



European Network of
Transmission System Operators
for Electricity

ACKNOWLEDGEMENT DOCUMENT UML MODEL AND SCHEMA

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VERSION 1.0

2

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57

Revision History

Version	Release	Date	Comments
0	1	2019-12-20	First draft of the document.
0	2	2020-02-14	Second draft if the document. Comments from CIM EG were taken into account.
1	0	2020-03-18	Approved by MC.

58

59 1 Objective

60 The purpose of this document is to provide the contextual and assembly UML models and the
61 schema of the Acknowledgement_MarketDocument.

62 The schema of the Acknowledgement_MarketDocument could be used in various business
63 processes.

64 It is not the purpose of this document to describe all the use cases, sequence diagrams,
65 business processes, etc. for which this schema is to be used.

66 This document shall only be referenced in an implementation guide of a specific business
67 process. The content of the business process implementation guide shall be as follows:

- 68 • Description of the business process;
- 69 • Use case of the business process;
- 70 • Sequence diagrams of the business process;
- 71 • List of the schema (XSD) to be used in the business process and versions of the
72 schema;
- 73 • For each schema, dependency tables providing the necessary information for the
74 generation of the XML instances, i.e. when the optional attributes are to be used, which
75 codes from which ENTSO-E codelist are to be used.

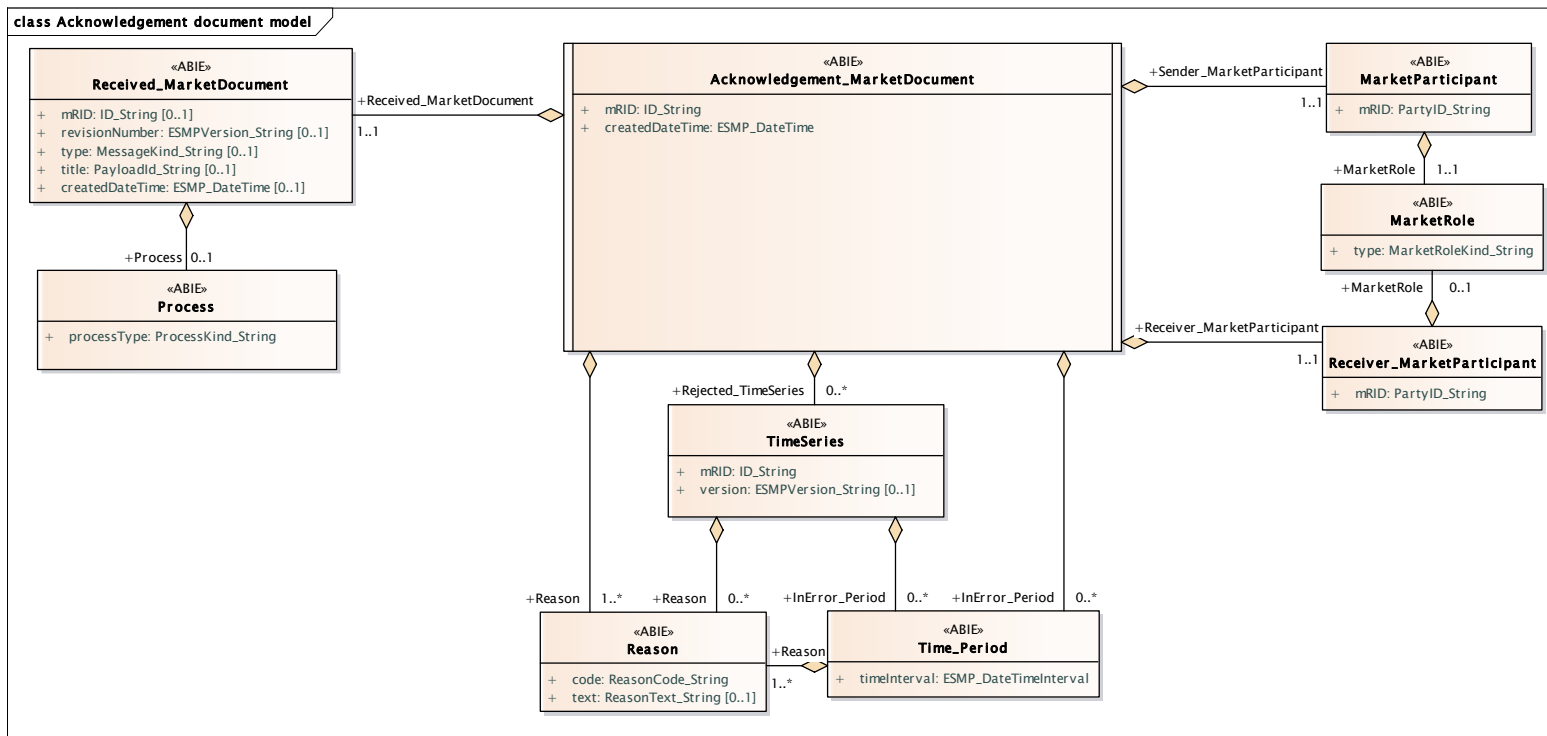
76

77 **2 Acknowledgement_MarketDocument**

78 2.1 Acknowledgement contextual model

79 2.1.1 Overview of the model

80 Figure 1 shows the model.



81

82 **Figure 1 - Acknowledgement contextual model**

83 **2.1.2 IsBasedOn relationships from the European style market profile**

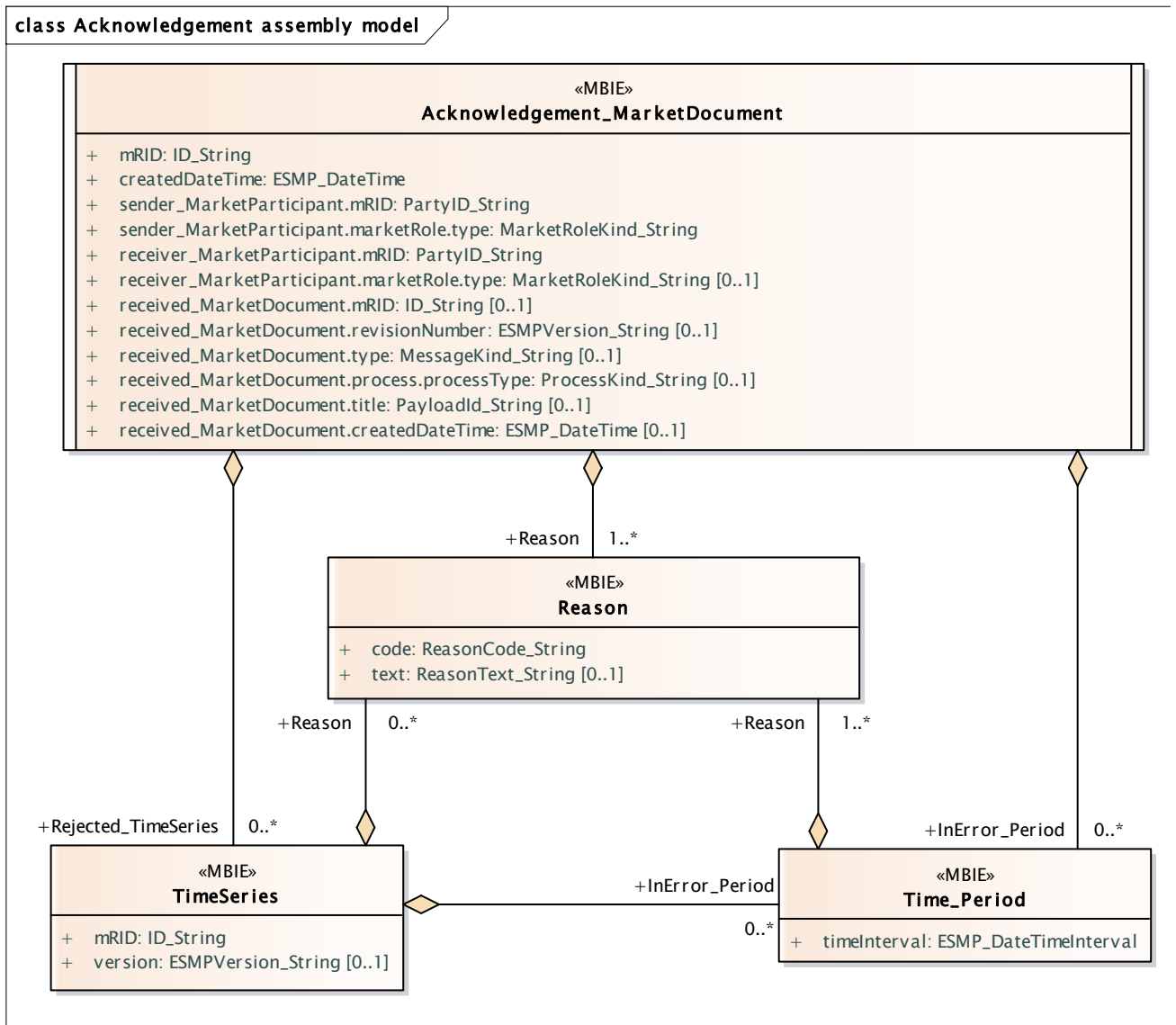
84 Table 1 shows the traceability dependency of the classes used in this package towards the
85 upper level.

86 **Table 1 - IsBasedOn dependency**

Name	Complete IsBasedOn Path
Acknowledgement_MarketDocument	TC57CIM::IEC62325::MarketManagement::MarketDocument
MarketParticipant	TC57CIM::IEC62325::MarketCommon::MarketParticipant
MarketRole	TC57CIM::IEC62325::MarketCommon::MarketRole
Process	TC57CIM::IEC62325::MarketManagement::Process
Reason	TC57CIM::IEC62325::MarketManagement::Reason
Received_MarketDocument	TC57CIM::IEC62325::MarketManagement::MarketDocument
Receiver_MarketParticipant	TC57CIM::IEC62325::MarketCommon::MarketParticipant
Time_Period	TC57CIM::IEC62325::MarketManagement::Period
TimeSeries	TC57CIM::IEC62325::MarketManagement::TimeSeries

87

88 2.2 Acknowledgement assembly model
 89 **2.2.1 Overview of the model**
 90 Figure 2 shows the model.



91
 92

Figure 2 - Acknowledgement assembly model

93

94 **2.2.2 IsBasedOn relationships from the European style market profile**

95 Table 2 shows the traceability dependency of the classes used in this package towards the
96 upper level.

97

Table 2 - IsBasedOn dependency

Name	Complete IsBasedOn Path
Acknowledgement_MarketDocument	TC57CIM::IEC62325::MarketManagement::MarketDocument
Reason	TC57CIM::IEC62325::MarketManagement::Reason
Time_Period	TC57CIM::IEC62325::MarketManagement::Period
TimeSeries	TC57CIM::IEC62325::MarketManagement::TimeSeries

98

99 **2.2.3 Detailed Acknowledgement assembly model**

100 **2.2.3.1 Acknowledgement_MarketDocument root class**

101 An electronic document that is used to acknowledge the reception of a document and to provide
102 information concerning its basic validity.

103 Table 3 shows all attributes of Acknowledgement_MarketDocument.

104

Table 3 - Attributes of Acknowledgement assembly model::Acknowledgement_MarketDocument

105

Order	mult.	Attribute name / Attribute type	Description
0	[1..1]	mRID ID_String	The unique identification of the document being exchanged within a business process flow.
1	[1..1]	createdDateTime ESMP_DateTime	The date and time of the creation of the document.
2	[1..1]	sender_MarketParticipant.mRID PartyID_String	The identification of a party in the energy market. --- The identification of the party that is the originator of the acknowledgement. The originator of the acknowledgement is identified by a unique coded identification. This value should be the same as that found in the receiver identification of the document being acknowledged.
3	[1..1]	sender_MarketParticipant.marketRole.type MarketRoleKind_String	The identification of the role played by a market player. --- The identification of the role associated with the party that is the originator of the acknowledgement.
4	[1..1]	receiver_MarketParticipant.mRID PartyID_String	The identification of a party in the energy market. --- The identification of the party who is the recipient of the acknowledgement. The recipient of the document is identified by a unique coded identification. This value should be the same as that found in the sender identification of the document being acknowledged.
5	[0..1]	receiver_MarketParticipant.marketRole.type MarketRoleKind_String	The identification of the role played by a market player. --- The identification of the role associated with the party who is the recipient of the acknowledgement.
6	[0..1]	received_MarketDocument.mRID ID_String	The unique identification of the document being exchanged within a business process flow. --- This information identifies the document that has been received. The information is extracted from the received document.

Order	mult.	Attribute name / Attribute type	Description
7	[0..1]	received_MarketDocument.revisionNumber ESMPVersion_String	The identification of the version that distinguishes one evolution of a document from another. --- This information identifies the document that has been received. The information is extracted from the received document.
8	[0..1]	received_MarketDocument.type MessageKind_String	The coded type of a document. The document type describes the principal characteristic of the document. --- This information identifies the document that has been received. The information is extracted from the received document.
9	[0..1]	received_MarketDocument.process.processType ProcessKind_String	The identification of the nature of process that the document addresses. --- This information identifies the document that has been received. The information is extracted from the received document.
10	[0..1]	received_MarketDocument.title PayloadId_String	The identification of the name of the file or the payload that has been transmitted. --- This information identifies the document that has been received. The information is extracted from the received document.
11	[0..1]	received_MarketDocument.createdDateTime ESMP_DateTime	The date and time of the creation of the document. --- This information identifies the document that has been received. The information is extracted from the received document.

106

107 Table 4 shows all association ends of Acknowledgement_MarketDocument with other classes.

108

Table 4 - Association ends of Acknowledgement assembly model::Acknowledgement_MarketDocument with other classes

109

Order	mult.	Class name / Role	Description
12	[0..*]	TimeSeries Rejected_TimeSeries	The time series in the received document that has been rejected during the initial validation process. Association Based On: Acknowledgement contextual model::Acknowledgement_MarketDocument.[] ----- Acknowledgement contextual model::TimeSeries.Rejected_TimeSeries[0..*]
13	[1..*]	Reason Reason	In case of a received document without error, only one Reason element is necessary to acknowledge it. However, if there are errors then there may be as many Reason elements as are necessary to describe any errors discovered in the received document. At least one reason element must appear associated with the header part of the document. The Reason associated with the electronic document header providing different motivations for the creation of the document. Association Based On: Acknowledgement contextual model::Acknowledgement_MarketDocument.[] ----- Acknowledgement contextual model::Reason.Reason[1..*]
14	[0..*]	Time_Period InError_Period	The time interval that is associated with the received document and which contains error. Association Based On: Acknowledgement contextual model::Acknowledgement_MarketDocument.[] ----- Acknowledgement contextual model::Time_Period.InError_Period[0..*]

110

111 2.2.3.2 Reason

112 The motivation of an act.

113 Table 5 shows all attributes of Reason.

114 **Table 5 - Attributes of Acknowledgement assembly model::Reason**

Order	mult.	Attribute name / Attribute type	Description
0	[1..1]	code ReasonCode_String	The motivation of an act in coded form.
1	[0..1]	text ReasonText_String	The textual explanation corresponding to the reason code.

115

116 **2.2.3.3 Time_Period**

117 The identification of a time interval with errors. It should be noted that the relative position
118 transmit in the original document will have been converted to an absolute time interval whenever
119 errors occur at this level in the acknowledgement document.

120 Table 6 shows all attributes of Time_Period.

121 **Table 6 - Attributes of Acknowledgement assembly model::Time_Period**

Order	mult.	Attribute name / Attribute type	Description
0	[1..1]	timeInterval ESMP_DateTimeInterval	The start and end date and time for a given interval.

122

123 Table 7 shows all association ends of Time_Period with other classes.

124 **Table 7 - Association ends of Acknowledgement assembly model::Time_Period with
125 other classes**

Order	mult.	Class name / Role	Description
1	[1..*]	Reason Reason	If there are errors at the Time_Period level as many Reason elements as necessary may be used. The reason information associated with a Time_Period providing motivation information. Association Based On: Acknowledgement contextual model::Time_Period.[] ----- Acknowledgement contextual model::Reason.Reason[1..*]

126

127 **2.2.3.4 TimeSeries**

128 The TimeSeries stated as being in error.

129 A set of time-ordered quantities being exchanged in relation to a product.

130 Table 8 shows all attributes of TimeSeries.

131 **Table 8 - Attributes of Acknowledgement assembly model::TimeSeries**

Order	mult.	Attribute name / Attribute type	Description
0	[1..1]	mRID ID_String	A unique identification of the time series.
1	[0..1]	version ESMPVersion_String	The identification of the version of the time series.

132

133 Table 9 shows all association ends of TimeSeries with other classes.

134 **Table 9 - Association ends of Acknowledgement assembly model::TimeSeries with**
135 **other classes**

Order	mult.	Class name / Role	Description
2	[0..*]	Time_Period InError_Period	The time interval in a TimeSeries that is in error. Association Based On: Acknowledgement contextual model::TimeSeries.[] ----- Acknowledgement contextual model::Time_Period.InError_Period[0..*]
3	[0..*]	Reason Reason	If there are errors at the TimeSeries level as many Reason elements as necessary may be found at that level. The reason information associated with a TimeSeries providing motivation information. Association Based On: Acknowledgement contextual model::TimeSeries.[] ----- Acknowledgement contextual model::Reason.Reason[0..*]

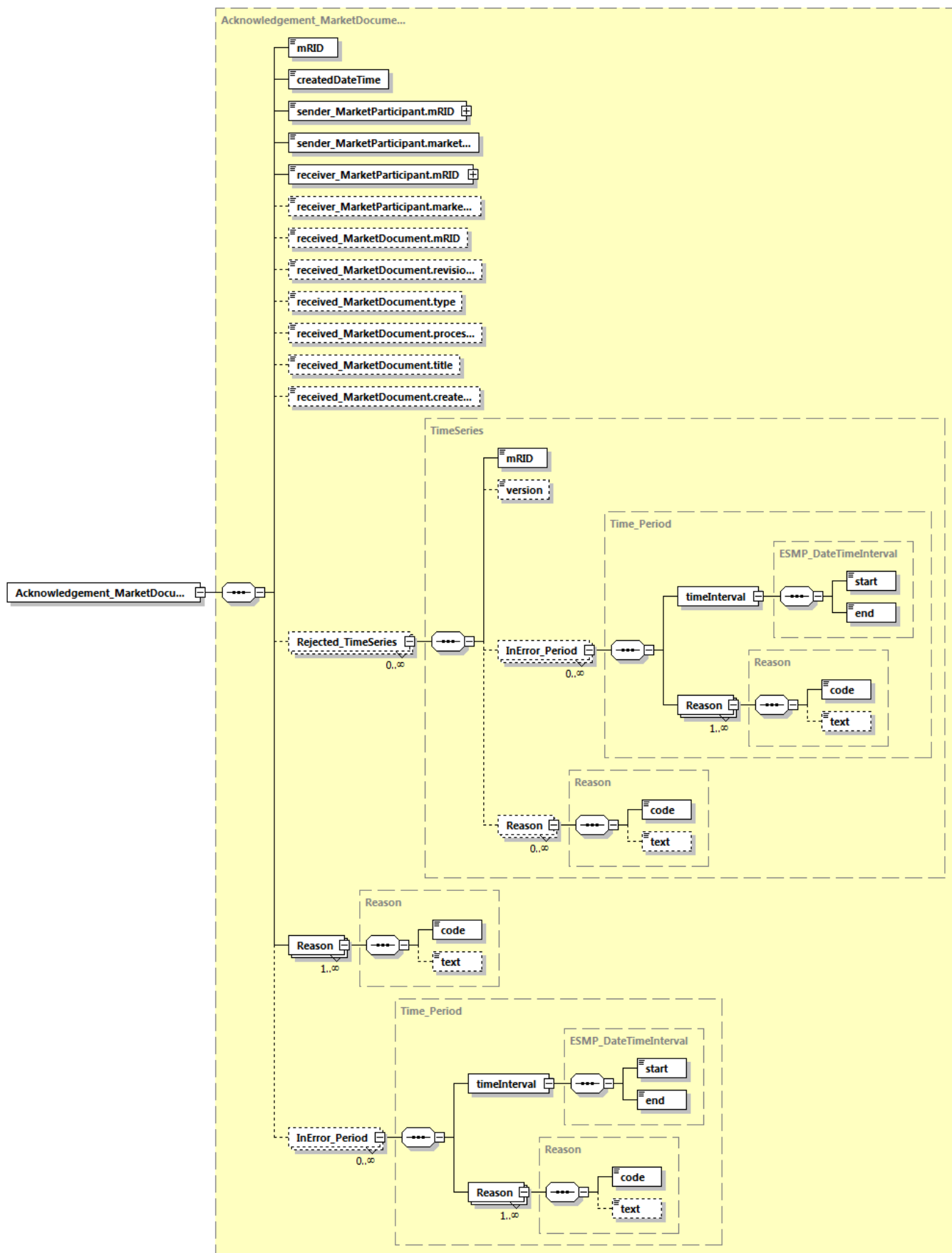
136

137 2.2.4 Datatypes

138 The list of datatypes used for the Acknowledgement assembly model is as follows:

- 139
- 140 • ESMP_DateTimeInterval compound
 - 141 • ESMP_DateTime datatype
 - 142 • ESMPVersion_String datatype
 - 143 • ID_String datatype
 - 144 • MarketRoleKind_String datatype, codelist RoleTypeList
 - 145 • MessageKind_String datatype, codelist MessageTypeList
 - 146 • PartyID_String datatype, codelist CodingSchemeTypeList
 - 147 • PayloadId_String datatype
 - 148 • ProcessKind_String datatype, codelist ProcessTypeList
 - 149 • ReasonCode_String datatype, codelist ReasonCodeTypeList
 - 150 • ReasonText_String datatype
 - 151 • YMDHM_DateTime datatype

152 2.2.5 Acknowledgement_MarketDocument XML schema structure



Generated by XMLSpy

www.altova.com

Figure 3 - Acknowledgement_MarketDocument schema structure

155 2.2.6 Acknowledgement_MarketDocument XML schema

156

157 The schema to be used to validate XML instances is to be identified by:

158 urn:iec62325.351:tc57wg16:451-1:acknowledgementdocument:8:0

```

159 <?xml version="1.0" encoding="utf-8"?>
160 <xs:schema xmlns:c1="urn:entsoe.eu:wgedi:codelists"
161 xmlns:sawsdl="http://www.w3.org/ns/sawsdl" xmlns="urn:iec62325.351:tc57wg16:451-
162 1:acknowledgementdocument:8:0" xmlns:cimp="http://www.iec.ch/cimprofile"
163 xmlns:xs="http://www.w3.org/2001/XMLSchema"
164 targetNamespace="urn:iec62325.351:tc57wg16:451-1:acknowledgementdocument:8:0"
165 elementFormDefault="qualified" attributeFormDefault="unqualified">
166   <xs:import namespace="urn:entsoe.eu:wgedi:codelists" schemaLocation="urn-
167 entsoe-eu-wgedi-codelists.xsd"/>
168   <xs:element name="Acknowledgement_MarketDocument"
169 type="Acknowledgement_MarketDocument"/>
170   <xs:simpleType name="ID_String"
171 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
172     <xs:restriction base="xs:string">
173       <xs:maxLength value="35"/>
174     </xs:restriction>
175   </xs:simpleType>
176   <xs:simpleType name="ESMP_DateTime"
177 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#DateTime">
178     <xs:restriction base="xs:dateTime">
179       <xs:pattern value="((([0-9]{4})[\-](0[13578]|1[02])[\-](0[1-
180 9]|[12][0-9]|3[01])|([0-9]{4})[\-]((0[469])|(11))[\-](0[1-9]|12)[0-
181 9]|30))T((([01][0-9]|2[0-3]):[0-5][0-9]:[0-5][0-
182 9])Z)|(((13579)[26][02468][048]|13579[01345789](0)[48]|13579[01345789][2468][0
183 48]|02468[048][02468][048]|02468[1235679](0)[48]|02468[1235679][2468][048]|
184 0-9[0-9][13579][26])[\-](02)[\-](0[1-9]|1[0-9]|2[0-9])T((([01][0-9]|2[0-3]):[0-
185 5][0-9]:[0-5][0-
186 9])Z)|(((13579)[26][02468][1235679]|13579[01345789](0)[01235679]|13579[0134578
187 9][2468][1235679]|02468[048][02468][1235679]|02468[1235679](0)[01235679]|0246
188 8[1235679][2468][1235679]|0-9[0-9][13579][01345789])[\-](02)[\-](0[1-9]|1[0-
189 9]|2[0-8])T((([01][0-9]|2[0-3]):[0-5][0-9]:[0-5][0-9])Z)"/>
190     </xs:restriction>
191   </xs:simpleType>
192   <xs:simpleType name="PartyID_String-base"
193 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
194     <xs:restriction base="xs:string">
195       <xs:maxLength value="16"/>
196     </xs:restriction>
197   </xs:simpleType>
198   <xs:complexType name="PartyID_String"
199 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
200     <xs:simpleContent>
201       <xs:extension base="PartyID_String-base">
202         <xs:attribute name="codingScheme"
203 type="c1:CodingSchemeTypeList" use="required"/>
204       </xs:extension>
205     </xs:simpleContent>
206   </xs:complexType>
207   <xs:simpleType name="MarketRoleKind_String"
208 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
209     <xs:restriction base="c1:RoleTypeList"/>
210   </xs:simpleType>

```

```

211     <xs:simpleType name="ESMPVersion_String"
212 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
213       <xs:restriction base="xs:string">
214         <xs:pattern value="[1-9]([0-9]){0,2}"/>
215       </xs:restriction>
216     </xs:simpleType>
217     <xs:simpleType name="MessageKind_String"
218 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
219       <xs:restriction base="cl:MessageTypeList"/>
220     </xs:simpleType>
221     <xs:simpleType name="ProcessKind_String"
222 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
223       <xs:restriction base="cl:ProcessTypeList"/>
224     </xs:simpleType>
225     <xs:simpleType name="PayloadId_String"
226 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
227       <xs:restriction base="xs:string">
228         <xs:maxLength value="150"/>
229       </xs:restriction>
230     </xs:simpleType>
231     <xs:complexType name="Acknowledgement_MarketDocument"
232 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#MarketDocument">
233       <xs:sequence>
234         <xs:element name="mRID" type="ID_String" minOccurs="1"
235 maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
236 cim16#IdentifiedObject.mRID"/>
237         <xs:element name="createdDateTime" type="ESMP_DateTime"
238 minOccurs="1" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
239 schema-cim16#Document.createdDateTime"/>
240         <xs:element name="sender_MarketParticipant.mRID"
241 type="PartyID_String" minOccurs="1" maxOccurs="1"
242 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
243 cim16#IdentifiedObject.mRID"/>
244         <xs:element name="sender_MarketParticipant.marketRole.type"
245 type="MarketRoleKind_String" minOccurs="1" maxOccurs="1"
246 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#MarketRole.type"/>
247         <xs:element name="receiver_MarketParticipant.mRID"
248 type="PartyID_String" minOccurs="1" maxOccurs="1"
249 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
250 cim16#IdentifiedObject.mRID"/>
251         <xs:element name="receiver_MarketParticipant.marketRole.type"
252 type="MarketRoleKind_String" minOccurs="0" maxOccurs="1"
253 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#MarketRole.type"/>
254         <xs:element name="received_MarketDocument.mRID"
255 type="ID_String" minOccurs="0" maxOccurs="1"
256 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
257 cim16#IdentifiedObject.mRID"/>
258         <xs:element name="received_MarketDocument.revisionNumber"
259 type="ESMPVersion_String" minOccurs="0" maxOccurs="1"
260 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
261 cim16#Document.revisionNumber"/>
262         <xs:element name="received_MarketDocument.type"
263 type="MessageKind_String" minOccurs="0" maxOccurs="1"
264 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Document.type"/>
265         <xs:element name="received_MarketDocument.process.processType"
266 type="ProcessKind_String" minOccurs="0" maxOccurs="1"
267 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
268 cim16#Process.processType"/>

```

```

269         <xs:element name="received_MarketDocument.title"
270 type="PayloadId_String" minOccurs="0" maxOccurs="1"
271 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Document.title"/>
272         <xs:element name="received_MarketDocument.createdDateTime"
273 type="ESMP_DateTime" minOccurs="0" maxOccurs="1"
274 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
275 cim16#Document.createdDateTime"/>
276         <xs:element name="Rejected_TimeSeries" type="TimeSeries"
277 minOccurs="0" maxOccurs="unbounded"
278 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
279 cim16#MarketDocument.Rejected_TimeSeries"/>
280         <xs:element name="Reason" type="Reason" minOccurs="1"
281 maxOccurs="unbounded" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
282 cim16#MarketDocument.Reason"/>
283         <xs:element name="InError_Period" type="Time_Period"
284 minOccurs="0" maxOccurs="unbounded"
285 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
286 cim16#MarketDocument.InError_Period"/>
287     </xs:sequence>
288 </xs:complexType>
289 <xs:simpleType name="ReasonCode_String"
290 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
291     <xs:restriction base="c1:ReasonCodeTypeList"/>
292 </xs:simpleType>
293 <xs:simpleType name="ReasonText_String"
294 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
295     <xs:restriction base="xs:string">
296         <xs:maxLength value="512"/>
297     </xs:restriction>
298 </xs:simpleType>
299 <xs:complexType name="Reason"
300 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Reason">
301     <xs:sequence>
302         <xs:element name="code" type="ReasonCode_String" minOccurs="1"
303 maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
304 cim16#Reason.code"/>
305         <xs:element name="text" type="ReasonText_String" minOccurs="0"
306 maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
307 cim16#Reason.text"/>
308     </xs:sequence>
309 </xs:complexType>
310 <xs:simpleType name="YMDHM_DateTime"
311 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#DateTime">
312     <xs:restriction base="xs:string">
313         <xs:pattern value="((([0-9]{4})[\-](0[13578]|1[02]))[\-](0[1-
314 9]|12)[0-9]|3[01])|([0-9]{4})[\-]((0[469])|(11))[\-](0[1-9]|12)[0-
315 9]|30)T((([01][0-9]|2[0-3]):[0-5][0-
316 9])Z)|(((13579)[26][02468][048]|13579)[01345789](0)[48]|13579)[01345789][2468][0
317 48]|02468)[048][02468][048]|02468)[1235679](0)[48]|02468)[1235679][2468][048]|
318 0-9][0-9][13579][26])[\-](02)[\-](0[1-9]|1[0-9]|2[0-9])T((([01][0-9]|2[0-3]):[0-
319 5][0-
320 9])Z)|(((13579)[26][02468][1235679]|13579)[01345789](0)[01235679]|13579)[0134578
321 9][2468][1235679]|02468)[048][02468][1235679]|02468)[1235679](0)[01235679]|0246
322 8][1235679][2468][1235679]|0-9][0-9][13579][01345789])[\-](02)[\-](0[1-9]|1[0-
323 9]|2[0-8])T((([01][0-9]|2[0-3]):[0-5][0-9])Z)"/>
324     </xs:restriction>
325 </xs:simpleType>
326 <xs:complexType name="ESMP_DateTimeInterval"
327 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#DateTimeInterval">
328     <xs:sequence>

```

```
329         <xs:element name="start" type="YMDHM_DateTime" minOccurs="1"
330 maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
331 cim16#DateTimeInterval.start"/>
332         <xs:element name="end" type="YMDHM_DateTime" minOccurs="1"
333 maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
334 cim16#DateTimeInterval.end"/>
335     </xs:sequence>
336 </xs:complexType>
337 <xs:complexType name="Time_Period"
338 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Period">
339     <xs:sequence>
340         <xs:element name="timeInterval" type="ESMP_DateTimeInterval"
341 minOccurs="1" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
342 schema-cim16#Period.timeInterval"/>
343         <xs:element name="Reason" type="Reason" minOccurs="1"
344 maxOccurs="unbounded" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
345 cim16#Period.Reason"/>
346     </xs:sequence>
347 </xs:complexType>
348 <xs:complexType name="TimeSeries"
349 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#TimeSeries">
350     <xs:sequence>
351         <xs:element name="mRID" type="ID_String" minOccurs="1"
352 maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
353 cim16#IdentifiedObject.mRID"/>
354         <xs:element name="version" type="ESMPVersion_String"
355 minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
356 schema-cim16#TimeSeries.version"/>
357         <xs:element name="InError_Period" type="Time_Period"
358 minOccurs="0" maxOccurs="unbounded"
359 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
360 cim16#TimeSeries.InError_Period"/>
361         <xs:element name="Reason" type="Reason" minOccurs="0"
362 maxOccurs="unbounded" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
363 cim16#TimeSeries.Reason"/>
364     </xs:sequence>
365 </xs:complexType>
366 </xs:schema>
367
```