

# The parallel package

Masaki Waga

This is a SAT<sub>Y</sub>SF<sub>I</sub> package providing typesetting of two column texts in parallel. This package is inspired by the L<sup>A</sup>T<sub>E</sub>X package with the same name.

## 1. Installation

You can install SAT<sub>Y</sub>SF<sub>I</sub> parallel with opam and Satyrographos:

```
opam install satysfi-parallel
```

You can also tangle `parallel.satyh` from `parallel.org` using GNU Emacs by typing `C-c C-v t` (or equivalently, `M-x org-babel-tangle`) after opening `parallel.org`. Otherwise, you can tangle from command line as follows:

```
emacs --batch --eval "(require 'org)" --eval '(org-babel-tangle-file  
"$<")'
```

## 2. Commands

The parallel package provides only `+parallel` command. The signature of `+parallel` is as follows.

```
direct +parallel : [float?; float?; block-text; block-text] block-cmd
```

The first and the second arguments of `+parallel` are the float values representing the ratios of the left and the right columns, respectively. These values are optional. The third and the forth arguments of `+parallel` are the contents of the left and the right columns, respectively.

### 3. Examples

The following shows a small working example of parallel package.

```
@require: stdja
@import: ./parallel

StdJa.document (|
  title = {Example usage of parallel};
  author = {Masaki Waga};
  show-title = true;
  show-toc = false;
|) '<
  +parallel <
    +p {
      Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do
      eiusmod tempor incididunt ut labore et dolore magna aliqua.

      Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris
      nisi ut aliquip ex ea commodo consequat.

      Duis aute irure dolor in reprehenderit in voluptate velit esse
      cillum dolore eu fugiat nulla pariatur.

      Excepteur sint occaecat cupidatat non proident, sunt in culpa qui
      officia deserunt mollit anim id est laborum.
    }
  > <
    +p {
      ぞうの卵はおいしいぞう。ぞうの卵はおいしいぞう。ぞうの卵はおいしいぞう。
      ぞうの卵はおいしいぞう。ぞうの卵はおいしいぞう。ぞうの卵はおいしいぞう。ぞうの
      卵はおいしいぞう。ぞうの卵はおいしいぞう。ぞうの卵はおいしいぞう。ぞうの卵はお
      いしいぞう。ぞうの卵はおいしいぞう。ぞうの卵はおいしいぞう。ぞうの卵はおいしい
      ぞう。ぞうの卵はおいしいぞう。ぞうの卵はおいしいぞう。ぞうの卵はおいしい
      ぞう。ぞうの卵はおいしいぞう。ぞうの卵はおいしいぞう。ぞうの卵はおいしい
      ぞう。ぞうの卵はおいしいぞう。ぞうの卵はおいしいぞう。ぞうの卵はおいしい
      ぞう。ぞうの卵はおいしいぞう。
    }
  }
```

```
>  
>
```

You can also specify the ratios of the columns as follows. We note that their sum should be smaller than 1.

```
@require: stdja  
@import: ./parallel  
  
StdJa.document (|  
  title = {Example usage of parallel};  
  author = {Masaki Waga};  
  show-title = true;  
  show-toc = false;  
|) '<  
  +parallel ?:(0.7) ?:(0.28) <  
    +p {  
      Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do  
      eiusmod tempor incididunt ut labore et dolore magna aliqua.  
      Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris  
      nisi ut aliquip ex ea commodo consequat.  
      Duis aute irure dolor in reprehenderit in voluptate velit esse  
      cillum dolore eu fugiat nulla pariatur.  
      Excepteur sint occaecat cupidatat non proident, sunt in culpa qui  
      officia deserunt mollit anim id est laborum.  
    }  
  > <  
    +p {  
      ぞうの卵はおいしいぞう。ぞうの卵はおいしいぞう。ぞうの卵はおいしいぞう。  
      ぞうの卵はおいしいぞう。ぞうの卵はおいしいぞう。ぞうの卵はおいしいぞう。ぞうの卵  
      はおいしいぞう。ぞうの卵はおいしいぞう。ぞうの卵はおいしいぞう。ぞうの卵はおいし  
      いぞう。ぞうの卵はおいしいぞう。ぞうの卵はおいしいぞう。ぞうの卵はおいしいぞう。  
      ぞうの卵はおいしいぞう。ぞうの卵はおいしいぞう。ぞうの卵はおいしいぞう。ぞうの卵  
      はおいしいぞう。ぞうの卵はおいしいぞう。ぞうの卵はおいしいぞう。ぞうの卵はおいし  
      いぞう。ぞうの卵はおいしいぞう。ぞうの卵はおいしいぞう。ぞうの卵はおいしいぞう。
```

```
ぞうの卵はおいしいぞう。  
    }  
  >  
>
```

## 4. Dependency

`parallel` is independent of any external packages except for `pervasives`, which is distributed with `SATySFI`.

## 5. Contributing

The original source code of this package is written in `parallel.org` and the distribution is generated by tangling it with GNU Emacs. If you want to make a pull request on GitHub, please modify this file.

It is also welcome to make an issue with a suggestion of improvement, bug fix, and so on.

## 6. Implementation

The following shows the implementation of the `parallel` package.

```
@require: pervasives  
  
module Parallel : sig  
  
  direct +parallel : [float?; float?; block-text; block-text] block-  
cmd  
end = struct  
  let-block ctx +parallel ? :left-ratio ? :right-ratio left-block right-  
block =  
    let left-ratio =  
      match left-ratio with  
      | None -> 0.48  
      | Some(left-ratio) -> left-ratio in  
    let right-ratio =
```

```
match right-ratio with
| None -> 0.48
| Some(right-ratio) -> right-ratio in
    let left-column-width = (get-text-width ctx) *' left-ratio in
    let right-column-width = (get-text-width ctx) *' right-ratio in
    let margin = (get-text-width ctx) -' left-column-width -' right-
column-width in
    let br-left-pbox =
    embed-block-top ctx left-column-width (fun ctx -> read-block ctx left-
block) in
    let br-right-pbox =
    embed-block-top ctx right-column-width (fun ctx -> read-block ctx right-
block) in
    form-paragraph ctx (br-left-pbox ++ (inline-skip margin) ++ br-
right-pbox)
end
```

## 7. On the release to satyrographos-repo

Since the source files are tangled from `parallel.org`, we have to upload an artifact as a zip file and publish an opam package with it. The generation of the artifact zip file is automated with GitHub Actions. What we have to do is as follows.

- (1) When we want to publish the new version create a new tag `vX.Y.Z` and push to the GitHub repository.
- (2) `package.zip` is automatically generated by GitHub Actions.
- (3) We use `opam pubilsh` to publish the new release. The following shows an example command to use.

```
opam publish --repo=na4zagin3/satyrographos-repo https://github.com/
MasWag/satysfi-parallel/releases/download/vX.Y.Z/package.zip .
```