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TRAX[®]

A large yellow geometric shape on the left side of the page, featuring a repeating pattern of small, interlocking diamond or cross shapes. It overlaps with the dark blue shape above it.

**EDS Technical Specification
CSV File Format
Version 1.01**

EDS Technical Specification - CSV File Format

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1 OVERVIEW

1.1 Introduction

The European Data Store (EDS) has been created to allow users to create and maintain mappings (entity mappings) between the identifiers used in their own systems to identify a party involved in a financial transaction and the standard identifiers required under MiFID II (e.g. Legal Entity Identifier, National Id etc.).

An entity mapping can map an internal code to an LEI, or to one or more natural persons (e.g. a joint account).

Trax Report and Trax Commodity Position Report users can elect to create and maintain entity mappings within the EDS if the user (or the firm submitting reports on the user's behalf) wishes to segregate the submission of natural person data from their regulatory reporting flows.

Users of the Market Access MTF must create and maintain entity mappings within the EDS to allow Market Access to comply with order record keeping requirements and to report transactions executed on the MTF on behalf of non-MiFID firms.

Further information on the use of entity mappings within the above services can be found in the respective service descriptions and/or technical specifications.

The purpose of this guide is to:

- Provide an overview of the EDS; and
- Describe the file flow and the message formats which enable customers to submit entity mapping data to the EDS.

Please refer to the Trax Connectivity Guide for further information on how to establish a connection with the Trax SFTP server for the exchange of EDS submission and response files.

This guide does not cover the EDS GUI application which allows clients to view the status of their EDS submissions and to manage exceptions.

This guide is applicable to clients of both Trax UK and Trax NL B.V.

1.2 Document Structure

This document is structured as follows:

- Section 2 provides an overview of the EDS
- Section 3 provides an overview of the EDS submission file flow
- Section 4 provides an overview of the file submission process
- Section 5 provides an overview of EDS responses
- Section 6 defines the format of the files sent by participant firms to the EDS
- Section 7 defines the format of the EDS response files.

2 SERVICE OVERVIEW

2.1 Introduction

The purpose of this section is to highlight specific points you should consider when submitting entity mapping data to the EDS:

- Submission accounts
- Submission models
- Unique identifiers
- Entity mapping data
- Entity mapping lifecycle
- Segregation of Access.

2.2 Submission Accounts

A submission account segregates the flow of EDS data between your organisation and the EDS. Typically, a submission account is linked to an SFTP Folder to support automated file based submission flows.

You can operate one or more submission accounts depending on how your organisation segregates EDS data flows. One or more submission accounts can be linked to a single SFTP folder.

Submission accounts support manual submissions via screen based CSV download¹ or manual keying using the EDS GUI application. A submission account does not have to be linked to an SFTP Folder if you only submit via CSV download.

2.3 Submission Models

An entity mapping maps the internal code used by a firm to identify a party involved in a financial transaction or holding a position, to the standard identifier for the party required under MiFID II.

Two separate methods are supported for the maintenance of entity mapping data via file based submissions: i) the entity mapping is firm specific; or ii) the entity mapping is shared by one or more firms within a group.

Where an entity mapping is firm specific, the identifier (LEI) of the firm that uses the internal code and the Country of Branch (where relevant²) is submitted by the sending source in addition to the standard identifier for the party.

¹ Files submitted via CSV download must use the CSV format defined in this specification.

² The country of branch of the investment firm that holds the direct relationship with a client and receives orders from the client or makes an investment decision on behalf of the client; or the country of branch of the investment firm that is responsible for, or supervises, a role within the firm. This data can be held within the EDS or entered on a transaction by transaction basis.

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Where an entity mapping is shared by one or more firms within a group:

- The sending source can maintain the mapping between the internal code and the standard identifier in isolation and the identifiers (LEIs) of the firms within the group that use the internal code can be maintained independently via the EDS GUI application
- The identifiers (LEIs) of the firms within the group that use the internal code can be maintained by the sending source, but each submission message can only provide a single LEI. Thus new LEIs can be added to an existing entity mapping by submitting further messages (with an Action of REPL)³; or
- The identifiers (LEIs) of the firms within the group that use the internal code can be set up automatically by the system on the basis of the LEIs that are registered to the submission account on which the EDS file submission was received
- A number of options exist for maintaining the Country of Branch (where Country of Branch is relevant to the entity mapping):
 - Country of Branch can be maintained by the sending source if the firms within the group that will use the internal code are set up automatically by the system and Country of Branch is the same for all of the firms
 - Country of Branch can be maintained at the firm (LEI) level through an EDS submission or via the EDS GUI application; or
 - Country of Branch can be set to the Country of Branch defined for each registered firm, if the firms using the internal code are set up automatically by the system⁴.

³ Note that it is not possible to maintain the effective from and to dates at the registration level using an EDS submission. The Effective From Date and Expiry Date defined for the entity mapping shall apply to all firms registered to use the entity mapping. Any effective from and to dates at the registration level set via the EDS GUI will be overwritten if an Effective From Date/Expiry Date is provided on an EDS submission

⁴ This option is envisaged if Country of Branch defined for a registered firm applies to all internal codes; e.g. all internal codes maintained by the sending source have a Country of Branch of 'FR' when used by Firm A, and a Country of Branch of 'GB' when used by Firm B.

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2.4 Unique Identifiers

The EDS requires an entity mapping to be identified by the following fields (unique identification):

- Client Id - an internal identifier assigned by Trax to uniquely identify an organisation that will submit data to the EDS
- Submission Account Id - an Identifier agreed between your organisation and Trax to identify the submission account under which EDS data is submitted; and
- Firms Internal Code - the internal code used within the organisation to identify a party involved in a financial transaction.

In addition, the combination of firm (LEI) and Firms Internal Code must uniquely identify an entity mapping to the services (Trax Report, Trax Commodity Position Report and the Market Access MTF) that will use the mapping.

EDS users must be aware of the constraints imposed by the unique identifiers when considering how to submit and maintain EDS data, as illustrated in the use cases on the following pages:

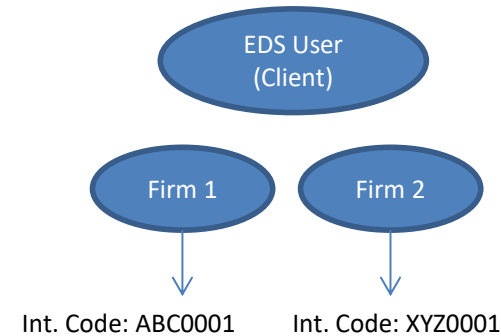
- Examples 1 to 3 illustrate use cases that can be accommodated within the constraints imposed by the unique identifiers; and
- Examples 4 and 5 illustrate use cases that will require a Client to implement changes to their source systems.

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2.4.1 Submitting and Maintaining EDS Data

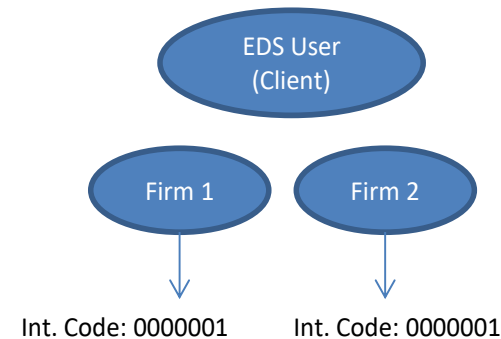
Example1 - Internal codes are opened at the Firm level and are unique at the Client level:

- Client can operate a single submission account
- Firm can be assigned within the EDS submission file, auto-assigned, or assigned in the EDS GUI
- Key constraint may be broken if there is another EDS user for the Firm
- Mitigation: if more than one EDS user⁵ for a firm; ensure users agree a prefix to ensure internal codes are unique per Firm.



Example 2 - Internal Codes are opened at the Firm level and are non-unique at the Client level:

- Client must operate a separate submission account per Firm (for uniqueness)
- Firm can be assigned within the EDS submission file, auto-assigned, or assigned in the EDS GUI
- Key constraint may be broken if there is another EDS user for the Firm
- Mitigation: if more than one EDS user for a firm; ensure users agree a prefix to ensure internal codes are unique per Firm.

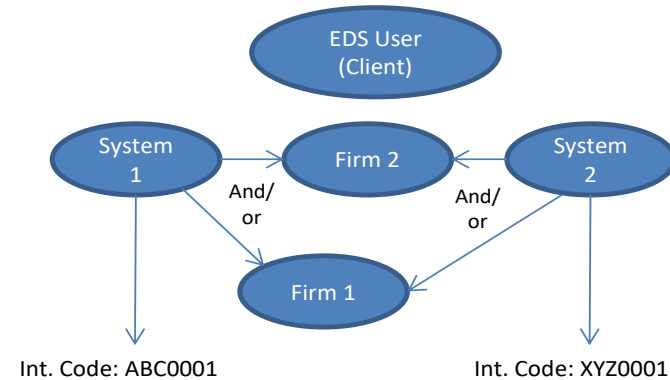


⁵ For example, a Client outsources the post trade function for a Firm for a specific asset class to another organisation that also uses the EDS.

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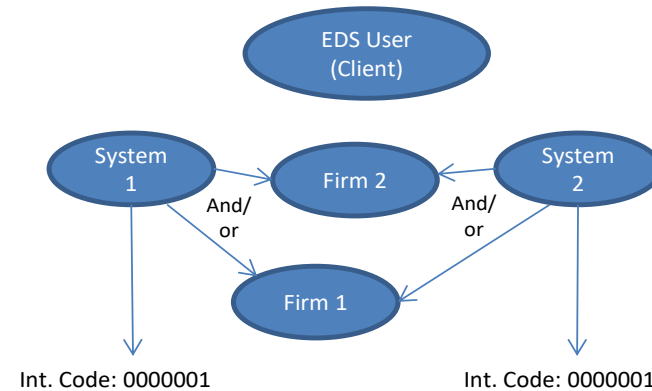
Example 3 - Internal Codes are opened at system level, shared by Firms and unique at the Client level:

- Client can operate a single submission account
- Firm can be auto-assigned, assigned via an EDS submission or assigned using the EDS GUI
- Key constraint may be broken if there is another EDS user for the Firm
- Mitigation: if more than one EDS user for a firm; ensure users agree a prefix to ensure internal codes are unique per Firm.



Example 4 - Internal Codes are opened at system level, shared by Firms and non-unique at the Client level:

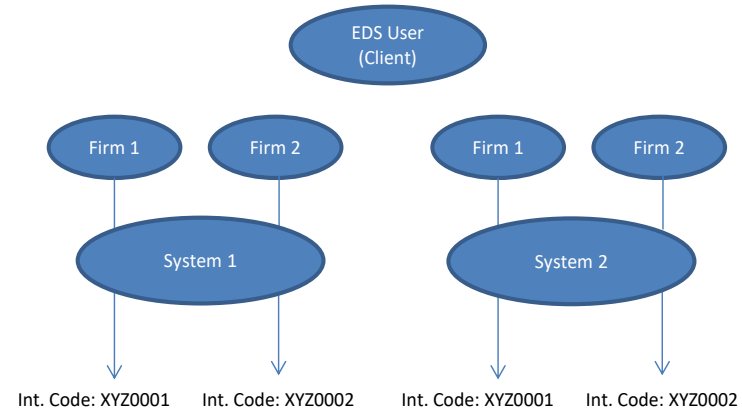
- In this example, the key constraint is broken across systems as both systems are entering the same internal codes for the same LEIs resulting in duplicates
- Client must therefore assign a prefix at the system level to ensure internal codes are unique per Firm
- Client can operate single submission account as system level prefix means that Internal Codes are unique at the Client level
- Firm can be auto-assigned, assigned via an EDS submission or assigned using the EDS GUI



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Example 5 - Internal Codes are opened at system level per Firm and non-unique at Client level:

- In this example, the key constraint is broken across systems as both systems are entering the same internal codes for the same LEIs resulting in duplicates
- Client must therefore assign a prefix at the system level to ensure internal codes are unique per Firm
- Client can operate single submission account as system level prefix means that Internal Codes are unique at the Client level
- Firm can be assigned within the EDS submission, auto-assigned, or assigned in the EDS GUI.



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2.5 Entity Mapping Data

An entity mapping can map an internal code to an LEI or to one or more natural persons (e.g. a joint account).

Where an entity mapping maps to an LEI, you should populate LEI (Field 9) in the NPD message and indicate whether the LEI is a client or another market participant.

Where an entity mapping maps to one or more natural persons, you should populate the following details for each person involved in the mapping and indicate whether the mapping relates to a client/decision maker or an internal role:

- Country of Nationality (Field 14) - where a natural person is a national of more than one EEA country, Country of Nationality should be populated with the country code of the first nationality when sorted alphabetically
- One of the following identifiers should be populated in accordance with the priority levels defined in Annex II of RTS 22 for Country of Nationality:
 - Passport Number (Field 15)
 - National Id (Field 16)
 - CONCAT (Field 17)
- Alternatively, the EDS can automatically construct the CONCAT (where the CONCAT is a permitted identifier for Country of Nationality) using Country of Nationality, First Names, Surnames and Date of Birth.
- First Names (Field 18) - first names and surnames should be populated after applying Step 1 and Step 2 of the procedure to generate a CONCAT defined in Section 5.5.1 of the ESMA Guidelines on Transaction Reporting, Order Record Keeping and Clock Synchronisation under MiFID II.
- Surnames (Field 19) - see first name above
- Date of Birth (Field 20).

Where an entity mapping is created to support Commodity Position reporting, you can optionally populate an e-mail contact address, and indicate if the party that that is the subject of the entity mapping is a collective investment undertaking that makes investment decisions independently of from its parent. This data can be held within the EDS or entered on a report by report basis.

2.6 Entity Mapping Lifecycle

The EDS supports the amendment of entity mapping data to reflect any changes you make within your own systems.

To amend the details of an entity mapping, you should submit an NPD message with an Action of REPL. The message must include the Firms Internal Code to identify the entity mapping and originate from the sending source (i.e. Submission Account) that created the entity mapping.

A valid REPL message will result in the replacement of the details held for the entity mapping with the details provided in the REPL message. Where a REPL message references a Firm Registration (Fields 7 and 8):

- That firm is assigned to the entity mapping if the firm's registration does not already exist
- The firm's registration details are updated if the firm's registration exists.

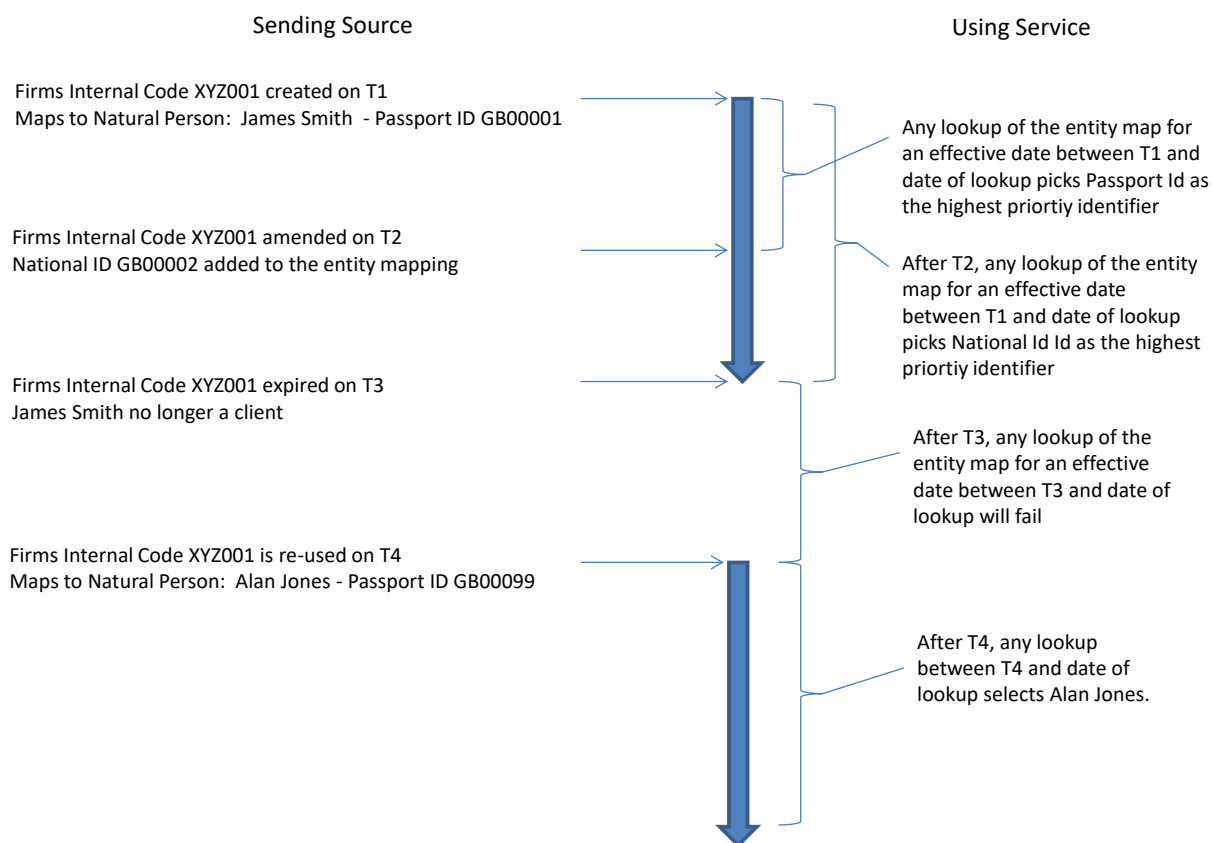
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Users should note that although the EDS will retain an audit trail of all changes applied to an entity mapping, the REPL message does not support amendments with an effective date⁶; i.e. any amendment is effective for the full life span of the entity mapping.

You can expire an entity mapping by populating the Expiry Date on a REPL message. An expired entity mapping can no longer be amended by the sending source⁷, but can still be used by the services that use the mapping; for example to support the correction of historic transaction reports.

Note that it is possible to re-use an internal code on a new entity mapping, provided the previous entity mapping that used the same internal code is expired.

The following diagram illustrates the entity mapping lifecycle in relation to the sending source that maintains the mapping, and the services that use the mapping.



An entity mapping can be 'logically deleted' by submitting an NPD message with an Action of CANC. A valid CANC message will result in the status of the entity mapping being updated to 'Deleted'. An entity mapping with a status of 'Deleted' will still exist and be visible with the EDS GUI, but can no longer be accessed by a using service.

⁶ Although Effective from Date can be specified for an EDS submission, the Effective from Date does not form part of the unique identifier for an entity mapping. The Effective from Date allows you to submit a new entity mapping effective from a specific date, for example where the entity mapping is submitted to the EDS on the day after the internal code was loaded into your own systems.

⁷ It will be possible to correct an expired entity mapping in the EDS GUI application.

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2.7 Segregation of Access

By default, access to entity mappings within a using service is controlled at the assigned firm level (i.e. executing or reporting entity). Where a using service permissions a firm to perform a function within the service (e.g. submit a transaction report), the using service can look-up any entity mapping assigned to that firm within the EDS.

It is possible to further segregate access at a business unit level provided the business unit is assigned to the entity mapping (Field 4) and the business unit restriction is implemented in the using services permissions.

At the time of writing, permissioning at the business unit level is only envisaged for the Market Access MTF.

3 EDS DATA FILE FLOW

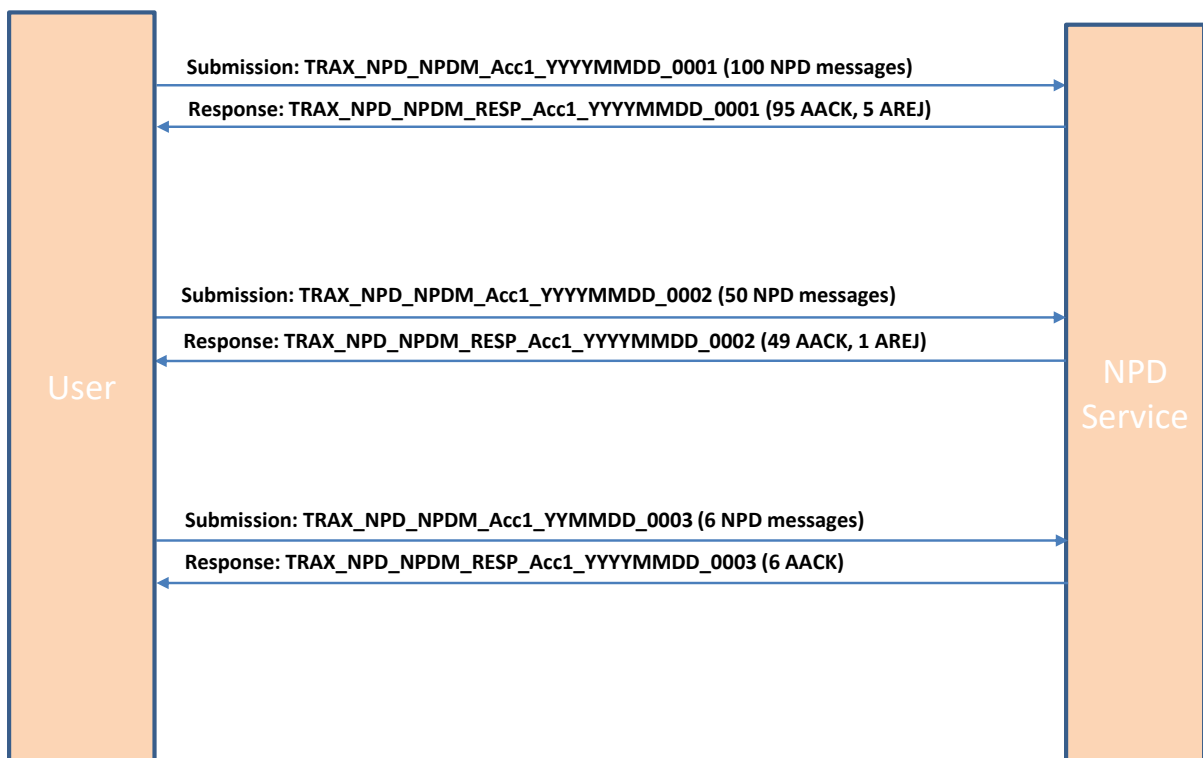
3.1 Overview

Each time the EDS receives a file submission, it will be validated at that time to ensure that the file is a valid submission (see Section 4 below for detail). If the file is a valid submission, the EDS will process each NPD message in the file submission and return a single response file to the same SFTP folder on the SFTP server for the subscriber to collect.

Valid NPD messages will be applied to the EDS database and a response message (AACK - Accepted) will be returned for the NPD message in the response file.

For NPD messages that fail business validation, a response message (AREJ - Rejected) will be returned for the NPD message in the response file. Each error detected for an NPD message will be returned in the response message.

The file flow is illustrated in the following diagram.



4 FILE SUBMISSIONS

4.1 File Format

4.1.1 Overview

Trax will accept file submissions 24 hours a day, 7 days a week subject to scheduled maintenance down time.

A submission file must consist of two or more variable length records with a maximum length of 5,000 bytes containing:

- A column header row which defines the order and presence of fields in the NPD message template for the file submission; followed by
- One or more NPD messages transactions up to a maximum of 9,999 (see Section 6 for format).

The EDS will assess files in the order in which they are received for an FTP folder. Note: order received is the time at which a file is first created in the folder rather than the time at which the transfer of the file is completed.

The format of a submission file must conform to the following CSV definition:

- A single line of text represents each record
- Each field within the record is separated by a comma (,)
- There will be NO trailing comma (,) after the last field
- Each field is represented by a sequence of ASCII characters
- Double Quotes(“”) are optional but must be used if the field value contains commas and/or quotes
- Each record terminates with a ‘new line’ character
- All records should have the fields presented in the order defined by the column header row.

4.1.2 File Naming Convention

Files must have a ‘CSV’ extension and must follow the naming convention “TRAX_SSS_XXXX_SubmissionAccountID_YYYYMMDD_NNNN”, where:

- SSS The Service the file is being sent to. Must be set to “NPD”.
- XXXX The message template (i.e. NPDM) used for the submission.
- SubmissionAccountID Is the Identifier agreed between your organisation and Trax to identify the submission account under which the file is submitted
- YYYYMMDD The date on which the submission file was created
- NNNN The Submission Number of the file. This allows a firm to send many (up to ten thousand, numbered 0000 to 9999) uniquely identified files for a submission account each day.

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4.2 File Validation

4.2.1 File Rejections

The EDS will perform file level checks on a file submission file before attempting to process any of the NPD messages in the file. If a file level check fails, the file submission is rejected (see Response files in Section 5).

The EDS will check that the file submission is correctly named and conforms to the structure defined in 4.1.1 above. Additional checks are also performed which are detailed in the following sections.

4.2.2 Submission Account Checks

Submission account will be checked for file submissions (identifier extracted from the submission file name):

- Must be registered to the subscriber within the subscriber's Trax account set up
- Must be associated to the SFTP folder in which the file was submitted within the subscriber's Trax account set up.

4.2.3 Duplicate Files

A submission file is identified as a duplicate if it has the same Submission Account Id, Creation Date and Submission Number (all extracted from the submission file name) as a previously accepted valid file submission.

4.2.4 Column Header Checks

The column header row will be checked for file submissions:

- A non-repeating field can be omitted and appear in a different order to that defined in the template but must only appear once
- Repeating fields have to be in the order defined in the template for the repeating group and must not be omitted within a group
- The column header for a field must match the field header name defined in the template
- The number of fields for each NPD message must match the number of fields defined in the column header.

5 RESPONSE FILES

5.1 Overview

Files will be submitted by subscribers to their designated SFTP folder on the Trax SFTP server. The EDS will in turn send response files back to the same SFTP folder on the SFTP server for subscribers to collect.

A response file will contain the following:

- A column header row which should be ignored for processing purposes; and
- A response for each NPD message contained in the submission file indicating the processing outcome for the message (see Section 7 for format).

Where a file submission is rejected (e.g. a duplicate file is submitted) the NPD messages in the file submission will not be processed and the response file will contain a single file error response.

Response files will be in CSV format and the format will conform to the standard defined in Section 4 above with the following exception:

- All records will have the fields presented in the order defined in the Outbound Message template in Section 7.

5.2 File Naming Convention

Response files will have a 'CSV' extension and will follow one of the following naming conventions:

"TRAX_SSS_XXXX_TTTT_SubmissionAccountID_YYYYMMDD_NNNN" if the submission file was correctly named; or

"TRAX_SSS_TTTT_SubmissionFileName" if the submission file did not conform to the required naming convention; where:

- SSS The Service the file is sent from (i.e. "NPD").
- XXXX The message template from the submission file.
- TTTT The Type of file. Will be set to "RESP" (Response file).
- SubmissionAccountID The identifier for the submission account from the submission file
- SubmissionFileName The file name of the submission file excluding the file extension
- YYYYMMDD The Creation Date from submission file.
- NNNN The Submission Number from the submission file.

The file name will be appended with the _Timestamp of when the submission file was received on the SFTP Server.

6 NPD MESSAGE TEMPLATE

6.1 Submission Format

The template presented in the following section defines the business message syntax required for the submission of an NPD message.

The EDS requires NPD messages to be submitted in CSV format. Each field in the template must be included in the order defined in the CSV header for the submission.

The following fields in the template support the input of multiple values:

- First Names and Surnames are single fields with the number of values being limited by the field size limit. Multiple values within the field must be delimited by a comma. For example: „James,Robert”, to report two first names
- Natural Person(s) is a repeating sequence with the maximum number of occurrences being set at defined limit of 100 occurrences. A sequence is repeated by repeating the field headers. The field headers for a single sequence must be contiguous.

An example CSV submission can be obtained from Client Services Management.

6.2 NPD Message Template

The NPD message template in the section below defines the following for each field:

- Field Header - the field header within the CSV header
- Description - a description of the field based on the guidance provided within the relevant ESMA regulatory technical standard
- M/O/C - indicates whether a field is Mandatory (M) Optional (O) or Conditional (C). The EDS will reject an NPD message and return a general syntax error if any mandatory field is not populated
- Format - defines the format applicable to the field. The EDS will reject an NPD message and return a general syntax error if a field does not comply with the defined format
- Business Rule - defines the business validation rules applied to a field (note that business rules only apply to NEWM and REPL messages except for fields Message Id, Action, and Firms Internal Code, where the business rules also apply to CANC messages):
 - The EDS will apply business validation to each field in turn and will reject a transaction if one or more fields do not pass the required validation rules. The EDS will return the first error for each field that fails business validation
- Reason Code - the rejection code applicable to a business rule (see table of reason codes in Section 7)

6.3 Field Format

The format column in the template uses the following notation:

- Date fields have the format YYYY-MM-DD
- Legal Entity Identifiers (LEI) must be a string of 20 characters where the first 18 characters are capital Latin letters (A-Z) or numbers and the last two characters are numbers

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- Concatenated Code (CONCAT) must be a string of 20 character where the first 2 characters are capital Latin letters (A-Z), the next 8 characters are numbers and the remaining characters are letters or #, where 11th and 16th character are letters
- Indicator fields have the format BOOLEAN and must contain the text “true” or “false” (mixed case is allowed)
- National Identifiers (NATIONAL) must be a string of between 3 and 35 characters where the first 2 characters are capital Latin letters (A-Z) and the remaining characters are capital Latin letters (A-Z), numbers (0-9) and additionally, the characters: plus “+” and minus “-” if the first 2 letters are “FI”, and the character: minus “-” if the first 2 letters are “LV”
- Contacts (E-mail) must be a string of up to 256 characters with the format: local-part@domain where:
 - local-part:
 - contains uppercase and lower case Latin letters (A to Z and a to z), numbers (0-9) and the following non-alphanumeric characters: underscore “_”, minus “-”, plus “+”, dot “.”, apostrophe “’”
 - the first and last characters must be an uppercase or lower case Latin letter (A to Z and a to z), number (0-9) or the following non-alphanumeric character: underscore “_”
 - the following non alphanumeric characters: minus “-”, plus “+”, dot “.”, apostrophe “’” cannot be repeated unless they are separated by an uppercase or lower case Latin letter (A to Z and a to z), number (0-9) or the following non-alphanumeric character: underscore “_”
 - domain:
 - contains uppercase and lower case Latin letters (A to Z and a to z), numbers (0-9) and the following non-alphanumeric characters: underscore “_”, minus “-”, dot “.”
 - the first and last characters must be an uppercase or lower case Latin letter (A to Z and a to z), number (0-9) or the following non-alphanumeric character: underscore “_”
 - the following non-alphanumeric characters: minus “-”, dot “.” cannot be repeated unless they are separated by an uppercase or lower case Latin letter (A to Z and a to z), number (0-9) or the following non-alphanumeric character: underscore “_”
 - the non-alphanumeric character: dot “.” must be present at least once.

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6.4 Template (NPDM)

| Ref. | Field Header | Description | M/O/C | | Format | Business Rule | Reason Code |
|------|-------------------|---|-----------|------|-------------|--|------------------|
| | | | NEWM REPL | CANC | | | |
| 1 | MessageID | Identifier for an NPD message | O | O | X(1 to 255) | Must be unique for the submission date if entered. | 1001 |
| 2 | Action | Indication as to whether the NPD message is a new, cancellation or amendment | M | M | A(4) | Must be one of the following: <ul style="list-style-type: none"> • NEWM: New entity mapping • REPL: Amend entity mapping • CANC: Cancel entity mapping. | 1002 |
| 3 | InternalCode | <p>The internal code used by the executing firm to identify a party involved in a transaction.</p> <p>The internal code should be the internal code used in the clients own reporting systems.</p> <p>The combination of Submitting User, Submission Account and Internal Code (with an Effective To Date that is in the future) uniquely identifies an entity mapping.</p> | M | M | T(1 to 35) | <p>A new entity mapping (Field 2 is NEWM) will be rejected if an 'active' entity mapping already exists in the EDS with an Effective To Date that is:</p> <ul style="list-style-type: none"> • Greater than or equal to Effective From Date (Field 5) if Effective From Date is entered; or • Greater than or equal to the current date (in EDS local time) if Effective From Date is not entered. <p>The amendment or cancellation of an entity mapping (Field 2 is REPL or CANC) will be rejected if an 'active' entity mapping does not exist in the EDS with an Effective to Date that is in the future.</p> | 1003 1004 |
| 4 | BusinessUnit | <p>The business unit associated with the party identified by the internal code.</p> <p>Supports the optional segregation of access to an entity mapping by business unit.</p> | O | O | T(1 to 35) | | |
| 5 | EffectiveFromDate | The date on which the entity mapping becomes effective. | O | O | Date | If entered and Action (Field 2) is REPL, an 'active' entity mapping must not exist with an Effective To Date that is greater than or equal to the entered date. | 1033 |

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| Ref. | Field Header | Description | M/O/C | | Format | Business Rule | Reason Code |
|--|--------------|---|--------------|------|--------|--|-------------------------------------|
| | | | NEWM REPL | CANC | | | |
| 6 | ExpiryDate | <p>The date on which the entity mapping expires; i.e. the date on which the relationship with the submitting user terminates.</p> <p>Sets the Effective To Date for an entity mapping. Allows an Internal Code to be re-cycled.</p> | O | O | Date | <p>Must not be entered if Action (Field 2) is one of NEWM or CANC.</p> <p>Must not be in the past (in EDS local time) if entered.</p> <p>Must be greater than Effective From Date (Field 5) if Effective From Date is entered or greater than the Effective From Date currently held for the entity mapping.</p> | <p>1005</p> <p>1006</p> <p>1034</p> |
| <p>Firm Registration (Fields 7 and 8) identifies the executing entity that uses the internal code (Field 3) to identify a party involved in a transaction.</p> <p>Where more than one firm uses the same internal code to identify the same party:</p> <ul style="list-style-type: none"> • Field 7 can be omitted and registration of the firms can either be defaulted (auto registered) or performed independently within the EDS GUI application • Field 7 can be entered to update an existing entity mapping registration or create a new entity mapping registration for an existing entity mapping (Field 2 must be REPL and auto registration must not be configured) • Field 8 can be entered if auto registration is configured and Country of Branch is the same for all the firms that will use the internal code. <p>The combination of Executing Entity and Internal Code (with an Effective Date To in the future) uniquely identifies an entity mapping registration.</p> | | | | | | | |

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| Ref. | Field Header | Description | M/O/C | | Format | Business Rule | Reason Code |
|------|-----------------|---|-----------|------|--------|---|---|
| | | | NEWM REPL | CANC | | | |
| 7 | ExecutingEntity | Code used to identify the executing entity that uses the internal code (Field 3) to identify a party involved in a transaction. | C | O | LEI | <p>Must not be entered if Auto Registration is configured for the submission account on which the submission was received.</p> <p>Must be registered to the submission account on which the submission was received with a Status of 'Active' if entered.</p> <p>If entered and Action (Field 2) is NEWM, an 'active' entity mapping registration must not exist with an Effective To Date that is:</p> <ul style="list-style-type: none"> • Greater than or equal to Effective From Date (Field 5) if Effective From Date is entered; or • Greater than or equal to the current date (in EDS local time) if Effective From Date is not entered. <p>If Action (Field 2) is NEWM and Auto Registration is configured for the submission account on which the submission was received, an 'active' entity mapping registration must not exist for each of the executing firms registered to the account with an Effective To Date that is:</p> <ul style="list-style-type: none"> • Greater than or equal to Effective From Date (Field 5) if Effective From Date is entered; or • Greater than or equal to the current date (in EDS local time) if Effective From Date is not entered <p>If the field is entered and Action (Field 2) is REPL, an 'active' entity mapping registration with an Effective To Date that is in the future must not exist for a different entity mapping (i.e. the same Internal Code submitted from a separate sending source).</p> | <p>1029</p> <p>1007</p> <p>1008</p> <p>1030</p> <p>1035</p> |

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| Ref. | Field Header | Description | M/O/C | | Format | Business Rule | Reason Code |
|------|-------------------|---|-----------|------|--------|--|-------------------------------------|
| | | | NEWM REPL | CANC | | | |
| 8 | CountryofBranch | <p>Where the entity mapping relates to a client, the country code of the branch that holds the direct relationship with a client and receives orders from the client or makes an investment decision on behalf of the client.</p> <p>Where the entity mapping relates to an internal role, the country code of the branch responsible for/supervising the role within the firm.</p> | C | O | A(2) | <p>Must not be entered if Executing Entity (Field 7) is not entered and Auto Registration is not configured for the submission account on which the submission was received.</p> <p>Must be a valid ISO 3166 Country Code if entered.</p> | <p>1032</p> <p>1010</p> |
| 9 | LEI | The Legal Entity Identifier of the party that is the subject of the entity mapping. | O | O | LEI | <p>If entered, must be a valid ISO 17442 LEI with</p> <ul style="list-style-type: none"> • A Registration Status of 'Issued', 'Lapsed', 'Pending Transfer' or 'Pending Archival' • An Initial Registration Date that is less than or equal to the current date; and • An Entity Status of Active; or if Entity Status is Inactive with a Last Update Date Time that is greater than or equal to the current date. | 1011 |
| 10 | LEIType | Indicates whether the Legal Entity Identifier of the party that is the subject of the entity mapping is a client of the executing firm or another market participant. | O | O | A(4) | <p>Must not be entered if LEI (Field 9) is not entered.</p> <p>Must be one of the following if entered:</p> <ul style="list-style-type: none"> • CLNT - Client • OTHR - Other. | <p>1023</p> <p>1024</p> |
| 11 | NaturalPersonType | Indicates whether the Natural Person (or Persons) that is the subject of the entity mapping is a client/decision maker for a client of the executing firm or an internal role. | C | O | A(4) | <p>Must not be entered if LEI (Field 9) is entered</p> <p>Must be entered if LEI (Field 9) is not entered.</p> <p>Must be one of the following if entered:</p> <ul style="list-style-type: none"> • CLNT - Client • INTL - Internal Role. | <p>1025</p> <p>1026</p> <p>1027</p> |
| 12 | ContactEMail | Contact Email address of the party that is the subject of the entity mapping. | O | O | E-mail | | |

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| Ref. | Field Header | Description | M/O/C | | Format | Business Rule | Reason Code |
|--|----------------------|--|-----------|------|----------|---|----------------------|
| | | | NEWM REPL | CANC | | | |
| 13 | CollInvSchmStatus | Indicates whether the party that is the subject of the entity mapping is a collective investment undertaking that makes investment decisions independently of from its parent as set out by Article 4(2)of RTS21 | O | O | BOOLEAN | | |
| Natural Person (Fields 14 to 20). Can repeat (max 100) if the entity mapping relates to a natural person; i.e. joint account or trustee. | | | | | | Fields 14 to 20 must not be entered if LEI (Field 9) is entered. | 1012 |
| | | | | | | Fields 14 to 20 must not be repeated if Natural Person Type (Field 11) is entered and is equal to INTL | 1028 |
| 14 | CountryofNationality | Country of nationality of a natural person. Where a natural person is a national of more than one EEA country, the first country alphabetically should be defined as the country of nationality. | C | O | A(2) | Must be entered if LEI (Field 9) is not entered. Must be a valid ISO 3166 Country Code if entered. If entered, at least one of the 1 st or 2 nd priority identifiers as defined in Annex II of RTS 22 must be entered where the CONCAT identifier is not permitted. | 1013 1014 1015 |
| 15 | PassportNumber | International Travelling Document number of the client. | C | O | NATIONAL | If entered, first two characters extracted from Passport Number must match Country of Nationality (Field 14) where Country of Nationality is entered and is valid. | 1016 |
| 16 | NationalID | National Identifier | C | O | NATIONAL | If entered, first two characters extracted from National Identifier must match Country of Nationality (Field 14) where Country of Nationality is entered and is valid. | 1017 |

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| Ref. | Field Header | Description | M/O/C | | Format | Business Rule | Reason Code |
|------|--------------|---|-----------|------|-------------|---|------------------|
| | | | NEWM REPL | CANC | | | |
| 17 | CONCAT | Concatenated Code | O | O | CONCAT | <p>If entered, first two characters extracted from the code must match Country of Nationality (Field 14) where Country of Nationality is entered and is valid.</p> <p>If entered, character positions 3 to 10 must be equal to Date of Birth (Field 20) where Date of Birth is entered.</p> <p>If CONCAT is a permitted identifier as defined in Annex II of RTS 22, CONCAT is not entered and none of the higher priority identifiers (if any) have been entered; CONCAT is auto-generated as defined in Guidelines for Transaction Reporting (October 2016) - Procedure to Generate CONCAT⁸.</p> | 1018 1019 |
| 18 | FirstNames | Full first name(s) of the client. Multiple first names shall be delimited by a comma. | C | O | Z(1 to 140) | Must be entered if Country of Nationality (Field 14) is entered and is valid, CONCAT is a permitted identifier as defined in Annex II of RTS 22, CONCAT (Field 17) is not entered and none of the higher priority identifiers defined in Annex II of RTS 22 (if any) have been entered. | 1020 |
| 19 | Surnames | Full surname(s) of the client. Multiple surnames shall be delimited by a comma. | C | O | Z(1 to 140) | Must be entered if Country of Nationality (Field 14) is entered and is valid, CONCAT is a permitted identifier as defined in Annex II of RTS 22, CONCAT (Field 17) is not entered and none of the higher priority identifiers defined in Annex II of RTS 22 (if any) have been entered. | 1021 |

⁸ Steps 3 and 4 only; the submitting client must ensure that the spelling of the person's full name is correct (Step 1) and remove any prefixes that denote titles, position, profession or academic quantifications (Step 2).

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| Ref. | Field Header | Description | M/O/C | | Format | Business Rule | Reason Code |
|------|--------------|-----------------------------|-----------|------|--------|---|-------------|
| | | | NEWM REPL | CANC | | | |
| 20 | DateofBirth | Date of birth of the client | C | O | Date | Must be entered if Country of Nationality (Field 14) is entered and is valid, CONCAT is a permitted identifier as defined in Annex II of RTS 22, CONCAT (Field 17) is not entered and none of the higher priority identifiers defined in Annex II of RTS 22 (if any) have been entered. | 1022 |

7 OUTBOUND FILES - FIELD FORMAT

7.1 Outbound Format

The template presented in the following section defines the business format for the EDS response file created by the service.

The template uses the same terminology as the submission format defined in Section 6 above except where a field is indicated as always present (M), optionally present (O) or not present (-) for a Message Type.

The EDS will create outbound files in CSV format. Note that each field in the template will be included in the correct order including where a field is not required to be populated for the message type with the exception of Reason(s).

Reason(s) is a repeating sequence with the maximum number of occurrences being set at defined limit of 20 reasons. The field is placed at the end of the template to allow the record terminator to 'delimit' the repeating sequence.

An example CSV response can be obtained from Client Services Management.

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7.2 Outbound Message

The following points should be noted:

- A file error response will contain only one rejection (Reason)
- A message response with a status of AREJ will contain one or more rejections (Reasons)
- A message response with a status of AACK will contain zero reasons.

| Ref. | Field Header | Description | Format | Message Type | | Content |
|------|------------------|--|-------------|--------------|------|---|
| | | | | RESP | FILE | |
| 1 | MessageType | Defines the type of outbound message | A(4) | M | M | RESP - EDS response FILE - file error response |
| 2 | ExecutingEntity | The executing entity that uses the internal code (Field 3) to identify a party involved in a transaction | LEI | O | - | As entered on the NPD message. Field is omitted if Executing Entity cannot be determined or was not submitted on the NPD message. |
| 3 | InternalCode | The internal code used by the executing firm to identify a party involved in a transaction | T(1 to 35) | O | - | As entered on the NPD message. Field is omitted if Internal Code cannot be determined. |
| 4 | Action | Indication as to whether the NPD message is a new, cancellation or amendment. | A(4) | O | - | As entered on the NPD message. Field is omitted if Action cannot be determined. |
| 5 | SubmissionDate | The submission date for the file submission | Date | O | O | Extracted from the submission file. Field is omitted if Submission Date cannot be determined. |
| 6 | RelatedMessageId | The Message Id to which this outbound message relates. | X(1 to 255) | O | - | As entered on the NPD message. Field is omitted if Message Id was not populated on the message or if the EDS is unable to determine the Message Id. |
| 7 | Status | Status of the EDS submission | A(4) | M | - | AACK - Accepted by the EDS AREJ - Rejected by the EDS |

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| Ref. | Field Header | Description | Format | Message Type | | Content |
|---|-------------------|--|-------------|--------------|------|---|
| | | | | RESP | FILE | |
| 8 | NumberofReasons | Number of reasons returned in the response. | 9(2) | M | M | Will be zero where no reason(s) are returned. |
| Reason(s) - fields 9 to 12 - optional repeating sequence up to Number of Reasons (maximum of 20 reasons). | | | | | | |
| 9 | ReasonCode | Reason Code | T(7) | M | M | See Reason Codes and Descriptions in Section 7.3. |
| 10 | RelatedField | Field header in error | T(20) | O | O | Field is omitted if the error does not relate to a specific field. |
| 11 | RelatedFieldSeqNo | Sequence Number where field in error occurs in a repeatable sequence | 9(4) | O | O | Field is omitted if the field in error does not occur in a repeatable sequence. |
| 12 | Description | Reason description | T(1 to 255) | M | M | See Reason Codes and Descriptions in Section 7.3. |

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7.3 Reason Codes and Descriptions

The following sections provide a list of reason codes that can be returned by the EDS. Reasons can be returned in the following outbound message types:

- A file error response for a rejected file submission.
- A response to a submitted NPD message

A rejection reason returned in a file error response means that the file submission has been rejected and none of the NPD messages submitted in the file have been processed.

A rejection reason returned in a response means that the NPD message has been rejected by the EDS and has not been applied to the EDS database.

7.3.1 File Rejections

A submission file can be rejected for one of the following reasons:

| Reason Code | Description | Withdrawn |
|-------------|--|-----------|
| 9001 | Duplicate submission file | |
| 9002 | Invalid submission file structure | Yes |
| 9003 | Unused | |
| 9004 | Unused | |
| 9005 | Unused | |
| 9006 | Unused | |
| 9007 | Unused | |
| 9008 | Submission Account Id not recognised | |
| 9009 | Unused | |
| 9010 | Unused | |
| 9011 | Filename does not conform to the required naming convention | |
| 9012 | Invalid submission format for submission file | |
| 9013 | Unused | |
| 9014 | Invalid Header – non-repeatable field is repeated | |
| 9015 | Invalid Header – repeating field missing or out of order | |
| 9016 | Invalid Header – field name not recognised | |
| 9017 | Invalid submission – minimum number of records not submitted | |
| 9018 | Invalid submission – maximum number of records exceeded | |
| 9019 | Invalid submission – record length exceeded for one or more records | |
| 9020 | Invalid submission – records submitted with incorrect number of fields | |

7.3.2 EDS Rejections – Syntax Validation

When processing a submitted NPD message, a check is performed to ensure that the message meets the required syntax. If the message fails at this point, the message is rejected and a single rejection is returned for the NPD message: Reason Code 2999 - "Invalid syntax for <field name>"; where <field name> is the Field Header of the field in error.

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7.3.3 EDS Rejections - Business Validation

Where an NPD message passes syntax, business validation is performed on the message. Each field is validated in turn and a message may be rejected with one or more of the following reasons.

The 'Withdrawn' column indicates that the reason is no longer reported for new submissions, but the reason code may have been reported for historic submissions.

| Reason Code | Description | Withdrawn |
|-------------|---|-----------|
| 1001 | Duplicate NPD Message | |
| 1002 | Action is invalid | |
| 1003 | An active Entity Mapping already exists for the given internal code | |
| 1004 | An active Entity Mapping does not exist for the given internal code | |
| 1005 | Expiry Date must not be entered for a new or cancelled Entity Mapping | |
| 1006 | Expiry Date must not be in the past | |
| 1007 | Executing Entity is not registered to the Submission Account | |
| 1008 | Internal Code does not identify a unique entity mapping for the Executing Entity | |
| 1009 | Entity Mapping is not registered to the Executing Entity | Y |
| 1010 | Country of Branch is invalid | |
| 1011 | Legal Entity Identifier is invalid | |
| 1012 | Natural Person details must not be entered - LEI entered for the entity mapping | |
| 1013 | Country of Nationality must be entered - LEI not entered for the entity mapping | |
| 1014 | Country of Nationality is invalid | |
| 1015 | Natural Person identifier(s) are not valid for the given Country of Nationality | |
| 1016 | Passport Number is invalid - first two characters must match Country of Nationality | |
| 1017 | National Id is invalid - first two characters must match Country of Nationality | |
| 1018 | Concatenated Code is invalid - first two characters must match Country of Nationality | |
| 1019 | Concatenated Code is invalid - Date of Birth component must match Date of Birth | |
| 1020 | First Name(s) must be entered if CONCAT is to be generated | |
| 1021 | Surname(s) must be entered if CONCAT is to be generated | |
| 1022 | Date of Birth must be entered if CONCAT is to be generated | |
| 1023 | LEI Type must not be entered - LEI not entered for the entity mapping | |
| 1024 | LEI Type is invalid | |
| 1025 | Natural Person Type must not be entered - LEI entered for the entity mapping | |
| 1026 | Natural Person Type must be entered - LEI not entered for the entity mapping | |
| 1027 | Natural Person Type is invalid | |
| 1028 | Natural Person Details must not be repeated for an internal role | |
| 1029 | Executing Entity must not be entered - auto registration is configured for submission account | |

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| Reason Code | Description | Withdrawn |
|-------------|---|-----------|
| 1030 | Internal Code does not identify a unique entity mapping for a registered firm | |
| 1031 | Unused | |
| 1032 | Country of Branch must not be entered without Executing Firm - auto registration is not configured for submission account | |
| 1033 | Effective Form Date is invalid - an active entity mapping already exists for the date | |
| 1034 | Expiry Date is invalid - must be later than Effective From Date as entered or held for the entity mapping | |
| 1035 | An Entity Mapping Registration already exists for the Executing Firm for the same Internal Code | |

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