wmtile User Guide

Version 0.9.4

https://pypi.org/project/wmtile

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march 30, 2021

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1. Before Usage

1.1. Introduction

`wmtile` is a small CLI utility written in Python 3, aimed to reshape in seven various ways all the windows in current workspace.

Using `wmctrl` and `xdotool`, `wmtile` is compatible with the EWMH/NetWM specification, so it can work with many Window Mangers as XFCE, Enlightenment, Icewm, Kwin or Sawfish.

Under XFCE `wmtile` can install automatically the panel launchers needed for mouse usage, and the keyboard shortcuts needed for keyboard usage.

1.2. Installation

`wmtile` requires also `wmctrl` and `xdotool`, for instance on a Debian-derived Linux type:

```
    $ sudo apt-get -y install wmctrl xdotool
```

If you lack `pip3` command you must install it, for instance on a Debian-derived Linux type:

```
    $ sudo apt-get -y install python3-pip
```

Now you can install `wmtile` typing (without `sudo`):

```
    $ pip3 install wmtile
```

If you see the message:

```
    WARNING: The script wmtile is installed in '/home/xxxx/.local/bin' which is not
on PATH.
```

don't worry, normally (eg under Xubuntu) a reboot is enough to solve the problem.

In order to upgrade wmtile to last version in PyPI, type:

```
    $ pip3 -U install wmtile
```

2. Usage

2.1. CLI Usage

usage: `wmtile [-h] [-H] [-V] [-i] [-k] [-m] [-t] [-p] [-l] [-s] [-b] [-c]`

optional arguments (give always one and only one):

```
  -h, --help        show this help message and exit
  -H, --user-guide  open User Guide in PDF format and exit
  -V, --version     show program's version number and exit
  -i, --launchers   Install 7 panel launchers (XFCE only)
  -k, --shortcuts   install 7 Keyboard shortcuts (XFCE only)
  -m, --minimize    Minimize
  -t, --tiles       reshape as Tiles
  -p, --portraits   reshape as Portraits
  -l, --landscapes  reshape as Landscapes
  -s, --stack       reshape as a Stack
  -b, --big         reshape as Big = maximize
  -c, --close       gracefully Close
```

2.2. Parameters

`wmtile` behavior is tuned by eight parameters:

PARAMETER	DEFAULT
top_margin	32
bottom_margin	0
left_margin	0
right_margin	0
bottom_space	36
right_space	12
top_stack	20
left_stack	20

Any value is an unsigned integer, denoting a number of pixels.

`top_margin`, `bottom_margin`, `left_margin` and `right_margin` give the reserved space on the screen where `wmtile` cannot put the windows. Default for `top_margin` is 32 because we imagine to have a single horizontal panel 32 pixels high at the top of the screen.

`bottom_space` and `right_space` is an additional reserved space below and to the right of each window. We need this to prevent window overlapping, because not all windows behave exactly the same way.

`top_stack` and `left_stack` only affect the stack function (`wmtile -s`) and says howmany pixels any window goes down and right compared to the previous one. In particular `top_stack` should be enough to read the titles of all windows.

Default values can be altered by the content of the file `'~/.config/wmtile/parameters.cfg'` which, if exists, should contain "assignment" lines with syntax:

```
name '=' integer [ '#' comment ]
```

or "empty" lines with syntax:

```
[ '#' comment ]
```

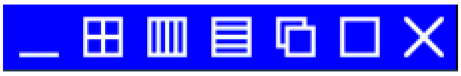
for example:

```
# wmtile configuration parameters
left_stack = 10 # for me, 10 is more than enough
top_margin = 36 # horizontal top panel, 36 pixels high
```

2.3. Mouse Usage

You can use `wmtile` directly from terminal, but is more convenient to use it either by mouse or by keyboard, depending on your tastes. For mouse usage you should create by hand seven panel launchers for the `wmtile` seven functions (minimize, tiles, portraits, landscapes, stack, big and close), but under XFCE you can invoke the automatic `wmtile` installer for panel launchers:

```
$ wmtile -i
installing 7 wmtile panel launchers
    launcher --> wmtile -m (Minimize)
    launcher --> wmtile -t (reshape as Tiles)
    launcher --> wmtile -p (reshape as Portraits)
    launcher --> wmtile -l (reshape as Landscapes)
    launcher --> wmtile -s (reshape as a Stack)
    launcher --> wmtile -b (reshape as Big = maximize)
    launcher --> wmtile -c (gracefully Close)
```

which will create the seven launchers: 

If you have one panel only, the seven launchers will be added immediately at and of your panel.

If otherwise you have more than one, you will be asked seven times (sorry...) which panel you want to add each launcher to. Panels are numbered as 0, 1...

Beware: if you issue `'wmtile -i'` a second time, you create other seven launchers in your panel, and you will have to delete them one by one.

2.4. Keyboard Usage

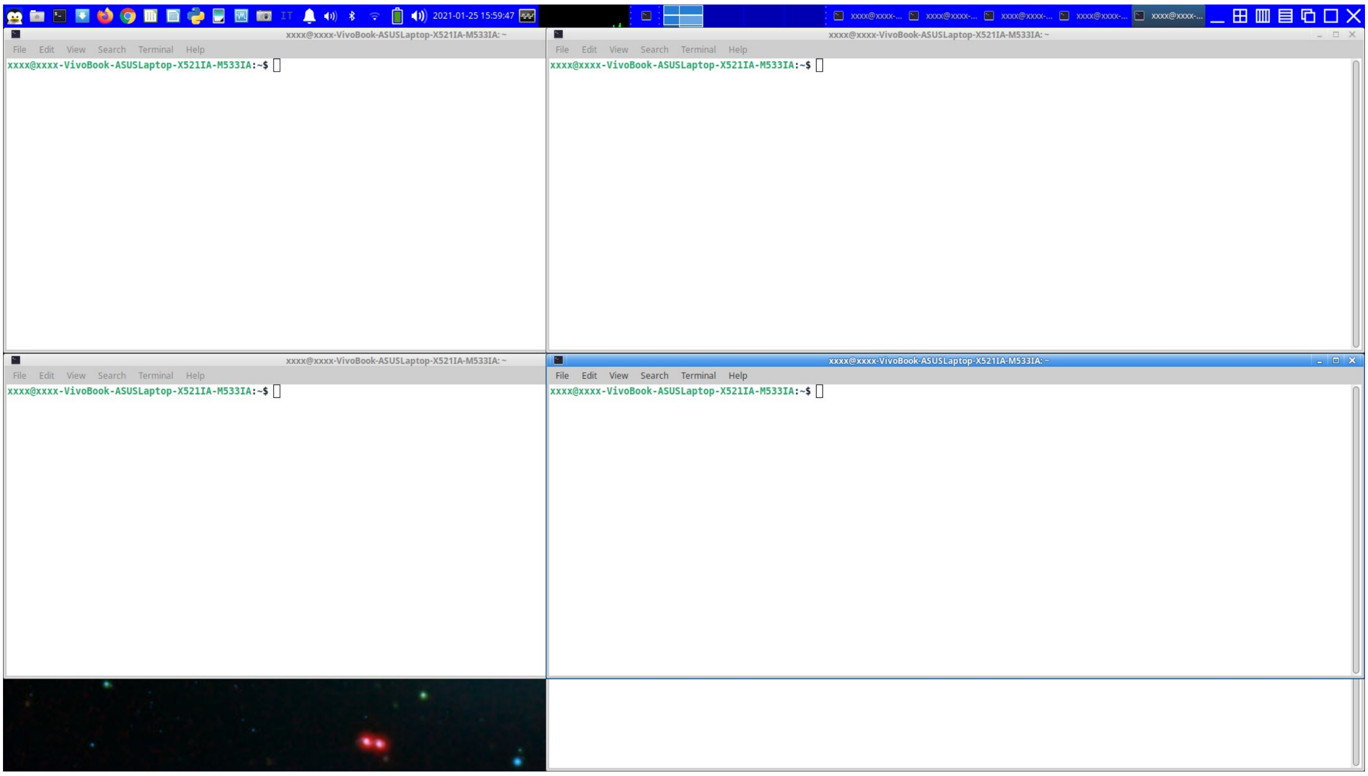
In order to use `wmtile` by keyboard, you should define by hand seven keyboard shortcuts for the `wmtile` seven functions (minimize, tiles, portraits, landscapes, stack, big and close), but under XFCE you can invoke the automatic `wmtile` installer for keyboard shortcuts:

```
$ wmtile -k
installing 7 wmtile keyboard shortcuts
    Alt+Shift+M --> wmtile -m (Minimize)
    Alt+Shift+T --> wmtile -t (reshape as Tiles)
    Alt+Shift+P --> wmtile -p (reshape as Portraits)
    Alt+Shift+L --> wmtile -l (reshape as Landscapes)
    Alt+Shift+S --> wmtile -s (reshape as a Stack)
    Alt+Shift+B --> wmtile -b (reshape as Big = maximize)
    Alt+Shift+C --> wmtile -c (gracefully Close)
please reboot in order to make wmtile keyboard shortcuts effective
```

If you issue `'wmtile -k'` a second time, don't worry, the new seven shortcuts overlap the previous ones, without duplication.

3. Functions

Now we'll illustrate the seven `wmtile` functions. If you have more than one workspace, functions operate on all windows in the current workspace only. Let's create, say, five terminal windows. They will all appear randomly overlapping.



2021-01-25 15:59:47
xxxx@xxxx-...
xxxx@xxxx-VivoBook-ASUSLaptop-X521IA-M533IA: ~
File Edit View Search Terminal Help

```
xxxx@xxxx-VivoBook-ASUSLaptop-X521IA-M533IA:~$ 
```

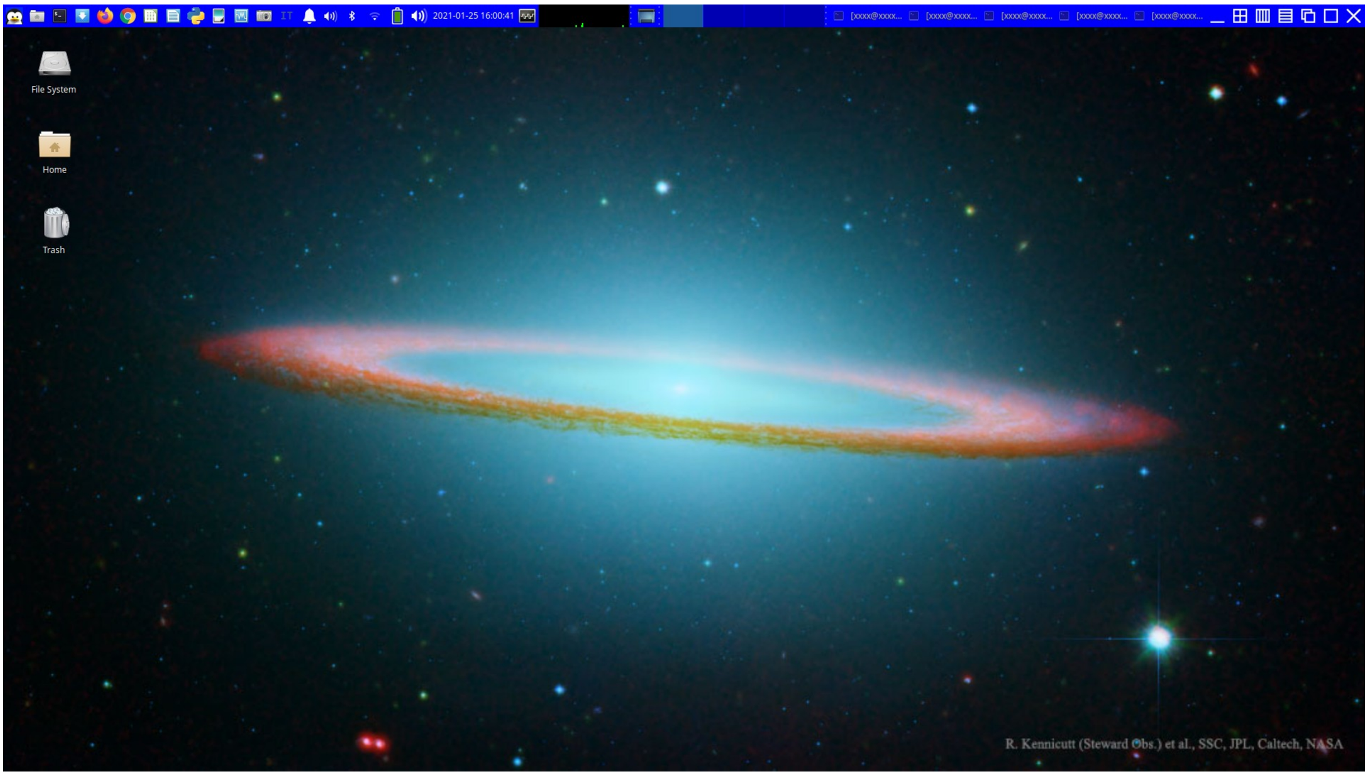
```
xxxx@xxxx-VivoBook-ASUSLaptop-X521IA-M533IA:~$ 
```

```
xxxx@xxxx-VivoBook-ASUSLaptop-X521IA-M533IA:~$ 
```

```
xxxx@xxxx-VivoBook-ASUSLaptop-X521IA-M533IA:~$ 
```

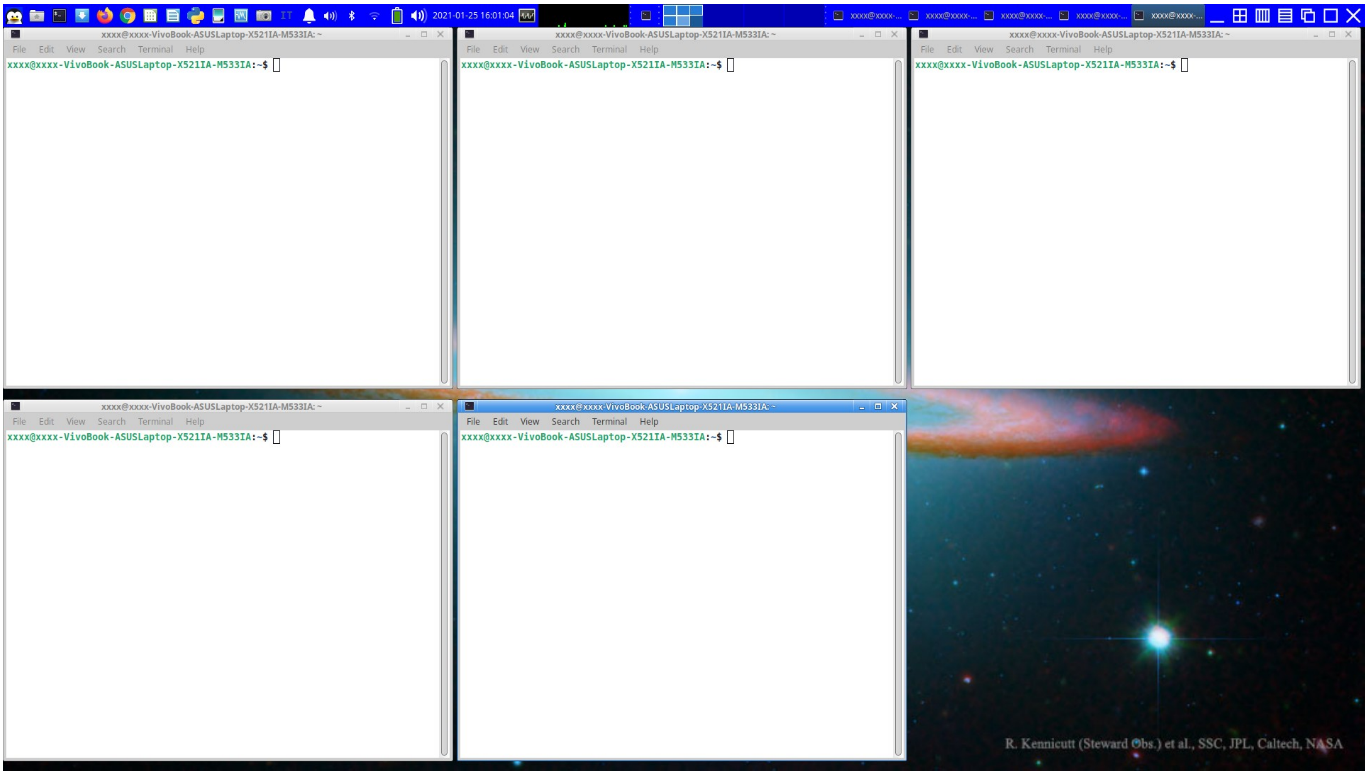
3.1. Minimize

Left-clicking the Minimize panel launcher , or pressing Alt+Shift+M, all windows in current workspace are minimized and disappear.



3.2. Tiles

Left-clicking the Tiles panel launcher ⊞, or pressing Alt+Shift+T, all windows in current workspace are arranged in a grid, n * n or n * (n + 1).


2021-01-25 16:01:04
xxxx@xxxx-VivoBook-ASUSLaptop-X521IA-M533IA: ~
File Edit View Search Terminal Help
R. Kennicutt (Steward Obs.) et al., SSC, JPL, Caltech, NASA

```
xxxx@xxxx-VivoBook-ASUSLaptop-X521IA-M533IA:~$ 
```

```
xxxx@xxxx-VivoBook-ASUSLaptop-X521IA-M533IA:~$ 
```

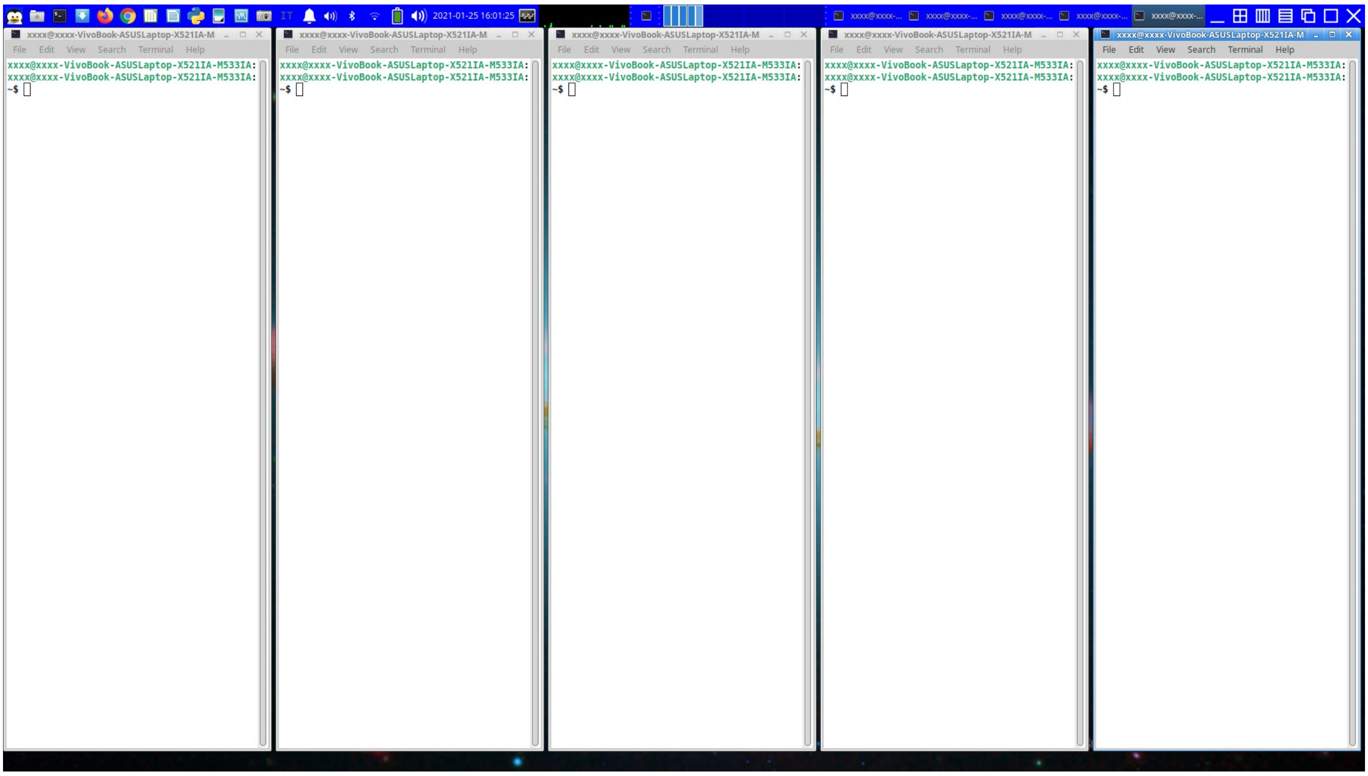
```
xxxx@xxxx-VivoBook-ASUSLaptop-X521IA-M533IA:~$ 
```

```
xxxx@xxxx-VivoBook-ASUSLaptop-X521IA-M533IA:~$ 
```

```
xxxx@xxxx-VivoBook-ASUSLaptop-X521IA-M533IA:~$ 
```

3.3. Portraits

Left-clicking the Portraits panel launcher, or pressing Alt+Shift+P, all windows in current workspace are horizontally arranged in vertical portraits.


2021-01-25 16:01:25
xxxx@xxxx-VivoBook-ASUSLaptop-X521IA-M
File Edit View Search Terminal Help

```
xxxx@xxxx-VivoBook-ASUSLaptop-X521IA-M533IA:
xxxx@xxxx-VivoBook-ASUSLaptop-X521IA-M533IA:
~$ 
```

```
xxxx@xxxx-VivoBook-ASUSLaptop-X521IA-M533IA:
xxxx@xxxx-VivoBook-ASUSLaptop-X521IA-M533IA:
~$ 
```

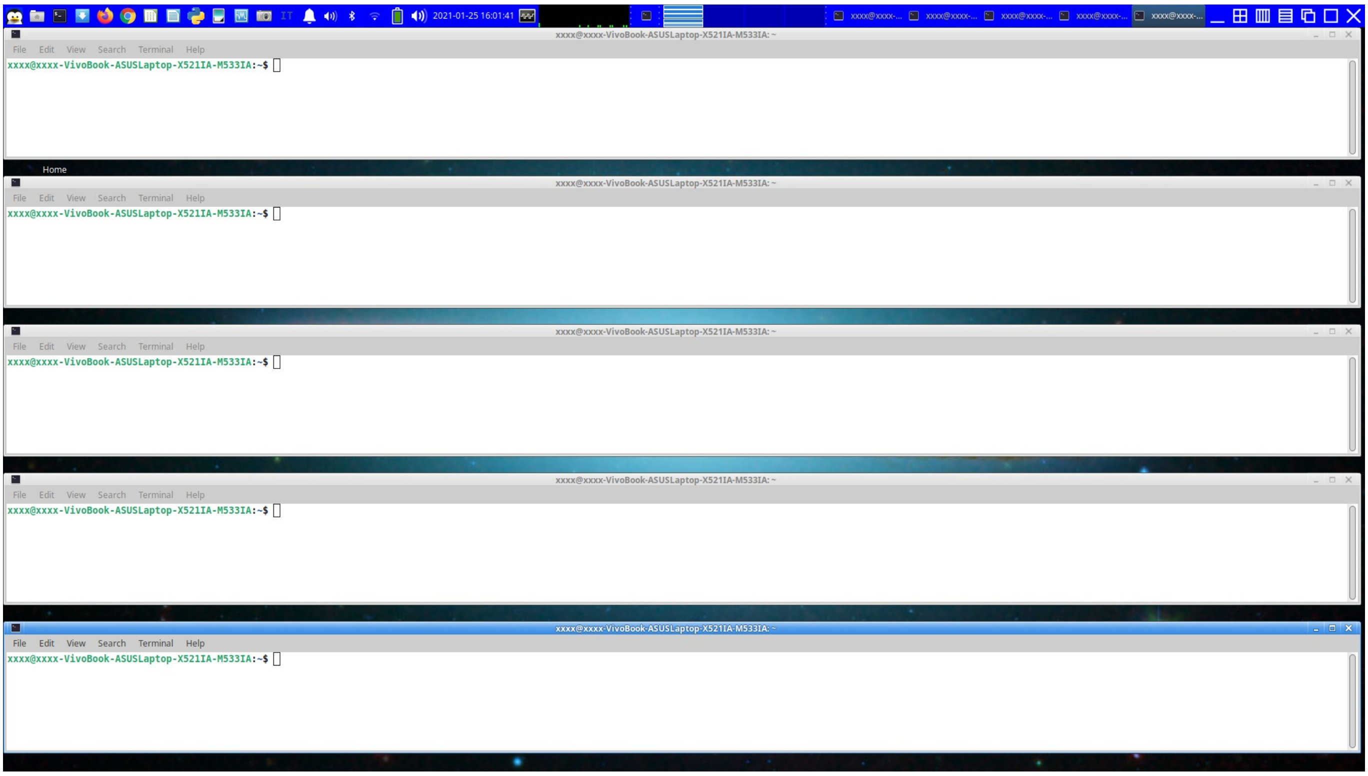
```
xxxx@xxxx-VivoBook-ASUSLaptop-X521IA-M533IA:
xxxx@xxxx-VivoBook-ASUSLaptop-X521IA-M533IA:
~$ 
```

```
xxxx@xxxx-VivoBook-ASUSLaptop-X521IA-M533IA:
xxxx@xxxx-VivoBook-ASUSLaptop-X521IA-M533IA:
~$ 
```

```
xxxx@xxxx-VivoBook-ASUSLaptop-X521IA-M533IA:
xxxx@xxxx-VivoBook-ASUSLaptop-X521IA-M533IA:
~$ 
```

3.4. Landscapes

Left-clicking the Landscapes panel launcher, or pressing Alt+Shift+L, all windows in current workspace are vertically arranged in horizontal landscapes.



2021-01-25 16:01:41
xxxx@xxxx-...
xxxx@xxxx-VivoBook-ASUSLaptop-X521IA-M533IA: ~
File Edit View Search Terminal Help
Home

```
xxxx@xxxx-VivoBook-ASUSLaptop-X521IA-M533IA:~$ 
```

```
xxxx@xxxx-VivoBook-ASUSLaptop-X521IA-M533IA:~$ 
```

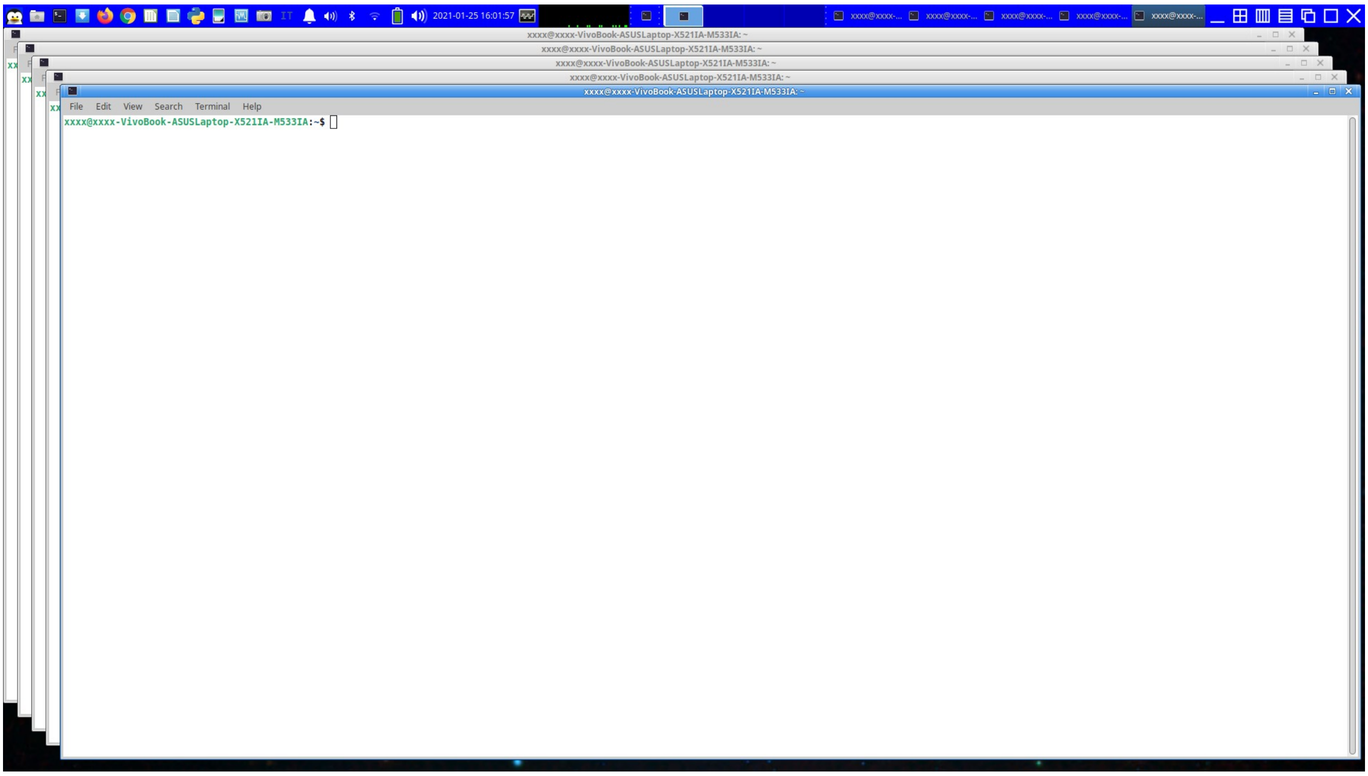
```
xxxx@xxxx-VivoBook-ASUSLaptop-X521IA-M533IA:~$ 
```

```
xxxx@xxxx-VivoBook-ASUSLaptop-X521IA-M533IA:~$ 
```

```
xxxx@xxxx-VivoBook-ASUSLaptop-X521IA-M533IA:~$ 
```

3.5. Stack

Left-clicking the Stack panel launcher, or pressing Alt+Shift+S, all windows in current workspace are reshaped in a stack.

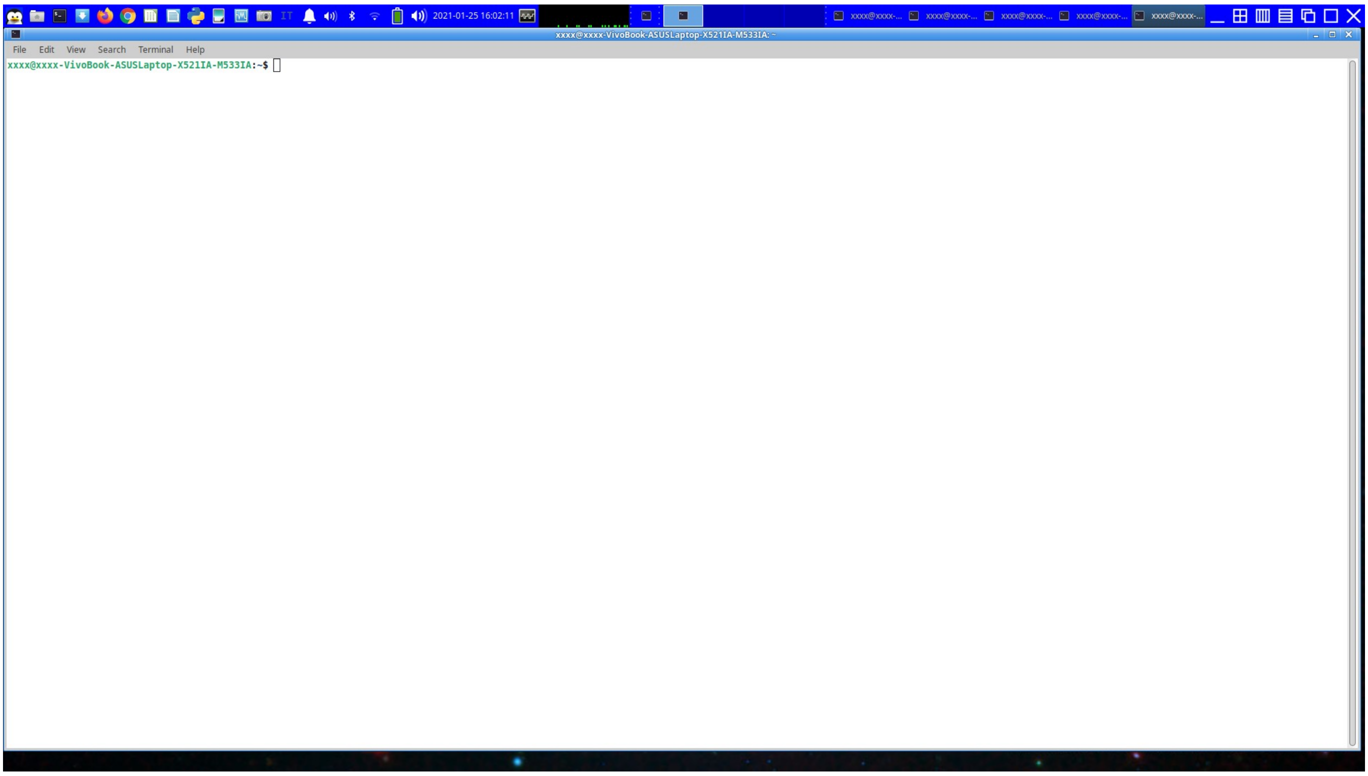


2021-01-25 16:01:57
xxxx@xxxx-...
xxxx@xxxx-VivoBook-ASUSLaptop-X521IA-M533IA: ~
File Edit View Search Terminal Help

```
xxxx@xxxx-VivoBook-ASUSLaptop-X521IA-M533IA:~$ 
```

3.6. Big

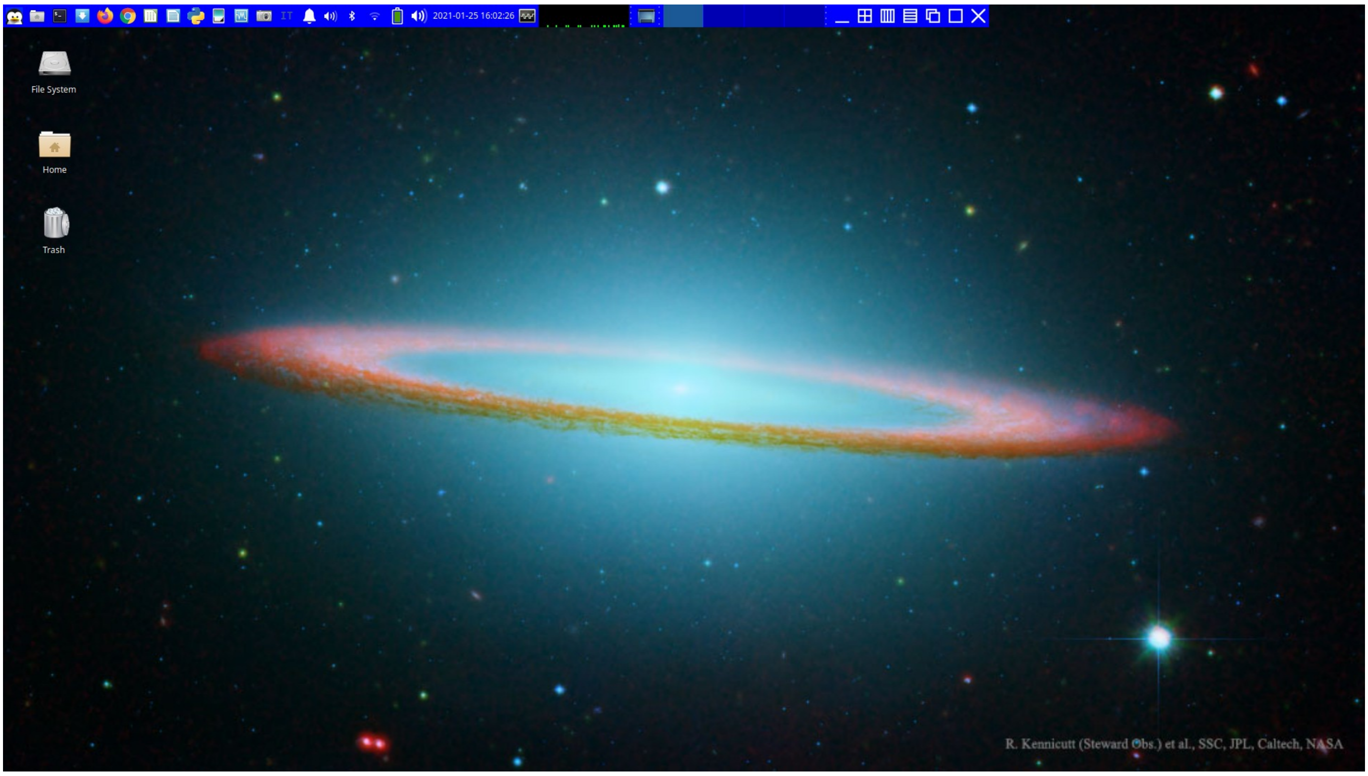
Left-clicking the Big panel launcher □, or pressing Alt+Shift+B, all windows in current workspace are maximized, so you will see the most recent one only. Of course you can access the other windows by Alt-Tab or Alt-Shift-Tab.



```
xxxx@xxxx-VivoBook-ASUSLaptop-X521IA-M533IA:~$
```

3.7. Close

Left-clicking the Close panel launcher ✕, or pressing Alt+Shift+C, all windows in current workspace are gracefully closed.



Here "gracefully" means that:

- if one of the windows to be closed belongs to an application that is dealing with an open file, then you will be asked whether to save the file before closing the application;
- if one of the windows to be closed is a terminal containing an active process, then you will be asked to confirm the window closure (and the consequent process killing).

4. Appendices

4.1. Known Bugs

For some obscure reason, LibreOffice windows refuse to be reshaped by `wmtile`.

4.2. Acronyms

INITIALS	MEANING
CLI	Command Language Interface
DE	Desktop Environment
EWMH	Extended Window Manager Hints
GUI	Graphic User Interface
HTML	HyperText Markup Language
MD	MarkDown
PDF	Page Description Format
PyPI	Python Package Index
WM	Window Manager
XFCE	X Forms Common (or Cool) Environment

4.3. Credits

The `wmtile` project has been:

- developed in Python 3.8.6
- by Idle 3.8.6
- built and published on PyPI by flit 3.0.0 on Linux Xubuntu 20.10
- tested on Linux Xubuntu 20.10 and GhostBSD-XFCE

`wmtile` uses two CLI utilities in order to interact with WM:

- xdotool 1:3:20160805.1-4 for window minimization (which seems impossible by wmctrl)
- wmctrl 1.07-7build1 for any other function

The `wmtile` User Guide file you see by typing `'wmtile -H'` has been:

- written in MD format and exported in HTML format by ReText 7.1.0
- processed by toc2md 0.9.2 (see `toc2md` User Guide)
- translated from HTML into PDF format by LibreOffice Writer 7.0.3.1

Thanks to APOD (Astronomical Picture of the Day) for the Sombrero Galaxy in Infrared image used as desktop background.

4.4. Changelog

- Version **0.9.4** - 2021-03-30
    - Changed
        - some bug has been corrected
- Version **0.9.3** - 2021-01-29
    - Changed
        - README.txt has been converted into README.md

- Version **0.9.2** - 2021-01-29
  - Changed
    - Help and User Guide have been updated
- Version **0.9.1** - 2021-01-25
  - Changed
    - User Guide has been updated
- Version **0.0.1** - 2020-10-14
  - First version published on Pypi