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Creating Flow Frames for Posters or Magazines

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1. Introduction

A marginal note

The flowfram package is designed to enable you to create frames in a document such that the contents of the document environment flow from one frame to the next in the order that they were defined. This is useful for creating posters or magazines or any other form of document that does not conform to the standard one or two column layout.

This document has 1 flow frame, 8 static frames and 11 dynamic frames.

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2. Setting up Frames

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The flowfram package provides three types of frame: flow frames, static frames and dynamic frames.

2.1 Flow Frames

The flow frame is the principle type of frame. The text of the document environment will flow from one frame to the next in order of definition. Each flow frame has an associated width, height, position on the page, and optionally a border[1].

2.2 Static Frames

A static frame is a rectangular area in which text neither flows into, nor flows out of. The contents must be set explicitly, and once set, the contents of the static frame will remain the same on each page until it is explicitly changed. Thus, a static frame can be used, for example, to make a company logo appear in the same place on every page.

2.3 Dynamic Frames

A dynamic frame is similar to a static frame, but its contents are re-typeset on each page. (A static frame stores its contents in a savebox, whereas a dynamic frame stores its contents in a macro).

[1] A footnote!

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3. Frame Attributes

Once you have defined the flow frames, static frames and dynamic frames, their attributes can be changed. The three types of frame mostly have the same set of attributes, but some are specific to a certain type. The available attributes are as follows (^{F} indicates the key is only available for flow frames, ^{S} indicates the key is only available for static frames and ^{D} indicates the key is only available for dynamic frames):

width=<*length*> The width of the frame.

height=<*length*> The height of the frame.

x=<*length*> The x-coordinate of the frame.

y=<*length*> The y-coordinate of the frame.

border=<*style*> The style of the border around the frame, this can take the values: `none` (no border), `plain` (plain border) or the name of a LaTeX frame making command without the preceding backslash. The value `fbox` is equivalent to `plain`.

offset=<*offset*> The border offset, if it is a user-defined border. This is the distance from the outer edge of the left hand border to the left edge of the bounding box of the text inside the border. The flowfram package is able to compute the border for known frame making commands. If you define your own frame making command, you may need to specify the offset explicitly, or the frames may end up shifted to the right or left.

bordercolor=<*colour*> The colour of the border if you are using a standard frame making command. The colour can either be specified as, e.g. `green`, or including the colour model, e.g. `[rgb]{0,1,0}`.

textcolor=<*colour*> The text colour for that frame. Again, the colour can either be specified as, e.g. `green`, or including the colour model, e.g. `[rgb]{0,1,0}`.

pages=<*page list*> The list of pages for which the frame should appear. This can either have the values: `all`, `even`, `odd` or `none` (the latter removes the frame from that point on—useful if you have multiple pages with the same number), or it can be a comma-separated list of single pages, or page ranges.

margin=<*side*>^{F} The side of the flow frame that its corresponding margin should go on. This can take the values `left` or `right`.

clear=<*boolean*>^{S} If this value is set, the static frame will be cleared at the start of the next page.

style=<*cmd*>^{D} This should be the name of a command *without* the preceding backslash, to be applied to the contents of the specified dynamic frame. The command may either be a declaration, for example `style=large` which will set the contents of all the dynamic frames in a large font, or it can be a command that takes a single argument, for example `style=textbf` which will make the text for all the dynamic frames come out in bold. To unset a style, do `style=none`.

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4.1 Page Layout

The flowfram package has the package option `draft` which will draw the bounding boxes for each frame defined. At the bottom right of each bounding box (except for the bounding box denoting the typeblock), a marker will be shown to indictate the type of frame, its IDN and its IDL.

You can see the layout for the current page (irrespective of whether or not the `draft` option has been set) using the command:
`\flowframeshowlayout`

The headers and footers will appear as usual (but will not be shown in draft mode), according to the format given by `\pagestyle`.

4.2 Frame Stacking Order

The material on each page is placed in the following order:

1. Each static frame defined for that page in ascending order of IDN.
2. Each flow frame defined for that page in ascending order of IDN.
3. Each dynamic frame defined for that page in ascending order of IDN.
4. Bounding boxes if the `draft` package option has been used.

This ordering can be used to determine if you want something to overlay or underlay everything else on the page.

4.3 Prematurely Ending a Flow Frame

You can force text to move immediately to the next defined flow frame using one of the standard LaTeX page breaking commands which work in an analogous way to the way they work in standard two column mode.

The command `\framebreak` is provided for situations where a paragraph spans two flow frames of different widths, as TeX's output routine does not adjust to the new value of `\hsize` until the last paragraph of the previous frame has ended. As a result, the end of the paragraph at the beginning of the new flow frame retains the width of the previous flow frame.

If you want to start a new page, rather than simply move to the next frame, use the command
`\finishthispage`.

4.4 Floats

Since floats (such as figures and tables) can only go in flow frames, this package provides the additional environments: staticfigure and statictable which can be used in static frames and dynamic frames. Unlike their figure and table counterparts, they are fixed in place, and so do not take an optional placement specifier. The `\caption` and `\label` commands can be used within staticfigure and statictable as usual.

The standard figure and table commands will behave as usual in the flow frames, but their starred versions, figure* and table* behave no differently from figure and table.

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4.5 Global Values

The following macros can be changed using `\renewcommand`:

- `\setffdraftcolor`

  This sets the colour of the bounding box when it is displayed in draft mode.

- `\setffdrafttypeblockcolor`

  This sets the colour of the bounding box of the typeblock when it is displayed in draft mode.

- `\fflabelfont`

  This sets the font size for the bounding box markers in draft mode.

The following are lengths, which can be changed using `\setlength`:

Another marginal note

- `\fflabelsep`

  This is the distance from the right hand side of the bounding box at which to place the bounding box marker.

- `\flowframesep`

  This is the gap between the text of the frame and its border, for the standard border types.

- `\flowframerule`

  This is the width of the frame's border, if using a border given by a frame making command that uses `\fboxsep` to set its border width.

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