FCB2B
Floor Covering
Business 2 Business

Web Services Specification

Stock Check and Inventory Service

fcB2B Technical Team

Version 2.2 - Revised June 8, 2020

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Modification History

Version	Change Date	Description
2.2	6/8/2020	Roll number has been added to accommodate the need for roll number in the reservation service.

Introduction

This document details a specification for the Floor Covering Business to Business Stock Check and Inventory Web Services. The goal of these services is to build upon the existing capabilities between trading partners in the flooring industry. Extending the fcB2B standards to include support for Web Services greatly enhances the capabilities of buyers to make inquiries with suppliers and receive responses to those inquiries in near "real time".

Please see the fcB2B Web Services Overview document for common characteristics and requirements of all fcB2B Web Services.

Service Descriptions

The driving force in developing this specification is to move to open, internet-based web services standards. The overall data model and architecture is intended to be flexible enough to support multiple standards and protocols, however this specification currently only provides implementation details for RESTful implementations.

The following services and their recommended URLs are:

Service Name	Description	URL
Service Discovery	a request for the list of services provided by a **Error! Reference s ource not found.**	http://rest.example.com/services
Stock Check	a basic request for the first current availability of a single inventory item	http://rest.example.com/stockcheck?querystring
Inventory Inquiry	a basic request for all availability of a single inventory item	http://rest.example.com/inventoryinquiry?querystring
Related Items	a request for all items deemed related to a single inventory item, e.g. installation accessories, trims, moldings	http://rest.example.com/relateditems?querystring
Solution Check	a request with constraining parameters, e.g. shade or dye lot, for a fir the first current availability of a single inventory item	http://rest.example.com/solutioncheck?querystring
Solution Inquiry	a request for any and all combinations of availability for an item with constraining parameters, e.g. all rolls between a range of sizes or all cartons of a specified dye lot	http://rest.example.com/solutioninquiry?querystring

NOTE: If agreed between **Producer** and **Consumer**, the Stock Check service may also be called *anonymously*.

Service Requests and Responses

	BASIC REQUEST (Item #)	CONSTRAINED REQUEST (Specified Quantity, Date, FOB, Roll/Cut, Specific or Same Shade/Dyelot)
SUMMARY RESPONSE	**Anonymous Stock Check Stock Check**	**Solution Check**
DETAILED RESPONSE	**Inventory Inquiry Related Items**	**Solution Inquiry**

Summary of Request Parameters with Cardinality

REQUEST	Anon. Stock Check	Stock Check	Inventory Inquiry	Related Items	Solution Check	Solution Inquiry
ClientIdentifier	-	M	M	M	M	M
SupplierItemSKU	M	M	M	M	M	M
RequestedQuantity	-	-	-	-	M	M
ReqQuantityMinimum	-	-	-	-	M	M
ReqUnitOfMeasure	-	-	-	-	M	M
ReqQuantityMaximum	-	-	-	-	O	O
ReqNeedByDate	-	-	-	-	O	O
ReqFOBPoint	-	-	-	-	O	O
ReqShadeOrDyeLot	-	-	-	-	O	O
ReqSameShadeOrDyeLot	-	-	-	-	O	O
ReqRollOrCut	-	-	-	-	O	O
TimeStamp	M	M	M	M	M	M
GlobalIdentifier	O	O	O	O	O	O

Definitions of Request Parameters

Name	Description
ClientIdentifier	Supplier-assigned customer identifier; recommend NOT using account number
SupplierItemSKU	Vendor SKU# used for purchasing (as per fcB2B 832/850)
RequestedQuantity	Requested quantity in the specified UOM Numeric: ##########.###

Name	Description
ReqQuantityMinimum	Minimum requested quantity in the specified UOM Numeric: ##########.###
ReqUnitOfMeasure	Unit of measure per UOM Table
ReqQuantityMaximum	Assumes same UOM as MIN. If present, treat requested quantity as a range.
ReqNeedByDate	MM/DD/YYYY – fcB2B IsoDateType
ReqFOBPoint	If present, text in this element is the requested FOB Point (as provided in 832 Price Catalog)
ReqShadeOrDyeLot	Indicates that client wants entire quantity to be the specific shade/dyelot identified by the text contained in this element
ReqSameShadeOrDyeLot	Boolean / Flag; TRUE means request that the entire quantity should be from a single (though unspecified) shade/dyelot
ReqRollOrCut	Boolean / Flag; TRUE means as a Roll or Cut
TimeStamp	ISO 8601 DateTime – fcB2B IsoDateTimeType
GlobalIdentifier	Arbitrary alphanumeric UUID (universally unique identifier) used to match response to request

Summary of Response Parameters with Cardinality

RESPONSE	Anon. Stock Check	Stock Check	Inventory Inquiry	Related Items	Solution Check	Solution Inquiry
ClientIdentifier	-	M	M	M	M	M
SupplierItemSKU	M	M	M	M	M	M
TextDescription	-	-	-	M	-	-
AvailableRollNumber	O	O	O	O	O	O
AvailableQuantity	M	M	M	O	M	M
AvailableUnitOfMeasure	M	M	M	C	M	M
RollOrCutFlag	O	O	O	O	O	O
AvailableFOBPoint	O	O	O	O	C	C
AvailableShadeOrDyleLot	O	O	O	O	C	C
FutureAvailableDate	O	O	O	O	C	C
FutureAvailableQty	O	O	O	O	C	C
DropFlag	O	O	O	O	O	O
TimeStamp	M	M	M	M	M	M
GlobalIdentifier	O	O	O	O	O	O

☐ *Boxed elements are repeating elements that may loop within a single response*

Definitions of Response Parameters

Name	Description
ClientIdentifier	Echoed from Request
SupplierItemSKU	Echoed from Request
TextDirection	Related Item Description
AvailableRollNumber	Specific Available Roll Numbers related to Roll Products. Intended to be used in the request for the Reservation service.
AvailableQuantity	Available quantity reflected in the AvailableUnitOfMeasure Numeric: ##########.###
AvailableUnitOfMeasure	Unit of measure per UOM Table Condition: response includes AvailableQuantity
RollOrCutFlag	Flag indicates if quantity is a roll/roll balance or cut
AvailableFOBPoint	Flag indicates if quantity is the FOB Point, echoed Condition: request contains ReqFOBPoint
AvailableShadeOrDyleLot	Text is the shade/dyelot identifier; applies to entire qty Condition: request contains either ReqShadeOrDyeLot or ReqSameShadeOrDyelot
FutureAvailableDate	Condition: request contains ReqNeedByDate
FutureAvailableQty	Condition: request contains ReqNeedByDate Expressed in same UOM as AvailableUnitOfMeasure
DropFlag	Flag indicating that item is dropped (no future availability)
TimeStamp	ISO 8601 DateTime – fcB2B IsoDateTimeType
GlobalIdentifier	Echoed from Request Condition: request contains GlobalIdentifier

Detailed Specifications of Each Service

Stock Check

Stock Check is a means by which a **Consumer** can inquire on inventory availability with a specific supplier. The **Consumer** calls the Stock Check service and gets a response summarizing the available quantity, availability date, shipping location and inventory details.

Request

Authenticated

http://rest.example.com/StockCheck?ClientIdentifier=<..>&
SupplierItemSKU=<..>&TimeStamp=<..>*&GlobalIdentifier=<..>*

Anonymous

http://rest.example.com/StockCheck?SupplierItemSKU=<..>&TimeStamp=<..>*&GlobalIdentifier=<..>*

* Parameters conform to InventoryInquiryRequest.xsd

Response

InventoryInquiryResponse.xsd

Status Codes

Status Code	Description	HTTP Status	Severity
SKUNotFound	SKU not available or does not exist	400	Error
Special	Special on *SKU* when purchased with *SKU*	200	Information

Inventory Inquiry

Inventory Inquiry is a means by which **Consumer** can inquire on inventory availability with a specific supplier. The **Consumer** calls the Stock Check service and gets a response detailing the available quantity by specific inventory (shade, dye lot, serial number), availability date, supplier shipping location, as well as future availability and dates.

Request

http://rest.example.com/InventoryInquiry?ClientIdentifier=<..>&
SupplierItemSKU=<..>&TimeStamp=<..>*&GlobalIdentifier*=<..>

* Parameters conform to InventoryInquiryRequest.xsd

Response

InventoryInquiryResponse.xsd

Status Codes

Status Code	Description	HTTP Status	Severity
SKUNotFound	SKU not available or does not exist	400	Error
Special	Special on *SKU* when purchased with *SKU*	200	Information

Related Items

Related Items is a means by which Consumers can request all items deemed related to a specific SKU or product, e.g. installation accessories, trims, moldings, etc.

Request

http://rest.example.com/RelatedItems?ClientIdentifier=<..>&
SupplierItemSKU=<..>&TimeStamp=<..>*&GlobalIdentifier*=<..>

* Parameters conform to InventoryInquiryRequest.xsd

Response

InventoryInquiryResponse.xsd

Status Codes

Status Code	Description	HTTP Status	Severity
SKUNotFound	SKU not available or does not exist	400	Error
RelatedNotAvailable	Related items are not available for this product type	200	Warning
Special	Special on *SKU* when purchased with *SKU*	200	Information

Solution Check

Solution Check is means by which a **Consumer** can make an inventory inquiry request with constraining factors such as specific shade or dye lot, for the first current availability of a single item.

Request

http://rest.example.com/SolutionCheck?ClientIdentifier=<..>&SupplierItemSKU=<..>&ReqQuantityMaximum=<..>&ReqNeedByDate=<..>&ReqFOBPoint=<..>&ReqShadeOrDyeLot=<..>&ReqSameShadeOrDyeLot=<..>ReqRollOrCut&TimeStamp=<..>&GlobalIdentifier=<..>

* Parameters conform to InventoryInquiryRequest.xsd

Response

InventoryInquiryResponse.xsd

Status Codes

Status Code	Description	HTTP Status	Severity
SKUNotFound	SKU not available or does not exist	400	Error
IncorrectUOM	UOM not valid for this SKU	400	Error
IncorrectQuantity	Incorrect or missing Quantity	400	Error
MustSpecifyMin	Min Quantity must be specified if Max Quantity is used	400	Error
IncorrectDate	ReqNeedByDate must be today or later	400	Error
IncorrectFOB	FOB point is not valid for the specified SKU	400	Error
AlternateQuantity	Quantity specified will be ordered as ## boxes instead	200	Information
Special	Special on *SKU* when purchased with *SKU*	200	Information

Solution Inquiry

Solution Inquiry is means by which a **Consumer** can make a request for any and all combinations of a specific SKU or product with constraining parameters, e.g. all rolls between a range of sizes, or all cartons of a specified dye lot.

Request

http://rest.example.com/SolutionInquiry?ClientIdentifier=<..>&SupplierItemSKU=<..>&ReqQuantityMaximum=<..>&ReqNeedByDate=<..>&ReqFOBPoint=<..>&ReqShadeOrDyeLot=<..>&ReqSameShadeOrDyeLot=<..>ReqRollOrCut&TimeStamp=<..>&GlobalIdentifier=<..>

* Parameters conform to InventoryInquiryRequest.xsd

Response

InventoryInquiryResponse.xsd

Status Codes

Status Code	Description	HTTP Status	Severity
SKUNotFound	SKU not available or does not exist	400	Error
IncorrectUOM	UOM not valid for this SKU	400	Error
IncorrectQuantity	Incorrect or missing Quantity	400	Error
MustSpecifyMin	Min Quantity must be specified if Max Quantity is used	400	Error
IncorrectDate	ReqNeedByDate must be today or later	400	Error
IncorrectFOB	FOB point is not valid for the specified SKU	400	Error
AlternateQuantity	Quantity specified will be ordered as ## boxes instead	200	Information
Special	Special on *SKU* when purchased with *SKU*	200	Information

Status Messages

Producer systems MUST provide the appropriate HTTP status codes on errors and return the required **Messages** XML as defined in the **fcB2B-MessageList.xsd** schema as part of their response as defined in the fcB2B Web Services Overview. It is recommended that informational messages also be returned by **Producers** if this information is available.

Appendix A - XML Schemas

fcB2B-CommonBasicComponents.xsd

fcB2B-MessageList.xsd

InventoryInquiryRequest.xsd

InventoryInquiryResponse.xsd