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# Short code/Long code mapping Technical Specifications

April 2018

## Short Code/Long code mapping – Member Portal User Manual

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v1.3

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## 1.0 Introduction

### 1.1 Scope

The document *RTS-24 – Maintenance of relevant data relating to orders in financial instruments* of the MIFID II directive requires trading venues to receive and maintain information on:

- Identifier of the Client to which an order is assigned (Local Person Identifier or Legal Entity Identifier), for client orders only
- Identification of the Person (Local Person Identifier) or of the Algorithm (Algo ID) that took the Investment Decision
- Identification of the Person (Local Person Identifier) or of the Algorithm (Algo ID) that took the Execution Decision

The above identifiers are also called *Long Codes*.

In addition, where competent authorities request any of these details in accordance with Article 25(2) of Regulation (EU) No 600/2014, trading venues shall provide such details using the standards and formats introduced by the new directive.

In order to minimize the information to be reported with orders and quotes and to ensure appropriate security standards of confidential information, the London Stock Exchange Group is developing a solution by which trading firms will be required to associate a numerical *Short Code*, which is the actual information that will be attached to the newly introduced market message fields *Client Identification code*, *Investment decision within firm* and *Execution within firm*, to the aforementioned *Long Code*.

Such information will be reported through the Member Portal and the purpose of this document is to describe the solution proposed by the Group.

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## 1.2 Document History

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Version	Changes
1.0	Initial version
1.1	Modifications to paragraphs 2.3 and 3.0
1.2	Modifications to paragraphs 2.3 and 4.0
1.3	Modifications to paragraphs 2.1, 2.2, 2.3 and 3.0

In subsequent issues of this document, where amendments have been made, these changes will be indicated through the use of **red text**.

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### 2.0 Short-Long Codes mapping

A new Member Portal section called *Short-Long Codes* as shown in Figure 1 is introduced to allow trading firms to manage the short-long code mappings, including adding new codes or amending/deleting existing ones.

The section is available on the dashboard of every venue (i.e. Borsa Italiana, ETLX, LSE, Turquoise) of a trading firm, allowing the user to manage only the mappings of the venue they have privileges on.

The new section can be accessed by the Contract Representative of the venue and by the Company Users previously allowed by the Contract Representative in the *Company User Management* section.

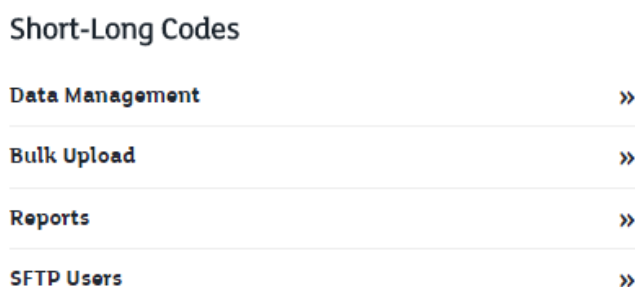


Figure 1

A trading firm can manage the short-long code mappings in the following ways:

- manual insertion through the Member Portal web interface;
- bulk upload through the Member Portal web interface;
- bulk upload via SFTP.

The three options are detailed in the next paragraphs and, for simplicity, they refer to a single venue and a single member firm. The same procedure - manual insertion or upload, must be repeated for all the member firms configured within the same trading participant and for all the venues the trading participant is a member of.

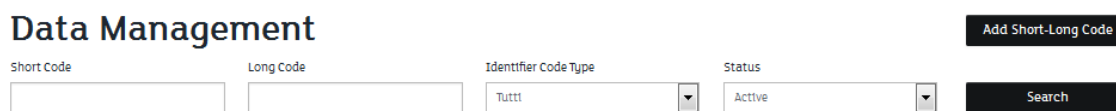
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## 2.1 Manual insertion

The manual insertion, as well as the manual modification or deletion of existing codes, is possible through the *Data Management* page of the *Short-Long codes* section.

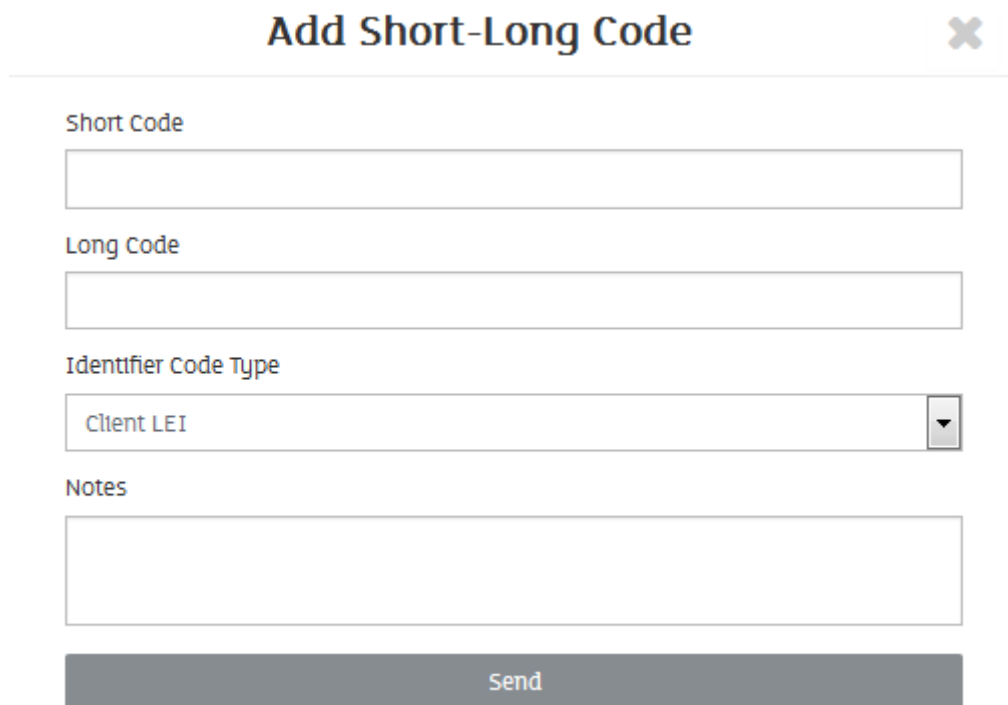
A new mapping is inserted through the *Add Short-Long Code* button as per Figure 2:



The screenshot shows a 'Data Management' interface. On the left, there are four search filters: 'Short Code', 'Long Code', 'Identifier Code Type' (with a dropdown menu showing 'Tuttt'), and 'Status' (with a dropdown menu showing 'Active'). To the right of these filters is a dark button labeled 'Add Short-Long Code'. Below the filters is a 'Search' button.

Figure 2

Once clicked, the window in Figure 3 will be prompted:



The screenshot shows a dialog box titled 'Add Short-Long Code' with a close button (X) in the top right corner. The dialog contains four input fields: 'Short Code', 'Long Code', 'Identifier Code Type' (a dropdown menu showing 'Client LEI'), and 'Notes'. At the bottom of the dialog is a 'Send' button.

Figure 3

Table 1 summarizes the information to be provided in Figure 3:

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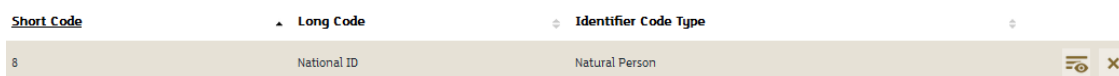
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Field Name	Mandatory	Description
Short Code	Y	4 – 4,294,967,295
Long Code	Y	Up to 50 alphanumeric chars
Identifier Code Type	Y	Client LEI Natural Person Algorithm
Notes	N	Free text field

Table 1

The new short-long code pair will be active as soon as it is inserted by the user and validated by the system. The constraints detailed at paragraph 3.0 are enforced by the system as soon as the new code is inserted<sup>1</sup>.


Once the new record is created, it will appear in the list of the mappings registered under the trading firm, as reported in Figure 4:



Short Code	Long Code	Identifier Code Type
8	National ID	Natural Person

Figure 4

The user can now request an update of the record.

Clicking on the View Icon  on a record in the table, a pop-up will be shown, allowing the user to see the details of the selected short-long code. The user could also modify all the fields but the *Short Code* and the *Identifier Code Type*.

**It is important to point out that cancelling a Short/Long code mapping is not allowed.**

<sup>1</sup> The same constraints are enforced for records entered with bulk uploads as reported in paragraphs 2.2 and 2.3.

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In this section it's possible to search for an existing active Short-Long code using the filters in the top of the page and clicking the *Search* button. By default, only active short-long codes are shown. In order to show inactive codes, the user could specify the related value in the *Status* filter and click the *Search* button. The user can change the number of items per page working on the dedicated listbox on the bottom of the page. Different options are available.

The *Download Report* button allows the user to download a .csv file containing all the records according to the filters used. Only records related to the venues the user has privileges on can be downloaded. The following fields are included in the file:

- Short code
- Long code
- Identifier code type
- Venue
- ActivationDate



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## 2.2 Bulk Upload via web interface

The Bulk Upload functionality is available in the *Bulk Upload* page of the *Short-Long codes* section and allows a Member Portal user to register a new set of short-long code mappings through the upload of a .csv file on the website. Amendments and cancelations of existing mappings are also permitted.

The .csv file used for the bulk upload has the fields listed in Table 2:

Field Name	Mandatory	Description
Short Code	Y	4 – 4,294,967,295
Long Code	Y	50 alphanumeric chars
Identifier Code Type	Y	L: Client LEI N: Natural Person A: Algorithm
Notes	N	Free text field
Operation Type	Y	0: New 1: Update <del>2: Delete</del>

Table 2

It is important to point out that cancelling a Short/Long code mapping is not allowed.

The record reported in Figure 4 would have been reported in the .csv file as follows:

*Short Code,Long Code,Identifier Code Type,Notes,Operation Type*  
*8,National ID,N,,0*

No restrictions are introduced to the name of the .csv file.

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Please note that the same file can report only a record for each short-long code pair. In other words, it is restricted to request the insertion and deletion of the same short-long code pair in the same file. Should this happen, the system will return an error for each record in the file.

Once the .csv file is produced, it can be selected by clicking on the *Browse* button and then uploaded onto the system with the *Upload CSV* button as reported in Figure 5:



Figure 5

When uploading the file, the user can **insert and modify the existing set of short-long codes, hence working by difference.** **Uploading 'from scratch' is not allowed.**

- ~~replace the whole list of existing short-long codes with the ones included in the file, hence working from scratch. In this case the box *Replace the whole list of existing short-long codes* has to be ticked before clicking on the *Upload CSV* file. In addition, *Operation Type* can only be populated with 0.~~

A *Download CSV Template* button is also available to download a sample file containing the headers listed in Table 2.

Once the bulk upload has been fully processed by the system, an email to the Contract Representative and the Company Users having privileges on the section will be sent. Contextually, a record displaying the status of the upload is shown as per Figure 6:

Upload Id	Upload Date	Status	User File	Result File	Error File
1003	2017-08-25 16:20	Published	<a href="#">Download</a>	<a href="#">Download</a>	---

Figure 6

The following labels are displayed:

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- *Upload Id*: unique identifier of the upload
- *Upload Date*: date in which the upload has been made
- *Status*: can have one of the following three values:
  - *In Progress*: the bulk upload is still in progress. The page will automatically reload once the upload is completed;
  - *Published*: all the records in the file went through without errors
  - *Published with errors*: some records contained errors
  - *Not Published*: all the records contained errors
- *User File*: the user's original .csv
- *Result File*: a .txt file containing the number of records which have been added, updated, deleted.
- *Error File*: a .csv file listing the records containing errors. An *Error Description* field is added to instruct the user of the error.

The *User File*, *Result File* and *Error File* documents are kept onto the system up to five working days.

Finally, the user must be aware that only one bulk upload at a time is permitted, otherwise a warning message alerting of an ongoing upload is prompted.

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## 2.3 Bulk Upload via SFTP

The same file prepared according with the specifications reported at paragraph 2.2 can be stored in a SFTP server. However, a specific naming convention has to be used:

*Venue\_ShortLongCodes\_YYYYMMDD\_NN.csv*

Field Name	Description
Venue	Borsa Italiana: BIT EuroTLX: ETLX London Stock Exchange: LSE Turquoise: TQ
YYYYMMDD	Date in the YYYYMMDD format
NN	Users can upload more than one file at a time, consequently a progressive number NN of the daily upload must be included in the name of the file – the minimum admitted value is 01. The Member Portal will manage the queue of the files on the Member Portal server.

Table 3

The SFTP service is available at [data.lseg.com](http://data.lseg.com).

The Contract Representative - or any other Company User previously authorized by the Contract Representative, can request an SFTP user directly through the Member Portal, in the *SFTP Users* page of the *Short-Long Codes* section.

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Each trading firm can request up to one SFTP user per single venue and must decide, at the time of the request, whether to upload the .csv file by difference or from scratch as described at paragraph 2.2 and as shown in Figure 7:

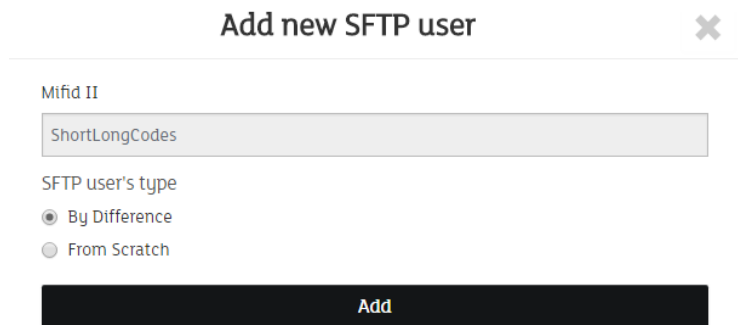


Figure 7

In addition, at the time of the request of the SFTP user, customers are required to specify one or more public IP addresses from which they will be connecting to the server. Multiple IP addresses are separated by ;. Ranges are accepted in the last octet (i.e. 0/26, 0-63).

Once the credentials to access the SFTP are received, customers are required to connect to <https://data.lseg.com> and reset the password. In order to do so, the public IP address used to connect to the webpage must be included among the list of the IPs authorized to access the SFTP server.

The root folder of the SFTP server is the FirmID which, in turn, contains an *IN* and a *OUT* folder with respectively read-write and read only access. These folders contain either the subfolder *BY\_DIFFERENCE* or *FROM\_SCRATCH* depending on the upload method chosen at the time of the request of the SFTP user.

In the event an upload 'from scratch' is the chosen option, the short-long codes included in the file overwrites the ones available on the member portal.

In addition, the records not included in the file but available on the member portal will not be cancelled.

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All the records included in the .csv file must have *OperationType = 0*.<sup>2</sup>

Consequently, bulk upload .csv files has to be stored into the dedicated subfolder of the *IN* folder and *Results File* and *Errors File* (if available) must be retrieved in the dedicated subfolder of the *OUT* folder.

Figure 8 details the main structure of the STFP server.

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<sup>2</sup> Refer to paragraph 3.0 for additional details

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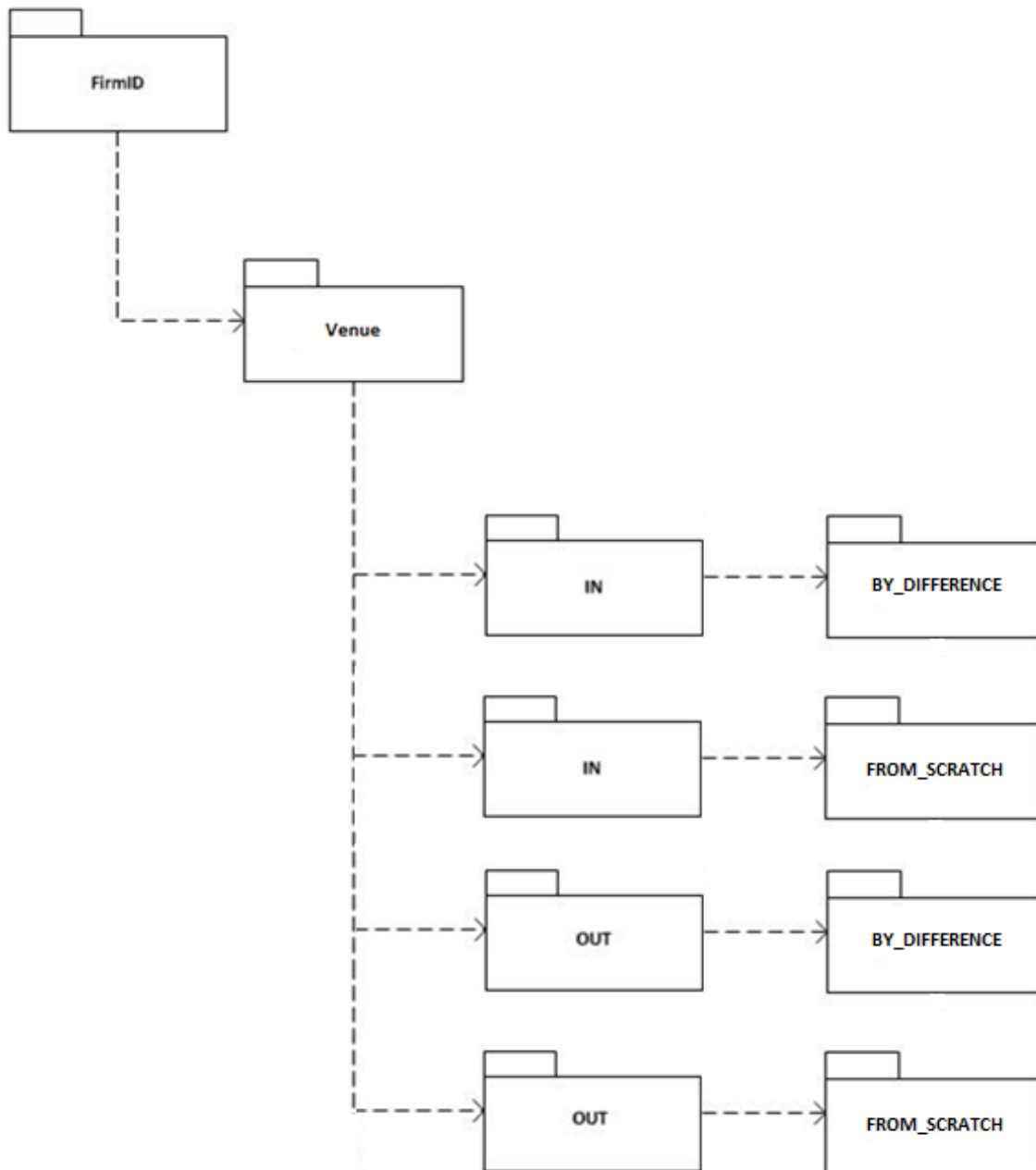


Figure 8

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## 3.0 Constraints

The following constraints apply whenever an insertion or an amendment of a record occur:

- Two different records can not have the same pair *Short Code-Identifier Code Type* for the same venue.  
In other words, it is possible to use the same pair *Short Code-Identifier Code Type* on different venues.
- We expect *Local Person Identifier* and *Legal Identity Identifiers* to be used respectively to identify a *Natural Person* and a *LEI* (they must not be used to identify an algorithm, failing which the record would be rejected)
- ~~The Short Code can be used only once during the system lifetime for the same Identifier Code Type. Consequently, following a cancellation, its value will not be reusable for new mappings.~~
- Adding (*OperationType* = 0) an already existing record is treated as an amendment (*OperationType* = 1). This is valid for both bulk upload via web interface and SFTP
- Modifying (*OperationType* = 1) a non-existing records is treated as an insertion (*OperationType* = 0). This is valid for both bulk upload via web interface and SFTP
- the Algo ID is a free text.

~~As a consequence of the above constraints, when uploading (manually or via SFTP) a file replacing the whole list of existing short-long codes with the ones included in the file, all the previously active short codes not contained in the new file will be cancelled and will not be usable again.~~



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## 4.0 Reports

The Reports section allows the user to download the *Missing Short Codes* reports of the last five working days. A *Missing Short Codes* report is a file listing the discrepancies between the records reported on the Member Portal and those used as part of the market message layout sent to the exchange. Only the first 1,000 missing records will be included in the *Missing Short Codes* report. Customers might request to their Technical Account Manager an ad-hoc extraction containing all the missing records.

The user is expected to insert any missing short code into the Member Portal in order to fill the gap.

The *Missing Short Code* report for the day T is available at T+1.

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## 5.0 Contacts

### **Milan Technical Account Management and Professional Services :**

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