



Business Message Standard (BMS)

Application Receipt Acknowledgement

BMS Release: 3.0.0, BRG Name: eCom

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November 21, 2011	Issue 1.0.0	Coen Janssen	Editorial changes		Not Applicable

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Table of Contents

1. Business Domain View	4
1.1. Problem Statement / Business Need	4
1.2. Objective	4
1.3. Audience	4
1.4. References	4
1.5. Acknowledgements	5
1.1.1. Work Group	5
1.1.2. Design Team Members	7
2. Business Context	7
3. Additional Technical Requirements Analysis.....	7
3.1. Technical Requirements	7
4. Business Transaction View	8
4.1. Business Transaction Use Case Diagrams	8
4.2. Use Case Description	8
4.3. Business Transaction Activity Diagram(s)	11
4.4. Business Transaction Sequence Diagram(s).....	12
5. Information Model (Including GDD Report)	13
5.1. GDD Reports.....	13
5.1.1. GDD REPORT: Application Receipt Acknowledgement	13
5.1.2. GDD REPORT: Application Response Document Level	14
5.1.3. GDD REPORT: Application Response Error Or Warning	16
5.1.4. GDD REPORT: Application Response Message Header Level	18
5.2. Class Diagrams	20
5.3. Code Lists	23
6. Business Document Example	23
7. Implementation Considerations.....	25
7.1. Error Detection	25
7.2. Implementation.....	25
8. Testing.....	26
8.1. Pass / Fail Criteria.....	26
8.2. Test Data.....	26
9. Appendices	26
10. Summary of Changes	27
11. Adherence to Architectural Principles	28

1. Business Domain View

1.1. Problem Statement / Business Need

To ensure a reliable flow of information between companies, Business Managers must be assured that their trading partners receive GS1 Messages and are able to process them without error. The GS1 Simple-eb specification calls for the full choreography of messages to support business processes.

For example, the Order process calls for an Initiator to create an Order document and a need to know it was received prior to back end processing by the Responder's business application. This is what we mean by The Responder will create an Application Receipt Acknowledgement And Or Error Application Receipt Acknowledgement document for the Initiator to confirm that the Responder received the Order document. This BMS does not deal with the additional separate need for a business level Response (Acceptance, Modification, or Rejection) to an Order. So, for example, the Application Receipt Acknowledgement (ARA) for an Order would not indicate that the Responder plans to fulfil the order exactly as requested by the Initiator e.g. with respect to quantity, price, etc. Rather the ARA indicates receipt of the order document and optionally detection of errors or warnings.

This choreography or, conversation ensures that trading partners are aware that the process is progressing in a predictable fashion. A proper automated choreography allows trading partners to reduce expensive safeguards and manual checks, to recognize data receipt and errors quickly and therefore smooth the flow of goods and services through the supply chain.

1.2. Objective

To supply the detail design of the Application Acknowledgement Receipt Acknowledgement business transaction needed to meet the requirements of the referenced requirements document.

1.3. Audience

Initiator – organization responsible for generating and sending a GS1 Business Message.

Responder – organization that receives and processes a GS1 Business Message. This organization is also responsible for creating an XML Application Receipt Acknowledgement And Or Error Application Receipt Acknowledgement in reply to the received GS1 Business Message when applicable. A Responder may outsource to an Agent to act on their behalf.

1.4. References

Reference Name	Description
BRD Application Receipt Acknowledgement	Business Requirements Document that outlines the requirements and supporting processes for a business application level acknowledgement of the receipt of a GS1 XML message and optional indication of detected validation errors or warnings.
eCom Domain Common Library	BMS Release 3.0
Shared Common Library	BMS Release 3.0

1.5. Acknowledgements

1.1.1. Work Group

Function	Name	Company / organisation
Chair eCom BRG	Edison, Carol	General Mills, Inc.
Chair MR3 Sub-team	Spaan, Stef	GS1 Netherlands
Member	Backert, Veronique	Dilicom
Member	Blankenstein, Kyra	GS1 Netherlands
Member	Bradley, Ardetha	Georgia Pacific
Member	Burke, Miriam	Procter & Gamble Co.
Member	Chatagnier, Isabelle	GS1 France
Member	Childs, Justin	GS1 Global Office
Member	Chresta, Richard	GS1 Switzerland
Member	Cox, Marc	Philips Electronics N.V.
Member	De Flou, Nele	GS1 Belgium & Luxembourg
Member	Denyer, Troy	GS1 Australia
Member	Dicks, Arne	GS1 Germany
Member	Dodd, Marilyn	3M Company
Member	Duvinger, Karina	GS1 Sweden
Member	Earleywine, Sarah	IDEA (US)
Member	Fedoseev, Sergey	GS1 Russia
Member	Foerderer, Klaus	GS1 Germany
Member	Foxvog, Douglas	DERI, National Univ. of Ireland
Member	Fransen, Wim	EskoArtwork
Member	Gathmann, Stefan	GS1 Ireland
Member	Gilbert, Jean-Christophe	GS1 France
Member	Grangard, Anders	GS1 Global Office
Member	Herrick, Lisa	GS1 Global Office
Member	Hill, Douglas	GS1 Denmark
Member	Hoberg, Peter	Consafe Lodistics
Member	Iwicka, Ewa	GS1 Global Office
Member	Jin Soon, Tan	GS1 Singapore
Member	Joest, Holger	SA2 Worldsync GmbH
Member	Kempkes, Fred	Unilever N.V.
Member	Kidd, Robin	Nestle
Member	Kille, Grant	SA2 Worldsync GmbH
Member	Kozovic, Vladimir	GS1 Serbia
Member	Krid, Anne-Claire	GS1 France

Function	Name	Company / organisation
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Member	Laur, Rita	GS1 Canada
Member	Lazarkova, Galya	GS1 Austria
Member	Lenman, Mia	GS1 Sweden
Member	Lockhead, Sean	GS1 Global Office
Member	Maniero, Ana Paula	GS1 Brasil
Member	Maree, Eric	Accenture Supply Chain Services
Member	Martinko, Michal	Hewlett-Packard
Member	McLeod, Ed	Procter & Gamble Co.
Member	Melcher, Jeff	The Exchange (AAFES)
Member	Montes de Oca, Alejandra	GS1 Mexico
Member	Moritz, Marcus	GS1 Germany
Member	Mugnier, Norbert	Dilicom
Member	Narbaïts-Jauréguy, Corinne	GS1 France
Member	Noyes, Debra	Johnsonville Sausage, Inc
Member	Picoito, Joao	GS1 Portugal
Member	Plaksin, Leon	GS1 Australia
Member	Popper, Bret	Kraft Foods
Member	Post, Valerie	Link Snacks Inc, Jack Links Beef Jerky
Member	Pottier, Natascha	GS1 France
Member	Pujol, Xavier	GS1 Spain
Member	Repetto, Mirko	GS1 Italy
Member	Robba, Steven	SA2 Worldsync GmbH
Member	Rosell, Pere	GS1 Spain
Member	Rosenberg, Steven	GS1 US
Member	Ryu, John	GS1 Global Office
Member	Schmidt, Tom Eric	August Storck KG
Member	Schneider, Christian	GS1 Switzerland
Member	Sedano Acosta, Federico	GS1 Argentina
Member	Sharma, Vishal	General Mills, Inc.
Member	Sharratt, Jon	Target Corporation
Member	Shimazaki, Ayako	GS1 Japan
Member	SION, Emilie	GS1 France
Member	Smith, Matthew	Bunnings Group Limited
Member	Sobrinho, Gabriel	GS1 Netherlands
Member	Strand, Roman	GS1 Germany
Member	Takahashi, Akira	Data Applications Co, Ltd

Function	Name	Company / organisation
Member	Tomassi, Gina	PepsiCo, Inc.
Member	Trelle, Ute	SA2 Worldsync GmbH
Member	Voorspuij, Jaco	DHL
Member	Welch, Shan	GS1 UK
Member	Westerkamp, Jan	GS1 Netherlands
Member	Windsperger, Bekki	Best Buy Co., Inc.

1.1.2. Design Team Members

Function	Name	Organisation
Modeller	Eric Kauz / Coen Janssen / Mark van Eeghem	GS1 Global Office
XML Technical Designer	Dipan Anarkat	GS1 Global Office
Peer Reviewer	John Ryu / Eric Kauz	GS1 Global Office

2. Business Context

Context Category	Value(s)
Industry	All
Geopolitical	All
Product	All
Process	All
System Capabilities	GS1 eCom
Official Constraints	None

3. Additional Technical Requirements Analysis

This section documents the analysis of additional technical requirements.

3.1. Technical Requirements

Not Applicable

4. Business Transaction View

4.1. Business Transaction Use Case Diagrams

Figure 1 Use case diagram UC-1

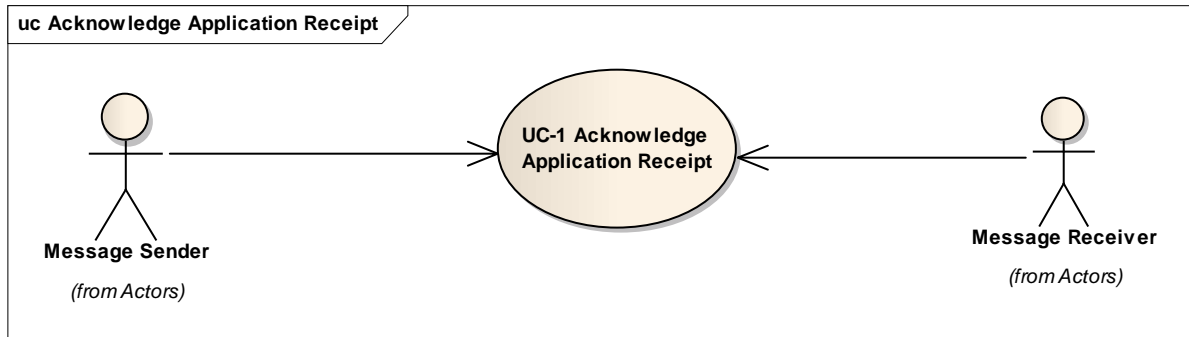
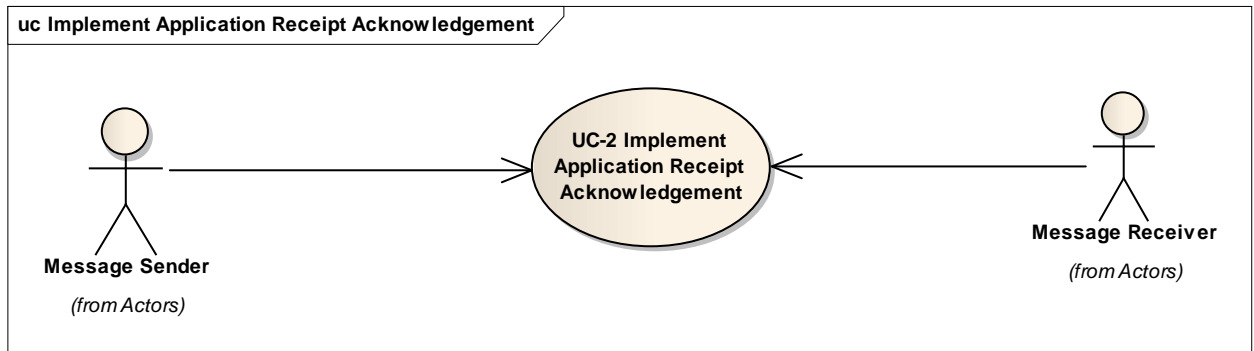


Figure 2 Use case diagram UC-2



4.2. Use Case Description

Use Case ID	UC-1
Use Case Name	Acknowledge application receipt
Use Case Description	The Initiator sends the Business Message within the context of a Business Process and potentially a multi-step Collaboration. The Responder upon receiving the Business Message detects errors/warnings at the SBDH or Document hierarchical levels and responds to the message Initiator.
Actors (Goal)	Initiator, Responder
Performance Goals	
Preconditions	<ul style="list-style-type: none"> Agreement to use the Application Receipt Acknowledgement (see UC-2). The Responder has received a Business Message.
Post conditions	The message Initiator receives the Application Receipt Acknowledgement, including optional error/warning message(s).

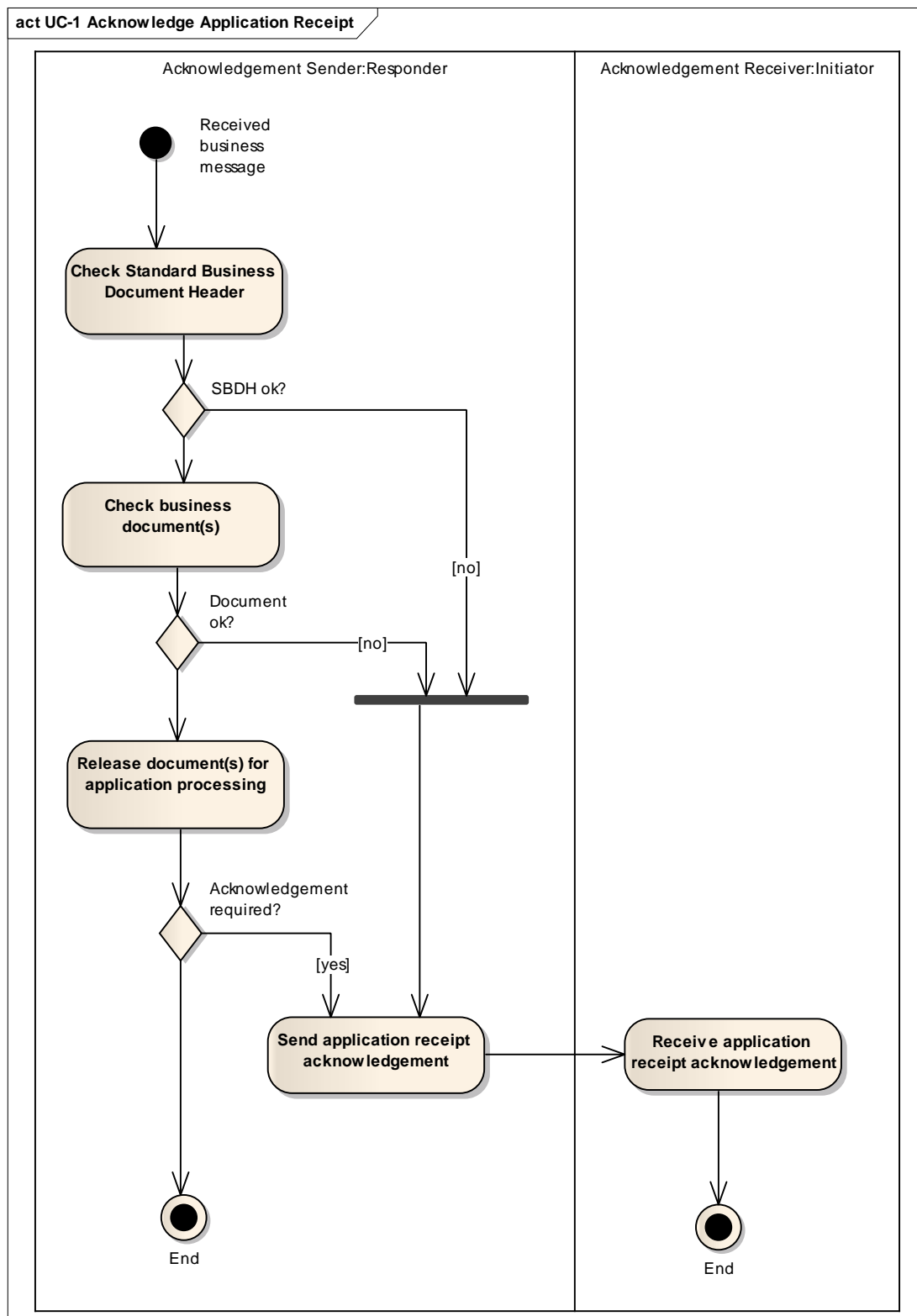
Scenario	<p>Begins when...</p> <p>1. The Responder's Back End application receives an XML Instance Document (business message)</p> <p>Optionally Continues with...</p> <table><tr><th>Step #</th><th>Actor</th><th>Activity Step</th></tr><tr><td>2</td><td>Responder</td><td>The Responder continues by fully detecting all possible errors/warnings in the business document.</td></tr><tr><td>3</td><td>Responder</td><td>The Responder determines the type of response required to send to the Initiator.</td></tr></table> <p>Ends when...</p> <p>4. The Responder generates and sends the Application Receipt Acknowledgement message back to the Initiator.</p>	Step #	Actor	Activity Step	2	Responder	The Responder continues by fully detecting all possible errors/warnings in the business document.	3	Responder	The Responder determines the type of response required to send to the Initiator.
Step #	Actor	Activity Step								
2	Responder	The Responder continues by fully detecting all possible errors/warnings in the business document.								
3	Responder	The Responder determines the type of response required to send to the Initiator.								
Alternative Scenario	No Alternative Scenario									
Related Requirements	Not Applicable									
Related Rules	Not Applicable									

Use Case ID	UC-2
Use Case Name	Implement Application Receipt Acknowledgement
Use Case Description	<p>When Trading partners agree to use the Application Receipt Acknowledgement message, they must agree what actions will be taken should Acknowledgements not be received within the normal course of business. The Trading Partners must decide whether they will enforce a 'Time To Acknowledge Receipt' and if so, what actions will be taken if the lead time lapses before an Acknowledgement is received by the Initiator. The Trading Partners must also decide whether they will enforce the optional 'Is Application Error Response Requested' choreography.</p>
Actors (Goal)	<p>Responder: To be assured that both parties understand the full process being implemented and what actions are to be taken if the expected outcome is not achieved.</p> <p>Initiator: To be assured that both parties understand the full process being implemented and what actions are to be taken if the expected outcome is not achieved.</p>
Performance Goals	None, this is a business agreement between trading partners.
Preconditions	Responder and Initiator must agree to use the Application Receipt Acknowledgement.
Post conditions	The Responder and Initiator agree on a full process that includes the Application Receipt Acknowledgement and all potential outcomes.

Scenario	Begins when...		
	1. The Responder and Initiator agree to use the Application Receipt Acknowledgement message.		
	Continues with...		
	Step #	Actor	Activity Step
	2	Initiator & Responder	Agree on the duration of the Acknowledgement Receipt Lead Time period.
	3	Initiator & Responder	Agree whether to use the 'Is Application Error Response Requested' choreography.
	4	Initiator & Responder	If a Time To Acknowledge Receipt is to be enforced, they agree on the steps to be taken if an Application Receipt Acknowledgement is not received within the agreed time period.
5	Initiator & Responder	Agree on the steps to be taken if an Application Receipt Acknowledgement is not received.	
6	Initiator & Responder	Agree on the steps to be taken if Errors or Warnings are detected	
Ends when...			
7. Responder and Initiator have full agreement on their process.			
Alternative Scenario	Not Applicable		
Related Requirements	When a message is sent, the Initiator requires an answer from the Responder that the Business Message has been received.		
Related Rules	Rule	Description	
	1	Acknowledgement Receipt Lead Time existence: The Initiator and Responder must agree on an Acknowledgement Lead Time.	
	2	Acknowledgement Receipt Lead Time rule: Prior to the lapse of the Time to Acknowledge Receipt Lead Time, the Initiator must have received the Application Receipt Acknowledgement.	
	3	The Initiator and Responder must agree whether the Application Receipt Acknowledgement will be used in their individual collaborations.	
	4	The Initiator and Responder may agree on specific processes to be performed should an Acknowledgement not be received within the agreed Acknowledgement Lead time.	

4.3. Business Transaction Activity Diagram(s)

Figure 4-3 Activity Diagram: Acknowledge Application Receipt



4.4. Business Transaction Sequence Diagram(s)

Not Applicable

5. Information Model (Including GDD Report)

5.1. GDD Reports

5.1.1. GDD REPORT: Application Receipt Acknowledgement

Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
ApplicationReceiptAcknowledgement				Application Receipt Acknowledgement is a distinctive GS1 Business Document used to respond to other GS1 Business Messages. This document serves two key purposes: The Responder may use the document to communicate successful receipt acknowledgement of a GS1 Business Document (e.g. Order, Invoice) back to the Initiator. Secondly, the Responder may also use the document to communicate validation exceptions back to the Initiator.	
Association		ApplicationResponseMessageHeaderLevel	0..1	Receipt acknowledgements, errors or warnings for the message header level.	
Association		ApplicationResponseDocumentLevel	0..*	Receipt acknowledgements, errors or warnings for each Business Document.	

Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
Association	applicationReceiptAcknowledgementIdentification	EntityIdentification	1	The unique identification of the Application Receipt Acknowledgement document.	
Generalization		Document		Used to specify basic information about the content of the message including version number, creation date and time.	

5.1.2. GDD REPORT: Application Response Document Level

Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
ApplicationResponseDocumentLevel				This structure is used to communicate receipt acknowledgements, errors or warnings for a Business Document.	
Association		ApplicationResponseErrorOrWarning	0..*	The ErrorOrWarning is applied by the Responder when a StatusType is equal to ERROR or WARNING. This class of attributes is not applicable when the StatusType is RECEIVED.	

Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
Association	originalEntityIdentification	EntityIdentification	1	The identification of the document being responded to, as stated in the original document.	
Attribute	applicationResponseStatusCode	ApplicationResponseStatusEnumeration	1..1	Code specifying the status of the received GS1 Business Document. Values are RECEIVED, ERROR or WARNING.	
Attribute	originalDocumentCreationDateTime	dateTime	1..1	The creation date time of the document being responded to, as stated in the original document.	
Attribute	originalDocumentType	EntityTypeCode	1..1	Code specifying the type of GS1 Business Document being responded to.	
Attribute	originalDocumentActionCode	DocumentActionEnumeration	0..1	The document action code as stated in the original document being responded to.	added in MR3
Attribute	originalDocumentStatusCode	DocumentStatusEnumeration	0..1	The document status code as stated in the original document being responded to.	added in MR3

Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
Attribute	originalDocumentReceivedDateTime	dateTime	0..1	The date time at which the Responder received the original document being responded to.	
Attribute	errorCount	positiveInteger	0..1	The number of errors or warnings detected in the Business Document.	

5.1.3. GDD REPORT: Application Response Error Or Warning

Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
ApplicationResponseErrorOrWarning				Details describing the nature and location of an error or warning.	
Association		ApplicationResponseErrorReference	0..*	Exact references to the cause of an error or warning.	

Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
Association	originOfErrorOrWarning	PartyIdentification	0..1	The originOfErrorOrWarning may be used by the Responder to communicate the exact party that detected the error or warning. The exact origin of the error or warning may be a sub-division of the Responder's organisation, or the exact origin may be a third party partner.	
Attribute	errorOrWarningCode	ErrorOrWarningCode	1..1	Code specifying the type of error or warning.	
Attribute	errorOrWarningCodeDescription	Description1000	0..*	Textual description of the error or warning code.	
ApplicationResponseErrorReference				An exact reference to the cause of an error or warning.	
Attribute	attributeName	string	1..1	The proper business name of an attribute.	
Attribute	attributeLocation	string	0..1	The exact location of the attribute in the GS1 Business Message for which an error or warning was detected. One standard method of providing the AttributeLocation is by providing the XPath of the attribute.	

Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
Attribute	attributeValue	string	0..1	The original value of an attribute for which an error or warning was detected.	

5.1.4. GDD REPORT: Application Response Message Header Level

Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
ApplicationResponseMessageHeaderLevel				This structure is used to communicate receipt acknowledgements, errors or warnings for the message header level.	
Association	originalEntityIdentification	EntityIdentification	1	The identification of the message being responded to, as stated in the standard business document header of the original message.	

Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
Association		ApplicationResponseErrorOrWarning	0..*	The ErrorOrWarning is applied by the Responder when a StatusType is equal to ERROR or WARNING. This class of attributes is not applicable when the StatusType is RECEIVED.	
Attribute	applicationResponseStatusCode	ApplicationResponseStatusEnumeration	1..1	Code specifying the status of the received message. Values are RECEIVED, ERROR or WARNING.	
Attribute	errorCount	positiveInteger	0..1	The number of errors or warnings detected in the header of the message.	



Note: Reference Shared Common Library Business Message (BMS) Release 3.0.0 and eCom Domain Common Library Business Message (BMS) Release 3.0.0 for all common information.

5.2. Class Diagrams

Figure 5-1 Class Diagram: Application Receipt Acknowledgement

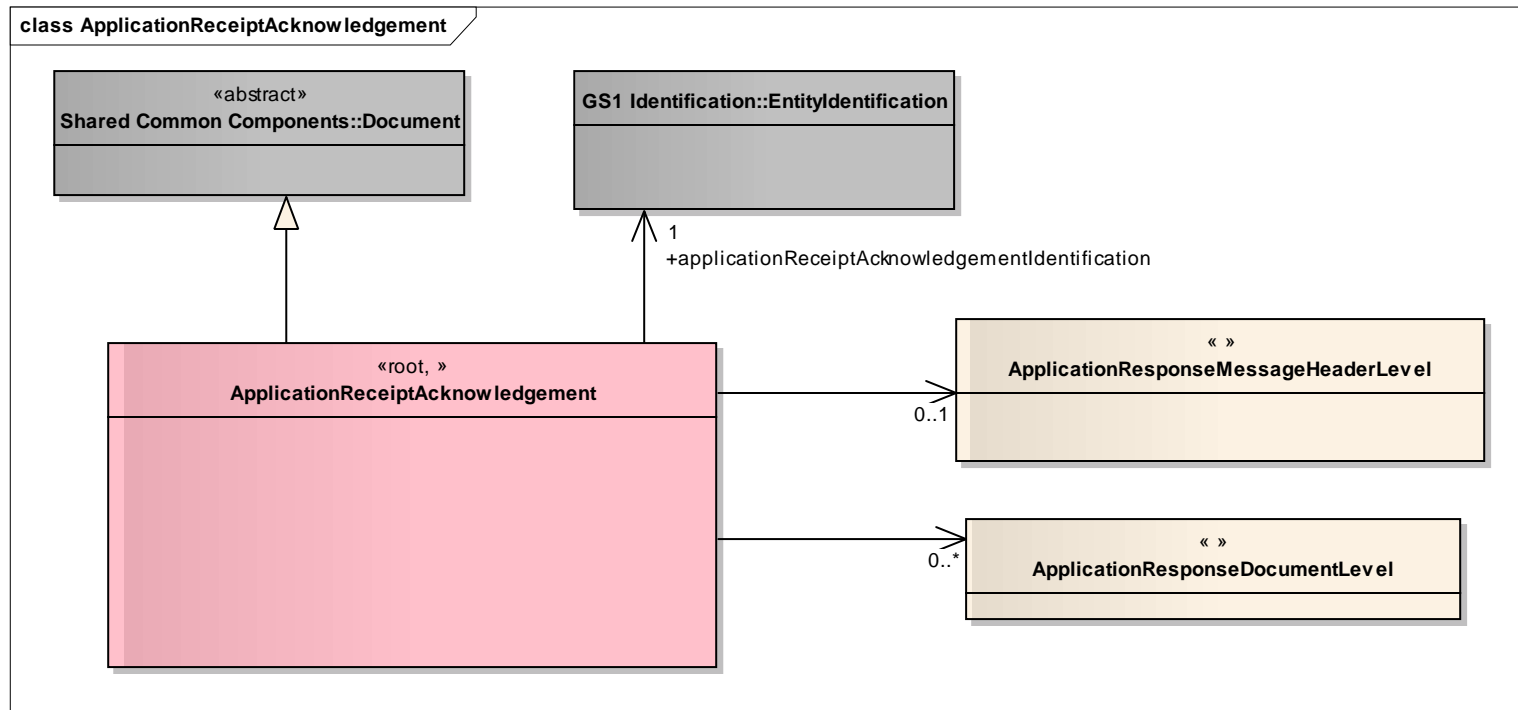


Figure 5-2 Class Diagram: Application Response Document Level

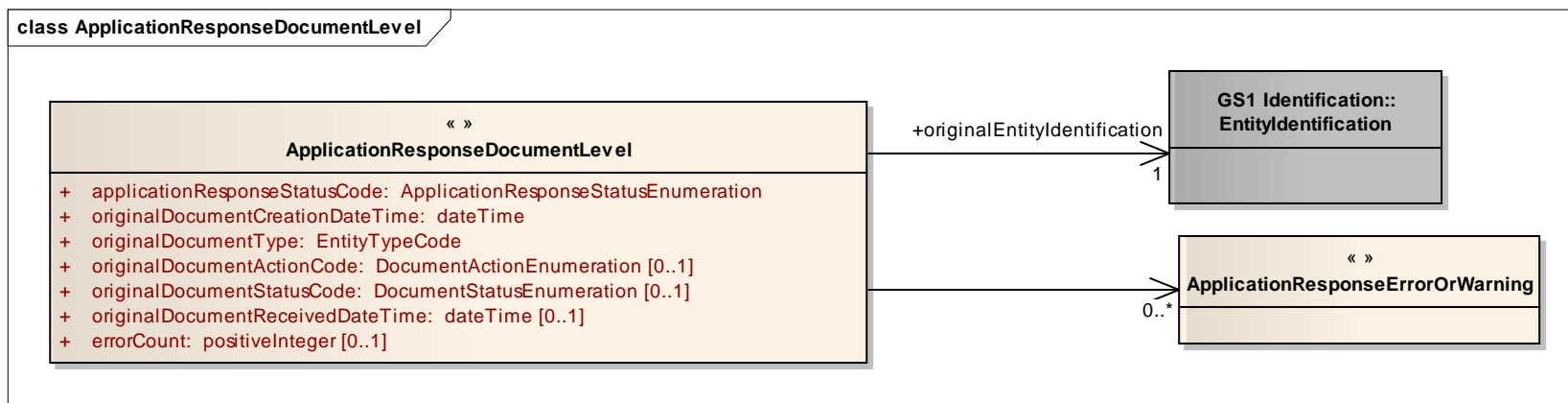


Figure 5-3 Class Diagram: Application Response Error Or Warning

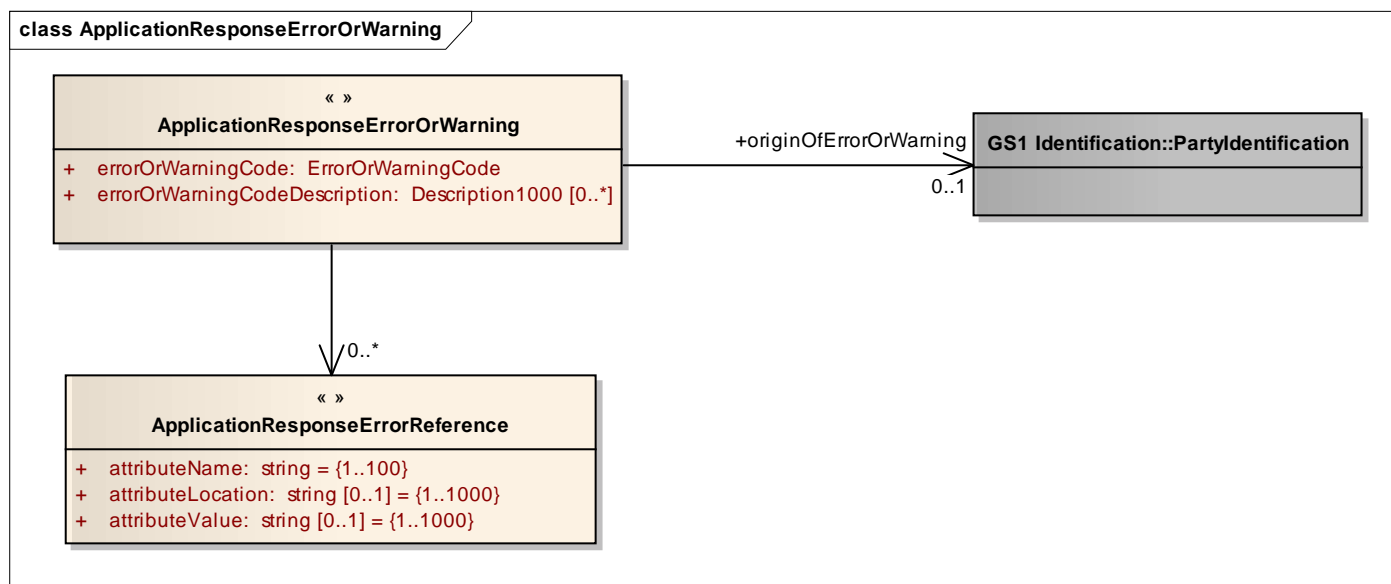
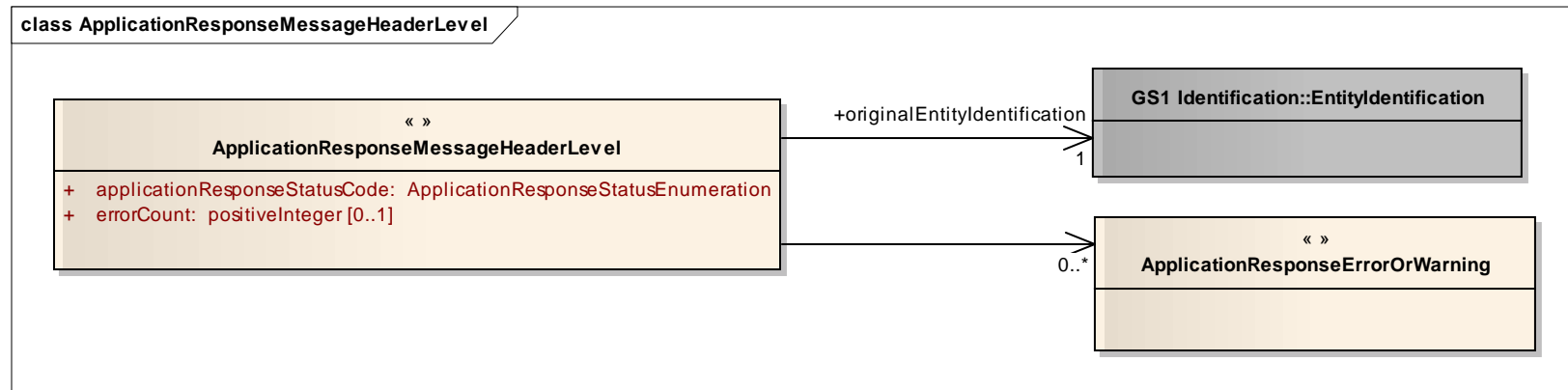


Figure 5-4 Class Diagram: Application Response Message Header Level



Note: Reference Shared Common Library Business Message (BMS) Release 3.0.0 and eCom Domain Common Library Business Message (BMS) Release 3.0.0 for all common information.

5.3. Code Lists



Note: Reference Shared Common Library Business Message (BMS) Release 3.0.0 and eCom Domain Common Library Business Message (BMS) Release 3.0.0 for all Code Lists

ApplicationResponseStatusEnumeration

Content	Datatype /Secondary class
ERROR	An error acknowledgement
RECEIVED	A received acknowledgement
WARNING	A warning acknowledgement

Class	Codelist	Referenced in
ApplicationResponseDocumentLevel	EntityTypeCode	Shared Common Library Business Message (BMS) Release 3.0.0
ApplicationResponseErrorOrWarning	ErrorOrWarningCode	eCom Domain Common Library Business Message (BMS) Release 3.0.0
ApplicationResponseDocumentLevel	DocumentActionEnumeration	Shared Common Library Business Message (BMS) Release 3.0.0
ApplicationResponseDocumentLevel	DocumentStatusEnumeration	Shared Common Library Business Message (BMS) Release 3.0.0

6. Business Document Example

An example is listed below to aid in visualizing the message. This is only a sample and all components of the messages were not used. **Blue Bold** font represents the sample data.

Example 1 - ARA with an 'Error'.
<p>Application Receipt Acknowledgement And Or Error Document</p> <p>Creation Date Time: '2004-03-22T10:43:00-05:00'</p> <p>Document Status: 'ORIGINAL'</p> <p>Entity Identification (Application Receipt Acknowledgement)</p> <p>Unique Creator Identification: 'RA-000001'</p> <p>Party Identification (Content Owner (GLN)): '0999999999991'</p> <p>Document Application Receipt Acknowledgement And Or Error:</p> <p>Original Document Creation Date Time: '2004-03-03T08:43:00-05:00'</p> <p>Original Document Type: '3'</p> <p>Status Type: 'ERROR'</p> <p>Error Or Warning Code: 'INCOMPLETE_MESSAGE'</p>

Example 2 - ARA with a 'RECEIVED' declaration

At Application Receipt Acknowledgement And Or Error
Document

Creation Date Time: '2004-03-22T10:43:00-05:00'

Document Status Code: 'ORIGINAL'

Entity Identification (Application Receipt Acknowledgement And Or Error Identification)

Unique Creator Identification: 'RA-000001'

Party Identification (Content Owner (GLN)): '0999999999991'

Document Application Receipt Acknowledgement And Or Error:

Original Document Creation Date Time: '2004-03-03T08:43:00-05:00'

Original Document Type: '3'

Status Type: 'RECEIVED'

7. Implementation Considerations

7.1. Error Detection



Note: Please refer to the SBDH Technical Implementation Guide for guidance on usage of the data elements contained in the header. This document can be found at:

http://www.gs1.org/gsmp/kc/ecom/xml/xml_sbdh

How To Determine An Application Receipt Acknowledgement Error	
Standard Business Document Header	
1	What are the data fields of the Standard Business Document Header? Which data fields of the Standard Business Document Header are utilized in the Business Process?
2	What Business Rules are associated with the individual data fields of the Standard Business Document Header?
3	Are the data fields in the Standard Business Document Header consistent with the data provided in the message? (e.g. do the enclosed Business Documents match the specified type?)
4	What are the SBDH-Level Instance Identifier uniqueness rules? What are the rules and expectations for the SBDH-Level Instance Identifier for the GS1 Business Process?
Business Document	
1	What are <u>typical errors</u> associated with the Business Document?
2	What are the <u>data fields</u> in this business documents? What are the constraints and rules associated with individual data fields?
3	What are the <u>dependency constraints</u> and rules between the different data fields of the Business Document?
4	What are the specialized data field rules associated with <u>each Command Type</u> (ADD, CHANGE_BY_REFRESH, DELETE)?
5	What are the <u>Document-Level Identifier</u> uniqueness rules? What are the rules and expectations for the Document-Level UniqueCreatorIdentification & the ContentOwner for the GS1 Business Process?
6	What is the expected response to each error?

7.2. Implementation

Implementation Steps	
1	Identify the <u>Business Document</u> for which the Application Receipt Acknowledgement And Or Error definition will apply
2	Determine the Document-Level <u>Data Field(s)</u> for which an Application Receipt Acknowledgement And Or Error is being defined? Also, determine the <u>Data Field Name</u> .
3	Fully describe the <u>Logical Business Rule</u> for which the Application Receipt Acknowledgement And Or Error is being defined.
4	Identify the <u>Business Process(es)</u> that requires an error or advice definition. If applicable, determine the <u>step within the collaboration</u> (a.k.a. dialog).
5	Identify the <u>Actors</u> in the Business Process such that all parties are identified as message Initiator, Responder or Proxy.
6	Determine how the Business Document will be <u>uniquely identified</u> (see "How to uniquely identify a GS1 XML Business Document")

7	Determine the <u>Xpath location</u> (or other identification method) of the data element in the XML Business Document structure for which the error or advice is being defined.
8	Identify a <u>unique code</u> for the new error or advice definition. Codes should be globally unique across business processes. Business processes will be uniquely identified in the Standard Business Document Header.
9	Develop one or more <u>Error/Advice Descriptions</u> for each error or advice code.

8. Testing

This section describes the testing criteria for business solutions.

8.1. Pass / Fail Criteria

Not Applicable

8.2. Test Data

ApplicationReceiptAcknowledgement	
Document	
creationDateTime	'2004-03-22T10:43:00-05:00'
documentStatusCode	'ORIGINAL'
EntityIdentification (applicationReceiptAcknowledgementIdentification)	
entityIdentification	'RA-000001'
ApplicationResponseDocumentLevel	
applicationResponseStatusCode	'ERROR'
originalDocumentCreationDateTime	'2004-03-03T08:43:00-05:00'
originalDocumentType	'3'
EntityIdentification (originalEntityIdentification)	
entityIdentification	'POR024'
ApplicationResponseErrorOrWarning	
errorOrWarningCode	'INCOMPLETE_MESSAGE'

9. Appendices

Not Applicable

10. Summary of Changes

Change	BSD Version	Associated CR Number
<p>BMS Release 3.0: Updates to reflect changes in modelling methodology</p> <ul style="list-style-type: none">Added DocumentActionEnumeration and DocumentStatusEnumeration to section code lists.Updated section 7.2 to reflect changes in the codes in Document Action Code List.Replaced 1 occurrence of ean.ucc by GS1 in both sections 1.4 and 7.1Replaced multiDescription1000 with repeatable description1000.	1.0.0	n/a

11. Adherence to Architectural Principles

#	Architectural Principles	Does Business Message Specification (BMS) Adhere?	Comment
1.	The requirements in the BMS maintain the GS1 keys as the primary, mandatory identifiers.	<input checked="" type="checkbox"/>	
2.	The requirements in the BMS do not alter the formats of primary identifiers and comply with data elements as defined in the Global Data Dictionary.	<input checked="" type="checkbox"/>	
3.	The requirements stated in the BMS are backwards compatible according to the stated scope in the document. The document scope explicitly states whether requirements included in document are backwards compatible.	<input checked="" type="checkbox"/>	
4.	All business requirements contained in the BMS come from trading partners or representatives with a genuine intention to implement the standards when developed. All requirements are driven by the business needs of the trading partners.	<input checked="" type="checkbox"/>	
5.	The business requirements contained in the BMS do not violate consistency of the data architecture within each layer and between each layer of the GS1 System. For example, requirements do not alter a key used across GS1 standards or alter a reusable object without applying this change across related standards.	<input checked="" type="checkbox"/>	
6.	The business requirements take into consideration the potential impact of the standard, especially with respect to implementation and maintenance. Any potential known impact is documented in the BMS.	<input checked="" type="checkbox"/>	
7.	The business requirements take into consideration the potential scalability of the standard. Any potential known impact to scalability is documented in the BMS.	<input checked="" type="checkbox"/>	
8.	The business requirements take into consideration data and process interoperability. For example, any shared objects between interoperable messages must remain consistent. Any potential known impact to interoperability is documented in the BMS.	<input checked="" type="checkbox"/>	
9.	The business requirements in the BMS do not threaten the standardisation of the interfaces of the GS1 System. Interfaces are not limited to references to technology but also include such ideas as business interfaces and process interfaces.	<input checked="" type="checkbox"/>	
10.	The business requirements in the BMS do not create duplications with existing GS1 components. If there are potential duplications, these are documented within the BMS with a stated rationale for the duplication.	<input checked="" type="checkbox"/>	
11.	The business requirements in the BMS do not impose implicit or explicit restrictions of any technology.	<input checked="" type="checkbox"/>	

#	Architectural Principles	Does Business Message Specification (BMS) Adhere?	Comment
12.	The business requirements in the BMS take into account a global perspective. All local (Industry or Geopolitical) requirements have a suitable rationale to explain why they cannot be handled globally. For example, a Boolean indicator of a specific regulation as opposed to a generic code list covering multiple regulations.	<input checked="" type="checkbox"/>	