Standards

Standards Translation Rules for Corporate Actions

Overview

The Standards Translation Rules describe how to translate source MT or MX messages to their equivalent target MX or MT messages. This document is an overview for the Standards Translation Rules for Corporate Actions.

30 April 2010
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Preface

About this document

This document is an overview for the Standards Translation Rules for Corporate Actions Version 1. It provides an introduction to the Translation Rules and an overview to the Corporate Actions translation message group.

These translation rules cover the Standards Release MT 2010 version and the latest MX release at the date of publication of this document. The exact versions of the MX messages can be found in the tables in sections 3.1 and 3.2.

Each document includes a version number to facilitate tracking of changes. The version number contains two parts. The first part, SR10, indicates the Standards Release 2010. The second part, 01, indicates the first release of the Translation Rule documents for the given message set.

This document forms part of the following Translation Rules document set:

- Overview (for Corporate Actions)
- Translation Rules (per message pair)

The documents must be used together to obtain an understanding of how to translate source MT or MX messages to their equivalent target MX or MT messages.

Customers can find the latest available version of this document at www.swift.com > Support > Documentation > User Handbook Online.

Audience

This document is for the following SWIFT audiences who are interested in understanding how to translate MT or MX messages:

- SWIFT users
- SWIFT partners
- SWIFT registered vendors

Document conventions

This document uses the following typographical conventions and abbreviated forms of product and service titles:

<table>
<thead>
<tr>
<th><strong>Bold</strong></th>
<th>Commands and parameters values.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Italics</strong></td>
<td>File, directory, and document names.</td>
</tr>
<tr>
<td><strong>Courier</strong></td>
<td>Examples and formal descriptions.</td>
</tr>
<tr>
<td><strong>MT</strong></td>
<td>Message Type (FIN)</td>
</tr>
<tr>
<td><strong>MX</strong></td>
<td>Message Type (XML)</td>
</tr>
</tbody>
</table>
Version

SR10_01

Significant changes

This is the first publication of the document.

Terminology

This document contains terms that are consistent with SWIFT terminology and documentation on FIN message types (including ISO 15022 Messages) and ISO 20022 messages. SWIFT defines these terms in the SWIFT Glossary.

Related documentation

- SWIFT User Handbook, Standards MT, relevant Message Reference Guides
- ISO 20022 Message Definition Report - Standards MX - Securities Events and related XML schemas


The latest version of the ISO 20022 documentation is published on the www.iso20022.org website.
1 Introduction

The SWIFT Standards Translation Rules describe how to translate source MT or MX messages to their equivalent target MT or MX messages.

This Overview document contains:

<table>
<thead>
<tr>
<th>Section 1</th>
<th>Introduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provides an introduction to the rules including background, assumptions, and principles.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section 2</th>
<th>How to Read the Rules</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contains a &quot;How to&quot; section for using the rules, and describes how to read the rule tables and how to read the rule descriptions.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section 3</th>
<th>Message Group Translation Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describes translation information that is the same for the entire message group including versioning, and specific MT and MX usage information.</td>
<td></td>
</tr>
</tbody>
</table>

1.1 Background

The SWIFT community has agreed that MTs and MXs will coexist and will both be transported over the SWIFT network for some period of time. In support of this coexistence period, translation rules in human readable form will be provided for those MTs and MXs where equivalence is established and where the community of users has a need for translation support. The Standards Translation Rules Version 1 (including the Overview as well as the Translation Rules) provides all the necessary information and rules to translate a particular MT or MX source message to its equivalent MX or MT target message. Mapping and Translation are defined at three levels:

- **Message level**: Which MT corresponds to which MX and under which conditions, and vice versa.

- **Field or element level**: Which (combination of) MT (sub-)field(s) corresponds semantically to which (combination of) MX elements, and vice versa.

- **Data type level**: How MT format options correspond to each MX "complex type" or type, and vice versa.

The first two levels depend on the message context and are specific to a particular transaction type or set of messages. The third level may be message context independent and translation rules are of a more technical nature focusing on "low level" data type translation.

Additional information about how to read this document and an explanation of the content, section by section, can be found in section 2 How to Read the Rules on page 7.

1.2 Assumptions

The following assumptions have been made with respect to the translation of any MT or MX message:
Standards Translation Rules for Corporate Actions

- **Syntactically correct source messages**: The translation source (MT or MX) messages are valid.

- **Technical and network-specific characters**: Translation rules will not add/delete any network-specific technical characters used to separate MT fields or MT message blocks. They do add/delete the technical character CarriageReturn LineFeed used to separate consecutive lines in an MT field with multiple lines.

- **Message headers**: Translation outcome (target) messages are restricted to the business information and will not include application headers. It is assumed that these will be created by the Sender’s or Receiver’s applications. However, when translating from MT messages, parts of the header will be considered as source for the business information it carries.

- **Message length**: If translation outcome (target) messages are to be sent over the SWIFT network, then they must respect the length restrictions applicable for them.

- **Syntactically correct target messages**: Translation outcome (target) messages must be either valid MT messages or valid MX instances.

### 1.3 Translation Principles

The following translation principles were followed in the development of version one of SWIFT’s corporate actions translation rules:

**Corporate Actions MTs**

Corporate Actions MTs being translated comply to usage rules described in the User Handbook. Any misuse of the standards may result into incorrect mapping or translation.

Corporate Actions MTs being translated comply to market practices agreed by the Securities Market Practice Group (SMPG). Messages that do not comply to the market practice rules may result into incorrect mapping or translation.

**Corporate Actions MXs**

The mapping and translation rules are expressed between MTs and MXs (and vice versa)

The MXs that are implemented on the SWIFT Network are subsets of the ISO 20022 messages that contain only the semantic equivalent of the fields of the ISO 15022 MTs. In other words, the MXs mandatorily comply with the textual coexistence rules documented in the ISO 20022 standards.
2 How to Read the Rules

This section describes the specific formats and sections used in the following two parts of the Translation Rules documentation, and how to read each of them.

- Overview (per message group)
- Translation Rules (per message pair)

Each part of the Translation Rules documentation is contained in a separate document.

2.1 Overview

The Overview document provides an introduction and a complete set of instructions on how to read the Translation Rules documentation in order to accomplish the translation of a single MT or MX to its equivalent MX or MT.

Note: The Overview should be read in its entirety prior to attempting any message translation.

2.2 Translation Rules

The Translation Rules document defines the specific field and element rules and details that allow you to translate an MT message into an MX message and vice versa. The Translation Rules are formatted as a spreadsheet to ease readability.

Note: It is the first time SWIFT publishes the spreadsheets as they are. Any comment you may have on the way the data is provided and suggestions for improvement are welcome and can be sent to standards@swift.com.

The spreadsheet contains the following 7 worksheets. Full details of each worksheet’s content are provided in the following subsections:

1. A MT-MX (or MX-MT) Logical Message Criteria worksheet which contains the Message Group pairs and for each pair, the logical message selection criteria.

   The logical message selection criteria provide the rules which, in addition to the message type, are taken into account to choose the MX (or MT) to be translated to.

2. A Translation Preconditions worksheet which contains all the preconditions which are defined.

   Translation Preconditions are conditions applied to the MT or MX that if not satisfied means the MT or MX will not be translated, but rejected from translation.

3. A Default Values worksheet which contains all the target fields where a default literal is copied to. All these fields do not have a corresponding field in the source
message and as such they are not present in the Mapping (MTnnn to XXXX.nnn or vice versa) worksheet.

4. A (MTnnn to XXXX.nnn or vice versa) mapping worksheet which contains a tree structure of the source message and for every field it displays the corresponding field in the target message.

It is the central worksheet of the document.

Per field pair, a reference is made to:

- the precondition rule (in the Translation Preconditions worksheet) applying to the field pair, if any,
- the pseudo-code translation rule (in the Translation Rule worksheet), applying to the field pair if any,
- the type mapping (in the Type Mapping worksheet) applying to the field pair, if any.

5. A Type Mapping worksheet which contains all the type mapping which are used by the translation rules of the selected message pair.

When, in the (MTnnn to XXXX.nnn or vice versa) mapping worksheet (sheet 4), a field mapping is only performed at semantic level, a type defines the structure of this semantic unit. Types can be simple or complex.

A simple type contains one kind of structure. Examples of simple types are dates (date/time), amounts, texts, rates, quantities and identifiers. A type translation will, for example, translate an MT date (format [YY]YYMMDD) into an MX date (format YYYY-MM-DD).

There are also complex types such as 94F or PartyIdentification. These are also reusable, but are composed of a number of simple types.

Per type pair, a reference is made to the pseudo-code translation rule (in the Type Translation Rule worksheet) applying to the type pair, if any.

6. A Translation Rule worksheet which contains the complete pseudo-code translation rule. For every invocation of a type translation, a reference is made to the Type Translation Rule worksheet.

7. A Type Translation Rule worksheet which contains all the pseudo-code type translations rules which are used by the translation rules of the selected message pair. This sheet is similar to the Translation Rule worksheet.

The following sections will explain the different worksheets in detail.

### 2.2.1 MT-MX or MX-MT Logical Message Criteria

This worksheet contains all information of all the message pairs (MT-MX or vice versa) which are part of the Message Group.

The worksheet has 5 columns with the following names and information:
1. The first column “MT” or “MX” contains the message identifier of the source messages e.g. 564 for MT messages, seev.031.002.01 for MX messages.

2. The second column “MT Description” or “MX Description” contains the long names of the source messages.

3. The third column “MX” or “MT” contains the message identifier of the target messages e.g. 564 for MT messages, seev.031.002.01 for MX messages.

4. The fourth column “MX Description” or “MT Description” contains the long names of the target messages.

5. The last column “Logical Message Criteria” contains, for every message pair, the defined logical message criteria, if any.

The worksheet contains one row per message pair.

2.2.2 Translation Preconditions

This worksheet contains all the preconditions which are defined on the message level.

This worksheet contains the following columns:

1. The first “Reference number” contains the value “SR” followed by a sequential number to identify the different precondition rules. References from the (MTnnn to XXXX.nnn or vice versa) mapping worksheet are made to this column.

2. The second column “Precondition Definition” contains the precondition rule. The precondition rule is spread of different rows, one row per rule statement.

3. The last column “Comment” contains the comments which are defined on the rule statements, if any.

Note: In future versions of the translation rules, SWIFT standards would provide in this comment column information to help the user interpret the rule which is written in pseudo-code.

2.2.3 Default Value

This worksheet contains all the target fields which are populated by a default value.

In order to obtain valid translation outcome (target) MT or MX messages, the translation rules foresee default population when a field/element is mandatory in the target message and no equivalent field/element exists in the syntax of the source.

The sheet contains the following columns:

1. The first set of columns contains information about the target field where a default value is present. The target field is represented in a tree structure.

2. The column “Value” contains the value that needs to be inserted in the message.

3. The last column “Translation Reference Number” refers to the pseudo-code rule in the Translation Rule worksheet.
2.2.4 MTnnn to XXXX.nnn (or vice versa) mapping

This worksheet contains a tree structure of the source message and for every field it displays the corresponding field in the target message.

The name of the worksheet is "<source message identification> to <target message identification>". For MT the message identification is structured as followed: “MT" followed by the message type and if the message is a variant followed by "." and the variance name, e.g. MT564, MT541. For MX the message identification is the message identifier without the variant and version number, e.g. sese.023.

The sheet contains the following columns:

1. The first set of columns contains information about the source message. The source message is represented in a tree structure.
2. An empty column is present to clearly separate source and target message information.
3. A number of columns follows to display information of the target message. In these columns the path of the target field that corresponds with the source field is mentioned.
4. The next column is “Precondition Reference Number”. If the source field is used in a precondition rule then this column contains the reference number of the precondition rule and a hyperlink to the corresponding entry in the Translation Preconditions worksheet.
5. The next column is “Type Mapping Details”. If a type mapping is used to translate the source field to the target, then this column contains the reference number of the corresponding type mapping and a hyperlink is made to the corresponding entry in the Type Mapping worksheet.
6. The next column is “Translation Rules Details”. If the source field is translated to the target message then this column contains the reference number to the actual pseudo-code translation rule in the Translation Rule worksheet.

MT (source or target) messages are represented in the sheet as follows:

1. If the message is represented as source message then the first column contains as heading “Multiplicity” and contains the multiplicity of the element.
   
   For sequences and MT fields it contains the multiplicity of the sequence respectively the MT field, for qualifiers it contains the multiplicity of the ISO 15022 field which contains the qualifier.
2. The next column “Sequence” contains the sequence or subsequence letter.
3. The next column “Field Tag” contains the field tag value.
4. The next column “Option Letter” contains the field option value if any.
5. The next column “Field Name” contains the field name. For qualifiers, this field contains the field name of the ISO 15022 field which contains the current qualifier.
6. The next column “Option Format” contains the FIN format of the current field option.
7. If the message is an ISO 15022 message, then the next column “Qualifier Multiplicity” specifies if the qualifier is mandatory or optional and if it is repetitive or not.

8. If the message is an ISO 15022 message, then the next column “Qualifier” contains the qualifier value.

9. If the message is an ISO 15022 message, then the next column “Qualifier Description” contains the qualifier description.

10. The next column is “Subfield Name”. If the field is a subfield then the subfield name is mentioned in this field.

11. The last column “Code Word” contains the code word value, if any.

MX (source or target) messages are represented in the sheet as follows:

1. If the message is represented as source message then the first column contains as heading “Multiplicity” and contains the multiplicity of the element.

2. The next columns “Message Building Block” and “Nesting Level 1, 2, 3 etc.” contain the full path of the message elements.

2.2.5 Type Mapping worksheet

The Type Mapping worksheet contains a tree structure of the source type and for every field it displays the corresponding field in the target type.

The sheet contains the following columns:

1. The first column “Reference number” contains the values “TTR” followed by a sequential number to identify the different type translations. The pseudo-code type translation rule itself is present in the Type Translation Rule worksheet. References from the Translation Mapping worksheet are made to this column.

2. The first set of columns contains information about the source type. The source type is represented in a tree structure.

3. An empty column is present to clearly separate source and target type information.

4. The following columns are used to display information of the target type. In these columns the path of the target field that corresponds with the source field is mentioned.

5. The column “Type Translation Rules” contains the reference number of the actual pseudo-code translation rule in the Type Translation Rule worksheet. The reference number is an hyperlink to the corresponding entry in the Type Translation Rule worksheet.

6. The last column “Other Mapping” contains the reference number of another type mapping rule in the same sheet when applicable.
2.2.6 Translation Rule worksheet

This worksheet contains the pseudo-code translation rule which is defined for the selected message pair. The type translation rules are not present in this sheet.

This worksheet contains the following columns:

1. The first column “Reference number” contains the value “TS” followed by a sequential number identifying the different rules. References from the (MTnnn to XXXX.nnn or vice versa) mapping worksheet are made to this column.

2. The second column “Rule Definition” contains the pseudo-code translation rule itself. The translation rule is spread over different rows, one row per statement.

3. The next columns “Name” and “Comment” contains the comments which are defined on the rule statements if any and a name.

**Note:** In future versions of the translation rules, SWIFT standards would provide in this comment column information to help the user interpret the rule written in pseudo-code.

4. The last column “Type Translation Reference Number” contains a reference to a type translation rules when applicable. The column contains the type translation rules identifiers and a hyperlink is made to the correct entries in the Type Translation Rules worksheet.

2.2.7 Type Translation Rules worksheet

This worksheet contains the pseudo-code type translation rules which are used in the translation rule of the selected message pair.

This worksheet contains the following columns:

1. The first column “Reference number” contains the value “TTR” followed by a sequential number identifying the different type rules. References from the Type Mapping worksheet are made to this column.

2. The second column “Statement Reference number” contains the value “TTS” followed by a sequential number to identify the different pseudo-code rule statements. References from the Type Mapping worksheet are made to this column.

3. The second column “Rule Definition” contains the pseudo-code translation rule itself. The translation rule is spread over different rows, one row per statement.

4. The next columns “Name” and “Comment” contains the comments which are defined on the rule statements if any and a name.

**Note:** In future versions of the translation rules, SWIFT standards would provide in this comment column information to help the user interpret the rule written in pseudo-code.

5. The last column “Type Translation Reference Number” contains a reference to another type translation rules in the same sheet when applicable.
3 Message Group Translation Information

This section describes the information that applies to the message group as a whole. It defines what messages are in-scope for the group, the related versions and other group-specific information, and also what aspects are out-of-scope if any.

This information is also available in each spreadsheet, in the Logical Message Criteria worksheet.

3.1 Version

These translation rules cover the November 2010 Standards Release for the MX and MT messages. Rules will be maintained in line with every MT and MX maintenance cycle.
## 3.2 Corporate Actions Messages

### Scope

Information in this Translation Rules Overview pertains to the translation of the following message pairs.

For some mapping, logical message criteria provide the rules which, in addition to the message type, are taken into account to choose the MX (or MT) to be translated to. These criteria are available in each spreadsheet in the **Logical Message Criteria** worksheet.

<table>
<thead>
<tr>
<th>Source message</th>
<th>Target message</th>
</tr>
</thead>
<tbody>
<tr>
<td>MT 564</td>
<td>Corporate Action Notification</td>
</tr>
<tr>
<td>MT 564</td>
<td>seev.031.002.01 CorporateActionNotification.002V01</td>
</tr>
<tr>
<td>MT 564</td>
<td>Corporate Action Notification</td>
</tr>
<tr>
<td>MT 564</td>
<td>seev.035.002.01 CorporateActionMovementPreliminaryAdvice.002V01</td>
</tr>
<tr>
<td>MT 564</td>
<td>Corporate Action Notification</td>
</tr>
<tr>
<td>MT 564</td>
<td>seev.039.002.01 CorporateActionCancellationAdvice.002V01</td>
</tr>
<tr>
<td>MT 564</td>
<td>Corporate Action Notification</td>
</tr>
<tr>
<td>MT 564</td>
<td>seev.044.002.01 CorporateActionMovementPreliminaryAdviceCancellationAdvice.002V01</td>
</tr>
<tr>
<td>MT 565</td>
<td>Corporate Action Instruction</td>
</tr>
<tr>
<td>MT 565</td>
<td>seev.033.002.01 CorporateActionInstruction.002V01</td>
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<tr>
<td>MT 566</td>
<td>Corporate Action Instruction</td>
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<td>seev.040.002.01 CorporateActionInstructionCancellationRequest.002V01</td>
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<td>Corporate Action Confirmation</td>
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<td>Corporate Action Confirmation</td>
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<td>seev.037.002.01 CorporateActionMovementReversalAdvice.002V01</td>
</tr>
<tr>
<td>MT 567</td>
<td>Corporate Action Status and Processing Advice</td>
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<td>seev.032.002.01 CorporateActionEventProcessingStatusAdvice.002V01</td>
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<td>MT 567</td>
<td>Corporate Action Status and Processing Advice</td>
</tr>
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<tr>
<td>MT 567</td>
<td>Corporate Action Status and Processing Advice</td>
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<tr>
<td>MT 567</td>
<td>seev.041.002.01 CorporateActionInstructionCancellationRequestStatusAdvice.002V01</td>
</tr>
<tr>
<td>MT 568</td>
<td>Corporate Action Narrative</td>
</tr>
<tr>
<td>MT 568</td>
<td>seev.031.002.01 CorporateActionNotification.002V01</td>
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<tr>
<td>MT 568</td>
<td>Corporate Action Narrative</td>
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<td>044.002.01</td>
<td>CorporateActionMovementPreliminaryAdviceCancellationAdvice.002V01</td>
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