

LFP PDF Slicer v4

Description

LFP PDF Slicer splits large pdfs into smaller slices or tiles that will fit on your large format printer. This is called tiling or paneling. You can slice your pdfs in 4 different ways: Automatic, Fixed width, Custom widths and CSV driven.

Version 4 now lets you slice jobs horizontally and/or vertically, with Automatic, Fixed width/height and Custom widths/heights methods.

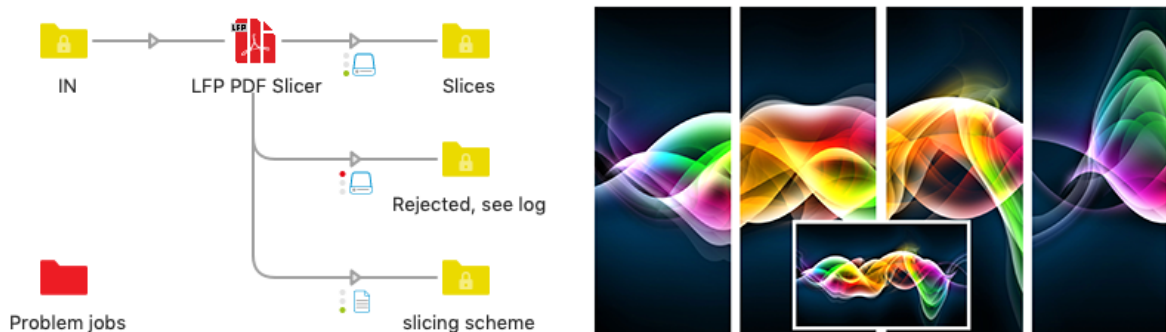
Let LFP PDF Slicer automatically slice your pdf based on a maximum slice width/height, or define a fixed width for all slices, or different widths for each slice, or write your own csv file with coordinates and settings. This way you can slice jobs in both directions, take different printing materials into account for vehicles wraps, windows, etc.

In the app properties, depending on the chosen Slicer mode, you can define the scale of the incoming pdf (it can also be detected automatically), the maximum width of your printer or the slices width(s), the needed overlap and bleed, the optional CutContour line width, and LFP PDF Slicer will split your file in as many slices as needed. The overlap can be added to the slices width, or included. In Automatic mode, all slices can have the same width (for cutting reasons). You can also choose to rotate every 2 slices 180° so that slight differences in color between left and right edges of the print pass unnoticed.

A dataset and corresponding private data (just in case you don't have the Switch Metadata module) will be attached to each slice with the job info, slice info, x and y coordinates of the slices, height and width, bleed amount, etc, if you need this information further in your flow.

A slicing scheme can also be automatically created. It is a copy of the incoming file, with the slices frames and information. This can be very useful for the installation team.

Please note that the trim box and bleed box must be centered in the incoming pdf. LFP PDF Slicer uses Pitstop Server in the background, so Pitstop Server must be installed on the same machine.



Compatibility

Switch 2021 Fall and higher, Windows & Mac
Pitstop Server 11 and up

Connections

LFP PDF Slicer requires at least one input connection, and two traffic light outgoing connections, success and error. If you ask for a slicing scheme, you need an extra log connection. LFP PDF Slicer only accepts pdf files, all other file formats will fail. The generated slices will be sent to the success connection, unless there is not enough bleed in the incoming pdf file for the bleed you want in the outgoing slices. Multi page PDF files in which all pages do not have identical page boxes will also be sent to the error connection.

Flow elements properties

Property	Value
Element type	LFP PDF Slicer
Name	LFP PDF Slicer
Description	
Incoming pdf scale	Automatic
Unit	Millimeters
Move media box to 0.0	No
Slicer mode	Automatic
<i>Maximum slice width</i>	1500
<i>Bleed outgoing pdf</i>	same as incoming pdf
<i>Overlap value</i>	20
<i>Overlap position</i>	Right
<i>All slices same width</i>	Yes
<i>Slice horizontally</i>	No
<i>CutContour line width (pt)</i>	1
<i>Rotate every 2 slices 180°</i>	Yes
<i>Outgoing slices name</i>	Single-line text with variables defined
<i>Slice nr position</i>	Back
Dataset name	LFP PDF Slicer
Create slicing scheme	Yes
<i>Create slicing scheme only</i>	No
<i>CutContour line width (pt)</i>	2
<i>Slice name text size (pt)</i>	250
<i>Slice number text size (pt)</i>	900
<i>Slice dimensions text size (pt)</i>	250
Downsample bitmaps	Yes
<i>Downsample color and grayscale imag...</i>	72
<i>Downsample 1-bit images to (ppi)</i>	300

Property	Value
Element type	LFP PDF Slicer
Name	LFP PDF Slicer
Description	
Incoming pdf scale	Automatic
Unit	Millimeters
Move media box to 0.0	No
Slicer mode	Fixed width
<i>Slices width</i>	1100
<i>Bleed outgoing pdf</i>	same as incoming pdf
<i>Overlap value</i>	40
<i>Overlap position</i>	Right
<i>Overlap added to slice width</i>	Yes
<i>Slice horizontally</i>	No
<i>CutContour line width (pt)</i>	2
<i>Rotate every 2 slices 180°</i>	Yes
<i>Outgoing slices name</i>	Single-line text with variables defined
<i>Slice nr position</i>	Back
Dataset name	LFP PDF Slicer
Create slicing scheme	Yes
<i>Create slicing scheme only</i>	No
<i>CutContour line width (pt)</i>	2
<i>Slice name text size (pt)</i>	200
<i>Slice number text size (pt)</i>	900
<i>Slice dimensions text size (pt)</i>	200
Downsample bitmaps	Yes
<i>Downsample color and grayscale imag...</i>	72
<i>Downsample 1-bit images to (ppi)</i>	300

Property	Value
Element type	LFP PDF Slicer
Name	LFP PDF Slicer
Description	
Incoming pdf scale	Automatic
Unit	Millimeters
Move media box to 0.0	No
Slicer mode	Custom widths
<i>Slices widths separated by ;</i>	500;1000;1000;1000;500
<i>Bleed outgoing pdf</i>	same as incoming pdf
<i>Overlap value</i>	40
<i>Overlap position</i>	Right
<i>Overlap added to slice width</i>	Yes
<i>Slice horizontally</i>	No
<i>CutContour line width (pt)</i>	1
<i>Rotate every 2 slices 180°</i>	Yes
<i>Outgoing slices name</i>	Single-line text with variables defined
<i>Slice nr position</i>	Back
Dataset name	LFP PDF Slicer
Create slicing scheme	Yes
<i>Create slicing scheme only</i>	No
<i>CutContour line width (pt)</i>	2
<i>Slice name text size (pt)</i>	150
<i>Slice number text size (pt)</i>	900
<i>Slice dimensions text size (pt)</i>	150
Downsample bitmaps	Yes
<i>Downsample color and grayscale imag...</i>	72
<i>Downsample 1-bit images to (ppi)</i>	300

Property	Value
Element type	LFP PDF Slicer
Name	LFP PDF Slicer
Description	
Incoming pdf scale	Automatic
Unit	Millimeters
Move media box to 0.0	No
Slicer mode	CSV driven
<i>CSV path</i>	/Users/Shared/CSV/v3 demo file.csv
<i>Slice name</i>	Single-line text with variables defined
<i>Slice nr position</i>	Back
Dataset name	LFP PDF Slicer
Create slicing scheme	Yes
<i>Create slicing scheme only</i>	No
<i>CutContour line width (pt)</i>	2
<i>Slice name text size (pt)</i>	150
<i>Slice number text size (pt)</i>	900
<i>Slice dimensions text size (pt)</i>	150
Downsample bitmaps	Yes
<i>Downsample color and grayscale imag...</i>	72
<i>Downsample 1-bit images to (ppi)</i>	300

- Incoming pdf scale
 - Automatic (value will be read from incoming pdf), 1 means 1:1, 10 means 1:10
See note on last page.
- Unit
 - Points or Inches or Millimeters
- Move media box to 0.0
 - reset media box 0 0 position before processing the job.
- Slicer mode
 - Automatic: slices width defined by LFP PDF Slicer
 - Fixed width: same width for all slices
 - Custom widths: you can specify several widths, from left to right
 - CSV driven: define x and y coordinates, height, width and bleed of every slice, see next page for more details and sample
- Maximum slice width (*in Automatic Slicer mode*)
 - in unit specified above
- Slices width (*in Fixed width Slicer mode*)
 - in unit specified above. Depending on the slicing, the last slice may be narrower.
- Slices widths separated by ; (*in Custom widths Slicer mode*)
 - in unit specified above, no spaces, use period for decimal, slices widths separated by ; Depending on the arrangement, the last slice may be narrower, and the last slice(s) may be deleted.
- Bleed outgoing pdf
 - same as incoming pdf: the bleed value of the incoming pdf will be applied.
 - exactly: this bleed value will be applied if the incoming pdf has enough bleed, otherwise the job will go to the error connection.
 - at least: if the incoming pdf has this value of bleed or more, the bleed value of the incoming pdf will be applied, otherwise the job will go to the error connection.
- Bleed value
 - in unit specified above
- Overlap value
 - in unit specified above
- Overlap position
 - Right / Distribute equally between left and right
- All slices same width (*in Automatic mode*)
 - If set to 'Yes', all the slices will have the same width, eg for cutting reasons
- Slice horizontally: Yes / No
 - Slicer mode, horizontal
 - Automatic: slices height defined by LFP PDF Slicer
 - Fixed height: same height for all slices
 - Custom heights: you can specify several heights, from left to right
 - Maximum slice height (*in Automatic Slicer mode*)
 - in unit specified above
 - All slices same height (*in Automatic mode*)
 - If set to 'Yes', all the slices will have the same height, eg for cutting reasons
 - Overlap position
 - Bottom / Distribute equally between top and bottom

- Numbering
 - Continuous (left to right first) / Continuous (top to bottom first) / H1V1, H1V2, H2V1, H2V2 / V1H1, V1H2, V2H1, V2H2 / A1, A2, B1, B2 (letter is column) / 1A, 1B, 2A, 2B (letter is row)
- CutContour line width (pt)
 - Cut line around trim box (spotcolor named 'CutContour', in overprint), width in pt. Set this value to 0 if you don't want any cut line.
- Rotate every 2 slices 180°
 - Rotate every 2 slices 180° so that slight differences in color between left and right edges of the print pass unnoticed.
- Outgoing slices name
 - Outgoing slices name, slice nr will be added at front or back
Default value: [Job.NameProper] slice
- Slice nr position
 - Add the slice nr at the front or back of the slice name.
In CSV mode, slice nr can be added at the front or back, or not at all. Then make sure to generate unique names using the prefixes and suffixes in the csv.
- Dataset name
 - Name of attached dataset. Info is also written as corresponding private data, see next page for exact names
- Create slicing scheme. See example on next page
 - CutContour line width (pt)
 - Slice name text size (pt)
 - Slice number text size (pt)
 - Slice dimensions text size (pt)
 - Downsample bitmaps
 - Downsample color and grayscale images to (ppi)
 - Downsample 1-bit images images to (ppi)

In CSV driven Slicer mode:

- CSV path
 - Path of CSV file with x and y coordinates, height, width, bleed, name and options of every slice, see next page for more details
- Record delimiter
 - Line separator, mostly CRLF or CR or LF (carriage return or line feed). Choose other for another character. Define then the ASCII code of the separator.
- Record delimiter ASCII code
 - eg 13 = CR Complete list on <http://www.asciitable.com>
- Field delimiter
 - Field separator, mostly semicolon ; or comma , or tab. Choose other for another character. Define then the ASCII code of the separator.
- Field delimiter ASCII code
 - eg 59 = ; Complete list on <http://www.asciitable.com>

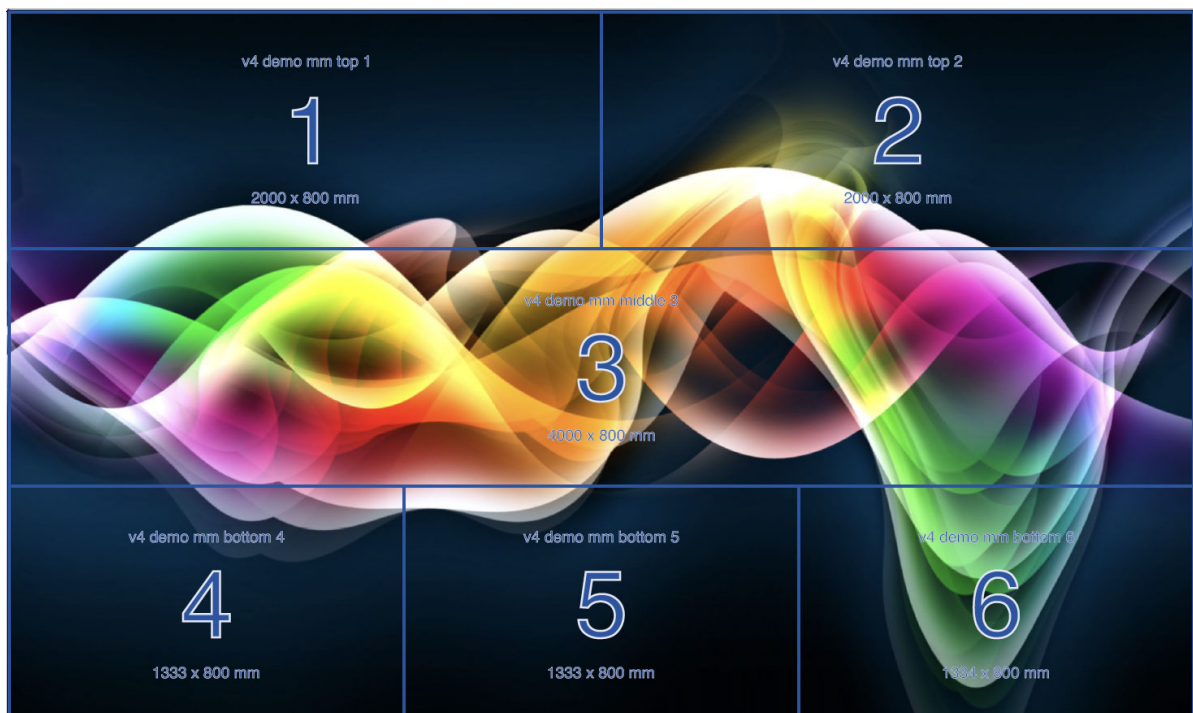
CSV driven Slicer mode - Config csv file

Name prefix	Name suffix	sliceEvenOrOdd	RotateSlice	CutContourWidth	lowerLeftX	lowerLeftY	width	height	bleed
T	top	odd	0	1	0	100	125	50	5
T	top	even	0	1	120	100	120	50	5
M	mid	odd	0	1	0	50	125	55	5
M	mid	even	0	1	120	50	120	55	5
B	bottom	odd	0	1	0	0	125	55	5
B	bottom	even	0	1	120	0	120	55	5

The first line contains the headers, and will not be read.

All columns must be written in this order.

- Name prefix will be added at the front of the slices name. May be left empty
 - Name suffix will be added at the back of the slices name. May be left empty
- The slice nr will then be added at the front or back or not at all. Then make sure to generate unique names using the prefixes and suffixes in the csv.*
- sliceEvenOrOdd is an optional indication. It has no effect on the slicing, but will be written in the Dataset and Private Data. You can use this to sort the slices further in the flow, apply extra Pitstop Server action lists etc. May be left empty
 - RotateSlice: value 0 or 1. Slice will be rotated 180° if value is 1
 - CutContourWidth: cut line around trim box will be added (spotcolor named 'CutContour', in overprint), width in pt. Set this value to 0 if you don't want any cut line.
 - LowerLeftX: horizontal coordinate of lower left point, in unit specified in unit property
 - LowerLeftY: vertical coordinate of lower left point, in unit specified in unit property
- Please note that the coordinates start in the lower left corner of the pdf document.*
- Width: slice width, in unit specified in unit property
 - Height: slice height, in unit specified in unit property
 - Bleed: amount of bleed needed, in unit specified in unit property.
- There is no bleed check to see if the incoming pdf document contains enough bleed.



Slicing scheme with CSV driven mode

Attached dataset and private data (same names as dataset nodes)

v3 Example with an incoming pdf of 240 x 150 mm + 5 mm bleed, 10 mm overlap.
 The uniqueJobNamePrefix and numberOfSlices can be used to recombine all the slices in one job (using the Assemble Job flow element).

Select sample job

Name	Size	Type	Modified	Job prefix	Flow element
240_150 slice 4.pdf	47.6 KB	pdf File	04/05/17 10:01	00J3U	Slices
240_150 slice 3.pdf	32.3 KB	pdf File	04/05/17 10:00	00J3T	Slices
240_150 slice 2.pdf	47.8 KB	pdf File	04/05/17 10:00	00J3S	Slices
240_150 slice 1.pdf	32.3 KB	pdf File	04/05/17 10:00	00J3R	Slices

Metadata dataset

Embedded

External

LFP PDF Slicer

Location path syntax

XMP location path

XML location path

JDF location path

XPath expression

Result data type

Text

Text Indexed

Boolean

Integer

Rational

Date

XML location path

XML data tree

Name	Value	Value	Value	Value
▼ LFP_PDF_Slicer				
▼ jobInfo				
jobName	240_150.pdf	240_150.pdf	240_150.pdf	240_150.pdf
uniqueJobNamePrefix	00J38	00J38	00J38	00J38
numberOfSlices	4	4	4	4
▼ sliceInfo				
sliceName	240_150 slice 1.pdf	240_150 slice 2.pdf	240_150 slice 3.pdf	240_150 slice 4.pdf
sliceNr	1	2	3	4
sliceEvenOrOdd	odd	even	odd	even
slicePosition	first	regular	regular	last
lowerLeftX	21	191.0787	361.1574	531.2361
lowerLeftY	21	21	21	21
upperRightX	219.42515	389.50385	559.58255	701.3150000000001
upperRightY	446.197	446.197	446.197	446.197
extraBleedValue	14.173225	14.173225	14.173225	14.173225
TrimBoxWidth	198.42515	198.42515	198.42515	170.07890000000001
TrimBoxHeight	425.197	425.197	425.197	425.197
CutContourWidth	1	1	1	1
▼ sliceInfoInTargetUnit				
Targetunit	Millimeters	Millimeters	Millimeters	Millimeters
TargetlowerLeftX	7.408335082523561	67.40833508252356	127.4083350825235	187.4083350825235
TargetlowerLeftY	7.408335082523561	7.408335082523561	7.408335082523561	7.408335082523561
TargetupperRightX	77.40833508252356	137.4083350825236	197.4083350825235	247.4084056380958
TargetupperRightY	157.4084232769888	157.4084232769888	157.4084232769888	157.4084232769888
TargetTrimBoxWidth	70	70	70	60
TargetTrimBoxHeight	150	150	150	150
TargetextraBleedValue	5	5	5	5
IncomingJobTrimBoxWidth	240	240	240	240
IncomingJobTrimBoxHeight	150	150	150	150
▼ slicerSettings				
pdfScale	1	1	1	1
unit	Millimeters	Millimeters	Millimeters	Millimeters
slicerMode	Fixed width	Fixed width	Fixed width	Fixed width
sliceWidth	60	60	60	60
extraBleed	5	5	5	5
askedExtraBleedValue	5	5	5	5
sliceOverlap	10	10	10	10
overlapAddedToSliceWidth	Yes	Yes	Yes	Yes
askedCutContourWidth	1	1	1	1
rotateEvenSlices	Yes	Yes	Yes	Yes

What's new in v3

- Slicing scheme output, a copy of the incoming pdf with slices frames, names and numbers
- Incoming pdf scaling factor automatically detected
- Slices keep job's metadata
- Objects outside of the media box are cropped and deleted, to make the slices files (a lot) smaller, and slicing faster
- Status update in the Process pane during slicing, eg "Creating slice 124/200"
- CSV driven jobs do not fail anymore with empty lines. These will be ignored and logged.
- CSV driven jobs intentionally fails with incomplete lines. More details in the the log messages.

What's new in v4

- Completely rewritten in Node.js for full compatibility with future Switch versions
- Horizontal and/or vertical slicing
- Overlap on right/bottom of slices, or equally distributed
- Move media box to 0 0 before processing
- Downsampling of the slicing scheme
- Slices dimensions added to the slicing scheme
- Create slicing scheme only option (for testing)

Notes

In case of scaled files, it is advisable to define the page scaling factor in the pdf document before splitting it with LFP PDF Slicer.

You can easily set the page scaling factor with PitStop / PitStop Server, see action list below. The LFP PDF Slicer app will recognize this scaling factor automatically if the "incoming pdf scale" property is set to Automatic.

