



papiNet

Availability

papiNet Standard - Version 2.31

Documentation

**Global Standard for the Paper and Forest
Products Supply Chain**

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Availability Documentation

An Overview of the Availability eBusiness Document

The purpose of the Availability eBusiness document is to provide a means to ask a supplier about the availability of the specified product. The amount of the product immediately available (on-hand) is anticipated to be returned. Optionally, the supplier may also provide the anticipated availability of the product in future manufacturing cycles. The Availability message returns to the requestor the answer to the question, "Does the product exist?"

Prior to implementing an Availability message it is assumed that the parties involved have already opened a trading partner relationship and a collaborative agreement has been reached. Such an agreement might include frequency of messages, content details, etc.

A trading partner sends an Availability message to another trading partner on an event basis agreed between them. The event that triggers an Availability message might be the receipt of an InfoRequest message, a time interval, or perhaps a manufacturing stage. An RFQ or a PurchaseOrder may optionally follow in the business process.

Availability Contrasted with Other eBusiness Documents

The Availability message differs from the RFQ/RFQResponse message pair in that:

- The RFQ pair may actually reserve the product for a period of time.
- The RFQ communicates pricing information, shipping conditions, terms of payment, and other financial information.
- A PurchaseOrder frequently follows an RFQ with the PurchaseOrder referencing the RFQResponse number
- An RFQ also has a 'life'. That is, it may continue to exist for a specified length of time before the receiver of the RFQ either receives a Purchase Order that references the RFQ or until the expiry period comes to an end.

The Availability message differs from the Planning message in that:

- The Availability message will not specify purchase order related information
- The Availability message does not specify shipping details related to the product for the requesting party or buyer party
- The available product information itself may or may not be as firm as the same information in the Planning message would be.

The Scope of the Availability eBusiness Document

The Availability eBusiness document includes:

- A specific date upon which the Availability is generated
- Sender, Receiver, and Requesting Parties
- Product
- TimePeriod
- Quantity

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The Availability eBusiness document may include:

- Buyer, Ship To, and End User parties.
- InformationalQuantity(s)
- LocationParty and MachineID

Availability Types

There are no Availability types. To get new and/or corrected information a new eBusiness document must be sent.

Business Rules for the Availability eBusiness Document

General Business Rules

The following table lists the business rules that apply to Availability eBusiness Document.

Identifier	Business Rule
AV_001	At least one AvailabilityDetail must be present in the message. If neither on-hand nor planned inventory is available for the Product, then a Quantity of zero must be returned.

Processing the Availability eBusiness Document

The Availability eBusiness document is the proper response to an InfoRequest containing the InfoRequestType of "AvailabilityStatus". Alternatively, it may be published on a previously agreed upon schedule based on time intervals or process manufacturing stages. Under the latter scenario, the supplier would publish the message at the agreed upon schedule without requiring an InfoRequest message as the trigger.

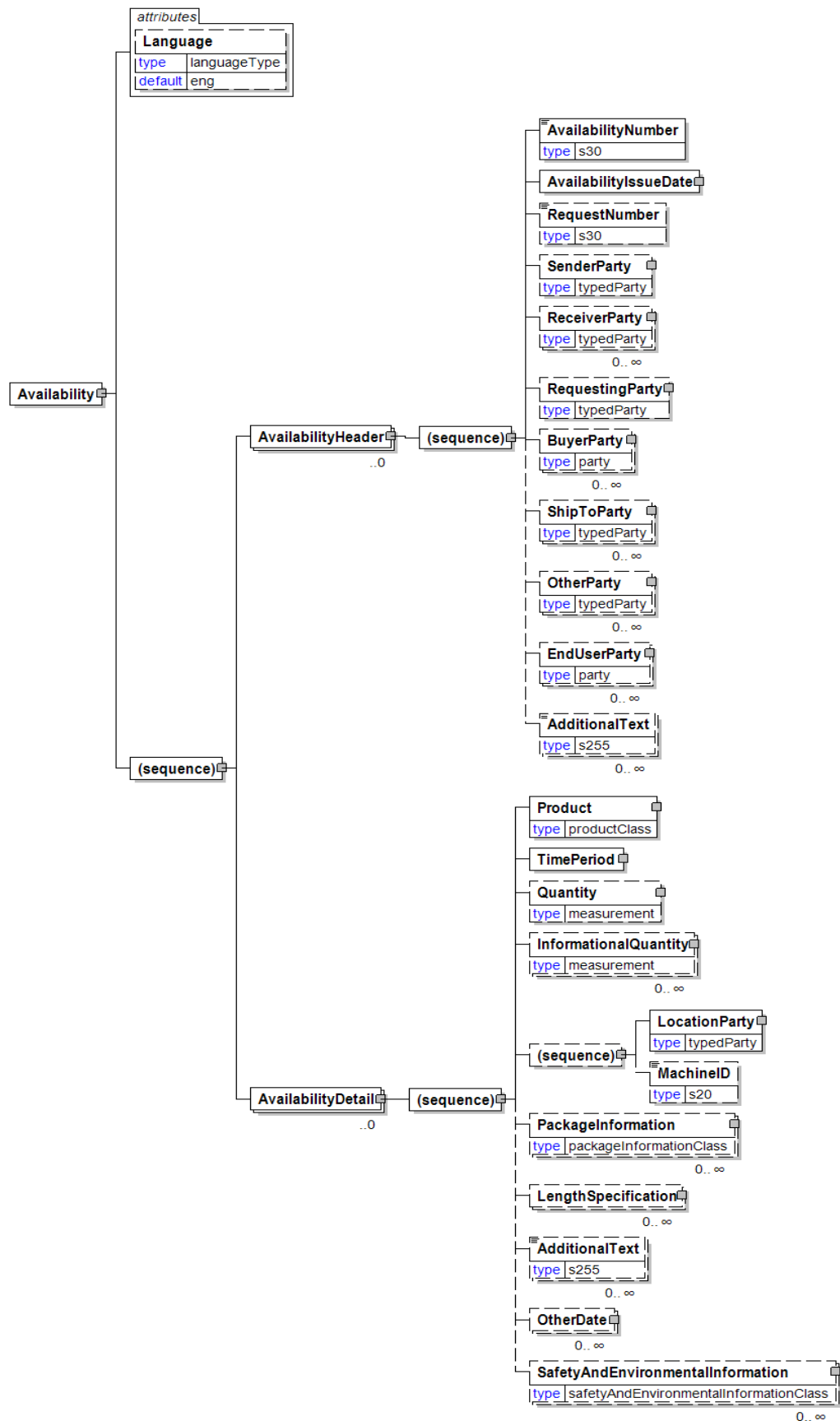
It is unlikely that the Availability message would be received and processed by the recipient's procurement or order generation system. The likeliest scenario is that the Availability message would be received and printed out for distribution to interested parties or alternatively published 'on line' and viewed via a URL or some form of website access designed to display the status.

The Availability message is an information-only message. The Availability message does not alter the legal agreement between the parties regarding order submission and fulfilment. If the Availability message indicates a serious problem or issue with the ability of the supplier to fulfil the order, then the parties involved must resolve the issue.

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Availability Structure



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Understanding the Diagrams and Content

This section provides a graphical view of the schema structures, a discussion of the item's children. You can find additional information about papiNet and the standard at www.papiNet.org.

The graphics contain content model indicators, cardinality indicators, and data type information.

Associated with each graphic are the definitions for the parent item and any associated child items. All attributes are listed first, followed by the elements.

The following information should help you interpret and understand this standard. Please note the following:

- Content Model and Cardinality operate together to determine if the element or attribute are required in the instance document.
- The same attribute can never appear multiple times in the same element so, you will never see a multiple cardinality indicator.

Content model indicators:

There are three possible types of content: "sequence", "choice", and "all". The papiNet standard currently does not use the "all" construct.

- (sequence)

The sequence of the items to the right of the graphic (or below the text) is required.

- (choice)

A choice of the items to the right of the graphic (or below the text) is permitted.

- (all)

All the items to the right of the graphic are required.

Cardinality indicators:

- Dotted line around element or attribute.

A single instance of the item can optionally exist.

- Dotted line around item with range indicated below.

Multiple instances of the item can optionally exist.

- Solid line around item.

A single instance of the item must exist.

- Solid line around item with range indicated below

At least one instance must exist; multiple instances can optionally exist.

Datatype indication:

When a data type is assigned to an element (either a simple type or complex type the name of the data type is presented beneath the item name in the graphic.

- In some cases additional information about the data type is presented (the default value).

Elements can either have content that is textual/numeric in nature or content that is made up of additional elements and/or attributes.

- When the content is textual/numeric in nature "three straight horizontal lines" will appear in the upper left-hand corner of the graphic. Pay

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attention to these elements because they are where you will be entering your information.

- When the content is made up of additional elements and/or attributes a “gray-box” will appear on the right-hand side of the graphic.
- If the graphic shows both the horizontal lines and the gray-box then, in the papiNet standard, the content below the element are attributes.

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Availability Root Element

Availability

The Availability element is the root element for the Availability message.

Language [attribute]

Language is optional. A single instance might exist.

XML has embraced 2 and 3 digit language codes through the application of an addendum to the standard.

Information on the content of this attribute is available at <http://www.loc.gov/standards/iso639-2/> this is the official site of the ISO 639-2 Registration Authority.

- <http://www.w3.org/International/O-HTML-tags.html> provides an explanation of the errata updating XML.
- <http://www.ietf.org/rfc/rfc3066.txt> is the key document that is referenced in the above errata.

(sequence)

The contents of (sequence) are mandatory. A single instance is required.

AvailabilityHeader

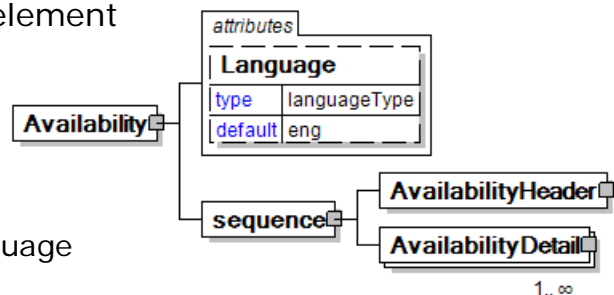
AvailabilityHeader is mandatory. A single instance is required.

The AvailabilityHeader contains items that apply to the entire Availability e-business document.

AvailabilityDetail

AvailabilityDetail is mandatory. One instance is required, multiple instances might exist.

AvailabilityDetail provides the detailed availability information for the requested product.



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Primary Elements

AvailabilityHeader

The AvailabilityHeader contains items that apply to the entire Availability e-business document.

(sequence)

The sequence of items below is mandatory. A single instance is required.

AvailabilityNumber

AvailabilityNumber is mandatory. A single instance is required.

An element that contains the unique identifying number of the Availability message.

AvailabilityIssueDate

AvailabilityIssueDate is mandatory. A single instance is required.

The date and time that the Availability was issued.

RequestNumber

RequestNumber is optional. A single instance might exist.

A unique tracking number specifically identifying the InfoRequest message to the originator. The tracking number is returned with the "information", the answer, to help match the answer to the request.

SenderParty

SenderParty is optional. A single instance might exist.

The business entity issuing the business document, the source of the document.

- The entity responsible for the content. If the sender party has out sourced the message service to a third party the SenderParty is the issuer of the e-document and not the party performing the transmission service of the electronic message.

ReceiverParty

ReceiverParty is optional. Multiple instances might exist.

The business entity for whom the business document is intended, the destination of the document.

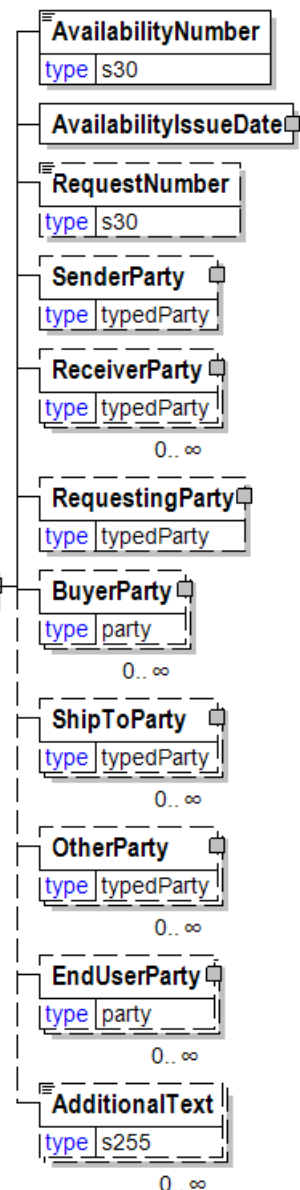
- The entity interested in the content. If the receiver party has outsourced the message service to a third party the ReceiverParty is the intended party for the e-document and not the party performing the receiving service of the electronic message.

RequestingParty

RequestingParty is optional. A single instance might exist.

The party requesting the information.

BuyerParty



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BuyerParty is optional. Multiple instances might exist.

The legal entity to which the product is sold. Also commonly referred to as the sold-to party or customer. If no OtherParty is defined as the Payer, the Buyer is the Payer.

ShipToParty

ShipToParty is optional. Multiple instances might exist.

The name and/or address to which the goods should be delivered with the party type indicated by the PartyType attribute.

OtherParty

OtherParty is optional. Multiple instances might exist.

An organisation or business entity other than those specifically detailed within a business document.

EndUserParty

EndUserParty is optional. Multiple instances might exist.

The party using, consuming, or converting the product. For example, a printer using paper reels for a print job for a publisher. The final ShipTo destination for a product is normally to the end user's facilities.

AdditionalText

AdditionalText is optional. Multiple instances might exist.

A text field that is used to communicate information not previously defined or for special instructions. To be used only for circumstances not covered by specific elements.

AvailabilityDetail

(sequence)

Product

Product is a group item defining the article and its characteristics. Product is used to specify product characteristics organized by



TimePeriod

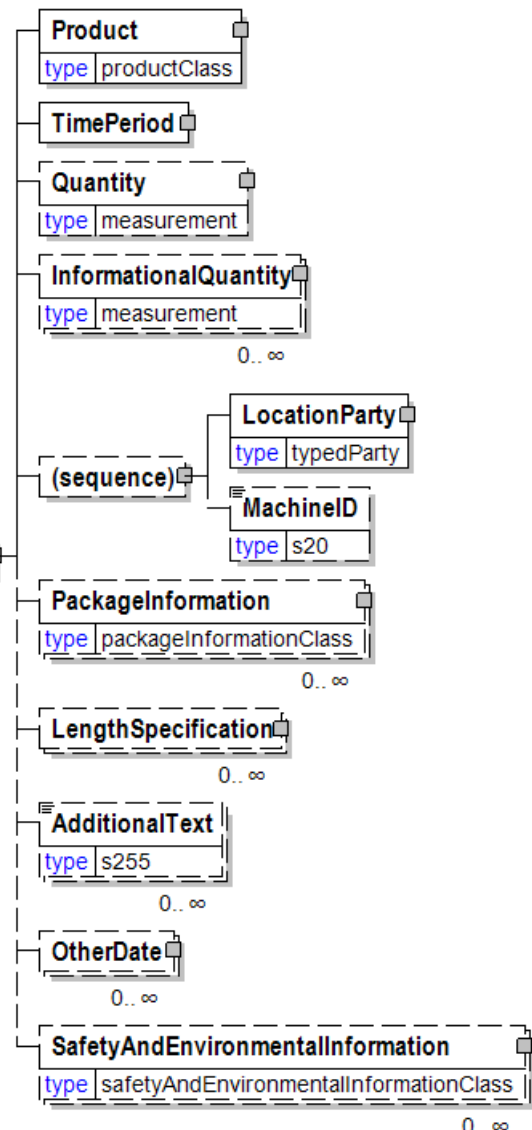
The TimePeriod element is used to communicate a duration period of time as indicated in PeriodType.

Quantity is optional. A single instance might exist.

The Quantity element contains three child elements that enable you to communicate a range of values for the quantity and a target or actual value. It is at this level (Value, RangeMin, and RangeMax) that the unit of measure is specified. This permits the range to be specified in a different unit of measure than the target.

InformationalQuantity is optional. Multiple instances might exist.

A quantity given in a valid UOM used for information purposes only (not for calculation). For example, an ordered quantity was 100 reels as opposed to the invoice quantity of 20,000 pounds.



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(sequence)

The sequence of items below is optional. A single instance might exist.

LocationParty

LocationParty is mandatory. A single instance is required.

The organization or business entity where the business event took place or will take place.

MachineID

MachineID is optional. A single instance might exist.

An identifier assigned to the particular machine being referenced. For example, a machine could be a paper machine, an off-line coater, a sheeter, or a printing press. The particular machine being referenced will be determined by the business event being supported.

PackageInformation

PackageInformation is optional. Multiple instances might exist.

The purpose of the PackageInformation structure is to clearly identify physical handling items that constitute the delivery.

PackageInformation is the highest level of product packaging it describes the shipping or warehousing unit.

- If you are communicating a package, usually for logistics or transport purposes, you should include the PackageType, Identifier, ItemCount, and Quantity. (Note: you still have the ability to describe the item with one of the "named" items.)
- If you are communicating one of the named Items there is no need to include PackageType, Identifier, ItemCount, and Quantity.

Since either of these two approaches can be used the entire contents of this element are optional even though the parent may be required. It is expected that you will fill in the appropriate details.

LengthSpecification

LengthSpecification is optional. Multiple instances might exist.

Length specification of the wood product.

AdditionalText

AdditionalText is optional. Multiple instances might exist.

A text field that is used to communicate information not previously defined or for special instructions. To be used only for circumstances not covered by specific elements.

OtherDate

OtherDate is optional. Multiple instances might exist.

A date that may not be specifically detailed within a document (example: print date at the PurchaseOrderLineItem).

SafetyAndEnvironmentalInformation

SafetyAndEnvironmentalInformation is optional. Multiple instances might exist.

Name of certification type, if any, on the goods (For example, FSC, PEFC). SafetyAndEnvironmental needs a value or measurement to communicate the percentage of the product is certified (for example, 75% is certified by the indicated agency).

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Availability Business Scenarios

Availability Scenario Listing

Scenario A	Buyer/Publisher has a potential job to source a specific type of paper for. The InfoRequestType is "Availability".
Scenario B	Partners have previously agreed upon the Supplier publishing a periodic Availability update on a specific schedule. There is no InfoRequest.
Scenario C	A small enterprise wants to check the availability of a product via a web browser or at an online marketplace. The InfoRequestType is "Availability".

Scenario A

Message	Availability
Scenario	Buyer has a potential job to source a specific type of paper for. The InfoRequestType is "Availability". (Note: a Publisher may be substituted for the Buyer in this scenario.)
Outcome	An InfoRequest is generated by the Buyer.
Initiator	Buyer
Receiver	Supplier
Trigger	None
Step 1.	Buyer records an original request into their system then sends it to the Supplier. <ul style="list-style-type: none"> • InfoRequestType = "Availability" • RequestNumber = unique number • SenderParty = buyer • RequestingParty = buyer • ReceiverParty = supplier • Product = specified product id
Step 2.	Seller receives an InfoRequest and responds with Availability. The seller is expected to return the quantity that is available on-hand and optionally return any planned inventory runs. <ul style="list-style-type: none"> • AvailabilityNumber = unique number • AvailabilityIssueDate = response date • SenderParty = supplier • RequestingParty = buyer • ReceiverParty = publisher

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	<p>For on hand inventory:</p> <ul style="list-style-type: none"> • TimePeriod = today • Product = specified product id • Quantity = quantity of on hand inventory • QuantityTypeContext="OnHand" <p>Optionally for each manufacturing run:</p> <ul style="list-style-type: none"> • TimePeriod = date of planned run • Quantity = quantity of planned inventory • QuantityTypeContext="Planned"
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Scenario B

Message	Availability
Scenario	Partners have previously agreed upon the Supplier publishing a periodic Availability update on a specific schedule.
Outcome	An Availability message is generated by the Supplier's system and received into the Buyer's system.
Initiator	Not applicable
Receiver	Buyer
Trigger	Pre-arranged schedule
Step 1.	<p>Supplier initiates an Availability message for each agreed upon product at predefined intervals. At a minimum, all required elements and corresponding attributes are recorded:</p> <ul style="list-style-type: none"> • AvailabilityNumber = unique number • AvailabilityIssueDate = response date • SenderParty = supplier • RequestingParty = buyer • ReceiverParty = buyer <p>For on hand inventory:</p> <ul style="list-style-type: none"> • TimePeriod = today • Product = specified product id • Quantity = quantity of on hand inventory • QuantityTypeContext="OnHand" <p>Optionally, for each manufacturing run:</p> <ul style="list-style-type: none"> • TimePeriod = date of planned run • Quantity = quantity of planned inventory • QuantityTypeContext="Planned"

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Scenario C

Message	Availability
Scenario	A small enterprise wants to check the availability of a product via a web browser or at an online marketplace. The InfoRequestType is "Availability".
Outcome	An Availability message is generated by the Supplier's system and received into the Buyer's system.
Initiator	Buyer/marketplace
Receiver	Supplier
Trigger	InfoRequest
Step 1.	<p>Buyer logs on to the marketplace's website and views open orders online and indicate orders for which status is requested. Marketplace creates InfoRequest and sends it to the Supplier.</p> <ul style="list-style-type: none"> • InfoRequestType = "Availability" • RequestNumber = unique number • SenderParty = marketplace • RequestingParty = buyer • ReceiverParty = supplier • Product = specified product id
Step 2.	<p>Supplier receives InfoRequest and responds with Availability.</p> <ul style="list-style-type: none"> • AvailabilityNumber = unique number • AvailabilityIssueDate = response date • SenderParty = supplier • RequestingParty = buyer • ReceiverParty = marketplace <p>For on hand inventory:</p> <ul style="list-style-type: none"> • TimePeriod = today • Product = specified product id • Quantity = quantity of on hand inventory • QuantityTypeContext="OnHand" <p>Optionally, for each manufacturing run:</p> <ul style="list-style-type: none"> • TimePeriod = date of planned run • Quantity = quantity of planned inventory • QuantityTypeContext="Planned"