Workflow Automation with CIP4 Technology

CIP4 Technologies II / PrintTalk

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PrintTalk / Introduction

- PrintTalk® is a CIP4 protocol. The current release is the release 2.1, published 16 August 2020:
  - Specification
  - PrintTalk Website

- PrintTalk® is aimed to handle business aspects in the graphic arts industry:
  - Communication between Print Buyer and Print Provider.
  - The interface between both mentioned parties.
PrintTalk / Introduction

- PrintTalk® protocol is used in the background of the systems, for example by:
  - Web-to-Print systems;
  - Customer portals;
Print Talk / Introduction

- PrintTalk® protocol is deployed by MIS – MIS and by MIS – WMS communication:
  - MIS = Management Information System;
  - WMS = Warehouse Management System;
  - E.g., between subsidiaries of a print shop;
Print Provider

Management Information System (MIS)
*Business Workflow*

Production Controller
*Technical Workflow*

Prepress  Press  Postpress  Delivery
Print Talk / Introduction

- PrintTalk® protocol is based on XML, and thus a collection of XML elements (tags):
  - XML = Extensible Markup Language;
  - The root element of a PrintTalk (XML) document is `<PrintTalk ...>...</PrintTalk ...>`

- PrintTalk® elements contain two sub elements:
  - The Header identifies the original sender and the recipient of the PrintTalk transaction.
  - The Request is just a container for a Business Object.
PrintTalk Element

Header  
Sender ID, Recipient ID

Request  
Container for Business Object

Business Object  
Quotation, Purchase Order,…

XJDF/JDF  
Product Definition
Print Talk / Business Objects

- PrintTalk Business Objects (BO) describe the considered business transaction (e.g. request for a quote).

- PrintTalk BO might wrap a XJDF/JDF element:
  » The XJDF/JDF element defines the product that the business transaction refers to.
Print Talk / Business Objects

- PrintTalk® BO describe the currently considered business transaction. 15 BO exist:
  - Cancellation
  - Confirmation
  - ContentDelivery
  - ContentDeliveryResponse
  - Invoice
  - OrderStatusRequest
  - OrderStatusResponse
  - ProofApprovalRequest
Print Talk / Business Objects

» ProofApprovalResponse
» PurchaseOrder
» Quotation
» Refusal
» RFQ
» StockLevelRequest
» StockLevelResponse
Print Talk / Business Objects

- **PrintTalk BO, Cancelation:**
  - To cancel a previously sent PurchaseOrder.
  - For example, if the product is not required anymore, or if no useable content was sent.

- **PrintTalk BO, Confirmation:**
  - If a PP accepts the purchase of an order or a cancellation.

- **PrintTalk BO, ContentDelivery:**
  - Allows the PB to upload any type of content to the PP.
Print Talk / Business Objects

- PrintTalk BO, ContentDeliveryResponse:
  » Allows the PP to provide a feedback to PB regarding the previously performed ContentDelivery.

- PrintTalk BO, Invoice:
  » To request a payment (PP to PB).

- PrintTalk BO, OrderStatusRequest:
  » Allows to query for details of the order status.

- PrintTalk BO, OrderStatusResponse:
  » Response to an OrderStatusRequest.
Print Talk / Business Objects

- PrintTalk BO, ProofApprovalRequest:
  » Print Provider wants a Print Buyer to approve a soft or hard copy order
  » To approve a soft or hard copy order.

- PrintTalk BO, ProofApprovalResponse:
  » Is the response to a ProofApprovalRequest.

- PrintTalk BO, PurchaseOrder:
  » For purchase of a Print Product.
Print Talk / Business Objects

- PrintTalk BO, Quotation:
  » List of Quotes, each of which is an offer to provide a variation of a set of printed products or catalog items.

- PrintTalk BO, Refusal:
  » To decline receipt of a Cancellation, PurchaseOrder, Quotation or RFQ.

- PrintTalk BO, RFQ:
  » To request a quotation.
Print Talk / Business Objects

- **PrintTalk BO, StockLevelRequest:**
  - To query the Print Provider for the available stock levels.

- **PrintTalk BO, StockLevelResponse:**
  - Is the response to a StockLevelRequest.
Business Objects might wrap a XJDF/JDF element:

» The XJDF/JDF element defines the product that the business transaction refers to.
Literature / More PrintTalk Articles

- Specification
- PrintTalk Website
- PrintTalk Samples