

CAT Reporting Technical Specifications for Industry Members

Archived Revision/Change Log

1/31/20

Applicable Version: 2.2.1 r3

Version	Date	Author	Description
1.0	10/30/2018	Thesys CAT	Initial publication
1.01	2/22/2019	CAT NMS, LLC	Re-publish v1.0 (as v1.01) to reflect transition from Thesys CAT
1.1 Draft 1	2/28/2019	CAT NMS, LLC	<p>Removed values (A,R,T) from allowable values for <i>reportingExceptionCode</i></p> <p>Added the following allowable values to <i>handlingInstructions</i>: MOC, MOO, BIN</p> <p>Removed the following allowable values to <i>handlingInstructions</i>: CDIF, OPG</p> <p>Added the following fields to MOOM event: <i>routingOrigin</i>, <i>routingOriginType</i>, <i>aggregatedOrders</i>, <i>representativeInd</i></p> <p>Removed <i>isolnd</i> field from MECO and MECOM events</p> <p>Removed <i>auctionFlag</i> from Data Dictionary</p> <p>Changed description of ATS fields to state "Applicable for ATSS only."</p> <p>Greyed out <i>quoteRejectedFlag</i> on MENQ event</p> <p>Extended <i>seqNum</i> to be alphanumeric (40)</p> <p>Changed <i>firmDesignatedID</i> to alphanumeric (40)</p> <p>Changed <i>firmDesignatedID</i> to be required on MENQ</p> <p>Changed Lifecycle Keys to Linkage Keys</p> <p>Changed <i>negotiatedTrade</i> field to <i>negotiatedTradeFlag</i></p> <p>Updated language for <i>displayPrice</i> and <i>displayQty</i> fields</p> <p>Changed <i>Material Terms</i> in the glossary to state "strike price" instead of "sticker price"</p> <p>Greyed out <i>quoteID</i> and <i>priorQuoteID</i> on MEOM event</p> <p>Changed Stop Stock <i>handlingInstruction</i> to a Name/Value Pair</p> <p>Changed <i>accountType</i> to <i>accountHolderType</i></p> <p>Greyed out <i>handlingInstructions</i> on route events.</p> <p>Removed <i>optionOriginCode</i> from options events.</p> <p>Removed <i>originator</i></p> <p>Added <i>accountHolderType</i> to MONO</p> <p>Added <i>affiliateFlag</i> to MENO, MEOA, MONO, and MOOA events.</p> <p>Added <i>accountHolderType</i> of F Foreign</p> <p>Removed <i>reportingExceptionCode</i> field from MEOTQ event</p> <p>Changed definition of <i>electronicTimestamp</i> to the time the order was systematized.</p> <p>Removed the list of exchange specific values from the Data Dictionary in the <i>exchOriginCode</i> field</p> <p>Added <i>capacity</i> to MEFA event</p> <p>Added <i>manualOrderID</i> to MENO, MONO, MOOA events.</p> <p>Added new allowable value to <i>representativeInd</i> and <i>fulfillmentLinkType</i>: O</p> <p>Removed SH code from Routes to 2c</p> <p>Extended <i>FirmROEID</i> to 50 characters</p> <p>Removed <i>leavesQty</i> from MEOF</p>
1.1 Draft 2	3/29/2019	CAT NMS, LLC	<p>Made corrections to 2/28/19 change log</p> <p>Extended <i>FirmROEID</i> to 64 characters</p> <p>Updated go live dates for phases 2c and 2d</p>

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			<p>Removed MEOTQ event and added <i>quoteID</i> as a conditional field on the MEOT.</p> <p>Changed <i>reporterID</i> and <i>submitterID</i> fields to <i>CATReporterIMID</i> and <i>CATSubmitterID</i></p> <p>Added <i>actionType</i>, <i>orderReceivedDate</i>, <i>CATReporterIMID</i>, <i>OrigFirmROEID</i>, and <i>origFileName</i> to all event types</p> <p>Added <i>actionType</i>, <i>orderReceivedDate</i>, <i>origFirmROEID</i>, <i>origFileName</i> to Data Dictionary</p> <p>Added "Primary Order Event", "Secondary Order Event", "Trading Algorithm", and "ROE" to the Glossary</p> <p>Defined NBBOSource of "Hybrid"</p> <p>Updated Section 2.2.1</p> <p>Updated Section 2.2.5 and section 4.3 to note that <i>handlingInstructions</i> are not required on Order Route events until Phase 2c.</p> <p>Updated Linkage Keys throughout the document</p> <p>Updated Section 3 with instructions for populating ATS fields</p> <p>Updated definition of <i>session</i> in Data Dictionary</p> <p>Updated definition of <i>custDspInstrFlag</i> in Data Dictionary and events, added allowable values to Data Dictionary</p> <p>Added <i>manualOrderID</i> to MEOM event.</p> <p>Added <i>affiliateFlag</i>, <i>cancelFlag</i>, and <i>cancelTimestamp</i> to MEOT</p> <p>Added <i>cancelFlag</i> and <i>cancelTimestamp</i> to Data Dictionary</p> <p>Changed <i>displayPrice</i> on MENO and MEOA to be an ATS Field</p> <p>Removed <i>handlingInstruction</i> of CLO</p> <p>Added letter values for NBBO Source fields</p> <p>Updated instances of "Equity Quote Event" to state "Quote Event" consistent with the name of the event type</p> <p>Updated definition of <i>fulfillmentLinkType</i> YF to remove reference to options order fulfillment</p> <p>Updated all references of web portal to state "CAT Reporter Portal"</p> <p>Changed the definition of <i>electronicTimestamp</i> to "the time the event was systematized"</p> <p>Removed <i>leavesQty</i> from MOOF</p> <p>Updated the definition of <i>priorOrderDate</i> in MEIR, MECOM, MEOM, MEOJ, MOIR, MOCOM, MOOM, and MOOJ events</p> <p>Removed <i>priorOrderDate</i> from MEOR, MECO, MECOC, MEOC, MEOT, MEOF, MOOR, MOCO, MOCOC, MOOC, and MEOF events.</p> <p>Updated the definition of <i>priorOrderID</i> in MEIR, MECOM, MEOM, MEOJ, MOIR, MOCOM, MOOM, and MOOJ events</p> <p>Removed <i>parentOrderID</i> from MECOM, MECOC, MOCOM and MOCOC events</p> <p>Updated the definition of <i>parentOrderID</i> in MECO and MOCO events</p> <p>Updated the definition of <i>orderID</i> in MEIR, MECOM, MECOC, and MOIR and MOCOC events</p> <p>Added <i>parentOrderDate</i> to MECO and MOCO event</p> <p>Added <i>destination</i> and <i>routingOrigin</i> MIAX Emerald ("MIAXOE")</p> <p>Changed the <i>destination</i> and <i>routingOrigin</i> value for MIAX Pearl</p>

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			<p>to "MIAXOP"</p> <p>Updated the definition of "Destination" in the MENQ event to state that it must match the <i>receiverIMID</i></p> <p>Updated the definition of <i>initiator</i> in the Data Dictionary</p> <p>Removed <i>reason</i> and <i>cancelReason</i> fields</p> <p>Updated definition of <i>eventTimestamp</i> in MOCO, MOCOM and MOCOC events</p> <p>Added definition of <i>accountHolderType</i> "F"</p> <p>Updated definition of <i>senderIMID</i> in Data Dictionary</p> <p>Updated Section 2.5.3 for requirements when routing to a foreign broker-dealer</p> <p>Updated section 6 and 7 Submission, Feedback and Corrections</p> <p>Added and clarified date definitions in Appendix D</p> <p>Added draft of error codes in Appendix E</p> <p>Updated contact info for CAT Help Desk</p>
2.0	4/29/2019	CAT NMS, LLC	<p>Made corrections to 3/29/19 change log</p> <p>Added hyperlinks for external resources</p> <p>Streamlined wording throughout the document</p> <p>Added clarifying content to Table 1</p> <p>Added new FDID content</p> <p>Clarified that <i>quoteID</i> on Trade Events is not required until Phase 2c</p> <p>Clarified requirements for electronic and manual Option Events in Phases 2b and 2d</p> <p>Updated and clarified data types including adding examples for JSON and CSV</p> <p>Updated content in section 2.5 – Linkage Keys</p> <p>Added field order in all CAT events</p> <p>Updated definitions of CAT Events</p> <p>Greyed out events and Linkage Keys that are not applicable until Phase 2c and 2d</p> <p>Renamed "Order Internal Route" event to "Order Internal Route Accepted" event</p> <p>Reorganized, removed and added fields within the Trade, Fulfillment and Fulfillment Amendment Events</p> <p>Added Trade Supplement Event</p> <p>Defined fields in Option Order Supplement Event</p> <p>Updated fields in all events to support corrections including <i>errorROEID</i></p> <p>Added <i>originatingIMID</i>, <i>dupROIDCond</i>, and <i>atsDisplayInd</i> fields</p> <p>Changed <i>routingOrigin</i> and <i>routingOriginType</i> to <i>senderIMID</i> and <i>senderType</i></p> <p>Removed <i>session</i> from MEOA, MEOM, MOOA and MOOM events</p> <p>Updated <i>destination</i> values and descriptions for exchanges to be in sync with Plan Participants Spec</p> <p>Updated content in section 6 & 7</p> <p>Updated and clarified Appendix C and representative order fields, added value YE</p>

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			<p>Updated and Added Error Codes in Appendix E – Error Codes</p> <p>Updated and Added definitions in Appendix F – Glossary, including Primary and Secondary Events</p> <p>Added and updated definitions in Appendix G - Data Dictionary</p> <p>Updated allowable values for <i>accountHolderType</i> and <i>deptType</i> fields</p> <p>Removal of SH Codes</p>
2.1	5/10/2019	CAT NMS, LLC	<p>Made corrections to 4/29/19 change log</p> <p>Corrected JSON examples in 7.4.2 and 7.5.2</p> <p>Updated <i>timeInForce</i> definition in Data Dictionary for DAY and GTT.</p> <p>Updated <i>handlingInstructions</i> definition in Data Dictionary for values where both name and value are required.</p> <p>Corrected Data Type for <i>CATReporterIMID</i> and <i>originatingIMID</i></p> <p>Increased field length for <i>orderID</i>, <i>tradeID</i>, <i>quoteID</i>, <i>fulfillmentID</i>, <i>parentOrderID</i>, <i>priorOrderID</i>, <i>priorQuoteID</i>, <i>priorFulfillmentID</i>, <i>routedOrderID</i>, <i>routedQuoteID</i>, <i>receivedQuoteID</i>.</p> <p>Updated Data Dictionary definition for <i>canceledFlag</i></p> <p>Added missing fields to Data Dictionary including <i>CATReporterIMID</i>, <i>errorROEID</i> and <i>originatingIMID</i>.</p> <p>Added <i>receiverIMID</i> to MOOM event</p> <p>Removed <i>orderKeyDate</i> from MEFA event</p> <p>Corrected Seq# for MOOM, MENQ and MEFA events</p> <p>Eliminated error code 2069</p> <p>Added error codes 2140, 2141</p> <p>Updated error codes 2059, 2060, 2097, 2098</p> <p>Clarified requirements for provision of <i>routedOrderID</i> on MEOR, MEOA, MEOM, MOOR, MOOA, and MOCOM.</p> <p>Clarified timing for Warning and Error for data files without a metadata file.</p> <p>Updated <i>shortSaleExptInd</i> to Conditional Field</p>
2.2	6/24/2019	CAT NMS, LLC	<p>Made corrections to 5/10/19 change log</p> <p>Added and Updated Hyperlinks</p> <p>Added Section 1.2 Registration</p> <p>Updated 2.2.1 Firm Identifiers in File Submissions</p> <p>Updated 2.4 to remove unused Data Types, and clarify others</p> <p>Added Section 3.1.4 Display and Non-Display ATSS</p> <p>Added references to published JSON Schema</p> <p>Corrected errors in JSON examples</p> <p>Updated JSON Type for Name/Value Pairs to OBJECT.</p> <p>Updated JSON Schema definition and example.</p> <p>Added JSON and CSV syntax examples for <i>timeInForce</i></p> <p>Updated table headers in Table 7</p> <p>Corrected errors in Linkage Key fields</p> <p>Clarified requirements for <i>tapeTradeID</i> field, changed to conditional, clarified TRF linkage requirements</p> <p>Clarified linkage requirements when <i>originatingIMID</i> is</p>

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			<p>populated, updated definition of <i>originatingIMID</i>, added to side details and <i>aggregatedOrders</i> field</p> <p>Updated requirements for electronic duplicate scenario</p> <p>Removed <i>shortSaleExptInd</i>, <i>cmtaFirm</i> and <i>executingFirm</i> fields</p> <p>Added <i>eventTimestamp</i> to MEOTS event</p> <p>Added <i>affiliateFlag</i> to MEOR and MOOR events</p> <p>Added <i>quoteWantedInd</i> to MEQR event</p> <p>Added <i>receivingDeskType</i> value for floor brokers</p> <p>Changed <i>nboQty</i> and <i>nbbQty</i> fields from 'O' (Optional) to 'A' (Applicable to ATSS only)</p> <p>Added <i>firmDesignatedID</i> to MENOS and MONOS events, changed <i>aggregatedOrders</i> field in MENOS and MONOS to conditional, updated guidance in sections 4.2, 5.2 and Data Dictionary</p> <p>Added <i>cancelFlag</i> and <i>cancelTimestamp</i> to MOOF, clarified requirements for <i>cancelFlag</i> and <i>cancelTimestamp</i></p> <p>Updated requirements for <i>isoInd</i> and <i>routedOrderID</i> fields on MEOM event</p> <p>Updated data type for <i>firmROEID</i> and <i>firmDesignatedID</i> to Text.</p> <p>Changed <i>leavesQty</i> on MEOJ event to conditional, changed <i>leavesQty</i> on MECOC and MOCOC events to Real Quantity</p> <p>Removed <i>initiator</i> from MECOC and MOCOC events</p> <p>Clarified requirement for populating <i>price</i> and <i>orderType</i></p> <p>Changed <i>clientDetails</i> to required field for MOOF and MOFA</p> <p>Changed <i>orderKeyDate</i> and <i>quantity</i> fields to required fields on MEOTS.</p> <p>Changed <i>priorFulfillmentID</i> to conditional field on MOFA</p> <p>Added <i>timeInForce</i> and <i>tradingSession</i> fields to MEIR and MOIR events, un-greyed <i>handlingInstructions</i> field on MEIR/MOIR events</p> <p>Changed <i>negotiatedTradeSide</i> field to <i>sideDetailsInd</i>, updated allowable values</p> <p>Added <i>reportingExceptionCode</i> value of 'N'</p> <p>Removed <i>onlyOneQuoteFlag</i> from MEQC</p> <p>Changed <i>infoBarrierID</i> from Alphanumeric (12) to Text (20)</p> <p>Changed <i>firmROEID</i> from Alphanumeric (64) to Text (64)</p> <p>Clarified restatement requirements on MEOM/MOOM events</p> <p>Added <i>handlingInstructions</i> value of 'OET' (Order Effective Time), updated phase table</p> <p>Updated definition of File Generation Date in Table 47.</p> <p>Clarifications to Section 6.1</p> <p>Updated 6.1.5.2 Schema Definition and example</p> <p>Added <i>thirdParty</i> field to Metadata submission files in support of Third Party Reporting agents.</p> <p>Updated Table 56: Feedback File Name Conventions</p> <p>Updated 7.2 to clarify file name errors.</p> <p>Updated Section 7 including clarification, and updates to Feedback File Naming Conventions, Metafile Definitions and examples.</p> <p>Data Elements removed from MECOC, MEQC, MONO, MOOR,</p>

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			MOOA, MOCOC and MOOM specified as Reserved for Future Use; Data Dictionary definition added. Error codes added to File Integrity and Linkage Discovery with additional clarification. Corrected File Naming Convention for Metadata Files submitted to CAT.
2.2.1	8/31/2019	Consolidated Audit Trail, LLC	Applicable Schema Version: 2.2.1 Corrected typos in the document Corrected errors in the Data Dictionary Updated Phase 2c reporting requirements in Table 1 Added hyperlinks Added and clarified <i>handlingInstructions</i> values Added <i>reportingExceptionCode</i> value 'C' Removed <i>quoteID</i> fields from MENO and MEOM events Added Section 3.2.3 for Manual Trade events and Order Fulfillment events Added clarification to Table 6 Added clarification to Section 4.3 on <i>affiliateFlag</i> Added clarification to Section 3.1.1 on NBBO quantity fields Added clarification to Section 4.12 on Internalized Trades Corrected Production System availability to 24 hours, 6 days per week Clarified definition of <i>side</i> in side details on Trade and Order Fulfillment events Clarified definition of <i>workingPrice</i> in Data Dictionary Section 6.1.3 - Added requirement for a maximum of 100 blocks included in a single Metadata Submission File. Section 6.1.3 – updated Metadata File definition to remove <i>rawHash</i> ; <i>compressedHash</i> must be populated Section 6.1.4 – Add requirement for a maximum of 100,000 records per file for manual file uploads using the CAT Reporter Portal. Section 6.3.1 and 7.1.1 – Changed the number of days uploaded files and feedback files are available in Submitter SFTP directory to 10 calendar days Updated Sections 6.2 and 6.5 to align content with publications of the Industry Member Onboarding Guide and the FINRA CAT Connectivity Supplement for Industry Members Updated section 7.1.2 to specify rules associated with Feedback File names; Updated format of presented content and examples for clarity. Section 7.1.2 Feedback File Names - changed the file naming convention for Ingestion and Linkage Discovery Feedback Files to be consistent with approach for other stages. Section 7 updates to clarify validations for each Processing Stage; reordered 7.3. File Integrity rules for greater clarity Updated max length of filenames in feedback files Appendix D and Glossary - Added Definition of Trade Date Appendix E - Added/Removed/Updated Description and processing stages of Error Codes;

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			<p>Changed <i>thirdParty</i> field included in submissions metafile, from conditional to optional</p> <p>Added Appendix H – File Feedback Scenarios</p>
2.2.1 r1	10/28/2019	Consolidated Audit Trail, LLC	<p>Applicable Schema Version: 2.2.1</p> <p>Corrected errors within the document.</p> <p>Corrected/Updated references to other sections within the spec.</p> <p>Added <i>marketCenterID</i> as a TRF linkage key, and included validation requirements for populating this field.</p> <p>Added <i>handlingInstructions</i> value 'FS' (Suspend) requested by the industry for 2a reporting.</p> <p>Clarified other values in the Data Dictionary.</p> <p>Updated Sections 6 & 7 clarifying JSON requirements for file submission and managing schema changes;</p> <p>Updated Section 7 to clarify feedback format for JSON formatted ingestion data errors.</p> <p>Added new error codes, updated existing error codes, and removed redundant error codes in Appendix E.</p> <p>Added validation requirements to Sections 4 & 5 that are located in other areas of the document.</p> <p>Clarified requirements for MEOJ and MOOJ events to address industry questions.</p> <p>Added Section 3.1.5 clarifying that CAT Reporter IMID for ATSs must be the FINRA ATS MPID, added information about how to report NBBO Source changes (outside of spec), and clarified validations for ATS fields.</p> <p>Greyed/Ungreyed fields and values (<i>handlingInstructions</i> value ALGMod, <i>receivedQuoteID</i> on MEQR, <i>manualFlag</i> in options events) to clarify 2a/2c reporting requirements.</p>
2.2.1 r2	12/9/2019	Consolidated Audit Trail, LLC	<p>Applicable Schema Version: 2.2.1</p> <p>Added <i>destination</i> and <i>senderIMID</i> value 'LTSE'.</p> <p>Added <i>timeInForce</i> value 'IOR'.</p> <p>Added <i>handlingInstructions</i> values 'FB', 'GVWAP', 'NAV', 'UNS', and 'UNP'.</p> <p>Updated preface language.</p>
2.2.1 r3	1/31/20	Consolidated Audit Trail, LLC	<p>Applicable Schema Version: 2.2.1</p> <p>Updated and removed error codes.</p> <p>Clarified requirements for <i>eventTimestamp</i> in MEOC, MOOC, MEOM, and MOOM events.</p> <p>Clarified CAT Submitter ID requirements in Section 2.2.1 and the Glossary.</p> <p>Clarified how CAT Submitter ID should be populated in Table 50.</p> <p>Clarified requirements for population of <i>marketCenterID</i> and <i>reportingExceptionCode</i> in MEOT event.</p> <p>Clarified requirements for population of <i>parentOrderID</i> in MEIR and MOIR events.</p>

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			<p>Clarified error code 2045 and requirements for population of <i>minQty</i></p> <p>Clarified error code 2040 and requirements for population of and <i>leavesQty</i> fields.</p> <p>Clarified Quote events may populate bidQty, askQty, bidPrice and askPrice >= 0</p> <p>Clarified that File Names, Field Names and Field Values are case sensitive.</p> <p>Corrected data definition for Timestamp and Text</p> <p>File Name formats in 6.1.1 #1 and #2 corrected to include File Instruction as per Table 47.</p> <p>Corrected JSON Format Example in Section 2.5.1, 6.1.2.1 and 7.4.3</p> <p>Corrected CSV examples in 7.6.1.2 and 7.6.2.2</p> <p>Corrected File Integrity Examples in 7.3.2 and 7.3.3 to indicate 'Success' feedback for Metadata Files is not applicable.</p> <p>Clarified definition of <i>handlingInstructions</i> values 'UNS' and 'UNP'.</p> <p>Eliminated <i>handlingInstructions</i> values 'WCO' and 'PSO'.</p> <p>Corrected definition of <i>nbboSource</i> in the Data Dictionary to match content in Section 3.1.</p> <p>Clarified requirements for populating NBBO Fields.</p> <p>Clarified requirements in Appendix C for populating <i>representativeInd</i> and <i>fulfillmentLinkType</i> value "YF".</p> <p>Updated section 2.4.1 and 2.5.1 for the population of Industry Member Identifiers to align in the updated CAT Alert 2018-003.</p> <p>Updated section 7.5 to add the definitions of Unlinked Named Error Feedback as per CAT Alert 2019-004.</p> <p>Corrected section 7.5.1 for feedback of unlinked events reported by the CAT Reporter.</p> <p>Updated section 6.3.1 to eliminate the archive folder and feature of archiving FTP submissions for 10 days.</p> <p>Updated 7.1.2 and 7.5 to indicate that when no Linkage Errors are found in Linkage Discovery, an empty file will be returned with the filename ending in .success</p> <p>Updated requirements for populating the value portion of the 'AucResp' <i>handlingInstructions</i> value.</p>