

An introduction to use imZoomConfig.tex

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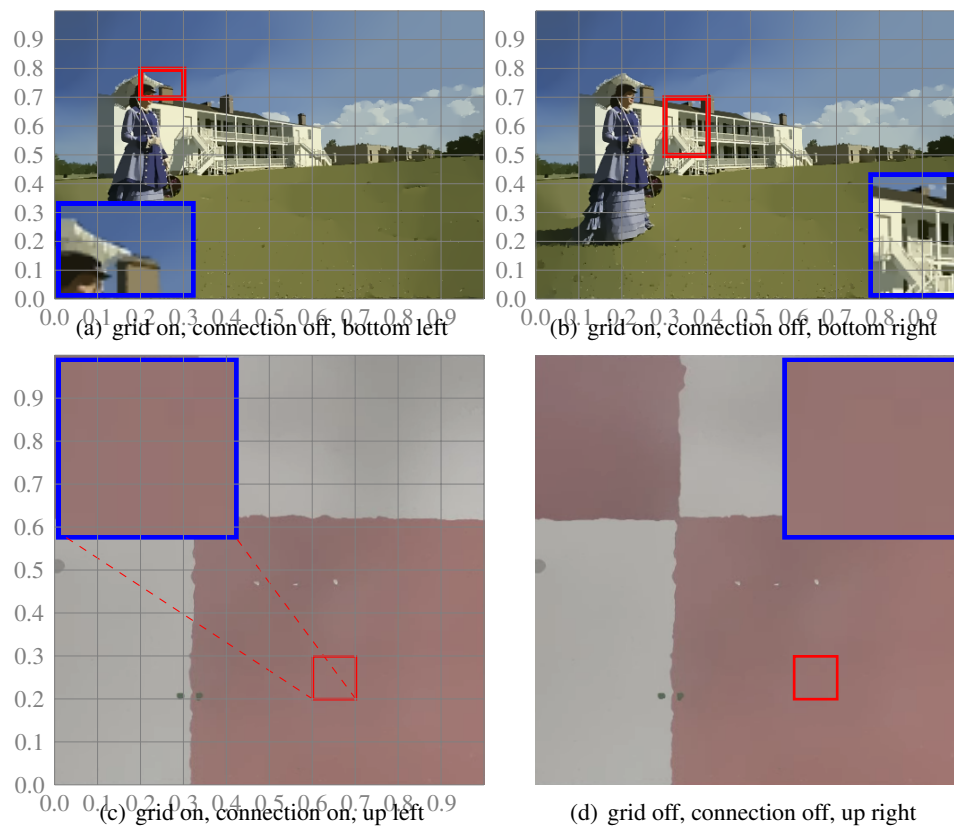


Figure 1: Illustration of `imZoomConfig.tex`

1 Introduction

In the literature of image processing, we usually need to display figures with some zoom-in portion for a clearer illustration. To this end, a tool named `imZoomConfig.tex` is provided. The main function is `\zoomincludgraphic` which has 14 input parameters. Suppose the inner clip portion is rectangle **B1** and the corresponding zoom-in portion is rectangle **B2**. The usage is as follows:

```
\zoomincludgraphic{#1}{#2}{#3}{#4}{#5}{#6}{#7}{#8}{#9}
{##1}{##2}{##3}{##4}{##5}
```

- #1: width of image, such as `0.3\textwidth` or `0.1 cm`
- #2: image name including image location, such as `images/edgepreserving_cmp/lady_L0`
- #3: x-coordinate of **B1** (bottom left corner)
- #4: y-coordinate of **B1** (bottom left corner)
- #5: x-coordinate of **B1** (upper-right corner)
- #6: y-coordinate of **B1** (upper-right corner)
- #7: zoom-in ratio, such as 2, it means we will zoom-in 2 times larger of the selected portion
- #8: to show grid or not. It helps to identify the coordinates. Two options: `help_grid_on` and `help_grid_off`
- #9: the location of zoom-in portion. It has four options: `up_left`, `up_right`, `bottom_left`, `bottom_right`
- #10: two dashed lines connecting **B1** and **B2**. It has two options: `line_connection_on` and `line_connection_off`
- #11: the line width of zoom-in portion **B2**, such as 3
- #12: the line color of zoom-in portion **B2**, such as blue
- #13: the line width of inner selected portion **B1**, such as 3
- #14: the line color of inner selected portion **B1**, such as red

2 Demo

The readers can use it similar as `\includegraphics`. To use this tool, the reader first need to put the `imZoomConfig.tex` ahead of `\begin{document}` using `\input{imZoomConfig.tex}`

The resulting figure is shown in Fig 1. A demo is as follows:

```
\documentclass[10pt]{article}
\usepackage{times}
\usepackage{epsfig}
\usepackage{graphicx}
\usepackage{amsmath}
\usepackage{amssymb}
\usepackage{tikz}
\usetikzlibrary{spy}
\usepackage{pdfpages}
\usepackage{listings}

\input{imZoomConfig.tex}

\begin{document}

\title{An introduction to use imZoomConfig.tex}
\maketitle


\begin{figure}[!ht]
\centering
\subfigure[] {
\zoomincluographic {0.45\textwidth}{images/edgepreserving_cmp/lady_L0}
{0.2}{0.7}{0.3}{0.8}{3}{help_grid_on}{bottom_left}
{line_connection_off}{4}{blue}{2}{red}
}
\subfigure[] {
\zoomincluographic {0.45\textwidth}{images/edgepreserving_cmp/lady_L0}
{0.3}{0.5}{0.4}{0.7}{2}{help_grid_on}{bottom_right}
{line_connection_off}{4}{blue}{2}{red}
}
\subfigure[] {
\zoomincluographic {0.45\textwidth}{images/edgepreserving_cmp/lady_L0}
{0.6}{0.3}{0.7}{0.2}{3}{help_grid_on}{up_left}
```

```

                                {line_connection_on}{4}{blue}{2}{red}
                                }
\subfigure []{
\zoomincluographic {0.45\textwidth}{images/edgepreserving_cmp/lady_L0}
                                {0.3}{0.5}{0.4}{0.7}{2}{help_grid_off}{up_right}
                                {line_connection_off}{4}{blue}{2}{red}
                                }
\caption{testtest}
\end{figure}
\end{document}

```