TRADING 2 CLEARING

ELECTRONIC INFORMATION EXCHANGE BETWEEN TRADING VENUES AND CLEARING VENUES

1. INTRODUCTION

This document is used by the Trading 2 Clearing (Trade2Clear) working group to record the agreements reached at their various meetings (see appendix for Trade2Clear members and meeting schedule). The goal of this group is to agree on the **process details** and **data elements** that are required to standardise an electronic exchange of data relevant to clearing between the Place(s) of Trading and the Place(s) of Clearing. This work is relevant as many trading venues are expanding existing arrangements or considering creating a new link with one or more additional CCPs. Note the focus for the first version is on equities. Changes for other asset classes may follow in the future.

These voluntary best practice proposals will enable infrastructures to design and develop new links in a standard manner which will allow for the re-use of the functionality across multiple infrastructures and markets. Infrastructures with existing processes and models should aim to adopt these best practice measures.

Process details

This group specifically discussed the 'message model' to be used (ie, 1 or 2 messages per CCP) and how to ensure the continuing integrity of the trade feed.

Data elements

The scope includes following information flows:

a) Trade message,

b) Error (status) message,

c) Instrument data file, and

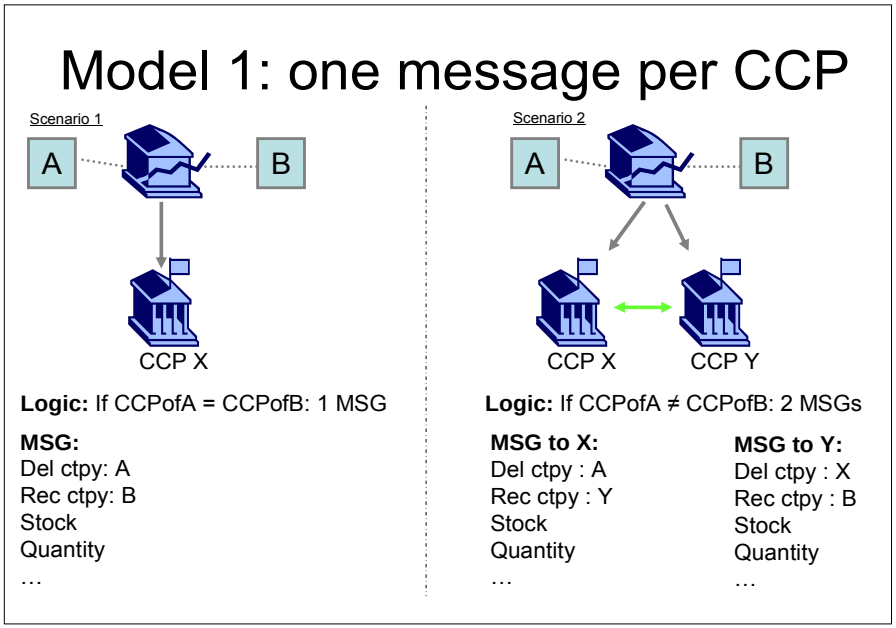
d) Participant data file.

To avoid misunderstanding, please note that only business data elements are documented. Technical/header data like sender identification, receiver identification, message start, message end, total length, checksums, message sequence nbr, message sending time, etc are excluded from this document.

2. PROCESS DETAILS

2.1 Trade message model

The Trade2Clear working group proposes to use the '1 message per CCP' model. This means that in normal circumstances (ie, 1 CCP) there is only one message per trade sent from the place of trading to the place of clearing. When two CCPs are involved, they will each get one message whereby one of the counterparties to the trade will be replaced with the other CCP (see picture below and as further documented in Chapter 3: Specification for the Trade Message from Place of Trading to Place of Clearing).



2.2 Integrity of the trade feed

A key requirement in the communication between trading venues and clearing venues is to ensure the integrity of the trade feed. No trade must be lost and every trade must be cleared once and only once. Current links between Exchanges and MTFs on one hand and CCPs on the other have various mechanisms in place to ensure this.

For some organisations, ensuring integrity at the communications layer is not sufficient – they also want to have a business-level check. This is because a communications layer check can only ensure/prove that a message successfully reached the recipient, not that it was processed in any meaningful business way. Moreover, the trend seems to be to opt for "real-time" detection, as opposed to end-of-day checking. Since risk management procedures are getting ever more important in today's world, it is likely this trend will continue.

While the Trade2Clear group wanted to recommend one mechanism, discussions have not led to a common agreement; therefore we will document hereafter the two methods which are most frequently used.

Method 1: Sequence Gap Detection

The sender must include a unique, increasing, serial number on each trade message. The receiver checks that all the serial numbers are received by checking for gaps. This approach means the receiver takes responsibility for checking that there is no gap in the trade feed. For multi-thread operations, it is recommended to have an individual sequence numbering system per thread.

The trade message contains the relevant fields for identifying the serial number (per thread).

Method 2: Business Message Acknowledgements

The receiver can positively acknowledge each message at a business level. He will do this by sending an reply message in response to every Trade message. This approach means that the sender takes responsibility for checking that it receives an acknowledgement for every message sent.

The status processing message contains the relevant fields and code words to identify the OK or NOK for each trade message.

3. SPECIFICATION for the TRADE MESSAGE from PLACE OF TRADING to PLACE OF CLEARING

Nbr	Name of data element	Description	Format	Content	Status (M/O/C)
1	Sender's reference	Unique identification of the trade message from the Sender	16x		M
2	Sender's related reference	Unique identification of the related message from the Sender	16x	If this message is used to Cancel or Replace, this field will contain the original message reference	O
3	Function of the message	Identifies if the message is for a new trade, a trade to be cancelled or a trade to be replaced/corrected	Code-field	NEWM, CANC or RPLC	M
4	Place of trading's trade reference	Unique identification of the trade as identified on the trading platform	16x		M
5	Trade transaction sequence number	Trade sequence number, starting at 1 and incrementing by 1 for each trade submitted			O
6	Trade place process	Identifies a thread or process/subsystem submitting the trades (technical process-identification)	3!a	When different sequence numbering mechanisms are used for different threads, this field identifies each thread	O
7	Trade transaction type	Identifies the type of trade transaction: ON Order book/	Code-field		M

		OFF order book trade			
8	Traded instrument ID	Identification of traded instrument		1] This field should always contain a computer-readable code; 2] The market practice suggests the usage of ISIN codes only; 3] This field is flexible enough to contain other types of computer-readable codes.	M
9	Traded instrument symbol	Symbol of the instrument traded		Ticker symbol. Common, "human understood" representation of the security	O
10	Instrument Quantity	The Quantity of the instrument traded	15d	Including decimal comma as some market trade fractions of units (eg, for collective investment funds)	M
11	Date and time of trade transaction	Identifies the date and time of the trade on the trading platform	YYYYMMDD HHMMSSTTT	Including Thousands of seconds (TTT)	M
12	Deal price	Identifies the price at which the trade was executed	3!c (currency code) 15d	Currency code must be valid ISO code	M
13	Trade place	Identifies the place of trading (eg needed if sender runs multiple markets/platforms)	4!a	Must be valid MIC code	M
14	Trade place subsegment	Identifies at the place of trading a subsegment of the market		If the MIC code is not sufficient to identify the market (eg, for	O

		place		different order books), this field is used	
15	Settlement date	Identifies the date of settlement	YYYYMMDD		O
16	Settlement amount	Identifies the settlement amount at which the trade will be settled	3!c (currency code) 15d	Currency code must be valid ISO code	O
17	Deal-price settlement amount exchange rate	Identifies the exchange rate between the deal price currency and the settlement amount currency	rate		O
18	Novation flag	Identifies if the CCP has to novate and guarantee the trade.	Flag	In the standard situation this flag is put to Y. If the CCP is used as a conduit into the settlement chain without intervention, this flag is put to N	O
19	Seller (deliverer)	Identification of the trading party selling the instruments; In case two CCPs will clear the original trade, and this message is the one going to the buy-side CCP, this field will identify the CCP of the selling (delivering) side		1] This field should always contain a computer-readable code; 2] The market practice suggests the usage of BIC codes only; 3] This field is flexible enough to contain other types of computer-readable codes.	M
20	Seller's reference	Identification of the trade transaction (order) reference of the seller	16x		O

21	Trade place reference for order seller	Reference given by place of trade to the original order of the seller	16x		O
22	Seller's trading capacity	Trading capacity of seller	Code-field	PRIN (principal trade) / AGEN (agency trade)/ RLPR (riskless principal)	M
23	Seller's clearing member	Identifies the party that will clear the trade of the seller; In case two CCPs will clear the original trade and this message is the one going to the buy side CCP, then the seller field must identify the CCP of the selling (delivering) side and this field must contain the same CCP identification		1] This field should always contain a computer-readable code; 2] The market practice suggests the usage of BIC codes only; 3] This field is flexible enough to contain other types of computer-readable codes.	O
24	Seller's clearing member account	Identifies the account at the CCP through which the trade of the seller must be cleared		Identifying the actual account or indicates if it is the house or client account (other values possible)	O
25	Seller's settlement party	Identifies the party in that will settle the obligations on the delivering side (settlement agent of the Seller's clearing member)	BIC		O
26	Seller's settlement party account	Identifies the account at the CSD through which the Seller's			O

		settlement party will settle the obligations			
27	Place of settlement delivering side	Identifies the place of settlement on the delivering side of the transaction (ie, the CSD to be used)	BIC		O
28	Buyer (receiver)	Identification of the trading party buying the instruments; In case two CCPs will clear the original trade, and this message is the one going to the sell-side CCP, this field will identify the CCP of the buying (receiving) side		1] This field should always contain a computer-readable code; 2] The market practice suggests the usage of BIC codes only; 3] This field is flexible enough to contain other types of computer-readable codes.	M
29	Buyer's reference	Identification of the trade transaction (order) reference of the Buyer	16x		O
30	Trade place reference for order buyer	Reference given by place of trade to the original order of the buyer	16x		O
31	Buyer's trading capacity	Trading capacity of Buyer	Code-field	PRIN (principal trade) / AGEN (agency trade)/ RLPR (riskless principal)	M
32	Buyer's clearing	Identifies the party that will clear		1] This field should always	O

	member	the trade of the Buyer In case two CCPs will clear the original trade and this message is the one going to the sell side CCP, then the buyer field must identify the CCP of the buying (receiving) side and this field must contain the same CCP identification		contain a computer-readable code; 2] The market practice suggests the usage of BIC codes only; 3] This field is flexible enough to contain other types of computer-readable codes.	
33	Buyer's clearing member account	Identifies the account at the CCP through which the trade of the Buyer must be cleared		Identifying the actual account or indicates if it is the house or client account (other values possible)	O
34	Buyer's settlement party	Identifies the party in that will settle the obligations on the receiving side (settlement agent of the Buyer's clearing member)	BIC		O
35	Buyer's settlement party account	Identifies the account at the CSD through which the Buyer's settlement party will settle the obligations			O
36	Place of settlement receiving side	Identifies the place of settlement on the receiving side of the transaction (ie, the CSD to be used)	BIC		O

The mapping into the MT 518 (ISO 15022) can be received upon simple request to SWIFT.

The mapping into FIX can be received upon simple request to FPL.

4. SPECIFICATION for the STATUS MESSAGE from PLACE OF CLEARING to PLACE OF TRADING

Nbr	Name of data element	Description	Format	Content	Status (M/O/C)
1	Sender's reference	Unique identification of the status message from the Sender	16x		M
2	Receiver's related reference	Message reference of the linked message which was previously received	16x		M
3	Place of trading's trade reference	Unique identification of the trade as identified on the trading platform	16x		O
4	Trade transaction sequence number	Trade sequence number, starting at 1 and incrementing by 1 for each trade submitted			O
5	Trade place process	Identifies a thread or process/subsystem submitting the trades (technical process-identification)	3!a		O
6	Status code	Identifying the status of the trade transaction at the place of clearing		Potential values: - ACCEPTED: Trade message received and accepted by clearing application - NOT ACCEPTED: Trade	M

				message received but NOT accepted (ie, rejected by clearing application) - PENDING: Trade message received but pending further processing	
7	Error code	Identifying the reason why the trade transaction has the identified status		In case the status code is Not-accepted or Pending, one of the following potential values can be used [See list table below]	O
8	Error text	Free text indentifying the reason why the trade transaction has the identified status			O

The mapping into the MT 509 (ISO 15022) can be received upon simple request to SWIFT.

The mapping into FIX can be received upon simple request to FPL.

ERROR CODE	Description
0001	Sender's reference is blank
0002	Related reference is blank or invalid (when cancelling or replacing trade)
0003	Function of the message is blank or invalid
0004	Place of trading's reference is blank or invalid
0005	Trade transaction sequence number is zero or non-numeric
0006	Trade Place Process is blank or invalid
0007	Trade Transaction type is blank or invalid
0008	Instrument ID (ISIN) / currency combination is invalid
0009	Instrument status is invalid (not cleared)
0010	Instrument ID (ISIN) is blank or invalid
0011	Deal price currency is blank
0012	Instrument quantity is zero or non-numeric
0013	Deal prices is zero or non-numeric

0014	Date and time of Trade Transaction is blank or invalid
0015	Trade Place is blank or invalid
0016	Trade Place subsegment is blank or invalid
0100	Settlement date is blank or invalid
0101	Settlement amount is zero or non-numeric
0102	Settlement netting processing only flag is blank or invalid
0103	Seller (selling executing broker) is blank or invalid
0104	Buyer (buying executing broker) is blank or invalid
0105	Seller trading capacity code is blank or invalid
0106	Buyer trading capacity is blank or invalid
0107	Seller's clearing member not found
0108	Buyer's clearing member not found
0109	Seller's clearing member account not found
0110	Buyer's clearing member acoung not found
0111	Place of settlement (delivering side) not found

0112	Place of settlement (receiving side) not found
0113	Seller's clearing member payment instructions arrangements not found
0114	Buyer's clearing member payment instructions arrangements not found
0200	Trade submitted during extended hours
0201	Duplicate Market Trade Previously accepted

5. SPECIFICATION for the INSTRUMENT DATA FILE between Trading venue and Clearing venue

The purpose of this file is to agree on the list of securities being handled. For example, the Clearing venue can confirm to the Trading venue which instruments can be cleared, or the Trading venue can announce which instruments will be added to its platform by which date.

So the main purpose is to reconcile (for example on a daily basis) the instrument data file.

The primary key to each line is the instrument id (Nbr 3), the trade currency (Nbr 5), place of settlement (Nbr 6) and the trade place (Nbr 8).

Nbr	Name of data element	Description	Format	Content	Status (M/O/C)
1	Update indicator	Identifies if the file contains changes only (updates only) or is complete			M
2	Information date	Identifies the date for which the information is valid	YYYYMMDD		M
3	Instrument ID	Identification of instrument		1] This field should always contain a computer-readable code; 2] The market practice suggests the usage of ISIN codes only; 3] This field is flexible enough to contain other types of computer-readable codes.	M
4	Insert/delete	Identifies if the instrument line is		Mandatory field in changes	O

	indicator	inserted or deleted		only (updates only) file	
5	Trade currency	Identifies the currency in which the instrument is traded	ISO currency code		M
6	Place of settlement	Identifies the place of settlement (CSD)	BIC		O
7	Primary market	Identifies the place of original listing	ISO country code		O
8	Trade place	Identifies the place of trading (eg needed if trading venue runs multiple markets/platforms)	4!a	Must be valid MIC code	O
9	Trade place subsegment	Identifies at the place of trading a subsegment of the market place		If the MIC code is not sufficient to identify the market (eg, for different order books), this field is used	O
10	Instrument symbol	Symbol of the instrument traded		Ticker symbol. Common, "human understood" representation of the security	O

6. SPECIFICATION for the PARTICIPANT DATA FILE between Trading venue and Clearing venue

The purpose of this file is to agree on the list of parties being recognised as trading firms, their respective clearing member and the clearing/settlement arrangements. For example, the Clearing venue can confirm to the Trading venue which trading parties it has on its files and for which it has all clearing/settlement arrangements.

So the main purpose is to reconcile (for example on a daily basis) the participant data file.

The primary key to each line is the trading party (Nbr 4), the trading party's trading capacity (Nbr 5) and the trade place (Nbr 7).

Nbr	Name of data element	Description	Format	Content	Status (M/O/C)
1	Update indicator	Identifies if the file contains changes only (updates only) or is complete			M
2	Information date	Identifies the date for which the information is valid	YYYYMMDD		M
3	Insert/delete indicator	Identifies if the participant line is inserted or deleted		Mandatory field in changes only (updates only) file	O
4	Trading party	Identification of the trading party (broker)		1] This field should always contain a computer-readable code; 2] The market practice suggests the usage of BIC codes only; 3] This field is flexible enough	M

				to contain other types of computer-readable codes.	
5	Trading party's trading capacity	Trading capacity	Code-field	PRIN (principal trade) / AGEN (agency trade)/ RLPR (riskless principal)	O
6	Suspended indicator	This field specifies whether the trading party has been suspended or not	Flag	Y or N	M
7	Trading venue	Identifies the trade venue	MIC code		M
8	Trade place subsegment	Identifies at the place of trading a subsegment of the market place		If the MIC code is not sufficient to identify the market (eg, for different order books), this field is used	O
9	Central Counterparty	Identifies the central counterparty to be used	BIC	This field should only be used if the receiver is not the CCP itself (ie, when file is exchanged with router-function)	O
10	Trading party's clearing member	Identifies the party that will clear the trade of the trading party		1] This field should always contain a computer-readable code; 2] The market practice suggests the usage of BIC codes only; 3] This field is flexible enough to contain other types of computer-readable codes.	M

11	Trading party's clearing member account	Identifies the account at the CCP through which the trade must be cleared			O
12	Clearing role	Identifies the clearing role of the Trading party's clearing member		GCM or ICM	O
13	Trading party's settlement member	Identifies the party that will settle the obligations		1] This field should always contain a computer-readable code; 2] The market practice suggests the usage of BIC codes only; 3] This field is flexible enough to contain other types of computer-readable codes.	O
14	Trading party's settlement member account	Identifies the account at the CSD through which the obligations must be settled			O
15	Place of settlement	Identifies the place of settlement (CSD)	BIC		O

Annex 1: Trade2Clear members

(for clarity: membership is open to any Trading Venue or Clearing Venue (& related routing or netting engines); following people have attended (at least once or more) working group meetings)

Trading Venues	**Clearing Venues (& related routing or netting engines)**
• Chi-X (Nathan Renyard) • Turquoise (Bernie Kennedy) • NasdaqOMX Europe (Samuel Sroka) • Equiduct (Willy Van Stappen) • LSE (John Tanner) • SWX (Ian Cornwall) • NYSE EuroNext (Patrick Bertouille) • Burgundy (Fredrik Sjöblom)	• EuroCCP (Javid Chaudry) • EMCF (Jan Booij) • LCH.Clearnet Ltd (Gordon Barnett) • LCH.Clearnet SA (Franck Giraud) • Eurex Clearing (Marcus Zickwolff) • SIX x-clear (Parthasarathi Maram) • Monte Titoli (Davide Negro) • Euroclear UKI (Alan Bradin)
Coordination & Standard Support	
SWIFT (Evelyne Piron & Frank Versmessen)	

Annex 2: Trade2Clear schedule and achievements

- 8 July 2008: CEO and COO level meeting to agree on goal and resources
- 31 July 2008: Agreement on market practice scope and discussion flow model
- 3 September 2008: Agreement on flow model and data elements Trade message
- 25 September 2008: Conclude on outstanding questions Trade message
- 28 October 2008: Reference data for instruments and process
- 11 December 2008: Reference data for parties and start of syntax discussion
- 1 April 2009: Review of data elements reference files and detailed review of Trade Message format
- 16 June 2009: Final review

Revision record

Revision	Date	Author	Description	Sections affected
0.1	2 Sep 08	SWIFT	Initial version of document.	All
0.2	4 Sep 08	SWIFT	Small changes/numbering	Chapter 2
0.3	23 Sep 08	SWIFT	Comments from Trade2Clear meeting 4 Sep and new chapters for the Reference data	All
0.4	15 Oct 08	SWIFT	Comments from Trade2Clear meeting 25 Sep	Chapter 2
0.5	27 Oct 08	SWIFT	Intermediate comments received via Email	Chapters 2, 3, 4 and 5
0.7	5 Dec 08	SWIFT	Name change of document, inclusion integrity solution, updates from meeting on 30 Oct	All
0.8	5 Mar 09	SWIFT	Comments from Trade2Clear meeting 11 December plus intermediate comments received via Email	All
0.9	8 Jun 09	SWIFT	Changes to security and participant files formats	Chapter 5, 6
1.0	26 Jun 09	SWIFT	Comments from final meeting and document clean-up	All

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