Yes, we can drastically rethink the design of a shell prompt

— nojhan

— FOSDEM

2024-02-03
Prompts
Shell Prompts

- Everyday's Command Line Interface
- Defaults (at most) to: [nojhan@fosdem:~]$  

Purpose:
- Indicate where you are (ex. dir)
- Warn when problems are coming (ex. space)
- Follow state of work (ex. git)
Where is my mind?

```
NUC-354090% sudo tail -n 10 /var/log/syslog
2024-01-29T21:30:05.921748+01:00 NUC-354090 systemd[3098]: Stopped tracker-miner-fs-3.service - Tracker file system data miner.
2024-01-29T21:30:05.921939+01:00 NUC-354090 systemd[3098]: tracker-miner-fs-3.service: Consumed 1min 9.00s CPU time.
2024-01-29T21:30:05.948296+01:00 NUC-354090 systemd[3098]: Starting tracker-miner-fs-3.service - Tracker file system data miner...
2024-01-29T21:30:14.828288+01:00 NUC-354090 tracker-extract[2632043]: Could not connect to filesystem miner endpoint: Timeout was reached
2024-01-29T21:30:14.835177+01:00 NUC-354090 systemd[3098]: tracker-extract-3.service: Main process exited, code=exited, status=1/FAILURE
2024-01-29T21:30:14.835446+01:00 NUC-354090 systemd[3098]: tracker-extract-3.service: Failed with result 'exit-code'.
2024-01-29T21:30:14.835637+01:00 NUC-354090 systemd[3098]: Failed to start tracker-extract-3.service - Tracker metadata extractor.
2024-01-29T21:30:15.171227+01:00 NUC-354090 systemd[3098]: tracker-extract-3.service: Scheduled restart job, restart counter is at 1487.
2024-01-29T21:30:15.171422+01:00 NUC-354090 systemd[3098]: Stopped tracker-extract-3.service - Tracker metadata extractor.
2024-01-29T21:30:15.211839+01:00 NUC-354090 systemd[3098]: Starting tracker-extract-3.service - Tracker metadata extractor...
NUC-354090% tail -n 10 /var/log/messages
tail: impossible d’ouvrir '/var/log/messages' en lecture: Aucun fichier ou dossier de ce type
NUC-354090% ifconfig
eno1: flags=4099<UP,BROADCAST,MULTICAST> mtu 1500
    ether 54:b2:03:18:0d:0d txqueuelen 1000 (Ethernet)
    RX packets 0 bytes 0 (0.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 0 bytes 0 (0.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
    device interrupt 16 memory 0xdc200000-0xd200000
```
7 Prompts

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<td>Github stars (k)</td>
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<td>28</td>
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## Features

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https://github.com/liquidprompt/liquidprompt/wiki/Why
Design axes

https://github.com/liquidprompt/liquidprompt/wiki/Why

- **focused**: targets states that are actually useful to the user during a work session,
- **seamless**: does not product friction with the user workflow,
- **scoped**: targets states that can change,
- **measured**: embraces the fact that some states change less often than others,
- **accentuated**: makes more visible the feedback for more important state changes,
- **configurable**.
# Design

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Example — Oh–My–Posh

```plaintext
runner on Thursday at 4:43 PM 🌙 ☁️ main ≡ 🏡 ~1 0s ⏳ MEM: 18.37% (6/7GB)

{ one > work > oh-my-posh > oh-my-posh > website } 🌙
```

```plaintext
runner → (main) 🏡 17.6.0 🖤 16:43
```

```plaintext
runner@fv-az713-588 → (main)
```

```plaintext
runner@fv-az713-588 → (main)
```

```plaintext
runner@fv-az713-588 → (main)
```

```plaintext
runner on 🕒 ~/work/oh-my-posh/oh-my-posh/website 🏡 main
```

```plaintext
~/> ... /oh-my-posh /oh-my-posh /website main += 0 ~2 -0
```

```plaintext
runner@fv-az713-588 → ~/work/oh-my-posh/oh-my-posh/website 🏡 main
```

```plaintext
~/> shell → website 🏡 main ≡ 🏡 ~2 0ms 🌙 17.6.0 🖤 kind-posh 🌙 9,16:43
```

```plaintext
~/> ...
```
Much Information!

2.2.0 vs [2.2.0]

VCS: [git]

diff: [+10/-5]

comit: [+3/-1]

stash: [1]

utrk: [1]

brch: [main]

pyev: [pyenv]

node: [/////]

ruby: [/////]

kube: [/////]

trfm: [/////]

cont: [/////]

awsp: [/////]

scls: [/////]

shel: [bash]

R0: [●]

rntm: [20s]

https://github.com/nojhan/lp-solid
We Can Do Better

- Important information first
- Help visual parsing
- Avoid list of segments
- Be colorblind-friendly
- Avoid psychedelic rainbows
- Avoid text overload
- Use logical sequences
- Semantic thresholds
Liquid Prompt / DotMatrix

- https://github.com/nojhan/lp-dotmatrix
Short prompt:

Medium prompt:

Long prompt:

https://github.com/nojhan/lp-dotmatrix
Important information first

- Prioritize based on location on screen
  - more stability, thus easier to spot changes
- 2 colors for important states changes

Who? nojhan

Where? code colout

Sensors

Stable config

Remote Local Important
Help visual parsing

- Consistent segments
- Section Line
colorblind-friendly
Colors contrast

- ANSI colorspace
- 256 colors
- $3b_{\text{red}} \times 3b_{\text{green}} \times 2b_{\text{blue}}$
- Tool to test AAA/AA contrast
- One color over all
- Pair of colors
Avoid text overload

- Use negative spaces

%déconnexion
Connection to closed.

X nojhan ~

X root / home nojhan tmp

exit

X nojhan ~ tmp

-
Use logical sequences

- **GIT:**
  - from right (local repo)
  - to left (remote repo)
Semantic thresholds

▶ Normal
▶ Note
▶ Warning
DotMatrix

https://github.com/nojhan/lp-dotmatrix

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More thoughts about the design of Liquid Prompt:
https://github.com/liquidprompt/liquidprompt/wiki/Why#design
More Git

```bash
~ code/dotfiles
< base
+ master +/? >
```
DotVector

▶ One liner
Themes — Liquid Prompt