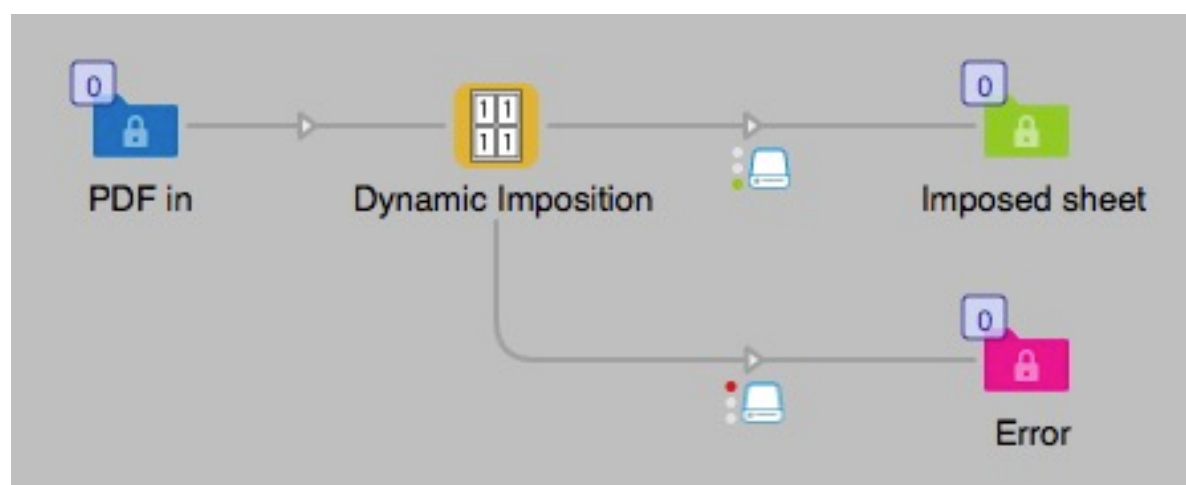# Dynamic Imposition

Description
Fully automated step-and-repeat imposition with a lot of options.

This app uses callas pdfToolbox server as the imposition engine and consequently you have to have that program installed on your Switch server.

The app will analyze the incoming files trimbox size and try to fit as many pages on the sheet as possible. The only limit in page size (trimbox) is that it must fit on the sheet. You can set the amount of bleed you want around each page slot and you can also set an amount of gap between each slot. If the page size of the job is very small the maximum number of slots is limited to 24. You can set your own sheet size and margins to the sheet. The app will then calculate the available space on the sheet that can be used for imposing your job.

There is now the option to turn the backside upside down when that is necessary for the job to work properly in the press.

Another new option is to set the Trim- and Bleed-box to the imposed area on the sheet. This can be useful if your job has really small pages and the imposition will only fill a small area. In this case you can do a second imposition where you place the small impositions on a new large sheet.

The app will report how many sheets you need to print to get the number of pages the job require. You enter that value and the resulting sheets will be stored as Private Data in the job with the key: "Number of printed sheets".

There is also a manual option where you can specify the number of vertical and horizontal slots and the orientation of the slots. By using this option you can easily create your own imposition schemes for special jobs. The only limit is that you can only have 24 slots on a sheet, in the manual case there is no check if the layout exceed the available sheet area. By using callas pdfToolbox server as imposition engine you get an advantage compared to some other imposition engines, first of all this app supports full parallel processes so you

can run multiple concurrent jobs. Callas pdfToolbox server does the job smarter by just positioning the pages on the sheet, there is no rendering of the incoming PDF. Overall this will give you a quick and automated imposing process for those common daily print jobs.

Compatibility
Switch 18 and higher. Windows or Mac OSX.
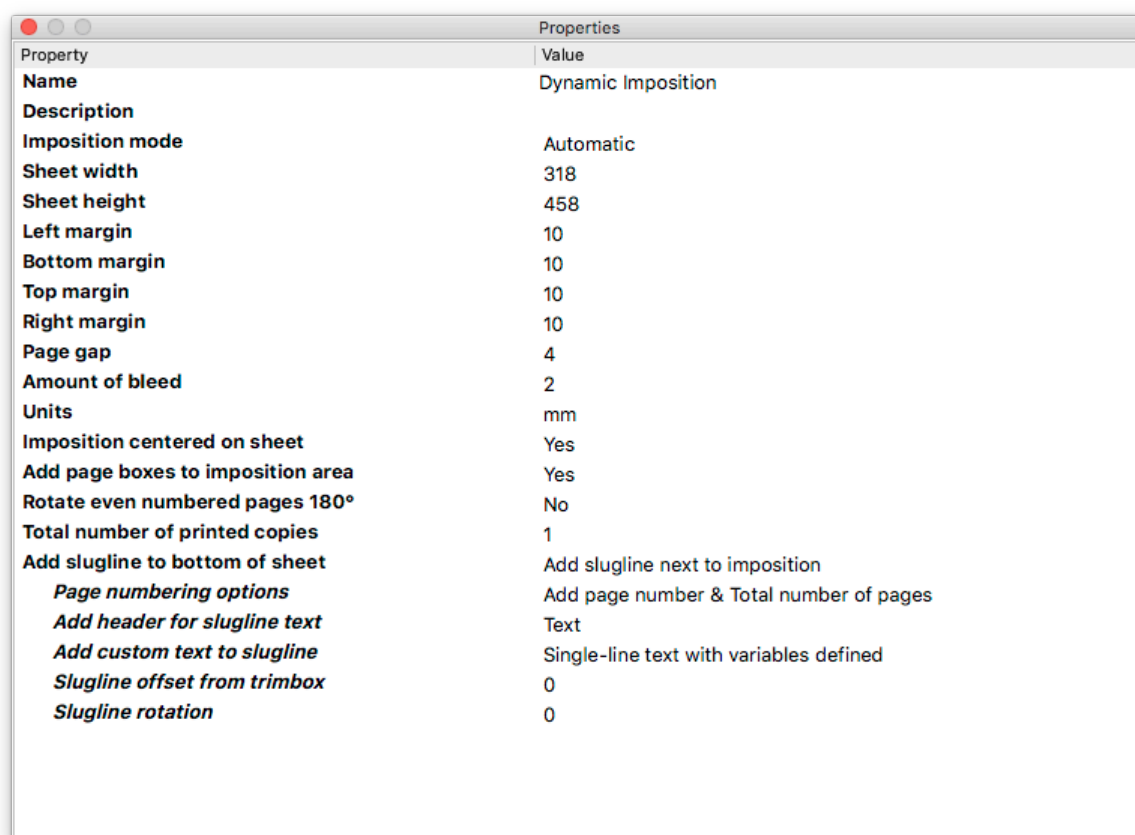
Compatibility third-party applications
The app requires callas pdfToolbox server version 11 or newer to be installed on the system, it will use the CLI version of the program. The app will try to find the program in its normal installed locations, if that is not successful you can by right clicking on the app icon in the app section if the Flow elements and choosing "Set path to application…" point to where the callas pdfToolbox server CLI can be found by the app. This will then be remembered by the app.

Connections
This app can have several input connections and use the traffic light outgoing connections.

Properties detailed info
The app has a manual or automatic mode and you need to set a sheet size with margins to define the available area on the sheet for the imposition. All properties can be accessed with variables.

Property	Value
Name	Dynamic Imposition
Description	
Imposition mode	Automatic
Sheet width	318
Sheet height	458
Left margin	10
Bottom margin	10
Top margin	10
Right margin	10
Page gap	4
Amount of bleed	2
Units	mm
Imposition centered on sheet	Yes
Add page boxes to imposition area	Yes
Rotate even numbered pages 180°	No
Total number of printed copies	1
Add slugline to bottom of sheet	Add slugline next to imposition
Page numbering options	Add page number & Total number of pages
Add header for slugline text	Text
Add custom text to slugline	Single-line text with variables defined
Slugline offset from trimbox	0
Slugline rotation	0

Flow element properties

- Imposition mode
    - Automatic (default), in this mode the app will try to fit in as many pages possible on the sheet.
    - Manual, this allows you to set up your own number of columns and rows.
- Number of rows (only in manual mode)
    - The number of rows when running in manual imposition mode, 2 as default. Maximum value is 8.
- Number of columns (only in manual mode)
    - The number of columns when running in manual imposition mode, 2 as default. Maximum value is 5.
      Note that the total number of slots (Rows X Columns) can't be more than 24!
- Page orientation (only in manual mode)
    - You can select 0° or 90° for this option to set the rotation of the page slots on sheet. Default is 0°.
- Sheet width
    - The full width of the sheet used for the imposition, note the width has to be smaller than the Sheet height. Commas are not allowed for the decimal. Default is set to 318
- Sheet height
    - The full height of the sheet used for the imposition, not the width has to be smaller than the Sheet height. Commas are not allowed for the decimal. Default is set to 458
- Left margin
    - Left margin to the imposed area on the sheet. Commas are not allowed for the decimal. Default is set to 10
- Bottom margin
    - Bottom margin to the imposed area on the sheet. Commas are not allowed for the decimal. Default is set to 10

The position on the sheet calculated from Left margin and Bottom margin will define the lower left corner for the positioning of the imposed pages.

- Top margin
    - Top margin on the sheet to define the available area for imposition. Commas are not allowed for the decimal. Default is set to 10
- Right margin
    - Right margin on the sheet to define the available area for imposition. Commas are not allowed for the decimal. Default is set to 10
- Page gap
    - The distance between each page on the sheet, default is set to 4. If you set this to 0 you must also use 0 for the bleed value, otherwise the bleed will overlap in to the page area. Commas are not allowed for the decimal.
- Amount of bleed
    - The bleed value for each page, if the bleed value is larger than half of the Page gap it will be recalculated to the half of the Page gap. This value has no influence on the bleed value of the incoming PDF, it will just crop the bleed on the print sheet. If there is no bleed in the document the bleed area will be empty. Commas are not allowed for the decimal. Default is set to 2

- Units
  - The units used for the Page gap and Bleed properties. Dropdown menu with the selection of mm, inch or points. Inches must be entered in decimal numbers, like 0.125 for 1/8". Commas are not allowed for the decimal. Default is set to mm
- Imposition centered on sheet
  - Yes and No dropdown menu.
    If set to yes the imposition will be placed in the center of the sheet, the margin settings will be omitted for the placement but used to calculate the available area to be used for imposing the pages. Default is set to Yes
- Add page boxes to imposition area
  - Yes and No dropdown menu.
    When set to "Yes" you will get a trim box and a bleed box around the imposed area. The size of the bleed box is defined by the setting "Amount of bleed". The trim box can in this case be used to impose a smaller sheet on a larger press sheet. Default is set to Yes
- Rotate even numbered pages 180°
  - For some imposing cases it can be necessary to rotate the back side 180° for this job to turn or tumble correctly in the press. Default is set to No.
- Total number of printed copies.
  - You enter the number of copies of the page that you need to print. The app will then calculate the number of sheets you need to print. Default is set to 1.
- Add slugline to bottom of sheet
  - No slugline and position.
  - Add slugline and position
    - Slugline vertical position
    - Slugline horizontal position
  - Add slugline next to imposition
    - Slugline offset from trimbox
  - Add a slugline with information about the job.
  - Page numbering options.
    Dropdown with three options
    Add page number & Total number of pages (default)
    Add page number
    Total number of pages
  - Add header for slugline text
    You can here name the section of the slugline, default is "Text"
  - Add custom text to slugline
    Here you can add your own information that will be added to the slugline, it can be just some text or variable values from Switch.
  - Slugline rotation
    0 or 90 degrees rotation

Manual setting combinations
The table below show the layouts are currently possible with the manual setup, certain combination can only work in one way of rotation depending on page size. Maximum allowed number of columns are 8 and number of rows are 8. Total number of slots can not exceed 24, if your settings results in more slots than 24 the job will fail.
Note that in the manual mode there is no check if the layout fit on the sheet or not. You have to check this by your self. Preferable with a checkpoint in Switch.

Columns Rows	1	2	3	4	5	6	7	8
1	X	X	X	X	X	X	X	X
2	X	X	X	X	X	X	X	X
3	X	X	X	X	X	X	X	X
4	X	X	X	X	X	X		
5	X	X	X	X				
6	X	X	X	X				
7	X	X	X					
8	X	X	X					

Preparing job files
For some type of impositions it might be necessary to rotate the second page 180° in relation to the first page for the final printed card to be correct. Operations like this have to take place before the job enters the app.

Special requests
If you have any special requests for this app please contact us.

Versions
Version 3, fixed some compatibility issues with pdfToolbox version 10.

Version 4, added some more options for the slugline.

Version 5, some bug fixes in imposition.

Version 6, fixed bleed on imposed layout if gap between pages are set to 0.