
FDID Validation of CAT Transaction Data

March 19, 2024

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Summary and Background on FDID Validations

- CAT validates that the value reported in the *firmDesignatedID* and *newOrderFDID* fields on applicable order and allocation events are **present** and **valid** in Customer and Account Information System (CAIS) data.
- FDID Validations in all Transaction environments (Test, Production and Production Mirror) are based on data available in the CAIS Production Environment.
- FDID validations are currently available in all Transaction environments:
 - Test – available since May 2022.
 - Production and Production Mirror – FDID Validations deployed on February 26, 2024 and the first validations were delivered in these environments on February 27, 2024 for the prior processing date.
- CAT performs FDID validations between 8 AM and noon on T+1, similar to linkage errors.
- Feedback for FDID Validations are available by T+1 at noon in two files:
 - Included with other linkage errors in linkage feedback error files.
 - A separate errors summary feedback file with error counts grouped by FDID value and Message Type.
- FDID Validations are errors and **not** rejections. The associated records were accepted into the Transaction environment. FDID Validations need to be corrected similar to other linkage errors within T+3.
- FDID Errors have been included in the daily statistics starting February 27, 2024 for the prior processing date.
- FDID Errors will be included in the compliance rate starting June 1, 2024 and will be included in the Transaction Report Card starting with the June 2024 report card published on July 15, 2024.

Transaction Events with FDIDs

- The following order and allocation events currently contain the *firmDesignatedID* (as well as the *newOrderFDID*, as applicable) and are in-scope to receive FDID Validation Errors:

Table 1:

Order Events			
New Quote Events	Equities, Options & Multi-leg New Order Events	Equities & Options Trade Events	Equities Fulfillment Events
MENQ	MENO	MEOT	MEOF
MONQ*	MENOS	MOOT	MEFA
MLNQ*	MONO	MEOTS	
MLQS*	MONOS		
	MLNO		
	MLOS		

Table 2:

Allocation Events
Equity & Options Allocation Events
MEPA
MOPA
MEAA
MOAA

*Future Event

Transaction Data Validation Approach – Valid and Present in CAIS

- CAT validates that the value reported in the *firmDesignatedID* and *newOrderFDID* fields on applicable order and allocation events are present in Customer and Account Information System (CAIS) Production environment data and that the FDID was active and valid in CAIS on the event date, generally using the date portion of *eventTimestamp*.
- The *firmDesignatedID* and *newOrderFDID* reported on Transaction events must be:
 - Present in the Customer and Account Information System (CAIS).
 - Active in the CAIS subsystem with at least one Customer associated with the FDID.
- Events not passing the validation will be considered errors - not rejections
 - Every event having an invalid FDID will generate an error and will be included in compliance metrics on the processing date.
- Events with FDID errors will be accepted by CAT and will fully participate in the linkage process.

FDID Validation Error Codes

The following 10 error codes will be delivered in the linkage feedback error files and in the format of the original submissions:

Error Code	Error Code Description	Explanation	Warning/Error
395	Early Reported Event	<i>firmDesignatedID</i> or <i>newOrderFDID</i> is not found in CAIS because the event is reported to CAT prior to the due date. This warning is not repairable.	Warning
3701	<i>firmDesignatedID</i> not found	<i>firmDesignatedID</i> does not exist in CAIS for the CAT Reporter.	Error
3702	<i>firmDesignatedID</i> not valid on Event Date	<i>firmDesignatedID</i> is not valid in CAIS for the CAT Reporter for the event date. For all events, the Event Date is used. For allocation events, in addition to the Event Date, the <i>tradeDate</i> is used.	Error
3703	<i>firmDesignatedID</i> in <i>buyDetails</i> not found	<i>firmDesignatedID</i> does not exist in CAIS for the CAT Reporter.	Error
3704	<i>firmDesignatedID</i> in <i>buyDetails</i> not valid on Event Date	<i>firmDesignatedID</i> is not valid in CAIS for the CAT Reporter for the event date (i.e. the date portion of <i>eventTimestamp</i>).	Error
3705	<i>firmDesignatedID</i> in <i>sellDetails</i> not found	<i>firmDesignatedID</i> does not exist in CAIS for the CAT Reporter.	Error
3706	<i>firmDesignatedID</i> in <i>sellDetails</i> not valid on Event Date	<i>firmDesignatedID</i> is not valid in CAIS for the CAT Reporter on the event date (i.e. the date portion of <i>eventTimestamp</i>).	Error
3707	<i>firmDesignatedID</i> in <i>firmDetails</i> not found	<i>firmDesignatedID</i> does not exist in CAIS for the CAT Reporter.	Error
3708	<i>firmDesignatedID</i> in <i>firmDetails</i> not valid on Event Date	<i>firmDesignatedID</i> is not valid in CAIS on the event date (i.e. the date portion of <i>eventTimestamp</i>).	Error
3709	<i>newOrderFDID</i> not found	<i>correspondentCRD</i> is not populated or is equal to the CAT Reporter ID and <i>newOrderFDID</i> does not exist in CAIS for the CAT Reporter.	Error
3710	<i>newOrderFDID</i> not valid on <i>tradeDate</i>	<i>correspondentCRD</i> is not populated or is equal to the CAT Reporter ID and <i>newOrderFDID</i> is not valid in CAIS for the CAT Reporter on the <i>tradeDate</i> .	Error

FDID Error Corrections

- FDID errors where the FDID is missing in CAIS:
 - A submission accepted into CAIS will reconcile the error.
 - Corrections for CAIS data having errors are due by T+3 at 5 PM.
 - Related FDID validation errors in transaction data will be reconciled.
 - Reconciliation process runs for 90 days.

- FDID errors where the FDID has been correctly reported to CAIS, but incorrectly reported on the transaction side (e.g., transcription error, fat-finger):
 - The FDID must be corrected on the transaction event and resubmitted.
 - Corrections for CAT events having FDID errors are due by T+3 at 8 AM.

Industry FDID Validation Statistics

February 26th – March 13th, 2024

Production Environment			
Processing Date	FDID Error Record Count	FDID Errors Outstanding	Distinct FDIDs Outstanding
Monday, 2/26	33,143,206	16,368,550	1,347,400
Tuesday, 2/27	28,308,649	12,057,971	892,151
Wednesday, 2/28	25,093,343	20,413,912	784,739
Thursday, 2/29	15,032,051	11,567,360	735,637
Friday, 3/1	15,085,484	13,183,897	892,808
Monday, 3/4	22,150,957	19,417,924	1,611,069
Tuesday, 3/5	13,495,632	12,569,574	944,962
Wednesday, 3/6	13,532,456	12,647,495	853,289
Thursday, 3/7	13,712,981	13,198,540	1,068,694
Friday, 3/8	9,918,675	9,507,529	189,980
Monday, 3/11	19,983,176	19,159,600	3,379,931
Tuesday, 3/12	21,775,901	20,953,365	2,057,219
Wednesday, 3/13	12,538,682	12,143,978	828,296

FDID Validation Observations

- ▶ Discrepancies in FDID value used in CAT and CAIS reporting (e.g., character capitalization, extraneous characters, etc.). FDIDs are text fields which are case-sensitive.

FDID Reported on Transaction Events	FDID Reported to CAIS
fdidabc123	FDIDABC123
fdid_efg	fdidefg

- ▶ Validations require that CAIS FDIDs have at least one associated Customer. FINRA CAT has observed Transaction events are occurring on dates when no Customer is associated with an FDID.

Warning Code 395

- ▶ Early reported event - *firmDesignatedID* or *newOrderFDID* is not found in CAIS because the event is reported to CAT prior to the due date. This warning is not repairable.
- ▶ An example of reporting resulting in a 395 warning is an allocation to a new subaccount, booked and reported as part of a batch process at Wednesday at 10 PM and included with the Transaction reports for the earlier Trading Day prior to 8 AM on Thursday.
 - Since the CAT Trading Day ends at 4:15 PM, this allocation event is early reported to CAT as it is not due until Friday at 8 AM.
 - The Industry Member does not report the newly-opened subaccount to CAIS until Thursday during business hours.
 - This allocation report will trigger Warning Code 395 in transaction linkage feedback delivered by noon on Thursday.
 - This warning is not repairable. However, as the Industry Member submitted the FDID information for the newly-opened subaccount to CAIS on Thursday, the warning will be reconciled on Friday and will not result in FDID Validation errors. Failure to report the FDID to CAIS on Thursday would result in an FDID Validation error (i.e., 3701) on Friday.

FDID Validations Reference Data from CAIS

- The CAIS system will provide all available FDIDs accepted into the CAIS Production environment as of T+1 at 8 AM in a file that is used as a reference for FDID Validations.
 - As a redundancy, there are multiple files captured at different time interval increments that can be relied upon if there are issues in generating the 8 AM file. To date, there have been no issues generating the 8 AM file since the FDID validations were deployed to the Production environment.
- There is a potential that submissions to CAIS immediately preceding the 8 AM deadline will still be in-flight with processing and not accepted into CAIS by the 8 AM cut-off, and thus NOT included in the reference list used for FDID Validations. This will result in erroneous FDID Validation errors for a **narrow set** of FDIDs, outlined below. These errors will **automatically reconcile** the next day (T+2) with no action taken by the Industry Member (Assuming the Industry Member properly submitted the FDIDs to CAIS within T+1 at 8 AM). This issue **only** impacts:
 - FDIDs accepted to CAIS for the first time (e.g., newly-opened account); and
 - FDIDs previously ended in CAIS that are being reopened (e.g., previously reported with *fdidEndReason* of 'INACTIVE' in CAIS, and the FDID is later resubmitted with *null fdidEndReason* and accepted into CAIS coinciding with the resumption of trading activity).
- Since the deployment of FDID Validations to the Production environment last month, FINRA CAT has observed minimal newly-reported FDIDs impacted by this issue. Further, historical submission patterns and CAIS processing indicates that the vast majority of Industry Member submissions to the CAIS Production environment are fully processed and accepted into CAIS ahead of the 8 AM cut-off, and included in the reference data used for FDID Validations.

Reviewing FDID Validations Errors in Feedback

- ▶ CAT Reporter Portal
- ▶ Feedback Files

FDID Validation Errors

- ▶ Industry Members can review the “Reporting Summary” tab of the Reporting Feedback section of Portal to determine linkage statistics and the “Error Code Counts” tab for specific counts by Error Code.
- ▶ *Reminder:* No error details will be displayed on the Error Summary tab if the Industry Member has more than 10,000 total errors per IMID per processing date across all linkage types.
 - Industry Members with a large volume of FDID Validation errors resulting in over 10,000 errors can download and review the feedback files for further review.
- ▶ FDID Validation errors are included with other linkage errors in the linkage error feedback files AND summary information is included in a separate errors summary feedback file (error counts grouped by FDID value and Message Type). Provided in same format as submitted (CSV or JSON).
- ▶ FINRA CAT is evaluating current Portal Display limitations and if such limits can be increased.

Viewing FDID Validation Errors on the Reporter Portal

- ▶ The “Accepted Events” section of the Reporting Summary Tab includes statistics on FDID Validation Errors.

CAT Reporter Portal | 10:03 AM ET 02/15/2024 | THIS IS A TEST ENVIRONMENT (Contains schema for future release. not intended for production use) | Perspective Reporter

Reporting Feedback

Reporting Summary | Event Type Counts | Error Code Counts | File Status | Counterparty Statistics | Late Statistics

Processing Date: 2/7/2024 | Trade Date: | Product Type: ALL | IMID: ZZZZ | APPLY | RESET

FDID Validation Errors will be factored into the Compliance Rate starting on June 1, 2024.

Compliance Error Rate: **25.2948%** | The CAT NMS Plan has set the initial Maximum Compliance Error Rate at 5%. Please refer to [Compliance Glossary](#) for rate calculation details.

Export

File Statistics

Files Received	Files Accepted	Files Rejected	Invalid Files
6	6	0	0

Submitted Events

Total Processed Events	Total Accepted	Accepted Late	Late Rate
126,686	126,686	0	0.0000%

Accepted Events

Accepted OOS Errors	Repaired OOS Errors	Initial OOS Rate	Adjusted OOS Rate	Accepted FDID Errors	Repaired FDID Errors	Initial FDID Error Rate	Adjusted FDID Error Rate
0	0	0.0000%	0.0000%	48,471	0	38.2607%	38.2607%

Reporter Portal – Error Code Counts

▶ The FDID validation errors are broken down by error code on the Error Code Counts tab.

Reporting Feedback

Reporting Summary | Event Type Counts | **Error Code Counts** | File Status | Counterparty Statistics | Late Statistics

Processing Date Trade Date Product Type IMID

2/7/2024 ALL ZZZZ **APPLY** **RESET**

Error Code Counts (8) [Export](#)

Date	CAT Reporter IMID	Submitter ID	Error Code	Error Type	Error Reason	Error Count*
02/07/2024	ZZZZ	9999999	395	LINKAGE	Early reported event	513
02/07/2024	ZZZZ	9999999	396	LINKAGE	Incorrect timeInForce for related Primary Event	1
02/07/2024	ZZZZ	9999999	3501	LINKAGE	Secondary Event – Order Key, Trade Key, Quote Key, Fulfillme...	31
02/07/2024	ZZZZ	9999999	3701	LINKAGE	firmDesignatedID not found	48043
02/07/2024	ZZZZ	9999999	3702	LINKAGE	firmDesignatedID not valid on Event Date	34
02/07/2024	ZZZZ	9999999	3703	LINKAGE	firmDesignatedID in buyDetails not found	206
02/07/2024	ZZZZ	9999999	3705	LINKAGE	firmDesignatedID in sellDetails not found	188
02/07/2024	ZZZZ	9999999	8003	LINKAGE	Matching routedOrderID/routedQuoteID cannot be found	32055

Reporter Portal – Error Summary

- ▶ FDID validation error details are posted to the Error Summary tab.

CAT Reporter Portal | 3:15 PM ET 02/15/2024 | THIS IS A TEST ENVIRONMENT (Contains schema for future release. not intended for production use) | Perspective Reporter

Reporting Feedback | Error Corrections | Report to CAT | Reporting Relationships | ATS Order Types | Contact Management | Invoices

Error Corrections

Error Summary | Error Search

Processing Date Trade Date | Product Type | IMID

12/20/2023 | ALL | YYYY | **APPLY** | **RESET**

Error Summary (7)

[Export](#)

Date	CAT Reporter IMID	Submitter ID	Error Type	Repair Status	Repair Type	Error Code	Error Reason	Group Repair Eligible	Error Count*
12/20/2023	YYYY	88888888	LINKAGE	U		3501	Secondary Event – Order Key, Trade Ke...		180
12/20/2023	YYYY	88888888	LINKAGE	U		3502	Trade Event – Order not found		7
12/20/2023	YYYY	88888888	LINKAGE	U		3503	Fulfillment Event – Order not found		917
12/20/2023	YYYY	88888888	LINKAGE	U		3504	Aggregated Order – Customer/Client o...		76
12/20/2023	YYYY	88888888	LINKAGE	U		3701	firmDesignatedID not found		33
12/20/2023	YYYY	88888888	LINKAGE	U		8003	Matching routedOrderID/routedQuotel...		831
12/20/2023	YYYY	88888888	NAMED	U		5004	Named - Matching tapeTradeID cannot...		163

Feedback Files

- Feedback for FDID Validations are available by T+1 at noon in two files:
 - With other linkage errors in the linkage error feedback files.
 - A separate errors summary feedback file with error counts grouped by FDID value and Message Type.

CAT Reporter Portal | 8:52 AM ET 02/15/2024 | THIS IS A TEST ENVIRONMENT (Contains schema for future release. not intended for production use) | Perspective Reporter

Report to CAT

Download Feedback | Create CAT Events | Pending Submissions

Linkage feedback files are for both Portal and SFTP submissions. File Ingestion and Data Integrity feedback files are for Portal submissions via direct entry/repair and "File Upload" functionality only.

Feedback Time	File Name	Download
Feb 07, 2024 15:46:09	99999999_ZZZZ_20240206_linkage.error.summary_000001.json.bz2	
Feb 07, 2024 15:38:45	99999999_ZZZZ_20240206_OrderEvents.linkage.error_000001.json.bz2	

FDID Validation Feedback

Errors Summary Feedback File

CSV Example

```
FDID3,MONO,2,3701,firmDesignatedID not found
FDID3,MOOT,1,3703,firmDesignatedID in buyDetails not found
FDID3,MOOT,1,3705,firmDesignatedID in sellDetails not found
FDID3,MOPA,2,3701,firmDesignatedID not found
FDID4,MENO,2,3701,firmDesignatedID not found
FDID4,MEOT,2,3705,firmDesignatedID in sellDetails not found
FDID4,MEPA,2,3701,firmDesignatedID not found
```

JSON Example

```
{"value":"FDID1","type":"MENO","errorCount":2,"code":"3702","desc":"firmDesignatedID not valid on Event Date"}
{"value":"FDID1","type":"MEOT","errorCount":2,"code":"3706","desc":"firmDesignatedID in sellDetails not valid on Event Date"}
{"value":"FDID1","type":"MEPA","errorCount":2,"code":"3702","desc":"firmDesignatedID not valid on Event Date"}
{"value":"FDID2","type":"MOPA","errorCount":1,"code":"3709","desc":"newOrderFDID not found"}
```

Linkage Error Feedback Files – Record Examples

CSV Example

```
3702|3710,RPR,12345678910111,...
3701,RPR,56789101111234,...
395,RPR,56789123410111,...
```

JSON Example

```
{"errorCode":[3701],"actionType":"RPR","errorROEID":98765678910111,"...."}
{"errorCode":[3701,3709],"actionType":"RPR","errorROEID": 89101119876567,...}
```

Reporter Portal – Transaction Report Card Screen Example

- FDID Errors will be included in the Transaction Report Card starting with the June 2024 report card published on July 15, 2024.

Monthly Report Cards

Transaction Report Card CAIS Report Card

Industry Member Firm Name (CRD) **CAT TEST FIRM (99999999)** EXPORT

Period **June 2024** Version **1**

Transaction Monthly Report Card

The Transaction Report Card is a monthly compliance summary and status report. The Report Card provides industry Member CAT reporting statistics and peer group comparisons for the month. The [Transaction Report Card Glossary](#) published on the CAT NMS plan website, provides a reference description for all of the elements found on the CAT Industry Member Compliance Report Card. For questions regarding the specific report, please call the FINRA CAT Helpdesk by phone at 888-696-3348 or email at help@finracat.com

Compliance Summary

CATEGORY	EQUITIES	OPTIONS	N/A*	OVERALL
Firm Compliance Error Rate	0.0025%	0.0025%		0.0025%
Firm Compliance Error Count	347,399	1,313	0	348,712
Days Exceeding 5% Compliance Error Rate	0	0		0
Tier	1	2		1
Peer Group Compliance Error Rate	0.7887%	1.1737%		0.8139%
Industry Compliance Error Rate	0.7819%	0.8853%		0.7968%

Event Details

STATUS	EQUITIES		OPTIONS		N/A*	OVERALL	
	Count	Rate	Count	Rate		Count	Rate
Processed	13,611,495,590		45,034,163		89,142	13,656,618,895	
Accepted	13,611,366,662		44,976,198		89,142	13,656,432,002	
Late	320,310	0.0023%	578	0.0012%		320,888	0.0023%
Late Reported	317,379		399			317,778	
Late Corrections	2,931		179			3,110	
Rejections	128,928	0.0009%	57,865	0.1287%	0	186,893	0.0013%
Repairable Rejections	12,360	9.5867%	57,628	99.4186%	0	69,988	37.4491%
Repaired Rejections	11,434	92.5889%	57,337	99.4950%	0	68,771	98.2611%
Outstanding Repairable	926	7.4919%	291	0.5049%	0	1,217	1.7388%
Out of Sequence	2,154	0.0000%	23	0.0000%		2,177	0.0000%
Repaired	21	0.9749%	0	0.0000%		21	0.9646%
Firm Designated ID Errors	2,154	0.0000%	23	0.0000%		2,177	0.0000%
Repaired	21	0.9749%	0	0.0000%		21	0.9646%
Intrafirm Linkage Eligible	7,941,722,309		35,787,725			7,977,510,034	
Unlinked	16,284	0.0002%	1,060	0.0029%		17,344	0.0002%
Repaired	15,250	93.6502%	624	58.8679%		15,874	91.5244%
Interfirm Routes Linkage Eligible	455,860,853		361,831			456,222,684	
Route Linkage Key Duplicates	180	0.0000%	4	0.0011%		184	0.0000%
Repaired	60	33.3333%	4	100.0000%		64	34.7826%

FINRA CAT Helpdesk

Questions may be directed to the FINRA CAT Helpdesk at 888-696-3348 or help@finracat.com

How to Ask a Question during Today's Call

- **For participants using computer audio:**
 - Click the “Raise Hand” button at the bottom of the participants window.
 - A visual prompt will indicate that your line has been unmuted.
- **For participants using phone audio:**
 - Enter *9 on your phone keypad.
 - An audio prompt will indicate that your line has been unmuted.