FSG Open Print

Printer Driver API Group

Agenda

- **Introduction**
  - What is the Printer Driver API ?
  - Printer Driver Objectives
  - Printer Driver Working Group Members
  - Accomplishments

- **Technical Review**
  - Common Job Properties

- **Issues / Concerns**

- **Next Step**

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Printer Driver API
Introduction

What is the Printer Driver API ?

Introduction

- **Printer Driver API is:**
  - A printer driver interface for requesting driver/printer information and accepting/printing print jobs.

- **Printer Driver API contains:**
  - Commands to query/set capabilities
  - Commands to create and control print jobs
  - Raster transfer commands
  - Future
    - Integrate vector drawing commands
    - Integrate bidirectional communications commands
    - Create device font commands

Printer Driver API Objectives

Introduction

- To be a common interface for printing to printers

- To isolate the application from the details of individual printers

- To isolate the application from the details of individual PDLs

- To have printer drivers support a set of common job properties

Printer Driver Working Group Members

Introduction

- **Participants**

  - Mark Hamzy (IBM) – chair

  - Till Kamppeter (MandrakeSoft)

  - Glen Petrie (Epson)

Accomplishments 2003

Introduction

- **June 2003**
  - ☐ Defined common job properties

- **August 2003**
  - ☐ Started the specification

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Printer Driver API
Technical Review

PDAPI - Common Job Properties

- Why PDAPI Common Job Properties?

  - Create a standardized name for common features

  - Standardize both the keys and the values

  - Provide an extensible paradigm for non-standard features

  - Provide coherence across the FSG Open Printing model

PDAPI/CJP - Summary

- ColorInput
- ColorOutput
- Copies
- Margins
- MediaBackCoating
- MediaColor
- MediaFrontCoating
- MediaInputTrayName
- MediaSizeName
- MediaType
- MediaUnprintableMargins
- NumberUp
- NumberUpPresentationDirection
- OutputBinName

- PrintQuality
- Resolution
- Rotation
- ScalingType
- ScalingPercentage
- SheetCollate
- Sides
- StitchingPosition
- StitchingReferenceEdge
- StitchingType
- StitchingCount
- StitchingAngle
- Trimming

ColorInput - PDAPI/CJP

- ■ ColorInput

    - ■ Color=n
        - □ Example Red=8,Green=8,Blue=8

ColorOutput - PDAPI/CJP

- ## ColorOutput

  - Color
  - Grey
  - Black-White

Copies - PDAPI/CJP

- Copies

    - Integer

MediaColor - PDAPI/CJP

- **MediaColor**

  - Name_RxGxB
    - In hexadecimal format
    - White defined as "White_FFxFFxFF"
    - Name is optional.
    - Is RGB optional?

MediaBackCoating - PDAPI/CJP

- **MediaBackCoating**

  - Glossy
  - HighGloss
  - SemiGloss
  - Satin
  - Matte
  - Inkjet
  - None

MediaFrontCoating - PDAPI/CJP

■ MediaFrontCoating

- ■ Glossy
- ■ HighGloss
- ■ SemiGloss
- ■ Satin
- ■ Matte
- ■ Inkjet
- ■ None

MediaInputTray - PDAPI/CJP

- MediaInputTrayName

  - AnyLargeFormat
  - AnySmallFormat
  - AutoSelect
  - Bottom
  - BypassTray
  - BypassTray-n
  - Continuous
  - Disc
  - Disc-n
  - Envelope
  - Envelope-n
  - Front
  - InsertTray

  - InsertTray-n
  - LargeCapacity
  - LargeCapacity-n
  - Left
  - Middle
  - Rear
  - Right
  - Roll
  - Roll-n
  - Side
  - Top
  - Tray
  - Tray-n

MediaSizeName - PDAPI/CJP

- ## MediaSizeName

  - ### prefix_name_widthXheightUNITS
    - na_letter_8.5x11in
    - iso_a4_210x297mm

MediaType - PDAPI/CJP

- ## MediaType

  - CardStock
  - Continuous
  - ContinuousLong
  - ContinuousShort
  - Disc
  - Envelope
  - EnvelopePlain
  - EnvelopeWindow
  - FilmPhotographic
  - FilmBackPrint
  - FullCutTabs
  - Labels
  - MultiLayer
  - MultiPartForms
  - None
  - Photographic
  - Plain
  - PreCutTabs
  - Roll
  - Screen
  - ScreenPaged
  - Stationery
  - TabStock
  - Transparency

MediaUnprintableMargins - PDAPI/CJP

- MediaUnprintableMargins

    - topXleftXbottomXrightUNITS
        - Values are positive integers

Margins - PDAPI/CJP

- **Margins**

  - topXleftXbottomXrightUNITS
    - Values are positive integers

NumberUp. . . - PDAPI/CJP

- **NumberUp**

  - numberXnumber
    - Values are positive integers

- **NumberUpPresentationDirection**

    - TorightTobottom
    - TobottomToright
    - ToleftTobottom
    - TobottomToleft
    - TorightTotop
    - TotopToright
    - ToleftTotop
    - TotopToleft

OutputBinName - PDAPI/CJP

- ## OutputBinName

  - Booklet
  - Bottom
  - Center
  - FaceDown
  - FaceUp
  - FitMedia
  - LargeCapacity
  - Left
  - MailBox-n
  - Middle
  - MyMailbox
  - None
  - Rear

  - Right
  - Side
  - Stacker-n
  - Top
  - Tray-n

PrintQuality - PDAPI/CJP

Initial Proposal PDAPI

- **PrintQuality**

  - Normal
  - Economy
  - Draft
  - High
  - Fine
  - Photo

Job Ticket API

- **PrintQuality**

  - Draft
  - Normal
  - High

PLUS

- **PrintContentOptimize**

  - Graphics
  - Photo
  - Text
  - Text and Graphics

24 March 2004

24

Resolution - PDAPI/CJP

- **Resolution**

    - horizontalXvertical
        - Values are positive integers

Rotation - PDAPI/CJP

- Rotation

    - Portrait
    - Landscape
    - ReversePortrait
    - ReverseLandscape
    - None ?

Scaling. . . - PDAPI/CJP

- **ScalingType**

    - FitToPage

    - FitToX

    - FitToY

    - FitWithoutAspectToPage

    - Scale

    - None

- **ScalingPercentage**

    - percentage

        - Value is positive integer

SheetCollate - PDAPI/CJP

- SheetCollate

  - SheetUncollated
  - SheetCollated
  - SheetAndJobCollated
  - SheetUncollated

Sides - PDAPI/CJP

- ■ Sides

    - ■ OneSidedFront
    - ■ OneSidedLongEdgeBack
    - ■ OneSidedShortEdgeBack
    - ■ TwoSidedLongEdge
    - ■ TwoSidedShortEdge

Stitching. . . - PDAPI/CJP

- **StitchingType**

  - Corner
  - Saddle
  - Side

- **StitchingPosition**

  - position
    Value is positive integer

- **StitchingCount**

  - count
    Value is positive integer

- **StitchingReferenceEdge**

  - Top
  - Bottom
  - Left
  - Right

- **StitchingAngle**

  - angle
    Value is positive integer

Trimming - PDAPI/CJP

- **Trimming**

    - Trim
    - Face
    - Gutter
    - Tab
    - None

PDAPI - API

■ **Application Programming Interface**

  ☐ Discussions beginning

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Printer Driver API
Issues/Concerns

Issues / Concerns

1. Small number of contributors in this group

2. Contributors from across the printing spectrum

3. Integration of the vector API into this group

4. Integration of the Bi-Di API into this group

5. Reconciliation with other standards

6. Expansion into other printing areas

    - Device fonts

7. Funding for people on this group

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Next Steps

What's next - schedule

☐ Finish specification and C header files

- June 21 for Libre conference

  ☐ Common job properties, draft API

- Dec 31

  ☐ Specification and headers available for public review

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Printer Driver API
Questions / Comments

This presentation is located at:
ftp://ftp.pwg.org/pub/pwg/fsg/March04_meeting_slides/FSGOpenPrint_PD_24Mar2004.pdf

Printer Driver Group Information

- Weekly FSG Printer Driver conference calls
    - Mondays at 2:00 PM US Eastern for 1-2 hours

- To subscribe to FSG Printer Driver mailing list:
    - http://freestandards.org/mailman/listinfo/printing-driver

- To post a message to FSG Printer Driver mailing list
    - printing-driver@freestandards.org

- To view FSG Printer Driver mailing list archives
    - http://freestandards.org/mailman/listinfo/printing-driver

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    - ftp://ftp.pwg.org/pub/pwg/fsg/driver/