The FIM (Fbi IMproved) Universal Image Viewer, in a Nutshell

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Graphics devroom at FOSDEM’24
Bruxelles, February 04, 2024
Before FIM

![Young hare](https://upload.wikimedia.org/wikipedia/commons/thumb/1/1a/1502_D%C3%BCrer_young_hare_from_Prutenic_Sheets.jpg/430px-1502_D%C3%BCrer_young_hare_from_Prutenic_Sheets.jpg)

*young hare*

Albrecht Dürer, 1502 (Wikipedia)

- I used `fbi` (*Linux framebuffer imageviewer*) by Gerd Hoffmann
Before FIM

young hare
Albrecht Dürer, 1502 (Wikipedia)

- I used fbi (*Linux framebuffer imageviewer*) by Gerd Hoffmann
- *but* I wanted VIM's `h` `j` `k` `l` keys...
... and then more ...

- different graphical front-ends
... and then **more** ...

- different graphical front-ends
- arbitrary key bindings
... and then more ...

- different graphical front-ends
- arbitrary key bindings
- command language
... and then more ...

- different graphical front-ends
- arbitrary key bindings
- command language
- shortcuts
... and then **more** ... 

- different graphical front-ends
- arbitrary key bindings
- command language
- shortcuts
- ...

**Wolpertinger**

Rainer Zenz’s edits on Albrecht Dürer's “young hare” (Wikipedia)
... and then **more** ...

- different graphical front-ends
- arbitrary key bindings
- command language
- shortcuts
- ...
- metadata display (EXIF...)

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- metadata display (EXIF...)
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- read from stdin

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*Wolpertinger*

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FIM: *Fbi IMproved*: a Unix tool

- show images
- minimal user interface
- command line interface (CLI)
- with configuration file
- read from converter programs
- highly interoperable
One binary, several graphical modes

- uniform look and feel

- \( -o\ fb \)
- \( -o\ sdl \)

- \( -o\ ca \)

- \( -o\ aa \)
keys are assigned to language elements

► + magnify
► − reduce '20%
► Del list 'pop'; reload
► PageDown if(_display_console==0){next;}else{scd;}
► ...

The FIM (Fbi IMproved) Universal Image Viewer, in a Nutshell
commands “reside” in CLI mode 📊

- enter CLI mode with \( : \) (like in VIM)
- \( \text{Tab} \) autocompletion

⇒ \( : \text{nex} \) ⇒

⇒ \( -10\% \) \text{scale } ’-10\%’ \reduce

⇒ \( 3 \) \goto 3
Customizable captions with *expandos* (i.e. *format strings*)

```plaintext
.want_wm_caption_status="this is %N %k";

caption_over_image_fmt="%?_comment?cmt: %:_comment:?";

display_status_fmt="scaled to %p%%";

info_fmt_str="w:%w h:%h";
```
Search on descriptions

▶ /forward-search
▶ ?back-search

(image from Wikipedia)
Temporarily shortlist

limit 'category' 'activist'

⇒

▶ metadata (category) stored in a description file

(images: Wikipedia)
Custom *conversion pipelines*

- filter each image file data

```bash
fim --pread-cmd="convert {} -charcoal 5 -pointsize 36 label:'{} charcoal' -append ppm:-" *
```

- like `find -exec 'cmd {}';`
**Fallback conversion pipelines**

- on selected extensions (SVG, ..., DIA, XCF, ...)
- call external converter (inkscape, convert, ...)

[Image of a Linux penguin]
New: GTK menus

Warning

Work in progress!
New: GTK menus

Warning

Work in progress!

Goals

- user-customizable via \texttt{${HOME}/.fimrc}
- possibly dynamic (\texttt{limit 'menuadd' ...})
- helpful to access more advanced features
Poor person’s menus

Il quarto stato (1901).
File menu

- Open file
- Open directory
- Next in list
- Next in other directory
- Next in this directory
- Next as last search
- Go to last file
- Previous in list
- Remove from list
- Mark
- Unmark
- Quit
List menu

- View
- Image
- Image Extras
- Window
- Advanced
- Custom actions
- All actions
- Help

- List
- Show
- Limit
- Limit to...
- Unlimit list (reset)
- Reverse
- Sort by name
- Sort by size
- Sort by time
- Shuffle randomly
- Mark all
- Random slideshow
- Endless slideshow
List menu: Limit

- Limit
- artist
- museum
- Limit to...
- Unlimit list (reset)
- Reverse
- Sort by name
- Sort by size
- Sort by time
- Shuffle randomly
- Mark all
- Random slideshow
- Endless slideshow

Giuseppe Pellizza da Volpedo
Maestro di Ercolano
bernini
boecklin
bosch
bruegel

carracci
celinski
donatello
duerer
List menu: in a limited list

List menu: in a limited list

Image menu: Flip and \textit{i:flipped}
Image menu: after Flip

- Orientation: flipped=1
- Orientation: flipped=0
- Orientation: upside down
- Orientation: 90' left
The FIM (Fbi IMproved) Universal Image Viewer, in a Nutshell
View menu and **_autoflip_**
View menu and Orientation radio button

- Orientation: normal
- Orientation: 90'right
- Orientation: upside down

_orientation=2
View menu and Orientation changed after Flip

Pieter Bruegel the Elder (1525~1530-1569). “The Land of the Cockaigne”, 1567, Alte Pinakothek, Munich
View menu and Orientation changed after Flip

Orientation: upside down

Orientation: 90'right

Orientation: normal

Scale: by height

Scale: by width

Scale: by hand (manual)

Scale: auto

Autoflip

Automirror

File List

Image

Image Extras

Window

Advanced

Custom actions

All actions

Help

Window menu

File  List  View  Image  Image Extras

Window  Advanced  Custom actions  All actions  Help

Fullscreen
Hide the menu (click button to restore)
Resize window
_Gtk_fullscreen=1
_Gtk_fullscreen=0

Text size reduce
Text size magnify
Text font: next
Text font: prev

☐ Show status line
☐ Caption over image: None
☐ Caption over image: No background
☐ Caption over image: Black background
• Caption over image: Above image, no overlap

Pieter Bruegel the Elder (1525~1569)
Pinakothek, Munich
Advanced menu and alias help expansion in tooltips

```plaintext
_rebuild_verboser_menus -> _debug_commands=_debug_commands."m";display "reinit" "f";
```

- Verbose keys
  - Low execution verbosity
  - Intermediate execution verbosity
  - High execution verbosity

- Rebuild menus with tooltips

- Background Prefetch
Custom menu

Custom menu and `pread + vgrabbj` example
Special “All” submenus
Special “Help“ submenus

"magnify" is an alias, and was declared as:
alias "magnify" "scale '+'" # magnify the displayed image by the _magnify_factor variable or {args}
Acknowledgements

- Distro maintainers over the years
- Especially: Debian’s Rafael Laboissiere!!!
- Users with bugs, or patches
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  (remember to visit
  https://ilovefs.org/
  ❤️❤️❤️❤️!!)
https://www.nongnu.org/fbi-improved

apt install fim

see also e.g. NixOS, Gentoo, Arch

man fim

man fimrc