



Implementation Guidelines for ISO 20022 Interbank Messages

SIC and euroSIC

Clearing Day Information (camt.019)

Version 2.1, valid from 18 November 2022

Change history

All the changes carried out in this document are listed below with the version number, the change date, a brief description of the change and references to the chapters affected.

| Version | Date | Description of the change | Chapter |
|---------|------------|---|----------|
| 2.1 | 07.04.2022 | Errata per SIC Platform Release 4.9 | |
| | | New CH schema version camt.019.001.07.ch.02.xsd (Details according to separate document "Overview and Change Log for the XML schemas") | 1.4 |
| 2.0 | 30.11.2021 | Complete revision due to update of ISO 20022 version 2019 | All |
| | | New "Introduction" chapter (replaces and includes the previous "Overview of the documentation structure" chapter and annexes) | 1 |
| | | New ISO 20022 schema version | 12 |
| | | Change the definition from SWIFT MX to ISO 20022 | 2 |
| | | Revision of "Technical specifications for the RTGS systems": <ul style="list-style-type: none"> Altered identification of the clearing system: New codes SIC/SEU in the <i>RptOrErr/BizRpt/SysId/MktInfrstrctrId/Cd</i> element, no longer required elements <i>RptOrErr/BizRpt/SysId/Ctry</i> and <i>MsgHdr/ReqTp</i> removed from the schema Extension of the schema inside the B-level for possible future use: <ul style="list-style-type: none"> <i>.../SysInfPerCcy/Evt</i>: Schema extended from 0..3 to 0..n (maximum usage remains unchanged) <i>.../SysInfPerCcy/Evt/Prtry</i>: Inclusion of the <i><SchmeNm></i> and <i><Issr></i> elements <i>.../SysInfPerCcy/Evt</i>: Inclusion of the <i><StartTm></i> and <i><EndTm></i> sub-elements <i>.../SysInfPerCcy/ClsrInf</i>: Schema extended from 0..1 to 0..n (maximum usage remains unchanged) <i>.../SysInfPerCcy/ClsrInf</i>: Inclusion of the <i><ToDtTm></i> and <i><DtTmRg></i> sub-elements | 4.1, 4.2 |
| 1.4 | 28.02.2020 | Last edition based on previous ISO 20022 version status | |
| 1.0 | 21.03.2016 | First edition | All |

Table 1: Change history

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General notes

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Table of contents

| | |
|--|-----------|
| Change history | 2 |
| General notes | 3 |
| Table of contents..... | 4 |
| Table of tables | 5 |
| Table of figures..... | 6 |
| 1 Introduction | 7 |
| 1.1 Overview of the documentation structure | 7 |
| 1.2 Target audience..... | 8 |
| 1.3 Change control | 8 |
| 1.4 XML schema | 8 |
| 1.5 Validation portal | 8 |
| 1.6 Reference documents | 8 |
| 2 ISO definitions..... | 9 |
| 3 Business specifications for the RTGS systems | 10 |
| 3.1 General | 10 |
| 3.2 Event types | 10 |
| 3.3 References in the "Return Business Day Information" message (camt.019) | 11 |
| 3.4 Code values for clearing day events..... | 12 |
| 3.5 Times for clearing day events | 13 |
| 3.6 Code values for RTGS events..... | 14 |
| 3.7 Code values for backup delivery | 15 |
| 3.8 Further business specifications..... | 15 |
| 4 Technical specifications for the RTGS systems | 16 |
| 4.1 Message Header (MsgHdr, A-level) | 16 |
| 4.2 Report or Error (RptOrErr, B-level)..... | 18 |

Table of tables

| | | |
|----------|--|----|
| Table 1: | Change history | 2 |
| Table 2: | Use cases for "camt.019" in the RTGS systems..... | 10 |
| Table 3: | Event types and their code values in the "camt.019" message..... | 10 |
| Table 4: | Code values for clearing day events | 12 |
| Table 5: | Code values of the RTGS events | 14 |
| Table 6: | Code values for backup delivery..... | 15 |
| Table 7: | Message Header (MsgHdr, A-level)..... | 17 |
| Table 8: | Report or Error (RptOrErr, B-level) | 26 |

Table of figures

| | | |
|------------|---|----|
| Figure 1: | Documentation structure for message type "camt.019" | 7 |
| Figure 2: | Basic message structure of the "camt.019" message | 9 |
| Figure 3: | References in the "camt.019" message | 11 |
| Figure 4: | Specifying the code to describe the clearing day events | 12 |
| Figure 5: | Times of clearing day events | 13 |
| Figure 6: | Specifying codes to describe the RTGS events | 14 |
| Figure 7: | Specifying the code for backup delivery | 15 |
| Figure 8: | Message Header (MsgHdr) | 16 |
| Figure 9: | Report or Error (RptOrErr) | 18 |
| Figure 10: | Listing the clearing day events with Event (Evt) elements | 18 |
| Figure 11: | Listing the RTGS events with Closure Information (ClsrInf) elements | 19 |

1 Introduction

1.1 Overview of the documentation structure

The Implementation Guidelines consist of a base document with general information concerning all message types, and various module documents – one each per ISO 20022 message type, e.g. this document is for the message type "camt.019" – with message-specific information, including information on the application-specific handling of individual elements. They specify the messages to be submitted to and delivered from the RTGS systems SIC and euroSIC using the ISO 20022 message standard.

These Implementation Guidelines are modular in structure:

- The base document contains general information applying to all messages.
- The module documents – one for each ISO 20022 message type – contain message-specific information, including information on the application-specific handling of certain elements.
- For each Implementation Guideline, an XML schema (XSD) and generic XML sample messages will be published.

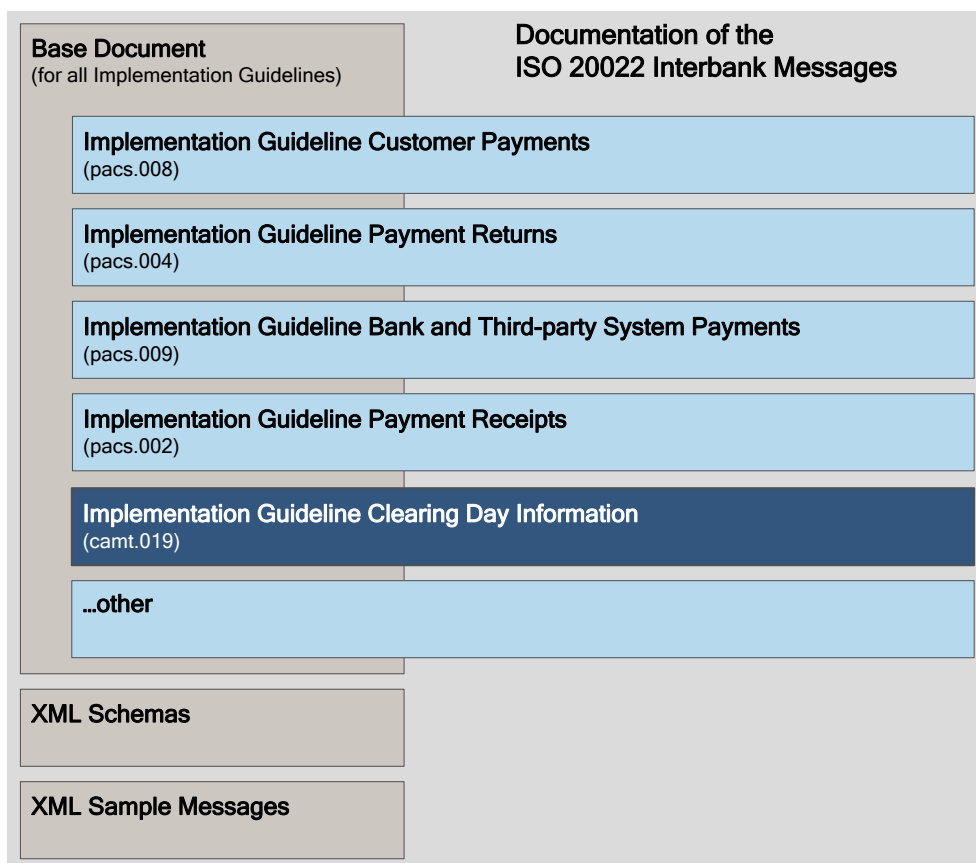


Figure 1: Documentation structure for message type "camt.019"

1.2 Target audience

The "Implementation Guidelines for ISO 20022 Interbank Messages" are addressed to all participants of the Swiss RTGS systems SIC and euroSIC.

1.3 Change control

All modifications made to this document are listed in the change history (Table 1) showing the version, the date of the change, a brief description and references to the chapters concerned.

1.4 XML schema

The XML schema for "camt.019" for the RTGS systems

- ***camt.019.001.07.ch.02.xsd***

is published on the SIX Interbank Ltd website www.iso-payments.ch.

It should preferably be opened using for-purpose XML software.

1.5 Validation portal

After registration, users can upload their own messages to the SIC & euroSIC Validation Portal Interbank Messages (validation.iso-payments.ch/SIC4) and validate them against this Implementation Guideline. In addition, sample XML messages are available in the download area of the validation portal.

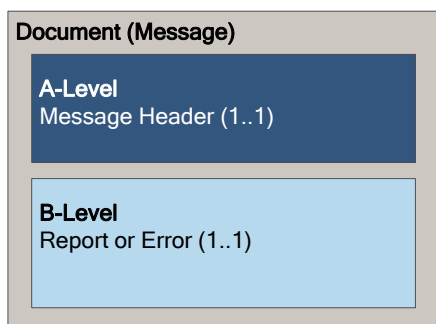
1.6 Reference documents

Additional information on the Implementation Guidelines can be found in the reference documents listed in the Base document.

2 ISO definitions

The "Return Business Day Information" message (camt.019) is sent from the RTGS systems to the participants, to inform participants about events on that clearing day (clearing closing times or the start of day-end processing), or about RTGS events (general settlement stop/general settlement restart or general system stop/general system restart).

The "Return Business Day Information" message is based on the ISO 20022 XML schema "camt.019.001.07".



The "camt.019" message is essentially structured as follows:

- **A-level:** Message level, "*Message Header*" element.
This block must occur exactly once.
- **B-Level:** Transaction level, "*Report or Error*" element.
This block must occur exactly once.

Figure 2: Basic message structure of the "camt.019" message

3 Business specifications for the RTGS systems

3.1 General

The "camt.019" message is used in the following use cases:

| Use case | Input/Output | ISO/MX message |
|--|--------------|----------------|
| Clearing stop times for the current day | O | camt.019 |
| Start of day-end processing (DEP) | O | camt.019 |
| Notification of general settlement stop / general settlement restart | O | camt.019 |
| Notification of general system stop/general system restart | O | camt.019 |

Table 2: Use cases for "camt.019" in the RTGS systems

The "Input/Output" column in the table indicates whether the message was created by the participant (I) or by the RTGS systems (O).

3.2 Event types

The use cases in the "camt.019" message are distinguished by entering the event type in the <QryNm> element in the "Message Header":

| Event type | Code value | Use case |
|--|------------|--|
| Clearing stop times | CSPINF | Clearing stop times for the current day |
| Start of day-end processing | TEVINP | Start of day-end processing (DEP) |
| General settlement stop / general settlement restart | HLTINF | Notification of general settlement stop / general settlement restart |
| General system stop / general system restart | SSTINF | Notification of general system stop / general system restart |

Table 3: Event types and their code values in the "camt.019" message

Note: In what follows in this document, the event types are always referenced by their code value.

3.3 References in the "Return Business Day Information" message (camt.019)

Along the processing chain, one reference is sent in the "camt.019" message:

A-Level: *MsgHdr/MsgId* – unique message identification for the "camt.019" message

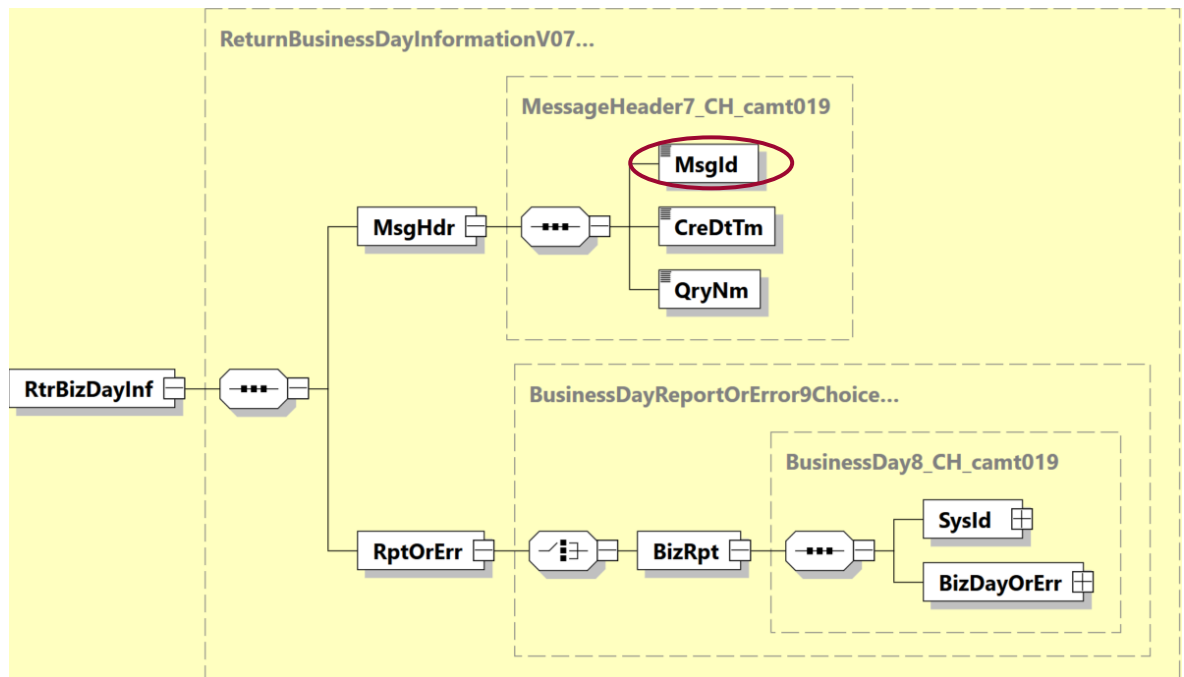


Figure 3: References in the "camt.019" message

3.4 Code values for clearing day events

In the "camt.019" message, the clearing day events (clearing day times) are identified by code values in the `.../BizDayOrErr/BizDayInf/SysInfPerCcy/Evt/Tp/Prtry/Id` element:

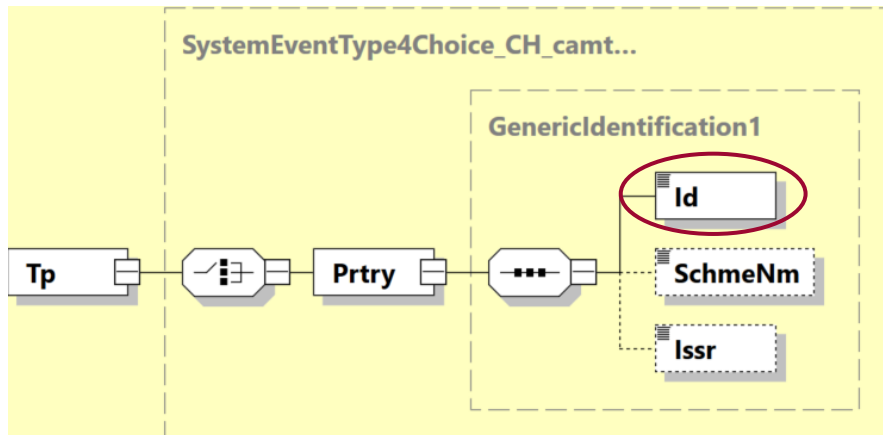


Figure 4: Specifying the code to describe the clearing day events

The following code values are defined:

| Code value | Event |
|------------|-----------------|
| CS1 | Clearing stop 1 |
| CS2 | Clearing stop 2 |
| CS3 | Clearing stop 3 |

Table 4: Code values for clearing day events

3.5 Times for clearing day events

For each clearing day event, the planned time of the event is sent in the `.../Evt/SchdldTm` element.

In the "Start of day-end processing" (TEVINf) use case, the `.../Evt/FctvTm` element contains not only the planned time of clearing stop 1, but also the effective time at which the message from the system manager about the start of day-end processing arrived in the RTGS systems.

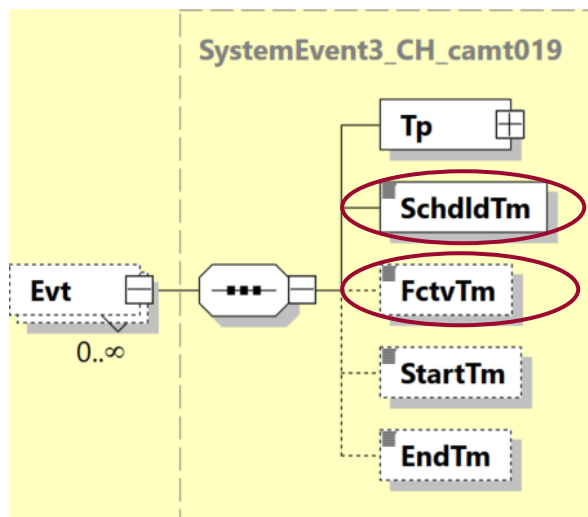


Figure 5: Times of clearing day events

3.6 Code values for RTGS events

In the "camt.019" message, the RTGS events that have been reported are specified in more detail using codes in the `.../ClsrInf/Rsn/Prtry` element:

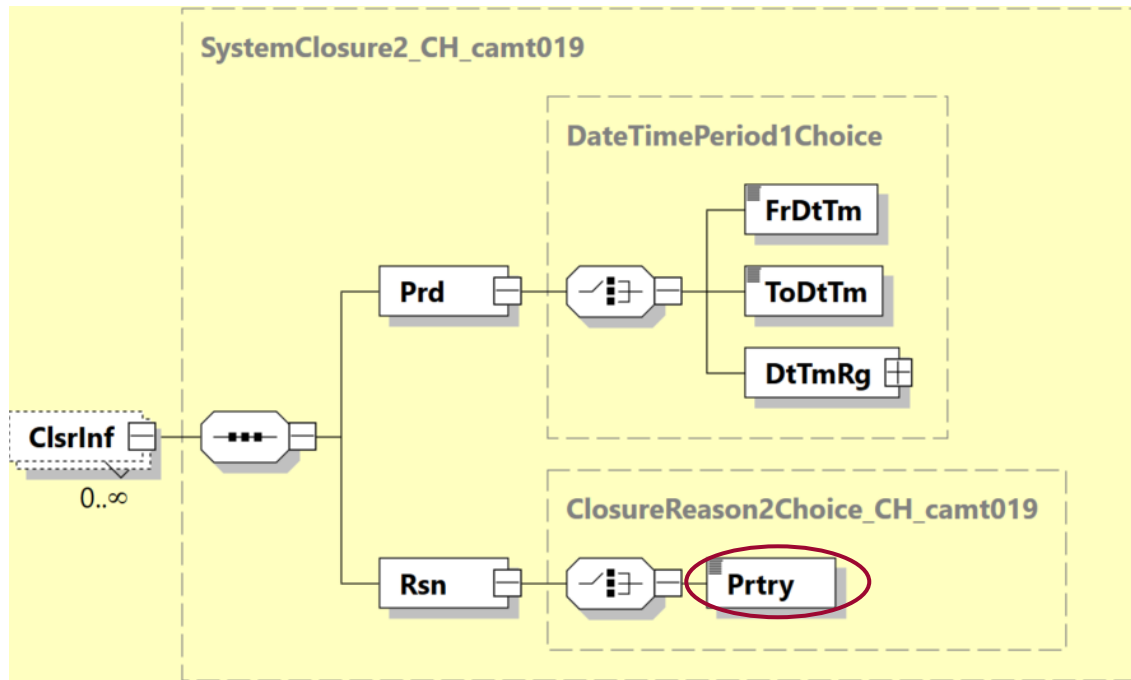


Figure 6: Specifying codes to describe the RTGS events

The following code values are defined:

| Code value | Event |
|------------|----------------------------|
| GSTS | General Settlement Stop |
| GSTR | General Settlement Restart |
| GSYS | General System Stop |
| GSYR | General System Restart |

Table 5: Code values of the RTGS events

3.7 Code values for backup delivery

For event type TEVINP, the delivery of messages on the backup medium is signalled in the `.../BizDayInf/SysSts/Sts/Prtry/Id` element of the "camt.019" message:

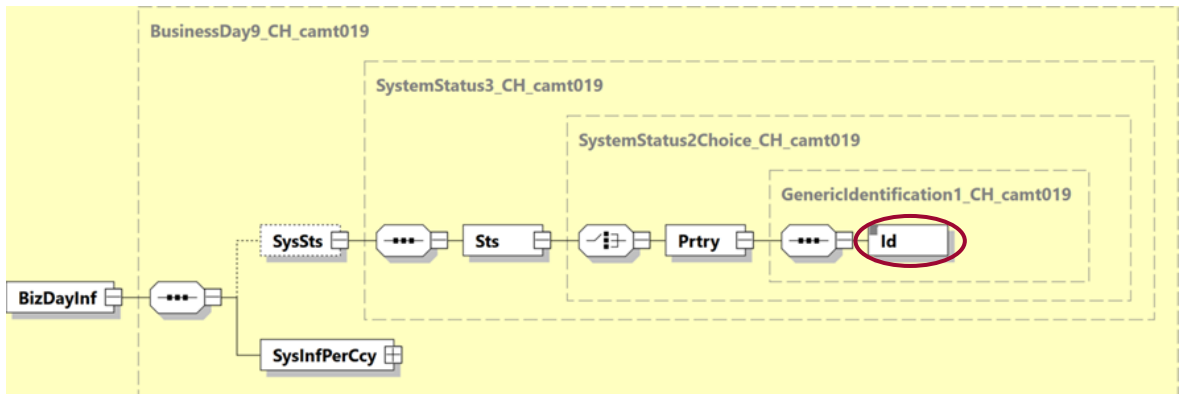


Figure 7: Specifying the code for backup delivery

The following code values are defined:

| Code value | Event |
|------------|--|
| NOBDM | No messages will be sent on the backup medium |
| BDMSG | Unacknowledged or undelivered messages will be sent on the backup medium |

Table 6: Code values for backup delivery

3.8 Further business specifications

Further business specifications can be found in the Base document.

4 Technical specifications for the RTGS systems

4.1 Message Header (MsgHdr, A-level)

The "Message Header" block (A-level of the message) occurs exactly once in the message and contains the following elements:

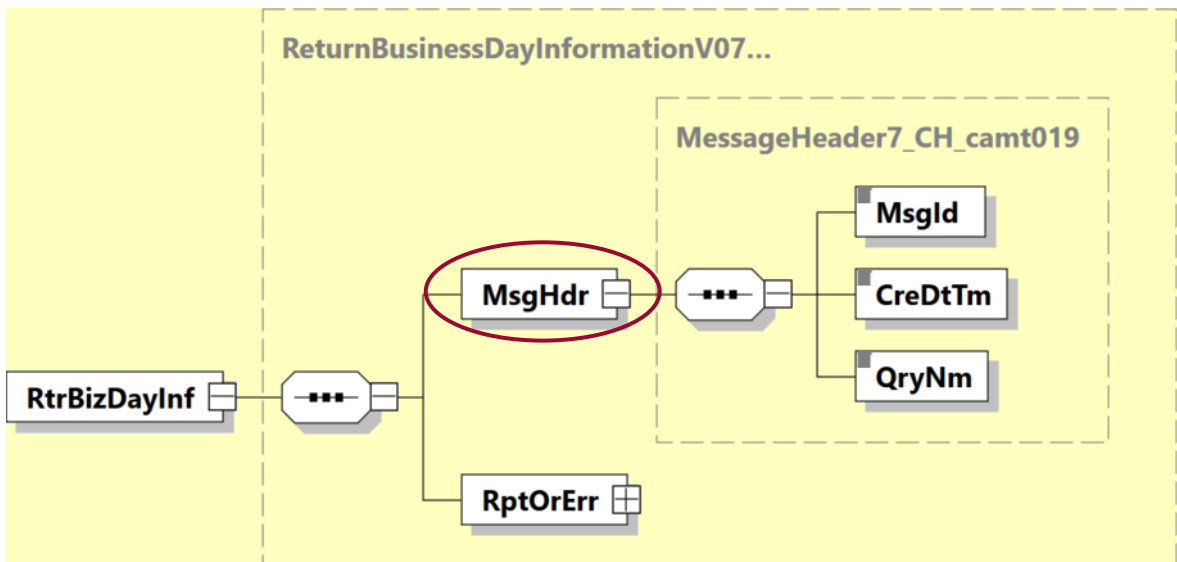


Figure 8: Message Header (MsgHdr)

The following table specifies all the elements of the "Message Header" block of the "camt.019" message that are relevant in the context of the RTGS systems.

| ISO 20022 Standard | | | Swiss ISO 20022 Payments Standard | | |
|---|--------------|------|-----------------------------------|--|--------------------------------|
| Message Item | XML Tag | Mult | Mult | Definition | Event Type specific Definition |
| Document +Return Business Day Information V07 | RtrBizDayInf | 1..1 | 1..1 | | |
| Message Header | MsgHdr | 1..1 | 1..1 | | |
| Message Header +Message Identification | MsgId | 1..1 | 1..1 | Message Identification Only the restricted character set for references (excluding spaces) is permitted for this element. | |
| Message Header +Creation Date Time | CreDtTm | 0..1 | 1..1 | Creation Date Time | |
| Message Header +Query Name | QryNm | 0..1 | 1..1 | Event Type Unique identification of the event type; the following code values are available: CSPINF = Clearing stop times TEVINP = Start of day-end processing HLTINF = General settlement stop/general settlement restart SSTINF = General system stop/general system restart | |

Table 7: Message Header (MsgHdr, A-level)

4.2 Report or Error (RptOrErr, B-level)

The "Report or Error" block (B-level of the message) contains the information about the clearing times or RTGS events.

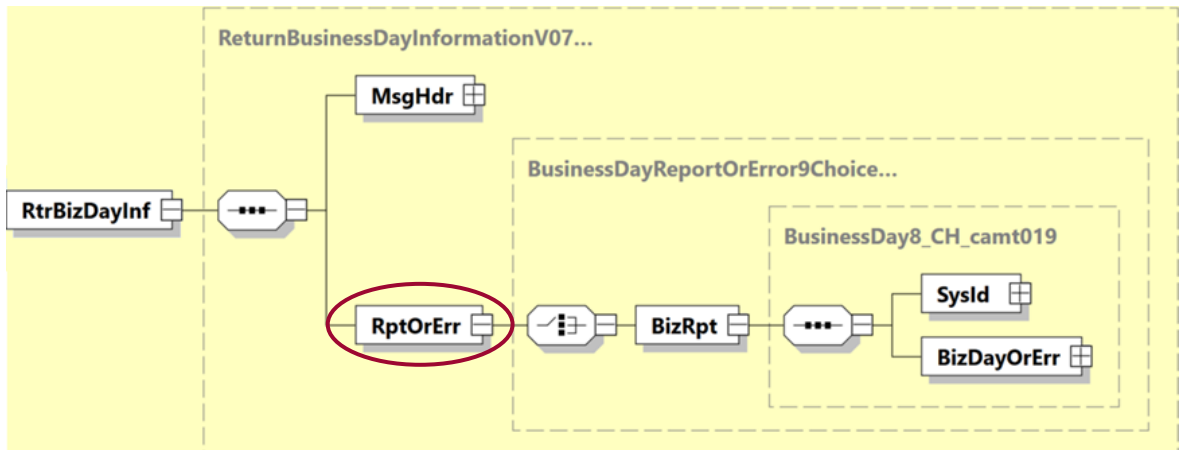


Figure 9: Report or Error (RptOrErr)

The **.../BizRpt/BizDayOrErr/BizDayInf/SysInfPerCcy/Evt** sub-element is used to provide details about the clearing day events:

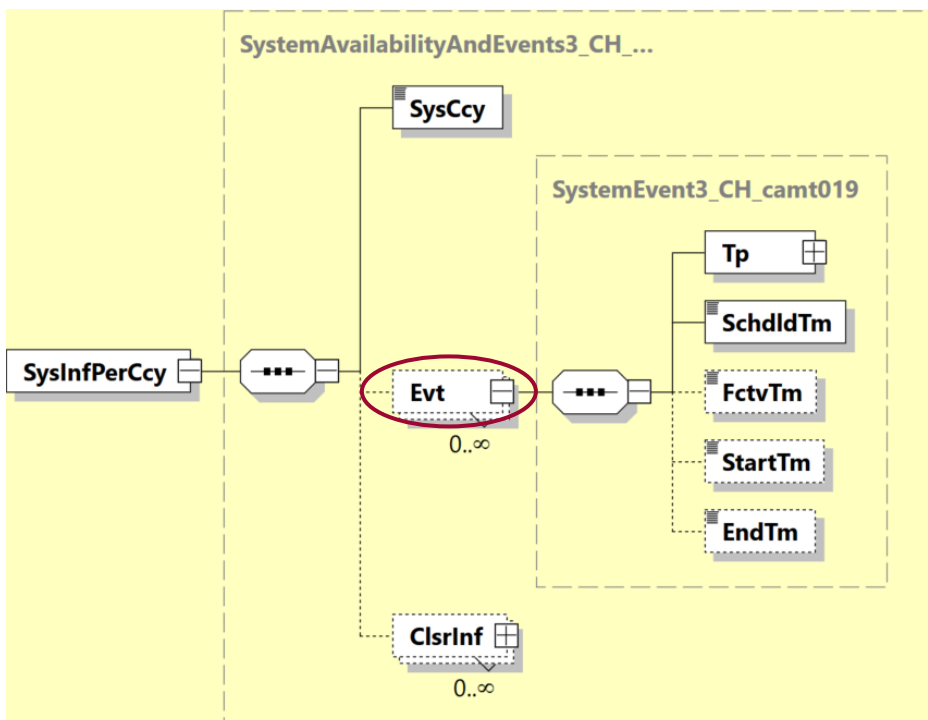


Figure 10: Listing the clearing day events with Event (Evt) elements

The `.../BizRpt/BizDayOrErr/BizDayInf/SysInfPerCcy/ClsrInf` sub-element is used to show information about RTGS events:

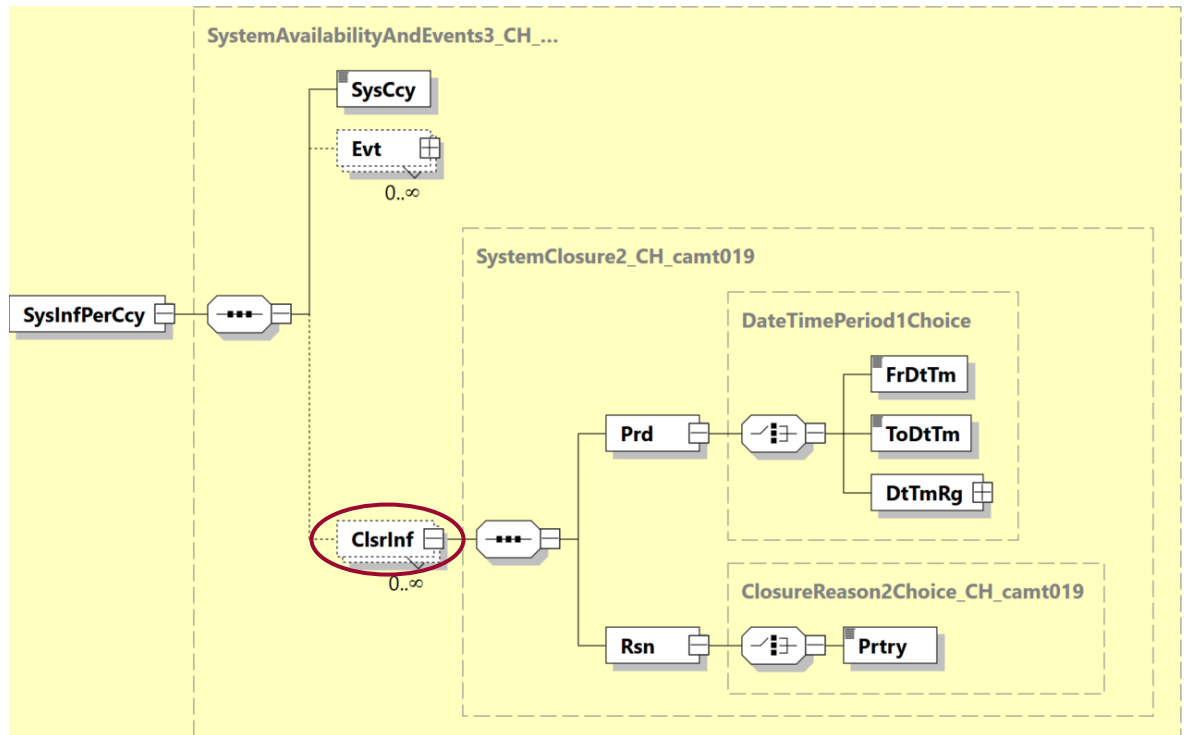


Figure 11: Listing the RTGS events with Closure Information (`ClsrInf`) elements

The following table specifies all the elements of the "Report or Error" block of the "camt.019" message that are relevant in the context of the RTGS systems.

| ISO 20022 Standard | | | Swiss ISO 20022 Payments Standard | | |
|---|-----------------|------|-----------------------------------|---|---|
| Message Item | XML Tag | Mult | Mult | Definition | Event Type specific Definition |
| Report Or Error | RptOrErr | 1..1 | 1..1 | | |
| Report Or Error +Business Report | BizRpt | 1..n | 1..1 | | |
| Report Or Error +Business Report ++System Identification | SysId | 1..n | 1..1 | | |
| Report Or Error +Business Report ++System Identification +++Market Infrastructure Identification | MktInfrstrctrId | 1..1 | 1..1 | Market Infrastructure Identification | |
| Report Or Error +Business Report ++System Identification +++Market Infrastructure Identification ++++Code | Cd | 1..1 | 1..1 | Clearing System Identification (code) Unambiguous identification of the clearing system, the following code values are available: SIC (CHF only) = value SIC must be used euroSIC (EUR only) = value SEU must be used | |
| Report Or Error +Business Report ++Business Day Or Error | BizDayOrErr | 1..1 | 1..1 | | |
| Report Or Error +Business Report ++Business Day Or Error +++Business Day Information | BizDayInf | 1..1 | 1..1 | Business Day Information | |
| Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Status | SysSts | 0..1 | 0..1 | Message Delivery Status Information about unacknowledged or undelivered messages at the time of the start of day-end processing. | CSPINF: Not used. HLTINF: Not used. SSTINF: Not used. |

| ISO 20022 Standard | | | Swiss ISO 20022 Payments Standard | | |
|--|--------------|------|-----------------------------------|--|--------------------------------|
| Message Item | XML Tag | Mult | Mult | Definition | Event Type specific Definition |
| Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Status +++++Status | Sts | 1..1 | 1..1 | | |
| Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Status +++++Status +++++Proprietary | Prtry | 1..1 | 1..1 | | |
| Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Status +++++Status +++++Proprietary +++++Identification | Id | 1..1 | 1..1 | Backup Delivery Code The provided code value indicates whether messages will be delivered on the backup medium. The following code values are defined: NOBDM = No messages will be delivered on the backup medium BDMSG = Unacknowledged or undelivered messages will be delivered on the backup medium | |
| Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Information Per Currency | SysInfPerCcy | 0..n | 1..1 | | |
| Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Information Per Currency +++++System Currency | SysCcy | 0..1 | 1..1 | Currency Fix CHF for SIC, EUR for euroSIC. | |

| ISO 20022 Standard | | | Swiss ISO 20022 Payments Standard | | |
|---|---------|------|-----------------------------------|---|---|
| Message Item | XML Tag | Mult | Mult | Definition | Event Type specific Definition |
| Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Information Per Currency +++++Event | Evt | 0..n | 0..n | Business Day Event Information One occurrence of the element will be provided for each clearing day event (clearing stop). Max. 3 occurrences are permitted. | TEVIN: Exactly 1 occurrence will be provided: Clearing stop 1 CSPIN: 1 - 3 occurrences will be provided. Start of clearing day - 3x: Clearing stop 1, 2 and 3 Postponement of clearing stop 1 - 3x: Clearing stop 1, 2 and 3 Postponement of clearing stop 2 - 2x: Clearing stop 2 and 3 Postponement of clearing stop 3 - 1x: Clearing stop 3 HLTIN: Not used. SSTIN: Not used. |
| Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Information Per Currency +++++Event +++++Type | Tp | 1..1 | 1..1 | System Event The <Prtry> element will be provided. | |
| Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Information Per Currency +++++Event +++++Type +++++Proprietary | Prtry | 1..1 | 1..1 | | |

| ISO 20022 Standard | | | Swiss ISO 20022 Payments Standard | | |
|--|---------|------|-----------------------------------|---|------------------------------------|
| Message Item | XML Tag | Mult | Mult | Definition | Event Type specific Definition |
| Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Information Per Currency +++++Event +++++Type +++++Proprietary +++++Identification | Id | 1..1 | 1..1 | System Event Code (proprietary) The following codes are defined: CS1 = Clearing stop 1 CS2 = Clearing stop 2 CS3 = Clearing stop 3 | TEVINP: Only CS1 will be provided. |
| Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Information Per Currency +++++Event +++++Type +++++Proprietary +++++Scheme Name | SchmeNm | 0..1 | 0..1 | Is not used by RTGS (retained in message definition for possible future use). | |
| Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Information Per Currency +++++Event +++++Type +++++Proprietary +++++Issuer | Issr | 0..1 | 0..1 | Is not used by RTGS (retained in message definition for possible future use). | |

| ISO 20022 Standard | | | Swiss ISO 20022 Payments Standard | | |
|--|----------|------|-----------------------------------|---|---|
| Message Item | XML Tag | Mult | Mult | Definition | Event Type specific Definition |
| Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Information Per Currency +++++Event ++++++Scheduled Time | SchdldTm | 1..1 | 1..1 | Scheduled Time Scheduled time for the indicated clearing stop. | |
| Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Information Per Currency +++++Event ++++++Effective Time | FctvTm | 0..1 | 0..1 | Effective Time | TEVINP: Documents the time at which the system manager's message to start day-end processing arrived in the RTGS system. CSPINP: Not used. |
| Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Information Per Currency +++++Event ++++++Start Time | StartTm | 0..1 | 0..1 | New Clearing Day Is not used by RTGS (retained in message definition for possible future use). | |
| Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Information Per Currency +++++Event ++++++End Time | EndTm | 0..1 | 0..1 | Past Clearing Day Is not used by RTGS (retained in message definition for possible future use). | |

| ISO 20022 Standard | | | Swiss ISO 20022 Payments Standard | | |
|--|---------------|------|-----------------------------------|---|--|
| Message Item | XML Tag | Mult | Mult | Definition | Event Type specific Definition |
| Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Information Per Currency +++++Closure Information | ClsrInf | 0..n | 0..n | Stop or Restart Information RTGS Information about a general settlement stop/settlement restart or system stop/system restart. Max. 1 occurrence is permitted. | TEVINP: Not used. CSPINF: Not used. |
| Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Information Per Currency +++++Closure Information +++++Period | Prd | 0..1 | 1..1 | | |
| Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Information Per Currency +++++Closure Information +++++Period +++++From Date Time | FrDtTm {Or | 1..1 | 1..1 | Input Timestamp Documents the reception time of the system manager message regarding general settlement stop/settlement restart or system stop/system restart in the RTGS system. | |
| Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Information Per Currency +++++Closure Information +++++Period +++++To Date Time | ToDtTm | 1..1 | 1..1 | Is not used by RTGS (retained in message definition for possible future use). | |

| ISO 20022 Standard | | | Swiss ISO 20022 Payments Standard | | |
|---|-------------------|------|-----------------------------------|---|--|
| Message Item | XML Tag | Mult | Mult | Definition | Event Type specific Definition |
| Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Information Per Currency +++++Closure Information +++++Period +++++Date Time Range | DtTmRg Or} | 1..1 | 1..1 | Is not used by RTGS (retained in message definition for possible future use). | |
| Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Information Per Currency +++++Closure Information +++++Reason | Rsn | 1..1 | 1..1 | | |
| Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Information Per Currency +++++Closure Information +++++Reason +++++Proprietary | Prtry | 1..1 | 1..1 | Event Code Code to identify the RTGS event. | HLTINF: GSTS = General Settlement Stop GSTR = General Settlement Restart SSTINF: GSYS = General System Stop GSYR = General System Restart |

Table 8: Report or Error (RptOrErr, B-level)