CDM & DRR Reconciliations Powered by En:ACT

Prepared for: CDM Showcase

February 2025

novatus
global

Executive Summary

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Use Case, Key Objectives, and Approach

Using CDM & DRR to Enhance Full Reconciliations

- Comprehensive field-by-field Reconciliation from source data to Trade Repository data using the En:ACT platform allows users to have their reporting workflows independently reviewed by the Novatus team and results can easily be reviewed by users to understand reporting gaps.

- The combination of the CDM and DRR models enables data to be processed according to community-agreed best practices and can be regularly updated to keep up with new requirements to each jurisdiction.

- Integrating the CDM and DRR models into the En:ACT platform gives potential adopters of the technologies an opportunity to understand the benefits. Further it can provide these same users with detailed mapping breakdowns via the Data Lineage tab, to ensure a smooth implementation of mapping updates.

Key Objectives

- Provide a technology solution highlighting discrepancies in a user's reporting against the DRR industry-agreed interpretations.

- Demonstrate that CDM can be effectively implemented using a Data Lake as the input.

- Providing transparency in mappings and breaks, making it easier to understand the value of the CDM & DRR initiatives.

Our Approach

Novatus Global's Approach to creating this POC:

1. **Identify a shortlist of products and jurisdictions, including EU-EMIR reportable FX Fwds and FX NDOs.**

2. **Recreate the typical use case of a source system Data Lake and map those values to the CDM.**

3. **Process these samples using the Rosetta.io platform to create Trade State Report outputs to be reconciled against En:ACT modelled outputs.**

4. **Prepare Data Lineage reports allowing for detailed review of a client's mapping from source to outbound compared to the CDM & DRR derived values.**

En:ACT Platform

Summary View Highlights
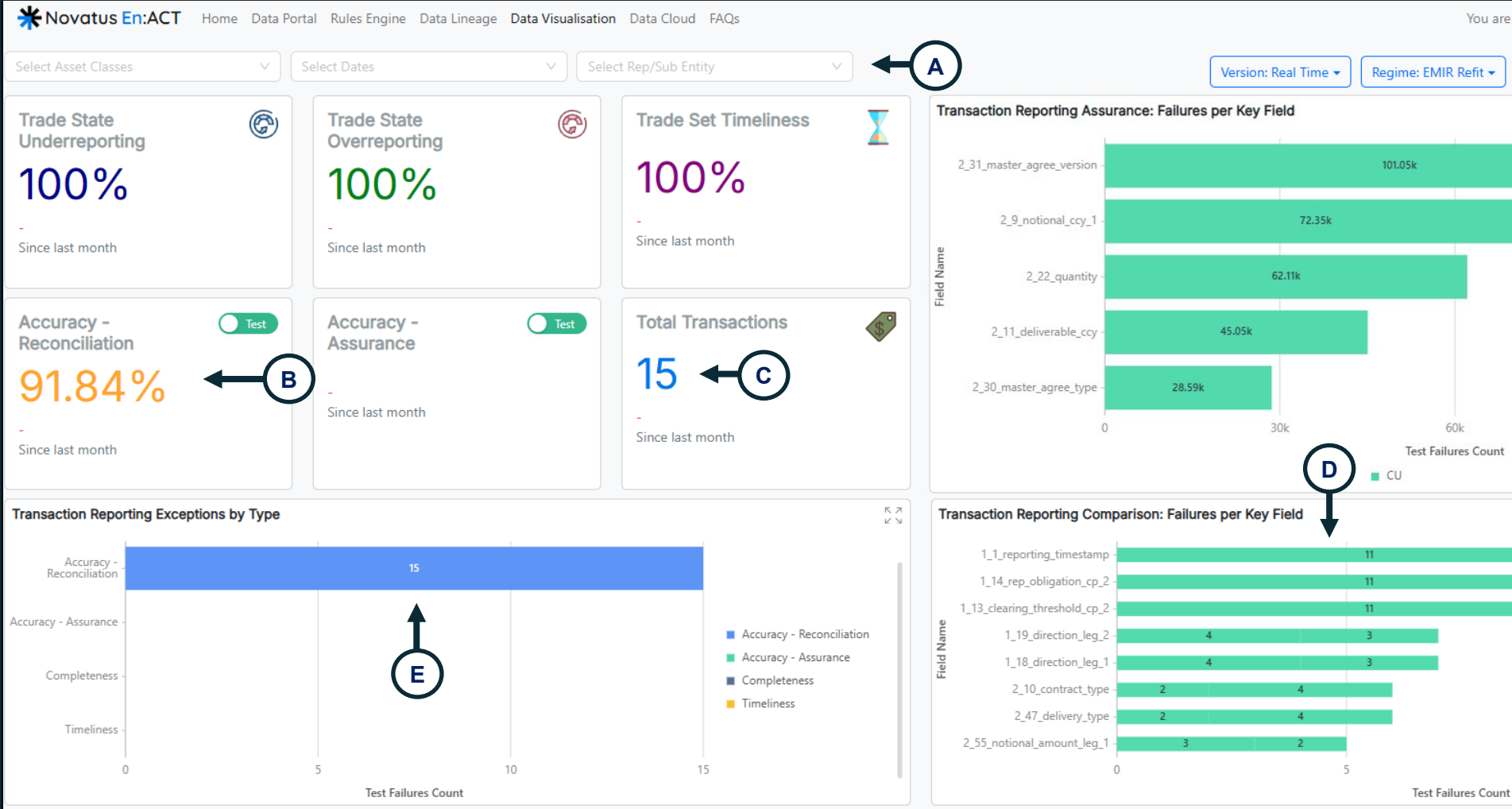
**A:** *These boxes allow the user to specify the month(s) and asset class(es) to view in the platform.*

B: *When the toggle is green, the percentage of Novatus tests passed. When the toggle is blue, the number of trades that show zero exceptions.*

C: *The number of TSR/TAR records tested.*

C: *A count of exceptions between TSR data and the values derived by Novatus using the CDM and DRR transformations.*

E: *Total exceptions by type being Accuracy, Completeness, and Timeliness*

Field-Level Reconciliation View Highlights
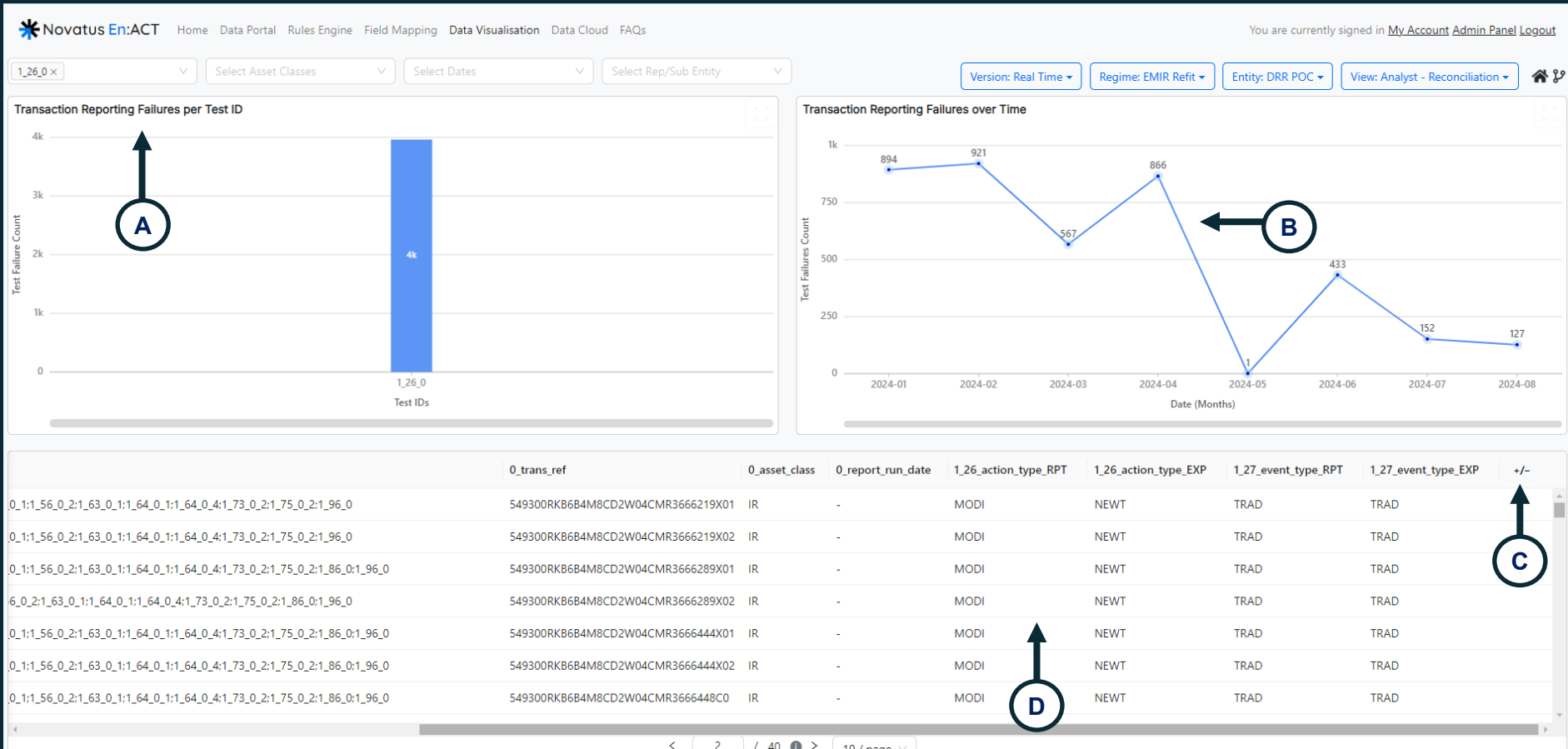
**A:** A count by field name of the discrepancies between TR value and Novatus outputs.

B: This trend line shows the number of reconciliation exceptions for a given field over time.

C: Custom field selection allows users to pull up additional reconciliation fields for comparison.

D: The detailed breakdown shows the TR reported value (RPT) against the Novatus derived value (EXP).

CDM Technical Implementation
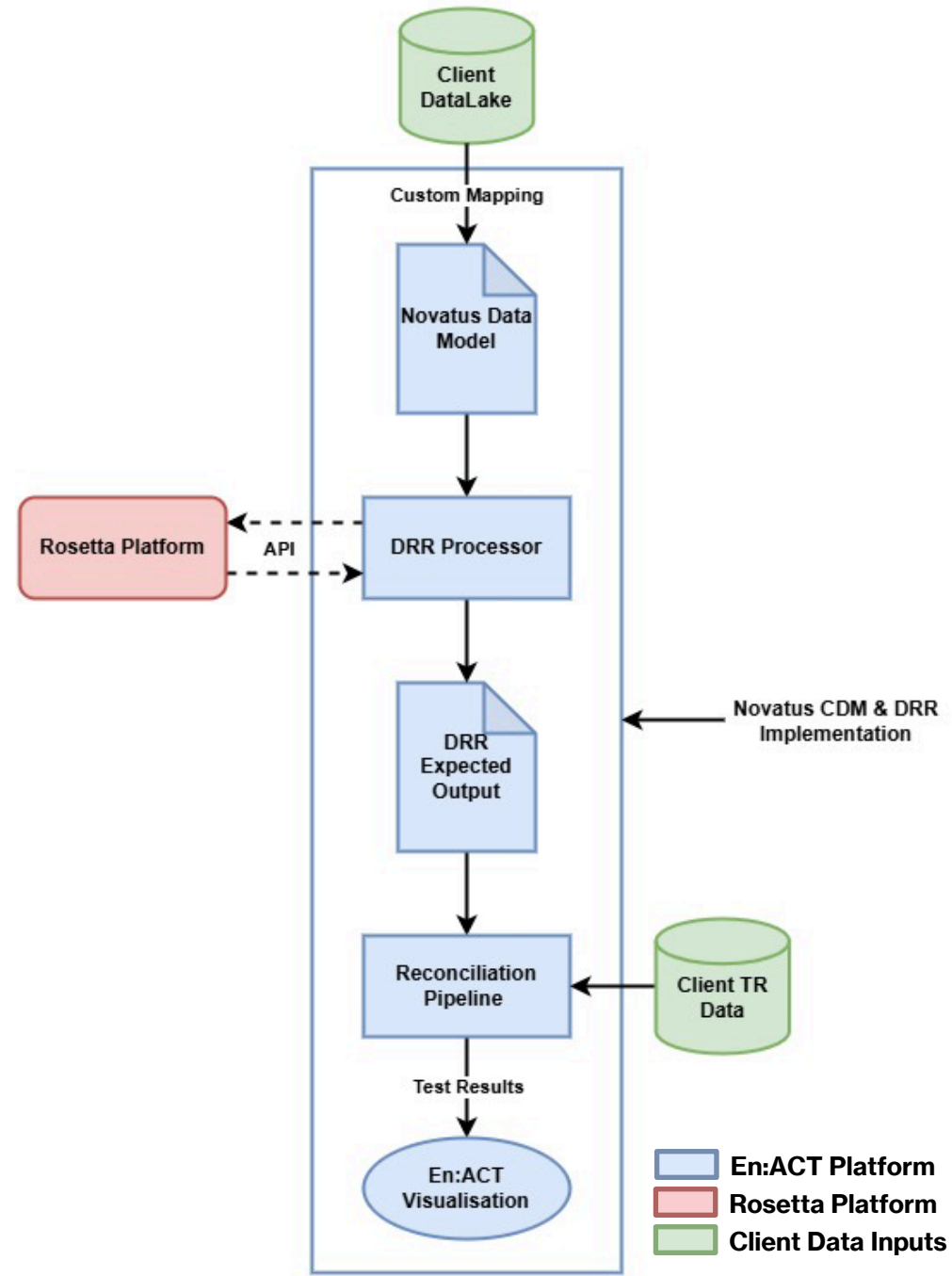
Key features of En:ACT CDM Implementation:

- **Client Data Lake**: Represents the common format for firms that aggregate several OMS platforms into a harmonized file.

- **Novatus Data Model**: The client Data Lake is mapped to the Novatus data model through a series of custom transformations.

- **DRR Processor**: The DRR processor maps the Novatus data model to a CDM/DRR JSON representation to allow it to be ingested into the Rosetta platform through API call.

- **Rosetta Platform**: Runs transaction ingestion and regime reporting functionality through API post requests to the Rosetta platform.

- **Expected Output**: Output from the DRR processor are concatenated and aligned with the initial mappings to the Novatus data model.

- **Reconciliation Pipeline**: The reconciliation process compares the expected output with reported data to analyze discrepancies between what DRR expects to be reported to the regulator and what has actually been reported.

- **En:ACT Visualisation**: Results from the reconciliation process are published on the En:ACT platform where they are visualised for client analysis.

Field-Level Reconciliations Using DRR

Visualizing DRR on En:ACT
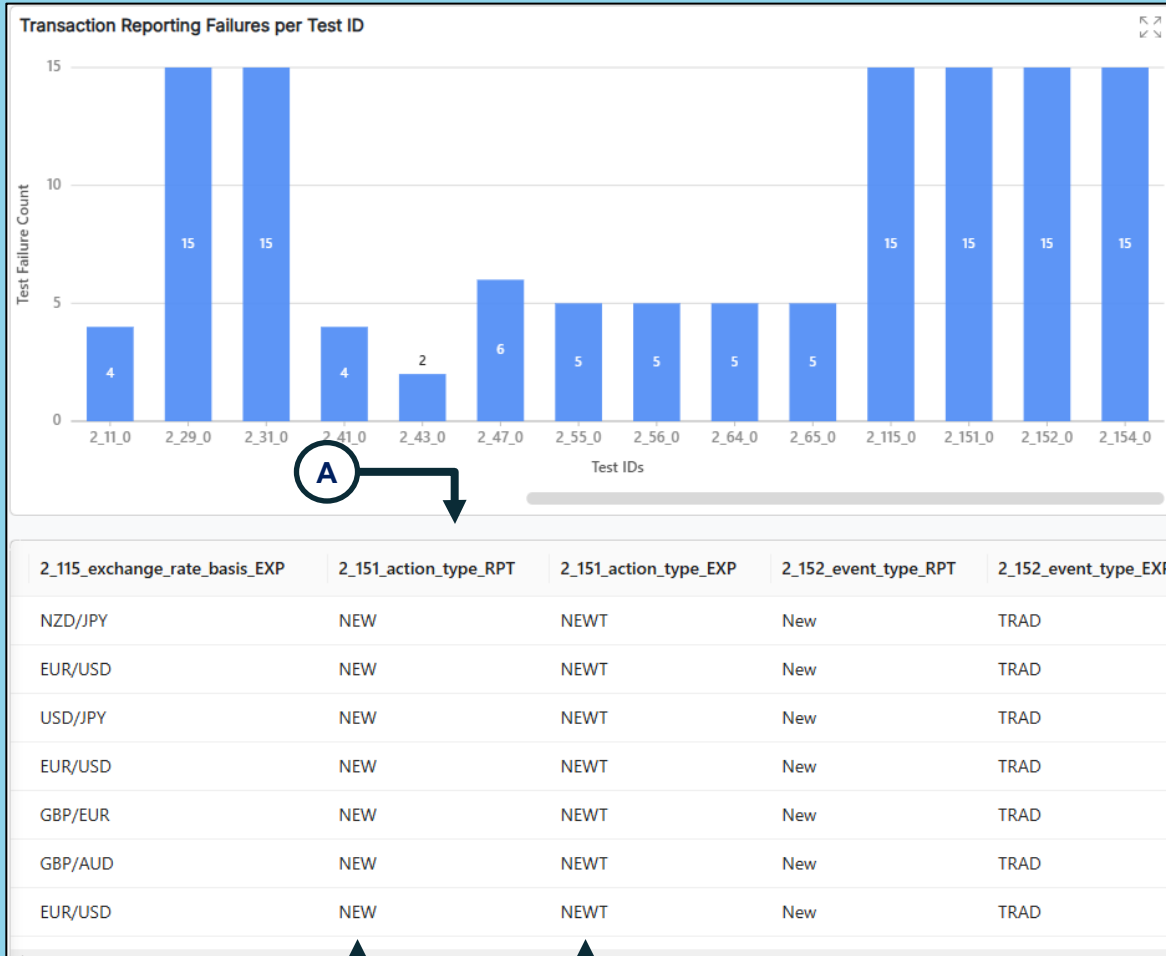
A The Reconciliation View displays all the breaks in data organized by the Regime Field Name.

B The values under the Field Name column with the suffix **'RPT'** represent those submitted to the relevant TR

C The values under the Field Name column with the Suffix EXP represent the values that were derived using the CDM and DRR.

Demo Video

Conclusions

1. En:ACT is a viable technology solution to highlight discrepancies in a user's reporting against the DRR industry-agreed interpretations.

2. CDM can be effectively implemented using a Data Lake as the input and Python as the programming language.

3. En:ACT's Data Lineage for mappings and breaks makes it easy to understand the value of the CDM & DRR initiatives.

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