

ISO 20022

## T2-T2S Consolidation - Calendar Reference Data

# Message Definition Report - Part 2

Approved by the Securities SEG on 16 December 2021 and by the Payments SEG on 10 January 2022.

This document provides details of the Message Definitions for T2-T2S Consolidation - Calendar Reference Data.

April 2023

# Table of Contents

<b>1</b>	<b>Message Set Overview</b>	<b>3</b>
1.1	List of MessageDefinitions	3
<b>2</b>	<b>reda.064.001.02 CalendarQueryV02</b>	<b>4</b>
2.1	MessageDefinition Functionality	4
2.2	Structure	4
2.3	Constraints	4
2.4	Message Building Blocks	5
<b>3</b>	<b>reda.065.001.02 CalendarReportV02</b>	<b>8</b>
3.1	MessageDefinition Functionality	8
3.2	Structure	9
3.3	Constraints	10
3.4	Message Building Blocks	10
<b>4</b>	<b>Message Items Types</b>	<b>20</b>
4.1	MessageComponents	20
4.2	Message Datatypes	24

# 1 Message Set Overview

## Introduction

This document describes the T2-T2S Consolidation - Calendar Reference Data message definitions (Business Justification #141).

Please note that the two messages have been registered as a v02 version upon request from 4CB.

## 1.1 List of MessageDefinitions

The following table lists all MessageDefinitions described in this book.

MessageDefinition	Definition
reda.064.001.02 CalendarQueryV02	The CalendarQuery message is sent by the system member to the system administrator to request information on the the system status for specific calendar days.
reda.065.001.02 CalendarReportV02	The CalendarReport message is sent by the system administrator to the system member is to return information on the system status for specific calendar days.

## 2 reda.064.001.02 CalendarQueryV02

### 2.1 MessageDefinition Functionality

The CalendarQuery message is sent by the system member to the system administrator to request information on the the system status for specific calendar days.

Outline

The CalendarQueryV02 MessageDefinition is composed of 3 MessageBuildingBlocks:

- A. MessageHeader  
Common business identification for the message.
- B. SearchCriteria  
Defines the criteria to extract the calendar information.
- C. SupplementaryData  
Additional information that cannot be captured in the structured elements and/or any other specific block.

### 2.2 Structure

Or	MessageElement/BuildingBlock<XML Tag>	Mult.	Type	Constr. No.	Page
	Message root <Document> <CalQry>	[1..1]			
	<b>MessageHeader</b> <MsgHdr>	[1..1]	±		5
	<b>SearchCriteria</b> <SchCrit>	[0..*]			5
	<b>Year</b> <Yr>	[0..1]	Year		6
	<b>Month</b> <Mnth>	[0..1]	Month		6
	<b>Service</b> <Svc>	[0..1]			6
	<b>SystemIdentification</b> <SysId>	[1..1]	±		6
	<b>SystemCurrency</b> <SysCcy>	[0..1]	CodeSet	C1	6
	<b>SupplementaryData</b> <SplmtryData>	[0..*]	±	C3	7

### 2.3 Constraints

#### C1 ActiveCurrency

The currency code must be a valid active currency code, not yet withdrawn on the day the message containing the currency is exchanged. Valid active currency codes are registered with

the ISO 4217 Maintenance Agency, consist of three (3) contiguous letters, and are not yet withdrawn on the day the message containing the Currency is exchanged.

## C2 Country

The code is checked against the list of country names obtained from the United Nations (ISO 3166, Alpha-2 code).

## C3 SupplementaryDataRule

This component may not be used without the explicit approval of a SEG and submission to the RA of ISO 20022 compliant structure(s) to be used in the Envelope element.

## 2.4 Message Building Blocks

This chapter describes the MessageBuildingBlocks of this MessageDefinition.

### 2.4.1 MessageHeader <MsgHdr>

*Presence:* [1..1]

*Definition:* Common business identification for the message.

**MessageHeader <MsgHdr>** contains the following elements (see "MessageHeader9" on page 22 for details)

Or	MessageElement<XML Tag>	Mult.	Type	Constr. No.	Page
	MessageIdentification <MsgId>	[1..1]	Text		22
	CreationDateTime <CreDtTm>	[0..1]	DateTime		23
	RequestType <ReqTp>	[0..1]			23
{Or	PaymentControl <PmtCtrl>	[1..1]	CodeSet		23
Or	Enquiry <Enqry>	[1..1]	CodeSet		23
Or}	Proprietary <Prtry>	[1..1]	±		23

### 2.4.2 SearchCriteria <SchCrit>

*Presence:* [0..\*]

*Definition:* Defines the criteria to extract the calendar information.

**SearchCriteria <SchCrit>** contains the following **CalendarSearchCriteria1** elements

Or	MessageElement<XML Tag>	Mult.	Type	Constr. No.	Page
	<b>Year</b> <Yr>	[0..1]	Year		6
	<b>Month</b> <Mnth>	[0..1]	Month		6
	<b>Service</b> <Svc>	[0..1]			6
	<b>SystemIdentification</b> <SysId>	[1..1]	±		6
	<b>SystemCurrency</b> <SysCcy>	[0..1]	CodeSet	C1	6

### 2.4.2.1 Year <Yr>

*Presence:* [0..1]

*Definition:* Specifies the year for which the calendar information must be returned.

*Datatype:* "ISOYear" on page 28

### 2.4.2.2 Month <Mnth>

*Presence:* [0..1]

*Definition:* Specifies the month for which the calendar information must be returned.

*Datatype:* "ISOMonth" on page 27

### 2.4.2.3 Service <Svc>

*Presence:* [0..1]

*Definition:* Specifies the service or system for which the calendar information must be returned.

**Service <Svc>** contains the following **SystemAndCurrency1** elements

Or	MessageElement<XML Tag>	Mult.	Type	Constr. No.	Page
	<b>SystemIdentification</b> <SysId>	[1..1]	±		6
	<b>SystemCurrency</b> <SysCcy>	[0..1]	CodeSet	C1	6

#### 2.4.2.3.1 SystemIdentification <SysId>

*Presence:* [1..1]

*Definition:* Unique and unambiguous identification of the system, as assigned by the system administrator.

**SystemIdentification <SysId>** contains one of the following elements (see "SystemIdentification2Choice" on page 24 for details)

Or	MessageElement<XML Tag>	Mult.	Type	Constr. No.	Page
{Or	MarketInfrastructureIdentification <MktInfstrctrId>	[1..1]	±		24
Or}	Country <Ctry>	[1..1]	CodeSet	C2	24

#### 2.4.2.3.2 SystemCurrency <SysCcy>

*Presence:* [0..1]

*Definition:* Currency which may be processed by the system. A system may process transactions in a single currency or in multiple currencies.

*Impacted by:* C1 "ActiveCurrency"

*Datatype:* "ActiveCurrencyCode" on page 24

#### Constraints

- **ActiveCurrency**

The currency code must be a valid active currency code, not yet withdrawn on the day the message containing the currency is exchanged. Valid active currency codes are registered with the ISO 4217 Maintenance Agency, consist of three (3) contiguous letters, and are not yet withdrawn on the day the message containing the Currency is exchanged.

### 2.4.3 SupplementaryData <SplmtryData>

*Presence:* [0..\*]

*Definition:* Additional information that cannot be captured in the structured elements and/or any other specific block.

*Impacted by:* C3 "SupplementaryDataRule"

**SupplementaryData <SplmtryData>** contains the following elements (see "[SupplementaryData1](#)" on [page 21](#) for details)

Or	MessageElement<XML Tag>	Mult.	Type	Constr. No.	Page
	PlaceAndName <PlcAndNm>	[0..1]	Text		22
	Envelope <Envlp>	[1..1]	(External Schema)		22

#### Constraints

- **SupplementaryDataRule**

This component may not be used without the explicit approval of a SEG and submission to the RA of ISO 20022 compliant structure(s) to be used in the Envelope element.

## **3        reda.065.001.02 CalendarReportV02**

### **3.1      MessageDefinition Functionality**

The CalendarReport message is sent by the system administrator to the system member is to return information on the system status for specific calendar days.

#### Outline

The CalendarReportV02 MessageDefinition is composed of 3 MessageBuildingBlocks:

A. MessageHeader

Common business identification for the message.

B. ReportOrError

Reports on the calendar data.

C. SupplementaryData

Additional information that cannot be captured in the structured elements and/or any other specific block.



## 3.2 Structure

Or	MessageElement/BuildingBlock<XML Tag>	Mult.	Type	Constr. No.	Page
	Message root <Document> <CalRpt>	[1..1]			
	<b>MessageHeader</b> <MsgHdr>	[1..1]			10
	<b>MessageIdentification</b> <MsgId>	[1..1]	Text		10
	<b>CreationDateTime</b> <CreDtTm>	[0..1]	DateTime		11
	<b>RequestType</b> <ReqTp>	[0..1]			11
{Or	<b>PaymentControl</b> <PmtCtrl>	[1..1]	CodeSet		11
Or	<b>Enquiry</b> <Enqry>	[1..1]	CodeSet		11
Or}	<b>Proprietary</b> <Prtry>	[1..1]	±		11
	<b>OriginalBusinessQuery</b> <OrgnlBizQry>	[0..1]	±		12
	<b>ReportOrError</b> <RptOrErr>	[1..1]			12
{Or	<b>CalendarReport</b> <CalRpt>	[1..1]			13
	<b>Service</b> <Svc>	[0..1]			14
	<b>SystemIdentification</b> <SysId>	[1..1]	±		14
	<b>SystemCurrency</b> <SysCcy>	[0..1]	CodeSet	C1	15
	<b>CalendarOrError</b> <CalOrErr>	[1..1]			15
{Or	<b>CalendarData</b> <CalData>	[1..*]			15
	<b>SystemDate</b> <SysDt>	[1..1]	Date		16
	<b>SystemStatus</b> <SysSts>	[1..1]			16
{Or	<b>Code</b> <Cd>	[1..1]	CodeSet		16
Or}	<b>Proprietary</b> <Prtry>	[1..1]	±		16
Or}	<b>BusinessError</b> <BizErr>	[1..*]			17
	<b>Error</b> <Err>	[1..1]			17
{Or	<b>Code</b> <Cd>	[1..1]	CodeSet		17
Or}	<b>Proprietary</b> <Prtry>	[1..1]	Text		18
	<b>Description</b> <Desc>	[0..1]	Text		18
Or}	<b>OperationalError</b> <OprlErr>	[1..*]			18
	<b>Error</b> <Err>	[1..1]			18
{Or	<b>Code</b> <Cd>	[1..1]	CodeSet		18
Or}	<b>Proprietary</b> <Prtry>	[1..1]	Text		19
	<b>Description</b> <Desc>	[0..1]	Text		19

Or	MessageElement/BuildingBlock<XML Tag>	Mult.	Type	Constr. No.	Page
	<b>SupplementaryData</b> <SplmtryData>	[0..*]	±	C3	19

## 3.3 Constraints

### C1 ActiveCurrency

The currency code must be a valid active currency code, not yet withdrawn on the day the message containing the currency is exchanged. Valid active currency codes are registered with the ISO 4217 Maintenance Agency, consist of three (3) contiguous letters, and are not yet withdrawn on the day the message containing the Currency is exchanged.

### C2 Country

The code is checked against the list of country names obtained from the United Nations (ISO 3166, Alpha-2 code).

### C3 SupplementaryDataRule

This component may not be used without the explicit approval of a SEG and submission to the RA of ISO 20022 compliant structure(s) to be used in the Envelope element.

## 3.4 Message Building Blocks

This chapter describes the MessageBuildingBlocks of this MessageDefinition.

### 3.4.1 MessageHeader <MsgHdr>

*Presence:* [1..1]

*Definition:* Common business identification for the message.

**MessageHeader <MsgHdr>** contains the following **MessageHeader11** elements

Or	MessageElement<XML Tag>	Mult.	Type	Constr. No.	Page
	<b>MessageIdentification</b> <MsgId>	[1..1]	Text		10
	<b>CreationDateTime</b> <CreDtTm>	[0..1]	DateTime		11
	<b>RequestType</b> <ReqTp>	[0..1]			11
{Or	<b>PaymentControl</b> <PmtCtrl>	[1..1]	CodeSet		11
Or	<b>Enquiry</b> <Enqry>	[1..1]	CodeSet		11
Or}	<b>Proprietary</b> <Prtry>	[1..1]	±		11
	<b>OriginalBusinessQuery</b> <OrgnlBizQry>	[0..1]	±		12

#### 3.4.1.1 MessageIdentification <MsgId>

*Presence:* [1..1]

*Definition:* Point to point reference, as assigned by the sender, to unambiguously identify the message.

Usage: The sender has to make sure that MessageIdentification is unique for a pre-agreed period.

Datatype: "Max35Text" on page 28

### 3.4.1.2 CreationDateTime <CreDtTm>

Presence: [0..1]

Definition: Date and time at which the message was created.

Datatype: "ISODateTime" on page 27

### 3.4.1.3 RequestType <ReqTp>

Presence: [0..1]

Definition: Specific actions to be executed through the request.

**RequestType <ReqTp>** contains one of the following **RequestType4Choice** elements

Or	MessageElement<XML Tag>	Mult.	Type	Constr. No.	Page
{Or	<b>PaymentControl</b> <PmtCtrl>	[1..1]	CodeSet		11
Or	<b>Enquiry</b> <Enqry>	[1..1]	CodeSet		11
Or}	<b>Proprietary</b> <Prtry>	[1..1]	±		11

#### 3.4.1.3.1 PaymentControl <PmtCtrl>

Presence: [1..1]

Definition: Request type is a control command on a set of transactions.

Datatype: "ExternalPaymentControlRequestType1Code" on page 26

#### 3.4.1.3.2 Enquiry <Enqry>

Presence: [1..1]

Definition: Request type is an enquiry on a position or a transaction.

Datatype: "ExternalEnquiryRequestType1Code" on page 25

#### 3.4.1.3.3 Proprietary <Prtry>

Presence: [1..1]

Definition: Request type is in proprietary format.

**Proprietary <Prtry>** contains the following elements (see "GenericIdentification1" on page 20 for details)

Or	MessageElement<XML Tag>	Mult.	Type	Constr. No.	Page
	Identification <Id>	[1..1]	Text		20
	SchemeName <SchmeNm>	[0..1]	Text		20
	Issuer <Issr>	[0..1]	Text		20

### 3.4.1.4 OriginalBusinessQuery <OrgnlBizQry>

*Presence:* [0..1]

*Definition:* Unique identification of the original query message.

**OriginalBusinessQuery <OrgnlBizQry>** contains the following elements (see  
"OriginalBusinessQuery1" on page 21 for details)

Or	MessageElement<XML Tag>	Mult.	Type	Constr. No.	Page
	MessageIdentification <MsgId>	[1..1]	Text		21
	MessageNameIdentification <MsgNmId>	[0..1]	Text		21
	CreationDateTime <CreDtTm>	[0..1]	DateTime		21

### 3.4.2 ReportOrError <RptOrErr>

*Presence:* [1..1]

*Definition:* Reports on the calendar data.

**ReportOrError <RptOrErr>** contains one of the following **CalendarReportOrError1Choice** elements

Or	MessageElement<XML Tag>	Mult.	Type	Constr. No.	Page
{Or	<b>CalendarReport</b> <CalRpt>	[1..1]			13
	<b>Service</b> <Svc>	[0..1]			14
	<b>SystemIdentification</b> <SysId>	[1..1]	±		14
	<b>SystemCurrency</b> <SysCcy>	[0..1]	CodeSet	C1	15
	<b>CalendarOrError</b> <CalOrErr>	[1..1]			15
{Or	<b>CalendarData</b> <CalData>	[1..*]			15
	<b>SystemDate</b> <SysDt>	[1..1]	Date		16
	<b>SystemStatus</b> <SysSts>	[1..1]			16
{Or	<b>Code</b> <Cd>	[1..1]	CodeSet		16
Or}	<b>Proprietary</b> <Prtry>	[1..1]	±		16
Or}	<b>BusinessError</b> <BizErr>	[1..*]			17
	<b>Error</b> <Err>	[1..1]			17
{Or	<b>Code</b> <Cd>	[1..1]	CodeSet		17
Or}	<b>Proprietary</b> <Prtry>	[1..1]	Text		18
	<b>Description</b> <Desc>	[0..1]	Text		18
Or}	<b>OperationalError</b> <OprlErr>	[1..*]			18
	<b>Error</b> <Err>	[1..1]			18
{Or	<b>Code</b> <Cd>	[1..1]	CodeSet		18
Or}	<b>Proprietary</b> <Prtry>	[1..1]	Text		19
	<b>Description</b> <Desc>	[0..1]	Text		19

### 3.4.2.1 CalendarReport <CalRpt>

*Presence:* [1..1]

*Definition:* Provides the calendar information related to the system.

**CalendarReport <CalRpt>** contains the following **CalendarReport1** elements

Or	MessageElement<XML Tag>	Mult.	Type	Constr. No.	Page
	<b>Service</b> <Svc>	[0..1]			14
	<b>SystemIdentification</b> <SysId>	[1..1]	±		14
	<b>SystemCurrency</b> <SysCcy>	[0..1]	CodeSet	C1	15
	<b>CalendarOrError</b> <CalOrErr>	[1..1]			15
{Or	<b>CalendarData</b> <CalData>	[1..*]			15
	<b>SystemDate</b> <SysDt>	[1..1]	Date		16
	<b>SystemStatus</b> <SysSts>	[1..1]			16
{Or	<b>Code</b> <Cd>	[1..1]	CodeSet		16
Or}	<b>Proprietary</b> <Prtry>	[1..1]	±		16
Or}	<b>BusinessError</b> <BizErr>	[1..*]			17
	<b>Error</b> <Err>	[1..1]			17
{Or	<b>Code</b> <Cd>	[1..1]	CodeSet		17
Or}	<b>Proprietary</b> <Prtry>	[1..1]	Text		18
	<b>Description</b> <Desc>	[0..1]	Text		18

#### 3.4.2.1.1 Service <Svc>

*Presence:* [0..1]

*Definition:* Identification of the service or system for which the calendar information is provided.

**Service <Svc>** contains the following **SystemAndCurrency1** elements

Or	MessageElement<XML Tag>	Mult.	Type	Constr. No.	Page
	<b>SystemIdentification</b> <SysId>	[1..1]	±		14
	<b>SystemCurrency</b> <SysCcy>	[0..1]	CodeSet	C1	15

##### 3.4.2.1.1.1 SystemIdentification <SysId>

*Presence:* [1..1]

*Definition:* Unique and unambiguous identification of the system, as assigned by the system administrator.

**SystemIdentification <SysId>** contains one of the following elements (see "SystemIdentification2Choice" on page 24 for details)

Or	MessageElement<XML Tag>	Mult.	Type	Constr. No.	Page
{Or	<b>MarketInfrastructureIdentification</b> <MktInfrstrctId>	[1..1]	±		24
Or}	<b>Country</b> <Ctry>	[1..1]	CodeSet	C2	24

### 3.4.2.1.1.2 SystemCurrency <SysCcy>

*Presence:* [0..1]

*Definition:* Currency which may be processed by the system. A system may process transactions in a single currency or in multiple currencies.

*Impacted by:* C1 "ActiveCurrency"

*Datatype:* "ActiveCurrencyCode" on page 24

#### Constraints

- **ActiveCurrency**

The currency code must be a valid active currency code, not yet withdrawn on the day the message containing the currency is exchanged. Valid active currency codes are registered with the ISO 4217 Maintenance Agency, consist of three (3) contiguous letters, and are not yet withdrawn on the day the message containing the Currency is exchanged.

### 3.4.2.1.2 CalendarOrError <CalOrErr>

*Presence:* [1..1]

*Definition:* Requested information on the calendar or business error report when information has not been found.

**CalendarOrError <CalOrErr>** contains one of the following **CalendarOrBusinessError1Choice** elements

Or	MessageElement<XML Tag>	Mult.	Type	Constr. No.	Page
{Or	<b>CalendarData</b> <CalData>	[1..*]			15
	<b>SystemDate</b> <SysDt>	[1..1]	Date		16
	<b>SystemStatus</b> <SysSts>	[1..1]			16
{Or	<b>Code</b> <Cd>	[1..1]	CodeSet		16
Or}	<b>Proprietary</b> <Prtry>	[1..1]	±		16
Or}	<b>BusinessError</b> <BizErr>	[1..*]			17
	<b>Error</b> <Err>	[1..1]			17
{Or	<b>Code</b> <Cd>	[1..1]	CodeSet		17
Or}	<b>Proprietary</b> <Prtry>	[1..1]	Text		18
	<b>Description</b> <Desc>	[0..1]	Text		18

#### 3.4.2.1.2.1 CalendarData <CalData>

*Presence:* [1..\*]

*Definition:* Requested information on the system calendar.

**CalendarData <CalData>** contains the following **CalendarData1** elements

Or	MessageElement<XML Tag>	Mult.	Type	Constr. No.	Page
	<b>SystemDate</b> <SysDt>	[1..1]	Date		16
	<b>SystemStatus</b> <SysSts>	[1..1]			16
{Or	<b>Code</b> <Cd>	[1..1]	CodeSet		16
Or}	<b>Proprietary</b> <Prtry>	[1..1]	±		16

#### 3.4.2.1.2.1.1 SystemDate <SysDt>

*Presence:* [1..1]

*Definition:* Date for which the calendar information is provided.

*Datatype:* "ISODate" on page 27

#### 3.4.2.1.2.1.2 SystemStatus <SysSts>

*Presence:* [1..1]

*Definition:* Status of the system.

**SystemStatus <SysSts>** contains one of the following **SystemStatus3Choice** elements

Or	MessageElement<XML Tag>	Mult.	Type	Constr. No.	Page
{Or	<b>Code</b> <Cd>	[1..1]	CodeSet		16
Or}	<b>Proprietary</b> <Prtry>	[1..1]	±		16

##### 3.4.2.1.2.1.2.1 Code <Cd>

*Presence:* [1..1]

*Definition:* Status of the system, in a coded form.

*Datatype:* "SystemStatus3Code" on page 26

CodeName	Name	Definition
ACTV	Active	System is functioning normally, that is, operational.
CLSD	Closed	System is closed (eg. normal closure of an RTGS).
RMPS	ReserveMaintenancePeriodStart	System is starting a new maintenance period.

##### 3.4.2.1.2.1.2.2 Proprietary <Prtry>

*Presence:* [1..1]

*Definition:* Status of the system, in a proprietary form.



**Proprietary <Prtry>** contains the following elements (see "[GenericIdentification1](#)" on page 20 for details)

Or	MessageElement<XML Tag>	Mult.	Type	Constr. No.	Page
	Identification <Id>	[1..1]	Text		20
	SchemeName <SchmeNm>	[0..1]	Text		20
	Issuer <Issr>	[0..1]	Text		20

#### 3.4.2.1.2.2 BusinessError <BizErr>

*Presence:* [1..\*]

*Definition:* Reason the requested business information is not given.

**BusinessError <BizErr>** contains the following **ErrorHandling4** elements

Or	MessageElement<XML Tag>	Mult.	Type	Constr. No.	Page
	<b>Error &lt;Err&gt;</b>	[1..1]			17
{Or	<b>Code &lt;Cd&gt;</b>	[1..1]	CodeSet		17
Or}	<b>Proprietary &lt;Prtry&gt;</b>	[1..1]	Text		18
	<b>Description &lt;Desc&gt;</b>	[0..1]	Text		18

#### 3.4.2.1.2.2.1 Error <Err>

*Presence:* [1..1]

*Definition:* Specification of the error, in coded or proprietary form.

**Error <Err>** contains one of the following **ErrorHandling2Choice** elements

Or	MessageElement<XML Tag>	Mult.	Type	Constr. No.	Page
{Or	<b>Code &lt;Cd&gt;</b>	[1..1]	CodeSet		17
Or}	<b>Proprietary &lt;Prtry&gt;</b>	[1..1]	Text		18

#### 3.4.2.1.2.2.1.1 Code <Cd>

*Presence:* [1..1]

*Definition:* Specification of the error, in coded form.

*Datatype:* "[ErrorHandling1Code](#)" on page 25

CodeName	Name	Definition
X020	DataNotYetAvailable	Specifies the error code when the data requested are not yet available.
X030	MessageSizeLimitExceeded	Specifies the error code when the data requested generates a message size that exceed the processing capacity.
X050	DataNotAvailable	Specifies the error code when the data requested have not been found.

### 3.4.2.1.2.2.1.2 Proprietary <Prtry>

*Presence:* [1..1]

*Definition:* Specification of the error, in free format.

*Datatype:* "Max35Text" on page 28

### 3.4.2.1.2.2.2 Description <Desc>

*Presence:* [0..1]

*Definition:* Specification of the error, in free format.

*Datatype:* "Max140Text" on page 27

## 3.4.2.2 OperationalError <OpriErr>

*Presence:* [1..\*]

*Definition:* Indicates that an operational error has been issued during the processing of the related request.

**OperationalError <OpriErr>** contains the following **ErrorHandling4** elements

Or	MessageElement<XML Tag>	Mult.	Type	Constr. No.	Page
	<b>Error &lt;Err&gt;</b>	[1..1]			18
{Or	<b>Code &lt;Cd&gt;</b>	[1..1]	CodeSet		18
Or}	<b>Proprietary &lt;Prtry&gt;</b>	[1..1]	Text		19
	<b>Description &lt;Desc&gt;</b>	[0..1]	Text		19

### 3.4.2.2.1 Error <Err>

*Presence:* [1..1]

*Definition:* Specification of the error, in coded or proprietary form.

**Error <Err>** contains one of the following **ErrorHandling2Choice** elements

Or	MessageElement<XML Tag>	Mult.	Type	Constr. No.	Page
{Or	<b>Code &lt;Cd&gt;</b>	[1..1]	CodeSet		18
Or}	<b>Proprietary &lt;Prtry&gt;</b>	[1..1]	Text		19

#### 3.4.2.2.1.1 Code <Cd>

*Presence:* [1..1]

*Definition:* Specification of the error, in coded form.

*Datatype:* "ErrorHandling1Code" on page 25

CodeName	Name	Definition
X020	DataNotYetAvailable	Specifies the error code when the data requested are not yet available.

CodeName	Name	Definition
X030	MessageSizeLimitExceeded	Specifies the error code when the data requested generates a message size that exceed the processing capacity.
X050	DataNotAvailable	Specifies the error code when the data requested have not been found.

#### 3.4.2.2.1.2 Proprietary <Prtry>

*Presence:* [1..1]

*Definition:* Specification of the error, in free format.

*Datatype:* "Max35Text" on page 28

#### 3.4.2.2.2 Description <Desc>

*Presence:* [0..1]

*Definition:* Specification of the error, in free format.

*Datatype:* "Max140Text" on page 27

### 3.4.3 SupplementaryData <SplmtryData>

*Presence:* [0..\*]

*Definition:* Additional information that cannot be captured in the structured elements and/or any other specific block.

*Impacted by:* C3 "SupplementaryDataRule"

**SupplementaryData <SplmtryData>** contains the following elements (see "SupplementaryData1" on page 21 for details)

Or	MessageElement<XML Tag>	Mult.	Type	Constr. No.	Page
	PlaceAndName <PlcAndNm>	[0..1]	Text		22
	Envelope <Envlp>	[1..1]	(External Schema)		22

#### Constraints

- **SupplementaryDataRule**

This component may not be used without the explicit approval of a SEG and submission to the RA of ISO 20022 compliant structure(s) to be used in the Envelope element.

## 4 Message Items Types

### 4.1 MessageComponents

#### 4.1.1 Identification Information

##### 4.1.1.1 GenericIdentification1

*Definition:* Information related to an identification, for example party identification or account identification.

Or	MessageElement<XML Tag>	Mult.	Type	Constr. No.	Page
	Identification <Id>	[1..1]	Text		20
	SchemeName <SchmeNm>	[0..1]	Text		20
	Issuer <Issr>	[0..1]	Text		20

##### 4.1.1.1.1 Identification <Id>

*Presence:* [1..1]

*Definition:* Identification assigned by an institution.

*Datatype:* "Max35Text" on page 28

##### 4.1.1.1.2 SchemeName <SchmeNm>

*Presence:* [0..1]

*Definition:* Name of the identification scheme.

*Datatype:* "Max35Text" on page 28

##### 4.1.1.1.3 Issuer <Issr>

*Presence:* [0..1]

*Definition:* Entity that assigns the identification.

*Datatype:* "Max35Text" on page 28

### 4.1.2 Miscellaneous

#### 4.1.2.1 MarketInfrastructureIdentification1Choice

*Definition:* Specifies the market infrastructure identification.

Or	MessageElement<XML Tag>	Mult.	Type	Constr. No.	Page
{Or	Code <Cd>	[1..1]	CodeSet		21
Or}	Proprietary <Prtry>	[1..1]	Text		21

#### 4.1.2.1.1 Code <Cd>

*Presence:* [1..1]

*Definition:* Infrastructure through which the payment instruction is processed, as published in an external clearing system identification code list.

*Datatype:* "ExternalMarketInfrastructure1Code" on page 26

#### 4.1.2.1.2 Proprietary <Prtry>

*Presence:* [1..1]

*Definition:* Clearing system identification in a proprietary form.

*Datatype:* "Max35Text" on page 28

### 4.1.2.2 OriginalBusinessQuery1

*Definition:* Unique identification, as assigned by the original requestor, to unambiguously identify the business query message.

Or	MessageElement<XML Tag>	Mult.	Type	Constr. No.	Page
	MessageIdentification <MsgId>	[1..1]	Text		21
	MessageNameIdentification <MsgNmId>	[0..1]	Text		21
	CreationDateTime <CreDtTm>	[0..1]	DateTime		21

#### 4.1.2.2.1 MessageIdentification <MsgId>

*Presence:* [1..1]

*Definition:* Point to point reference, as assigned by the original initiating party, to unambiguously identify the original query message.

*Datatype:* "Max35Text" on page 28

#### 4.1.2.2.2 MessageNameIdentification <MsgNmId>

*Presence:* [0..1]

*Definition:* Specifies the query message name identifier to which the message refers.

*Datatype:* "Max35Text" on page 28

#### 4.1.2.2.3 CreationDateTime <CreDtTm>

*Presence:* [0..1]

*Definition:* Date and time at which the message was created.

*Datatype:* "ISODateTime" on page 27

### 4.1.2.3 SupplementaryData1

*Definition:* Additional information that can not be captured in the structured fields and/or any other specific block.

Or	MessageElement<XML Tag>	Mult.	Type	Constr. No.	Page
	PlaceAndName <PlcAndNm>	[0..1]	Text		22
	Envelope <Envlp>	[1..1]	(External Schema)		22

#### Constraints

- **SupplementaryDataRule**

This component may not be used without the explicit approval of a SEG and submission to the RA of ISO 20022 compliant structure(s) to be used in the Envelope element.

#### 4.1.2.3.1 PlaceAndName <PlcAndNm>

*Presence:* [0..1]

*Definition:* Unambiguous reference to the location where the supplementary data must be inserted in the message instance.

In the case of XML, this is expressed by a valid XPath.

*Datatype:* "Max350Text" on page 28

#### 4.1.2.3.2 Envelope <Envlp>

*Presence:* [1..1]

*Definition:* Technical element wrapping the supplementary data.

*Type:* (External Schema)

Technical component that contains the validated supplementary data information. This technical envelope allows to segregate the supplementary data information from any other information.

#### 4.1.2.4 MessageHeader9

*Definition:* Set of characteristics, such as the identification or the creation date and time, specific to the message.

Or	MessageElement<XML Tag>	Mult.	Type	Constr. No.	Page
	MessageIdentification <MsgId>	[1..1]	Text		22
	CreationDateTime <CreDtTm>	[0..1]	DateTime		23
	RequestType <ReqTp>	[0..1]			23
{Or	PaymentControl <PmtCtrl>	[1..1]	CodeSet		23
Or	Enquiry <Enqry>	[1..1]	CodeSet		23
Or}	Proprietary <Prtry>	[1..1]	±		23

#### 4.1.2.4.1 MessageIdentification <MsgId>

*Presence:* [1..1]

*Definition:* Point to point reference, as assigned by the sender, to unambiguously identify the message.

*Usage:* The sender has to make sure that MessageIdentification is unique for a pre-agreed period.

*Datatype:* "Max35Text" on page 28

#### 4.1.2.4.2 CreationDateTime <CreDtTm>

*Presence:* [0..1]

*Definition:* Date and time at which the message was created.

*Datatype:* "ISODateTime" on page 27

#### 4.1.2.4.3 RequestType <ReqTp>

*Presence:* [0..1]

*Definition:* Specific actions to be executed through the request.

**RequestType <ReqTp>** contains one of the following **RequestType4Choice** elements

Or	MessageElement<XML Tag>	Mult.	Type	Constr. No.	Page
{Or	PaymentControl <PmtCtrl>	[1..1]	CodeSet		23
Or	Enquiry <Enqry>	[1..1]	CodeSet		23
Or}	Proprietary <Prtry>	[1..1]	±		23

##### 4.1.2.4.3.1 PaymentControl <PmtCtrl>

*Presence:* [1..1]

*Definition:* Request type is a control command on a set of transactions.

*Datatype:* "ExternalPaymentControlRequestType1Code" on page 26

##### 4.1.2.4.3.2 Enquiry <Enqry>

*Presence:* [1..1]

*Definition:* Request type is an enquiry on a position or a transaction.

*Datatype:* "ExternalEnquiryRequestType1Code" on page 25

##### 4.1.2.4.3.3 Proprietary <Prtry>

*Presence:* [1..1]

*Definition:* Request type is in proprietary format.

**Proprietary <Prtry>** contains the following elements (see "GenericIdentification1" on page 20 for details)

Or	MessageElement<XML Tag>	Mult.	Type	Constr. No.	Page
	Identification <Id>	[1..1]	Text		20
	SchemeName <SchmeNm>	[0..1]	Text		20
	Issuer <Issr>	[0..1]	Text		20

## 4.1.3 System Identification

### 4.1.3.1 SystemIdentification2Choice

*Definition:* Information used to identify a cash clearing system.

Or	MessageElement<XML Tag>	Mult.	Type	Constr. No.	Page
{Or	MarketInfrastructureIdentification <MktInfrstrctrId>	[1..1]	±		24
Or}	Country <Ctry>	[1..1]	CodeSet	C2	24

#### 4.1.3.1.1 MarketInfrastructureIdentification <MktInfrstrctrId>

*Presence:* [1..1]

*Definition:* Clearing service selected for a transaction.

**MarketInfrastructureIdentification <MktInfrstrctrId>** contains one of the following elements (see "[MarketInfrastructureIdentification1Choice](#)" on page 20 for details)

Or	MessageElement<XML Tag>	Mult.	Type	Constr. No.	Page
{Or	Code <Cd>	[1..1]	CodeSet		21
Or}	Proprietary <Prtry>	[1..1]	Text		21

#### 4.1.3.1.2 Country <Ctry>

*Presence:* [1..1]

*Definition:* Country in which the system is located.

*Impacted by:* [C2 "Country"](#)

*Datatype:* ["CountryCode"](#) on page 25

#### Constraints

- **Country**

The code is checked against the list of country names obtained from the United Nations (ISO 3166, Alpha-2 code).

## 4.2 Message Datatypes

### 4.2.1 CodeSet

#### 4.2.1.1 ActiveCurrencyCode

*Definition:* A code allocated to a currency by a Maintenance Agency under an international identification scheme as described in the latest edition of the international standard ISO 4217 "Codes for the representation of currencies and funds".

*Type:* CodeSet



#### Format

pattern [A-Z]{3,3}

#### Constraints

- **ActiveCurrency**

The currency code must be a valid active currency code, not yet withdrawn on the day the message containing the currency is exchanged. Valid active currency codes are registered with the ISO 4217 Maintenance Agency, consist of three (3) contiguous letters, and are not yet withdrawn on the day the message containing the Currency is exchanged.

### 4.2.1.2 CountryCode

*Definition:* Code to identify a country, a dependency, or another area of particular geopolitical interest, on the basis of country names obtained from the United Nations (ISO 3166, Alpha-2 code).

*Type:* CodeSet

#### Format

pattern [A-Z]{2,2}

#### Constraints

- **Country**

The code is checked against the list of country names obtained from the United Nations (ISO 3166, Alpha-2 code).

### 4.2.1.3 ErrorHandling1Code

*Definition:* Error codes generated when the response to a query exceeds the maximum size or the data is not available.

*Type:* CodeSet

CodeName	Name	Definition
X020	DataNotYetAvailable	Specifies the error code when the data requested are not yet available.
X030	MessageSizeLimitExceeded	Specifies the error code when the data requested generates a message size that exceed the processing capacity.
X050	DataNotAvailable	Specifies the error code when the data requested have not been found.

### 4.2.1.4 ExternalEnquiryRequestType1Code

*Definition:* Specifies the external request type code for the enquiry on a position in the format of character string with a maximum length of 4 characters.

The list of valid codes is an external code set published separately.

External code sets can be downloaded from [www.iso20022.org](http://www.iso20022.org).

*Type:* CodeSet

#### Format

minLength	1
maxLength	4

### 4.2.1.5 ExternalMarketInfrastructure1Code

*Definition:* Specifies the market infrastructure identification, as published in an external market infrastructure code list.

This is a synonym of the external cash clearing system code list, extended outside the pure cash domains.

External code sets can be downloaded from [www.iso20022.org](http://www.iso20022.org).

*Type:* CodeSet

#### Format

minLength	1
maxLength	3

### 4.2.1.6 ExternalPaymentControlRequestType1Code

*Definition:* Specifies the external request type code for a payment control command in the format of character string with a maximum length of 4 characters.

The list of valid codes is an external code set published separately.

External code sets can be downloaded from [www.iso20022.org](http://www.iso20022.org).

*Type:* CodeSet

#### Format

minLength	1
maxLength	4

### 4.2.1.7 SystemStatus3Code

*Definition:* Specifies the status of a system.

*Type:* CodeSet

CodeName	Name	Definition
ACTV	Active	System is functioning normally, that is, operational.
CLSD	Closed	System is closed (eg. normal closure of an RTGS).
RMPS	ReserveMaintenancePeriodStart	System is starting a new maintenance period.

## 4.2.2 Date

### 4.2.2.1 ISODate

*Definition:* A particular point in the progression of time in a calendar year expressed in the YYYY-MM-DD format. This representation is defined in "XML Schema Part 2: Datatypes Second Edition - W3C Recommendation 28 October 2004" which is aligned with ISO 8601.

*Type:* Date

## 4.2.3 DateTime

### 4.2.3.1 ISODateTime

*Definition:* A particular point in the progression of time defined by a mandatory date and a mandatory time component, expressed in either UTC time format (YYYY-MM-DDThh:mm:ss.sssZ), local time with UTC offset format (YYYY-MM-DDThh:mm:ss.sss+/-hh:mm), or local time format (YYYY-MM-DDThh:mm:ss.sss). These representations are defined in "XML Schema Part 2: Datatypes Second Edition - W3C Recommendation 28 October 2004" which is aligned with ISO 8601.

Note on the time format:

1) beginning / end of calendar day

00:00:00 = the beginning of a calendar day

24:00:00 = the end of a calendar day

2) fractions of second in time format

Decimal fractions of seconds may be included. In this case, the involved parties shall agree on the maximum number of digits that are allowed.

*Type:* DateTime

## 4.2.4 Month

### 4.2.4.1 ISOMonth

*Definition:* Month represented by MM (ISO 8601).

*Type:* Month

## 4.2.5 Text

### 4.2.5.1 Max140Text

*Definition:* Specifies a character string with a maximum length of 140 characters.

*Type:* Text

#### Format

minLength	1
maxLength	140

**4.2.5.2 Max350Text**

*Definition:* Specifies a character string with a maximum length of 350 characters.

*Type:* Text

**Format**

minLength	1
maxLength	350

**4.2.5.3 Max35Text**

*Definition:* Specifies a character string with a maximum length of 35 characters.

*Type:* Text

**Format**

minLength	1
maxLength	35

**4.2.6 Year**

**4.2.6.1 ISOYear**

*Definition:* Year represented by YYYY (ISO 8601).

*Type:* Year