 432 + 480 + 528 + 576 + 637 + 700 + 720 + 768 + 816 + 864 |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

## **ASCII Table**

### Hash Code Value Table

| ASCII | Symbol | Description                          |
|-------|--------|--------------------------------------|
| 32    |        | Space                                |
| 33    | !      | Exclamation mark                     |
| 34    | "      | Double quotes (or speech marks)      |
| 35    | #      | Number                               |
| 36    | \$     | Dollar                               |
| 37    | %      | Percent                              |
| 38    | &      | Ampersand                            |
| 39    | '      | Single quote                         |
| 40    | (      | Open parenthesis (or open bracket)   |
| 41    | )      | Close parenthesis (or close bracket) |
| 42    | *      | Asterisk                             |
| 43    | +      | Plus                                 |
| 44    | ,      | Comma                                |
| 45    | -      | Hyphen                               |
| 46    | .      | Period, dot or full stop             |
| 47    | /      | Slash or divide                      |
| 48    | 0      | Zero                                 |
| 49    | 1      | One                                  |
| 50    | 2      | Two                                  |
| 51    | 3      | Three                                |
| 52    | 4      | Four                                 |
| 53    | 5      | Five                                 |
| 54    | 6      | Six                                  |
| 55    | 7      | Seven                                |
| 56    | 8      | Eight                                |
| 57    | 9      | Nine                                 |
| 58    | :      | Colon                                |
| 59    | ;      | Semicolon                            |
| 60    | <      | Less than (or open angled bracket)   |
| 61    | =      | Equals                               |

| ASCII | Symbol | Description                   |
|-------|--------|-------------------------------|
| 62    | >      | Greater than (or close angled |
| 63    | ?      | Question mark                 |
| 64    | @      | At symbol                     |
| 65    | A      | Uppercase A                   |
| 66    | B      | Uppercase B                   |
| 67    | C      | Uppercase C                   |
| 68    | D      | Uppercase D                   |
| 69    | E      | Uppercase E                   |
| 70    | F      | Uppercase F                   |
| 71    | G      | Uppercase G                   |
| 72    | H      | Uppercase H                   |
| 73    | I      | Uppercase I                   |
| 74    | J      | Uppercase J                   |
| 75    | K      | Uppercase K                   |
| 76    | L      | Uppercase L                   |
| 77    | M      | Uppercase M                   |
| 78    | N      | Uppercase N                   |
| 79    | O      | Uppercase O                   |
| 80    | P      | Uppercase P                   |
| 81    | Q      | Uppercase Q                   |
| 82    | R      | Uppercase R                   |
| 83    | S      | Uppercase S                   |
| 84    | T      | Uppercase T                   |
| 85    | U      | Uppercase U                   |
| 86    | V      | Uppercase V                   |
| 87    | W      | Uppercase W                   |
| 88    | X      | Uppercase X                   |
| 89    | Y      | Uppercase Y                   |
| 90    | Z      | Uppercase Z                   |
| 91    | [      | Opening bracket               |

| ASCII | Symbol | Description        |
|-------|--------|--------------------|
| 92    | \      | Backslash          |
| 93    | ]      | Closing bracket    |
| 94    | ^      | Caret - circumflex |
| 95    | _      | Underscore         |
| 96    | `      | Grave accent       |
| 97    | a      | Lowercase a        |
| 98    | b      | Lowercase b        |
| 99    | c      | Lowercase c        |
| 100   | d      | Lowercase d        |
| 101   | e      | Lowercase e        |
| 102   | f      | Lowercase f        |
| 103   | g      | Lowercase g        |
| 104   | h      | Lowercase h        |
| 105   | i      | Lowercase i        |
| 106   | j      | Lowercase j        |
| 107   | k      | Lowercase k        |
| 108   | l      | Lowercase l        |
| 109   | m      | Lowercase m        |
| 110   | n      | Lowercase n        |
| 111   | o      | Lowercase o        |
| 112   | p      | Lowercase p        |
| 113   | q      | Lowercase q        |
| 114   | r      | Lowercase r        |
| 115   | s      | Lowercase s        |
| 116   | t      | Lowercase t        |
| 117   | u      | Lowercase u        |
| 118   | v      | Lowercase v        |
| 119   | w      | Lowercase w        |
| 120   | x      | Lowercase x        |
| 121   | y      | Lowercase y        |
| 122   | z      | Lowercase z        |
| 123   | {      | Opening brace      |
| 124   |        | Vertical bar       |

| ASCII | Symbol | Description              |
|-------|--------|--------------------------|
| 125   | }      | Closing brace            |
| 126   | ~      | Equivalency sign - tilde |
| 127   |        | Delete                   |

## 4. Appendix 2 List of Purpose Codes

| Purpose Code | Description                        |
|--------------|------------------------------------|
| BEXP         | Business Expenses                  |
| BONU         | Bonus Payment                      |
| CBTV         | Cable TV Bill                      |
| CCRD         | Credit Card Payment                |
| CHAR         | Charity Payment                    |
| COLL         | Collection Payment                 |
| COMM         | Commission                         |
| CPKC         | Carpark Charges                    |
| CSDB         | Cash Disbursement                  |
| DCRD         | Debit Card Payment                 |
| DIVD         | Dividend                           |
| DNTS         | Dental Services                    |
| EDUC         | Education                          |
| FCPM         | Payment of Fees and Charges        |
| FWLV         | Foreign Worker Levy                |
| GDDS         | Purchase Sale Of Goods             |
| GOVI         | Government Insurance               |
| GSTX         | Goods & Services Tax               |
| HSPC         | Hospital Care                      |
| IHRP         | Instalment Hire Purchase Agreement |
| INSU         | Insurance Premium                  |
| INTC         | Intra Company Payment              |
| INTE         | Interest                           |

| Purpose Code | Description                  |
|--------------|------------------------------|
| INVS         | Investment & Securities      |
| IVPT         | Invoice Payment              |
| LOAN         | Loan                         |
| MDCS         | Medical Services             |
| NITX         | Net Income Tax               |
| OTHR         | Other                        |
| PHON         | Telephone Bill               |
| PTXP         | Property Tax                 |
| RDTX         | Road Tax                     |
| REBT         | Rebate                       |
| REFU         | Refund                       |
| RENT         | Rent                         |
| SALA         | Salary Payment               |
| STDY         | Study                        |
| SUPP         | Supplier Payment             |
| TAXS         | Tax Payment                  |
| TBIL         | Telco Bill                   |
| TCSC         | Town Council Service Charges |
| TRAD         | Trade Services               |
| TREA         | Treasury Payment             |
| TRPT         | Transport                    |
| UBIL         | Utilities                    |
| WHLD         | With Holding                 |