PrintTalk

Version 1.5

Date: 2015-03-24

**File:** , *.pdf*

Abstract

PrintTalk is an open XML standard used to communicate business information. It provides JDF with capabilities for Pricing, Web-to-Print, RFQ/Quote, Invoicing, Order Status, Sub-contracting and more. The CIP4 consortium has maintained PrintTalk as integral to JDF development since 2005.

(The prior version was 1.3; there is no 1.4.)







Copyright Notice

Copyright © 2000-2015, International Cooperation for Integration of Processes in Prepress, Press and Postpress, hereinafter referred to as CIP4. All Rights Reserved.

Permission is hereby granted, free of charge, to any person obtaining a copy of the Specification and associated documentation files (the “Specification”) to deal in the Specification, including without limitation the rights to use, copy, publish, distribute, and/or sublicense copies of the Specification, and to permit persons to whom the Specification is furnished to do so, subject to the following conditions. The above copyright notice and this permission notice must be included in all copies or substantial portions of the Specification.

The Specification is provided “as is”, without warranty of any kind, express, implied, or otherwise, including but not limited to the warranties of merchantability, fitness for a particular purpose and noninfringement. In no event will CIP4 be liable for any claim, damages or other liability, whether in an action of contract, tort or otherwise, arising from, out of, or in connection with the Specification or the use or other dealings in the Specification.

Except as contained in this notice or as allowed by membership in CIP4, the name of CIP4 must not be used in advertising or otherwise to promote the use or other dealings in this Specification without prior written authorization from CIP4.

Licenses and Trademarks

International Cooperation for Integration of Processes in Prepress, Press and Postpress, CIP4, PrintTalk, Job Description Format, JDF and the logos for both CIP4 and PrintTalk are trademarks of CIP4.

Rather than put a trademark symbol in every occurrence of other trademarked names, we state that we are using the names only in an editorial fashion, and to the benefit of the trademark owner, with no intention of infringement of the trademark.

# Table of Contents

[1 Introduction 6](#_Toc411174870)

[1.1 Intended Audience 6](#_Toc411174871)

[2 Glossary 7](#_Toc411174872)

[3 PrintTalk Structure 9](#_Toc411174873)

[3.1 MIME and HTTP Content-Type 10](#_Toc411174874)

[3.2 XML Declaration 10](#_Toc411174875)

[3.3 PrintTalk Node 10](#_Toc411174876)

[3.4 Header 10](#_Toc411174877)

[3.4.1 Example of a Header 12](#_Toc411174878)

[3.4.2 From 13](#_Toc411174879)

[3.4.3 To 13](#_Toc411174880)

[3.4.4 Sender 13](#_Toc411174881)

[3.4.5 Credential 14](#_Toc411174882)

[3.5 Request 14](#_Toc411174883)

[3.6 Response 15](#_Toc411174884)

[3.7 Abstract Elements 15](#_Toc411174885)

[3.7.1 Abstract pt 15](#_Toc411174886)

[3.7.1.1 jdf:GeneralID – pt 16](#_Toc411174887)

[3.7.2 Abstract BusinessObject 16](#_Toc411174888)

[3.8 Business Objects 18](#_Toc411174889)

[3.8.1 RFQ 20](#_Toc411174890)

[3.8.2 Quotation 22](#_Toc411174891)

[3.8.2.1 Quote 23](#_Toc411174892)

[3.8.2.2 Pricing 25](#_Toc411174893)

[3.8.2.3 Payment 25](#_Toc411174894)

[3.8.2.4 jdf:GeneralID – Payment 26](#_Toc411174895)

[3.8.2.5 CreditCard 26](#_Toc411174896)

[3.8.2.6 Price 27](#_Toc411174897)

[3.8.2.7 Additional 29](#_Toc411174898)

[3.8.3 PurchaseOrder 29](#_Toc411174899)

[3.8.4 Confirmation 30](#_Toc411174900)

[3.8.5 Cancellation 30](#_Toc411174901)

[3.8.6 Refusal 31](#_Toc411174902)

[3.8.7 OrderStatusRequest 31](#_Toc411174903)

[3.8.7.1 StatusRequest 32](#_Toc411174904)

[3.8.8 OrderStatusResponse 33](#_Toc411174905)

[3.8.8.1 Status 34](#_Toc411174906)

[3.8.9 StockLevelRequest 34](#_Toc411174907)

[3.8.10 StockLevelResponse 35](#_Toc411174908)

[3.8.10.1 StockLevel 36](#_Toc411174909)

[3.8.11 ProofApprovalRequest 36](#_Toc411174910)

[3.8.11.1 ProofRequest 37](#_Toc411174911)

[3.8.12 ProofApprovalResponse 38](#_Toc411174912)

[3.8.12.1 ProofResponse 38](#_Toc411174913)

[3.8.13 Invoice 39](#_Toc411174914)

[3.8.14 ReturnJob 40](#_Toc411174915)

[4 PrintTalk Workflow Diagram 41](#_Toc411174916)

[5 Usage of the PrintTalk IDs 45](#_Toc411174917)

[5.1 BusinessID and BusinessRefID: 45](#_Toc411174918)

[5.1.1 Simple Negotiation 45](#_Toc411174919)

[5.1.2 Change Order Initiated by Print Buyer and Starting with RFQ 45](#_Toc411174920)

[5.1.3 Change Order Initiated by Print Buyer and Starting with PurchaseOrder 45](#_Toc411174921)

[5.1.4 Change Order Initiated by Print Provider and Starting with Quotation 46](#_Toc411174922)

[5.1.5 Complex Negotiation 46](#_Toc411174923)

[5.2 ReplaceID 46](#_Toc411174924)

[5.2.1 Print Buyer Supersedes RFQ 46](#_Toc411174925)

[5.2.2 Print Buyer Supersedes PurchaseOrder 46](#_Toc411174926)

[5.2.3 Print Provider Supersedes Quotation 47](#_Toc411174927)

[5.3 ReorderID 47](#_Toc411174928)

[5.3.1 Print Buyer Reorders via an RFQ 47](#_Toc411174929)

[5.3.2 Print Buyer Reorders via an PurchaseOrder 47](#_Toc411174930)

[5.3.3 Print Provider Quotes using ReorderID 47](#_Toc411174931)

[5.4 JDF/@JobID: 48](#_Toc411174932)

[5.5 JDF/@JobPartID 48](#_Toc411174933)

[5.6 jdf:CustomerInfo/@CustomerOrderID? 48](#_Toc411174934)

[6 Examples 49](#_Toc411174935)

[6.1 Example A – “Learn to Fly” Mailer 49](#_Toc411174936)

[6.1.1 Outline of JDF Structure 49](#_Toc411174937)

[6.1.2 Text Version of RFQ 50](#_Toc411174938)

[6.1.3 PrintTalk Version of RFQ 51](#_Toc411174939)

[6.2 Example B – Bible 57](#_Toc411174940)

[6.2.1 Outline of JDF Structure 57](#_Toc411174941)

[6.2.2 PrintTalk Version of RFQ 58](#_Toc411174942)

[6.2.3 PrintTalk Version of Quotation 63](#_Toc411174943)

[6.3 Example C – Sunrise PurchaseOrder 68](#_Toc411174944)

[6.3.1 Text Version of RFQ 68](#_Toc411174945)

[6.3.2 PrintTalk Version of RFQ 70](#_Toc411174946)

[6.4 Example D – Collaboration Scenario 72](#_Toc411174947)

[6.4.1 PrintTalk Version of PurchaseOrder for Print Buyer PB1 73](#_Toc411174948)

[6.4.2 PrintTalk Version of PurchaseOrder for Print Buyer PB2 74](#_Toc411174949)

[6.4.3 PrintTalk Version of PurchaseOrder for Dealer 76](#_Toc411174950)

[6.4.4 PrintTalk Version of OrderStatusResponse (1) for Dealer 78](#_Toc411174951)

[6.4.5 PrintTalk Version of OrderStatusResponse (2) for Print Buyer PB1 79](#_Toc411174952)

[6.4.6 PrintTalk Version of OrderStatusResponse (3) for Print Buyer PB2 80](#_Toc411174953)

[7 References 81](#_Toc411174954)

[7.1 Normative References 81](#_Toc411174955)

# Figures

[Figure 1: Structure of PrintTalk Node 9](#_Toc411174956)

[Figure 2: Simplified Workflow Diagram 41](#_Toc411174957)

[Figure 3: Proof Cycle 42](#_Toc411174958)

[Figure 4: Status Request Cycle 43](#_Toc411174959)

[Figure 5: Change Order Management 43](#_Toc411174960)

[Figure 6: Workflow Diagram 44](#_Toc411174961)

[Figure 7: Outline of JDF Structure for the “Bible” Example 58](#_Toc411174962)

[Figure 8: Diagram of Business Transactions among Four Collaborating Parties 72](#_Toc411174963)

# Tables

[Table 1: Glossary 7](#_Toc411174964)

[Table 2: PrintTalk 10](#_Toc411174965)

[Table 3: Header 11](#_Toc411174966)

[Table 4: From 13](#_Toc411174967)

[Table 5: To 13](#_Toc411174968)

[Table 6: Sender 13](#_Toc411174969)

[Table 7: Credential 14](#_Toc411174970)

[Table 8: Request 14](#_Toc411174971)

[Table 9: Abstract pt 15](#_Toc411174972)

[Table 10: jdf:GeneralID – pt 16](#_Toc411174973)

[Table 11: Abstract BusinessObject 17](#_Toc411174974)

[Table 12: List of BusinessObject Elements 19](#_Toc411174975)

[Table 13: RFQ 21](#_Toc411174976)

[Table 14: Quotation 22](#_Toc411174977)

[Table 15: Quote 23](#_Toc411174978)

[Table 16: Pricing 25](#_Toc411174979)

[Table 17: Payment 25](#_Toc411174980)

[Table 18: jdf:GeneralID – Payment 26](#_Toc411174981)

[Table 19: CreditCard 26](#_Toc411174982)

[Table 20: Price 27](#_Toc411174983)

[Table 21: Additional 29](#_Toc411174984)

[Table 22: PurchaseOrder 29](#_Toc411174985)

[Table 23: Confirmation 30](#_Toc411174986)

[Table 24: Cancellation 31](#_Toc411174987)

[Table 25: Refusal 31](#_Toc411174988)

[Table 26: OrderStatusRequest 32](#_Toc411174989)

[Table 27: StatusRequest 32](#_Toc411174990)

[Table 28: OrderStatusResponse 33](#_Toc411174991)

[Table 29: Status 34](#_Toc411174992)

[Table 30: StockLevelRequest 34](#_Toc411174993)

[Table 31: StockLevelResponse 35](#_Toc411174994)

[Table 32: StockLevel 36](#_Toc411174995)

[Table 33: ProofApprovalRequest 37](#_Toc411174996)

[Table 34: ProofRequest 37](#_Toc411174997)

[Table 35: ProofApprovalResponse 38](#_Toc411174998)

[Table 36: ProofResponse 38](#_Toc411174999)

[Table 37: Invoice 39](#_Toc411175000)

[Table 38: ReturnJob 40](#_Toc411175001)

# Introduction

PrintTalk is an XML standard that provides a single format for s to collaboratively communicate s and specifications of both with their s and among themselves. Print industry professionals from a wide range of organizations contributed to the design of PrintTalk. Such organizations include eCommerce companies, print Business Management Systems, print providers, and print equipment manufactures.

The PrintTalk standard embraces and . These bracketed references are defined in Section “”. By incorporating PrintTalk, JDF has been enhanced to provide a richer descriptive capability. While JDF describes the piece to be produced, PrintTalk specifies the external communication of business processes between and .

With the extensions made for PrintTalk 1.3, it may also be used for subcontracting. For details about JDF, see

The PrintTalk interface specification is distributed free of any license fees or royalties in order to address the need for end-to-end connectivity in the printing industry.

The following pages describe the s that make up PrintTalk. See section 3.8 “Business Objects” for a complete list of s and a description of each. .

## Intended Audience

While print industry professionals may find parts of this specification to be useful; our primary goal is to describe the PrintTalk protocol to programmers who wish to implement the PrintTalk interface specification within their software products. A working knowledge of XML and familiarity with JDF is required to fully understand this document.

# Glossary

This section defines terminology used throughout this document. References to other documents are indicated with square brackets, e.g. [JDF1.5]. For most terms, see the Terminology section in [JDF1.5].

Table 1: Glossary

| Term | Definition |
| --- | --- |
| Business Object | The portion of a that describes a . For example an RFQ describes a request-for-quote and a PurchareOrder describes a purchase order . |
| Business Transaction | When a sends a to a , or a sends a to a , the within the describes a between the and . |
| Change Order | A that requests changes to . |
| Confirmed Job | A Job (producing ) that a and have agreed to after negotiating a contract for it. The consummates the agreement by confirming the ’s purchase order. |
| Invalid | When used in the context of a , it refers to a that is no longer and is thus no longer accessible. |
| Item | Something that is priced separately in a Quote, PurchaseOrder or Invoice. |
| Negotiation Phase | The phase during which a and negotiate a contract for by exchanging s. The follows the . |
| Pending | When used in the context of a , it refers to a . |
| Pending Business Object | A that other s can reference via @BusinessRefID and @ReplaceID. A *X* is pending from the time a or creates it until   * it expires, * its creator sends a whose @BusinessRefID references *X*, or * its creator sends a whose @ReplaceID references *X*. |
| Print Buyer | The customer that is buying . |
| Print Product | The printed matter produced according to a contract negotiated between the and using the PrintTalk negotiation process. |
| Print Provider | The producer of the . |
| PrintTalk Document | An XML document whose Root element has a Type of "PrintTalk" and which follows the rules of this document, the PrintTalk 1.5 specification. |
| Production Phase | The phase during which a produces and ships . |
| Re-Quote | An additional Quotation for a variation in a Job, for which the has already issued a Quotation. |
| Supersede | If *X* s *Y*, *X* becomes a and *Y* becomes a . |
| Superseded Business Object | When a or sends a *X* with a @ReplaceID that references some other *Y* of the same type, *Y*  becomes a and *X* become a , A is and not . |
| Superseding Business Object | A that s some other . |

# PrintTalk Structure

A is JDF wrapped in PrintTalk, which is similar to cXML. Like cXML, the top two elements of a SHALL be a element and a element. The concept comes directly from cXML, and identifies the parties involved in this correspondence. The element SHALL contain exactly one PrintTalk .

Whenever elements or attributes are specified with a “jdf” namespace prefix, this prefix specifies the presence of that element from the JDF namespace xmlns:jdf="http://www.CIP4.org/JDFSchema\_1\_1". A PrintTalk implementation SHALL support standard namespace handling as defined in [XMLNS]. Thus the prefix "jdf:" is used as an example only. Any element from the JDF namespace MAY be specified with any prefix conforming to [XMLNS], including the default (empty) namespace prefix.

This document does not specify the transport for a PrintTalk Object. The selection of transport is left to the implementer. For example, a PrintTalk Object MAY be sent via email as an attachment, or it MAY be sent via HTTP using the POST or GET Method. Note that future ICS documents MAY restrict the transport protocol for PrintTalk in the context of specific interfaces.

The following pages provide a detailed explanation of each PrintTalk element. Figure 1 shows a high level view of the PrintTalk structure, where each box represents either an XML declaration (the first one) or a PrintTalk element.

Figure 1: Structure of PrintTalk Node

XML

Credential…

Credential…

Credential…

BusinessObject (, , , , , , , , StockLevelRequest, StockLevelResponse, , , , )

jdf:JDF

## MIME and HTTP Content-Type

If PrintTalk is packaged in a MIME wrapper or posted over HTTP, the respective Content-Type header value SHOULD be set to: application/vnd-cip4-ptk+xml.

## XML Declaration

A SHOULD start with the standard XML Declaration. An example is:

<?xml version="1.0" encoding="utf-8"?>

## PrintTalk Node

The Root element in a SHALL be an element whose type is "PrintTalk". An example is:

<PrintTalk version="1.5" payloadID="107778" Timestamp="2013-02-01T22:39:00Z" xmlns="http://www.printtalk.org/schema\_15">

...

</PrintTalk >

Table 2: PrintTalk

| Name | Data Type | Description |
| --- | --- | --- |
| payloadID | string | **From cXML:** A unique number with respect to space and time, used for logging purposes to identify documents that might have been lost or had problems. This value SHOULD not change for retry attempts. |
| Timestamp | dateTime | **From cXML:** The date and time the message was sent, in [ISO8601] format. Timestamp SHALL NOT change for retry attempts. |
| version | string | The version of PrintTalk. The current release is "1.5". |
| xmlns ? | URI | PrintTalk supports use of XML namespaces. The namespace SHALL be declared in the PrintTalk element. For details on using namespaces in XML, see [XMLNS]. For version 1.5 of PrintTalk, *xmlns =* "http://www.printtalk.org/schema\_15". |
|  | element | The Header defined in .  See Table 3: Header. |
|  | element | The Request defined in and as further specified in this document.  See Table 8: Request. |

## Header

The Header element comes directly from cXML. Refer to the *cXML Users Guide* .

**From cXML:** The , To and elements allow receiving systems to identify and authorize parties. The and To elements in a document do not change. However, as the document travels to its destination, intermediate nodes (such as Ariba Network) MAY change the element.

For example, in an RFQ, the “From” party is the . The “To” party is the . In the subsequent Quotation, those roles are reversed. The Sender is always the party sending the message.

Table 3: Header

Referenced by: PrintTalk

| Name | Data Type | Description |
| --- | --- | --- |
|  | element | **From cXML:** identifies the originator of the cXML request.  See Table 4: From. |
|  | element | **From cXML:** allows the receiving party to identify and authenticate the party that opened the HTTP connection. It contains a stronger authentication than the ones in the From or elements, because the receiving party SHALL authenticate who is asking it to perform work.  See Table 6: Sender. |
|  | element | **From cXML:** identifies the destination of the cXML request.  See Table 5: To. |

### Example of a Header

The following is an example of a taken from a . In this example, the “To” party is a company called “PeterPan”. The DUNS number uniquely identifies them. The “From” party is a . It too, is uniquely identified by a DUNS number. The “Sender” is the party sending this . In this case, it’s an eCommerce company. The SharedSecret element is a password known to (at least) the eCommerce company and the “To” party.

The content and exact format of this section depends on the specific implementation. All parties SHOULD agree to the format prior to sending messages.

<Header>

<From>

<Credential domain="DNS">

<Identity>AnExcellentPrinter.com</Identity>

</Credential>

<Credential domain="ECompany.com">

<Identity>Polkadot</Identity>

</Credential>

<Credential domain="DUNS">

<Identity>3040392</Identity>

</Credential>

<Credential domain="jdf:CustomerID">

<Identity>C1234</Identity>

</Credential>

</From>

<To>

<Credential domain="DNS">

<Identity>pan-o-ramic.com</Identity>

</Credential>

<Credential domain="ECompany.com">

<Identity>PeterPan</Identity>

</Credential>

<Credential domain="DUNS">

<Identity>93009388</Identity>

</Credential>

</To>

<Sender>

<Credential domain="DNS">

<Identity>ECompany.com</Identity>

<SharedSecret>rosebud</SharedSecret>

</Credential>

<UserAgent>Print Buyer v.54.9</UserAgent>

</Sender>

</Header>

### From

Table 4: From

Referenced by:

| Name | Data Type | Description |
| --- | --- | --- |
| + | element | A customer identifier that is known by the receiver (see jdf:CustomerInfo/@CustomerID) SHALL be specified as [@domain="jdf:CustomerID"]/Identity.  See Table 7: Credential. |

.

### To

Table 5: To

Referenced by:

| Name | Data Type | Description |
| --- | --- | --- |
| + | element | See Table 7: Credential. |

.

### Sender

Table 6: Sender

Referenced by:

| Name | Data Type | Description |
| --- | --- | --- |
| + | element | See Table 7: Credential. |
| UserAgent | element | See [cXML 1.2]. |

.

### Credential

A identifies and authenticates the various parties involved in a transaction.

Table 7: Credential

Referenced by: , ,

| Name | Data Type | Description |
| --- | --- | --- |
| domain | string | **From cXML:** Specifies the type of credential. This attribute allows documents to contain multiple types of credentials for multiple authentication domains.  **From cXML:** For messages sent on Ariba Supplier Network, for instance, the domain MAY be AribaNetworkUserId to indicate an email address, DUNS for a D-U-N-S number, or NetworkId for a preassigned UserID. In addition to the domains defined by [cXML 1.2] .  **Values include:** |
| jdf:AgentID |  | Identifier of the individual user in the print buyer system. |
| jdf:CustomerID |  | Customer Identifier in the print provider system. |
| jdf:ShopID |  | Identifier of the web shop if the has been submitted in a web-to-print environment. |
| type ? | string | See [cXML 1.2]. |
| CredentialMac ? | element | See [cXML 1.2]. |
| Identity | element | **From cXML:** The text in the element states who the represents.  For example, the text MAY be an email address or some other unique string of characters.  See [cXML 1.2]. |
| SharedSecret ? | element | See [cXML 1.2]. |

## Request

The element comes from . However, its child is defined in PrintTalk but not in .

Table 8: Request

Referenced by:

| Name | Data Type | Description |
| --- | --- | --- |
|  | element | A PrintTalk SHALL contain exactly one BusinessObject.  See Table 11: Abstract BusinessObject. |

## Response

If the PrintTalk document is sent over a synchronous protocol, e.g. HTTP, then a valid cXML response SHOULD be generated if an error occurred. If no error occurred, a valid cXML response SHOULD be sent, but a response MAY be returned as an empty HTTP response with an HTTP response code of 200. See [cXML 1.2] for details, including a discussion of error handling and error codes in the Response. See pages 49-51 in [cXML 1.2] for a list of status codes.

Example PrintTalk success Response:

<?xml version="1.0" encoding="UTF-8" ?>

<PrintTalk version="1.5" payloadID="107778" Timestamp="2013-02-01T22:39:00Z" xmlns="http://www.printtalk.org/schema\_15">

<Response>

<Status code="200"/>

</Response>

</PrintTalk >

Example PrintTalk error Response:

<?xml version="1.0" encoding="UTF-8" ?>

<PrintTalk version="1.5" payloadID="107778" Timestamp="2013-02-01T22:39:00Z" xmlns="http://www.printtalk.org/schema\_15">

<Response>

<Status code="400">Stuff happens</Status>

</Response>

</PrintTalk >

## Abstract Elements

PrintTalk has two abstract element types that other elements inherit from.

### Abstract pt

All elements in the PrintTalk namespace inherit from the element. That is, every descendant of the element inherits from the element, either directly or indirectly through the (see Table 11: Abstract BusinessObject).

Table 9: Abstract pt

Superclass of: , , , , , , CreditCard, StatusRequest, , ProofRequest, ProofResponse

| Name | Data Type | Description |
| --- | --- | --- |
| DescriptiveName ? | string | Display text for this element. |
| jdf:Comment \* | element | Comment text that contains free form information about the element. See JDF “Generic Element” for the definition of the Comment element. |
| jdf:GeneralID \*  New in PrintTalk 1.3 | element | Optional parameters for a Business Transaction. GeneralID elements MAY be used e.g. to carry a system's internal IDs. Generally both parties SHALL agree on the semantics of these IDs in an out-of-band communication.  **Note**: a GeneralID references a that is a secondary parameter in a Business Transaction, whereas @BusinessRefID references a that is the primary parameter in a Business Transaction.  See Table 10: jdf:GeneralID – pt. |

#### jdf:GeneralID – pt

This section specifies particular PrintTalk values in for jdf:GeneralID.

Table 10: jdf:GeneralID – pt

Referenced by:

| Name | Data Type | Description |
| --- | --- | --- |
| IDUsage | NMTOKEN | Values include: |
| PurchaseOrderID |  | @BusinessID of the initial . |
| QuoteID |  | @BusinessID of the initial . |
| RFQID |  | @BusinessID of the initial . |
| all remaining values |  | Application specific identifier. |
| IDValue | string | The value of the identifier that @IDUsage specifies. |

### Abstract BusinessObject

All s in PrintTalk (e.g. ) extend the element. The element itself extends the element.

Table 11 describes the contents of the element. For a detailed description of each Data Type see [JDF1.5].

Each individual BusinessObject within PrintTalk inherits all of the attributes and elements of the element, which in turn inherits all attributes and elements of the element.

Each has additional attributes and elements that are defined in a subsection of section 3.8 “Business Objects”. Three of these s (, and ) have a jdf:JDF Node. Credentials related to the context of the SHALL be extracted from the PrintTalk/Header.

Table 11: Abstract BusinessObject

Referenced by:

Subclass of:

Superclass of: , , , , , , , , StockLevelRequest, StockLevelResponse, , , ,

| Name | Data Type | Description |
| --- | --- | --- |
| AgentDisplayName ? | string | The display name of the user that is identified by @AgentID. |
| AgentID ?  Deprecated in PrintTalk 1.5 | NMTOKEN | The unique identity of the user that “pushed the button” to send this , for example, a in an or a ’s estimator in a .  **Deprecation note:** the value "AgentID" was added to /@domain. |
| AuxID ?  Modified in PrintTalk 1.3 | string | @AuxID is used as a reference to the 's internal system ID by the sender. An @AuxID SHALL be used to carry a systems internal ID.  Modification note: starting with PrintTalk 1.3, SHALL use pt/jdf:GeneralID for any IDs other than the 's internal system ID. |
| BusinessID | NMTOKEN | The unique identifier for this . |
| BusinessRefID ? | NMTOKEN | The value of this @BusinessRefID SHALL be the same as the @BusinessID of some other Pending Business Object which acts as the primary parameter to the that this represents. See pt/GeneralID for secondary parameters.  Prior to a , a @BusinessRefID SHALL refer to a that was received from the other party. Once a has been placed, /@BusinessID SHALL be used as the @BusinessRefID of all following s.  For example, a Quotation/@BusinessRefID references an if it provides a quote for the , or it references a if it specifies a . |
| RequestDate ?  Deprecated in PrintTalk 1.5 | dateTime | Date/Time when this was sent.  Deprecation note: starting with PrintTalk 1.5, use PrintTalk/@Timestamp. |

## Business Objects

For a and a to negotiate a contract for , they SHALL exchange one or more of the following s: , , , , and .

After a contract has been consummated, either a or a MAY initiate a . The negotiation of the is performed with the same s as the initial negotiation – , , , , and . The contract, which both parties have agreed on during previous negotiations, is valid during the whole process. However the may halt production of the . The old contract is replaced only if there is a new agreement on a (expressed by the new sent by the ). If the process terminates with a of a , an expired , or of a , the process fails and production continues as originally planned before the was proposed.

During the , interactions other than s can take place between the and . The MAY send one or more elements and receive an from each request. The MAY send unsolicited elements. The MAY send one or more elements and receive a from each request.

Either the or the MAY send a for the Job during the , which generally leads to a final that conforms to the ’s terms and conditions.

The MAY send elements to the after delivery of the Print Product as well as at various milestones.

After the is finished, the MAY send back information about the produced Job using a element.

The following table lists the s that a PrintTalk implementation SHALL support. Each corresponds to a used in the commercial print industry. The list may expand in the future as the PrintTalk specification grows to support other s and new areas of the industry.

The table columns are:

* Column 1: specifies the name of a and is a hotlink to a subsection on it.
* Column 2: describes the .
* Column 3: specifies the s which the named can reference via @BusinessRefID . The value "None" means that the @BusinessRefID MAY be absent from the .
* Column 4: specifies the direction of the Business Transaction, between the (shown as “B”) and (shown as “P”). In the cases with the two-headed arrow, the Business Transaction can be in either direction.

Table 12: List of BusinessObject Elements

| Name | Description | References | Flow |
| --- | --- | --- | --- |
|  | A Request for Quote that a sends to a . | *None*, , | B→P |
| Deprecated in PrintTalk 1.3 | A Quote MAY be sent in response to a . The may contain very detailed information about the printing processes intended to create the product defined by the or it may contain only basic price and billing information. As with traditional quotes, providing the with detailed information lessens the chance of a misunderstanding. The and variations are included within . A may an existing before the has answered with a or an Order.  Deprecation note: starting with PrintTalk 1.3, elements SHALL be nested in s. | , , | B←P |
| New in PrintTalk 1.3 | A sends a to a to provide one or more quotes for a Job.  Note: starting with PrintTalk 1.3, replaces the Business Object. | , , | B←P |
|  | A sends a to a to purchase that is specified in a . | *None*, , | B→P |
|  | A sends a if it accepts a or . |  | B←P |
|  | A cancels a . | , , , | B↔P |
|  | A declines a received . | , , | B↔P |
|  | A sends an to the for details of the order status. |  | B→P |
|  | A sends to a an either automatically or as the response to an . See pages 49-51 in [cXML 1.2] for a list of status codes. | , | B←P |
|  | A sends a to the to request an approval of a Proof. |  | B←P |
|  | A sends a to a as the response to a . See pages 49-51 in [cXML 1.2] for a list of status codes. |  | B→P |
| StockLevelRequest  New in PrintTalk 1.5 | A sends a StockLevelRequest to the for a list of items that are available on stock. | - | B→P |
| StockLevelResponse  New in PrintTalk 1.5 | A sends a StockLevelResponse to a as the response to a StockLevelRequest. | StockLevelRequest | B←P |
|  | A sends an to a to request payment | , | B←P |
| New in PrintTalk 1.3 | A sends a to a to provide production information for the Job. |  | B←P |

### RFQ

A sends an RFQ to a to request a quote. Usually the starts with an . Sometimes, the starts with a or (see sections 3.8.2 “Quotation” and 3.8.3 “PurchaseOrder”).

An SHALL convey the unambiguous intentions of the to the . A complex MAY contain options that specify several types of acceptable materials or methods required by the . An MAY contain other options that require the ’s estimator to generate more than one quoted price in the response.

A sends an whose semantics vary depending on @BusinessRefID.

*Not specified*: If a chooses to initiate a new product process by making a request-for-quote to a , it SHALL send an with no @BusinessRefID.

: If a receives a for a Job and wants a for a variation of the Job, it SHALL send an RFQ whose @BusinessRefID references the received .

: If a wants to initiate a for a and the form of a cannot be used because there are changes that don’t have quotes, the SHALL send an RFQ whose @BusinessRefID references the for the . A (CO) asks what the consequences would be for a certain change of the . See “” for an alternate that a can send.

After the has sent an and while it is , the MAY send either

* a that replaces the one or.
* an unrelated or
* a for the after which the MAY choose to continue the negotiation process by sending either a new or a new for a . A exists only if the cancelled was in fact a Request for .

When a receives an , the SHALL either

* accept the by sending a to the or
* decline the by either sending a to the or letting the expire.

Table 13: RFQ

Subclass of:

| Name | Data Type | Description |
| --- | --- | --- |
| Currency | NMTOKEN | Three-digit currency definition according to [ISO4217], e.g., USD, EUR, GBP. The value of @Currency identifies the currency that the Print Provider SHOULD use in the responding Quotation. |
| Estimate ? | boolean | If "false", the prices in the responding SHALL be binding amounts.  If "true", the SHALL treat the prices in the responding as an estimate.  If not specified, the SHALL choose whether the responding is a binding amount or an estimate. |
| Expires | dateTime | Date/time when this becomes . |
| ReorderID ? | NMTOKENS | Whitespace-separated @BusinessID values that refer to s that are the basis for this (collected) . The is intended to lead to a re-order. |
| ReplaceID ? | NMTOKEN | RFQ/@BusinessID of the that this s. is only allowed as long as the to be d is . |
| jdf:JDF \* | element | Description of the products or services that are to be produced or delivered. Multiple jdf:JDF elements specify multiple ordered s. Note that a Product description is typically used in a to environment, whereas a Gray Box or individual Process is typically used in a subcontracting environment.  See [JDF1.5]. |
| ?  New in PrintTalk 1.5 | element | is a prototype element that defines the amounts that a quote is requested for. Multiple elements in this element specify an for amounts greater than or equal to /@Amount. /@DescriptiveName SHALL be identical for all /Priceelements in the scope of one . ///@*UnitPrice* SHALL be specified.  ///@*Price* SHALL NOT be specified. |

### Quotation

New in PrintTalk 1.3

Usually a creates a after receiving an . Sometimes, a creates a as the first in the .

If the chooses to accept an , the creates one or more elements and sends them back to the in a element. Each element represents one quote for the Job.

A sends a whose semantics vary depending on @BusinessRefID.

: If a receives an and chooses to provide a quote, it SHALL send a whose @BusinessRefID references the received .

: If a chooses to initiate a for a , it SHALL send a whose @BusinessRefID references the for the . The selects a possible or necessary change to the .

A SHALL contain at least one element. If the offers multiple options, it SHALL specify a separate element for each such option.

After the has sent a and while it is pending, the MAY send either

* a that replaces the Pending one
* a for the Pending after which the MAY choose to send either a new or a for some pending A Pending exists only if the cancelled was in fact a .

When a receives a , the MAY

* accept the by sending a that references the that the wishes to accept from the list of elements in the or
* decline the by either sending a or letting it expire. The MAY choose to create a new that requests a (see section 3.8.1 “RFQ”), or
* defer a decision on the and send a new that requests a (see section 3.8.1 “RFQ”) .

Table 14: Quotation

Subclass of:

| Name | Data Type | Description |
| --- | --- | --- |
| Currency | NMTOKEN | Three-digit currency definition according to [ISO4217] Identifies the currency that each Quote[not(exists(@Currency)] element inside this uses. |
| Estimate | boolean | For each Quote[not(exists(@Estimate)] element inside this , the price SHALL be a binding amount if @Estimate = "false", otherwise, the SHALL treat the price as an estimate only. |
| Expires | dateTime | Date/time when this becomes . |
| ReorderID ? | NMTOKENS | Whitespace-separated unique @BusinessID values that refer to s that are the basis for this . In this scenario the MAY be the starting point of the . |
| ReplaceID ? | NMTOKEN | Quotation/@BusinessID of the that this s. |
| + | element | Each element SHALL describe a complete distinct variation of all Print Products quoted. A SHALL NOT be a quote for an individual part or of the Order.  See Table 15: Quote. |

#### Quote

Modified in PrintTalk 1.3

A element describes a quote for a particular variation of a product.

Starting with PrintTalk 1.3, the element is changed from a to a child element of a .

Table 15: Quote

Referenced by:

Subclass of:

| Name | Data Type | Description |
| --- | --- | --- |
| Currency ? | NMTOKEN | Three-digit currency definition according to [ISO4217] Identifies the currency that this uses.  If not specified, the value of ../@Currency (in parent) SHALL be used. |
| DeviationFactor = "None" New in PrintTalk 1.3 | enumeration | The @DeviationFactor shows how close the meets the requirements of the .  Allowed values are: |
| None |  | Proposed conforms to requirements in the . |
| Significant |  | Major Deviation from the . |
| Slight |  | Some minor deviation from the requirements – e.g. paper weight. |
| Estimate ? | boolean | If "false", each price in this SHALL be a binding amount; otherwise, the SHALL treat each price as an estimate only.  If not specified, the ../@Estimate (in parent) SHALL be used. |
| Expires ?  Deprecated in PrintTalk 1.3 | dateTime | Date/time when this becomes .  This attribute SHALL NOT be specified in Quotation/Quote.  Deprecation note: starting with PrintTalk 1.3, a is only in the context of Quotation/Quote and thus this attribute SHALL NOT be used. |
| QuoteID  New in PrintTalk 1.3  Modified in PrintTalk 1.5 | NMTOKEN | The unique identifier for this element. @QuoteID SHALL be unique only in the context of a . If @QuoteID exists, @BusinessRefID SHALL be present.  Modification note: starting with PrintTalk 1.5, this attribute is required. |
| ReorderID ?  Deprecated in PrintTalk 1.3 | NMTOKENS | Whitespace-separated unique @BusinessID values that refer to s that are the basis for this (collected) . In this scenario the is the starting point of the and is intended to lead to a re-order.  If not specified, the ../ReorderID (in the parent ) is used.  Deprecation note: starting with PrintTalk 1.3, use ../@ReorderID (in parent) . |
| ReplaceID ?  Modified in PrintTalk 1.3 | NMTOKEN | Quote/@QuoteID of the that this s. is only allowed as long as the to be d is .  Modification note: starting with PrintTalk 1.2, @ReplaceID specifies Quote/@BusinessID of the (if any) that this s. |
| ReturnJDF ? | boolean | If @ReturnJDF = "true", the SHALL send to the a that has a completed JDF including Audit elements; otherwise the SHALL NOT send a . |
| jdf:JDF \* | element | JDF representing the returned values that this has been made for. Potentially this MAY differ significantly from the original . See @DeviationFactor for details on JDF Nodes that do not match the originating .  See . |
| New in PrintTalk 1.3 | element | The price associated with this . Pricing SHALL be used to indicate the price.  See . |

#### Pricing

New in PrintTalk 1.3

The element SHALL contain a list of prices for all s that are included in a , The element MAY also have credit card information and terms of payment.

Table 16: Pricing

Referenced by: , ,

Subclass of:

| Name | Data Type | Description |
| --- | --- | --- |
| ? | element | Payment details.  See Table 17: Payment. |
| + | element | Each element represents the price for a single or service.  See Table 20: Price. |

#### Payment

New in PrintTalk 1.3

In the element, additional details about payment MAY be specified using GeneralID elements. See Table 18: jdf:GeneralID – Payment.

Table 17: Payment

Referenced by:

Subclass of:

| Name | Data Type | Description |
| --- | --- | --- |
| CreditCard ? | element | Specifies credit card information.  A MAY supply CreditCard. A SHALL NOT supply CreditCard.  See Table 19: CreditCard. |
| PayTerm ? | element | The text content of the PayTerm element describes the payment terms & conditions in a human readable form.  A MAY supply PayTerm. A SHALL NOT supply PayTerm. |

#### jdf:GeneralID – Payment

This section specifies particular values for jdf:GeneralID.

Table 18: jdf:GeneralID – Payment

Referenced by:

Subclass of:

| Name | Data Type | Description |
| --- | --- | --- |
| IDUsage | NMTOKEN | Values include: |
| Bank |  | The name of the bank. |
| BankAccount |  | The local bank account number. |
| BIC |  | The SWIFT Bank Identifier Code. |
| BLZ |  | The "Bankleitzahl". |
| IBAN |  | The International Bank Account Number. |
| IDValue | string | See . |

#### CreditCard

New in PrintTalk 1.3

Table 19: CreditCard

Referenced by:

Subclass of:

| Name | Data Type | Description |
| --- | --- | --- |
| Authorization ? | string | Authorization code for this . |
| AuthorizationExpires ? | gYearMonth | Expiration date of the @Authorization. |
| Expires | gYearMonth | Expiration date of the credit card. |
| Number | NMTOKEN | Credit card number. The format is specified without blanks or any other separator characters. |
| Type | NMTOKEN | Credit card brand.  Values include: |
| Amex |  |  |
| DinersClub |  |  |
| Discover |  |  |
| MasterCard |  | This includes derived brands, (e.g., EuroCard). |
| Visa |  |  |

#### Price

New in PrintTalk 1.3

The element specifies the price of a single . These *Items* each have a value which can be taken from the @Price attribute or calculated based on other referenced *Items*. If a references other *s*, then these referenced price *s* SHALL NOT be taken into account when calculating a total price. To calculate this value, sum the values of the referenced *s.* If @Unit is "Percentage", the value is calculated by taking that percentage of the resulting sum. The @Price attribute is either a calculated (optionally rounded) version of the value, or (for *Items* without any *Item* references) @Price SHALL be present. If @PriceType has the value "Discount", "Handling", "Markup" or "Shipping" and no @Unit is specified, the @Price value is a flat amount.

Table 20: Price

Referenced by:

Subclass of:

| Name | Data Type | Description |
| --- | --- | --- |
| Amount ? | double | Amount of items that this refers to. If not specified and @UnitPrice is specified, the @Amount will be determined upon completion. If @UnitPrice is specified, @Amount SHALL be specified in an . |
| DescriptiveName | string | The description of the . Note that @DescriptiveName is required in , unlike @DescriptiveName in the element, where it is optional. |
| ItemRefs ?  Deprecated in PrintTalk 1.3 | NMTOKENS | List of jdf:JDF/@ProductID of s within the associated jdf:JDF of this that this relates to.  Deprecation note: starting with PrintTalk 1.3, use @LineID. |
| LineID ? | ID | The unique identifier for this (line) .  One or more of the elements SHALL have a @PriceType with the literal value "Product". The @LineID of these elements SHALL match up with a GeneralID[IDUsage = "LineID"]/@Value in a JDF ticket. These GeneralID elements SHOULD be contained in a jdf:Component. |
| LineIDRefs ? | NMTOKENS | References to line items that go into calculating the value of this element. |
| Option ?  New in PrintTalk 1.5 | NMTOKEN | Sets a @PartIDKey value. Optional items are expressed using resource partitioning. |
| Price ? | double | The price of the entire amount as specified by @Amount of the . @Price SHALL be specified in an . If neither @Price nor @UnitPrice is specified, the price is unknown at Quotation time and will be specified in the invoice, e.g., taxes or discounts. No-charge items, e.g., line items that are included within other line items, SHALL have a price of 0.  @Price is a rounded version of the value that could be obtained by summing the values of each of the references in @LineIDRefs. |
| PriceType ?  New in PrintTalk 1.5 | NMTOKEN | Machine readable type of the price. The values specified below SHOULD be used in an open system.  Values include: |
| Discount |  | Discount prices SHALL be negative. |
| Handling |  | This price relates to handling charges. If shipping and handling are combined in one line item the value "Shipping" SHOULD be used. |
| Markup |  |  |
| Other |  | This @PriceType SHALL also be used for services such as shipping. |
| Product |  | The requested products. If @PriceType="Product", then this line SHOULD be referenced from the JDF that describes the product. |
| Shipping |  | This price relates to shipping charges. |
| Subtotal |  |  |
| Total |  | Total. |
| TaxType ?  New in PrintTalk 1.5 | enumeration | Type of tax.  **Allowed values are:** |
| Gross |  | The price includes taxes.  Note that the Gross Price MAY differ from the Net Price + the Tax portion due to rounding. |
| Net |  | The price excludes taxes. |
| Tax |  | The price is only the tax. |
| Unit ? | string | MAY be specified if exists(@UnitPrice), otherwise SHALL NOT be specified. The unit of measurement for @Amount and @UnitPrice.  If @Unit="Percentage", @UnitPrice is the percentage value of this element. All values derived from references in @LineIDRefs SHALL be summed and the percentage applied to that sum. |
| UnitPrice ? | double | Price for one unit of the , i.e. the @Price of the if @Amount="1". If @Unit="Percentage", then @UnitPrice specifies the percentage of the total cost that this line item represents which will be negative for @PriceType="Discount". |
| \* | element | Price for orders in excess of the nominal delivery quantity specified in @Amount. SHALL NOT be specified in an Invoice.  See Table 21: Additional. |

#### Additional

New in PrintTalk 1.3

Table 21: Additional

Referenced by:

Subclass of:

| Name | Data Type | Description |
| --- | --- | --- |
| Amount | double | The additional number of s that @Price refers to. The unit of measurement SHALL be the value of ../@Unit. |
| Price | double | The price of the additional number of s as specified in @Amount. |

### PurchaseOrder

The accepts a of the for purchase of by creating and sending a that references the . However, a can also be the first in a , especially for a reorder of a previously produced .

Table 22: PurchaseOrder

Subclass of:

| Name | Data Type | Description |
| --- | --- | --- |
| Currency | NMTOKEN | Three-digit currency definition according to Identifies the currency that this uses. |
| Expires ? | dateTime | Date/time when this becomes . |
| QuoteID ?  New in PrintTalk 1.3 | NMTOKEN | This PO selects the quote specified by Quotation[@BusinessID=Q]/Quote/[@QuoteID=q], where Q = PO/@BusinessRefID and q = PO/@QuoteID.  Constraint: if @BusinessRefID is present @QuoteID SHALL exist. |
| ReorderID ? | NMTOKENS | Whitespace-separated unique @BusinessID values that refer to s that are the basis for this (collected) re-order, if the re-order is the starting point. |
| ReplaceID ? | NMTOKEN | PurchaseOrder/@BusinessID of the that this s. is only allowed as long as the to be d is . |
| ReturnJDF ? | boolean | If @ReturnJDF = "true", the SHALL send to the a that has a completed JDF including Audit elements; otherwise, the SHALL NOT send a . |
| jdf:JDF \*  Modified in PrintTalk 1.5 | element | Description of the . The JDF element MAY be used to specify a very detailed , or it MAY also be used to describe the ordering of finished goods in catalog-based environments.  Modification note: Multiple jdf:JDF were introduced in PrintTalk 1.5 to allow transactions of multi-item purchase orders.  Note: Whereas multiple jdf:JDF in an or specify multiple potential options, multiple jdf:JDF in a are an explicit request to purchase multiple items, e.g. when describing a shopping cart in a web to print application.  See [JDF1.5]. |
| ?  New in PrintTalk 1.3 | element | SHALL NOT be specified if @BusinessRefID references a . MAY be specified if the is based on a global contract referenced by @ReorderID.  Note: starting with PrintTalk 1.3, the pricing information has been moved from JDF to PrintTalk.  See Table 16: Pricing. |

### Confirmation

If a accepts a , it SHOULD send a whose @BusinessRefID references the accepted .

Table 23: Confirmation

Subclass of:

| Name | Data Type | Description |
| --- | --- | --- |
| jdf:Contact \*  Deprecated in PrintTalk 1.3 | element | Detailed contact information about the company.  Deprecation note: starting with PrintTalk 1.3, the PrintTalk/ specifies all necessary credentials.  See [JDF1.5]. |

### Cancellation

A or a sends a to cancel a previously sent .

For a to cancel for a or , it SHALL send a whose @BusinessRefID references the or .

For a to cancel for an or , it SHALL send to a whose @BusinessRefID references the or .

Table 24: Cancellation

Subclass of:

| Name | Data Type | Description |
| --- | --- | --- |
| JobIDRef ? | string | Reference to jdf:JDF/@JobID of the cancelled job. If not present, all jobs of the referred in @BusinessRefID are cancelled. |
| jdf:Contact \*  Deprecated in PrintTalk 1.3 | element | Detailed contact information about the company.  Deprecation note: starting with PrintTalk 1.3, the PrintTalk/ specifies all necessary credentials.  See [JDF1.5]. |

### Refusal

A or a sends a to decline receipt of a .

If a chooses to decline a sent by a , or if a chooses to decline either an or a sent by a , it SHALL either send a whose @BusinessRefID references the declined or let the expire.

Table 25: Refusal

Subclass of:

| Name | Data Type | Description |
| --- | --- | --- |
| jdf:Contact \*  Deprecated in PrintTalk 1.3 | element | Detailed contact information about the company.  Deprecation note: starting with PrintTalk 1.3, the PrintTalk/ specifies all necessary credentials.  See [JDF1.5]. |

### OrderStatusRequest

An allows the to query the for details of the order status.

If a wants the status of an order, it SHALL send to the an whose @BusinessRefID references the order’s . The order’s is either the initial if no s have occurred or the latest accepted if a has been made.

In addition, the SHALL specify whether it wants status of the

* **entire order** (PurchaseOrder/jdf:JDF) or
* **just a portion of the order** (PurchaseOrder//jdf:JDF[@JobID = J and @JobPartID = P] for some J and some P defined in StatusRequest; the test for either J or P MAY be omitted.

Table 26: OrderStatusRequest

Subclass of:

| Name | Data Type | Description |
| --- | --- | --- |
| jdf:Contact \*  Deprecated in PrintTalk 1.3 | element | Detailed information about the company.  Deprecation note: starting with PrintTalk 1.3, all necessary credentials are defined in the PrintTalk/.  See [JDF1.5]. |
| StatusRequest \* | element | Individual status request description.  If StatusRequest is not specified, the SHALL provide status for the entire order (as explained just above this table).  See Table 27: StatusRequest. |

#### StatusRequest

Table 27: StatusRequest

Referenced by:

Subclass of:

| Name | Data Type | Description |
| --- | --- | --- |
| JobIDRef ? | string | Reference to a @JobID within the JDF Node in the corresponding . If not specified, this StatusRequest refers to the all jobs specified by @BusinessIDRef. |
| JobPartIDRef ? | string | Reference to a @JobPartID within the JDF node in the corresponding . If not specified, this StatusRequest refers to the entire job or set of jobs specified in @JobIDRef. |
| ResponseDetails ?  New in PrintTalk 1.3 | enumeration | The level of detail requested in the .  Allowed values are: |
| Brief |  | Include only the latest Milestone Notification of the current Job Status. |
| CompletedMilestones |  | Include all completed Milestone Notification elements of the current Job and the Milestone Notification elements of steps that have begun processing. |
| Full |  | Include all Milestone Notification elements as defined by "CompletedMilestones" and any additional detailed information.  Modification note: starting with PrintTalk 1.3, the only defined details are jdf:DeliveryParams. |
| Subscribed ?  New in PrintTalk 1.5 | boolean | If @Subscribed = "true", then this StatusRequest is a subscription for multiple asynchronous messages; else this StatusRequest is a Query for one individual, synchronous message. The trigger conditions for asynchronous messages are implementation dependent. Asynchronous messages SHOULD be sent whenever a relevant status change of the subscribed order takes place. |

### OrderStatusResponse

An is the response to an OrderStatusRequest.

If a receives an , it SHALL send to the an OrderStatusResponse whose @BusinessRefID references the .

A MAY send to a an automatically generated which describes the status of an order whose associated is referenced by the @BusinessRefID.

Table 28: OrderStatusResponse

Subclass of:

| Name | Data Type | Description |
| --- | --- | --- |
| jdf:Contact \*  Deprecated in PrintTalk 1.3 | element | Detailed information about the company.  Deprecation note: starting with PrintTalk 1.3, the PrintTalk/ specifies all necessary credentials.  See [JDF1.5]. |
| jdf:DeliveryParams ? | element | Has details of the delivery status. jdf:DeliveryParams SHALL NOT be partitioned when specified in an . Individual line s that are described by a PrintTalk//Pricing/Price element MAY be referenced by jdf:DeliveryParams/Drop/DropItem/ GeneralID[@IDUsage="LineID"].  See [JDF1.5]. |
| jdf:Notification \* | element | Notification elements with @Type="Milestone" that describe the current status of the job. jdf:Notification/@JobID SHOULD be specified and jdf:Notification/@JobPartID MAY be specified in jdf:Notification elements that reside in an .  See [JDF1.5]. |
| \*  Deprecated in PrintTalk 1.3 | telem | Human-readable text for individual status description.  Deprecation note: starting with PrintTalk 1.3, use jdf:Notification.  See Table 29: Status. |

#### Status

Deprecated in PrintTalk 1.3

Table 29: Status

Referenced by:

Subclass of:

| Name | Data Type | Description |
| --- | --- | --- |
| JobIDRef | string | Reference to the requested part of the Job. MAY be a reference to the @JobID of the JDF Root Node or to the @JobPartID of a nested JDF Node. |
| <*content of element*> | text | Body of the status description. |

### StockLevelRequest

New in PrintTalk 1.5

A StockLevelRequest allows the to query the for the available stock levels of pre-printed or non-printed items.

Table 30: StockLevelRequest

Subclass of:

| Name | Data Type | Description |
| --- | --- | --- |
| Availability ? | enumeration | @Availability filters the returned StockLevel elements.  Allowed values are: |
| Any |  | All matching StockLevel elements SHALL be returned regardless of availability. |
| Available |  | Only StockLevel elements that are currently available and have StockLevel/@Amount > 0 SHALL be included. |
| Deliverable |  | Only StockLevel elements that are currently available (StockLevel/@Amount > 0) or can be procured or produced (StockLevel/@ProductionDuration != "INF") SHALL be displayed. |
| Currency ? | NMTOKEN | Three-digit currency definition according to [ISO4217], e.g., USD, EUR, GBP. The value of @Currency identifies the currency that the Print Provider SHALL use in the responding StockLevelResponse. |
| DisplayPrice ? | boolean | If true, StockLevel/@Price SHALL be included in the response. |
| ProductID ? | regexp | Regular expression that filters the returned list of StockLevel elements to only include elements whose StockLevel/@ProductID matches @ProductID. If @ProductID is not specified, StockLevel elements SHALL be specified for all Products. |

### StockLevelResponse

New in PrintTalk 1.5

A StockLevelResponse is the response to a StockLevelRequest.

If a receives a StockLevelRequest, it SHALL send to the a StockLevelResponse whose @BusinessRefID references the StockLevelRequest.

Table 31: StockLevelResponse

Subclass of:

| Name | Data Type | Description |
| --- | --- | --- |
| Currency | NMTOKEN | Three-digit currency definition according to [ISO4217], e.g., USD, EUR, GBP. The value of @Currency identifies the currency of StockLevel/@Price elements. |
| StockLevel \* | element | Level of available stock. |

#### StockLevel

New in PrintTalk 1.5

Table 32: StockLevel

Referenced by: StockLevelResponse

Subclass of:

| Name | Data Type | Description |
| --- | --- | --- |
| Amount | integer | Number of items that are currently available or will be available within the time defined by @ProductionDuration. |
| Lot ? | string | Production Lot of this item. Used to separate available stock with different pricing based on production lots. |
| ProductID | string | ProductID of the respective item. |
| ProductionDuration ? | jdf:duration | Estimated time until non-available items will be deliverable. A value of "INF" specifies that the item is no longer available. If not specified @Amount specifies the number of currently available products. Note that @ProductionDuration excludes shipping times to the recipient. |
| jdf:Location ? | element | Location of the items specified by the StockLevel. Multiple StockLevel elements with identical @ProductID but differing jdf:Location MAY be specified to describe distributed warehousing. |
| ? | element | List of definitions for the item specified by this StockLevel. Multiple elements in this element specify the price for orders with an order amount greater than or equal to /@Amount. /@DescriptiveName SHALL be identical for all / elements in the scope of one StockLevel. |

### ProofApprovalRequest

A allows the (in the context of an order) to request an Approval of a Proof from the .

If a wants a to approve a soft or hard copy order, the SHALL send to the a whose @BusinessRefID references the order’s . The order’s is either the initial if no s have occurred, or the latest accepted if a has been made.

Table 33: ProofApprovalRequest

Subclass of:

| Name | Data Type | Description |
| --- | --- | --- |
| jdf:Contact \*  Deprecated in PrintTalk 1.3 | element | Detailed information about the company.  Deprecation note: starting with PrintTalk 1.3, the PrintTalk/ specifies all necessary credentials.  See [JDF1.5]. |
| ProofRequest \* | element | Individual proof request description.  See Table 34: ProofRequest. |

#### ProofRequest

Table 34: ProofRequest

Referenced by:

Subclass of:

| Name | Data Type | Description |
| --- | --- | --- |
| JobIDRef ? | string | Reference to the @JobID this proof corresponds to. If not specified, the ProofRequest refers to the Job that was ordered by the that is referenced by @BusinessRefID. |
| JobPartIDRef ?  Deprecated in PrintTalk 1.3 | string | Reference to the @JobPartID this proof corresponds to.  Deprecation note: starting with PrintTalk 1.3, use jdf:ProofItem/@ProofTarget. |
| ProofLocation ?  Deprecated in PrintTalk 1.3 | URL | Identifies a remote target for the proof output. This can be either a soft or hard proofing target.  Deprecation note: starting with PrintTalk 1.3, use ProofItem/@ProofTarget. |
| jdf:ProofItem \*  New in PrintTalk 1.3  Modified in PrintTalk 1.5 | element | Details of the items to be proofed. jdf:ProofItem/@ProofName and ProofItem/@ProofTarget SHALL be used to reference the proof that is requested.  See [JDF1.5]. |

### ProofApprovalResponse

A is the response to a .

If a receives a , it SHALL send to the a whose @BusinessRefID references the and contains the ’s approval or rejection of a proof.

Table 35: ProofApprovalResponse

Subclass of:

| Name | Data Type | Description |
| --- | --- | --- |
| jdf:Contact \*  Deprecated in PrintTalk 1.3 | element | Detailed information about the company.  The details of the individuals that signed off the proof are specified in jdf:ApprovalSuccess/ApprovalDetails/Contact*.*  Deprecation note: starting with PrintTalk 1.3, the PrintTalk/ specifies all necessary credentials.  See [JDF1.5]. |
| ProofResponse \* | element | Human-readable text for individual proof response.  See Table 36: ProofResponse. |

#### ProofResponse

Table 36: ProofResponse

Referenced by:

Subclass of:

| Name | Data Type | Description |
| --- | --- | --- |
| JobIDRef | string | Reference to the @JobID this proof corresponds to. |
| JobPartIDRef ?  Deprecated in PrintTalk 1.3 | string | Reference to the @JobPartID this proof corresponds to. |
| PageIndex ? | IntegerRangeList | List of pages in the jdf:PageList that this ProofResponse applies to. If not specified, this ProofResponse applies to all pages specified in jdf:ProofItem. |
| Response ?  Deprecated in PrintTalk 1.3 | enumeration | Describes the overall result of the approval.  Deprecation note: starting with PrintTalk 1.3, use jdf:ApprovalSuccess to specify approval results.  Allowed values are: |
| Approved |  | Everything is fine. |
| ApprovedWithEdits |  | Minor changes required, but it’s ok. |
| Rejected |  | Major changes. New proof required. |
| jdf:ApprovalSuccess  New in PrintTalk 1.3 | element | Describes the overall result of the approval.  See [JDF1.5]. |
| jdf:ProofItem  New in PrintTalk 1.3 | element | Details of the items to be proofed. jdf:ProofItem/@ProofName and ProofItem/@ProofTarget SHALL be used to reference the proof that is requested.  See [JDF1.5]. |
| <*content of element*>  Deprecated in PrintTalk 1.3 | text | Body of the response description.  Deprecation note: starting with PrintTalk 1.3, use jdf:Comment to specify human readable comments. |

### Invoice

The typically sends an Invoice to the after the job is shipped. It may also send an Invoice several times, when certain milestones during the are reached or after a Job is cancelled. An Invoice MAY include additional charges or discounts.

To request payment, the SHALL send an Invoice whose @BusinessRefID references either the

* for a completed Job or for milestones during the or
* for a cancelled Job.

Table 37: Invoice

Subclass of:

| Name | Data Type | Description |
| --- | --- | --- |
| Currency | NMTOKEN | Three-digit currency definition according to [ISO4217] Identifies the currency that this Invoice uses. |
| Expires | dateTime | Date/time when this Invoice becomes . This date is the due date after which a subsequent Invoice MAY contain late payment fees. |
| jdf:JDF ?  Deprecated in PrintTalk 1.5 | element | Description of the or service.  Deprecation note: starting with PrintTalk 1.5, use business object.  See [JDF1.5]. |
| New in PrintTalk 1.3 | element | The price of the Products or services described by this Invoice.  Note: starting with PrintTalk 1.3, the pricing information is moved from JDF to PrintTalk.  See Table 16: Pricing. |

### ReturnJob

The MAY send to the a whose @BusinessRefID references the order’s . The /jdf:JDF MAY contain all the production information for the Job.

Table 38: ReturnJob

Subclass of:

| Name | Data Type | Description |
| --- | --- | --- |
| jdf:JDF \* | element | The JDF Nodes after processing including the Audit Information. This is the PrintTalk equivalent to the JMF ReturnQueueEntry message.  See [JDF1.5]. |

# PrintTalk Workflow Diagram

The PrintTalk 1.5 workflow is described in the following diagrams:

* Figure 2: A simplified/streamlined Workflow Diagram, representative of web-based catalog ordering.
* Figure 3: Proof Cycle
* Figure 4: Status Request Cycle
* Figure 5: Change Order Cycle
* Figure 6: A detailed Workflow Diagram showing the possible workflows using PrintTalk ***Business Objects***. The diagram covers both the ***Negotiation Phase*** and the ***Production Phase***, along with all possible loops that might occur.

Figure 2: Simplified Workflow Diagram



Figure 3: Proof Cycle



Figure 4: Status Request Cycle

|  |  |
| --- | --- |
|  |  |

Figure 5: Change Order Management



Figure 6: Workflow Diagram



# Usage of the PrintTalk IDs

This section illustrates the semantics and usage of the various IDs in typical workflow scenarios:

## BusinessID and BusinessRefID:

This section illustrates the use of the @BusinessID and @BusinessRefID. The @BusinessRefID references a that originates from the other side of the Workflow. Thus, a that originates from the references a that originates from the and vice versa. Once a has been placed, /@BusinessID SHALL be used as the @BusinessRefID of all following s.

### Simple Negotiation

sends RFQ

<RFQ BusinessID="RFQ\_1">

sends Quotation referencing RFQ "RFQ\_1"

<Quotation BusinessID="Quotation\_1" BusinessRefID="RFQ\_1">

<Quote QuoteID ="Quote\_1"/>

<Quote QuoteID ="Quote\_2"/>

</Quotation>

sends PurchaseOrder referencing Quote "Quote\_1"

<PurchaseOrder BusinessID="PO\_1" BusinessRefID="Quotation\_1" QuoteID="Quote\_1"/>

sends Confirmation referencing PurchaseOrder "PO\_1"

<Confirmation BusinessID="Confirmation\_1" BusinessRefID="PO\_1"/>

### Change Order Initiated by Print Buyer and Starting with RFQ

1. sends RFQ referencing earlier "Confirmation\_1"

<RFQ BusinessID="CO\_RFQ" BusinessRefID="Confirmation\_1">

sends Quotation referencing "CO\_RFQ"

<Quotation BusinessID="Quotation\_4" BusinessRefID="CO\_RFQ">

<Quote QuoteID ="Quote\_1"/>

<Quote QuoteID ="Quote\_2"/>

</Quotation>

sends PurchaseOrder referencing "Quote\_1"

<PurchaseOrder BusinessID="PO\_3" BusinessRefID="Quotation \_4" QuoteID="Quote\_1">

sends Confirmation referencing "PO\_3"

<Confirmation BusinessID="Confirmation\_2" BusinessRefID="PO\_3">

### Change Order Initiated by Print Buyer and Starting with PurchaseOrder

1. sends PurchaseOrder referencing earlier "Confirmation\_1"

<PurchaseOrder BusinessID="PO\_4" BusinessRefID="Confirmation\_1" QuoteID="Quote\_2">

sends Confirmation referencing "PO\_4"

<Confirmation BusinessID="Confirmation\_3" BusinessRefID="PO\_4">

### Change Order Initiated by Print Provider and Starting with Quotation

1. sends Quotation referencing earlier "PO\_1"

<Quotation BusinessID="Quotation\_5" BusinessRefID="PO\_1">

<Quote QuoteID ="Quote\_1"/>

<Quote QuoteID ="Quote\_2"/>

</Quotation>

sends PurchaseOrder referencing "Quote \_2"

<PurchaseOrder BusinessID="PO\_5" BusinessRefID="Quotation\_5" QuoteID="Quote\_2">

sends Confirmation referencing "PO\_5"

<Confirmation BusinessID="Confirmation\_2" BusinessRefID="PO\_5">

### Complex Negotiation

1. sends RFQ

<RFQ BusinessID="RFQ\_1">

sends Quotation referencing RFQ "RFQ\_1"

<Quotation BusinessID="Quotation\_1" BusinessRefID="RFQ\_1">

<Quote QuoteID ="Quote\_1"/>

<Quote QuoteID ="Quote\_2"/>

</Quotation>

sends an RFQ for a referencing "Quotation\_1".

<RFQ BusinessID="RFQ\_2" BusinessRefID="Quotation\_1">

sends Quotation for referencing RFQ\_2

<Quotation BusinessID="Quotation\_2" BusinessRefID="RFQ\_2" ReplaceID="Quotation\_1">

<Quote QuoteID="Quote\_1" ReplaceID="Quote\_1" >

</Quotation>

sends PurchaseOrder referencing "Quote\_1".

<PurchaseOrder BusinessID="PO\_6" BusinessRefID="Quotation\_2" QuoteID="Quote\_1">

sends Confirmation referencing "PO\_6".

<Confirmation BusinessID="Confirmation\_6" BusinessRefID="PO\_6">

## ReplaceID

This section illustrates the @ReplaceID. A or uses @ReplaceID to Supersede a previously sent that has not been answered yet by the counter party.

### Print Buyer Supersedes RFQ

1. The sends an original RFQ identified by "RFQ\_1"

<RFQ BusinessID="RFQ\_1">

The send a superseding RFQ by referencing RFQ "RFQ\_1":

<RFQ BusinessID="RFQ\_2" ReplaceID="RFQ\_1">

### Print Buyer Supersedes PurchaseOrder

1. The sends an original PurchaseOrder identified by "PO\_1"

<PurchaseOrder BusinessID="PO\_1" BusinessRefID="Quotation\_1" QuoteID="Quote\_1">

The send a superseding PurchaseOrder by referencing PurchaseOrder "PO\_1":

<PurchaseOrder BusinessID="PO\_2" BusinessRefID="PO\_1" ReplaceID="PO\_1" QuoteID="Quote\_2">

### Print Provider Supersedes Quotation

The Print Provider has replaced Quotation\_1 which had two Quote elements. The new Quotation\_2 retains ONLY the Quote[Quote\_ID="Quote\_1"].

1. sends Quotation identified "Quotation \_1"

<Quotation BusinessID="Quotation\_1" BusinessRefID="RFQ\_1">

<Quote QuoteID ="Quote\_1"/>

<Quote QuoteID ="Quote\_2"/>

</Quotation>

sends a superseding Quotation by referencing Quotation "Quotation \_1":

<Quotation BusinessID="Quotation\_2" BusinessRefID="RFQ\_1" ReplaceID="Quotation\_1">

<Quote QuoteID="Quote\_1">

</Quotation>

## ReorderID

This section illustrates the @ReorderID. A or uses a @ReorderID to place orders of one or more previously sent PurchaseOrder s for which the has also sent a . In all three examples below "old\_PO\_ID\_1" and "old\_PO\_ID\_2" refer to confirmed PurchaseOrder s.

### Print Buyer Reorders via an RFQ

1. sends a RFQ to start reorder process with "old\_PO\_ID\_1" and "old\_PO\_ID\_2"

<RFQ BusinessID="RFQ\_10" ReorderID="Master\_PO\_ID">

Note that Master\_PO\_ID could be a contract reference and not require reference to the previous purchase orders.

### Print Buyer Reorders via an PurchaseOrder

1. sends a PurchaseOrder to reorder "old\_PO\_ID\_1" and "old\_PO\_ID\_2"

<PurchaseOrder BusinessID="PO\_10" ReorderID="old\_PO\_ID\_1 old\_PO\_ID\_2">

### Print Provider Quotes using ReorderID

1. sends a Quotation using as basis "old\_PO\_ID\_1" and "old\_PO\_ID\_2"

<Quotation BusinessID="Quotation\_10" ReorderID="old\_PO\_ID\_1 old\_PO\_ID\_2">

Note that in the case where the original purchase orders were based upon a contract, no negotiation will be required for this new .

## JDF/@JobID:

The jdf:JDF/@JobID is the ID of the job within the s workflow system.

## JDF/@JobPartID

The jdf:JDF/@JobPartID is the ID of a part of the job within the customer’s workflow system.

When a JDF is created by a Print Buyer, e.g. in an RFQ, @JobID SHOULD be specified. If a cannot maintain an external @JobID, the @JobID SHOULD be copied to jdf:CustomerInfo/@CustomerOrderID.

All interactions between Print Buyer and SHALL be based on the initial @JobID as specified by the Print Buyer.

Note that this implies that the JDF/@JobID within a production job of the ’s workflow system NEED NOT be identical to JDF/@JobID when communicating with the Print Buyer.

## jdf:CustomerInfo/@CustomerOrderID?

The jdf:CustomerInfo/@CustomerOrderID is the ID of the job in the context of Print Buyer’s MIS or ERP system.

# Examples

This section has four examples.

## Example A – “Learn to Fly” Mailer

In the first example, a produces a folded mailer, which is basically a sheet of paper that is printed, folded and delivered to two addresses.

### Outline of JDF Structure

JDF provides us with a very flexible mechanism for specifying shipment information. This item is shipped to 2 different locations so, 2 DropIntents are used. Here’s the basic outline of the delivery portion of the ResourcePool:

1 <Component DescriptiveName="4 Page folded Flyer" ID="Item01" >

2 <Company OrganizationName="Pan-O-Ramic" ID="Company1">

3 <Company OrganizationName="Tinker Mailing" ID="Company2">

4 <DeliveryIntent>

5 <DropIntent>

6 <Required Actual="2013-07-26" …>

7 <CompanyRef rRef="Company1">

8 <DropItemIntent> Amount="10"

9 <ComponentRef> rRef="Item01">

10 </DropItemIntent>

11 </DropIntent>

12 <DropIntent>

13 <Required Actual="2013-07-26" …>

14 <CompanyRef> rRef="Company2">

15 <DropItemIntent> Amount="7990"

16 <ComponentRef> rRef="Item01">

17 </DropItemIntent>

18 </DropIntent>

19 <DeliveryIntent>

Line 1 is the description of the shipped component.

Line 2 describes the first company to ship to

Line 3 describes the second company to ship to

Line 4 DeliveryIntent start tag

Line 5 DropIntent start tag

Line 6 with date / time required for first shipment

Line 7 CompanyRef pointing to the company for this shipment (Company1)

Line 8 DropItemIntent with amount to ship

Line 9 ComponentRef pointing to the component to ship (Item01)

Line 10 DropItemIntent end tag

Line 11 DropIntent end tag

Line 12 DropIntent start tag

Line 13 with date / time required for second shipment

Line 14 CompanyRef pointing to the company for this shipment (Company2)

Line 15 DropItemIntent with amount to ship

Line 16 ComponentRef pointing to the component to ship (Item01)

### Text Version of RFQ

The following page contains the original text RFQ from the . Key reference points are annotated with AA, BB, and CC… in the text and cross-referenced in the PrintTalk XML.

Request for Quote -

Date: Today is 1 July 2013. AA

Printer: Polkadot Litho Inc. BB

ECommerce system: Ecompany Ltd. CC

Buyer:

Mary Martin DD  
1929 Peter Pan Wy.  
Island Drive, CA 90028  
213-555-1212  
mmartin@ pan-o-ramic.com

Description:

“Learn to Fly” seminar mailer EE

Quantity: 8,000 FF and addl. M GG

11”x17” Flyer HH, printed black plus 1PMS II on coated book JJ. Fold to 5.5”x8.5” KK, and ship to mail LL house (address below). Want 60 or 70# stock MM, but cannot exceed 1 oz. for mail purposes NN.

OO Customer will furnish Quark files for the 4 pages, with cropped and scaled scans for halftones in Photoshop files.

Bleeds, solids, and reverses completed and in the files. PP Proof PDF file to Mary.

Files in Jul 23, and finished product must be posted via 1st class mail August 1. QQ

Deliver 10 samples to Mary, balance to: LL

Tinker Mailing RR

1234 Hurryup Ave.

Hawthorne, CA 90250

Attn: Wendy

(No underruns allowed, up to 5% overs accepted) SS

Quote required by end of business 5 July 2013. TT

### PrintTalk Version of RFQ

<?xml version="1.0" encoding="utf-8"?>

<PrintTalk xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.printtalk.org/schema\_15"   
xmlns:jdf="http://www.CIP4.org/JDFSchema\_1\_1"   
xsi:schemaLocation="http://www.printtalk.org/schema PrintTalk\_1\_1.xsd" version="1.1" payloadID="Christian 01 Jul 2013"   
timestamp="2013-07-01T22:39-08:00" >

<!--version: This is the PrintTalk version; borrowed from cXML.-->

<!--payloadID: This is transport unique ID of the message; borrowed from cXML.-->

<!--AA timestamp: PrintTalk date/time taken from ISO 8601; the preferred representation is "complete (full date and time)"   
and "extended (with punctuation)" with a time zone designation; borrowed from cXML.-->

<Header>

<!--Header, Request structure borrowed from cXML.-->

<From>

<!-- DD.-->

<!-- The required credentials must be agreed upon by trading partners; here are some examples of what can be done.-->

<Credential domain="DNS">

<!--The originating organization identification within a public domain (Domain Name Service).-->

<Identity>pan-o-ramic.com</Identity>

</Credential>

<Credential domain="ECompany.com">

<!--The originating organization identification within a private domain (ECompany's private registry)-->

<Identity>PeterPan</Identity>

</Credential>

<Credential domain="DUNS">

<!--The originating organization identification within a public domain (Dun and Bradstreet registry).-->

<Identity>93009388</Identity>

</Credential>

</From>

<To>

<!--BB The required credentials must be agreed upon by trading partners; here are some examples of what can be done.-->

<Credential domain="DNS">

<!--The originating organization identification within a public domain (Domain Name Service).-->

<Identity>AnExcellentPrinter.com</Identity>

</Credential>

<Credential domain="ECompany.com">

<!--The originating organization identification within a private domain (ECompany's private registry)-->

<Identity>Polkadot</Identity>

</Credential>

<Credential domain="DUNS">

<!--The originating organization identification within a public domain (Dun and Bradstreet registry).-->

<Identity>3040392</Identity>

</Credential>

</To>

<Sender>

<!--CC The required credentials must be agreed upon by trading partners; here are some examples of what can be done.-->

<!--The Sender credential authenticate the message.-->

<Credential domain="DNS">

<!--The originating organization identification within a public domain (Domain Name Service).-->

<Identity>ECompany.com</Identity>

<SharedSecret>password</SharedSecret>

<!--The SharedSecret is part of the message authentication.-->

</Credential>

<UserAgent>Print Buyer v.54.9</UserAgent>

<!--The UserAgent is unique to the Sender element and identifies the software agent that generated the message.-->

</Sender>

</Header>

<Request>

<!--The Request element contains a single PrintTalk business document; borrowed from cXML.-->

<RFQ AgentID="Lara" AgentDisplayName="Lara Garcia-Daniels"   
BusinessID="RFQ 8884" Currency="USD"   
DescriptiveName="RFQ for simple job" Estimate="false"   
Expires="2013-07-05T17:00-08:00"   
RequestDate="2013-07-01T22:39-08:00">

<!--A PrintTalk Request for Quote document; the content of this element is independent of cXML-->

<!--AgentID: The unique identity of the commerce system user that "pushed the button" to send this document.-->

<!--AgentDisplayName: The dispaly name of the user.-->

<!--BusinessID: A unique identifier for this document; opaque to the receiver.-->

<!--Currency: For RFQ, preferred currency for quotes.-->

<!--DescriptiveName: Human-readable description.-->

<!--Estimate: For RFQ, whether a subsequent quote should be a casual "estimate" or

<!--TT Expires: Date/time when financial information becomes invalid. -->

<!--AA RequestDate: Date/time when Business Object was sent. -->

<jdf:Comment Attribute="Expires">If you send the Quote until midnight of that day, it's also ok.</jdf:Comment>

<jdf:JDF DescriptiveName="Learn to Fly seminar mailer" ID="root" JobID="HDM20002124161007"   
ProjectID="HDM\_Prod20001124161007" Type="Product" Status="Waiting" Version="1.1"   
xmlns="http://www.CIP4.org/JDFSchema\_1\_1">

<!--A single JDF element is the only element content of an RFQ element.-->

<!--Structure of a JDF node is defined by the JDF specification. However there is a best practice structure as indicated in section 3.3 of this spec. Alternative JDF structures are permitted although not illustrated here.-->

<!--EE DescriptiveName: Courtesy display text.-->

<!--ID: An XML ID-->

<!--JobID: sender's reference to a job.-->

<!--ProjectID: sender's reference to a project.-->

<!--Type: For RFQ, always "Product."-->

<!--SettingsPolicy: indicates what happens, when unsupported settings are present.-->

<!--status: For RFQ, always "waiting."-->

<!--Version: JDF version.-->

<!--xmlns: XML namespace.-->

<AuditPool>

<!--Not required by PrintTalk, may be used at the discretion of the document creator.-->

<Created Author="Christian@heidelberg.com"   
TimeStamp="2013-07-01T1127+0100"/>

</AuditPool>

<ResourceLinkPool>

<!--In the root JDF node only a DeliveryIntentLink for each of the independent alternatives that constitute the request for quote; Usage = "Input."-->

<DeliveryIntentLink rRef="Deliv1" Usage="Input"/>

<CustomerInfoLink rRef="Customer1" Usage="Input"/>

</ResourceLinkPool>

<ResourcePool>

<CustomerInfo ID="Customer1" CustomerID="cu/4563-02" >

<ContactRef rRef="Contact1"/>

</CustomerInfo>

<!--In the root JDF node any Resources required by the JDF structure rule like resources referenced in the CustomerInfo, but including the required DeliveryIntents and from the ResourceLinkPool.-->

<DeliveryIntent DescriptiveName=  
"Delivery of samples to buyer, rest to mail house" ID="Deliv1" Class="Intent" Status="Available">

<!--Status: All intent resources are "Available."-->

<!--Other attribute values determined by JDF structure rules.-->

<Overage DataType="NumberSpan" Priority="Required" Preferred="5">

<!--SS Overage: Percentage by which actual count of delivered items may exceed ordered quantity.-->

</Overage>

<Underage DataType="NumberSpan" Priority="Required" Preferred="0">

<!--SS Underage: Percentage by which actual count of delivered items may be less than ordered quantity.-->

</Underage>

<Method DataType="NameSpan" Priority="Required" Preferred="1stClassMail">

<!--QQ-->

</Method>

<Required DataType="TimeSpan" Priority="Required" Preferred="2013-07-26T09:30-08:00">

<!--QQ-->

</Required>

<DropIntent>

<ContactRef rRef="Contact1"/>

<DropItemIntent Amount="10">

<!--Amount: Count of items to be delivered.-->

<!--Delivery is made to the Contact(Ref) with ContactTypes including "Delivery" found in this element, or its parent, or its parent's parent.-->

<ComponentRef rRef="Item01"/>

</DropItemIntent>

</DropIntent>

<DropIntent>

<ContactRef rRef="Contact2"/>

<DropItemIntent Amount="7990" AdditionalAmount="1000">

<!--FF LL-->

<!--GG AdditionalAmount: A quote returned for this RFQ should include a price for additional quantities of this amount.-->

<ComponentRef rRef="Item01"/>

</DropItemIntent>

</DropIntent>

</DeliveryIntent>

<Contact ID="Contact1" Class="Parameter" Status="Available" ContactTypes="Customer Delivery">

<Address Street="1929 Peter Pan Wy." City="Island Drive" Region="CA" PostalCode="90028" Country="United States" CountryCode="US"/>

<Person JobTitle="Print Buyer" FirstName="Mary" FamilyName="Martin">

<ComChannel ChannelType="Phone" Locator="1 213 555 1212"/>

<ComChannel ChannelType="Email" Locator="mailto:mmartin@pan-o-ramic.com"/>

</Person>

<Company DescriptiveName="Customer: Pan-O-Ramic" ID="Company1" Class="Parameter" Status="Available" OrganizationName="Pan-O-Ramic"/>

<!--DD-->

</Contact>

<Contact ID="Contact2" Class="Parameter" Status="Available" ContactTypes="Delivery">

<Address Street="1234 Hurry-up Avenue" City="Hawthorne" Region="CA" PostalCode="90250" Country="United States" CountryCode="US"/>

<Person FirstName="Wendy"/>

<Company DescriptiveName="Mail fulfillment: Tinker Mailing" ID="Company2" Class="Parameter" Status="Available" OrganizationName="Tinker Mailing">

<!--RR-->

</Company>

<!--LL-->

</Contact>

</ResourcePool>

<JDF DescriptiveName="folded flyer" ID="Link0005" JobPartID="HDM20002124161007-folded" Type="Product" Status="Waiting">

<!--This element describes the folded flyer that is made up by the the flat, printed article; the child JDF element makes the flat, printed article.-->

<ResourceLinkPool>

<ComponentLink rRef="Item01" Usage="Output"/>

<ComponentLink rRef="Item01flat" Usage="Input"/>

<FoldingIntentLink rRef="Fold1" Usage="Input"/>

</ResourceLinkPool>

<ResourcePool>

<Component DescriptiveName="4-page folded flyer" ID="Item01" Class="Quantity" Status="Unavailable" ComponentType="FinalProduct">

<Comment Name="Instruction"> NN Check that the weight of the finished piece does not exceed 1oz. (28.3 grams) to qualify for U.S. postage

</Comment>

</Component>

<FoldingIntent ID="Fold1" Class="Intent" Status="Available">

<FoldingCatalog DataType="NameSpan" Preferred="F8-7" Priority="Required">

<!--KK Preferred: "F8-7" is an item from the folding catalog in the JDF specification.-->

</FoldingCatalog>

</FoldingIntent>

</ResourcePool>

<JDF DescriptiveName="flat flyer" ID="Link0006" JobPartID="HDM20002124161007-flat" Type="Product"   
Status="Waiting">

<!--This element describes the flat flyer and the intents that are used to describe it.-->

<ResourceLinkPool

<ComponentLink rRef="Item01flat" Usage="Output"/>

<ArtDeliveryIntentLink rRef="Art1" Usage="Input"/>

<ColorIntentLink rRef="Color1" Usage="Input"/>

<MediaIntentLink rRef="Media1" Usage="Input"/>

<LayoutIntentLink rRef="Size1" Usage="Input"/>

<ProofingIntentLink rRef="Proof1" Usage="Input"/>

</ResourceLinkPool>

<ResourcePool>

<Component DescriptiveName="flyer" ID="Item01flat" Class="Quantity" Status="Unavailable"   
ComponentType="PartialProduct"/>

<LayoutIntent ID="Size1" Class="Intent" Status="Available">

<Dimensions DataType="XYPairSpan" Preferred="1224 792" Priority="Required">

<!--HH This is the size of the flat, printed article.-->

</Dimensions>

<Pages DataType="IntegerSpan" Preferred="2"/>

</LayoutIntent>

<ArtDeliveryIntent ID="Art1" Class="Intent" Status="Available">

<ArtDeliveryDate DataType="TimeSpan"   
Preferred="2013-07-23T17:00-08:00"/>

<Transfer DataType="EnumerationSpan" Preferred="BuyerToPrinterDeliver"/>

<ArtDelivery HasBleeds="true" PageList="0~3" ArtDeliveryType="DigitalMedia">

<RunList Pages="0~3">

<LayoutElement HasBleeds="true" ElementType="Document">

<FileSpec Application="Quark"/>

</LayoutElement>

</RunList>

<!--OO-->

</ArtDelivery>

<ArtDelivery HasBleeds="true" ArtDeliveryType="DigitalMedia">

<RunList>

<LayoutElement HasBleeds="true" ElementType="Image">

<FileSpec Application="Photoshop"/>

<Comment Name="Description" Attribute="ElementType">

Cropped and scaled scans for halftones.

</Comment>

</LayoutElement>

</RunList>

<!--OO-->

</ArtDelivery>

<Comment Name="Description">Solids and reverses completed and in the files.

<!--OO-->

</Comment>

</ArtDeliveryIntent>

<ColorIntent ID="Color1" Class="Intent" Status="Available">

<ColorStandard DataType="NameSpan" Preferred="MonoChrome"/>

<ColorsUsed>

<!--II This is a 2-color job; colors must be listed since they are exactly those implied by ColorStandard =   
"MonoChrome."-->

<!--Here "PMSxxx" is used to mean "some unspecified PMS color."-->

<SeparationSpec Name="Black"/>

<SeparationSpec Name="PMSxxx"/>

</ColorsUsed>

</ColorIntent>

<MediaIntent ID="Media1" Class="Intent" Status="Available">

<!--JJ-->

<FrontCoatings DataType="EnumerationSpan" Preferred="Semigloss"/>

<StockType DataType="NameSpan" Preferred="Offset"/>

<USWeight DataType="NumberSpan" Range="60~70">

<!--MM-->

</USWeight>

</MediaIntent>

<ProofingIntent ID="Proof1" Class="Intent" Status="Available">

<!--PP-->

<ProofItem   
ProofTarget="mailto:mmartin@pan-o-ramic.com">

<ColorType DataType="EnumerationSpan" Preferred="BasicColor"/>

<ProofType DataType="EnumerationSpan" preferred="Page"/>

<Technology DataType="NameSpan" Preferred="SoftProof">

<Comment Name="Instruction">Send PDF file

</Comment>

</Technology>

</ProofItem>

</ProofingIntent>

</ResourcePool>

</JDF>

</JDF>

</jdf:JDF>

</RFQ>

</Request>

</PrintTalk>

## Example B – Bible

In the second example, the produces two Bibles, one with a soft cover and another with a hard case cover and dust jacket. Just to make things interesting, the text is shared by both versions of books. We are producing 5,000 soft cover versions and 7,500 hard case versions. All are shipping to the same address.

### Outline of JDF Structure

A simple outline of the JDF for this project looks like this:

1 <JDF DescriptiveName="Hard & Soft Cover Book">

2 <ResourcePool>

3 <CustomerInfo>

4 <DeliveryIntent>

5 </ResourcePool>

6 <JDF DescriptiveName="Hard Cover Bound Book">

7 <ResourcePool>

8 <BindingIntent>

9 <ComponentLink DescriptiveName="Text for both">

10 </ResourcePool>

11 <JDF> DescriptiveName="Hard Cover">

12 <MediaIntent>

13 </JDF>

14 <JDF> DescriptiveName="Dust Jacket">

15 <MediaIntent>

16 </JDF>

17 </JDF>

18 <JDF DescriptiveName="Soft Cover Bound Book">

19 <BindingIntent>

20 <ComponentLink DescriptiveName="Text for both">

21 <JDF> DescriptiveName="Soft Cover">

22 <MediaIntent>

23 </JDF>

24 </JDF>

25 <JDF DescriptiveName="Text for both">

26 <MediaIntent>

27 </JDF>

Line 1 is the JDF description of the project.

Line 3 represents the buying these books. It would refer to contact and address information.

Line 4 explains the delivery instructions and refers to the same contact as on line 2 as the delivery destination.

Line 6 is the JDF description of the hard cover version.

Line 8 is the specification for the bindery used to bring the case, dust jacket, and text together to produce the hard cover version of the book.

Line 9 is the link to the text being produced.

Line 11 is the JDF describing the production of the case.

Line 12 is the MediaIntent describing the stock used to produce the hard cover.

Line 14 is the JDF describing the production specifications of the dust jacket.

Line 15 is the MediaIntent describing the paper used to produce the dust jacket.

Line 18 is the JDF description of the soft cover version.

Line 19 is the specification for the bindery used to bring the soft cover and text together to produce the soft cover version of the book.

Line 20 is the link to the text being produced.

Line 21 is the JDF description of the soft cover itself.

Line 22 is the MediaIntent describing the paper used to produce the soft cover.

Line 25 is the description of the text used by both books.

Line 26 is the MediaIntent describing the paper used to produce the text.

The JDF Root Node of this project combines the 2 finished Products (soft and hard cover book), with the DeliveryIntent. The second tier of JDF Nodes shows the individual intents to produce each book. The specification for the text could be part of the specification on each of the books separately. Because it’s a shared JDF Node, it is promoted to a higher level and can be referred (and consumed) by each of the lower JDF Nodes.

Figure 7: Outline of JDF Structure for the “Bible” Example



### PrintTalk Version of RFQ

Both the and subsequent are included in this example. The major difference between the 2 s is the addition of Pricing in the quote.

<?xml version="1.0" encoding="utf-8"?>

<PrintTalk xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.printtalk.org/schema"   
xmlns:jdf="http://www.CIP4.org/JDFSchema\_1\_1"   
xsi:schemaLocation="http://www.printtalk.org/schema PrintTalk\_1\_1.xsd" version="1.1" payloadID="107778" timestamp="2013-07-1T22:39-08:00">

<!--version: This is the PrintTalk version; borrowed from cXML.-->

<!--payloadID: This is transport unique ID of the message; borrowed from cXML.-->

<Header>

<From>

<Credential domain="DNS">

<Identity>www.billsfinebooks.com</Identity>

</Credential>

<Credential domain="ECompany.com">

<Identity>Bill's Fine Books</Identity>

</Credential>

<Credential domain="DUNS">

<Identity>06-388-7745</Identity>

</Credential>

</From>

<To>

<Credential domain="ECompany.com">

<Identity>JJ Printing</Identity>

</Credential>

<Credential domain="DUNS">

<Identity>06-358-9998</Identity>

</Credential>

</To>

<Sender>

<Credential domain="DNS">

<Identity>PrintORama.com</Identity>

<SharedSecret>rosebud</SharedSecret>

</Credential>

<UserAgent>Print Buyer v.54.9</UserAgent>

</Sender>

</Header>

<Request>

<RFQ AgentID="Marge" AgentDisplayName="Margaret Simpson"   
RequestDate="2013-07-1T10:00-08:00" BusinessID="RFQ\_A3317" Currency="USD" Estimate="true" Expires="2013-08-25T1700-0800">

<!--Buyer requests a non-binding price. Just an estimate.-->

<jdf:JDF DescriptiveName="224 page hard and soft cover book" ID="JDF000-Root" JobID="BuyerJob001"   
Type="Product" Status="Waiting" Version="1.1" xmlns="http://www.CIP4.org/JDFSchema\_1\_1">

<!--JobID: sender's reference to a job/project.-->

<!--Version: JDF version.-->

<AuditPool>

<!--Not required by PrintTalk, may be used at the discretion of the document creator.-->

<Created Author="PrintTalk" TimeStamp="2013-07-1T11:20-08:00"/>

</AuditPool>

<ResourcePool>

<CustomerInfo CustomerID="pb4653/99" >

<ContactRef rRef="Contact01"/>

</CustomerInfo>

<LayoutIntent ID="Size001(Finished)" Class="Intent" Status="Available">

<Dimensions Range="576 720~648 864" DataType="XYPairSpan" Preferred="612 792"/>

<Pages DataType="IntegerSpan" Preferred="224"/>

</LayoutIntent>

<DeliveryIntent ID="Delivery001" Class="Intent" Status="Available">

<DropIntent>

<!--Date by which the product is to be delivered-->

<Required DataType="TimeSpan"   
Preferred="2013-09-30T09:30-8:00"/>

<ContactRef rRef="Contact02"/>

<DropItemIntent Amount="7500" AdditionalAmount="1000">

<ComponentRef rRef="Item001(HardBook)"/>

</DropItemIntent>

<DropItemIntent Amount="5000" AdditionalAmount="1000">

<ComponentRef rRef="Item003(SoftBook)"/>

</DropItemIntent>

</DropIntent>

<Comment>Delivery of hardcover and softcover job</Comment>

</DeliveryIntent>

<Company ID="Company01" Class="Parameter" Status="Available" OrganizationName="Mega Corp"/>

<Contact ID="Contact01" Class="Parameter" Status="Available" ContactTypes="Customer Billing">

<Address Street="820 N. French Street" City="Wilmington" Region="DE" PostalCode="19801">

<ExtendedAddress>Attention: Accounts Payable</ExtendedAddress>

</Address>

<Person JobTitle="Purchasing Manager" FirstName="Lisa" FamilyName="Luft"/>

<CompanyRef rRef="Company01"/>

</Contact>

<Contact ID="Contact02" Class="Parameter" Status="Available" ContactTypes="Delivery">

<Address Street="555 Maple Drive" City="San Mateo" Region="CA" PostalCode="94403">

<ExtendedAddress>Suite 245</ExtendedAddress>

</Address>

<Person JobTitle="Head of Book Division" FirstName="William" FamilyName="Johnson"/>

<CompanyRef rRef="Company01"/>

</Contact>

</ResourcePool>

<ResourceLinkPool>

<DeliveryIntentLink rRef="Delivery001" Usage="Input"/>

<CustomerInfoLink rRef="pb4653/99" Usage="Input"/>

</ResourceLinkPool>

<JDF DescriptiveName=  
"224 page hard case bound book with a 4/0 dust jacket" ID="JDF001(HardBook)" Type="Product" Status="Waiting">

<!--For RFQ, whatever JDF "Product" elements necessary to specify components to be delivered.-->

<ResourcePool>

<Component ID="Item001(HardBook)" Class="Quantity" Status="Unavailable"   
DescriptiveName=  
"224 page hard case bound book with a 4/0 dust jacket" ComponentType="FinalProduct"/>

<BindingIntent ID="Bind001(HardCover)" Class="Intent" Status="Available">

<BindingType DataType="EnumerationSpan" Preferred="Sewn"/>

<BindingLength DataType="EnumerationSpan" Preferred="Long"/>

</BindingIntent>

</ResourcePool>

<ResourceLinkPool>

<ComponentLink rRef="Item001(HardBook)" Usage="Output"/>

<ComponentLink rRef="Item002(HardCase)" Usage="Input" ProcessUsage="Cover"/>

<ComponentLink rRef="Item004(Text)" Usage="Input"/>

<ComponentLink rRef="Item006(DustJacket)" Usage="Input"/>

<BindingIntentLink rRef="Bind001(HardCover)" Usage="Input"/>

<LayoutIntentLink rRef="Size001(Finished)" Usage="Input"/>

</ResourceLinkPool>

<JDF DescriptiveName="DustJacket for Hard Cover" ID="JDF004(DustJacket)" Type="Product" Status="Waiting">

<ResourcePool>

<Component ID="Item006(DustJacket)" Class="Quantity" Status="Unavailable" DescriptiveName="Dust Jacket"   
ComponentType="PartialProduct"/>

<ColorIntent ID="Color002(DustJacket)" Class="Intent" Status="Available">

<Coverage DataType="NumberSpan" Preferred="50"/>

<ColorStandard Range="CMYK" DataType="NameSpan" Preferred="CMYK"/>

<InkManufacturer Range="ToyoCrayola " DataType="NameSpan" Preferred="ToyoCrayola"/>

</ColorIntent>

<MediaIntent ID="Media002(DustJacket)" Class="Intent" Status="Available">

<FrontCoatings DataType="NameSpan" Preferred="None"/>

<StockType DataType="NameSpan" Preferred="Offset"/>

</MediaIntent>

</ResourcePool>

<ResourceLinkPool>

<ComponentLink rRef="Item006(DustJacket)" Usage="Output"/>

<LayoutIntentLink rRef="Size001(Finished)" Usage="Input"/>

<ColorIntentLink rRef="Color002(DustJacket)" Usage="Input"/>

<MediaIntentLink rRef="Media002(DustJacket)" Usage="Input"/>

</ResourceLinkPool>

</JDF>

<JDF DescriptiveName="Case for Hard Cover" ID="JDF006(Case)" Type="Product" Status="Waiting">

<ResourcePool>

<Component ID="Item002(HardCase)" Class="Quantity" Status="Unavailable" DescriptiveName="Book Case"   
ComponentType="PartialProduct"/>

<MediaIntent ID="Media001(Case)" Class="Intent" Status="Available">

<MediaColor DataType="EnumerationSpan" Preferred="Black"/>

<StockType DataType="NameSpan" Preferred="Cloth"/>

</MediaIntent>

</ResourcePool>

<ResourceLinkPool>

<ComponentLink rRef="Item002(HardCase)" Usage="Output"/>

<LayoutIntentLink rRef="Size001(Finished)" Usage="Input"/>

<MediaIntentLink rRef="Media001(Case)" Usage="Input"/>

</ResourceLinkPool>

</JDF>

</JDF>

<JDF DescriptiveName="224 page soft cover, perfect bound book" ID="JDF002(SoftBook)" Type="Product" Status="Waiting">

<ResourcePool>

<Component ID="Item003(SoftBook)" Class="Quantity" Status="Unavailable"   
DescriptiveName="soft cover, perfect bound book" ComponentType="FinalProduct"/>

<BindingIntent ID="Bind002(SoftCover)" Class="Intent" Status="Available">

<BindingType DataType="EnumerationSpan" Preferred="Adhesive"/>

</BindingIntent>

</ResourcePool>

<ResourceLinkPool>

<ComponentLink rRef="Item003(SoftBook)" Usage="Output"/>

<ComponentLink rRef="Item005(SoftCover)" Usage="Input"/>

<MediaIntentLink rRef="Media003(SoftCover)" Usage="Input"/>

<ComponentLink rRef="Item004(Text)" Usage="Input"/>

<LayoutIntentLink rRef="Size001(Finished)" Usage="Input"/>

<BindingIntentLink rRef="Bind002(SoftCover)" Usage="Input"/>

</ResourceLinkPool>

<JDF DescriptiveName="Soft Cover" ID="JDF005(SoftCover)" Type="Product" Status="Waiting">

<ResourcePool>

<Component ID="Item005(SoftCover)" Class="Quantity" Status="Unavailable" DescriptiveName="soft cover"   
ComponentType="PartialProduct"/>

<MediaIntent ID="Media003(SoftCover)" Class="Intent" Status="Available">

<FrontCoatings DataType="NameSpan" Preferred="None"/>

<StockType DataType="NameSpan" Preferred="offset"/>

</MediaIntent>

<ColorIntent ID="Color003(SoftCover)" Class="Intent" Status="Available">

<Coverage DataType="NumberSpan" Preferred="50"/>

<ColorStandard Range="CMYK" DataType="NameSpan" Preferred="CMYK"/>

<InkManufacturer Range="ToyoCrayola " DataType="NameSpan" Preferred="ToyoCrayola"/>

</ColorIntent>

</ResourcePool>

<ResourceLinkPool>

<ComponentLink rRef="Item005(SoftCover)" Usage="Output"/>

<LayoutIntentLink rRef="Size001(Finished)" Usage="Input"/>

<ColorIntentLink rRef="Color003(SoftCover)" Usage="Input"/>

<MediaIntentLink rRef="Media003(SoftCover)" Usage="Input"/>

</ResourceLinkPool>

</JDF>

</JDF>

<JDF DescriptiveName="text for 224 page book" ID="JDF003(Text)" Type="Product" Status="Waiting">

<ResourcePool>

<Component ID="Item004(Text)" Class="Quantity" Status="Unavailable" DescriptiveName=  
"Reader text for hard or soft cover 224 page book" ComponentType="PartialProduct"/>

<ColorIntent ID="Color001(Text)" Class="Intent" Status="Available">

<Coverage DataType="NumberSpan" Preferred="10"/>

<ColorStandard DataType="NameSpan" Preferred="MonoChrome"/>

<InkManufacturer Range="Black" DataType="NameSpan"/>

</ColorIntent>

<MediaIntent ID="Media001(Text)" Class="Intent" Status="Available">

<FrontCoatings DataType="NameSpan" Preferred="None"/>

<StockType DataType="NameSpan" Preferred="bond"/>

<USWeight DataType="NumberSpan" Preferred="9"/>

<Opacity DataType="EnumerationSpan" Preferred="Opaque"/>

</MediaIntent>

</ResourcePool>

<ResourceLinkPool>

<ComponentLink rRef="Item004(Text)" Usage="Output"/>

<ColorIntentLink rRef="Color001(Text)" Usage="Input"/>

<MediaIntentLink rRef="Media001(Text)" Usage="Input"/>

<LayoutIntentLink rRef="Size001(Finished)" Usage="Input"/>

</ResourceLinkPool>

</JDF>

</jdf:JDF>

</RFQ>

</Request>

</PrintTalk>

### PrintTalk Version of Quotation

<?xml version="1.0" encoding="utf-8"?>

<PrintTalk xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.printtalk.org/schema"   
xmlns:jdf="http://www.CIP4.org/JDFSchema\_1\_1"   
xsi:schemaLocation="http://www.printtalk.org/schema PrintTalk\_1\_1.xsd" version="1.1" payloadID="107778"   
timestamp="2013-07-25T22:39-08:00">

<!--version: This is the PrintTalk version; borrowed from cXML.-->

<!--payloadID: This is transport unique ID of the message; borrowed from cXML.-->

<Header>

<From>

<Credential domain="ECompany.com">

<Identity>JJ Printing</Identity>

</Credential>

<Credential domain="DUNS">

<Identity>06-358-9998</Identity>

</Credential>

</From>

<To>

<Credential domain="DNS">

<Identity>www.billsfinebooks.com</Identity>

</Credential>

<Credential domain="ECompany.com">

<Identity>Bill's Fine Books</Identity>

</Credential>

<Credential domain="DUNS">

<Identity>06-388-7745</Identity>

</Credential>

</To>

<Sender>

<Credential domain="DNS">

<Identity>www.JJPrinting.com</Identity>

<SharedSecret>rosebud</SharedSecret>

</Credential>

<UserAgent>EFD 6.0</UserAgent>

</Sender>

</Header>

<Request>

<Quotation AgentID="Carlos" AgentDisplayName="Carlos Chavez" RequestDate="2013-07-25T10:00-08:00"   
BusinessID="Quote744910" BusinessRefID="RFQ\_A3317" Currency="USD" Estimate="true" Expires="2013-08-26T1700-0800">

<!--Print Provider sends a non-binding price. Just an estimate-->

<Quote QuoteID="Quote\_1">

<Pricing>

<Price LineID="DI1\_1" DescriptiveName="Hard Cover Books" Amount="7500" Unit="copies" Price="24150.00">

<Additional Amount="1000" Price="2650.00"/>

<jdf:Comment>Estimated price $3.22 per book. Additional price $2.65 per book + shipping</Comment>

</Price>

<Price LineID="DI1\_2" DescriptiveName="Shipping" Price="1233.00">

< jdf:Comment>Shipped UPS bookrate</Comment>

</Price>

<Price LineID="DI2\_1" DescriptiveName="Soft Cover Book" Amount="7500" Unit="copies" Price="8800.00">

<Additional Amount="1000" Price="1230.00"/>

<jdf:Comment>Estimated price $1.76 per book. Additional price $1.23 per book + shipping </Comment>

</Price>

<Price LineID="DI2\_2" DescriptiveName="Shipping" Price="783.00">

< jdf:Comment>Shipped UPS bookrate</Comment>

</Price>

</Pricing>

<jdf:JDF DescriptiveName="224 page hard and soft cover book" ID="JDF000-Root" JobID="BuyerJob001"   
Type="Product" Status="Waiting" Version="1.1" xmlns="http://www.CIP4.org/JDFSchema\_1\_1">

<!--JobID: sender's reference to a job/project.-->

<!--Version: JDF version.-->

<AuditPool>

<!--Not required by PrintTalk, may be used at the discretion of the document creator.-->

<Created Author="PrintTalk"   
TimeStamp="2013-07-1T11:20-08:00"/>

</AuditPool>

<ResourcePool>

<CustomerInfo CustomerID="pb4653/99">

<ContactRef rRef="Contact01"/>

</CustomerInfo>

<DeliveryIntent ID="Delivery001" Class="Intent"   
Status="Available">

<DropIntent>

<Required DataType="TimeSpan"   
Preferred="2013-09-30T09:30-8:00"/>

<!--Date by which the product is to be delivered-->

<ContactRef rRef="Contact02"/>

<DropItemIntent Amount="7500" >

<ComponentRef rRef="Item001(HardBook)"/>

<jdf:GeneralID IDUsage="LineID" IDValue=" DI1\_1"/>

<jdf:GeneralID IDUsage="LineID" IDValue=" DI1\_2"/>

</DropItemIntent>

<DropItemIntent Amount="5000" >

<ComponentRef rRef="Item003(SoftBook)"/>

<jdf:GeneralID IDUsage="LineID" IDValue=" DI2\_1"/>

<jdf:GeneralID IDUsage="LineID" IDValue=" DI2\_2"/>

</DropItemIntent>

</DropIntent>

<Comment>Delivery of hardcover and softcover job</Comment>

</DeliveryIntent>

<Company ID="Company01" Class="Parameter" Status="Available" OrganizationName="Mega Corp"/>

<Contact ID="Contact01" Class="Parameter" Status="Available" ContactTypes="Customer Billing">

<Address Street="820 N. French Street" City="Wilmington" Region="DE" PostalCode="19801">

<ExtendedAddress>Attention: Accounts Payable</ExtendedAddress>

</Address>

<Person JobTitle="Purchasing Manager" FirstName="Lisa" FamilyName="Luft"/>

<CompanyRef rRef="Company01"/>

</Contact>

<Contact ID="Contact02" Class="Parameter" Status="Available" ContactTypes="Delivery">

<Address Street="555 Maple Drive" City="San Mateo" Region="CA" PostalCode="94403">

<ExtendedAddress>Suite 245</ExtendedAddress>

</Address>

<Person JobTitle="Head of Book Division" FirstName="William" FamilyName="Johnson"/>

<CompanyRef rRef="Company01"/>

</Contact>

</ResourcePool>

<ResourceLinkPool>

<DeliveryIntentLink rRef="Delivery001" Usage="Input"/>

<CustomerInfoLink rRef="pb4653/99" Usage="Input"/>

</ResourceLinkPool>

<JDF DescriptiveName=  
"224 page hard case bound book with a 4/0 dust jacket" ID="JDF001(HardBook)" Type="Product" Status="Waiting">

<!--For Quote, whatever JDF "Product" elements necessary to specify components to be delivered.-->

<ResourcePool>

<Component ID="Item001(HardBook)" Class="Quantity" Status="Unavailable"   
DescriptiveName="224 page hard case bound book with a 4/0 dust jacket" ComponentType="FinalProduct"/>

<LayoutIntent ID="Size001(Finished)" Class="Intent" Status="Available">

<Dimensions DataType="XYPairSpan" Preferred="612 792" Range="576 720~648 864"/>

<Pages DataType="IntegerSpan" Preferred="224"/>

</LayoutIntent>

<BindingIntent ID="Bind001(HardCover)" Class="Intent" Status="Available">

<BindingType DataType="EnumerationSpan" Preferred="HardCover"/>

<BindingLength DataType="EnumerationSpan" Preferred="Long"/>

</BindingIntent>

</ResourcePool>

<ResourceLinkPool>

<ComponentLink rRef="Item001(HardBook)" Usage="Output"/>

<ComponentLink rRef="Item002(HardCase)" Usage="Input" ProcessUsage="Cover"/>

<ComponentLink rRef="Item004(Text)" Usage="Input"/>

<ComponentLink rRef="Item006(DustJacket)" Usage="Input"/>

<BindingIntentLink rRef="Bind001(HardCover)" Usage="Input"/>

<LayoutIntentLink rRef="Size001(Finished)" Usage="Input"/>

</ResourceLinkPool>

<JDF DescriptiveName="DustJacket for Hard Cover" ID="JDF004(DustJacket)" Type="Product" Status="Waiting">

<ResourcePool>

<Component ID="Item006(DustJacket)" Class="Quantity" Status="Unavailable"   
DescriptiveName="Dust Jacket" ComponentType="PartialProduct"/>

<ColorIntent ID="Color002(DustJacket)" Class="Intent" Status="Available">

<Coverage DataType="NumberSpan" Preferred="50"/>

<ColorStandard DataType="NameSpan" Preferred="CMYK" Priority="Required"/>

<InkManufacturer DataType="NameSpan" Preferred="ToyoCrayola" Priority="Required"/>

</ColorIntent>

<MediaIntent ID="Media002(DustJacket)" Class="Intent" Status="Available">

<FrontCoatings DataType="EnumerationSpan" Preferred="None"/>

<StockType DataType="NameSpan" Preferred="Offset"/>

</MediaIntent>

</ResourcePool>

<ResourceLinkPool>

<ComponentLink rRef="Item006(DustJacket)" Usage="Output"/>

<ColorIntentLink rRef="Color002(DustJacket)" Usage="Input"/>

<LayoutIntentLink rRef="Size001(Finished)" Usage="Input"/>

<MediaIntentLink rRef="Media002(DustJacket)" Usage="Input"/>

</ResourceLinkPool>

</JDF>

<JDF DescriptiveName="Case for Hard Cover" ID="JDF006(Case)" Type="Product" Status="Waiting">

<ResourcePool>

<Component ID="Item002(HardCase)" Class="Quantity" Status="Unavailable" DescriptiveName="Book Case"   
ComponentType="PartialProduct"/>

<MediaIntent ID="Media001(Case)" Class="Intent" Status="Available">

<MediaColor DataType="EnumerationSpan" Preferred="Black"/>

<StockType DataType="NameSpan" Preferred="Cloth"/>

</MediaIntent>

</ResourcePool>

<ResourceLinkPool>

<ComponentLink rRef="Item002(HardCase)" Usage="Output"/>

<LayoutIntentLink rRef="Size001(Finished)" Usage="Input"/>

<MediaIntentLink rRef="Media001(Case)" Usage="Input"/>

</ResourceLinkPool>

</JDF>

</JDF>

<JDF DescriptiveName="224 page soft cover, perfect bound book" ID="JDF002(SoftBook)" Type="Product" Status="Waiting">

<ResourcePool>

<Component ID="Item003(SoftBook)" Class="Quantity" Status="Unavailable"   
DescriptiveName="soft cover, perfect bound book" ComponentType="FinalProduct"/>

<BindingIntent ID="Bind002(SoftCover)" Class="Intent" Status="Available">

<BindingType DataType="EnumerationSpan" Preferred="SoftCover"/>

</BindingIntent>

</ResourcePool>

<ResourceLinkPool>

<ComponentLink rRef="Item003(SoftBook)" Usage="Output"/>

<ComponentLink rRef="Item005(SoftCover)" Usage="Input" ProcessUsage="Cover"/>

<ComponentLink rRef="Item004(Text)" Usage="Input"/>

<LayoutIntentLink rRef="Size001(Finished)" Usage="Input"/>

<BindingIntentLink rRef="Bind002(SoftCover)" Usage="Input"/>

</ResourceLinkPool>

<JDF DescriptiveName="Soft Cover" ID="JDF005(SoftCover)" Type="Product" Status="Waiting">

<ResourcePool>

<Component ID="Item005(SoftCover)" Class="Quantity" Status="Unavailable"   
DescriptiveName="soft cover"   
ComponentType="PartialProduct"/>

<MediaIntent ID="Media003(SoftCover)" Class="Intent" Status="Available">

<FrontCoatings DataType="EnumerationSpan" Preferred="None"/>

<StockType DataType="NameSpan" Preferred="Offset"/>

</MediaIntent>

<ColorIntent ID="Color003(SoftCover)" Class="Intent" Status="Available">

<Coverage DataType="NumberSpan" Preferred="50"/>

<ColorStandard DataType="NameSpan" Preferred="CMYK" Priority="Required"/>

<InkManufacturer DataType="NameSpan" Preferred="ToyoCrayola" Priority="Required"/>

</ColorIntent>

</ResourcePool>

<ResourceLinkPool>

<ComponentLink rRef="Item005(SoftCover)" Usage="Output"/>

<LayoutIntentLink rRef="Size001(Finished)" Usage="Input" />

<ColorIntentLink rRef="Color003(SoftCover)" Usage="Input"/>

<MediaIntentLink rRef="Media003(SoftCover)" Usage=**"Input"**/>

</ResourceLinkPool>

</JDF>

</JDF>

<JDF DescriptiveName="text for 224 page book" ID="JDF003(Text)" Type="Product" Status="Waiting">

<ResourcePool>

<Component ID="Item004(Text)" Class="Quantity" Status="Unavailable"   
DescriptiveName=  
"Reader text for hard or soft cover 224 page book" ComponentType="PartialProduct"/>

<ColorIntent ID="Color001(Text)" Class="Intent" Status="Available">

<ColorStandard DataType="NameSpan" Preferred="MonoChrome"/>

<Coverage DataType="NumberSpan" Preferred="10"/>

<InkManufacturer Range="Black" DataType="NameSpan"/>

</ColorIntent>

<MediaIntent ID="Media001(Text)" Class="Intent" Status="Available">

<FrontCoatings DataType="EnumerationSpan" Preferred="None"/>

<Opacity DataType="EnumerationSpan" Preferred="Opaque"/>

<StockType DataType="NameSpan" Preferred="Bond"/>

<USWeight DataType="NumberSpan" Preferred="9"/>

</MediaIntent>

</ResourcePool>

<ResourceLinkPool>

<ComponentLink rRef="Item004(Text)" Usage="Output"/>

<ColorIntentLink rRef="Color001(Text)" Usage="Input"/>

<MediaIntentLink rRef="Media001(Text)" Usage="Input"/>

<LayoutIntentLink rRef="Size001(Finished)" Usage="Input"/>

</ResourceLinkPool>

</JDF>

</jdf:JDF>

</Quote>

</Quotation >

</Request>

</PrintTalk>

## Example C – Sunrise PurchaseOrder

In PrintTalk, the response to an looks similar to that , usually restating many of the items in the original . In the same way, a response to a looks similar to the . Of course, in the , any options are eliminated and the pricing specifies the exact quantity and tolerance for each delivery. It is also acceptable for the to simply acknowledge the quote and respond with acceptance without restating any of the specifications.

By using JDF, PrintTalk can support another kind of entirely. Sometimes, it’s necessary to purchase an item from a printer that has a pre-established price and well-defined content. To embrace this Catalog-based part of the print market, JDF/PrintTalk allows finished goods to be ordered in a PurchaseOrder as components using GeneralID[@IDUsage="CatalogID"].

The following example uses Catalog elements as the contents of a Purchase Order.

### Text Version of RFQ

*PURCHASE ORDER*

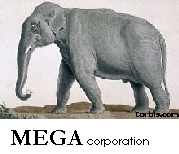
24022

Bill to:

Mega Corporation

4100 State Street

Little Rock, AR 72201



|  |  |
| --- | --- |
| SUPPLIER ID: | 730995 |
| ORDER DATE: | 10-Jul-2007 |
| REQUESTOR: | Pat Butler |
| EMAIL: | [pbutler@megacorp.com](mailto:pbutler@megacorp.com) |
| FAX NO.: | 973-555-1212 |
| REFERENCE: | Sales |

Provider:

Sunrise Printing

444 South Main Street

Albany, NY 12205

Ship To:

Phil Chavez

c/o Reylon Division

24 Madison Avenue

Suite 1

New York, NY 10022

|  |  |  |
| --- | --- | --- |
| Terms | Shipping Method | Due Date |
| 2% 10, Net 30 | UPS | 8/22/02 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Item | Quantity | U / M | Description | Unit Price | Disc % | Total |
| 1 | 1 | 500 | Business Cards–Phil Chavez | 62.50 | 0 | 62.50 |
| 2 | 1 | 500 | Notepad-Phil Chavez | 54.00 | 10 | 48.60 |
| 3 | 250 | 1 | Reylon Mailer | 3.04 | 0 | 760.00 |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

|  |  |
| --- | --- |
| TOTAL: | 871.10 |
| DISCOUNT: | .00 |
| TAX: | .00 |
| SHIPPING: | 12.00 |
| OTHER: | .00 |
| ORDER TOTAL: | 883.10 |

**Please state our PO number on all invoices.**

1. Refer all inquiries to buyer.
2. We reserve the right to return all over shipments for credit at Vendor’s expense.
3. This order subject to Terms and Conditions on reverse side.

### PrintTalk Version of RFQ

<?xml version="1.0" encoding="UTF-8"?>

<PrintTalk xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.printtalk.org/schema"   
xmlns:jdf="http://www.CIP4.org/JDFSchema\_1\_1"   
xsi:schemaLocation="http://www.printtalk.org/schema PrintTalk\_1\_1.xsd" version="1.1" payloadID="107448"   
timestamp="2013-07-10T22:39Z">

<Header>

<From>

<Credential domain="DNS">

<Identity>www.megacorp.com</Identity>

</Credential>

<Credential domain="ECompany.com">

<Identity>Mega Corp</Identity>

</Credential>

<Credential domain="DUNS">

<Identity>063887745</Identity>

</Credential>

</From>

<To>

<Credential domain="ECompany.com">

<Identity>Sunrise Printing</Identity>

</Credential>

<Credential domain="DUNS">

<Identity>063589998</Identity>

</Credential>

</To>

<Sender>

<Credential domain="DNS">

<Identity>PrintORama.com</Identity>

<SharedSecret>firehose</SharedSecret>

</Credential>

<UserAgent>Print Buyer v.54.9</UserAgent>

</Sender>

</Header>

<Request>

<PurchaseOrder AgentID="Patb" AgentDisplayName="Pat Butler" RequestDate="2013-07-10T1000-0800" BusinessID="24022" Currency="USD" Expires="2013-08-10T1700-0800">

<Pricing>

<Price LineID="DI1\_1" DescriptiveName="Total" Price="62.50"/>

<Price LineID="DI1\_2" DescriptiveName="Discount"Unit="Percent"/>

<Price LineID="DI2\_1" DescriptiveName="Total" Price="54.00"/>

<Price LineID="DI2\_2" DescriptiveName="Discount" Price="5.40"/>

<Price LineID="DI3\_1" DescriptiveName="Total" Price="760.00"/>

<Price LineID="DI4\_1" DescriptiveName="Total" Price="871.10"/>

<Price LineID="DI4\_2" DescriptiveName=" Shipping and Handling" Price="12.00" />

<Price LineID="DI4\_3" DescriptiveName="Tax" />

<Price LineID="DI4\_4" DescriptiveName="Discount" />

<Payment>

<PayTerm > 2% 10, Net 30</PayTerm>

</Payment>

</Pricing>

<jdf:JDF DescriptiveName="Purchase Order 24022" ID="JDF000-Root" JobID="0901-1243" Type="Product" Status="Waiting" Version="1.1" xmlns="http://www.CIP4.org/JDFSchema\_1\_1">

<ResourcePool>

<CustomerInfo CustomerID="423163" >

<ContactRef rRef="Contact02"/>

</CustomerInfo>

<Contact ID="Contact01" Class="Parameter" Status="Available" ContactTypes="Delivery">

<Address Street="24 Madison Avenue" City="New York" Region="NY" PostalCode="10022">

<ExtendedAddress>Suite 1</ExtendedAddress>

</Address>

<Person JobTitle="Sales Manager, East Coast" FirstName="Phil" FamilyName="Chavez"/>

<Company ID="Company01" Class="Parameter" Status="Available" OrganizationName="Reylon Division"/>

</Contact>

<Contact ID="Contact02" Class="Parameter" Status="Available" ContactTypes="Billing Customer">

<Address Street="4100 State Street"   
City="Little Rock" Region="AR" PostalCode="72201"/>

<Company ID="Company02" Class="Parameter" Status="Available" OrganizationName="Mega Corporation"/>

</Contact>

<DeliveryIntent ID="Delivery001" Class="Intent" Status="Available">

<Method DataType="NameSpan" Preferred="UPS"/>

<DropIntent>

<Required DataType="TimeSpan"   
Preferred="2013-08-22T09:30-8:00"/>

<ContactRef rRef="Contact01"/>

<DropItemIntent Amount="1" Unit="500">

<ComponentRef rRef="Item001"/>

<jdf:GeneralID IDUsage="LineID" IDValue=" DI1\_1"/>

<jdf:GeneralID IDUsage="LineID" IDValue=" DI1\_2"/>

</DropItemIntent>

<DropItemIntent Amount="1" Unit="500">

<ComponentRef rRef="Item002"/>

<jdf:GeneralID IDUsage="LineID" IDValue=" DI2\_1"/>

<jdf:GeneralID IDUsage="LineID" IDValue=" DI2\_2"/>

</DropItemIntent>

<DropItemIntent Amount="250" Unit="1">

<ComponentRef rRef="Item003"/>

<jdf:GeneralID IDUsage="LineID" IDValue=" DI3\_1"/>

</DropItemIntent>

</DropIntent>

<jdf:GeneralID IDUsage="LineID" IDValue=" DI4\_1"/>

<jdf:GeneralID IDUsage="LineID" IDValue=" DI4\_2"/>

<jdf:GeneralID IDUsage="LineID" IDValue=" DI4\_3"/>

<jdf:GeneralID IDUsage="LineID" IDValue=" DI4\_4"/>

</DeliveryIntent>

<Component ID="Item001" Class="Quantity" Status="Available" DescriptiveName="Business Cards - Phil Chavez"   
ComponentType="FinalProduct" CatalogID="BC-Phil Chavez" ProductID="Reylon-123"   
CatalogDetails="Business Cards - Phil Chavez"/>

<Component ID="Item002" Class="Quantity" Status="Available" DescriptiveName="Notepad - Phil Chavez"   
ComponentType="FinalProduct" CatalogID="NP-Phil Chavez" ProductID="Reylon-124"   
CatalogDetails="Notepad - Phil Chavez"/>

<Component ID="Item003" Class="Quantity" Status="Available" DescriptiveName="Reylon Mailer"   
ComponentType="FinalProduct" CatalogID="RM 25.5" ProductID="Reylon-125"   
CatalogDetails="Reylon Mailer"/>

</ResourcePool>

<ResourceLinkPool>

<DeliveryIntentLink rRef="Delivery001" Usage="Input"/>

<CustomerLink rRef="423163" Usage="Input"/>

</ResourceLinkPool>

</jdf:JDF>

</PurchaseOrder>

</Request>

</PrintTalk>

## Example D – Collaboration Scenario

The fourth example illustrates a scenario that occurs among four parties involved in a print production process. A PB1 and a PB2 both are ordering products via a “dealer” which in turns forwards the orders to a .

In a first step, both s send a to the dealer. The dealer then merges the two elements into a new (PO3) and sends it to the . The finally sends status information back to the dealer who in turn might forward that back to his customers. The sends the physical products directly to the two s and identifies them with the s’ purchase order numbers.

Note: the s that are sent in between the elements and the elements are not shown explicitly for sake of space.

Figure 8: Diagram of Business Transactions among Four Collaborating Parties



### PrintTalk Version of PurchaseOrder for Print Buyer PB1

The PrintTalk/JDF files exchanged by the parties might look as follows (please note that the JDF part is not fully specified):

<?xml version="1.0" encoding="UTF-8"?>

<PrintTalk xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.printtalk.org/schema" xmlns:jdf="http://www.CIP4.org/JDFSchema\_1\_1" xsi:schemaLocation="http://www.printtalk.org/schema PrintTalk\_1\_1.xsd" version="1.1" payloadID="107448" timestamp="2013-09-05T1000-0800">

<Header>

<From>

<Credential domain="DNS">

<Identity>www.fredsfinerugs.com</Identity>

</Credential>

<Credential domain="DUNS">

<Identity>063333745</Identity>

</Credential>

</From>

<To>

<Credential domain="ECompany.com">

<Identity>Print Dealer</Identity>

</Credential>

<Credential domain="DUNS">

<Identity>063566668</Identity>

</Credential>

</To>

<Sender>

<Credential domain="DNS">

<Identity>PrintORama.com</Identity>

<SharedSecret>firehose</SharedSecret>

</Credential>

<UserAgent>PrintORama v.1.0</UserAgent>

</Sender>

</Header>

<Request>

<PurchaseOrder AgentID="LisaL" AgentDisplayName="Lisa Luft" RequestDate="2013-09-05T1000-0800" BusinessID="12345" Currency="USD" Expires="2013-09-10T1700-0800">

<jdf:JDF DescriptiveName="Winter Sales Promo" ID="JDF000-Root" JobID="0901-1243" Type="Product" Status="Waiting" Version="1.1" xmlns="http://www.CIP4.org/JDFSchema\_1\_1">

<ResourcePool>

<CustomerInfo ID="Customer01" CustomerID="952425" >

<ContactRef rRef="Contact01"/>

</CustomerInfo>

<Contact ID="Contact01" Class="Parameter" Status="Available" ContactTypes="Billing Delivery Customer">

<Address Street="1745 First Street" City="Dublin" Region="OH" PostalCode="43202"/>

<Person JobTitle="Sales Administrator" FirstName="June" FamilyName="Jones"/>

<Company ID="Company01" Class="Parameter" Status="Available" OrganizationName="Fred’s fine Rugs"/>

</Contact>

<DeliveryIntent ID="Delivery001" Class="Intent" Status="Available">

<Method DataType="NameSpan" Preferred="UPS"/>

<DropIntent>

<Required DataType="TimeSpan"   
Preferred="2013-09-22T09:30-8:00"/>

<ContactRef rRef="Contact01"/>

<DropItemIntent Amount="1" Unit="500">

<ComponentRef rRef="Item001"/>

</DropItemIntent>

</DropIntent>

</DeliveryIntent>

</ResourcePool>

<ResourceLinkPool>

<DeliveryIntentLink rRef="Delivery001" Usage="Input"/>

<CustomerInfoLink rRef="Customer01" Usage="Input"/>

</ResourceLinkPool>

<JDF DescriptiveName="Ordered Product" ID="JDF001" Type="Product" Status="Waiting">

<ResourcePool>

<!--ResourcePool only added as placeholder-->

</ResourcePool>

<ResourceLinkPool>

<!--ResourceLinkPool only added as placeholder-->

</ResourceLinkPool>

<JDF>

<!--Sub-JDF-node only added as placeholder-->

</JDF>

</JDF>

</jdf:JDF>

<Pricing >

<Price DescriptiveName="Total" Price="1531.00"/>

<Price DescriptiveName ="Shipping and Handling" Price="42.00"/>

<Price DescriptiveName ="Tax" />

<Price DescriptiveName ="Discount" />

<Payment>

<PayTerm>2% 10, Net 30</PayTerm>

</Payment>

</Pricing>

</PurchaseOrder>

</Request>

</PrintTalk>

### PrintTalk Version of PurchaseOrder for Print Buyer PB2

<?xml version="1.0" encoding="UTF-8"?>

<PrintTalk xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.printtalk.org/schema" xmlns:jdf="http://www.CIP4.org/JDFSchema\_1\_1" xsi:schemaLocation="http://www.printtalk.org/schema PrintTalk\_1\_1.xsd" version="1.1" payloadID="273743" timestamp="2013-09-05T900-0800">

<Header>

<From>

<Credential domain="DNS">

<Identity>www.texascabinet.com</Identity>

</Credential>

<Credential domain="DUNS">

<Identity>05284945563</Identity>

</Credential>

</From>

<To>

<Credential domain="ECompany.com">

<Identity>Print Dealer</Identity>

</Credential>

<Credential domain="DUNS">

<Identity>063589998</Identity>

</Credential>

</To>

<Sender>

<Credential domain="DNS">

<Identity>PrintORama.com</Identity>

<SharedSecret>rosebud</SharedSecret>

</Credential>

<UserAgent>PrintORama v.1.0</UserAgent>

</Sender>

</Header>

<Request>

<PurchaseOrder AgentID="SteveP" AgentDisplayName="Steve Phillips" RequestDate="2013-09-05T900-0800" BusinessID="6789" Currency="USD" Expires="2013-09-09T1700-0800">

<jdf:JDF DescriptiveName="New Years Clearance sale" ID="JDF000-Root" JobID="0901-1266" Type="Product" Status="Waiting" Version="1.1" xmlns="http://www.CIP4.org/JDFSchema\_1\_1">

<ResourcePool>

<CustomerInfo ID="Customer01" CustomerID="952501" >

<ContactRef rRef="Contact01"/>

</CustomerInfo>

<Contact ID="Contact01" Class="Parameter" Status="Available" ContactTypes="Billing Delivery Customer">

<Address Street="42425 Maple Street" City="San Antonio" Region="TX" PostalCode="78294"/>

<Person JobTitle="Marketing Officer" FirstName="John" FamilyName="Stockton"/>

<Company ID="Company02" Class="Parameter" Status="Available" OrganizationName="Texas Cabinet Company"/>

</Contact>

<DeliveryIntent ID="Delivery001" Class="Intent" Status="Available">

<Method DataType="NameSpan" Preferred="UPS"/>

<DropIntent>

<Required DataType="TimeSpan"   
Preferred="2013-09-30T12:00-8:00"/>

<ContactRef rRef="Contact01"/>

<DropItemIntent Amount="100" Unit="1">

<ComponentRef rRef="Item001"/>

</DropItemIntent>

</DropIntent>

</DeliveryIntent>

</ResourcePool>

<ResourceLinkPool>

<DeliveryIntentLink rRef="Delivery001" Usage="Input"/>

<CustomerInfoLink rRef= "Customer01" Usage="Input"/>

</ResourceLinkPool>

<JDF DescriptiveName="Ordered Product" ID="JDF001" Type="Product" Status="Waiting">

<ResourcePool>

<!--ResourcePool only added as placeholder-->

</ResourcePool>

<ResourceLinkPool>

<!--ResourceLinkPool only added as placeholder-->

</ResourceLinkPool>

<JDF>

<!--Sub-JDF-node only added as placeholder-->

</JDF>

</JDF>

</jdf:JDF>

<Pricing >

<Price DescriptiveName="Total" Price="1012.80"/>

<Price DescriptiveName="Shipping and Handling" Price="34.00"/>

<Price DescriptiveName="Tax"/>

<Price DescriptiveName="Discount" />

<Payment>

<PayTerm>2% 10, Net 30</PayTerm>

</Payment>

</Pricing>

</PurchaseOrder>

</Request>

</PrintTalk>

### PrintTalk Version of PurchaseOrder for Dealer

<?xml version="1.0" encoding="UTF-8"?>

<PrintTalk xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.printtalk.org/schema" xmlns:jdf="http://www.CIP4.org/JDFSchema\_1\_1" xsi:schemaLocation="http://www.printtalk.org/schema PrintTalk\_1\_1.xsd" version="1.1" payloadID="13474875" timestamp="2013-09-06T1000-0800">

<Header>

<From>

<Credential domain="DNS">

<Identity>Print Dealer</Identity>

</Credential>

<Credential domain="DUNS">

<Identity>063589998</Identity>

</Credential>

</From>

<To>

<Credential domain="AvalonPrinting.com">

<Identity>Avalon Printing</Identity>

</Credential>

<Credential domain="DUNS">

<Identity>012737459</Identity>

</Credential>

</To>

<Sender>

<Credential domain="DNS">

<Identity>PrintORama.com</Identity>

<SharedSecret>catsndogs</SharedSecret>

</Credential>

<UserAgent>PrintORama v.1.0</UserAgent>

</Sender>

</Header>

<Request>

<PurchaseOrder AgentID="MLow" AgentDisplayName="Margaret Low" RequestDate="2013-09-06T1000-0800" BusinessID="1111" Currency="USD" Expires="2013-09-10T1700-0800">

<jdf:JDF DescriptiveName="Flyers" ID="JDF000-Root" JobID="0901-1299" Type="Product" Status="Waiting" Version="1.1" xmlns="http://www.CIP4.org/JDFSchema\_1\_1">

<ResourcePool>

<CustomerInfo ID="Customer01" CustomerID="752354" >

<ContactRef rRef="Contact01"/>

</CustomerInfo>

<Contact ID="Contact01" Class="Parameter" Status="Available" ContactTypes="Billing Customer">

<Address Street="123 5th Street" City="New York" Region="NY" PostalCode="10024"/>

<Person JobTitle="Sales Manager" FirstName="Bill" FamilyName="Mayers"/>

<Company ID="Dealer01" Class="Parameter" Status="Available" OrganizationName="Print Dealer"/>

</Contact>

<Contact ID="Contact02" Class="Parameter" Status="Available" ContactTypes="Delivery">

<Address Street="1745 First Street" City="Dublin" Region="OH" PostalCode="43202"/>

<Person JobTitle="Sales Administrator" FirstName="June" FamilyName="Jones"/>

<Company ID="Company01" Class="Parameter" Status="Available" OrganizationName="Fred’s Fine Rugs"/>

</Contact>

<Contact ID="Contact03" Class="Parameter" Status="Available" ContactTypes="Delivery">

<Address Street="42425 Maple Street" City="San Antonio" Region="TX" PostalCode="78294"/>

<Person JobTitle="Marketing Officer" FirstName="John" FamilyName="Stockton"/>

<Company ID="Company02" Class="Parameter" Status="Available"   
OrganizationName="Texas Cabinet Company"/>

</Contact>

<DeliveryIntent ID="Delivery001" Class="Intent" Status="Available">

<Method DataType="NameSpan" Preferred="UPS"/>

<DropIntent>

<Required DataType="TimeSpan"   
Preferred="2013-09-22T09:30-8:00"/>

<ContactRef rRef="Contact02"/>

<DropItemIntent Amount="1" Unit="500">

<ComponentRef rRef="Item001"/>

</DropItemIntent>

<jdf:GeneralID IDUsage="LineID" IDValue=" DI1\_1"/>

<jdf:GeneralID IDUsage="LineID" IDValue=" DI1\_2"/>

<jdf:GeneralID IDUsage="LineID" IDValue=" DI1\_3"/>

<jdf:GeneralID IDUsage="LineID" IDValue=" DI1\_4"/>

</DropIntent>

<DropIntent>

<Required DataType="TimeSpan"   
Preferred="2013-09-30T12:00-8:00"/>

<ContactRef rRef="Contact03"/>

<DropItemIntent Amount="100" Unit="1">

<ComponentRef rRef="Item002"/>

</DropItemIntent>

<jdf:GeneralID IDUsage="LineID" IDValue=" DI2\_1"/>

<jdf:GeneralID IDUsage="LineID" IDValue=" DI2\_2"/>

<jdf:GeneralID IDUsage="LineID" IDValue=" DI2\_3"/>

<jdf:GeneralID IDUsage="LineID" IDValue=" DI2\_4"/>

</DropIntent>

</DeliveryIntent>

</ResourcePool>

<ResourceLinkPool>

<DeliveryIntentLink rRef="Delivery001" Usage="Input"/>

<CustomerLink rRef="Customer01" Usage="Input"/>

</ResourceLinkPool>

<JDF DescriptiveName="Winter Sales Promo" ID="JDF001" JobPartID="0901-1243"   
Type="Product" Status="Waiting">

<ResourcePool>

<CustomerInfo ID="Customer02" CustomerJobName="0901-1243" CustomerOrderID="12345">

<ContactRef rRef="Contact02"/>

</CustomerInfo>

</ResourcePool>

<ResourceLinkPool>

<CustomerInfoLink rRef="Customer02" Usage="Input"/>

</ResourceLinkPool>

<JDF>

<!--Sub-JDF-node only added as placeholder-->

</JDF>

</JDF>

<JDF DescriptiveName=" New Years Clearance sale" ID="JDF002" JobPartID="0901-1266" Type="Product" Status="Waiting">

<ResourcePool>

<CustomerInfo ID="Customer03" CustomerJobName="0901-1266" CustomerOrderID="6789">

<ContactRef rRef="Contact03"/>

</CustomerInfo>

</ResourcePool>

<ResourceLinkPool>

<CustomerInfoLink rRef="Customer03" Usage="Input"/>

</ResourceLinkPool>

<JDF>

<!--Sub-JDF-node only added as placeholder-->

</JDF>

</JDF>

</jdf:JDF>

<Pricing >

<Price LineID="DI1\_1" DescriptiveName="Total" Price="871.10"/>

<Price LineID="DI1\_2" DescriptiveName="Shipping and Handling" Price="12.00"/>

<Price LineID="DI1\_3" DescriptiveName="Tax" />

<Price LineID="DI1\_4" DescriptiveName="Discount" />

<Price LineID="DI2\_1" DescriptiveName="Total" Price="612.80"/>

<Price LineID="DI2\_2" DescriptiveName="Shipping and Handling" Price="34.00"/>

<Price LineID="DI2\_3" DescriptiveName="Tax" HasPrice="false"/>

<Price LineID="DI2\_4" DescriptiveName="Discount" HasPrice="false"/>

<Payment>

<PayTerm>2% 10, Net 30</PayTerm>

</Payment>

</Pricing>

</PurchaseOrder>

</Request>

</PrintTalk>

### PrintTalk Version of OrderStatusResponse (1) for Dealer

<?xml version="1.0" encoding="UTF-8"?>

<PrintTalk xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.printtalk.org/schema"   
xmlns:jdf="http://www.CIP4.org/JDFSchema\_1\_1"   
xsi:schemaLocation="http://www.printtalk.org/schema PrintTalk\_1\_1.xsd" version="1.1" payloadID="187455"   
timestamp="2013-09-20T1000-0800">

<Header>

<From>

<Credential domain="AvalonPrinting.com">

<Identity>Avalon Printing</Identity>

</Credential>

<Credential domain="DUNS">

<Identity>012737459</Identity>

</Credential>

</From>

<To>

<Credential domain="DNS">

<Identity>Print Dealer</Identity>

</Credential>

<Credential domain="DUNS">

<Identity>063589998</Identity>

</Credential>

</To>

<Sender>

<Credential domain="DNS">

<Identity>PrintORama.com</Identity>

<SharedSecret>newyork</SharedSecret>

</Credential>

<UserAgent>PrintORama v.1.0</UserAgent>

</Sender>

</Header>

<Request>

<OrderStatusResponse AgentID="PrintORama"   
AgentDisplayName="PrintORama Auto Generated"  
RequestDate="2013-09-20T1000-0800" BusinessID="234" BusinessRefID="Conf\_1111">

<jdf:Notification JobID = "0901-1243" Type = "Milestone">

<Milestone MilestoneType = "ShippingCompleted"/>

</jdf:Notification>

<jdf:Notification JobID = "0901-1266" Type = "Milestone">

<Milestone MilestoneType = "ShippingCompleted"/>

</jdf:Notification>

</OrderStatusResponse>

</Request>

</PrintTalk>

### PrintTalk Version of OrderStatusResponse (2) for Print Buyer PB1

<?xml version="1.0" encoding="UTF-8"?>

<PrintTalk xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.printtalk.org/schema"   
xmlns:jdf="http://www.CIP4.org/JDFSchema\_1\_1"   
xsi:schemaLocation="http://www.printtalk.org/schema PrintTalk\_1\_1.xsd" version="1.1" payloadID="187655"   
timestamp="2013-09-20T1030-0800">

<Header>

<From>

<Credential domain="DNS">

<Identity>Print Dealer</Identity>

</Credential>

<Credential domain="DUNS">

<Identity>063589998</Identity>

</Credential>

</From>

<To>

<Credential domain="DNS">

<Identity>www.fredsfinerugs.com</Identity>

</Credential>

<Credential domain="DUNS">

<Identity>063887745</Identity>

</Credential>

</To>

<Sender>

<Credential domain="DNS">

<Identity>PrintORama.com</Identity>

<SharedSecret>catsndogs</SharedSecret>

</Credential>

<UserAgent>PrintORama v.1.0</UserAgent>

</Sender>

</Header>

<Request>

<OrderStatusResponse AgentID="Dealer" AgentDisplayName="Dealer User" RequestDate="2013-09-20T1030-0800"   
BusinessID="1222" BusinessRefID="Conf\_12345">

<jdf:Notification JobID = "0901-1243" Type = "Milestone">

<Milestone MilestoneType = "ShippingCompleted"/>

</jdf:Notification>

</OrderStatusResponse>

</Request>

</PrintTalk>

### PrintTalk Version of OrderStatusResponse (3) for Print Buyer PB2

<?xml version="1.0" encoding="UTF-8"?>

<PrintTalk xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.printtalk.org/schema"   
xmlns:jdf="http://www.CIP4.org/JDFSchema\_1\_1"   
xsi:schemaLocation="http://www.printtalk.org/schema PrintTalk\_1\_1.xsd" version="1.1" payloadID="187655"   
timestamp="2013-09-20T1030-0800">

<Header>

<From>

<Credential domain="DNS">

<Identity>Print Dealer</Identity>

</Credential>

<Credential domain="DUNS">

<Identity>063589998</Identity>

</Credential>

</From>

<To>

<Credential domain="DNS">

<Identity>www.texascabinet.com</Identity>

</Credential>

<Credential domain="DUNS">

<Identity>05284945563</Identity>

</Credential>

</To>

<Sender>

<Credential domain="DNS">

<Identity>PrintORama.com</Identity>

<SharedSecret>catsndogs</SharedSecret>

</Credential>

<UserAgent>PrintORama v.1.0</UserAgent>

</Sender>

</Header>

<Request>

<OrderStatusResponse AgentID="Dealer" AgentDisplayName="Dealer User" RequestDate="2013-09-20T1030-0800"   
BusinessID="1223" BusinessRefID="Conf\_6789">

<jdf:Notification JobID = "0901-1266" Type = "Milestone">

<Milestone MilestoneType = "ShippingCompleted"/>

</jdf:Notification>

</OrderStatusResponse>

</Request>

</PrintTalk>

# References

## Normative References

[JDF1.5] Job Definition Format (JDF), Version 1.5, published December 2013, available at <http://www.cip4.org>.

[cXML 1.2] cXML User’s Guide, version 1.2, published April 2013, available at <http://xml.cxml.org/current/cXMLUsersGuide.pdf>

[ISO4217] ISO 4217:2008, Codes for the representation of currencies and funds, published 2008, available at http://www.iso.org/iso/iso\_catalogue/catalogue\_tc/catalogue\_detail.htm?csnumber=46121

[ISO8601] ISO 8601:2004, Data elements and interchange formats -- Information interchange -- Representation of dates and times, published in 2004, available at http://www.iso.org/iso/catalogue\_detail?csnumber=40874

[XML] Extensible Markup Language (XML) 1.0 (Fifth Edition), published November 2008, available at http://www.w3.org/TR/2008/REC-xml-20081126/

[XMLNS] Namespaces in XML 1.0 (Third Edition), published December 2009, available at <http://www.w3.org/TR/REC-xml-names/>

