Audit Trail Layout V1.0

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Introduction

Purpose

The Audit Trail Layout document outlines the required format to be used when producing a file during an audit trail exam or an ad-hoc inquiry by the Cboe Digital Market Regulation team. The complete order execution specifications can be found on Cboe Digital's website.

Cboe Digital Rule 524

Cboe Digital's Rule 524(b)(1) states that "Clearing Firms guaranteeing a connection to the Cboe Digital Trading System are responsible for maintaining or causing to be maintained the Order routing/front-end audit trail for all electronic Orders, including Order entry, modification, cancellation, and responses to such messages, entered into the Cboe Digital Trading System through any gateway to the Cboe Digital Trading System." Additional information regarding Rule 524 can be found here.

Clearing Firms responsible for the order routing/front-end audit trail of a trading system that accesses Cboe Digital must have the ability to display the data in the required format.

Production File Requirements

In the event that a front-end audit trail is requested by Cboe Digital Market Regulation the following naming convention and file format should be used when submitting the file for review.

File Naming Convention

The following element sequence should be used when naming the production file(s):

<Firm Name>_ <Production Date>_ <Connectivity Environment>_ <Case Tracking Number>

- Firm Name-- >> Cboe Digital access FIX session owner name
- Production Date -- >> File creation date YYYY/MM/DD
- Connectivity Environment -- >> Independent Software Vendor ("ISV") or Proprietary Application Name
- Case Tracking Number -- >> Regulatory request tracking number as provided by Cboe Digital Regulation

Production files in access to the allowable maximum individual file size limit of 40 MB should be divided into multiple files, with each file containing additional descriptive information indicating its chronological sequence within the combined production dataset.

File Format

The first row of the production data file(s) should be allocated to the element's name. To preserve referential integrity a comma delimiter must be used for separation of the populated and unpopulated field. Additional columns may be added at the end of the file to add details

regarding execution instructions and for internal use for the firm. The content of this file should include the exchange reject messages.

Audit Trail File Layout for Order Messages

The requirements provided below are for a post-production audit trail data report. This report should not be considered as complete for purposes of the trading firm's adherence with CFTC regulations. Furthermore, this layout does not indicate how the audit trail data should be maintained and is solely intended for the purpose of a trading firm to provide to Cboe Digital Market Regulation front-end audit trail records upon a request.

Please note the following items:
1. Capture the field name in the appropriate position despite the field having a "N/A" description.
2. Some of the associated FIX tags outlined below may come from other application messages, such as "SecurityDefinition" for example, rather than the order messaging or execution reports.

Required Layout

	Position	Field Name	FIX Protocol	Description	Message Direction
Order	1	ClOrdId	Tag 11	Client assigned unique order identifier. Maximum ClOrdID length = 40 characters.	Firm to Cboe Digital
	2	OrderID	Tag 37	Unique order identifier assigned by Cboe Digital. If 150 = 8 (Rejected), is set to "UNKNOWN."	Cboe Digital to Firm
	3	CustomerOrderTime	Tag 52	The GMT timestamp on the message. e.g. YYYYMMDD-HH:MM:SS.000000000 Must capture timestamp at least to the millisecond.	Customer to Firm
	4	TransactTime	Tag 60	Time of execution in GMT; e.g. YYYYMMDD-HH:MM:SS.000000000 Must capture timestamp at least to the millisecond.	Cboe Digital to Firm
	5	Symbol	Tag 55	Instrument (E.g. BTCU23). Note for canceling all open orders: Set to 'NA'	Firm to Cboe Digital

	6	SecurityType	Tag 167	FUT = Future	Firm to Cboe Digital
	7	OrdType	Tag 40	Supported values are: 1 = Market order 2 = Limit order 4 = Stop-Limit order	Firm to Cboe Digital
	8	MaturityMonth	Tag 200	Specifies the month and year of maturity (expiry) for a given contract YYYYMM	Firm to Cboe Digital
	9	MaturityDay	Tag 541	Specifies the date of maturity (a full date) YYYYMMDD	Firm to Cboe Digital
	10	SenderCompID	Tag 49	Bytes 1-3 will identify the Clearing Firm. Bytes 4-6 will identify the Executing Trading Firm	Firm to Cboe Digital
	11	Price	Tag 44	Required when fix tag 40=2 or 4	Firm to Cboe Digital
	12	StopPX	Tag 99	The price at which the stop order becomes effective. Required when 40=4	Firm to Cboe Digital
	13	OrderQty	Tag 38	Order quantity specified in the base Currency.	Firm to Cboe Digital
	14	Side	Tag 54	Order side: 1 = Buy 2 = Sell	Firm to Cboe Digital
	15	CTICode	Tag 582	CTICode (customer type indicator) 1 = Member Trading for own account 2 = Clearing firm trading for its Prop Account 3 = Member trading for another member 4 = All other	Firm to Cboe Digital
	16	OrderCapacity	Tag 581	1 = Customer 2 = House	Firm to Cboe Digital
	17	OperatorId	Tag 50	Value used to identify the user that entered the order. The value must be between 3-18 characters only.	Firm to Cboe Digital

18	Account	Tag 448 when 452=24	Customer Account Ref (CAR)	Firm to Cboe Digital
19	TimeInForce	Tag 59	Specifies how long an order remains in effect: 0 = Day 1 = Good Till Cancel 3 = Immediate or Cancel 4 = Fill or Kill 6 = Good Till Date (the	Firm to Cboe Digital
20	CancelOrderIdInst	Tag 41	The unique client ID assigned to the order to be replaced.	Firm to Cboe Digital
21	CancelModify Time	Tag 60	Request Time: YYYYMMDD-HH:MM:SS.000000000 Timestamp must be captured at least to the millisecond.	Cboe Digital to Firm
22	ReplacedOrderType	Tag 40	The following order types can be replaced: 2 = Limit Order 4 = Stop Limit Order When 35=G	Firm to Cboe Digital
23	NewReplace Price	Tag 44	Limit or Stop-Limit Price When 35=G	Firm to Cboe Digital
24	NewStopPX	Tag 99	The price at which the stop order becomes effective. When 35=G Required when 40=4	Firm to Cboe Digital
25	Reason	Tag 58	Descriptive text message: "clOrdId already exists" = Duplicate clOrderId has been received "No Resting Orders" = No orders working at the time of the request "TRADING PAUSED"=Only Cancel messages are permitted	Cboe Digital to Firm

*(Rows 20–25 are grouped under the vertical label **Cancel / Reject / Modify**)*

				"TRADING HALTED"=Order Add/Cancel/Modify are NOT Permitted "INSTRUMENT CLOSED"=Order Add/Cancel/Modify are NOT Permitted When 35=9	
	26	NewReplaced Qty	Tag 38		Firm to Cboe Digital
Trade	27	ExecType	Tag 150	The execution report's type: 0 = New 4 = Canceled 5 = Replace 8 = Rejected C = Expired F = Fill Status I = Order Status	Cboe Digital to Firm
	28	ExecID	Tag 17	Unique identifier for the execution message assigned by Cboe Digital. Buy orders will begin with '1_' and Sell orders will begin with '2_'	Cboe Digital to Firm
	29	SendingTime	Tag 60	Request Time: YYYYMMDD-HH:MM:SS.000000000 (nanosecond) Must capture timestamp at least to the millisecond.	Cboe Digital to Firm
	30	FillPrice	Tag 31	Price at which the current or last fill was made.	Cboe Digital to Firm
	31	TradeQty	Tag 32	Quantity bought/sold for this fill. Present when ExecType (150) = F.	Cboe Digital to Firm
	32	LeavesQty	Tag 151	Amount of order open for further execution. If the OrdStatus 39 = 4, C, the order is no longer active and LeavesQty can = 0.	Cboe Digital to Firm

				Otherwise, LeavesQty = OrderQty - CumQty.	