



# **STRAIGHT THROUGH ENTRY CUSTODY**

Technical specifications for file interface  
Securities Purchase & Sale

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## Introduction

This document describes RBC Investor & Treasury Services proprietary file format to be sent using secured STP connections.

Trades can be sent via STP using 2 different protocols:

### The HTTP protocol (HTTPS)

This protocol is available on our secured web portal "Investor Services Online" <https://online.rbcis.com>. Authorized transactions can be manually keyed or uploaded, checked and confirmed on a one-by-one basis or by batch processing. Only confirmed transactions are executed. Unconfirmed transactions remain pending until cancelled.

After confirming all transactions, you should receive the following message: "No pending transaction."

### The FTP protocol (SFTP - PUT METHOD)

This process is an automated way to post encrypted transactions on our server using a secured connection. You send a first file with the extension *filename.stp.pgp* or *filename.stp.gpg* with the trades, and to notify us the end of the trade, you send an empty file with the extension *filename.stp.ok* (just keep the same filename).

There are 4 possible technical confirmation messages:

- **.ack** return receipt to confirm the successful delivery of your file to our server;
- **.nack** return receipt to confirm the non-delivery of your file;
- **.sok** return receipt indicates that the file we received was properly formatted and has been injected;
- **.sko** return receipt indicates that the file needs to be repaired and sent back.

Also for FTP Protocol, you will have the possibility to consult the status return online using Investor Services Online.

Each transaction type has a specific file format corresponding to a distinct layout description. Please advise your relationship manager in case you require further information on the interfaced transactions types available.

Please note that it is not required to send a separate file by transaction type if you plan to interface more than one type. In other words, a STP file can be made of different transaction types.



## Important notices

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**An:** The maximum length allowed is **n** alphanumeric characters;  
**Nn.d:** Numeric field for **n** digits before the decimal place and **d** digits after;  
**STP col.:** **M** for mandatory fields, **O** for optional fields and **C** for conditional fields. The file transfer will only be accepted if all the mandatory fields are filled in.

**A maximum of 1000 trades per file can be uploaded. Exceeded this limit could occur a technical issue.**

**The following special characters are not supported: < > \ / " ' &**

With this layout you are able to handle the trade in Linked Deals.

## File interface

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The same file description will be used for collecting STP data and sending back the results.

- The file is in TXT format;
- The field separator is the semicolon ";" and field values are free (without any quote);
- The decimal separator is the dot "."

Fields are described below and listed in the same order as in the file. A new line follows the file header, and then a new line follows each trade in the file body.



## File Header

FIELD	FORMAT	IN/OUT	M/O	RULE
FROM	A30	IN	M	Your user ID. STP_KEY determined during the setup of the ftp line or the ISO access definition
TO	A30	IN	M	RBC
DATE	A8	IN	O	YYYYMMDD
TIME	A6	IN	O	HHMMSS
PATH	A200	IN	O	Path of file
NAME	A30	IN	M	Name of file. <b>This name has to be unique for each new file sent. A duplicate filename will occur the file rejection.</b>
EXTNAME	A30	IN	O	Extension of file
ANSWER1	A30	IN	O	Transfer method: FTP_CUS / HTTP_CUS
COUNT	N6	IN	M	Number of trades in the file. Used for file consistency checking

The User ID is provided by our Client Services Manager.

## File Body and specifications per operation type

O / M / C: Optional / Mandatory / Conditional.

\* : Additional information present at the end of the document

#	FIELD	DESCRIPTION	FORMAT	M/O/C	RULES
1	ACTION *		A30	M	See rule 1
2	EMETTEUR	Your user ID. STP_KEY determined during the setup of the ftp line or the ISO access definition	A16	M	User ID /STP_KEY
3	EXT-REF	External reference of the transaction.	A16	M	Unique reference of the trade
4	INTERNAL_ORIGID		A16	O	
5	INTERNAL_ID		A16	O	
6	INTERNAL_STATUS		A20	O	
7	EXTERNAL_ORIGID		A16	O	
8	EXTERNAL_ID		A20	O	
9	EXTERNAL_STATUS		A20	O	
10	DATE_OUT		A8	O	
11	TIME_OUT		A6	O	
12	ERROR_MESSAGE		A70	O	
13	OPE_TYP *		A3	M	See rule 13
14	MGP	RBC Investor & Treasury Services custody	A16	M	RBC Investor & Treasury



#	FIELD	DESCRIPTION	FORMAT	M/O/C	RULES
		code			Services Portfolio Reference Code
15	CASH-COR		A11	O	BIC or (Z Code for internal use)
16	BRK-REF *	Executing Broker reference	A11	M	BIC Code or (Z Code for internal use) See rule 16 at the end of the document
17	BRK-NAM	Broker Name	A30	M	
18	BRK-ACC	Broker Safe Account	A30	O	
19	SUB-CLR-ACC	Clearing Account of the Custodian	A11	O	
20	SUB-CLR-COD	Clearing Code of the Custodian	A11	O	
21	SUB-REF *	Deliver/Receiver Agent Bic code	A11	C	Not mandatory for countries using a clearing Mandatory for all other countries. Bic code is expected. See rule page 9
22	SUB-DES	Deliver/Receiver Agent's Name	A30	O	
23	NIV-CPT1	Deliver/Receiver Safe Account	A11	O	
24	CLR-ACC *	Deliver/Receiver Account Clearing account of the Broker	A30	C	M if CLR-COD is populated. See rule 24 at the end of the document
25	CLR-COD *	Deliver/Receiver Clearing Code Clearing code of the Broker	A11	C	M for some countries (depending on the market). See rule 25 at the end of the document.
26	NIV-BIC3	Deliver/Receiver Custodian	A11	O	BIC Code
27	NIV-LIB3	Deliver/Receiver Custodian Name	A30	O	
28	NIV-CPT3	Deliver/Receiver Custodian Safe Account	A30	O	
29	NIV-CLR-ACC3	Deliver/Receiver Custodian Clearing Account	A30	O	
30	NIV-CLR-COD3	Deliver/Receiver Custodian Clearing Code	A11	O	
31	NIV-BIC4	Deliver/Receiver Intermediary Reference	A11	O	BIC Code
32	NIV-LIB4	Deliver/Receiver Intermediary Name	A30	O	
33	NIV-CPT4	Deliver/Receiver Intermediary Safe Account	A30	O	
34	NIV-CLR-ACC4	Deliver/Receiver Intermediary Clearing Account	A30	O	
35	NIV-CLR-COD4	Deliver/Receiver Intermediary Clearing Code	A11	O	
36	TRA-DAT	Trade Date	A8	M	YYYYMMDD
37	SET-DAT	Settlement Date	A8	M	YYYYMMDD
38	TRS-CUR	Trade Currency	A3	M	ISO 4217
39	SEC-TYP *	Type of Code	A10	M	See rule 39 at the end of the document
40	SEC-COD	Security Code	A12	M	National Security Number
41	SEC-DES	Security Description	A35	M	
42	QTY	Quantity	N13.4	M	



#	FIELD	DESCRIPTION	FORMAT	M/O/C	RULES
43	PRI	Price	N13.6	M	
44	INT-MOD *	Interest calculation mode	A1	C	See rule 44 at the end of the document
45	FEE-CUR	Transaction Fees Currency	A3	M	ISO 4217
46	STK-EXC	Abbreviated name of the stock exchange City	A16	O	
47	SET-CUR	Settlement Currency	A3	M	ISO 4217
48	CHG-RAT	Exchange Rate	N9.6	C	M if <>0
49	BRK-FEE	Brokerage Fee	N13.4	O	
50	TAX-FEE	Tax Fee / Stock Fees	N13.4	O	
51	OTH-FEE	Other Fees	N13.4	O	
52	INT-AMT	Interest Amount	N13.4	C	M for Bonds
53	INT-TAX	Tax on accrued interest	N13.4	O	
54	INT-DAY	Interest Days Number	N3	C	M for Bonds if >0
55	TRS-GRO-AMT	Transaction Gross Amount	N13.4	M	In TRS-CUR
56	TRS-NET-AMT	Transaction Net Amount	N13.4	M	In TRS-CUR
57	SET-NET-AMT	Settlement Net Amount	N13.4	M	In SET-CUR
58	FEE-AMT	Management Company Fees Amount	N13.4	O	Code_com=37
59	FM-TXT	Fund Manager Reference	A35	O	Investor Services Online Fund Ref Number
60	COM-TXT	External Comment	A35	O	
61	EVEN-TYP	Announcement / Execution	A1	M	Y for Announcement N for Execution
62	PSET-BIC *	Place of Settlement bic code	A12	M	BIC Code. See rule 62 at the end of the document.
63	PSET-PAYS	Place of Settlement Country	A2	O	ISO 3166-1
64	CUS-FEE	Custodian Fee	N13.4	O	
65	SCUS-FEE	Sub-Custodian Fee	N13.4	O	
66	STAMP-FEE	Stamp Fees	N13.4	O	
67	OPC-IO-TOT	Total Entry/Exit Rights (UCITS)	N13.4	O	
68	OPC-IO-REF	Refundable Rights (UCITS)	N13.4	O	
69	OPC-IO-ACQ	Unrefundable Rights (UCITS)	N13.4	O	
70	FACTOR	PIK factor on a Mortgage Bond	N1.9	O	
71	QTE-TYP	Type of Price	A4	C	(UNIT/FAMT)
72	VAT	Value Added Tax	N13.4	C	M for BUY/SEL of UCITS
73	TYP-TAU		A4	C	M for TCN (specific French market)
74	SET-FLG		A2	O	
75	DEL-COD	Delivery Code	A1	M	A / F (Against / Free of payment)
76	DEP-FIN-REF	RBC IS Sub custodian SWIFT Address	A30	O	
77	DEP-FIN-DES	RBC IS Sub custodian Name	A30	O	
78	DEP-FIN-ACC	RBC IS Sub custodian Security Account Number	A30	O	
79	PTG-CSH-ACC-TYP	PTG / Fund Cash Amount Type	A30	O	



#	FIELD	DESCRIPTION	FORMA T	M/O/ C	RULES
80	PTG-CSH-ACC-NBR	PTG / Fund Cash Amount Number	A30	O	
81	SPREAD	Spread rate	N9.6	O	
82	MARKET-CLAIM-OPT- OUT	No Automatic Market Claim (STCO//NOMC)	A1	C	Only for T2S
83	EX-CUM-COUPON	ExCoupon : Trade was executed ex coupon (TTCO//XCPN ) CumCoupon : Trade was executed cum coupon (TTCO//CCPN)	A20	C	Only for T2S

## Field description

### 1. ACTION

This field describes the type of action to be taken:

- CREATE: creation of a transaction
- DELETE: cancellation / reversal of a transaction

A cancellation is a duplicate of the trade create but with the action code delete.

CREATE;12345;.....

DELETE;12345;..... → cancel the trade reference 12345.

### 13. OPE-TYP

- BUY
- SEL

### 16. BRK-REF

- This field contains the bic code of the broker or an internal Z code. Depending on the market, the bic code is used or not. For the countries that are using a clearing and don't know the bic code, a default value can be précised in the field 16 (example for US market DTCYUS33). In this case, the clearing code (25 – CLR-COD) and account (24 – CLR-ACC) of the broker are mandatory information.

❶ ***For the country that are using a clearing, the value précised in the field 16 will be displayed on some reports instead of the broker name.***

### 24. CLR-ACC

- This field contains the clearing account of the broker. Depending on the market practice, this field



is mandatory or not.

## 25. CLR-COD

- This field contains the Information on security settlements and specially the three first characters of the CLEARING HOUSE. Please find below the relevant mapping table in use with our custody system;
- Filling in the clearing code is part of market practices.
- Depending on the Securities Market Practice Group, these data can be mandatory.

Country	RBC IS	Designation	Place of Settlement	SWIFT	M
Australia	<b>AUS</b>	AUSTRACLEAR	ACLRAU2S	ACLR	
Australia	<b>CHE</b>	CHESS	CAETAU21	CHES	
Austria	<b>OEK</b>	OESTERREICHISCHEKONTROLLBANK	OEKOATWW	OEKO	
Belgium (Bonds)	<b>BNB</b>	BANQUE NATIONALE DE BELGIQUE	NBBEBEBB216	NBBE	Y
Belgium (Shares)	<b>CIK</b>	CAISSE INTERPROF DEPOTS VIREMENTS TITRES	CIKBEBBB	EGSP	Y
Bosnia	<b>HVB</b>	HVB CENTRAL PROFIT BANKA, SARAJEVO	UNCRBA22	UNCR	
Brazil	<b>CLC</b>	CAMARALLIQUIDACAO CUSTODIA	CLCBRRJ	CLBC	
Canada	<b>CDS</b>	CANADIAN DEP FOR SECS	CDSLCAAT	CDSL	Y
China	<b>SSC</b>	SHENZHEN SECS CC	SSCCNS1	SSCC	
China	<b>SSR</b>	SHANGHAI SECS CCRC	SSCECNS1	SCRC	
Denmark	<b>VPD</b>	DENMARK	VPDKDKKK	VPDK	
Euromarket	<b>CED</b>	CEDEL	CEDELULL	CEDE	Y
Euromarket	<b>EUR</b>	EUROCLEAR	MGTCBEBEECL	ECLR	Y
Finland	<b>APC</b>	FINNISHCENTRALSECURITIESDEPOSITORYLTD	APKEFIHH	APKE	
France	<b>SIC</b>	SICOVAM	SICVFRPP	EGSP	Y
Germany	<b>AKV</b>	KASSENVEREIN	DAKVDEFF	DAKV	Y
Hungary	<b>KBR</b>	Központi Elszámolóház és Értéktár Rt (KELER)	KELRHUHB		Y
Hong Kong	<b>CCA</b>	CCASS	XHKCHKH1	CCAS	Y
Italy	<b>ABI</b>	MONTE TITOLI S.P.A.	MOTIITMM	MOTI	
Ireland	<b>CRE</b>	CREST	CRSTGB22	CRST	Y
Japan	<b>JSD</b>	JAPAN SECURITIES DEPOSITORYCENTER	JJSDJPJT	JSDC	
Mexico	<b>IND</b>	INDEVALSA	INDEMxmm	INDE	
Netherlands	<b>NEC</b>	NECICOM	NECINL2A	EGSP	Y
Norway	<b>VPS</b>	VARDEPAPPERSCENTRALEN	VPSNNOKK	VPCS	
Peru	<b>CAV</b>	CAJADEVALORES	CVLIPEP1	CAVL	
Portugal	<b>CVM</b>	INTERBOLSA	IBLSPTPP	IBLS	
Romania	<b>DEC</b>	BUCHAREST STOCK EXCHANGE	DECNROB1	DECN	
Romania	<b>NBO</b>	CENTRAL BANK	NBORROBS	NBOR	
Serbia	<b>NBS</b>	NARDONA BANKA SRBIJE	NBSRRSBG	NBSR	
Singapore	<b>SCD</b>	SINGAPORECENTRAL DEPOSITORYLTD	CDPLSGSG	CDPL	
South Africa	<b>JSE</b>	STRATE CLEARING SETTLEMENT	STRAZAJJ	STRA	
South Korea	<b>KSC</b>	FINANCIA SERVICES AUTHORITY	KSDCKRSE	KSDC	
Sweden	<b>VPC</b>	VARDEPAPPERSCENTRALEN	VPCSSSESS	VPCS	
Switzerland	<b>SEG</b>	SEGA	INSECHZZ	SCOM	Y
Thailand	<b>SET</b>	THAILAND SECURITIES DEPOSITORYCOMPANY	TSDCTHBK	TSDC	
United Kingdom	<b>CRE</b>	CREST	CRSTGB22	CRST	Y
USA	<b>DTC</b>	DTC	DTCYUS33	DTCYID	Y
USA	<b>FBE</b>	FBE	FRNYUS33	USFW	Y
	<b>CMO</b>	MONEY MARKET INST	BKENG2L	CMO	
	<b>DBC</b>	DBC	DAKVDEFF	DAKV	





**Please use the RBC IS code for transaction instructions.**



## 16. BRK-REF / 24. CLR-ACC / 25. CLR-COD / 19. SUC-CLR-ACC / 20. SUB-CLR-COD / 21. SUB-REF

Please find below a table to explain the way to populate these fields depending on the market rules.

### **Rule for country using BIC code (For instance Italy)**

	BRK-REF	CLR-ACC	CLR-COD	SUB-CLR-ACC	SUB-CLR-COD	SUB-REF
Mandatory	M	O	O	O	O	M
Description	Bic code of the broker	Clearing account of the Broker	3 first characters of the clearing house	Clearing account of the custodian	3 first characters of the clearing house	Bic code of the custodian
Value	DEUTGB22EEQ	/	/	/	/	PARBITMM

### **Rule for country using Clearing House**

The example is based on the US country. For the other countries using a clearing, just replace the clearing code value (CLR-COD) by the correct one (you can refer to the table described in point 25 above).

	BRK-REF	CLR-ACC	CLR-COD	SUB-CLR-ACC	SUB-CLR-COD	SUB-REF
Mandatory	M	O	O	O	O	O
Description	Bic code of the broker	Clearing account of the Broker	3 first characters of the clearing house	Clearing account of the custodian	3 first characters of the clearing house	Bic code of the custodian
Value	JEFFUS33 (DTCYUS33 as default value in case of bic code is not known)	0418 (minimum 4 digits)	DTC	/	/	/

### **Legend**

O : Optional  
M : Mandatory



### **39. SEC-TYP**

List of possible values:

- GB: SEDOL
- IC: ISIN (strongly recommended)
- TK: TELEKURS
- US: CUSIP

### **44. INT-MOD**

Should be N (Normal) or R (Reverse)

- N if the amount of accrued interest is included & calculated in the deal until settlement date;
- R if the amount of accrued interest is not included in the deal. Blank if not relevant.

### **55/56. TRS-GROSS-AMOUNT/TRS-NET-AMOUNT**

IF OPE-TYP = 'BUY'

Field 56 = field 55 + field 49 + field 50 + field 51

TRS-NET-AMOUNT = TRS-GROSS-AMOUNT + BRK-FEE + TAX-FEE + OTH-FEE.

IF OPE-TYP = 'SEL'

Field 56 = field 55 - field 49 - field 50 - field 51

TRS-NET-AMOUNT = TRS-GROSS-AMOUNT - BRK-FEE - TAX-FEE - OTH-FEE.

### **62. PSET-BIC**

More information is available at the following web site: [www.smpg.info](http://www.smpg.info)

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## **Example of transaction**

```
USERID;RBC;20080119;1030;;Filename20080226001;TXT;HTTP_CUS;1
CREATE;USERID;Cust200803041749;;;;;;;;;BUY;TEST;;TESTBRK;;;99998;EUR;TESTSUB;;;997;D
TC;DEUTDEFF;DeutscheBank;8888;8887;DTC;MLILGB3L;Merrill
Lynch;7778;7776;DBC;20070721;20070721;HKD;IC;XS0272764407;YUE
YUEN/11;16000000;101.75;;;HKD;1;;;0;;;1628000000.00;1628000000.00;1628000000.00;;;N
;;;;;;;;;;A;TESTBIC;;087654321;;
```