IBM CrossWorlds
WebSphere® Business Integration for
Retail Distribution

Retail_Item Business Object

Version 4.1.1

Contents

Retail_Item business object

The Retail_Item business object is the basic data element carried through the Role_Email, Process_Reviewed_Item, UCCnetMessageSend, UCCnetMessageReceive, ItemCollector, ItemValidation, and ItemStore collaborations. It contains a detailed description of the item being processed, internal data attributes that are used by the various collaborations, and specific customer data. The specific customer data can be customized for each implementation. Also included in the business object is a list of required and missing attributes and their values. This data structure detects attributes that are required to contain valid settings by the implementation's business process, but have no values set.

Business object structure

The Retail_Item business object is a hierarchical business object.

Note: In tables throughout this document, spaces have been inserted in some values in the Name and Type columns to enable the entries to fit in the table cells. The actual values do not include spaces.

Table 1. Attributes for Retail_Item business object

Name	Type	Key	Cardin-ality
item	Retailer_item	x	1
internals	Retail_internals	x	1
customer_data	Retail_customer_data		1

The Retail_Item business object includes attributes based on child business objects. Each of the child business objects is described as follows:

- Retailer_item is described in the section "Retailer_item child business object".
- Retail_internals is described in the section "Retail_internals child business object" on page 12.
- Retail_customer_data is described in the section "Retail_customer_data child business object" on page 13.

Each of these sections includes a description of the child business object, followed by links to descriptions of any child business objects on which its attributes are based.

Retailer_item child business object

The Retailer_item child business object is a hierarchical business object. It holds the following data:

- Document version, status, and related dates, through the documentInformation attribute.
- Detailed data characteristics of the retail item, including global identifiers such as the trading partner and gtin, along with other item data such as the brand, product type, dimensions, categories, hazmat information, and related dates, through the itemInformation attribute (some of the data elements are optional).

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- Recursive child items that are linked to the parent item, through the itemLinks and itemDetailsRecursive attributes.

Retailer_item can contain one or more child items to hold this data. These nested child business objects contain similar attributes, sequence, and structure as those specified in the UCCnet Document Type Definition (DTD). Refer to UCCnet documentation that describes the Publish command for more details about the attributes in this business object.

All attributes in the Retailer_item child business object are dependent on the data source of the item. The data source can be a user interface, a database, or a catalog that publishes items, such as UCCnet.

Table 2. Attributes for child business object Retailer_item

Name	Type	Key	Cardin- ality
documentInformation	Retailer_document Information		1
itemInformation	Retailer_item Information	x	1
itemLinks	Retailer_itemLinks		1
itemDetailsRecursive	Retailer_itemDetails Recursive		1

Each of the child business objects is described as follows:
- Retailer_documentInformation is described in the section "Retailer_documentInformation child business object".
- Retailer_itemInformation is described in the section "Retailer_itemInformation child business object".
- Retailer_itemLinks is described in the section "Retailer_itemLinks child business object" on page 11.
- Retailer_itemDetailsRecursive is described in the section "Retailer_itemDetailsRecursive child business object" on page 11.

Retailer_documentInformation child business object
The Retailer_documentInformation child business object is a flat business object.

Table 3. Attributes for child business object Retailer_documentInformation

Name	Type
documentStructureVersion	String
status	String
creationDate	String
lastUpdateDate	String

Retailer_itemInformation child business object
The Retailer_itemInformation child business object is a hierarchical business object.

Table 4. Attributes for child business object Retailer_itemInformation

Name	Type	Key	Cardin- ality
itemEffectiveDate	String		

Table 4. Attributes for child business object Retailer_itemInformation (continued)

Name	Type	Key	Cardin-ality
itemBrandName	String		
productTypeName	String		
globalTradeItemNumber	Retailer_globalTrade ItemNumber	x	1
alternateProductIdentification	Retailer_alternate ProductIdentification		1
versionStatus	Retailer_versionStatus		1
globalLocationNumber	Retailer_global LocationNumber		1
alternatePartyIdentification	Retailer_alternateParty Identification		1
representingParty	Retailer_representing Party		1
categoryList	Retailer_categoryList		1
itemDimensions	Retailer_item Dimensions		1
itemHazmatInfo	Retailer_item HazmatInfo		N
itemDescription	Retailer_item Description		1
itemMiscInfo	Retailer_itemMiscInfo		1
itemDates	Retailer_itemDates		1

The Retailer_itemInformation child business object includes attributes based on child business objects. Each of the child business objects is described as follows:

- Retailer_globalTradeItemNumber is described in the section "Retailer_globalTradeItemNumber child business object" on page 4.
- Retailer_alternateProductIdentification is described in the section "Retailer_alternateProductIdentification child business object" on page 4.
- Retailer_versionStatus is described in the section "Retailer_versionStatus child business object" on page 5.
- Retailer_globalLocationNumber is described in the section "Retailer_globalLocationNumber child business object" on page 5.
- Retailer_alternatePartyIdentification is described in the section "Retailer_alternatePartyIdentification child business object" on page 6.
- Retailer_representingParty is described in the section "Retailer_representingParty child business object" on page 6.
- Retailer_categoryList is described in the section "Retailer_categoryList child business object" on page 6.
- Retailer_itemDimensions is described in the section "Retailer_itemDimensions child business object" on page 7.
- Retailer_itemHazmatInfo is described in the section "Retailer_itemHazmatInfo child business object" on page 7.
- Retailer_itemDescription is described in the section "Retailer_itemDescription child business object" on page 7.

- Retailer_itemMiscInfo is described in the section "Retailer_itemMiscInfo child business object" on page 9.
- Retailer_itemDates is described in the section "Retailer_itemDates child business object" on page 10.

Retailer_globalTradeItemNumber child business object

The Retailer_globalTradeItemNumber child business object is a hierarchical business object.

Table 5. Attributes for child business object Retailer_globalTradeItemNumber

Name	Type	Key	Cardin-ality
gtin	String	x	
contentVersion	Retailer_contentVersion		1
additionalProduct Identification	Retailer_additional ProductIdentification		N

The Retailer_globalTradeItemNumber child business object includes attributes based on child business objects. Each of the child business objects is described as follows:

- Retailer_contentVersion is described in the section "Retailer_contentVersion child business object".
- Retailer_additionalProductIdentification is described in the section "Retailer_additionalProductIdentification child business object".

Retailer_contentVersion child business object

The Retailer_contentVersion child business object is a flat business object.

Table 6. Attribute for child business object Retailer_contentVersion

Name	Type
version	String

Retailer_additionalProductIdentification child business object

The Retailer_additionalProductIdentification child business object is a flat business object.

Table 7. Attributes for child business object Retailer_additionalProductIdentification

Name	Type
type	String
value	String

Retailer_alternateProductIdentification child business object

The Retailer_alternateProductIdentification child business object is a hierarchical business object.

Table 8. Attributes for child business object Retailer_alternateProductIdentification

Name	Type	Cardinality
type	String	
value	String	
contentVersion	Retailer_contentVersion	1

Name	Type	Cardinality
additionalProductIdentification	Retailer_additional ProductIdentification	N

The Retailer_alternateProductIdentification child business object includes attributes based on child business objects. Each of the child business objects is described as follows:

* Retailer_contentVersion is described in the section "Retailer_contentVersion child business object" on page 4.
* Retailer_additionalProductIdentification is described in the section "Retailer_additionalProductIdentification child business object" on page 4.

Retailer_versionStatus child business object
The Retailer_versionStatus child business object is a flat business object.

Table 9. Attribute for child business object Retailer_versionStatus

Name	Type
value	String

Retailer_globalLocationNumber child business object
The Retailer_globalLocationNumber child business object is a hierarchical business object.

Table 10. Attributes for child business object Retailer_globalLocationNumber

Name	Type	Cardinality
gln	String	
contentVersion	Retailer_contentVersion	1
additionalPartyIdentification	Retailer_additionalParty Identification	N

The Retailer_globalLocationNumber child business object includes attributes based on child business objects. Each of the child business objects is described as follows:

* Retailer_contentVersion is described in the section "Retailer_contentVersion child business object" on page 4.
* Retailer_additionalPartyIdentification is described in the section "Retailer_additionalPartyIdentification child business object".

Retailer_additionalPartyIdentification child business object
The Retailer_additionalPartyIdentification child business object is a flat business object.

Table 11. Attributes for child business object Retailer_additionalPartyIdentification

Name	Type
type	String
value	String

Retailer_alternatePartyIdentification child business object

The Retailer_alternatePartyIdentification child business object is a hierarchical business object.

Table 12. Attributes for child business object Retailer_alternatePartyIdentification

Name	Type	Cardinality
type	String	
value	String	
additionalPartyIdentification	Retailer_additionalParty Identification	N

The Retailer_alternatePartyIdentification child business object includes one attribute based on a child business object called Retailer_additionalPartyIdentification. This child business object is described in the section "Retailer_additionalPartyIdentification child business object" on page 5.

Retailer_representingParty child business object

The Retailer_representingParty child business object is a hierarchical business object.

Table 13. Attributes for child business object Retailer_representingParty

Name	Type	Cardinality
effectiveUserId	String	
gln	String	
additionalPartyIdentification	Retailer_additionalParty Identification	N
contentVersion	Retailer_contentVersion	1

The Retailer_representingParty child business object includes attributes based on child business objects. Each of the child business objects is described as follows:

- Retailer_additionalPartyIdentification is described in the section "Retailer_additionalPartyIdentification child business object" on page 5.
- Retailer_contentVersion is described in the section "Retailer_contentVersion child business object" on page 4.

Retailer_categoryList child business object

The Retailer_categoryList child business object is a hierarchical business object.

Table 14. Attribute for child business object Retailer_categoryList

Name	Type	Cardinality
categoryCode	Retailer_categoryCode	N

The Retailer_categoryList child business object's attribute is based on a child business object called Retailer_categoryCode. This child business object is described in the section "Retailer_categoryCode child business object".

Retailer_categoryCode child business object

The Retailer_categoryCode child business object is a flat business object.

Table 15. Attribute for child business object Retailer_categoryCode

Name	Type
categoryCode	String

Retailer_itemDimensions child business object
The Retailer_itemDimensions child business object is a flat business object.

Table 16. Attributes for child business object Retailer_itemDimensions

Name	Type
size	String
sizeUnits	String
height	String
width	String
length	String
linearUnits	String
netWeight	String
grossWeight	String
weightUnits	String
volume	String
volumeUnits	String
ti	String
hi	String
pack	String
innerPack	String

Retailer_itemHazmatInfo child business object
The Retailer_itemHazmatInfo child business object is a flat business object.

Table 17. Attributes for child business object Retailer_itemHazmatInfo

Name	Type
hazmatNum	String
hazmatCode	String
hazmatClassCode	String
hazmatCodeQualifier	String
page	String
hazmatDescription	String
contactName	String
contactPhone	String
flashPointTemp	String
flashPointUnits	String

Retailer_itemDescription child business object
The Retailer_itemDescription child business object is a hierarchical business object.

Table 18. Attributes for child business object Retailer_itemDescription

Name	Type	Cardinality
itemName	String	
upcType	String	
upc	String	
replacesItem	Retailer_replacesItem	1
replacedByGtin	Retailer_replacedByGtin	1
publicOrPrivate	Retailer_publicOr Private	1

The Retailer_itemDescription child business object includes attributes based on child business objects. Each of the child business objects is described as follows:

- Retailer_replacesItem is described in the section "Retailer_replacesItem child business object".
- Retailer_replacedByGtin is described in the section "Retailer_replacedByGtin child business object".
- Retailer_publicOrPrivate is described in the section "Retailer_publicOrPrivate child business object" on page 9.

Retailer_replacesItem child business object
The Retailer_replacesItem child business object is a hierarchical business object.

Table 19. Attributes for child business object Retailer_replacesItem

Name	Type	Cardinality
globalTradeItemNumber	Retailer_globalTrade ItemNumber	1
alternateProductIdentification	Retailer_alternate ProductIdentification	1

The Retailer_replacesItem child business object includes attributes based on child business objects. Each of the child business objects is described as follows:

- Retailer_globalTradeItemNumber is described in the section "Retailer_globalTradeItemNumber child business object" on page 4.
- Retailer_alternateProductIdentification is described in the section "Retailer_alternateProductIdentification child business object" on page 4.

Retailer_replacedByGtin child business object
The Retailer_replacedByGtin child business object is a hierarchical business object.

Table 20. Attributes for child business object Retailer_replacedByGtin

Name	Type	Cardinality
globalTradeItemNumber	Retailer_globalTrade ItemNumber	1
alternateProductIdentification	Retailer_alternate ProductIdentification	1

The Retailer_replacedByGtin child business object includes attributes based on child business objects. Each of the child business objects is described as follows:

- Retailer_globalTradeItemNumber is described in the section "Retailer_globalTradeItemNumber child business object" on page 4.

- Retailer_alternateProductIdentification is described in the section "Retailer_alternateProductIdentification child business object" on page 4.

Retailer_publicOrPrivate child business object
The Retailer_publicOrPrivate child business object is a flat business object.

Table 21. Attribute for child business object Retailer_publicOrPrivate

Name	Type
value	String

Retailer_itemMiscInfo child business object
The Retailer_itemMiscInfo child business object is a hierarchical business object.

Table 22. Attributes for child business object Retailer_itemMiscInfo

Name	Type	Cardinality
orderIncrement	String	
orderIncrementUnits	String	
minimumOrder	String	
maximumOrder	String	
minimumShip	String	
maximumShip	String	
specialHandlingCode	String	
color	String	
orderSizingFactor	String	
datedProductDays	String	
posDesc1	String	
posDesc2	String	
couponFamilyCode	String	
detailedDesc	String	
consumerUnit	Retailer_consumerUnit	1
orderable	Retailer_orderable	1
suggestedRetailPrice	Retailer_suggested RetailPrice	1
prePricedAmount	Retailer_prePriced Amount	1

The Retailer_itemMiscInfo child business object includes attributes based on child business objects. Each of the child business objects is described as follows:

- Retailer_consumerUnit is described in the section "Retailer_consumerUnit child business object".
- Retailer_orderable is described in the section "Retailer_orderable child business object" on page 10.
- Retailer_suggestedRetailPrice is described in the section "Retailer_suggestedRetailPrice child business object" on page 10.
- Retailer_prePricedAmount is described in the section "Retailer_prePricedAmount child business object" on page 10.

Retailer_consumerUnit child business object
The Retailer_consumerUnit child business object is a flat business object.

Table 23. Attribute for child business object Retailer_consumerUnit

Name	Type
value	String

Retailer_orderable child business object
The Retailer_orderable child business object is a flat business object.

Table 24. Attribute for child business object Retailer_orderable

Name	Type
value	String

Retailer_suggestedRetailPrice child business object
The Retailer_suggestedRetailPrice child business object is a hierarchical business object.

Table 25. Attribute for child business object Retailer_suggestedRetailPrice

Name	Type	Cardinality
amount	Retailer_amount	N

The Retailer_suggestedRetailPrice child business object's attribute is based on a child business object called Retailer_amount. This child business object is described in the section "Retailer_amount child business object".

Retailer_amount child business object
The Retailer_amount child business object is a flat business object.

Table 26. Attributes for child business object Retailer_amount

Name	Type
currencyISOCode	String
amount	String

Retailer_prePricedAmount child business object
The Retailer_prePricedAmount child business object is a hierarchical business object.

Table 27. Attributes for child business object Retailer_prePricedAmount

Name	Type	Cardinality
amount	Retailer_amount	N

The Retailer_prePricedAmount child business object's attribute is based on a child business object called Retailer_amount. This child business object is described in the section "Retailer_amount child business object".

Retailer_itemDates child business object
The Retailer_itemDates child business object is a flat business object.

Table 28. Attributes for child business object Retailer_itemDates

Name	Type
firstOrderDate	String
firstShipDate	String

Name	Type
firstArrivalDate	String
lastOrderDate	String
lastShipDate	String
lastArrivalDate	String

Retailer_itemLinks child business object

The Retailer_itemLinks child business object is a hierarchical business object.

Table 29. Attribute for child business object Retailer_itemLinks

Name	Type	Cardinality
childItem	Retailer_childItem	N

The Retailer_itemLinks child business object's attribute is based on a child business object called Retailer_childItem. This child business object is described in the section "Retailer_childItem child business object".

Retailer_childItem child business object

The Retailer_childItem child business object is a hierarchical business object.

Table 30. Attributes for child business object Retailer_childItem

Name	Type	Cardinality
quantity	String	
globalTradeItemNumber	Retailer_globalTrade ItemNumber	1
alternateProductIdentification	Retailer_alternate ProductIdentification	1

The Retailer_childItem child business object includes attributes based on child business objects. Each of the child business objects is described as follows:

- Retailer_globalTradeItemNumber is described in the section "Retailer_globalTradeItemNumber child business object" on page 4.
- Retailer_alternateProductIdentification is described in the section "Retailer_alternateProductIdentification child business object" on page 4.

Retailer_itemDetailsRecursive child business object

The Retailer_itemDetailsRecursive child business object is a hierarchical business object. It contains the child business object called Retailer_childItemDetails, which repeats for each instance of an item that is included within the parent Retailer_item. This child business object is described in the section "Retailer_childItemDetails child business object" on page 12.

Here is an example of how this recursivity works. Suppose a pallet of items exists that contains cases of items, which in turn, contain individual boxes of items. The parent object is the pallet of items represented by the Retailer_item business object. In the pallet, there are cases of items. The cases are represented as an instance of a Retailer_item inside the pallet's Retailer_childItemDetails business object. Inside the cases, there are individual boxes of items. The box is represented as a Retailer_item business object inside the case's Retailer_childItemDetails business object.

Recursiveness can also be represented horizontally, rather than vertically. An example of a horizontal recursive product is a pallet with several different items on it. Each item on the pallet is represented as an instance of a Retailer_item inside multiple Retailer_childItemDetails business objects, which are inside the pallet parent object.

Table 31. Attribute for child business object Retailer_itemDetailsRecursive

Name	Type	Cardinality
childItemDetails	Retailer_childItemDetails	N

Retailer_childItemDetails child business object
The Retailer_childItemDetails child business object is a hierarchical business object.

Table 32. Attributes for child business object Retailer_childItemDetails

Name	Type	Cardinality
quantity	String	
item	Retailer_item	1

The Retailer_childItemDetails child business object includes one attribute based on a child business object called Retailer_item. This child business object is described in the section "Retailer_item child business object" on page 1.

Retail_internals child business object

The Retail_internals child business object is a hierarchical business object. It contains the data used by collaborations that process the item. It can be modified to fit any implementation. The business object contains the status of the item (i.e., Approved, Rejected, Pending, etc.), the command attached to the item, the correlationID (which is used to track the item through asynchronous processing), messaging information used to provide notification to a user, and other item information. It also includes one attribute based on a child business object called Retail_Missing_Attributes, which represents all the attributes in the item that have been identified to be missing (not containing values). It is described in the section "Retail_Missing_Attributes child business object" on page 13.

Table 33. Attributes for child business object Retail_internals

Name	Type	Key	Cardin-ality
item_status	String		
item_command	String	x	
correlationID	String		
message_text	String		
message_subject	String		
message_recipient_role	String		
WF_graph	String		
date_processed	String		
time_processed	String		
responder_name	String		
customer_data_missing_attributes	Retail_Missing _Attributes		N

Retail_Missing_Attributes child business object

The Retail_Missing_Attributes child business object is an array of name and value pairs. It represents all the attributes in the item that have been identified to be missing (not containing values). The fully qualified attribute name must be used to represent the value of `attribute_name`. One collaboration can identify the missing attributes, while another collaboration can supply the correct values for the attributes. This child business object is a flat business object.

Table 34. Attributes for child business object Retail_Missing_Attributes

Name	Type	Key
attribute_name	String	x
attributeValue	String	

Retail_customer_data child business object

The Retail_customer_data child business object includes extensions to the item description. These extensions, contained in attributes, can be customized for each implementation. A customized business process must provide the values for the attributes. This child business object is a flat business object.

Table 35. Attributes for child business object Retail_customer_data

Name	Type	Key
vendorAddress	String	x
vendorCity	String	
vendorStateCode	String	
vendorZip	String	
brokerName	String	
salesRepName	String	
vendorEIN	String	
planogramNumber	String	
reclamationGuarantee	String	
reclamationBillingAddress	String	
reclamationBillingCity	String	
reclamationBillingStateCode	String	
reclamationBillingZip	String	
reclamationChuteMethodNumber	String	
termsOfSalePercent	String	
termsOfSaleDays	String	
netDays	String	
remitToAddress	String	
remitToCity	String	
remitToStateCode	String	
remitToZip	String	
bracketCost_1	String	
bracketConstraintMin_1	String	
bracketConstraintMax_1	String	

Table 35. Attributes for child business object Retail_customer_data (continued)

Name	Type	Key
bracketCost_2	String	
bracketConstraintMin_2	String	
bracketConstraintMax_2	String	
bracketCost_3	String	
bracketConstraintMin_3	String	
bracketConstraintMax_3	String	
bracketCost_4	String	
bracketConstraintMin_4	String	
bracketConstraintMax_4	String	
bracketCost_5	String	
bracketConstraintMin_5	String	
bracketConstraintMax_5	String	
bracketCost_6	String	
bracketConstraintMin_6	String	
bracketConstraintMax_6	String	
bracketCost_7	String	
bracketConstraintMin_7	String	
bracketConstraintMax_7	String	

Supported verbs

The Retail_Item business object supports the following verbs:

- Request Processing (sending to the destination application): Create, Retrieve, Update, and Delete
- Event Notification (receiving from the source application): Create, Retrieve, Update, and Delete

Examining the object

To examine a listing of the attributes of the Retail_Item business object, use the IBM® CrossWorlds® System Manager or IBM CrossWorlds Business Object Designer.

See also

For more information on related business objects and collaborations, see the following documents:

- ItemCollector Collaboration
- ItemStore Collaboration
- ItemValidation Collaboration
- Process_Reviewed_Item Collaboration
- Role_Email Collaboration
- UCCnetMessageReceive Collaboration
- UCCnetMessageSend Collaboration

- UCCnet_envelope Business Object
- UCCnetGBO_envelope Business Object

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