



**Penalty Modification Requests bulk file**

**File format specifications**

|  |  |
| --- | --- |
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**History of releases**

|  |  |  |  |
| --- | --- | --- | --- |
| Release | Date | Issues | Status[[1]](#footnote-1) |
| V0-0-1 | 21/06/2019 | First draft | Closed |
| V0-0-2 | 01/07/2019 | First draft delivered | Closed |
| V0-0-3 | 02/08/2019 | Review of reason codes and example requested by market | Closed |
| V0-0-4 | 03/10/2019 | Delivered to the market | Closed |
| V0-0-5 | 22/11/2019 | Review market consultation | Draft |

Reference documents

|  |  |  |
| --- | --- | --- |
| Reference | | Object |
| 1 | CR654 | CR654: T2S Penalty Mechanism |

|  |  |
| --- | --- |
| Owner domain | LCMM |
| Owner module | Penalty Mechanism |

# Introduction

## Context

T2S provides the CSDs with the functionality to remove, re-include, re-allocate or switch penalties.

In order to do so, there are two different modes for CSDs to send requests for modifying a Penalty:

* A2A mode: a new communication based on “flat files” is provided (no ISO message exists for this purpose).
* U2A mode: a Graphical User Interface based on a standard browser application is provided.

In both cases, a response should be provided by T2S, informing whether each requested modification has been rejected (including in this case the reason for the rejection) or executed.

## Purpose

This document provides a description of the structure of the “flat file” used by the CSDs to send **Penalty Modification Requests** to T2S (from here on PMR file). The same structure applies to the file (so called “enriched” file) sent back from T2S to the original sender and containing status and error information.

# File Technical Specification

The file has a simple XML format (in order to allow for the network signature). All records are included into a single “store and forward” message conveyed by the VAN provider. No business signature is needed.

Within the message, the whole file is embedded in a single XML tag (<File> </File>).

Between these tags the file has fixed-length records, with a header and a footer. The header and the footer are the ones specified within the “Format of the Structured Files” below, no business header is foreseen. The last character of the header and the footer, as well as of each record, is a record separator (LF).

## Identification and Routing

The messages transporting PMR files are identified by a specific RequestType[[2]](#footnote-2) set by each VAN provider.

Only authorized CSDs included in a “white list” are allowed to send the PMR files.

They must be known in advance by the T2S system and, moreover, T2S must know in advance the technical addresses, expressed in form of standard “Distinguished Names”, used when sending the messages by each authorized party.

Therefore the T2S system must have a pre-loaded configuration table, a “White list”, structured as follows:

|  |  |  |
| --- | --- | --- |
| **PARENT BIC** | **BIC** | **SENDING DN** |
| BIC1 | BIC2 | DN1 |
| BIC1 | BIC3 | DN2 |
| BIC1 | BIC4 | DN3 |
| … | … | … |

BIC2, BIC3 and BIC4 are the BICs identifying[[3]](#footnote-3) the CSD in T2S and DN1, DN2 and DN3 are the technical senders that are authorised to send PMR files for the three CSDs.

This configuration table must include all the parties authorized to send PMR files and, for each party, the DN of the authorised technical sender.

The PMR file is rejected by T2S when it refers (in field 2 and 3 of the header of the file, see below) to data provided by a party not present in the configuration table. It is also rejected if the XML message hasn’t been sent using a DN linked, in the same table, to the party providing the data.

In addition, at the level of the records (requests) included in the file, CSDs are only allowed to send Penalty Modification Requests for Penalties for which they are the CSD of the Failing Party.

Finally, all standard business validations defined in the « Penalty Modification » Function are applied to the individual Penalty Modification Requests.

## Structure

### XML schema for the PMR file

The following is the XML schema used to embed the file into a “store and forward” message:

<?xml version="1.0" ?>

<xs:schema xmlns="urn:T2S:PMRBulkFile" xmlns:xs="http://www.w3.org/2001/XMLSchema"

targetNamespace="urn:T2S:PMRBulkFile"

elementFormDefault="qualified">

<xs:simpleType name=”RestrictedFileType”>

<xs:restriction base=”xs:string”>

<xs:restriction>

</xs:simpleType>

<xs:element name="File" type="File"/>

<xs:complexType name="File">

<xs:simpleContent>

<xs:extension base="RestrictedFileType">

<xs:attribute name=”fileId” type=”xs:string” default=”” />

</xs:extension>

</xs:simpleContent>

</xs:complexType>

</xs:schema>

**Example of XML file**

<?xml version="1.0" encoding="UTF-8"?>

<File fileId=”T2SPMRFile\_2020-06-30-11:35:24.123456” xmlns=”urn:T2S:PMRBulkFile"> **Header**

**Record1**

**Record2**

**…**

**Recordn**

**Footer**

</File>

### XML schema for the response

When the XML is sent back from T2S to the CSD (“enriched” file), the following is the XML schema used to embed the file into a “store and forward” message:

<?xml version="1.0" ?>

<xs:schema xmlns="urn:T2S:PMRBulkFileResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema"

targetNamespace="urn:T2S:PMRBulkFileResponse"

elementFormDefault="qualified">

<xs:simpleType name="RestrictedFileType">

<xs:restriction base="xs:string">

</xs:restriction>

</xs:simpleType>

<xs:element name="File" type="File"/>

<xs:complexType name="File">

<xs:simpleContent>

<xs:extension base="RestrictedFileType">

<xs:attribute name="fileId" type="xs:string" default="" />

</xs:extension>

</xs:simpleContent>

</xs:complexType>

</xs:schema>

If the flat file cannot be processed due to an unauthorised party[[4]](#footnote-4), an invalid format or due to internal T2S technical reasons, the response message will have the following formats depending on the underlying reason:

**Example of rejection for unauthorised sender XML response**

<?xml version="1.0"encoding="UTF-8"?>

<File fileId=”T2SPMRFile\_2020-06-30-11:35:24.123456” xmlns=”urn:T2S:PMRBulkFileResponse">H000SERRSenderNotAllowed

F0000

</File>

**Example of rejection for invalid file format reason XML response**

<?xml version="1.0"encoding="UTF-8"?>

<File fileId=”T2SPMRFile\_2020-06-30-11:35:24.123456” xmlns=”urn:T2S:PMRBulkFileResponse">H0000FERRFileWrongFormat

F0000

</File>

**Example of rejection for internal T2S technical reason XML response**

<?xml version="1.0"encoding="UTF-8"?>

<File fileId=”T2SPMRFile\_2020-06-30-11:35:24.123456” xmlns=”urn:T2S:PMRBulkFileResponse">H00000TERRFileTechReason

F0000

</File>

### Encoding

The encoding of the flat file is UTF-8 with no Byte Order Mark (BOM).

### Default Values

See Field Types.

### Character Set

All characters belong to the **SWIFT X Character Set**. The character set is as follows:

a b c d e f g h i j k l m n o p q r s t u v w x y z

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

0 1 2 3 4 5 6 7 8 9

/ - ? : ( ) . , ' + 8

CR LF Space

# Format of Structured Files

## Record Types

|  |  |  |
| --- | --- | --- |
| **Record Type** | **Description** | **Multiplicity** |
| Header | First row of the file, contains information common to all data records. | 1 |
| Body | Data record, each instance constitutes one request. | Many |
| Footer | Last row of the file. Acts as a trailer, marking the end of main body section. | 1 |
| XMLTag | XML element, used to tag the start and/or end of the file. | 1 |

## Field Types

|  |  |
| --- | --- |
| **Field Type** | **Description** |
| O | Optional. |
| O\* | Optional, with restrictions. |
| M | Mandatory. |

Whenever an optional field is not present, the position will be filled with spaces (#x20).

## Data Format Types

The report data values may appear in one of the formats described in the table below:

|  |  |  |
| --- | --- | --- |
| **Data Type** | **Format** | **Description** |
| CHAR(n) | Filled with trailing blanks up to the maximum length | Alphanumeric string with exactly n characters. |
| NUMERIC(p) | Filled with leading zeroes up to the maximum length | Number with maximum p integer places and no decimal places. |

## Format of Records

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Record Type** | **Field Number** | **Field Name** | **Data Format** | **Length** | **Description** | **Field Type** | **Additional Information (original XML data type, values, rules, etc.)** |
| XMLTag | 1 | Tag of start of file | CHAR(n) | 60 | "<File>" | M | May contain the optional attribute “fiIeId” to provide additional information such as file reference assigned by the sender (e.g. Name of file including the Timestamp reflecting date and time of the creation of the flat file), up to 54 characters long. |
| **Header** | | | | | | | |
| Header | 1 | Record Type | CHAR(n) | 1 | Identifies record as Header, Body or Footer | M | Values: 'H': for Header. |
| Header | 2 | Parent BIC of the CSD | CHAR(n) | 11 | Parent BIC of the CSD | M |  |
| Header | 3 | BIC of the CSD | CHAR(n) | 11 | BIC of the CSD | M |  |
| Header | 4 | Record separator (LF) | CHAR(n) | 1 | Fixed Value: LF | M | LF = Line Feed (x’0A’). |
| **Body** | | | | | | | |
| Body | 1 | Record Type | CHAR(n) | 1 | Identifies record as Header, Body or Footer | M | Values: ‘B’: for Body. |
| Body | 2 | Record Identification | NUMERIC(p) | 4 | Identifies the modification request in the file (i.e. request number in the file) | M | The Record Identification within a file shall be unique. If there are two records with same Record Identification, the last record validated will be rejected. |
| Body | 3 | Request Type | CHAR(n) | 4 | Type of Penalty Modification Request | M | Values:  ‘REMO’ - Removal  ‘REIN’ - Re-inclusion  ‘RALO’ - Re-allocation  ‘SWIC’ - Switch |
| Body | 4 | Individual Penalty Identification | CHAR(n) | 16 | Unique reference assigned by T2S to the penalty for the relevant party (either the failing or the non-failing). | O\* | \* It must be filled in case the Request Type is ‘REMO’ (Removal), ‘REIN’ (Re-inclusion) or ‘SWIC’ (Switch).  Otherwise, it must be blank. |
| Body | 5 | Market Infrastructure Identification | CHAR(n) | 16 | Common Reference assigned by T2S for both the failing and the non-failing party. | O\* | \* It must be filled in case the Request Type is ‘RALO’ (Re-allocation). |
| Body | 6 | Removal Reason Code | CHAR(n) | 4 | Code for the reason why the cash penalty is requested to be removed | O\* | \* It must be filled in case the Request Type is ‘REMO’ (Removal).  Values:  ‘INSO’ - Insolvency  ‘SEMP’ - Settlement On Multiple Platforms  ‘SESU’ - Settlement Suspended  ‘SUSP’ - Trading Status Suspended  ‘TECH’ - Technical Impossibilities  ‘OTHR’ - Other  It must be blank in case the Request Type is not ‘REMO’. |
| Body | 7 | Description text | CHAR(n) | 210 | Description (free text) for the request for removal or Switch of the penalty. | O\* | \* It must be filled:  - Either in case the Request Type is ‘REMO’ (Removal) and Removal Reason Code is ‘OTHR’ (Other), or  - In case the Request Type is ‘SWIC’ (Switch).  Otherwise, it must be blank. |
| Body | 8 | New failing Party BIC | CHAR(n) | 11 | BIC of the Party that will become the failing party of the penalty after the re-allocation. | O\* | \* It must be filled in case the Request Type is ‘RALO’ (Re-allocation).  Otherwise, it must be blank.  Note: It must be either the delivering or the receiving party of the underlying Settlement Instruction that was sent already matched. |
| Body | 9 | New non-failing Party BIC | CHAR(n) | 11 | BIC of the Party that will become the non-failing party of the penalty after the re-allocation | O\* | It must be filled in case the Request Type is ‘RALO’ (Re-allocation).  Otherwise, it must be blank.  Note: In case the New failing Party BIC corresponds to the delivering party of the underlying Settlement Instruction, the New non-failing Party BIC must correspond to the receiving party, and vice versa. |
| Body | 10 | T2S reference of the failed Settlement Instruction | CHAR(n) | 16 | Identifies the failing leg of the already matched settlement instruction i.e. either the delivering or the receiving Settlement Instruction created in T2S. | O\* | It must be filled in case the New failing Party BIC is equal to the New non-failing Party BIC.  Otherwise, it must be blank. |
| Body | 11 | Status | CHAR(n) | 4 | Status of the row | O\* | It must be blank in the input file. This information is updated by T2S in the file provided back to the sending CSD |
| Body | 12 | Error Description | CHAR(n) | 210 | Description of the error (if any) detected when the request was processed | O\* | It must be blank in the input file. This information is updated by T2S in the file provided back to the sending CSD |
| Body | 13 | New Market Infrastructure Identification | CHAR(n) | 16 | Common Reference assigned by T2S to the new re-allocated penalty. | O\* | It must be blank in the input file, This information is updated by T2S in the file provided back to the sending CSD |
| Body | 14 | Record separator | CHAR(n) | 1 | Fixed Value: LF | M | LF = Line Feed (x’0A’) |
| **Footer** | | | | | | | |
| Footer | 1 | RecordType | CHAR(n) | 1 | Identifies record as Header, Body or Footer | M | Values: ‘F’: for Footer. |
| Footer | 2 | NumberOfRecords | NUMERIC(p) | 4 | Total number of data records in the file. | M | Number: integer representation, 4 digits long. |
| Footer | 3 | Record separator (LF) | CHAR(n) | 1 | Fixed Value: LF | M | LF = Line Feed (x'0A'). |
| XMLTag | 1 | Tag of end file | CHAR(n) | 7 | "</File>" | M |  |

## Format of “Enriched Files” from T2S to CSDs

The format of the enriched files is based on the format of the flat files that have been submitted to T2S. The submitted data remains unchanged but is supplemented with:

* “Status”
* “Error description” if the request is rejected.
* “New Market Infrastructure Identification” if the request is executed and it was a re-allocation (‘RALO’).

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Record Type** | **Field Number** | **Field Name** | **Data Format** | **Length** | **Description** | **Field Type** | **Additional Information (original XML data type, values, rules, etc.)** |
| Body | 11 | Status | CHAR(n) | 4 | Status of the row | M | Filled by T2S with values:  “EXCD”: Executed.  “RJCT”: Rejected. |
| Body | 12 | Error Description | CHAR(n) | 210 | Description of the error (if any) detected when the request was processed | O\* | It must be filled by T2S in case the Status is ‘RJCT’ (Rejected).  Values (see description of the errors in next rows below) |
|  |  |  |  |  | The individual modification request (body) is invalid | | |
|  |  |  |  |  | The ‘Individual Penalty Identification’ is not empty for RALO (Reallocation) | | |
|  |  |  |  |  | The ‘Individual Penalty Identification’ field is empty. The 'Individual Penalty Identification' must be filled in case the Request Type is 'REMO' (Removal), 'REIN' (Re-inclusion) or 'SWIC' (Switch) | | |
|  |  |  |  |  | The Individual Penalty Identification does not exist in T2S | | |
|  |  |  |  |  | The removal, re-inclusion or switch does not refer to the individual penalty identification of the failing party | | |
|  |  |  |  |  | The Request Type is ‘RALO’ and the requestor CSD is not the same as the CSD of the LMFP (CSD of the Instructing Party of the underlying instruction) | | |
|  |  |  |  |  | It is not possible to modify the Penalty as its appeal period has ended | | |
|  |  |  |  |  | Only failing CSD can request to modify a penalty | | |
|  |  |  |  |  | The ‘Market Infrastructure Identification’ is not empty for 'REMO' (Removal), 'REIN' (Re-inclusion) or 'SWIC' (Switch) | | |
|  |  |  |  |  | The ‘Market Infrastructure Identification’ field is empty. The Market ‘Infrastructure Identification’ must be filled in case the Request Type is 'RALO' (Reallocation) | | |
|  |  |  |  |  | The Market Infrastructure Identification does not exists in T2S | | |
|  |  |  |  |  | The field 'Removal Reason Code' is empty for REMO (Removal) | | |
|  |  |  |  |  | The field ‘Removal Reason Code ' is not empty for REIN (Re-inclusion), RALO (Re-allocation) and SWIC (Switch) | | |
|  |  |  |  |  | The field 'Description text' is empty for Request Type REMO with Removal Reason Code OTHR or for a Request Type SWIC (Switch) | | |
|  |  |  |  |  | The field ‘Description text' is not empty for REIN (Re-inclusion), RALO (Re-allocation) or REMO without Removal Reason Code OTHR | | |
|  |  |  |  |  | The field ‘New failing Party BIC' is empty in a RALO (Re-allocation) modification | | |
|  |  |  |  |  | The new failing Party is neither the delivering nor the receiving party of the underlying Settlement Instruction that was sent already matched | | |
|  |  |  |  |  | The field ‘New Non-failing Party BIC' is empty in a RALO (Re-allocation) modification | | |
|  |  |  |  |  | The New failing Party BIC corresponds to the delivering party of the underlying Settlement Instruction but the New non-failing Party BIC is not the receiving party, or vice versa | | |
|  |  |  |  |  | The 'New failing Party BIC' is equal to 'New non-failing Party BIC', but the 'T2S reference of the failed Settlement Instruction' field is empty | | |
|  |  |  |  |  | The 'T2S reference of the failed Settlement Instruction' is neither the delivering nor the receiving Settlement Instruction created in T2S from the already matched | | |
|  |  |  |  |  | 'New failing Party BIC' and 'New non-failing Party BIC' are different, but the 'T2S reference of the failed Settlement Instruction' is not empty | | |
|  |  |  |  |  | The ‘New failing Party BIC' is filled, but the Request Type is not RALO (Re-allocation) | | |
|  |  |  |  |  | The ‘New non-failing Party BIC ' is filled, but the Request Type is not RALO (Re-allocation) | | |
|  |  |  |  |  | The ‘T2S reference of the failed Settlement Instruction’ is filled for a Request Type different to RALO (Re-allocation) | | |
|  |  |  |  |  | It is not possible to remove a Penalty that is not active | | |
|  |  |  |  |  | It is not possible to re-include a Penalty that is not removed | | |
|  |  |  |  |  | It is not possible to re-include a Penalty that was removed because of a Reallocation | | |
|  |  |  |  |  | It is not possible to switch a Penalty that is not active | | |
|  |  |  |  |  | It is not possible to reallocate a Penalty that is not active | | |
|  |  |  |  |  | It is not possible to reallocate a Penalty that is not a LMFP | | |
|  |  |  |  |  | It is not possible to reallocate a Penalty already reallocated before | | |
|  |  |  |  |  | The underlying Settlement Instruction of the Penalty was not sent as already matched to T2S | | |
| Body | 13 | New Market Infrastructure Identification | CHAR(n) | 16 | Common Reference assigned by T2S to the new (re-allocated) Penalty. | O\* | It must be filled by T2S in case the Status is ‘EXCD’ (Executed) and the Record Type is ‘RALO’ (Re-allocation). |

**End of Document**

1. Status value : Draft, Open, Final, Dismiss [↑](#footnote-ref-1)
2. This value is assigned to specify the type of message exchanged in the network. For Penalty Modification Requests files a new value must be used, to be agreed with VAN providers, dedicated to this message. [↑](#footnote-ref-2)
3. As the sending/instructing parties are only CSDs, BIC1 is always the BIC of T2S Operator. [↑](#footnote-ref-3)
4. This error is provided when the BICs of the Instructing Party (“Parent BIC of the CSD” and “BIC of the CSD” and informed in the Header of the Bulk File) do not correspond to a Party defined as “CSD”, or when the Distinguished Name (DN), Parent BIC and BIC are not defined in the “white list” (i.e. combination not present in the configuration table) [↑](#footnote-ref-4)