



UNITED OVERSEAS BANK

**InterBank Giro
Bulk Payment Services**

**File Format Guide
Version 1.0**

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Document Version Tracking

Date	Description of change	Version	Name
Mar 25, 08	All	1.0	Yong Siew Thong
April 30, 2010	Appendix 3 - Added Bank Name - KUWAIT FINANCE HOUSE	1.0	LIM JIN CHUAN
Jun 25, 2010	Appendix 3 – Added account length	1.0	LIM JIN CHUAN

1. IBG File Format without Payment Advice

1.1 Incoming File format (from customer to UOB) ¹

File Name : **UIB**iddmm**NN**
Record Size : **80**
Recording Mode : **Fixed Length**

Where:

U - Mandatory code (for file created by BIB, it is “B”.)
IB - Inter-Bank Giro file without Payment Advice
I - Incoming file (indicates that the file is being sent as input to the bank)
ddmm - Date and month that the file was created
NN - Sequence no.

e.g. UIBI251001.TXT

The above file name indicates that this is an Inter-Bank Giro (IBG) payment & collection instruction file # 1 was created on October 25.

The NN can go up to “99” per day for each of the file type. That is, user can submit a total of up to 99 payment & collection instruction files per day.

Each IBG Payment / Collection Instruction file will consist of:

- 1 File Control Header
- 1 Batch Header
- Detail Records
- 1 Batch Trailer

0	File Control Header
1	Batch Header
2.1	Detail Record
2.2	Detail Record
2.3	Detail Record
9	Batch Trailer

¹ Please refer to Appendix 1 and 2 for file validation rules.

0) **RECORD TYPE : FILE CONTROL HEADER**

FIELD DESCRIPTION	PICTURE	POSITION	LENGTH	REMARKS
Record Type	9(1)	1	1	"0".
File Name	X(10)	2	10	UIBldmmnn. File Name of the incoming file. 'UIBI' – File Name Prefix <i>dd</i> - File creation date <i>mm</i> - File creation month <i>nn</i> - File Sequence Number (01-99)
File Creation Date	9(8)	12	8	CCYYMMDD. Not 10 calendar days earlier than the file receiving date. Not later than the file receiving date.
File Creation Time	9(6)	20	6	HHMMSS.
Company ID	X(12)	26	12	Capital letters only.
Check Summary ²	9(15)	38	15	File check summary (i.e. hash total) for validating the file integrity.
Company ID from BIB	X(12)	53	12	Capital letters only.
Filler	X(16)	65	16	Blanks.

² **Check Summary**: This field is to be computed using an algorithm. Please refer to appendix A for more information.

1) **RECORD TYPE : BATCH HEADER**

FIELD DESCRIPTION	PICTURE	POSITION	LENGTH	REMARKS
Record Type	9(1)	1	1	"1".
Service Type	X(10)	2	10	"IBGINORM" for Normal Service (Currently, IBG is using this type only. "IBGIEXP" for Express Service. For Express Service, all receiving accounts must belong to UOB Bank Group.
Originating Bank Code	9(4)	12	4	ACH Bank Code. Must be 4 digits (0 to 9). Eg "0226"
Originating Branch Code	9(3)	16	3	Must be 3 digits (0 to 9). Note: Please put this as "000"
Originating Account No.	9(11)	19	11	Must be 11 digits (0 to 9). Must not contain "-" or "/".
Originating A/c Name	X(20)	30	20	Capital letters only. Must be filled. This corporation name is printed in the UOB Group Receiving A/C's bank's statement.
Creation Date	9(8)	50	8	CCYYMMDD.
Value Date ³	9(8)	58	8	CCYYMMDD. NOTE: UOB accept current date to T+14.
ROS Reference No	9(5)	66	5	Blanks.
Filler	X(10)	71	10	Blanks.

³ **Value Date** : This is the date when the payments or collections are effected.

e.g. For payments such as salary credit on 19981015, the value date is 19981014 i.e. 1 working day prior to the day when the receiving accounts will receive the funds. On the 14/10, the receiving accounts are credited at the banks' end of day processing (which is about midnight). The receiving accounts can use the funds on 15/10. For collections, the value date is the date when the receiving accounts are debited.

2) RECORD TYPE : BATCH DETAIL

FIELD DESCRIPTION	PICTURE	POSITION	LENGTH	REMARKS
Record Type	9(1)	1	1	"2".
Receiving Bank Code	9(4)	2	4	Must be 4 digits (0 to 9) ⁵
Receiving Branch Code	9(3)	6	3	Must be 3 digits (0 to 9). Note: Please put this as "000"
Receiving Account No.	X(17)	9	17	Must be numeric and left justified. Must not contain "-" or "/". Unused characters must be filled with spaces. For example, account number is "02104830", it must be coded as "02104830 ".
Receiving A/c Name	X(20)	26	20	Capital letters only.
Transaction Code	9(2)	46	2	"20" - Misc. Credit "21" - Standing Order Credit "22" - Salary Credit "23" - Dividend Credit "24" - Remittance Credit "25" - Bill Credit "30" - Direct Debit Note: Currently, UOB use only code "22" and "24".
Amount	9(9)V9(2)	48	11	Must not contain the decimal point.
Particulars	X(12)	59	12	Blanks.
Reference	X(12)	71	12	Must be filled if Transaction Code is "30", i.e. Debit. Must be right justified, spaces to the left. Capital letters only.
ID verification ind	X(1)	83	1	Beneficiary ID no check "Y" or "N"
ID type	X(1)	84	1	Beneficiary ID type "A" – Army no "E" – EPF No "B" – Business Reg No "N" – New IC "O" – Old IC "P" – Police no "T" – Passport no
ID Number	X(15)	85	15	Beneficiary ID no.
Filler	X(21)	100	21	Blanks.

⁵ **Receiving Bank Code:** Please refer to appendix 3 for more information.

9) RECORD TYPE : BATCH TRAILER

FIELD DESCRIPTION	PICTURE	POSITION	LENGTH	REMARKS
Record Type	9(1)	1	1	"9".
Total Debit Amount	9(11)V9(2)	2	13	Must not contain the decimal point. If Transaction Code is "20" to "25", i.e. Credit, this field will be all zeros.
Total Credit Amount	9(11)V9(2)	15	13	Must not contain the decimal point. If Transaction Code is "30", i.e. Debit, this field will be all zeros.
Total Debit Count	9(7)	28	7	Total number of records in the file, excluding the File Header and File Trailer. If Transaction Code is "20" to "25", i.e. Credit, this field will be all zeros.
Total Credit Count	9(7)	35	7	Total number of records in the file, excluding the File Header and File Trailer. If Transaction Code is "30", i.e. Debit, this field will be all zeros.
Filler	X(39)	42	39	Blanks

Outgoing File format (Fate file : from UOB to customer)

File Name : **UIBOddmmNNx**
Record Size : **84**
Recording Mode : **Fixed Length**

Where:

- U** - Mandatory code (for file created by BIB, it is "B".)
- IB** - Inter-Bank Giro file without Payment Advice
- O** - Outgoing file (indicates that the file is being sent as output from the bank)
- ddmm** - Date and month that the incoming file was created
- NN** - Original incoming file sequence no.
- x** - Indicates the file process status, viz.
 - "O": Processed successfully
 - "S": Rejected by ROS due to validation error
 - "F": Rejected by IBG due to validation error
 - "R": Rejected by IBG due to insufficient funds

e.g. UIBO251001.TXT

The above file name indicates that this is the bank's output file to customer after his Inter-Bank Giro (IBG) payment & collection instruction file (file # 1, which was created on October 25) has been processed.

Each IBG Payment / Collection output file with good fate (UIBOddmmnnO) will consist of:

- 1 Batch Header
- Detail Records
- 1 Batch Trailer

1. Batch Header
2.1 Detail Record
2.2 Detail Record
2.3 Detail Record
9 Batch Trailer

Each IBG Payment / Collection output file with rejection fate (UIBOddmmnnS/ UIBOddmmnnF/ UIBOddmmnnR) will consist of:

- 1 Batch Header
- 1 Detail Record with all the fields initialized by field type
- 1 Batch Trailer

1 Batch Header
2 Detail Record
9 Batch Trailer

1) **RECORD TYPE : BATCH HEADER**

FIELD DESCRIPTION	PICTURE	POSITION	LENGTH	REMARKS
Record Type	9(1)	1	1	"1".
Service Type	X(10)	2	10	"IBGOTAP2"
Originating Bank Code	9(4)	12	4	ACH Bank Code. Contain 4 digits (0 to 9).
Originating Branch Code	9(3)	16	3	Contain 3 digits (0 to 9).
Originating a/c no	9(11)	19	11	Contain 11 digits (0 to 9).
Originating a/c Name	X(20)	30	20	Capital letters only
Creation Date	9(8)	50	8	CCYYMMDD
Value Date	9(8)	58	8	CCYYMMDD
ROS Reference No	9(5)	66	5	Numeric value assigned by UOB except for companies notified by UOB.
Filler	X(14)	71	14	Blanks

2) RECORD TYPE : BATCH DETAIL

FIELD DESCRIPTION	PICTURE	POSITION	LENGTH	REMARKS
Record Type	9(1)	1	1	"2".
Receiving Bank Code	9(4)	2	4	Contain 4 digits (0 to 9).
Receiving Branch Code	9(3)	6	3	Contain 3 digits (0 to 9).
Receiving Account No.	X(17)	9	17	Numeric and left-justified.
Receiving A/c Name	X(20)	26	20	Capital letters only.
Transaction Code	9(2)	46	2	"20" - Misc. Credit "21" - Standing Order Credit "22" - Salary Credit "23" - Dividend Credit "24" - Remittance Credit "25" - Bill Credit "30" - Direct Debit
Amount	9(9)V9(2)	48	11	No decimal point.
Particulars	X(12)	59	12	Capital letters only.
Reference	X(12)	71	12	Right justified, spaces to the left. Capital letters only.
IBG Ref No	X(15)	83	15	IBG reference no
Clear fate	9(1)	98	1	0 - Item accepted 1 - Item rejected
Rejection Code	9(2)	99	2	Numeric
Filler	X(20)	101	20	Blanks.

9) RECORD TYPE : BATCH TRAILER

FIELD DESCRIPTION	PICTURE	POSITION	LENGTH	REMARKS
Record Type	X(1)	1	1	"9".
Total Debit Amount	9(11)V9(2)	2	13	No decimal point. If Transaction Code is "20" to "25", i.e. Credit, this field will be all zeros.
Total Credit Amount	9(11)V9(2)	15	13	No decimal point. If Transaction Code is "30", i.e. Debit, this field will be all zeros.
Total Debit Count	9(7)	28	7	Total number of records in the file, excluding the File Header and File Trailer. If Transaction Code is "20" to "25", i.e. Credit, this field will be all zeros.
Total Credit Count	9(7)	35	7	Total number of records in the file, excluding the File Header and File Trailer. If Transaction Code is "30", i.e. Debit, this field will be all zeros.
Rejection Debit Amount	9(11)V9(2)	42	13	Total debit amount rejected
Rejection Credit Amount	9(11)V9(2)	55	13	Total credit amount rejected
Rejection Debit Count	9(7)	68	7	Total number of debit items rejected
Rejection Credit Count	9(7)	75	7	Total number of credit items rejected
Filler	X(3)	82	3	Blanks.

Appendix 1 General Validation rule

For all the numeric fields, only numbers (0-9) are allowed. There should not be any space or decimal point (.) in those fields.

E.g. to input a number 123.45 to a field in format 9(5)V9(2), it must be coded as "0012345", " 12345" or "00123.45" are not correct and will be rejected as file level rejection.

Appendix 2 Validation for IBG file without Payment Advice

2.1 File Control Header Validation

No.	Validation rule
1.	First record must be control header record.
2.	File name in control header must be same as the incoming file name
3.	Company ID must match with the customer ID
4.	Creation date cannot be later than current processing date
5.	Creation date cannot be 30 calendar days earlier than current processing date
6.	Duplicate file – customer cannot use the same file name more than once.
7.	Check summary must be correct

2.2 Batch Header Validation

No.	Validation rule
1.	First record must be batch header record.
2.	Service Type must be either "IBGIEXP" or "IBGINORM".
3.	For service type "IBGIEXP", value date cannot be lesser than current processing date; For service type "IBGINORM", value date must be greater than current processing date.
4.	For service type "IBGIEXP", originating bank code must be one of these: "7375", "7269", "7199".
5.	For service type "IBGIEXP", originating bank code must match against originating a/c bank code.
6.	Originating a/c must belong to this customer.
7.	Value date must be a valid date.
8.	Value date cannot be 10 calendar days later than current processing date.
9.	Valued date cannot fall on Sunday or Public Holiday

2.3 Batch Detail Validation

No.	Validation rule
1.	There has to be at least one detail record.
2.	Receiving a/c must contain only numbers.
3.	Receiving a/c name can not be blank.
4.	Transaction Code must be one of these: 20, 21, 22, 23, 24, 25 as credit transaction, 30 as debit transaction.
5.	For debit transaction (i.e. transaction code is 30), reference field must be filled in and right-justified.
6.	Credit transactions and debit transaction cannot be mixed in one file.

2.4 Batch Trailer Validation

No.	Validation rule
1.	The last record must be trailer record.
2.	Computed debit count and total amount must tally with the trailer debit count and total amount.
3.	Computed credit count and total amount must tally with the trailer credit count and total amount.
4.	For debit transaction (i.e. transaction code is 30), reference field must be filled in.
5.	Credit transactions and debit transaction cannot be mixed in one file.

Appendix 3 Bank Codes & Account Length

No	Financial Institution Name	Bank Code	Current Account	Saving Account	Loan Account	Credit Card Account
1	UNITED OVERSEAS BANK	0226	11	11	11	16
2	AFFIN BANK	0232	12	12	12	NA
3	ALLIANCE BANK	0212	15	15	15	16
4	AMBANK	0208	13	13	14	16
5	BANK OF AMERICA	0207	12	12	NA	NA
6	BANK ISLAM MALAYSIA	0245	14	14	14	16
7	BANK MUAMALAT	0341	14	14	NA	NA
8	BANK PERTANIAN MALAYSIA BERHAD (AGROBANK)	3306	NA	16	17	NA
9	BANK RAKYAT	1602	NA	12	12	NA
10	BANK SIMPANAN NASIONAL	1601	NA	16	15	16
11	CIMB	0205	14	14	NA	16
12	CITIBANK	0217	10*	10	14	16
13	DEUTSCHE BANK	0219	10	10	10	NA
14	EON BANK	0223	13	13	13	16*
15	HONG LEONG BANK	0224	11	11	11	16
16	HSBC	0222	12	12	12*	16
17	J.P. MORGAN CHASE BANK BERHAD	0215	10	10	10	NA
18	KUWAIT FINANCE HOUSE (MALAYSIA) BHD	0346	12	12	NA	NA
19	MAYBANK	0227	12	12	12	16*
20	OCBC	0229	10	10	10	16
21	PUBLIC BANK	0233	10	10	15	16
22	RHB BANK	0218	14	14	14	16
23	STANDARD CHARTERED BANK	0214	12	12	8	16
24	THE ROYAL BANK OF SCOTLAND	0202	7 / 9*	7 / 9	10	NA

* CITIBANK Corporate Current A/c is 9-16 digits

* HONG LEONG BANK and MAYBANK Credit Card A/c for AMEX is 15 digits

* HSBC Loan A/c (Islamic) is 14 digits

* THE ROYAL BANK OF SCOTLAND Corporate Current A/c is 7, 9 or 10 digits

Appendix 4 Check Summary Algorithm

1) For IBG File (with or without advice)

Check summary Calculation – Only includes the Batch Header (Record type 1) and the main Detail Records (Record Type 2).

* **Check summary calculation algorithm (for header record – Record Type 1):**

- 1) Originating Bank Code = B1B2B3B4 (e.g. originating bank code is 7375, B1=7, B2=3, B3=7, B4=5)
- 2) Originating Branch Code = R1R2R3
- 3) Originating Account No. = A1A2A3A4A5A6A7A8A9A10A11
- 4) $\text{Sum1} = \text{B1B2} * 2 + \text{R1R2} * 3 + \text{A1A2} * 4 + \text{A5A6} * 5 + \text{A9A10} * 6$
- 5) $\text{Sum2} = \text{B3B4} * 9 + \text{R3} * 8 + \text{A3A4} * 7 + \text{A7A8} * 6 + \text{A11} * 5$
- 6) $\text{Sum3} = \text{Sum1} * \text{Sum2}$

* **Check summary calculation algorithm (for main detail records – Record Type 2):**

- 1) Receiving Bank Code = B1B2B3B4 (e.g. receiving bank code is 7375, B1=7, B2=3, B3=7, B4=5)

7	3	7	5
B1	B2	B3	B4

- 2) Receiving Branch Code = R1R2R3
- 3) Receiving Account No. = A1A2A3A4A5A6A7A8A9A10A11A12A13A14A15A16A17 (All the spaces must be converted to 0)
- 4) Transaction Code = T1T2
- 5) Amount = M1M2M3M4M5M6M7M8M9M10M11
- 6) $\text{Sum1} = \text{B1B2} * 1 + \text{R1R2} * 2 + \text{A1A2} * 3 + \text{A5A6} * 4 + \text{A9A10} * 5 + \text{A13A14} * 6 + \text{A17} * 7 + \text{T1} * 8 + \text{M1M2} * 9 + \text{M5M6} * 8 + \text{M9M10} * 7$
- 7) $\text{Sum2} = \text{B3B4} * 9 + \text{R3} * 8 + \text{A3A4} * 7 + \text{A7A8} * 6 + \text{A11A12} * 5 + \text{A15A16} * 4 + \text{T2} * 3 + \text{M3M4} * 2 + \text{M7M8} * 1 + \text{M11} * 2$
- 8) $\text{Sum3} = \text{Sum1} * \text{Sum2}$ (accumulate of Sum3)
- 9) E.g. if receiving bank code = 7375, receiving branch code = 001, receiving account no = 10130292670000000, transaction code = 22, amount = 00000123456, then we can compute:

$$\begin{aligned} \text{Sum1} &= (73 * 1) + (00 * 2) + (10 * 3) + (02 * 4) + (67 * 5) + (00 * 6) + (0 * 7) \\ &\quad + (2 * 8) + (00 * 9) + (01 * 8) + (45 * 7) \\ &= 785 \end{aligned}$$

$$\begin{aligned} \text{Sum2} &= (75 * 9) + (1 * 8) + (13 * 7) + (92 * 6) + (00 * 5) + (00 * 4) + (2 * 3) + (00 * 2) + (23 * 1) + (6 * 2) \\ &= 1367 \end{aligned}$$

$$\text{Sum3} = 785 * 1367 = 1073095$$

- 10) $\text{Sum4} = \text{Record Type 1 Sum3} + \text{Record Type 2 Sum3}$
- 11) Sum4 will be the final check summary *

* For info only: The maximum Sum3 for one detail record can be up to 11099025, thus, the total record number can go up to 90 million.