1. Mapping Microsoft Print Schema Elements to PWG Print Job Ticket Elements

The Microsoft Print Schema uses an XML element convention much like the PWG Print Job Ticket (PJT). One of the differences between the two print ticket formats is that Microsoft has added a third layer to their specification tree (Job, Document, Page) and rules for merging print ticket elements from the three levels together when processing a print request. The page level declarations present some interesting challenges when building the mapping outlined in this specification.

Table 1 - Microsoft Print Schema Element to PWG Print Job Ticket Element Mapping

| **Microsoft Print Schema Element Name** | **PWG Print Job Ticket Element Name** |
| --- | --- |
|  | CompressionSupplied |
|  | Copies |
| DocumentBannerSheet  None  Standard  Custom  BannerSheetSource |  |
| DocumentSeparatorSheet  None  StartSheet  EndSheet  BothSheets |  |
| DocumentPrimaryCoverBack  NoCover  BlankCover  PrintFront  PrintBack  PrintBoth | CoverBack  CoverType  Media  MediaType  MediaCol |
| DocumentPrimaryCoverFront  NoCover  BlankCover  PrintFront  PrintBack  PrintBoth | CoverFront  CoverType  Media  MediaType  MediaCol |
|  | *CoverType* |
|  | DocumentCharsetSupplied |
|  | *DocumentCopies* |
|  | DocumentDigitalSignatureSupplied |
| DocumentDuplex  OneSided  TwoSidedLongEdge  TwoSidedShortEdge  DuplexMode  Automatic  Manual |  |
|  | *DocumentFormat* |
|  | DocumentFormatDetailsSupplied  DocumentSourceApplicationName  DocumentSourceApplicationVersion  DocumentSourceOsName  DocumentSourceOsVersion  DocumentFormat  DocumentFormatDeviceId  DocumentFormatVersion  DocumentNaturalLanguage |
|  | *DocumentFormatDeviceId* |
|  | DocumentFormatSupplied |
|  | *DocumentFormatVersion* |
|  | DocumentFormatVersionSupplied |
| DocumentInputBin  AutoSelect  Manual  Cassette  Tractor  AutoSheetFeeder |  |
|  | DocumentMessageSupplied |
|  | DocumentNameSupplied |
|  | *DocumentNaturalLanguage* |
|  | *DocumentNumbers* |
| *DocumentOutputBin* |  |
|  | *DocumentSourceApplicationName* |
|  | *DocumentSourceApplicationVersion* |
|  | *DocumentSourceOsName* |
|  | *DocumentSourceOsVersion* |
|  | FeedOrientation |
|  | Finishings |
| DocumentHolePunch  None  LeftEdge  RightEdge  TopEdge  BottomEdge | FinishingsCol  FinishingTemplate  Other |
| DocumentStaple  StapleTopLeft  StapleTopRight  StapleBottomLeft  StapleBottomRight  StapleDualLeft  StapleDualRight  StapleDualTop  SaddleStitch  Angle  SheetCapacity | FinishingsCol  FinishingTemplate  Stitching  StitchingReferenceEdge  StitchingOffset  StitchingLocations |
|  | FinishingTemplate |
|  | FontNameRequested |
|  | FontSizeRequested |
| PageForceFrontSide  ForceFrontSize?  None | ForceFrontSide |
|  | ImpositionTemplate |
|  | Impressions |
|  | *InsertAfterPageNumber* |
|  | *InsertCount* |
|  | InsertSheet  ISheet  InsertAfterPage  InsertCount  Media  MediaType  MediaCol |
|  | JobAccountingID |
|  | *JobAccountingOutputBin* |
| JobAccountingSheet  None  Standard | JobAccountingSheets  JobAccountingSheetsType  Media  MediaType  MediaCol  JobAccountingOutputBin |
|  | *JobAccountingSheetsType* |
|  | JobAccountingUserID |
| JobCollateAllDocuments |  |
|  | JobCopies |
|  | JobCoverBack  CoverType  Media  MediaType  MediaCol |
|  | JobCoverFront  CoverType  Media  MediaType  MediaCol |
|  | JobDelayOutputUntil |
|  | JobDelayOutputUntilTime |
| JobDuplexAllDocumentsContiguously  OneSided  TwoSidedLongEdge  TwoSidedShortEdge  DuplexMode  Automatic  Manual |  |
| JobErrorSheet  None  Standard  Custom  ErrorSheetSource | JobErrorSheet  JobErrorSheetType  JobErrorSheetWhen  Media  MediaType  MediaCol |
|  | JobErrorSheetType |
| ErrorSheetWhen  Always  OnError | JobErrorSheetWhen |
|  | JobFinishings |
| JobHolePunch  None  LeftEdge  RightEdge  TopEdge  BottomEdge | JobFinishingsCol  FinishingTemplate  Other |
| RollCutAtEndOfJob  CutSheetAtImageEdge  CutSheetAtStandardMediaSize  None | JobFinishingsCol  FinishingTemplate  Other |
| JobStapleAllDocuments  StapleTopLeft  StapleTopRight  StapleBottomLeft  StapleBottomRight  StapleDualLeft  StapleDualRight  StapleDualTop  StapleDualBottom  SaddleStitch | JobFinishingsCol  FinishingTemplate  Stitching  StitchingReferenceEdge  StitchingOffset  StitchingLocations |
|  | JobHoldUntil |
|  | JobHoldUntilTime |
| JobInputBin  AutoSelect  Manual  Cassette  Tractor  AutoSheetFeeder |  |
|  | JobMandatoryElements |
|  | JobMessageFromOperator |
|  | JobMessageToOperator |
|  | JobMoreInfo |
|  | JobName |
| JobOutputOptimization  ArchiveFormat  OptimizeForPortability  OptimizeForQuality  OptimizeForSpeed  None |  |
|  | JobOriginatingUserName |
|  | JobOriginatingUserUri |
|  | JobPassword |
|  | JobPasswordEncryption |
|  | JobPhoneNumber |
|  | JobPriority |
|  | JobRecipientName |
|  | JobSaveDisposition  SaveDisposition  SaveInfo  SaveDocumentFormat  SaveLocation  SaveName |
|  | JobSheetMessage |
|  | JobSheets |
| JobPrimaryBannerSheet  None  Standard  Custom  BannerSheetSource | JobSheetsCol  JobSheets  Media  MediaType  MediaCol |
|  | KOctets |
|  | Media |
|  | MediaCol  MediaBackCoating  MediaColor  MediaFrontCoating  MediaGrain  MediaHoleCount  MediaInfo  MediaKey  MediaOrderCount  MediaPreprinted  MediaRecycled  MediaSize  XDimension  YDimension  MediaSizeName  MediaThickness  MediaTooth  MediaType  MediaWeightMetric  MediaBottomMargin  MediaLeftMargin  MediaRightMargin  MediaTopMargin  MediaSource |
|  | *MediaBackCoating* |
| *PageMediaColor* | *MediaColor* |
|  | *MediaFrontCoating* |
|  | *MediaGrain* |
|  | *MediaHoleCount* |
|  | *MediaInfo* |
|  | MediaInputTrayCheck |
|  | *MediaKey* |
|  | *MediaOrderCount* |
|  | *MediaPreprinted* |
|  | *MediaRecycled* |
|  | MediaSheets |
| *PageMediaSize* | *MediaSize* |
|  | *MediaSizeName* |
|  | *MediaThickness* |
|  | *MediaTooth* |
| PageMediaType | MediaType |
|  | *MediaWeightMetric* |
|  | MultipleDocumentsHandling |
|  | NumberUp |
|  | OrientationRequested |
| JobOutputBin | OutputBin |
|  | OutputDevice |
|  | Overrides  Override  Pages  PageRange  Lowerbound  Upperbound  DocumentNumbers  NumberRange  Lowerbound  Upperbound  DocumentCopies  PCopiesRange  Lowerbound  Upperbound  OverridingElements |
|  | PageDelivery |
|  | PageOrderReceived |
|  | PageRanges  PageRange  Lowerbound  Upperbound |
|  | *Pages* |
|  | PagesPerSubset  Pages |
|  | PdlInitFiles  PdlInitFile  PdlInitFileLocation  PdlInitFileName  PdlInitFileEntry |
|  | *PdlInitFileEntry* |
|  | *PdlInitFileName* |
|  | *PdlInitFileEntry* |
|  | PresentationDirectionNumberUp |
| PageOutputColor | PrintColorMode |
|  | PrintContentOptimize |
|  | PrintRenderingIntent |
|  | ProofPrint  Copies  Media  MediaCol |
| PageOutputQuality | Quality |
| PageResolution | Resolution |
|  | *SaveDisposition* |
|  | *SaveDocumentFormat* |
|  | *SaveInfo* |
|  | *SaveLocation* |
|  | *SaveName* |
|  | SeparatorSheets  SeparatorSheetsType  Media  MediaType  MediaCol |
|  | *SeparatorSheetsType* |
| DocumentCollate | SheetCollate |
|  | Sides |
|  | *StitchingLocations* |
|  | *StitchingOffset* |
|  | *StitchingReferenceEdge* |
|  | TemplateCreatorUserName |
|  | TemplateId |
|  | TemplateInfo |
|  | TemplateName |
|  | TemplateType |
|  | *XDimension* |
|  | XImagePosition |
|  | XImageShift |
|  | XSide1ImageShift |
|  | XSide2ImageShift |
|  | *YDimension* |
|  | YImagePosition |
|  | YImageShift |
|  | YSide1ImageShift |
|  | YSide2ImageShift |

1. References
   1. Normative References

[MSPS] Microsoft Print Schema Reference Guide Version 1.0 rev A, November 2011 http://go.microsoft.com/fwlink/?LinkId=234563