

Technical Work Log

This document will be a log of my work. My work includes everything related to my tech career, e.g. my paid job, my personal projects, personal setup, freelance, .etc. My learning experience can appear here as well but I will set up another folders for storing my learning notes.

2022-9-25

Today I have tried debugging vimtex by exploring its source code. The error I faced is “viewer cannot find Zathura window ID.” I have no idea how I get this error at first. Because I have already installed Zathura on wsl, (plus a bunch of other softwares, e.g. vcsxrv, x11-apps) and the zathura is working on my wsl. I can open a pdf window in wsl terminal to view documents in windows. So it must not be related to Zathura installation problem.

I have tried changing the setting: delete the default `g:vimtex_view_method="zathura"` and change to `g:vimtex_view_general_viewer="zathura"` in `init.lua` instead. It works. I can now use VimtexView to see the pdf file compiled. But forward search and inverse search don't work.

That's why I decided to inspect the source code of vimtex and see the line that calls the zathura command. After inspecting the function and learning about vimscript language, I locate a `self._start` method and inspect the function called inside this method. After 1-2 hours, I found the line calling the shell command of zathura and pdf file, which is:

```
function! s:cmdline(outfile, synctex, start) abort " {{{1
    let l:cmd = 'zathura'

    if a:start
        let l:cmd .= ' ' . g:vimtex_view_zathura_options
        if a:synctex
            let l:cmd .= printf(
                \ ' -x "%s -c \"VimtexInverseSearch %#{line} \"%#{input}\"\\\"\\\"',
                \ s:inverse_search_cmd)
        endif
    endif

    if a:synctex && (!a:start || g:vimtex_view_forward_search_on_start)
        let l:cmd .= printf(
            \ ' --synctex-forward %d:%d:%s',
            \ line('.'), col('.'),
            \ vimtex#util#shellescape(expand('%:p')))
    endif

    return l:cmd . ' '
        \ . vimtex#util#shellescape(vimtex#paths#relative(a:outfile, getcwd()))
    }}}1
```

```
    \ . '&'
endfunction
```

So, the problem lies in the flag argument passed to the zathura command when opening pdf. I have tried to use the same flag:

```
zathura --synctex-forward 28:1:hello.tex hello.pdf
```

It gives an error of course. Bingo! Now the error probably springs from this command. So i went on to google this error and the solution is install dbus-x11. Go ahead and all errors are gone.