ISIN Status

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Date: 6 March 2020
Version: **1.3**

Contents

Preface
Change History

Date	Change	Version	Author	Revision Details
15 August 2017	Creation	Draft	DSB	
22 September 2017	Update	1.0	DSB	Added section 7 - ISIN update in FIX subscription and File Download
12 January 2018	Update	1.1	DSB	Added section 8 – Updating expired ISINs and updated section 5 to include duplicate ISINs resolution
9 February 2018	Update	1.2	DSB	Updated section 5 ISIN Deactivation
6 March 2020	Update	1.3	DSB	Added a use case for publishing missing ISINs in the ISIN File Download

1   ISIN Status definition

The DSB ISIN Status can have the following values:

ISIN Status	Definition	ISIN Status Reason[1]	Actioned by
New	New ISIN added to the DSB database. The ISIN remains "New" if no updates have been made to the record.	NULL	Users
Updated	One/several of the fields in the ISIN record is/are updated.	• New level is added to the ISIN record & parent is added • [X] field added • Enumeration value changed • Reason for updates will be prepended using ";" in the following format: • LastUpdateDateTime:[Attribute] changed from [old value] to [new value]. GitHub#; E.g.: 2017-12-16T13:40:20: ISOReferenceRate changed from [LIBO] to [Federal Funds-H.15]. ISOOther LegReferenceRate changed from [Federal Funds-H.15] to [LIBO]. GitHub #134;	DSB tech support manually

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[1] Status Reason is a human-readable text. The DSB does not recommend automatic parsing of the Status Reason as the format of the text string is not guaranteed.

		• ISIN not previously published in the End of Day (EOD) File Download due to a technical issue and is updated in order to be published in File Download. ISIN Status Reason will be prepended using ";" in the following format: "<LastUpdateDateTime>: ISIN updated to force publication in ISIN File Download. GitHub #;"	
Expired[2]	Expiry date < Today AND ISIN Status <> Expired, Deleted		Daily Expiry Process
Deleted[3]	The instrument associated with the ISIN is created in error	Free entry field to specify why ISIN invalid, e.g. LastUpdateDateTime:Duplicate – Use EZ1234567890	DSB tech support

[2] Clarification of the 'Expired' Status:
1. ISINs can be created with Expiry Date in the past;
2. ISINs created with Expiry Date in the past will have ISIN Status=Expired at creation;
3. ISINs created with Expiry Date in the future or "today" will have ISIN Status=Expired once the overnight daily expiry process has run;
4. Update the 'Last Update datetime' field on the ISIN record. This will allow users to understand when the instrument was last updated and therefore will know that they need to process the EXPIRED instrument;
5. The DSB will not treat ISINs with expired status any differently from another status and it will remain in the ISIN database;
6. Any expired ISINs will be reported in the daily end of day snapshot files so that users are able to consume the data and update their systems accordingly.

[3] Clarification of the 'Deleted' Status:
1. ISINs may need to be de-activated in exceptional circumstances – see section 5 for more details
2. ISINs that have been de-activated will have ISIN Status=Deleted with a status reason setting out why the ISIN has been deleted, e.g. "user error", etc.
3. In the event duplicate ISINs have been created:

a. ISINs with an earliest "Last Update datetime" will be deemed to be the correct ISIN and the one that will remain in the system untouched.

b. ISINs with "Last Update datetime" indicating a later timestamp, will be marked with ISIN Status= Deleted. Status Reason will indicate "Duplicate – Use EZ1234567890" where EZ1234567890 is an example of the primary, active ISIN.

4. The 'Last Update datetime' field on the ISIN record will be updated to reflect the date and time at which the ISIN status changed. This will allow users to understand when the instrument was last updated and therefore will know that they need to process the DELETED instrument.

5. Once the ISIN Status is moved to Deleted, such ISINs will be excluded from any future updates.

6. Any deleted ISINs will be reported in the daily end of day snapshot files so that users are able to consume the data and update their systems accordingly.

2   ISIN Status flow
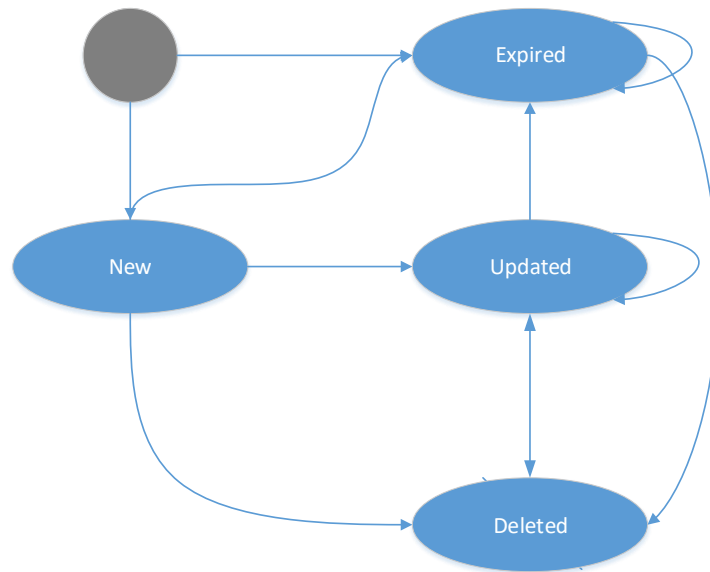
An ISIN can move through the following states:

Figure 1 ISIN Status state diagram

From	To
New	Updated
New	Expired
New	Deleted
Updated	Updated
Updated	Expired
Updated	Deleted
Deleted	Updated
Expired	Expired
Expired	Deleted

3   ISIN Creation

ISINs with Expiry Date >= Today are created with Status "New". Any ISINs with Expiry Date < Today are created with Status "Expired".
If an ISIN is requested and it exists as either New/Updated/Expired or Deleted, it will be retrieved and no new ISIN will be created.

4   ISIN Status changes

Any update scenarios will be in line with the principles for an ISIN to remain persistent and not reused.

4.1   From New to Updated

ISINs can change from "New" to "Updated" if one or several of the fields in the ISIN record is/are updated.

Examples of an update would be:

1. If a new level is added to the ISIN record. In other words, if ISIN gets a new parent, then a reference to the parent ISIN will be added and the ISIN status will change.
    E.g. an ISIN with no Parent is updated to have Parent level = "CPMI-IOSCO".

2. If another derived attribute is added to the ISIN record.
    E.g. If there is regulatory requirement to report an attribute using ISO 20022 code set rather than the FpML code set input by the user, then a mapping functionality will be provided and the ISO attribute derived.

3. If an enumeration name is amended.
    E.g. If an underlying Index name is amended due to industry recommendation, the new name will be verified via consultation and all ISIN records amended and the status changed to 'Updated'.

4. ISIN is updated if it is missing from the ISIN File Download due to a technical issue. Example of the issue can be seen in GitHub 22.

There are likely to be other scenarios when an ISIN is updated. They will be discussed with the Product Committee as they arise.

4.2   From New to Expired

ISIN can change from "New" to "Expired" as a consequence of a daily process that will run overnight and amend status from "New" to "Expired" if the Expiry date is <Today and the current ISIN status is not "Expired" or Deleted".

The daily Expiry Process needs to run prior the daily snapshot creation of the download files, so that a folder for 20170718 could have all ISINs that expire on that day as Expired.

4.3   From New to Deleted

ISIN can change from "New" to "Deleted" if the DSB is notified or determines that an ISIN was created in error.

4.4   From Updated to Updated

An ISIN can be updated consecutively and the status will remain as 'Updated'. The Last Update DateTime attribute will indicate via a Date and timestamp when the last update occurred.

4.5   From Updated to Expired

ISIN can change from "Updated" to "Expired" as a consequence of a daily process that will run overnight and amend status from "New" to "Expired" if the Expiry date is <Today and the current ISIN status is not "Expired" or Deleted".

The daily Expiry Process needs to run prior the daily snapshot creation of the download files, so that a folder for 20170718 could have all ISINs that expire on that day as Expired.

4.6   From Updated to Deleted

ISIN status can change from "New" to "Deleted" if the DSB is notified or determines that an ISIN was created in error.

4.7   From Deleted to Updated

ISIN status can change from "Deleted" to "Updated" by the DSB Technical Support if the DSB is notified or determines that an ISIN was deactivated in error.

4.8   From Expired to Expired

In rare circumstances, an expired ISIN can be updated, e.g. for a data correction or if it is missing from the ISIN File Download due to a technical issue. In this case its status will remain 'Expired'. The Last Update Date Time and ISIN Status Reason attributes will indicate when the last update occurred and the reason for the update.

4.9   From Expired to Deleted

ISIN status can change from "Expired" to "Deleted" if an instrument is created in error that has its status on creation set to "Expired".

5   ISIN Deactivation

ISINs may be moved to a "DELETED" status where the DSB is notified or determines an erroneous ISIN or where a duplicate ISIN is created in exceptional circumstances. If the user created an erroneous ISIN, they can contact the DSB and request to make the ISIN inactive. The DSB will deactivate any ISIN created in error by changing its Status to "Deleted".

Note that each of New, Updated & Expired ISINs can transition to a Deleted status.

Once the ISIN Status is moved to Deleted, such ISINs will be excluded for any future updates. The only scenario when a deleted ISIN is re-activated is when it is deemed to be deactivated in error, see.4.7.

The process of deactivation includes moving ISIN Status to Deleted and setting a status reason.

The DSB strives to ensure that duplicate ISINs cannot be produced by the ISIN engine. However, an anomaly was experienced in January 2018 during a period of high-volume submission causing the system to be intermittently unresponsive where several duplicate ISINs were created. The DSB has performed a full analysis of the issue and has subsequently remedied with the resulting change management process to address duplicate ISIN resolution is as follows:

• The first ISIN request received by the DSB that resulted in an ISIN creation will be deemed to be the correct ISIN and the one that will remain in the system untouched. This is likely to be the ISIN with the earliest "Last Update DateTime" value, although this is not guaranteed.

• Any subsequent ISIN request received that results in an incorrect ISIN creation, will be marked with ISIN Status= Deleted. Status Reason will indicate "Duplicate – Use EZ1234567890" where EZ1234567890 is an example of the primary, active ISIN.

 Whilst the design of the DSB eliminates the possibility of duplicate ISIN creation in normal operation, in some circumstances during periods of extreme stress on the environment, a race condition has been observed that has resulted in duplicate ISINs that are seconds/minutes apart. In this scenario, it is possible that the first ISIN request results in an ISIN creation with a later "Last Update DateTime" value compared to any subsequent ISIN creation request.

The DSB will monitor the frequency of duplicate ISIN occurrences and seek to develop an automated overnight process that identifies any duplicate ISINs, updates the duplicate ISIN status for the process above and as set out on page 1 of this document and also notifies the DSB Technical Support team of any duplicates found.

6   Cases that do not lead to an ISIN update

The following will not lead to an ISIN update:

1. **If an attribute is moved from being a user input to derived.**
   E.g. Underlying Instrument Index becomes derived from the Use Case name and no longer a user entry attribute, such as Credit LCDX Product will have derived Underlying Instrument Index=LCDX.
   The DSB will investigate the consequence of derivation and only move a field to derived if all appropriate ISIN records are deemed to be unaffected.
   The DSB will provide a new record template and update any validation rules if applicable.

2. **If an attribute is moved from being a derived to user input,** the DSB will provide a new record template and update any validation rules if applicable.

7   ISIN update in FIX subscription and File Download
Whenever an ISIN status is changed, the "LastUpdateDateTime" field will be updated and any FIX users subscribed to updates will receive the updated record.

Note that any change of ISIN Status to "Updated" will need to be run by the Product Committee and only if signed off, the change will be made by the DSB Technical Support. Changing ISIN Status to "Updated" will not be a routine part of the ISIN life cycle and multiple updates during the day are not expected.

Any updates made to an ISIN today, will be made available in the File Download folder next day.

E.g. a Rates product created on 2017-09-04 and updated on 2017-09-18 will appear in the File Download twice:

1) On 2017-09-05 in /file-download/isin/20170904/Rates/Rates-20170904.records folder

2) On 2017-09-19 in /file-download/isin/20170918/Rates/Rates-20170918.records folder

8   Updating expired ISINs

In rare cases when ISINs need to be updated, any of those that are expired will be updated as well. In such cases, ISIN Status will remain Expired. Status Reason will be prepended with a reason for update. "Last Update datetime" will be modified and will indicate when the record was last changed.