

Input Pages, Media Sheets and Impressions with Cut and Roll Media: 2021 Update

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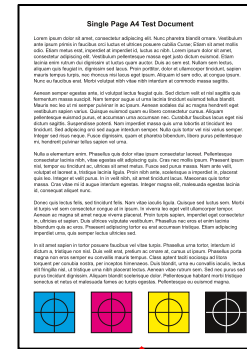
2021-07-06



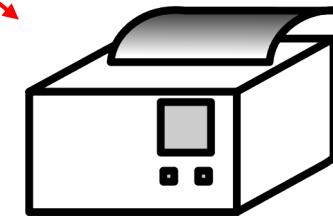
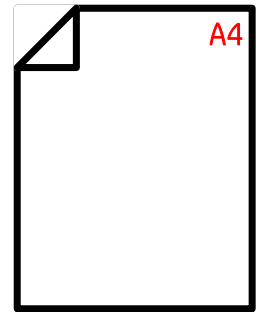
Terminology

- **Input Page:** A page according to the definition of "pages" in the language used to express the Document data.
 - Document format may specify separate pages; if so, each page has dimensions corresponding to a media size
- **Media Sheet:** A single instance of a medium, whether printing on one or both sides of the medium. Media Sheets also include sections of roll media.
- **Impression:** The content imposed upon one side of a Media Sheet by a marking engine, independent of the number of times that the sheet side passes any marker. An Impression contains one or more Input Pages that are imposed (scaled, translated, and/or rotated) during processing of the Document data [Input Pages].

Input Pages



Media Sheets



Impression

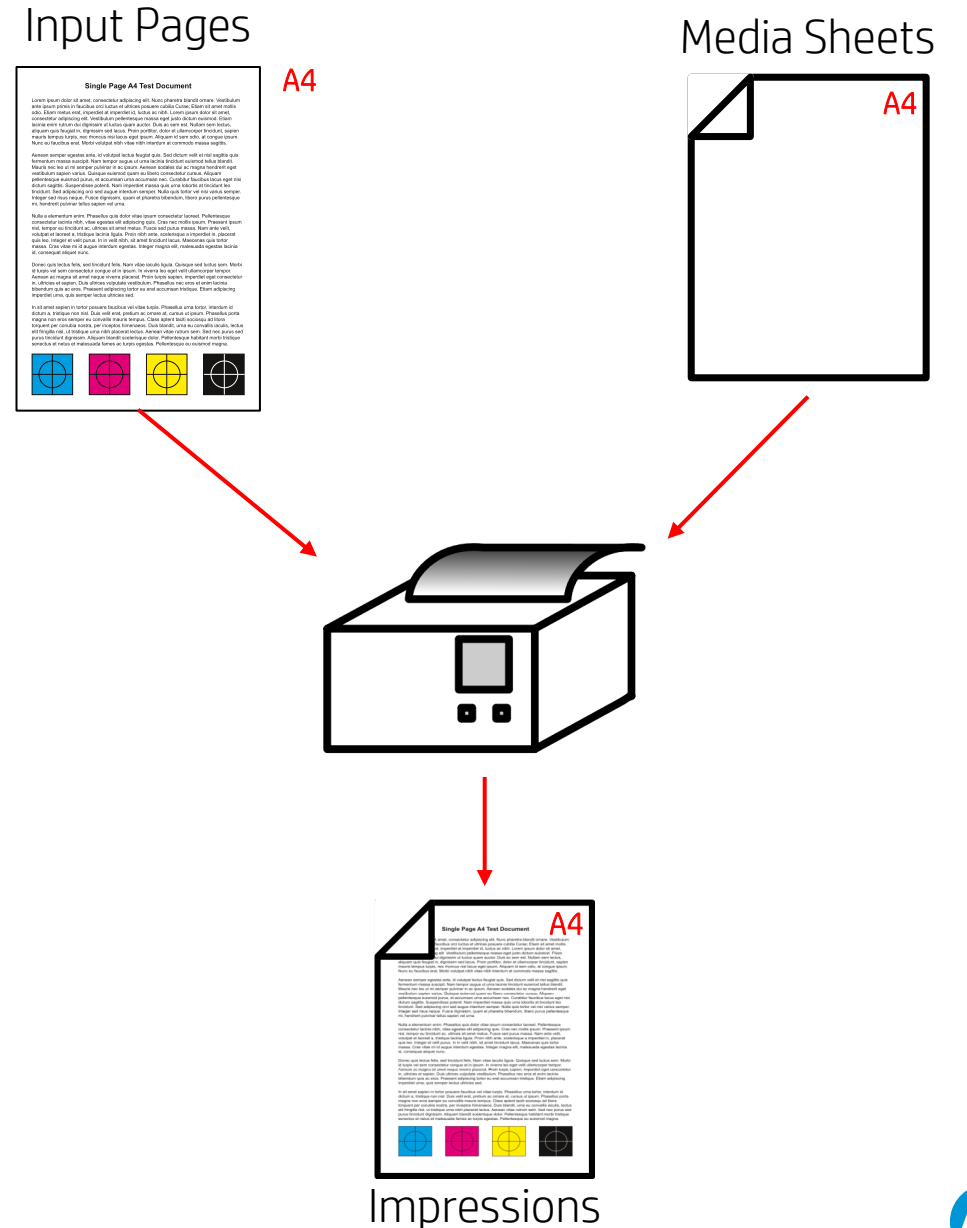
Producing Output from Input Pages, Media Sheets and Impressions

Simple Scenario: Input Pages and Media Sheets Are Same Size

- Straightforward – no transformations needed, intent is clear

Media Sheets Same Size As Input Pages

- Input Page Size: A4
- Media Sheet Size: A4
- Intent: Print document with Input Pages on Media Sheets with same size
- IPP:
 - "media" = 'iso_a4_210x297mm'
- Impressions: A4



When Input Pages and Media Sheets Have Differing Sizes

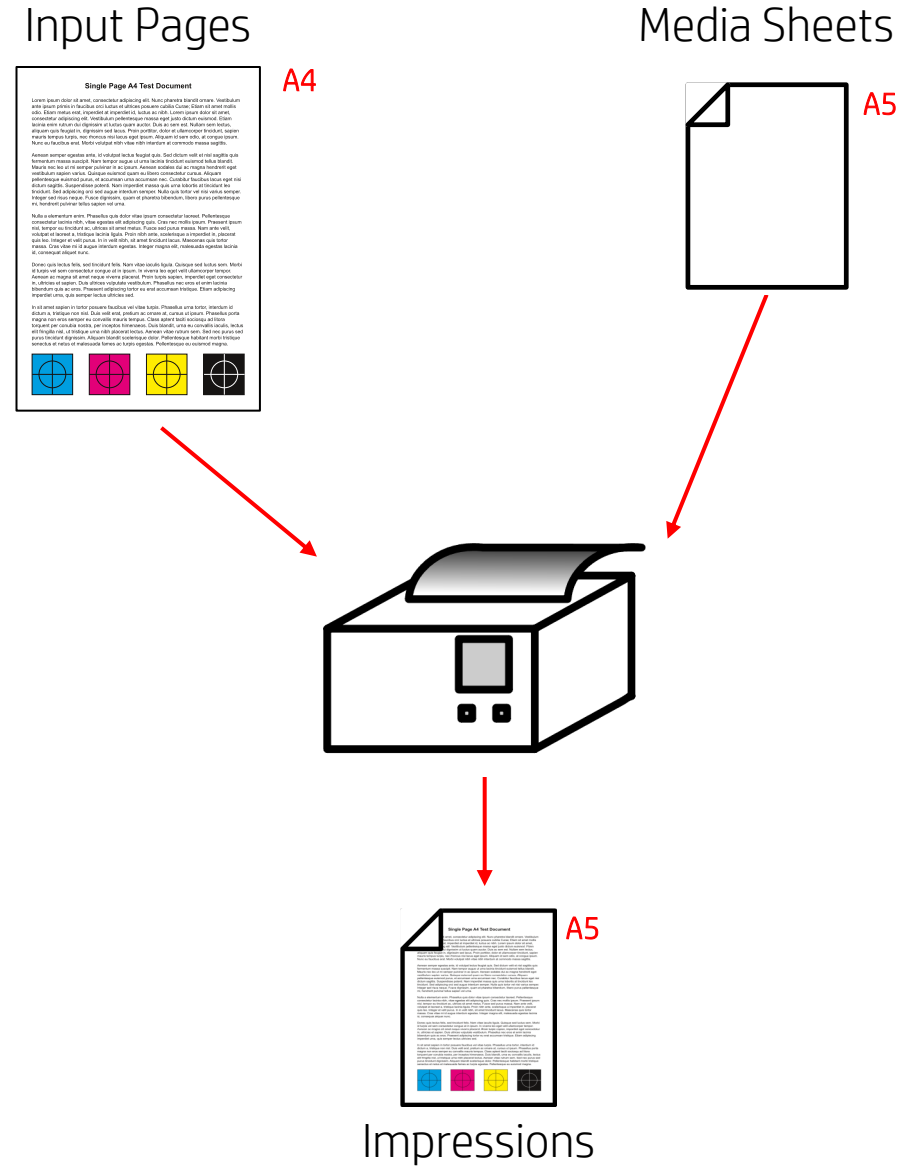
Scenarios and Desired Outcomes

Scenario	Input Pages	Media Sheets	Desired Result
Input Pages Same Size As Media Sheets	A4	A4	A4
Input Pages Larger Than Media Sheets	A4	A5	Fit to A5? Crop A4 to Page?
Input Pages Smaller Than Media Sheets	A4	A3	Fit to A3? Place* A4 on A3?
Input Pages Smaller Than Media Sheets With Media Sheet Rotation	A4	A3	Rotate and fit to A3? Rotate and place* A4 on A3?

* Placement assumed to be "centered" but no other choices via IPP currently defined in ratified specifications

Input Pages Larger Than Media Sheets

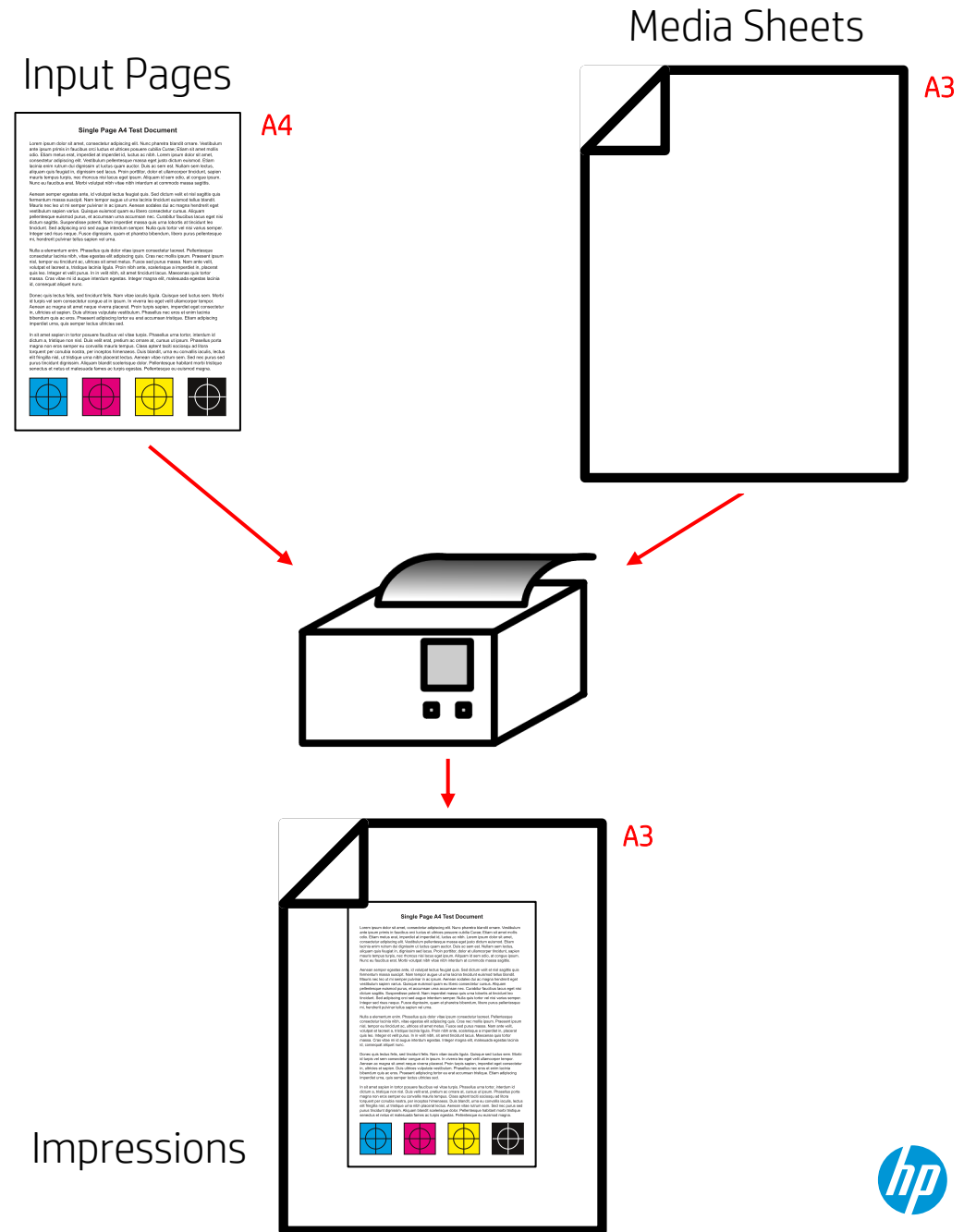
- Input Page Size: A4
- Media Sheet Size: A5
- Intent: Print A4 pages onto A5 Media Sheets without Client resizing the Input Pages
- IPP:
 - "media" = 'iso_a5_148x210mm'
 - "print-scaling" = 'fit' (or 'auto' or 'auto-fit')
- Impressions: A4 printed on A5



Input Pages Smaller Than Media Sheets

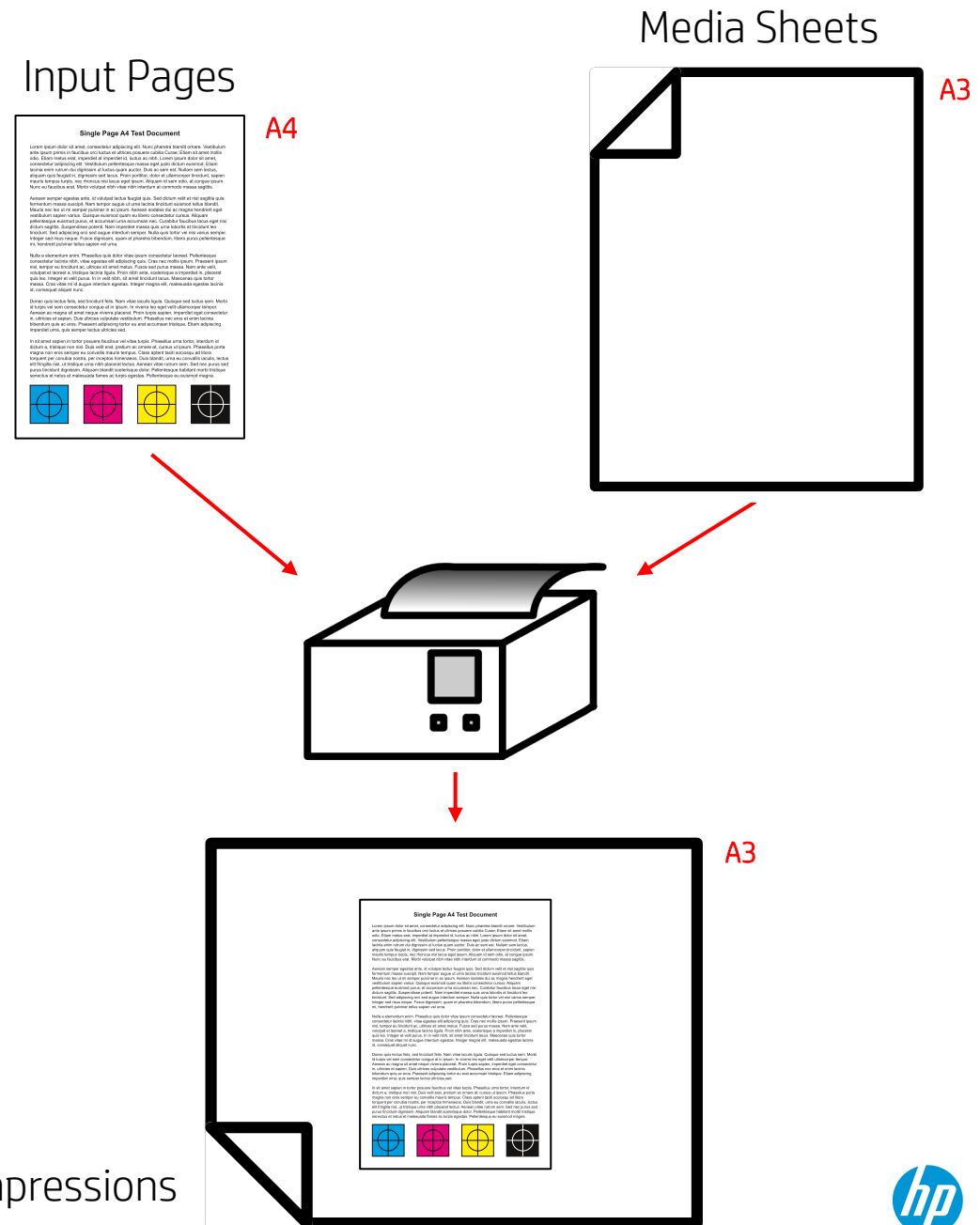
- Input Page Size: A4
- Media Sheet Size: A3
- Intent: Print A4 document onto larger Media Sheets without Client resizing the Input Pages
- IPP:
 - "media" = 'iso_a3_297x420mm'
 - "print-scaling" = 'none'
 - "imposition-template" = 'position_center_middle'**
- Impressions: A4 printed at size centered on A3

** Not necessary when centered on Media Sheet but other locations could be specified



Input Pages Smaller Than Media Sheets With Media Sheet Rotation

- Input Page: A4
- Media Sheet: A3
- Intent: Print A4 document onto larger media sheets without reformatting the document
- IPP:
 - "media" = 'iso_a3_297x420mm'
 - "print-scaling" = 'none'
 - "imposition-template" = 'position_center_middle_90'
- Impressions: A4 printed at size centered on Landscape A3



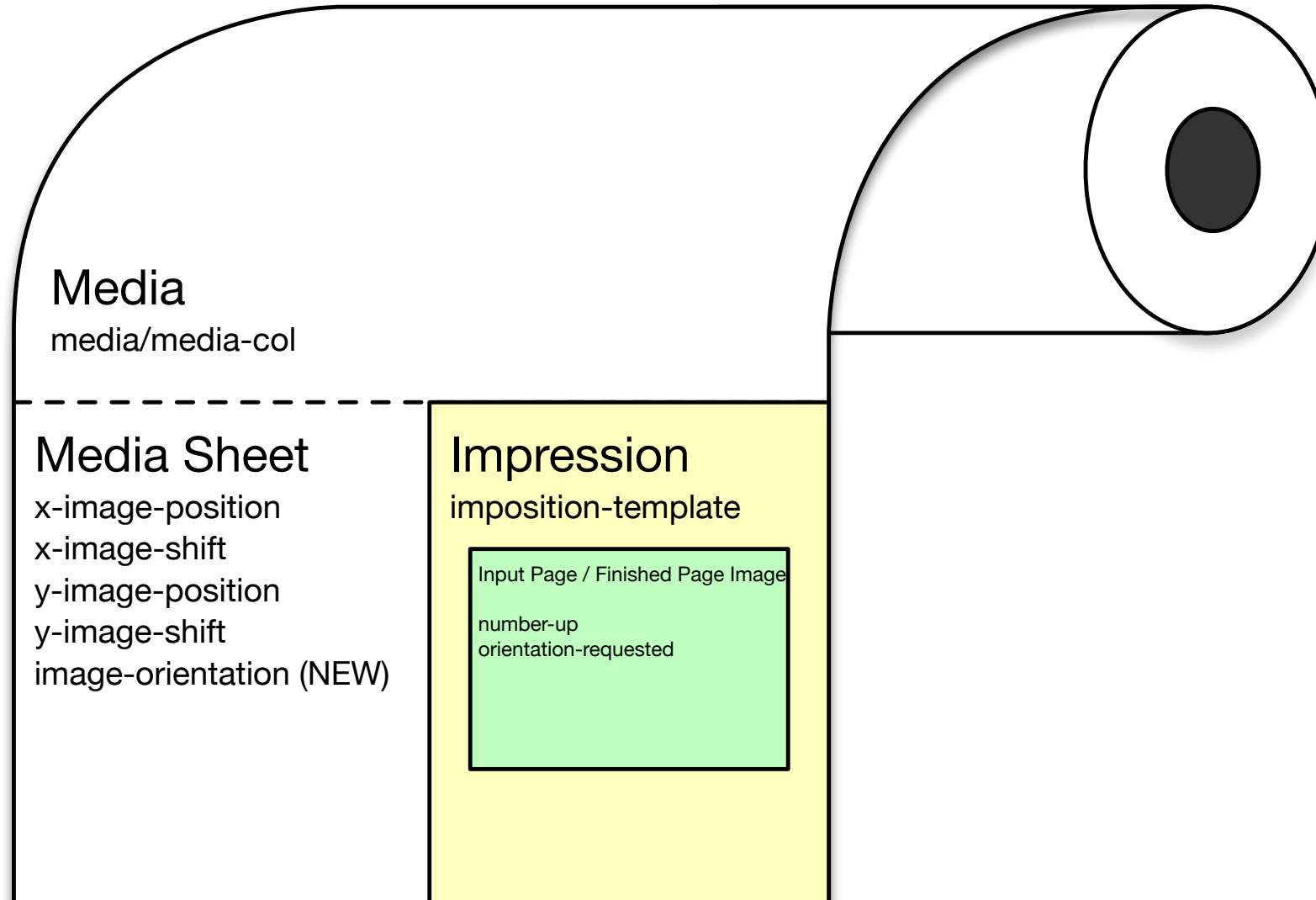
New Attributes

- imposition-template (type2 keyword | name(MAX))
 - 'position_HALIGN_VALIGN'
 - Impressions are positioned for the specified horizontal and vertical alignment and rotated as needed to fit on the Media Sheets.
 - 'position_HALIGN_VALIGN_ANGLE'
 - Impressions are positioned for the specified horizontal and vertical alignment and rotated in a counterclockwise direction to the specified angle on the Media Sheets.
 - Specifies the location of the Impressions on the Media Sheets
 - In PPX current draft

Media Sheets From Roll Media

When Media Sheet Size Doesn't Match Physical Media Size

IPP Roll Media Conceptual Model and Job Template Attributes



Scenarios and Desired Outcomes

Scenario	Input Pages	Media Sheets	Physical Media	Desired Result
Input Pages Same Size As Media Sheets	A4	A4	A4	A4
Input Pages Larger Than Media Sheets	A4	A5	A5	Fit to A5? Crop A4 to Page?
Input Pages Smaller Than Media Sheets	A4	A3	A3	Fit to A3? Place* A4 on A3?
Input Pages Smaller Than Media Sheets With Media Sheet Rotation	A4	A2	A2	Rotate and fit to A2? Rotate and place* A4 on A2?

* Placement assumed to be "centered" but no other choices via IPP currently

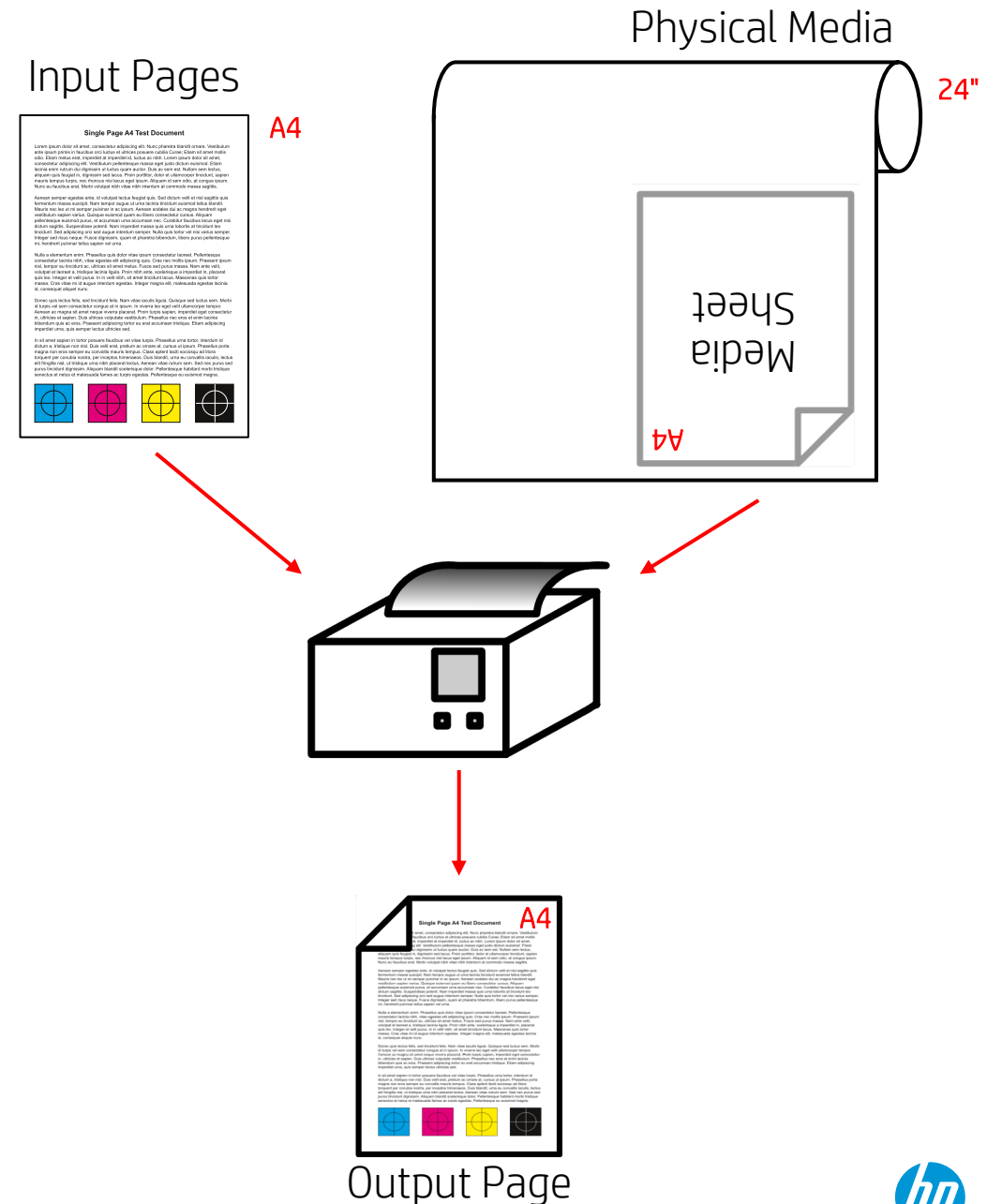
Scenarios and Desired Outcomes – With Roll Media

Scenario	Input Pages	Media Sheets	Physical Media	Desired Result
Input Pages Same Size As Media Sheets	A4	A4	A4	A4
Input Pages Larger Than Media Sheets	A4	A5	A5	Fit to A5? Crop A4 to Page?
Input Pages Smaller Than Media Sheets	A4	A3	A3	Fit to A3? Place* A4 on A3?
Input Pages Smaller Than Media Sheets With Media Sheet Rotation	A4	A2	A2	Rotate and fit to A2? Rotate and place* A4 on A2?
Input Pages Same Size As Media Sheets Produced From Roll Media	A4	A4	A1 Roll	A4
Input Pages Smaller Than Media Sheets Produced From Roll Media With 90° Orientation	A4	A3	A1 Roll	A4 fit to A3

* Placement assumed to be "centered" but no other choices via IPP currently

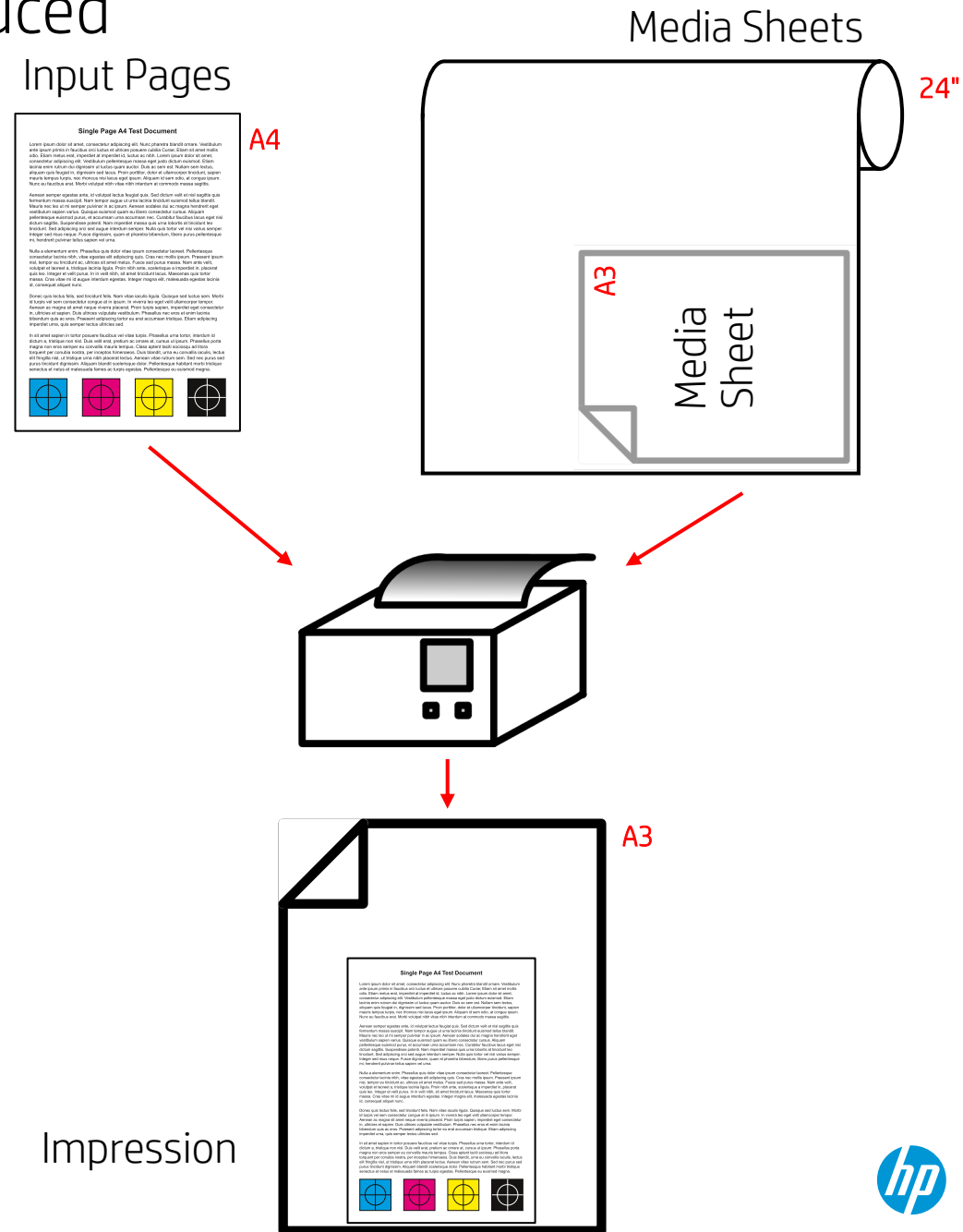
Input Pages Same Size As Media Sheets Produced From Roll Media

- **Input Page Size:** A4
- **Media Sheet Size:** A4
- **Intent:** Produce Media Sheets from Roll Media where Media Sheets and Input Pages have same size
- **IPP:**
 - "media" = 'iso_a4_210x297mm'
 - "x-image-position" = 'left'
 - "image-orientation" = 'portrait'
- **Output:** A4 produced from roll feed media



Input Pages Smaller Than Media Sheets Produced From Roll Media With 90° Orientation

- **Input Page:** A4
- **Media Sheet:** A3
- **Intent:** Print A4 document onto larger Media Sheet without reformatting the document (perhaps to produce A4 Output from larger media)
- **IPP:**
 - "media" = 'iso_a3_297x420mm'
 - "imposition-template" = 'position_center_bottom'
 - "print-scaling" = 'none'
 - "x-image-position" = 'left'
 - "image-orientation" = 'reverse-landscape'
- **Output:** A4 centered at the bottom of A3 printed with long edge parallel to leading edge of roll



New Attributes

- "image-orientation"
 - What orientation the Media Sheet should have when it is produced from the Roll Media