# REFINITIV REAL-TIME NEWS: FEED AND ARCHIVE

## USER GUIDE

REAL-TIME NEWS FEED AND ARCHIVES

DATA MODEL VERSION 2.15

**REFINITIV**™

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# ABOUT THIS DOCUMENT

## INTENDED READERSHIP

This document is intended for two groups of readers.

- Users of Real-time News content, who are interested in the data model that is present in both the Elektron real-time news feed and archive news content
- Developers writing applications to consume news content, either from an Elektron feed or from archive files

## IN THIS GUIDE

This document describes the following:

- Structure of Real-time News data model
- Overview of news coding and Reuters Editorial process
- Overview of Elektron feed consumption
- Structure of MRN FTP site that provides archive files

## FEEDBACK

If you have any comments on this document, please contact the Machine Readable News team at MachineReadableNewsProductManagement@refinitiv.com.

# CHAPTER 1 REAL-TIME NEWS

## 1.1  CONTENT OVERVIEW

Refinitiv Real-time News is the only structured textual news service for programmatic use that is powered by Reuters News. Reuters is the largest international news agency with more journalists in more countries than anyone else.

Reuters has a long history of market-moving beats and exclusives related to macroeconomics, M&A activity, CEO changes or corporate wrongdoing. Our Real-time News service delivers Reuters News unrivalled company, commodity and economic stories formatted for automated consumption. By delivering Reuters News to your algorithms, you gain a competitive advantage you won't find with any other service.

The live and archived versions of the data share a common data model, with history extending back to 1996 for Reuters News and to 2003 for other news sources.

## 1.2  DOCUMENTATION AND NOTIFICATIONS

Product documentation is located on the My.Refinitiv.com page under Real-time News, located here. Other information may be found on the MRN FTP site, as described in Chapter 6.

For support issues, one may contact Refinitiv via the My Refinitiv site at https://my.refinitiv.com/content/mytr/en/productsupport.html.  The following are some useful facts for you to state when making support inquiries in order to help Refinitiv efficiently route your issue to the appropriate team:

- Name of the product: Real-time News

- Context: specify "Real-time Elektron feed" or "FTP Archive feed"

- If real-time feed, how it is delivered: Elektron Connect, Elektron Deployed, Elektron Managed Services, or Elektron in the Cloud


Clients are advised to subscribe to service alerts regarding Real-time News feeds and archives. To subscribe, go the Service Alert-Edit Subscriptions page, here. Then check the box at Application -> Financial Information Applications -> Enterprise Information Products ->Thomson Reuters Machine Readable News -> Thomson Reuters Real-time News. Then click the Update button at bottom right.

For updates on releases of new versions of Real-time News feeds and archives and for related updates, clients should sign up for Product Client Notifications (PCNs). This will send advance email notifications on relevant releases and updates. To sign up for PCNs on Real-time News, go to the My Subscriptions page, here. Check the box at All Products -> Reuters Enterprise Information -> Thomson Reuters Real-time News. Toward the bottom, make sure that the box for "All Client impacts", or at least "For Action" under that, is checked. After setting your reminder period, click the submit → link in the lower or upper right to confirm your selection.

# CHAPTER 2 STORY CONSTRUCTION AND NEWS CODING

## 2.1   EVOLUTION OF A STORY

A story[1] is a related collection of published news items.

The first part of a story may be an alert. This is a headline only message containing the most essential information relating to an emerging story. Sometimes several alerts for the same story are filed in a quick succession.

Alerts may be followed up by an initial textual piece of the story, i.e., story body. This text together with its associated headline is called a "take". Subsequent takes may also contain additional text and metadata as needed.

A story is attached to a set of category codes. Metadata is transmitted with each news messages and is described in the next section.

Each alert or take of the same story contains two time stamps: (1) the initial story date and time, and (2) the take date and time. The initial story date and time is the time (in UTC) that the first alert or take for that story was filed and should remain the same for all alerts and takes of that story. The take date and time describe when a particular alert or take was filed.

All messages within a story also contain a common identifier, the Primary News Access Code (PNAC) or altId. Because PNACs are reused, it is insufficient to identify a story. One must use the PNAC and initial story date together.

Typically, only news agencies such as Reuters News will publish stories over multiple news items. News items from press wires and exchange wires tend to publish a story within a single news item and do not issue alerts.

## 2.2   NEWS CODING

Machine Readable News (MRN) news items including Reuters News and third-party news sources carry metadata codes which describe the content of the story.

The codes described also exist in News Analytics, a separate product containing additional derived analytics such as sentiment. A reference file containing a list of active codes can be found on My Account here.

### 2.2.1.   Product Codes

Product codes identify which desktop news product(s) the news item belongs to. They are typically tailored to specific audiences.

Examples: "M" for Money International News Service and "FB" for the French General News Service

Identification: audiences field, with values prefixed by "NP:"

### 2.2.2.   Topic Codes

Topic codes describe the news item's subject matter. These can cover asset classes, geographies, events, industries/sectors, and other types.  There are two supported topic code schemas.

N2000 Codes

Examples: "CDV" for credit default swaps, "EMRG" for emerging market countries, and "DIV" for dividends

Identification: subjects field, with values prefixed by "N2:".

RCS Codes

Examples: "A:G" for credit default swaps, "G:1" for emerging market countries, and "E:F" for dividends

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[1] The use of "story" here should not be confused with the Real-time News content, which is broadcast over the MRN_STORY RIC and whose MRN_TYPE FID is set to "STORY". Real-time News is called "story" because it includes what is commonly referred to as "story body text".

### 2.2.3. Named Item Codes

Named item codes, also known as recurring report codes, identify news items that follow a pattern. Items sharing the same code cover periodic updates to the same subject matter and often have very similar headlines.  There are two supported topic code schemas.

N2000 codes

Examples: ".L" for news on UK stocks and "MEAL/DEL" for CBOT Soymeal Deliveries

Identification: instancesOf field, with values prefixed by "NI:"

RCS codes

Examples: "1200" for news on UK stocks and "2932" for CBOT Soymeal Deliveries

Identification: instancesOf field, with values prefixed by "RR:"

### 2.2.4. Attributions

The attribution denotes the organization that published the news item.

Examples: "RTRS" for Reuters News and "BSW" for Business Wire

Identification: provider field, with values prefixed by "NS:"

### 2.2.5. RICs

This denotes a RIC, or Reuters Instrument Code, that is tagged to the news item. The most commonly used types of RICs in news typically represent companies, economic indicators, or foreign exchange pairs.

Examples: "IBM.N" for IBM, "EURGBP=" for the Euro/British Pound exchange rate, and "USNAHB=ECI" for the NAHB Housing Market Index

Identification: subjects field, with values prefixed by "R:"

### 2.2.5.1. Company PermIDs

Refinitiv is supplementing its identification of companies with an organizational-level identifier called the "PermID". Since RICs are quote identifiers, they are less stable over time than a company identifier. Furthermore, the many-to-one relationship between quotes and companies makes it possible for multiple RICs of a single company to be tagged to a single news item. Refinitiv is thus exposing its privately mastered information model and making the PermID publicly available. See https://permid.org for more information on the PermID.

Most company RICs in the live Real-time News data will be supplemented with a PermID.

PermIDs first appear reliably in archives for Reuters and third party news messages in 2018.

Example: 4295904307 for International Business Machines Corporation

Identification: all values are prefixed by "P:"

# CHAPTER 3 REUTERS EDITORIAL STORY EVOLUTION: IN DEPTH

This section provides a description and examples of how common stories are created by Reuters Editorial:

- simple story (Section 3.1)
- additional takes (Section 3.2)
- subsequent updates (Section 3.3)
- resolving errors in stories (Section 3.4)

**Note:** This section describes the most common processes. However, due to the time-sensitive and manual nature of journalistic work, exceptions to these rules may occur.

**Note:** Diagrams contain Latin words in order to show the location and format of text.

## 3.1 SIMPLE STORY

When a newsworthy event occurs, the first part of a story may be an alert, a short sentence in upper-case that contains the facts and essential detail. Often several alerts are filed in quick succession.

A newsbreak is generally created 5-20 minutes after any alerts. Newsbreaks comprise a headline (often different from the alert) and perhaps two to four paragraphs of body text putting the facts into context and making them meaningful.

An update may be filed 20-30 minutes after a newsbreak. Updates comprise a headline (sometimes different from the headline in the original newsbreak) and 6-20 paragraphs of body text with further information about the event.

The update may be refreshed as the story develops. Each subsequent update replaces the previous update, but the original alert(s) and newsbreak remain.

## 3.2 ADDITIONAL TAKES

The story body together with its associated headline is called a take. Stories are usually filed in a single take. Occasionally, however, further takes are necessary to add any of the following:

- additional text
- additional codes (e.g., topic codes)
- both additional text and codes
- a cross-reference table

**Note:** although the examples in this section refer to "first take" and "second take", the process applies equally to further takes (e.g., "fourth take" and "fifth take").

**EVENT**

| USN | Section | Type | Text | Code | TIME |
|---|---|---|---|---|---|
| USN 1 | NEWSBREAK | ALERT | SED UT UNDE OMNIS ISTE NATUS ERROR SIT VOLUPTATEM | Code1 | |
| | | ALERT | TOTAM REM APERIAM EAQUE IPSA AB ILLO INVENTORE | Code1 | |
| | | HEADLINE | Nemo enim ipsam voluptatem quia voluptas sit aut odit | Code 1,2 | + 5-20 min |
| | | BODY | Nemo enim ipsam voluptatem quia voluptas sit aspernatur aut odit aut fugit, quia consequuntur magni dolores eos qui ratione voluptatem. | | |
| USN 2 | UPDATE 1 | HEADLINE | UPDATE 1 - Nemo enim ipsam voluptatem quia voluptas sit aut odit | Code 1,2,3 | + 20-30min |
| | | BODY | Nemo enim ipsam voluptatem quia voluptas sit aspernatur aut odit aut fugit, quia consequuntur magni dolores eos qui ratione voluptatem.<br><br>Neque quisquam est, qui dolorem ipsum quia sit amet, consectetur, adipisci velit. | | |
| | UPDATE 2 | HEADLINE | UPDATE 2 - Nemo enim ipsam voluptatem quia voluptas sit aut odit | Code 1,2,3 | + 1hr |
| | | BODY | Nemo enim ipsam voluptatem quia voluptas sit aspernatur aut odit aut fugit, quia consequuntur magni dolores eos qui ratione voluptatem.<br><br>Neque quisquam est, qui dolorem ipsum quia sit amet, consectetur, adipisci velit, quia non numquam eius modi tempora incidunt ut labore et dolore. | | |

### Adding text

In cases where text is being added to the story (but not codes), the second take is filed with the same headline as the first take, but with the additional text appended in the body.

### Adding codes

When a second take is used to add codes (but not additional text), it is filed with the same headline as the first take, with the codes added.

**Note:** Product codes do not follow this rule and may not be changed once the first take is sent out.

### Adding text and codes

A second take can also be used to add both additional codes and text.

The second take is filed with the same headline as the first take, with the codes added and with the additional text appended in the body.

**Note:** Product codes do not follow this rule and may not be changed once the first take is sent out.

### Adding a cross-reference table

Cross-reference tables at the end of stories are used by Refinitiv desktop product subscribers to click-through to other news and data.

Journalists sometimes replace the automatically generated cross-references with a customised version.

In this case, a second take is created with the new cross-reference table in the body.

| | | |
|---|---|---|
| **TAKE 1** | **HEADLINE** | Nemo enim ipsam voluptatem quia voluptas sit aut odit |
| | **BODY** | Nemo enim ipsam voluptatem quia voluptas sit aspernatur aut odit aut fugit, sed quia consequuntur magni dolores eos qui ratione voluptatem. |
| **TAKE 2** | **HEADLINE** | Nemo enim ipsam voluptatem quia voluptas sit aut odit |
| | **BODY** | Reuters Terminal users can see related statistics and news by double clicking on:<br>Korea equities <KR/EQUITY><br>Gainers/losers <KR/STATS1>… |

## 3.3   NORMAL UPDATES

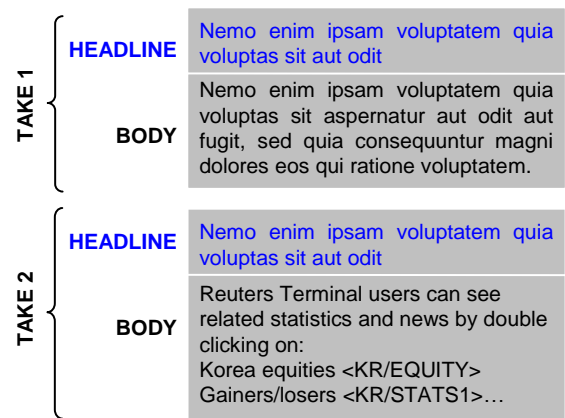If stories need to be revised with additional information (e.g., fresh developments, reaction, added context or interpretation) an update is issued. The update may be refreshed as the story develops. These subsequent updates are filed either by replacing the previous update or by appending the latest information.

### Replacing previous

Most subsequent updates replace the previous update in the series, and the update number is noted in the headline tag, e.g., **UPDATE 1**, **UPDATE 2**.

| | | |
|---|---|---|
| **TAKE 1** | **HEADLINE** | UPDATE1-Nemo enim ipsam voluptatem quia voluptas sit aut odit |
| | **BODY** | Nemo enim ipsam voluptatem quia voluptas sit aspernatur aut odit aut fugit, sed quia consequuntur magni dolores eos qui ratione voluptatem. |
| **TAKE 2** | **HEADLINE** | UPDATE2-Nemo enim ipsam voluptatem quia voluptas sit aut odit |
| | **BODY** | Neque quisquam est, qui dolorem ipsum quia sit amet, consectetur, adipisci velit, quia non numquam eius modi tempora incidunt ut labore. |

### *Appending latest*

Sometimes, the text of the subsequent update is added to the previous update in the series (similar to the process for an additional take), with a "=2", "=3", etc added to the end of the headline to indicate the version.

## 3.4 UPDATES TO ERRORS

At Refinitiv we do our outmost to avoid errors but any faults are rectified promptly and clearly. We do not disguise or bury mistakes in subsequent updates or stories.

| | HEADLINE | UPDATE-Nemo enim ipsam voluptatem quia voluptas aut odit |
|---|---|---|
| TAKE 1 | BODY | Nemo enim ipsam voluptatem quia voluptas sit aspernatur aut odit aut fugit, sed quia consequuntur magni dolores eos qui ratione voluptatem. |
| TAKE 2 | HEADLINE | UPDATE-Nemo enim ipsam voluptatem quia voluptas aut odit =2 |
| | BODY | Neque quisquam est, qui dolorem ipsum quia sit amet, consectetur, adipisci velit, quia non numquam eius modi tempora incidunt ut labore. |

One of three processes is followed, depending on the severity of the error:

- **Refile** – used to correct minor factual errors in stories which have no bearing on any investment decision or understanding of the news (e.g., common words misspelled)
- **Corrected/Correction** – terms used to distinguish the two types of corrective action used whenever a substantive, factual error appears in a story which alters the meaning or significance of the story or passage (e.g., "million" rather than "billion")
- **Withdrawal** – used for stories that are so fundamentally flawed that correcting is impossible

### 3.4.1.1.  Refiles

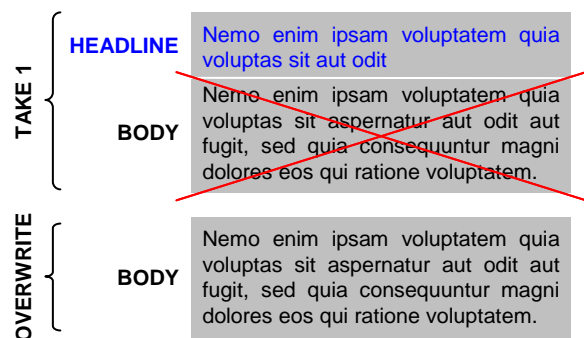If there is a minor error in a story it is refiled in one of two ways: replacement or overwrite.

| | HEADLINE | Nemo enim ipsam voluptatem quia voluptas sit aut odit |
|---|---|---|
| TAKE 1 | BODY | Nemo enim ipsam voluptatem quia voluptas sit aspernatur aut odit aut fugit, sed quia consequuntur magni dolores eos qui ratione voluptatem. |
| NEW TAKE 1 | HEADLINE | REFILE-Nemo enim ipsam voluptatem quia voluptas sit aut odit |
| | BODY | Nemo enim ipsam voluptatem quia voluptas sit aspernatur aut odit aut fugit, sed quia consequuntur magni dolores eos qui ratione voluptatem. |

### *Replacement*

In most refiles, the headline and body are both republished, with the headline tag **REFILE** (since 2006). Any alerts in the story have to be repeated.
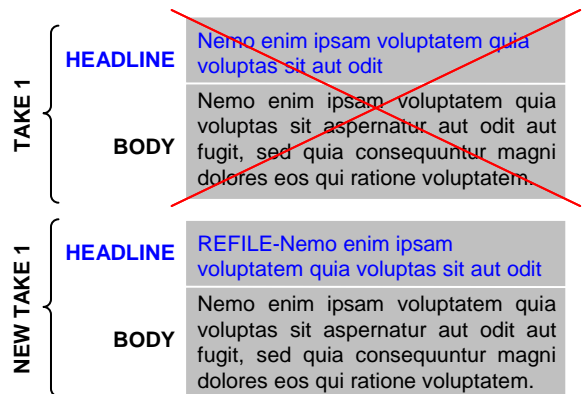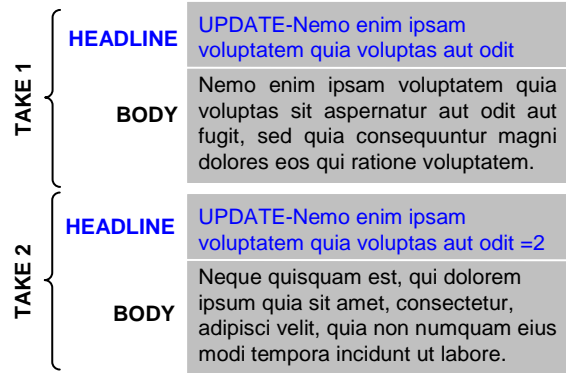
### *Overwrite*

If there are alerts in the story that are correct and there is a compelling reason to retain them on screens while refiling the newsbreak, the headline of the story is left unchanged, but the body of the story is overwritten with the amended version.

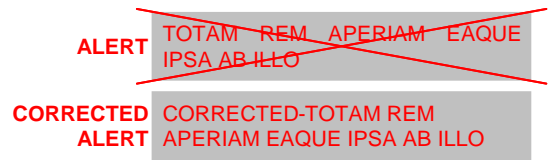| | HEADLINE | Nemo enim ipsam voluptatem quia voluptas sit aut odit |
|---|---|---|
| TAKE 1 | BODY | Nemo enim ipsam voluptatem quia voluptas sit aspernatur aut odit aut fugit, sed quia consequuntur magni dolores eos qui ratione voluptatem. |
| OVERWRITE | BODY | Nemo enim ipsam voluptatem quia voluptas sit aspernatur aut odit aut fugit, sed quia consequuntur magni dolores eos qui ratione voluptatem. |

### 3.4.1.2.  Corrected and Correction

### *Correcting alerts*

If there is a substantial error in an alert, it is corrected.

When an alert is corrected, the journalist files it with a new PNAC.
**CORRECTED-** is inserted at the beginning of the text, and an explanation of what was changed is included in brackets,

Example: **CORRECTED-TRANSMENIAN INDUSTRIES NET PROFIT 5.4 MLN EUROS (NOT 4.5 MLN)**

| | |
|---|---|
| **ALERT** | ~~TOTAM REM APERIAM EAQUE IPSA AB ILLO~~ |
| **CORRECTED ALERT** | CORRECTED-TOTAM REM APERIAM EAQUE IPSA AB ILLO |

### Variations

- If the explanation would make the alert too long, the details are provided at the top of the newsbreak
- If there is a series of alerts on the same PNAC and one or more alerts are corrected, the other alerts (where no correction is required) are repeated on the new PNAC along with the corrected alert (**RPT-** is inserted at the beginning of the text for each of the repeated alerts)
- For an official correction to an alert, **CORRECTED-(OFFICIAL)-** is added to the beginning
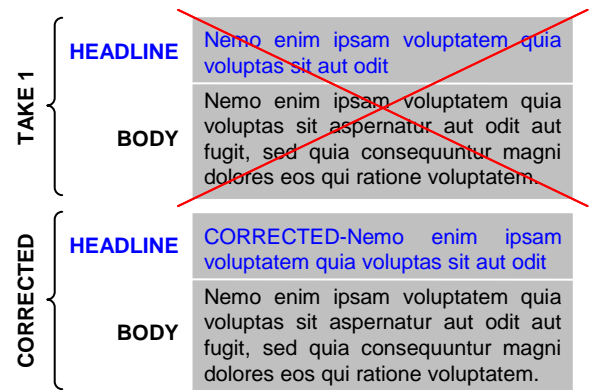
### Correcting newsbreaks

Correcting is carried out if there is a substantial error in a story – either by a correction or by being corrected.

For both, the amended story is usually filed with the same PNAC, a headline tag **CORRECTED** and an explanation of what has been changed in the advisory line.

### Corrected

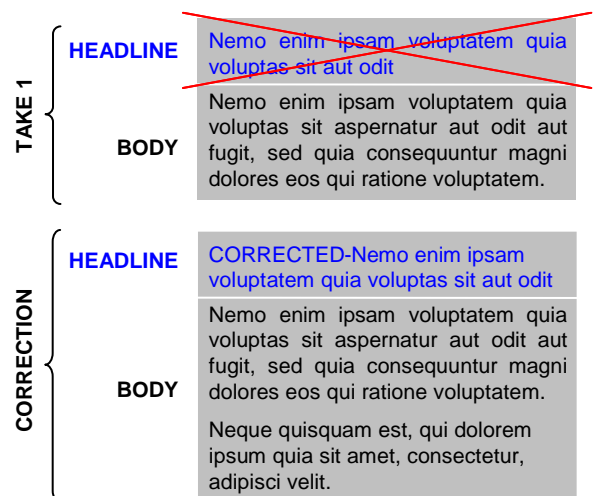If both the body text and headline need to be replaced, a corrected message is issued for a story.

The amended story is usually filed with the same PNAC but the story date/time will be different.

| | | |
|---|---|---|
| **TAKE 1** | **HEADLINE** | ~~Nemo enim ipsam voluptatem quia voluptas sit aut odit~~ |
| | **BODY** | Nemo enim ipsam voluptatem quia voluptas sit aspernatur aut odit aut fugit, sed quia consequuntur magni dolores eos qui ratione voluptatem. |
| **CORRECTED** | **HEADLINE** | CORRECTED-Nemo enim ipsam voluptatem quia voluptas sit aut odit |
| | **BODY** | Nemo enim ipsam voluptatem quia voluptas sit aspernatur aut odit aut fugit, sed quia consequuntur magni dolores eos qui ratione voluptatem. |

### Correction

If the headline needs to be replaced but new body text appended, a correction is issued for a story.

The amended story is usually filed with the same PNAC and story date/time.

| | | |
|---|---|---|
| **TAKE 1** | **HEADLINE** | ~~Nemo enim ipsam voluptatem quia voluptas sit aut odit~~ |
| | **BODY** | Nemo enim ipsam voluptatem quia voluptas sit aspernatur aut odit aut fugit, sed quia consequuntur magni dolores eos qui ratione voluptatem. |
| **CORRECTION** | **HEADLINE** | CORRECTED-Nemo enim ipsam voluptatem quia voluptas sit aut odit |
| | **BODY** | Nemo enim ipsam voluptatem quia voluptas sit aspernatur aut odit aut fugit, sed quia consequuntur magni dolores eos qui ratione voluptatem. Neque quisquam est, qui dolorem ipsum quia sit amet, consectetur, adipisci velit. |

### *Variations*

Alerts and newsbreaks are filed with the same PNAC, so newsbreaks may be affected if an alert is corrected:

- If the newsbreak has not yet been filed, it is filed with the same PNAC as the corrected alert
- If the newsbreak has been filed and is correct, it is resent as a repeat to link with the corrected alert
- If the newsbreak has been filed and is incorrect, the corrected version is sent out with the new PNAC of the corrected alert, with **CORRECTED** as the headline tag
- An official correction to a newsbreak takes a headline tag of **CORRECTED-(OFFICIAL)**

**Note:** any update after a corrected story carries a new PNAC and therefore does not replace the amended story

## 3.4.1.3. Withdrawals

If a story is fundamentally flawed, a delete message is sent for the original story which removes it from desktop screens. The delete message, as well as the original story is available in the archive.

## 3.4.1.4. Managing Message Updates

For customers opting to maintain only the latest copy of a news story within their database, Refinitiv suggests identifying unique stories by altId and maintaining the message with the latest versionCreated value.  Storing a message under altId with the latest versionCreated time-stamp, and ignoring prior messages sharing the altId but with earlier versionCreated time-stamps should enable users to render the latest version of a story that has had multiple updates.

As altIds can be recycled, and given the fact some altIds are updated daily such as recurring reports, customers are advised to view an altId as unique only within a 24 hour time window.

# CHAPTER 4 MRN MESSAGE ENVELOPE: PRESENTATION AND CONSUMPTION

## 4.1 OVERVIEW

Real-time News data falls under the Machine Readable News (MRN) model for data presentation and feed consumption.

MRN data is published over Elektron using an Open Message Model (OMM) envelope in News Text Analytics domain RSSL messages.

All MRN messages carry the same FIDs, regardless of the content set. The content-specific information is contained in a FRAGMENT (BUFFER type) FID that has been compressed, and potentially fragmented across multiple messages, in order to reduce bandwidth and RSSL message size. The Real-time News data model is described in Chapter 5.

## 4.2 NEWS TEXT ANALYTICS DOMAIN PUBLISHING

The News Text Analytics domain (number 33) is designed for publishing large complex nested data structures over Elektron and TREP using a FieldList-based envelope. Each item of data can be fragmented over multiple envelope messages.

### 4.2.1. Message Fragmentation and Fragment Compression

#### 4.2.1.1. Overview

In order to fit the data into the restricted size of the RSSL update messages allowed over Elektron and through TREP, the data goes through a series of transformations.

1. The core MRN data item is converted into a JSON UTF-8 string
2. This JSON string is then compressed using gzip
3. The compressed JSON is split into a number of fragments which each fit into a single RSSL update
4. The data fragments are added to an update message as the FRAGMENT FID value in a FieldList envelope

#### 4.2.1.2. Fragmentation

Most MRN data items will fit inside a single message, but the message format does allow for a large data item to be split across multiple messages.

Five FIDs, as well as the RIC itself, are necessary to determine whether an entire data item has been received in its various fragments and how to concatenate the fragments to construct a data item:

- MRN_SRC: identifier of the scoring/processing system that published the FRAGMENT
- GUID: globally unique identifier for the data item. All messages for this data item will have equal GUID values.
- FRAGMENT: compressed data item fragment, itself
- TOT_SIZE: total size in bytes of the fragmented data
- FRAG_NUM: sequence number of fragments within a data item. This is set to 1 for the first fragment of each item published and is incremented for each subsequent fragment for the same item.

A single MRN data item publication is uniquely identified by the combination of RIC, MRN_SRC and GUID.

For a given RIC-MRN_SRC-GUID combination, when a data item requires only a single message, then TOT_SIZE will equal the number of bytes in the FRAGMENT and FRAG_NUM will be 1.

When multiple messages are required, then the data item can be deemed as fully received once the sum of the number of bytes of each FRAGMENT equals TOT_SIZE. The consumer will also observe that all FRAG_NUM range

from 1 to the number of fragments, with no intermediate integers skipped. In other words, a data item transmitted over three messages will contain FRAG_NUM values of 1, 2 and 3.

### 4.2.1.3. Compression of FRAGMENT FID

The FRAGMENT FID is compressed with gzip compression technology, thus requiring the consumer to decompress to reveal the JSON plain-text data in that FID.

When an MRN data item is sent in multiple messages, all the messages must be received and their FRAGMENTs concatenated before being decompressed. In other words, the FRAGMENTs should not be decompressed independently of each other.

The decompressed output is encoded in UTF-8 and formatted as JSON. The data model varies by content type.

### 4.2.2. Permissioning and Subscription

Data published using the News Text Analytics domain is controlled on a per-feed and per-item basis. Initial refresh responses contain a single PE in their header and PROD_PERM FID which controls access to the feed as a whole. Updates have DACS locks attached that control access on a per-item basis.

### 4.2.2.1. Service

Elektron Connect users connect with the ELEKTRON_DD or ELEKTRON_EDGE service. Clients using a local TREP (Thomson Reuters Enterprise Platform) might see the service under a different service, according to how their local TREP is configured.

### 4.2.2.2. Data Domain

As mentioned above, all MRN data is published on the News Text Analytics domain, number 33.

### 4.2.2.3. Subscription RICs

Each of the MRN content sets is made available over a different RIC, according to the table below.

| CONTENT SET | RIC |
|---|---|
| Real-time News | MRN_STORY |
| News Analytics: Company and C&E assets | MRN_NA_ENT0 |
| News Analytics: Macroeconomic News & Events | MRN_NA_DOC |

### 4.2.3. Outage Detection

If all the messages on a fragmented MRN data item are not received, then this signifies an outage. A safe rule of thumb is to expect all such fragments to appear within 60 seconds of each other, although in practice they should all appear within one second.

See Section 4.2.1.2 for more information about how to determine whether an entire MRN data item has been received.

### 4.2.4. Envelope

The fields in each envelope describe one of the following:

- Core MRN data item payload, e.g., headline
- Metadata describing the MRN data item, e.g., total size of the MRN data item
- Metadata describing the fragment, e.g., fragment number

The fields that appear in the envelope vary with the message type. Sixteen fields appear in the initial refresh. In actual MRN messages, ten fields appear in the first fragment of an MRN data item while only four are necessary for a "subsequent" update of that data item. These "subsequent" updates carry the additional fragments of an MRN data item.

The table below demonstrates which fields are present in the three types of messages. A blank value denotes that the field does not appear in that kind of message. In most cases, the table describes what values to expect, when those values are simple to describe. Otherwise, "Present" is written.

| NAME | FID | RWF TYPE (SIZE) | DESCRIPTION | INITIAL REFRESH: VALUES | FIRST UPDATE: VALUES | SUBSEQUENT UPDATE: VALUES |
|---|---|---|---|---|---|---|
| PROD_PERM | 1 | UINT64 | Product permissions information for the RIC. Note that full permissioning is stored in Message.permData outside the FieldList. | Range from 10000 to 10003 | | |
| ACTIV_DATE | 17 | DATE | The UTC date when the time in TIMACT_MS was updated. Denotes when the update was published by the MRN_SRC. Stamped upon publication to the Elektron network. | Present, not useful | UTC date, in *yyyy-mm-dd* format | |
| RECORDTYPE | 259 | UINT32 | Field which indicates the type of record and also the type of data in that record. | 30 | | |
| RDN_EXCHD2 | 1709 | ENUM | Identifier for the source from where the data originates | 1370, denoting MRN | | |
| TIMACT_MS | 4148 | UINT64 | UTC time of last activity in milliseconds. Relative to ACTIV_DATE, and thus it resets to 0 at the beginning of each UTC day. Denotes when the update was published by the MRN_SRC. Stamped upon publication to the Elektron network. | Present, not useful | Range from 0 *(00:00:00.000 UTC)* to 86399999 *(23:59:59.999 UTC)* | |
| GUID | 4271 | RMTES_STRING (255) | Globally unique ID for the MRN data item | <empty> | Present | Present |
| CONTEXT_ID | 5357 | REAL64 | The numeric identifier for a group of instruments with a common field list and market processing rules. | 3752 or 3929 | | |
| DDS_DSO_ID | 6401 | UINT32 | Elektron (DDS) equivalent of the IDN FID DSO_ID. Has its own set of values. | Present | | |

| NAME | FID | RWF TYPE (SIZE) | DESCRIPTION | INITIAL REFRESH: VALUES | FIRST UPDATE: VALUES | SUBSEQUENT UPDATE: VALUES |
|---|---|---|---|---|---|---|
| SPS_SP_RIC | 6480 | ASCII_STRING (32) | Populated in each underlying instrument by the provider as a reference to the appropriate SPS sub-provider level RIC | Present | | |
| MRN_V_MAJ | 8506 | RMTES_STRING (4) | Major version of data model used in FRAGMENT. See also MRN_V_MIN. | <empty> | "2", for data models described in this document | |
| MRN_TYPE | 8593 | RMTES_STRING (16) | Type of data contained in FRAGMENT | <empty> | STORY, TRNA, or TRSI | |
| MRN_V_MIN | 11787 | RMTES_STRING (10) | Minor version of data model used in FRAGMENT. See also MRN_V_MAJ. | <empty> | "10", for data models described in this document | |
| MRN_SRC | 12215 | RMTES_STRING (40) | Identifies the scoring/processing system that published the FRAGMENT | <empty> | Present | Present |
| FRAG_NUM | 32479 | UINT64 | Number of the current FRAGMENT, within the overall MRN data item | Present, not useful | 1 | 2 or more |
| TOT_SIZE | 32480 | UINT64 | Total size of the compressed MRN data item in bytes after all fragments are concatenated | 0 | Present | |
| FRAGMENT | 32641 | BUFFER (11000) | Fragment of data | <empty> | Present | Present |

## 4.2.5.  Initial Responses and Subsequent Updates

### 4.2.5.1.  Initial Refresh Responses

The initial refresh responses contain all the fields from the envelope. All the fields related to the item and to the fragment are empty or 0. Alternatively, they contain other stale information that should be ignored. The constant and per-feed fields contain meaningful values. The initial refresh responses are cached.

Example refresh for MRN_STORY RIC

```
Message.permData: <empty>

Message.data: <FieldList>

PROD_PERM (1): 10001

ACTIV_DATE (17): 21 OCT 2015

RECORDTYPE (259): 30

RDN_EXCHD2 (1709): 1370
```

```
TIMACT_MS (4148): 60413133

GUID (4271): <empty>

CONTEXT_ID (5357): 3752

DDS_DSO_ID (6401): 12424

SPS_SP_RIC (6480): ".[SPSML1L1"

MRN_V_MAJ (8506): "2"

MRN_TYPE (8593): "STORY"

MRN_V_MIN (11787): "10"

MRN_SRC (12215): "dtc_prd_A"

FRAG_NUM (32479): 0

TOT_SIZE (32480): 0

FRAGMENT (32641): <empty>
```

### 4.2.5.2. Updates

As mentioned above, the updates contain only fields related to the item and the fragment. They do not contain any of the static or per-feed fields. The updates are not cached or conflated.

#### 4.2.5.2.1.　　　First Update

The first update contains all the fields related to the item and the first fragment, subsequent updates only contain the fields relating to the fragment they contain.

Example first update for MRN_STORY RIC

```
Message.permData: <DACS lock for the current piece of data>

Message.data: <FieldList>

ACTIV_DATE (17): 20 AUG 2015

TIMACT_MS (4148): 10157563

GUID (4271): "BSE4njFBT_1509242kv2m5neJzQ52U7adOPFd2fc4P6PMZ/X8yPsDxw"

MRN_V_MAJ (8506): "2"

MRN_TYPE (8593): "STORY"

MRN_V_MIN (11787): "10"

MRN_SRC (12215): "dtc_prd_A"

FRAG_NUM (32479): 1

TOT_SIZE (32480): 4436

FRAGMENT (32641): <fragment of compressed JSON>
```

#### 4.2.5.2.2.　　　Subsequent Update

The subsequent update contains the fields necessary to identify the MRN data item, the order of this fragment among all the fragments for this item, and the fragment itself.

Example subsequent update

```
Message.permData: <DACS lock for the current piece of data>

Message.data: <FieldList>
```

```
GUID (4271): "BSE4njFBT_1509242kv2m5neJzQ52U7adOPFd2fc4P6PMZ/X8yPsDxw"

MRN_SRC (12215): "dtc_prd_A"

FRAG_NUM (32479): 2

FRAGMENT (32641): <fragment of compressed JSON>
```

### 4.2.6.    Message De-duplication

Duplicate messages may appear on the MRN_STORY feed, especially after a failover in Refinitiv infrastructure. Duplicate news items share the same GUID value. Thus, the individual messages share both the GUID and FRAG_NUM values.  Customers are advised to only maintain the initial version of any message GUID and ignore messages with a previously published GUID.

## 4.3    DEVELOPER RESOURCES

The Refinitiv Developer Community portal offers open access to APIs used to consume MRN Elektron feeds. Users may register freely.

The following sections list relevant Developer Portal code, descriptions, and resources.

### 4.3.1.    MRN-specific Sample Code and Tutorials

- Elektron Message API (EMA)
    - C++: here
    - Java: here
- Elektron Transport API (ETA). Formerly known as Ultra Performance API (UPA).
    - C: here
    - Java: here

For the optimal balance of speed and simplicity, Refinitiv recommends the EMA APIs.

If you require an API in another programming language, please contact your Technical Account Manager.

### 4.3.2.    Other Developer Resources

- MRN Developer Webinar, Introduction to Machine Readable News: here
- MRN EMA Overview article: here

# CHAPTER 5 REAL-TIME NEWS DATA MODEL

As mentioned above, the data appears as JSON in UTF-8 after decompression and assembly of the individual messages.

The Real-time News feed contains the headline, story body text, and associated metadata about the story as a simple group of named values.

Envelope Data Type (MRN_TYPE): STORY

| FIELD | TYPE | SAMPLE | NOTES |
|---|---|---|---|
| altId | String | "nL3N0D3D3H" | For news, this contains the PNAC value. See Section 2.1 for more information. |
| audiences | String Array | ["NP:M", "NP:T"] | News products for this news item. See Section 2.2.1 for more information. |
| firstCreated | DateTime | 2013-04-16T23:00:14.000Z | UTC timestamp for the first version of the story. Millisecond precision. See also Section 2.1 for more information on stories. |
| headline | String | "PRESS DIGEST - Financial Times - April 17" | The headline text of the news item |
| id | String | "BSE4njFBT_1509242kv2m5neJzQ 52U7adOPFd2fc4P6PMZ/X8yPsDx w" | Uniquely identifies the news item. This is the same value as the GUID in the OMM envelope, described in Section **Error! Reference source not found.**. |
| instancesOf | String Array | ["NI:PRESS/FT"] | Named Items for this news item. See Section 2.2.3 for more information. |
| language | String | "en" | ISO-639 language code. When *pubStatus* = "stat:canceled", this may be set to "und" denoting "undefined". |
| messageType | Int | | 1: alert: breaking news with a headline, typically in CAPS, but no story body<br><br>2: first take: first article of a story<br><br>3: subsequent take: subsequent article(s) of a story. May include additional metadata.<br><br>4: correction: update that is issued immediately.<br><br>5: corrected: type of correction that is made when the story is naturally updated. Less severe than a correction.<br><br>6: update: a natural update to the story. May include additional context, reaction, analysis, background or facts.<br><br>7: deletion: indicates to delete the story previously supplied, possibly because it was sent in error |

| FIELD | TYPE | SAMPLE | NOTES |
|---|---|---|---|
| provider | String | "NS:RTRS" | Identifier for the source that provided the news item. See Section 2.2.4 for more information. |
| pubStatus | String | "stat:usable" | Publication status.<br><br>"stat:usable" for most content.<br><br>"stat:canceled" is a request to remove the story from active story caches for viewing. Note that standard MRN usage terms do not allow for viewing.<br><br>This field is deprecated in favor of the *messageType* field. *pubStatus* will be removed in a future release. |
| subjects | String Array | ["N2:COM", "A:4", "N2:PREC", "B:21", "R:VOD.L", "P:4295896661"] | Topic codes and company identifiers that relate to this news item. See Sections 2.2.2 and 2.2.5 for more information. |
| takeSequence | Int | 2 | The take sequence number of the news item, starting at 1. For a given story, alerts and articles have separate sequences. |
| urgency | Int | 3 | Differentiates story types.<br><br>1: alert, 3: article<br><br>Alerts are headline only messages, articles are messages that include a story body. This field is may be deprecated in favour of the *messageType* field. |
| versionCreated | DateTime | 2013-04-16T23:00:14.000Z | UTC timestamp for this version of the story. Millisecond precision.<br><br>See also Section 2.1 for more information on stories. |
| body | String | | The full body text of the news item. |
| mimeType | String | "text/plain" | Mime type of the body.<br><br>"text/plain" or "text/x-bdc-tms": plain text<br><br>"x-plain-fixed": plain text that displays best in a fixed-width font, often due to the presence of a table. Note that some third parties always tag their content as such, even when there is no table. |

## 5.1   MESSAGE TYPE COMPARED TO PUBLICATION STATUS AND URGENCY

The *messageType* field shares associations with *pubStatus* and *urgency* fields.

The below table maps between *messageType*, *pubStatus*, and *urgency*.

| messageType | Definition | pubStatus | urgency |
|---|---|---|---|
| 1 | Alert | "stat:usable" | 1 |
| 2 | First take | "stat:usable" | 3 |
| 3 | Subsequent take | "stat:usable" | 3 |
| 4 | Correction | "stat:usable" | 3 |
| 5 | Corrected | "stat:usable" | 3 |
| 6 | Update | "stat:usable" | 3 |
| 7 | Deletion | "stat:canceled" | N/A |

## 5.2   JSON EXAMPLE OF STORY FEED DATA

```
{
   "altId": "nBSE4njFBT",
   "audiences": [ "NP:BSE" ],
   "body": "Firstsource Solutions Ltd has informed BSE that the members of the Company have passed the
      resolution by way of Postal Ballot, under Clause 35A.\n\n
      \n\nhttp://pdf.reuters.com/pdfnews/pdfnews.asp?i=43059c3bf0e37541&u=urn:newsml:reuters.com:20150924:nBS
      E6yFYfg\n\n \n\n \n\nDouble click on the URL above to view the article.Please note that internet access
      is required. If you experience problem accessing the internet, please consult your network
      administrator or technical support\n\nLatest version of Adobe Acrobat reader is recommended to view PDF
      files.  The latest version of the reader can be obtained from
      http://www.adobe.com/products/acrobat/readstep2.html\n\n",
   "firstCreated": "2015-09-24T15:41:50.000Z",
   "headline": "FIRSTSOURCE SOLUTIONS LTD. - Results of Postal Ballot (Clause 35A) <FISO.NS>",
   "id": "BSE4njFBT_1509242kv2m5neJzQ52U7adOPFd2fc4P6PMZ/X8yPsDxw",
   "instancesOf": [],
   "language": "en",
   "messageType": 2,
   "mimeType": "text/plain",
   "provider": "NS:BSE",
   "pubStatus": "stat:usable",
   "subjects": [ "R:FISO.NS", "P:4295873587", "B:195", "B:34", "B:43", "B:49", "BL:52", "G:1", "G:5B", "G:K",
      "M:Z", "N2:BSUP", "N2:INDS", "N2:ISER", "N2:CMSS", "N2:BUS", "N2:EMRG", "N2:IN", "N2:ASIA", "N2:CMPNY"
   ],
   "takeSequence": 1,
   "urgency": 3,
   "versionCreated": "2015-09-24T15:41:50.000Z"
}
```

# CHAPTER 6 MRN FTP SITE: ARCHIVE FILES, ASSET LISTS, MAPPINGS

Refinitiv provides Real-time News archive and reference company data over FTP.

Archive files resemble the live feed. They are in JSON format with UTF-8 character encoding, compressed as .gz files. Files are provided in a date hierarchical folder structure and each archive file contains one hour's data.

Reference company data is formatted as tab-delimited text files. These include RICs, PermIDs, tickers and other company information. Mappings to common identifiers, including CUSIP, ISIN, and SEDOL, are available upon request. See your Refinitiv account manager for more information.

This chapter describes access for production users, which differs from that of trial users. Production users can access the full history, while trial users are restricted to a limited history. Files for the two client types are stored in different directories. See Section 6.4 for more information on the differences.

## 6.1    ACCESS

Production and trial users are granted access to the MRN FTP site. Trial users who convert to production customers should have their credentials upgraded to full-history access. Users should contact their sales specialist or account manager to obtain login credentials.

The FTP site is available on public internet at ftp://mrn-ftp.thomsonreuters.com, or 54.243.148.106. The site is accessible via FTP client only. Please set your FTP client to passive mode, although in some cases active mode will work instead.

Clients may use their credentials to connect via plain FTP or secure FTP (FTPS) via explicit FTP over TLS, using TLS version 1.2. Customers are strongly advised to validate their own proxies or firewall configuration to permit connectivity to the FTP host.

## 6.2    ARCHIVES

### 6.2.1.    Update Frequency

Refinitiv's standard Real-time News Archive offering provides all available historical news content for a user's entitled package.  Update files are created at the end of each month where users can expect new files to be updated within 1-2 weeks after the close of the month.

Refinitiv has created a *premium* archive offering delivering daily or hourly update files.  End of day files are typically posted within two hours past UTC midnight.  Users can expect hourly files to be ready within 30 minutes of each UTC hour.

Trial users should not expect to see updates during trials but rather a static three month cut of sample files.

### 6.2.2.    Directories

**Historical Directory**

*/News/Archives/Historical/[Provider, Reuters subset, or third-party aggregation]/[YYYY]*

Notes:

- Historical contains all available monthly files from previous calendar years.
- Provider, Reuters subset, or third-party aggregation
  - Individual providers are denoted by their "provider" field (See Chapter 5.). However, the code will (a) lack the leading "NS:" prefix and (b) be appended with an underscore[2]. For example, Reuters News archives will be in the directory */News/Archives/Historical/RTRS_*.

---

[2] The underscore was added to differentiate the provider code "PRN", which is a reserved MS-DOS device name in Microsoft and thus disallowed as a file or folder name. It is applied uniformly to all provider-based directories on this level.

- o Subsets correspond to various packages of Reuters News. See Appendix 1 for information on how the packages are designed.
  - RTRS_CMPNY_AMER: Americas Company News
  - RTRS_CMPNY_APAC: Asia-Pacific Company News
  - RTRS_CMPNY_EMEA: EMEA Company News
  - RTRS_PGE: Political, General & Economic News
- o Corresponding to the "All" and "Top" third-party packages, there are directories that aggregate the current and obsolete sources into a single file. As of this writing, the list of third-party historical sources can be found on MyRefinitiv here. On the "Real-time News and Archive Sources" sheet, see columns H and G, respectively.
  - 3PTY: all third parties
  - 3PTY_TOP: top third parties

**Daily 'Recent' Directory**

*/News/Archives/Recent/[Provider, Reuters subset, or third-party aggregation]/[YYYY]/[YYYY-DD]*

Notes:

- Recent directory contains end of day files from the current month. The directory will continue to hold files from the previous month(s) that just passed.
- Provider, Reuters subset, or third-party aggregation. (See Historical directory definition)

**Hourly Directory**

*/News/Archives/[Version]/[Historical/Recent/Canonical]/[Provider, Reuters subset, or third-party aggregation]/[YYYY]/[MM]/[DD]*

Notes:

- Hourly directory contains a collection of historical and up to the recent hour's news. All available files provide news messages that were delivered during the designated 60-minute window.
- Version
  - o Hourly files are denoted under version 0215, reflecting the version of the most recent data model.
- Historical/Recent/Canonical
  - o Historical folder contains all hourly files from past years and months.
  - o Recent folder contains all hourly files for the current year.
- Provider, Reuters subset, or third-party aggregation. (See Historical directory definition)

## 6.2.3. Files

**Historical and Daily 'Recent' Directory files**

*News.[ Provider, Reuters subset, or third-party aggregation].[Time Period: YYYYMMDD or YYYYMM].[System Version].txt.gz*

Notes:

- Provider, Reuters subset, or third-party aggregation. (See Historical directory definition)
- *Time period:* UTC
  - o YYYYMMDD represents the 24-hour UTC day, time period allocated to Recent directory files
  - o YYYYMM represents the UTC month, time period allocated to Historical directory files
- *Data Model Version*
  - o Version of the MRN Data Model. In *AABB* format, where *AA* represents the major version and *BB* the minor version, each with leading zeroes.
  - o Historical and Recent files are populated under data model version 2.14, denoted as '0214'.
  - o The only difference between versions 2.14 and 2.15 data models are the file naming convention and file window sizes, available content fields within the files are identical.

*Hourly Directory files*

*News.[ Provider, Reuters subset, or third-party aggregation].[Time Period: YYYY-MM-DD_HH].[System Version].txt.gz*

Notes:

- Provider, Reuters subset, or third-party aggregation.  (See Historical directory definition)
- *Time period:* UTC
  - *YYYY-MM-DD_HH* represents 0 to 23 hours of the 24-hour UTC day.
- *Data Model Version:*
  - Hourly files are populated under data model version 2.15, denoted as '0215'".

### 6.2.4.  Data Model Differences

Most historical archive messages prior to 2018 were created from original Data Model version 2.10, whereas the current feed data is on version 2.15. Version 2.14/15 differs in two ways:

- It includes a *messageType* field. See Section 5.1 for more information.
- The *mimeType* field allows for a "x-plain-fixed" value

Users are advised to note these differences when examining News Archive files.

### 6.2.5.  Story Archive Data

The core STORY data is stored in JSON archives.

### 6.2.5.1.  Header

Each file begins with a header containing the following fields:

- RIC: data collected
- Start: UTC timestamp representing the start of the archive. May precede the first item in the archive.
- End: UTC timestamp representing the end of the archive. May follow the last item in the archive.
- MajorVersion: major version of the MRN data model
- MinorVersion: minor version of the MRN data model

### 6.2.5.2.  Archive Body

The individual collected news items are stored in an `Items` array.

Aside from the core metadata shown in Chapter 5, each item is accompanied by a `timestamps` array, showing up to three regional millisecond-precision[3] collection timestamps. Each timestamp has the following fields:

- source: can take one of the following values:
  - "AMER": Americas region
  - "APAC": Asia-Pacific region
  - "EMEA": EMEA region
- name: type of timestamp. Set to "recorded".
- timestamp: UTC timestamp

Next is a `guid` field, showing the same value as the "GUID" field described in **Error! Reference source not found.**.

### 6.2.5.3.  JSON Example of Story Archive Data

The following example shows a header and collected news item, based on legacy Data Model version 2.10. See Section 6.2.4 on differences between 2.10 and the current Data Model version, 2.15.

```
{
```

---

[3] Collection clocks are synched via NTP.

```
"RIC": "MRN_STORY",
"Start": "2016-12-01T00:00:00.000Z",
"End": "2016-12-01T23:59:59.999Z",
"MajorVersion": "2",
"MinorVersion": "14",
"Items": [{
    "timestamps": [{
        "source": "AMER",
        "name": "recorded",
        "timestamp": "2016-12-01T12:09:42.170Z"
    }, {
        "source": "APAC",
        "name": "recorded",
        "timestamp": "2016-12-01T12:09:42.114Z"
    }, {
        "source": "EMEA",
        "name": "recorded",
        "timestamp": "2016-12-01T12:09:42.149Z"
    }],
    "guid": "FWN1DW0AB_16120122Vd2Ch2QfMTUx9RsvTSSMUPXPn+Zl/m56bYkN",
    "data": {
            "body": "    Dec 1 (Reuters) - Lee & Man Handbags Holding Ltd <1488.HK>\r\n    * Unit and
               sellers entered into sale and purchase agreement\r\n    * Unit agreed to purchase in
               aggregate 19% equity interest\r\nin target company for rmb41 million\r\n    * Sellers are
               Zhao Shen, Zhao Jingjing, Wang Ling and other\r\nsellers; target company is Beijing Hhg
               Restaurant Management\r\nCo., Ltd\r\n\r\nSource text: (http://bit.ly/2gLPMRG)\r\nFurther
               company coverage: [1488.HK]\r\n\r\n ((Bangalore.newsroom@thomsonreuters.com;))",
            "mimeType": "text/plain",
            "firstCreated": "2016-12-01T11:54:29.000Z",
            "language": "en",
            "altId": "nFWN1DW0AB",
            "headline": "BRIEF-Lee & Man Handbags says unit entered into sale and purchase
               agreement<1488.HK>",
            "takeSequence": 1,
            "pubStatus": "stat:usable",
            "subjects": ["B:69", "B:75", "B:82", "B:84", "E:1", "E:6", "E:R", "E:W", "G:1", "G:3H", "G:6",
               "G:B1", "G:K", "G:S", "M:NY", "M:Z", "R:1488.HK", "N2:APPA", "N2:ASIA", "N2:ASXPAC",
               "N2:BACT", "N2:BLR", "N2:CMPNY", "N2:CN", "N2:CYCP", "N2:CYCS", "N2:DEAL1", "N2:EASIA",
               "N2:EMRG", "N2:HK", "N2:ISU", "N2:MEVN", "N2:WEAR", "P:4298164107"],
            "audiences": ["NP:D", "NP:DNP", "NP:E", "NP:M", "NP:PCO", "NP:PSC", "NP:PTD", "NP:RNP", "NP:T",
               "NP:Z"],
            "versionCreated": "2016-12-01T12:09:41.000Z",
            "provider": "NS:RTRS",
            "instancesOf": [],
            "id": "FWN1DW0AB_16120122Vd2Ch2QfMTUx9RsvTSSMUPXPn+Zl/m56bYkN",
            "urgency": 3
            "messageType": 2
        }
    },
    ...
    ]
}
```

## 6.3    COMPANY REFERENCE FILES

Mappings to common identifiers will be provided for companies. These include ticker, MIC, and a Reuters Identifier Code (RIC).

In addition, third-party identifiers – CUSIP, ISIN, and SEDOL – are available upon request in conjunction with a license from the issuer. CUSIP and ISIN require a license with Standard & Poor's for CUSIPs. ISINs are included because some ISINs are CUSIP-based. SEDOL access requires a license with the London Stock Exchange. Please contact your Account Manager or Sales Specialist if you are interested in viewing these third-party identifiers and have a requisite license. Refinitiv will contact the identifier issuer(s) to verify the license(s).

Note that these files are based on the company coverage of News Analytics (NA). Thus, the directory and file names contain "NA" instead of "News".

### 6.3.1.    Directories

/TRNA/Companies/EN/[BASIC/CUSIPISIN/SEDOL/CUSIPISINSEDOL]/

Notes:

- The fourth-level directory is permissioned according to user's combination of licenses for third-party identifiers. Access will be given to exactly one such directory. Without the verified third-party licenses, users may be granted access to only the BASIC directory.

### 6.3.2.    Files

*TRNA.CMPNY.EN.BASIC.[Asset Store Version].txt*

*TRNA.MAPPING.EN.PermId.[CUSIP, ISIN or SEDOL].[Asset Store Version].txt*

Notes:

- The Asset Store Version currently corresponds to the last three digits of the systemVersion. It denotes a version of the News Analytics coverage list, which typically changes monthly. Reference files are typically posted the first of second weekend of each month.
- In the future, the News Analytics coverage list may be updated more regularly, weekly or daily. In such a case, the string may be of the format "*yyyymmdd*", corresponding to a date.

Fields:

- PermID: used to identify the company in the *assetId* field. See Section 2.2.5.1 for more information.
- companyName
- countryOfDomicile: two-character ISO country code
- TRBCEconomicSector: plain-text description of Thomson Reuters Business Classification (TRBC) economic sector
- status: "active" if the company may be scored in a live feed. Otherwise, "inactive".
- RIC: corresponds to the Editorial RIC, which typically is the one most commonly tagged to news. Note that for Nasdaq RICs ending in ".OQ", the RIC typically tagged to news ends in ".O".
- marketMIC: ISO-10383 code for market or exchange identification. Value may differ from similar value maintained by London Stock Exchange.
- CUSIP: only available in files with "CUSIP" in the file name
- ISIN: only available in files with "ISIN" in the file name
- SEDOL: only available in files with "SEDOL" in the file name

## 6.4    TRIAL ACCESS COMPARED TO PRODUCTION ACCESS

As mentioned in the overview to this chapter, trial users can access less data than can production clients, and from a different directory. Thus, the files are the same, but the time duration is less.

Following are the key differences in directory structure for trial clients compared to production clients:

- Second-level directory is /Trial, instead of /Archives; the directory structure starts as /News/Trial

- Third-level directory describes the content and the time period, e.g., 3PTY_2019_Q1. This third level is the lowest level in /News/Trial
- All files are monthly

# APPENDIX 1 MACHINE READABLE NEWS: REUTERS NEWS AND SUBSETS

This section describes the product codes used to define each Reuters News subset, both in the feed and historically.

Note that the Global Company package available over the feed represents the union of the Americas, Asia-Pacific, and EMEA packages.

## REUTERS NEWS

The All Reuters News package includes access to both Reuters News (RTRS provider code) and Thomson Reuters Automated News feed (TRAUT provider code).

## AMERICAS COMPANIES

| Product Code | Description |
| --- | --- |
| AEN | Latin American Domestic News |
| BRS | Brazilian Domestic News Service - Portuguese |
| CAN | Canadian Domestic News Service |
| E | Securities International News Service |
| MNI | North American Municipal Domestic News Service |
| NAT | North American Treasury Domestic News Service |
| NAW | North American Wealth Management News Service |
| PCO | Corporate News Pool |
| RITV | Reuters Insider |
| RNP | Markets News Pool |
| U | North American Securities Domestic News Service |

## ASIA-PACIFIC COMPANIES

| Product Code | Description |
| --- | --- |
| AUP | AAP & Reuters Financial News |
| AUF | Australian Domestic Financial News Service |
| CDS | Chinese Domestic News Service |
| CLN | Chinese Language News Service |
| CMN | China Money Domestic News Service |
| E | Securities International News Service |
| IF | Indonesian Focus Domestic News Service |
| KRN | Korean Domestic News Service |
| PCO | Corporate News Pool |
| PHD | Philippines Domestic News Service |
| RNP | Markets News Pool |
| RSS | Reuters News (Japanese) |
| SI | South East Asia Economic Domestic News Service |
| SNI | Indian Domestic News Service |

| SNS | South Asia Domestic News Service |
|-----|----------------------------------|

## EMEA COMPANIES

| Product Code | Description |
|--------------|-------------|
| AFN | African Domestic News Service |
| CZS | Czech Domestic News Service |
| DA | Danish Domestic News Service |
| FA | French Equities / Economic News Service |
| FB | French General News Service |
| FG | French Money / Debt News Service |
| GER | German Economic Domestic News Service |
| GNG | Greek Domestic News Service – Greek |
| GNN | Greek Domestic News Service – English |
| MIT | Italian News  all subjects – Italian |
| NW | Norwegian Domestic News Service |
| OE | Austrian Domestic News Service |
| P | Portuguese Domestic Service |
| PCO | Corporate News Pool |
| PX | Polish Domestic News Service |
| RNP | Markets News Pool |
| RX | Russian Domestic News Service |
| SP | Spanish Domestic News Service (Spanish) |
| SW | Swedish Domestic News Service |
| SWF | Swiss Domestic News Service – French |
| SWI | Swiss Domestic News Service – German |
| TS | Turkish News - Turkish |

## POLITICAL/GENERAL/ECONOMIC

The below table refers to product codes in the Reuters News (RTRS) source. In addition, the Thomson Reuters Automated News feed (TRAUT) is also part of this package.

| Product Code | Description |
|--------------|-------------|
| D | Debt International News Service |
| C | Commodities International News Service |
| ELN | North American Power Domestic News Service |
| G | General News International News Service |
| M | Money International News Service |
| MF | Market Focus International News Service |
| O | Energy International News Service |

| S | Sports International News Service |
|---|---|
| T | Treasury International News Service |

# APPENDIX 2 THOMSON REUTERS KNOWLEDGE DIRECT

This section lists the news product codes used in standard Thomson Reuters Knowledge Direct (TRKD) news products.

## EXTERNAL / NON-PROFESSIONAL

Product packages in this section may be used for external redistribution to the user firm's external customers.

### Reuters Subsets

#### Country

| | | |
|---|---|---|
| Australia News | Italy News | Singapore News |
| Brazil News | Japan News | South Africa News |
| China News | Malaysia News | South Korea News |
| France News | Mexico News | Spain News |
| Germany News | Netherlands News | Taiwan News |
| Greece News | New Zealand News | Thailand News |
| Hong Kong News | Philippines News | Turkey News |
| India News | Poland News | UAE News |
| Ireland News | Russia News | UK News |

#### Other Regions and Topics

| | |
|---|---|
| Global Financial News English Non-pro | Pan Europe News |
| Australia NZ Financial News | Nordic & Baltics News |
| International Equity News | Middle East (MENA) News |
| FX News | Greater China News |
| North America | Latin America News |
| Asia Pacific News | |

### Third Parties

Business Wire News

PR Newswire News

All Third Parties. See https://customers.reuters.com/a/support/paz/pazDocs.aspx?dId=591993 for an updated list.

## INTERNAL / PROFESSIONAL

Product packages in this section may be used for internal redistribution to the user firm's employees.

### Reuters Subsets

#### Country

| | | |
|---|---|---|
| Austria News | Germany News | Japan News |
| Brazil News | Italy News | Russia News |

Spain News                                      Thailand News

## Other Regions and Topics

International Equity News                        Global Financial News Chinese

Latin America News                              Premium Japan News

Australia & New Zealand News                     International English News

## Third Parties

All Third Parties, Private Site. This applies to external sites that are password-protected.

All Third Parties, Public Site

See https://customers.reuters.com/a/support/paz/pazDocs.aspx?dld=591993 for an updated list of sources for these third-party packages.

## APPENDIX 3 HEADLINE TAGS IN COMPANY NEWS: ENGLISH

The table on the following page lists the most common headline tags in English-language (language = "en", as per Chapter 5) Reuters company news.

## APPENDIX 3 HEADLINE TAGS IN COMPANY NEWS: ENGLISH

| | | | |
|---|---|---|---|
| ADR Report | GLOBAL MARKETS | NORWAY GAS | Taiwan Stocks |
| ADVISORY | GRAINS | NSE | TAKE A LOOK |
| AFRICA INVESTMENT | GRAPHIC | NY Euro Deposits | TAKE-A-LOOK |
| After the Bell | GUIDE | NY Euro Deposits Close | TECHNICALS |
| AIRSHOW | GULF STOCKS | NY Exchanges Forwards | TEXT |
| AMEX CONTINUING HALT | HEADLINE STOCKS | NYMEX | Thai Hot Stocks |
| AMEX OPENING DELAY | HIGHLIGHTS | NYSE CONTINUING HALT | Thai Stocks |
| ANALYSIS | Hot Stock Highlights | NYSE HALT | TIMELINE |
| ANALYST VIEW | India Money Market Rates | NYSE NEW INDICATION | Tokyo Stocks |
| ANALYSTS' VIEW | Indian Debt | NYSE OPENING DELAY | TOP NEWS |
| Asia Forex | Indian Government Securities | NYSE RESUMPTION | TOPWRAP |
| ASIA GRAINS | Indian IPOs | OBITUARY | TRADE IDEA |
| Asia Markets | INDICATOR | OPINION | TREASURIES |
| Assets (US) | INDICATORS | OTC HALT | U.S. Cash Product |
| BEFORE THE BELL | Indonesian Stocks | OTC OPENING DELAY | U.S. Corporate Bonds |
| Block Trade | INSIGHT | OTC RESUMPTION | U.S. Headline Stocks |
| Bombay Shares | INSTANT VIEW | OUTLOOK | U.S. Municipals |
| Bond Markets | INSTANT VIEW 1 | Philippine Stocks | U.S. OPTIONS |
| Brazil Forex Week | INSTANT VIEW 2 | POLL | U.S. REFINERY FILING |
| BREAKINGVIEWS | INSTANT VIEW 3 | PRECIOUS | U.S. RESEARCH ROUNDUP |
| BRIEF | INSTANT VIEW 4 | Presale Cattle | U.S. Yield Curve |
| BUY OR SELL | INSTANT VIEW 5 | PRESS DIGEST | UK GAS |
| BUZZ | INSTANT VIEW 6 | PREVIEW | UK Gilts Weekahead |
| CANADA FX | INSTANT VIEW 7 | Q&A | UK Stocks |
| CANADA RESEARCH ROUNDUP | INTERVIEW | REFILE | UPDATE |
| CANADA STOCKS | IPO Pricing | RESEARCH ALERT | UPDATE 1 |
| CHRONOLOGY | IPO VIEW | REUTERS EXCLUSIVE | UPDATE 2 |
| COLUMN | IPOVIEW | Reuters Money Graph | UPDATE 3 |
| Commodities | Jakarta Stocks | REUTERS POLL | UPDATE 4 |
| COMMODITIES | Japan Hot Stocks | REUTERS SUMMIT | UPDATE 5 |
| CORRECTED | Lifting the Lid | REUTERS SURVEY | UPDATE 6 |
| CORRECTED-(OFFICIAL) | LIVESTOCK | RLPC | UPDATE 7 |
| DIARY | LOOKAHEAD | RUBBER | UPDATE 9 |
| Dutch Options | LPC | SCENARIO | URGENT |
| EARNINGS POLL | Malaysia Stocks | SEALED BIDS | US CREDIT |
| Emerging Debt Emerging Markets FX | MARKET EYE | Singapore Stocks | US CREDIT OUTLOOK |
| EMERGING EUROPE STOCKS | MARKET EYE WEEKAHEAD | SNAP ANALYSIS | US RESEARCH NEWS |
| EMERGING MARKETS | MARKET PULSE | SNAPSHOT | US RESEARCH SUMMARY |
| EURO CORP | MERGER TALK | SOFTS | US STOCKS |
| Euro Debt | METALS | South Korea Stocks | US STOCKS SNAPSHOT |
| EURO GOVT | METALS INSIDER | Special Report | VEGOILS |
| EUROPE MINOR METALS | MIDDLE EAST NEWS HIGHLIGHTS | SPECIAL REPORT | Wall Street Week Ahead |
| EUROPE RESEARCH ROUNDUP | MIDEAST DEBT | STOCKS NEWS AFRICA | WEEK AHEAD |
| EXCLUSIVE | MIDEAST MONEY | STOCKS NEWS EUROPE | WITNESS |
| FACTBOX | MIDEAST STOCKS | STOCKS NEWS INDONESIA | WORLD BONDS |
| Factors to watch | MMNEWS | STOCKS NEWS MALAYSIA | WORLD NEWS HIGHLIGHTS |
| FEATURE | MONEY MARKETS | STOCKS NEWS MIDEAST | WRAPUP |
| FINEWS | MOVES | STOCKS NEWS SINGAPORE | WRAPUP 1 |
| FOREX | NASDAQ HALT | STOCKS NEWS UK SMALL | WRAPUP 2 |
| FUND SCORE | NASDAQ RESUMPTION | STOCKS NEWS US | WRAPUP 3 |
| FUND VIEW | NATGAS PIPELINE CRITICAL NOTICE | STOCKS NEWS VIETNAM | WRAPUP 4 |
| FX Cross | New Issue | STXNEWS LATAM | WRAPUP 5 |
| FX in Europe | NEWSMAKER | SUMMIT | WRAPUP 6 |
| FXNEWS | NORDIC POWER | Swiss stocks | YOUR MONEY |
| German Data Due | NORDIC STOCKS | TABLE | |

# APPENDIX 4 HEADLINE TAGS IN COMPANY NEWS: JAPANESE

The following table lists the most common headline tags in Japanese-language (language = "ja", as per Chapter 5) Reuters company news.

| | | | |
|---|---|---|---|
| 〔焦点〕 | UPDATE 1 | ロイター短観こうみる | 米ＦＲＢ議長証言こうみる |
| 〔表〕ロイター短観 | UPDATE 2 | 中国インフレ指標こうみる | 米ＦＲＢ議長講演こうみる |
| 10年債入札こうみる | UPDATE 3 | 中国利上げこうみる | 米ＧＤＰこうみる |
| 10月ロイター短観 | UPDATE 4 | 中国指標こうみる | 米ＩＳＭ製造業指数こうみる |
| 11月ロイター短観 | UPDATE 5 | 中国貿易収支こうみる | 米債務上限問題こうみる |
| 12月ロイター短観 | UPDATE 6 | 中国貿易統計こうみる | 米新規失業保険申請件数こうみる |
| 1月ロイター短観 | UPDATE1 | 中国預金準備率引き上げこうみる | 米経済指標こうみる |
| 20年債入札こうみる | UPDATE2 | 人民元柔軟化こうみる | 米雇用統計こうみる |
| 2年債入札こうみる | UPDATE3 | 債券格付け情報 | 経常収支こうみる |
| 2月ロイター短観 | UPDATE4 | 債券格付情報 | 緊急インタビュー |
| 30年債入札こうみる | UPDATE5 | 円債こうみる | 訂正 |
| 3月ロイター短観 | UPDATE6 | 再送 | 訂正（会社側の申し出） |
| 40年債入札こうみる | WRAPUP 1 | 展望リポートこうみる | 訂正（発表者側の申し出） |
| 4月ロイター短観 | WRAPUP 2 | 新規上場企業の横顔 | 訂正（発表者側の申し出） |
| 5年債入札こうみる | WRAPUP 3 | 新規公開企業の横顔 | 豪ＣＰＩこうみる |
| 5月ロイター短観 | WRAPUP 4 | 新設ファンド概要 | 豪ＧＤＰこうみる |
| 6月ロイター短観 | WRAPUP 5 | 日本国債見通し引き下げこうみる | 豪中銀据え置きこうみる |
| 7月ロイター短観 | WRAPUP1 | 日銀人事こうみる | 豪中銀金利据え置きこうみる |
| 8月ロイター短観 | WRAPUP2 | 日銀会合こうみる | 豪利上げこうみる |
| 9月ロイター短観 | WRAPUP3 | 日銀決定会合こうみる | 豪利下げこうみる |
| BUZZ | WRAPUP4 | 日銀短観こうみる | 豪金利据え置きこうみる |
| COLUMN | WRAPUP5 | 日銀総裁会見こうみる | 豪雇用統計こうみる |
| ＣＰＩこうみる | アップル決算こうみる | 日銀追加緩和こうみる | 貿易収支こうみる |
| ＥＣＢこうみる | アナリスト情報 | 株式こうみる | 貿易統計こうみる |
| ＥＣＢ総裁会見こうみる | インタビュー | 機械受注こうみる | 起債評価 |
| ＦＯＭＣこうみる | お知らせ | 為替こうみる | 追加 |
| Ｇ２０こうみる | クレジットこうみる | 独ＧＤＰこうみる | 追加再送 |
| Ｇ７こうみる | サムスン業績予想こうみる | 短観こうみる | 追加緩和こうみる |
| ＧＤＰこうみる | ホットストック | 米ＦＯＭＣこうみる | 鉱工業生産こうみる |
| ＪＦＥ | ロイター・テクニカル分析 | 米ＦＯＭＣ議事録こうみる | 銘柄速報 |
| Top News | | | |

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