The Derivatives Service Bureau (DSB)

Reconciling ISIN records

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Contents

Preface

Change History

Date	Change	Version	Author	Revision Details
14 January 2020	Creation	1.00	Yuval Cohen	Initial Version
24 February	Clarifications	1.01	Yuval Cohen	Clarifications after TAC members review

Document Purpose

This document contains the DSB's recommended practices for a customer to reconcile their own repository against the DSB by using the ISIN records published in the file download area. The document also references and complements the following documents:

- [DSB End of Day File Download](https://www.anna-dsb.com/download/dsb-end-day-file-download/)[1]
- [DSB ISIN Status](https://www.anna-dsb.com/download/dsb-isin-status_final/)[2]

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[1] https://www.anna-dsb.com/download/dsb-end-day-file-download/
[2] https://www.anna-dsb.com/download/dsb-isin-status_final/

1 File Download content

- The daily file download folder contains files of ISIN records that have been created or modified during each day
- ISIN Records are separated (from each other) by a new line ('\n' character)
- Each ISIN record is written in JSON Format. For further detail about the ISIN JSON record please refer to: JSON Product Definitions Representation as JSON Schema in either:
  - DSB FIX API[3]
  - DSB REST API[4]
- For further details about the file names, the availability of the files, the structure of the files and the procedure to download the files, please refer to: DSB End of Day File Download[5]
- Each file contains records where their status has changed (and/or were Updated). See DSB ISIN Status[6] for further detail
  - Specifically, the files contain all the events that have happened to all ISINs on a specific day. These events are:
    - Status = New: When an ISIN has been created
      Note an ISIN may exist with Status = Expired but with no Status = New (this is the case for ISINs that are created with expiry date prior to their creation date)
    - Status = Updated: When an ISIN has been updated
    - Status = Expired: When an ISIN has been expired
    - Status = Deleted: When an ISIN has been deleted

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[3] https://www.anna-dsb.com/download/dsb-fix-api/

[4] https://www.anna-dsb.com/download/dsb-rest-api/

[5] https://www.anna-dsb.com/download/dsb-end-day-file-download/

[6] https://www.anna-dsb.com/download/dsb-isin-status_final/

2   Reconciling ISIN records procedure

This section describes the most common scenarios for reconciling a user's own repository against the DSB.

Section 2.1 describes how to process the last ISIN record for each unique ISIN code.

Section 2.2 describes a scenario where users need to maintain all the historical versions of ISINs. It may be used to capture historical state of an ISIN

Section 2.3 how FIX users may subscribe to retrieve further information after they have reconcile their ISINs records according to one of the above sub-sections

2.1   Maintaining the last ISIN record for each ISIN code

To identify the last record for each unique ISIN, users need to iterate over all records in all the files in the file download section. It is important to iterate the files in an orderly manner, sorted by days and parse the files line by line from the first line to the last.

For each record, the user should extract the ISIN code which is always in the record/ISIN/ISIN attribute. The ISIN code should be used as a unique key to make the following decision:

- If this code does not exist, add an ISIN record to the database with the ISIN code as a key reference
- If this code does exist, override the record having the same ISIN code key reference

2.2   Maintaining all ISIN record events

To maintain all events of each ISIN record, users need to iterate over all records in all of the files in the file download section. It is important to iterate through the files in an orderly manner, sorted by days and parse the files line by line from the first line to the last one.

Each record is unique by the content of two attributes: <ISIN, LastUpdateDateTime>

All events of ISIN records up to the end of the previous day are available in the file download.

2.3   Intra-day ISIN updates

DSB FIX users can subscribe to retrieve intra-day ISIN updates by subscribing to ISIN records. For further detail, see DSB FIX API[7] .

For each ISIN record that is received over FIX SecurityList message [35=y] users should use the ISIN code as a key and:

- If this code does not exist, add an ISIN record to the database with the ISIN code as a key reference
- If this code does exist, override the record having the same ISIN code key reference

It is recommended that FIX Users should:

- Maintain the last ISIN record for each ISIN code
- Periodically reconcile (either daily or weekly) any local repository maintained with the FIX subscription against the ISIN records held in the File-download.

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[7] https://www.anna-dsb.com/download/dsb-fix-api/

About Derivatives Service Bureau (DSB)

The Derivatives Service Bureau (DSB) is a fully automated generator of International Securities Identification Numbers (ISINs) for OTC derivatives. The DSB is the first numbering agency designed to operate on a global basis and to meet the particular requirements of the derivatives markets.