FSG Open Print

JTAPI (Job Ticket API)

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Introduction

- **JTAPI stands for:**
  - ☐ Job Ticket Application Programming Interface
  - ☐ Pronounced "jay-tappy", "Job Ticket API", or "jay tee API"

- **A job ticket contains:**
  - ☐ **Instructions** describing how to process and/or print a job
  - ☐ **Information** about the results of a job as it is processed and/or printed

- **A JTAPI job ticket is an electronic replacement of manual hard copy instructions and information**
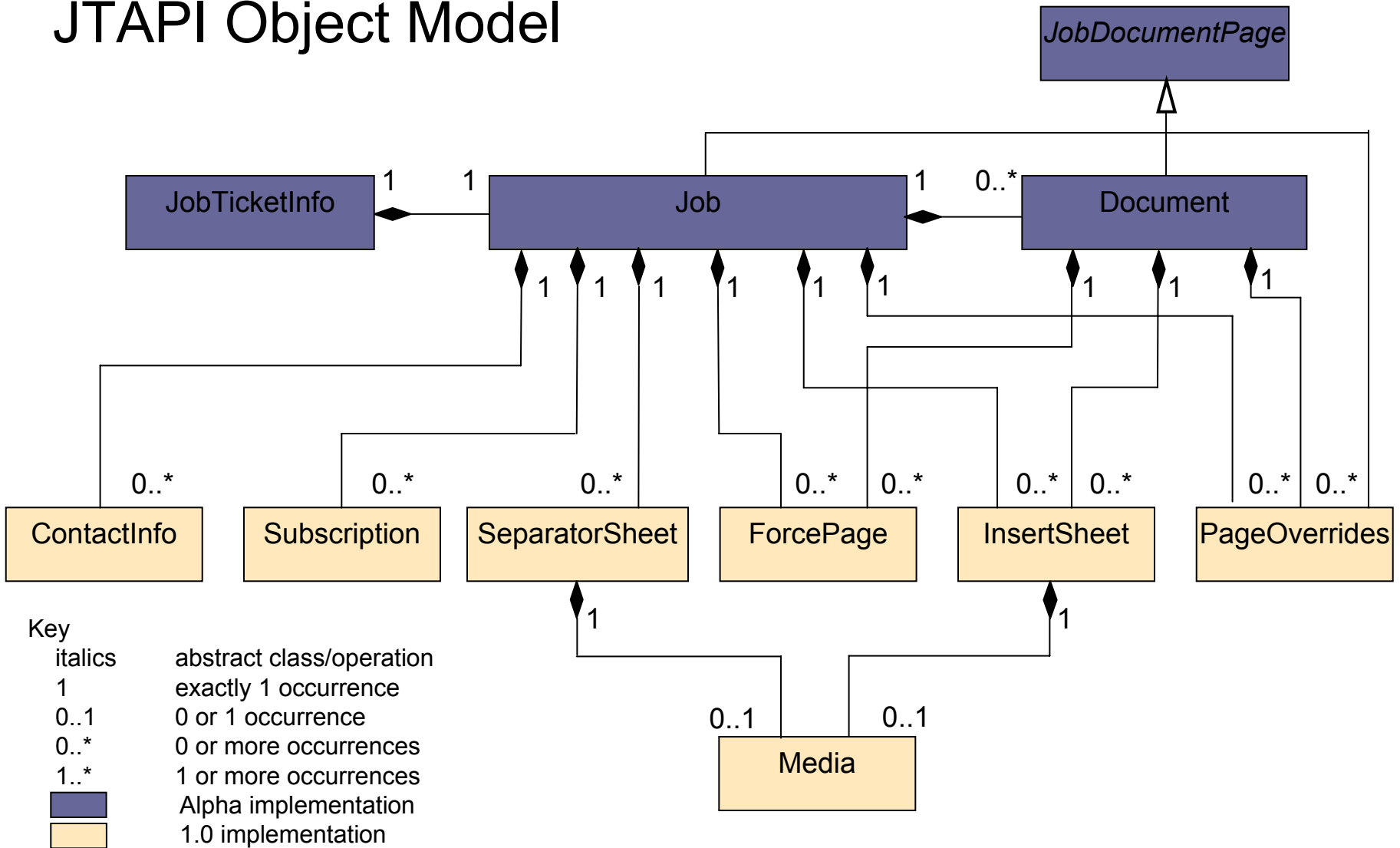
Objectives

- To create and consume job tickets

- To be job ticket syntax neutral

- To isolate the application from the content of the job ticket

- To be programming language neutral

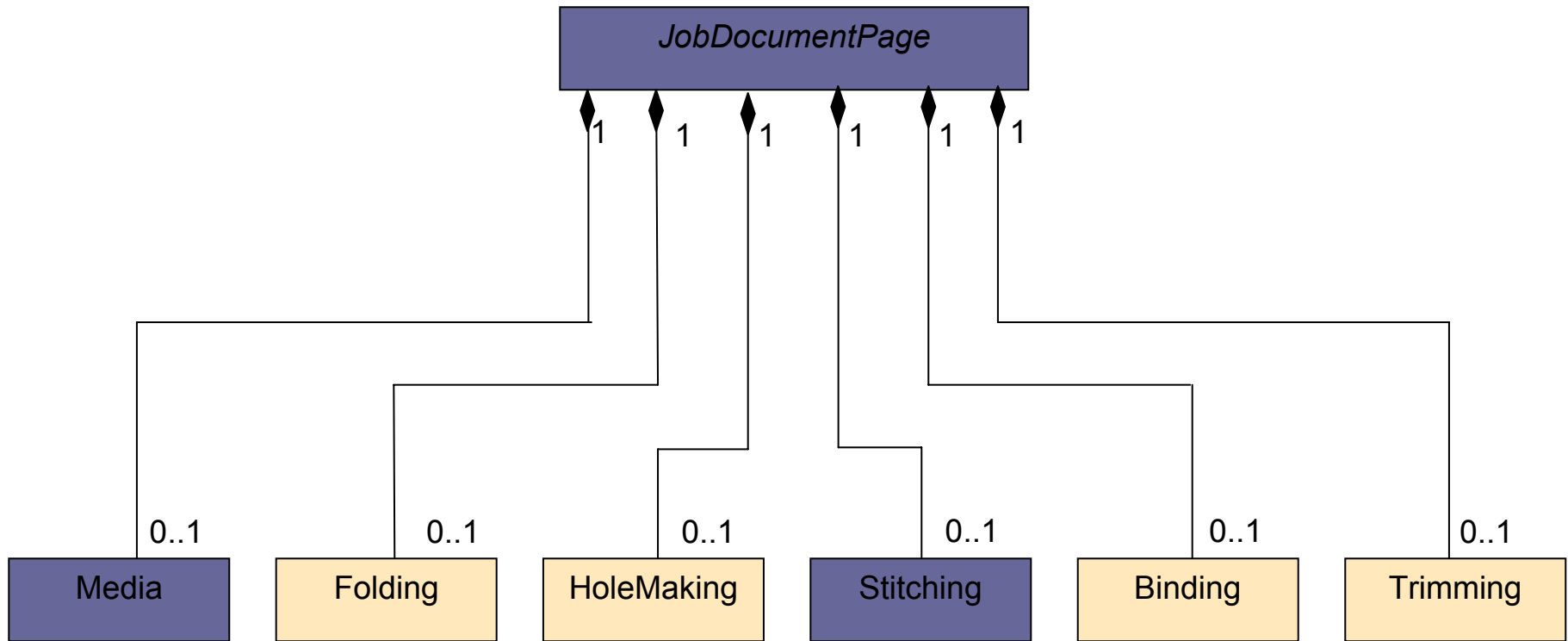- To import and export multiple job ticket formats

Job Ticket Formats

- **CIP4 JDF (Job Definition Format) Job Ticket**
  - ☐ Defined by CIP4, a world wide standards body with over 150 members
  - ☐ Open, extensible, XML-based job ticket standard
  - ☐ JDF Specification versions
    - ■ 1.0 released April 2001
    - ■ 1.1 released April 2002
    - ■ 1.2 to be released late 2003

- **PWG Job Ticket**
  - ☐ Proposed future work item for PWG
  - ☐ To be based on PWG Semantic Model
  - ☐ To be XML-based

JTAPI Object Model

JobDocumentPage

| | JobTicketInfo | Job | Document |

Key
- italics — abstract class/operation
- 1 — exactly 1 occurrence
- 0..1 — 0 or 1 occurrence
- 0..* — 0 or more occurrences
- 1..* — 1 or more occurrences
- Alpha implementation
- 1.0 implementation

ContactInfo · Subscription · SeparatorSheet · ForcePage · InsertSheet · PageOverrides

Media

JTAPI Object Model (cont)

Complete set of UML diagrams:
ftp://ftp.pwg.org/pub/pwg/fsg/jobticket/JTAPI_Diagrams/

Accomplishments

- **Feb 2002**
  - Began job ticket discussions in FSG Open Print

- **June 2002**
  - Initial JTAPI proposal
  - Chartered FSG JT working group

- **Nov 2002**
  - Created IPP to JDF mapping table
    - In cooperation with PODi and CIP4 Digital Printing working groups

- **Dec 2002**
  - ☐ Prioritized features/functions of JTAPI 1.0

- **May 2003**
  - ☐ Completed detailed JTAPI UML diagrams
    - 19 objects and 33 enumerations
    - 20+ draft versions

- **June 2003**
  - ☐ Defined subset of JTAPI 1.0 content for Alpha version

What's next - schedule

- **Create JTAPI Alpha Specification** (high level in 5-6 pages)
  - ☐ June 17 - Get Alpha content feedback in Portland
  - ☐ June 24 - Incorporate feedback from Portland meeting
  - ☐ July 8 - Review draft
  - ☐ July 15 - Review final version

- **Implement JTAPI Alpha in C** (including documentation details)
  - ☐ July 29 - Preliminary C headers files (1-2 files)
  - ☐ August 20 - First draft of all C header files

What's next – schedule (cont)

- **Implement JTAPI Alpha in Java** (including documentation details)
    - ☐ TBD – Preliminary interface files (1-2 files)
    - ☐ TBD – First draft of all interface files
    - ☐ TBD – Final version of all interface files
    - ☐ TBD – Java code implementation

JT Working Group Information

- **Active participants**
  - ☐ Claudia Alimpich (IBM) - chair
  - ☐ Tom Hastings (Xerox)
  - ☐ Till Kamppeter (MandrakeSoft)
  - ☐ Ira McDonald (High North Inc)
  - ☐ Glen Petrie (Epson)

- **Previous contributors**
  - ☐ Norm Jacobs (Sun)
  - ☐ Olaf Meeuwissen (Epson Kowa)
  - ☐ Pete Zannucci (IBM)

- Weekly FSG Job Ticket conference calls
  - Tuesdays at 3:00 PM US Eastern for 1-2 hours

- To subscribe to FSG Job Ticket mailing list:
  - http://freestandards.org/mailman/listinfo/printing-jobticket

- To post a message to FSG Job Ticket mailing list
  - printing-jobticket@freestandards.org

- To view FSG Job Ticket mailing list archives
  - http://freestandards.org/mailman/listinfo/printing-jobticket

- To find FSG Job Ticket documents
  - ftp://ftp.pwg.org/pub/pwg/fsg/jobticket/

Thanks for your time and interest!

- **Questions and/or comments**

- **This presentation is located at:**

  ftp://ftp.pwg.org/pub/pwg/fsg/June2003_meeting_slides/FSGOpenPrint_JT_10Jun2003.pdf

JTAPI Object Model Details

- Data/object model that is object oriented
- Defines objects that are familiar to the printing industry
  - Job, Document, Insert Sheet, Media, Stitching, HoleMaking, etc.
- Defines relationship between objects
- Defines operations to be performed on objects
- Defines attributes of objects
- Defines well-known enumerated values of all attributes

Alpha Version Content

- Minimal objects will be implemented
  - ☐ JobTicketInfo
  - ☐ Job
  - ☐ *JobDocumentPage*
  - ☐ Document
  - ☐ Media
  - ☐ Stitching

Alpha Version Content (cont)

- Minimial attributes will be implemented

  - ☐ JobTicketInfo
    - jt-api-version
    - jt-comment
    - jt-syntax-version
    - jt-type

Alpha Version Content (cont)

☐ Job

- job-comment
- job-copies
- job-destination-uri
- job-document-format
- job-media
- job-name
- job-print-quality
- job-rotation
- job-sides
- job-stitching

Alpha Version Content (cont)

- ☐ Document
  - ■ document-uri

- ☐ Media
  - ■ media-dimension-name
  - ■ media-input-tray-name
  - ■ media-manual-feed
  - ■ media-type

- ☐ Stitching
  - ■ stitching-type

Alpha Version Content (cont)

- **Enumerations**
  - ☐ InputTrayNameEnum
  - ☐ JobTicketTypeEnum
  - ☐ LengthUnitsEnum
  - ☐ MediaTypeEnum
  - ☐ PrintQualityEnum
  - ☐ RotationEnum
  - ☐ SidesEnum
  - ☐ StitchTypeEnum
  - ☐ ValueTypeEnum

Existing JTAPI Implementations

- **IBM**
  - ☐ Used in job submission GUI and printer control unit that was shipped in December 2002
  - ☐ Written in C language (binding of neutral JTAPI)
  - ☐ Based on an early version of JTAPI (August 2002)
  - ☐ Based on an early version of JDF ICS (Interoperability Conformance Specification) for Digital Printing