

Prettifying your bash

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 @SubatomicSADLM



Windows Subsystem for Linux (WSL)



Surprise! I do all my analyses on Windows. Not even dual-booting Ubuntu!

Technically it does create a virtual partition...



The Windows terminal: Powershell. Only thing it's good for is downloading WSL.

To install: <https://docs.microsoft.com/en-us/windows/wsl/install>



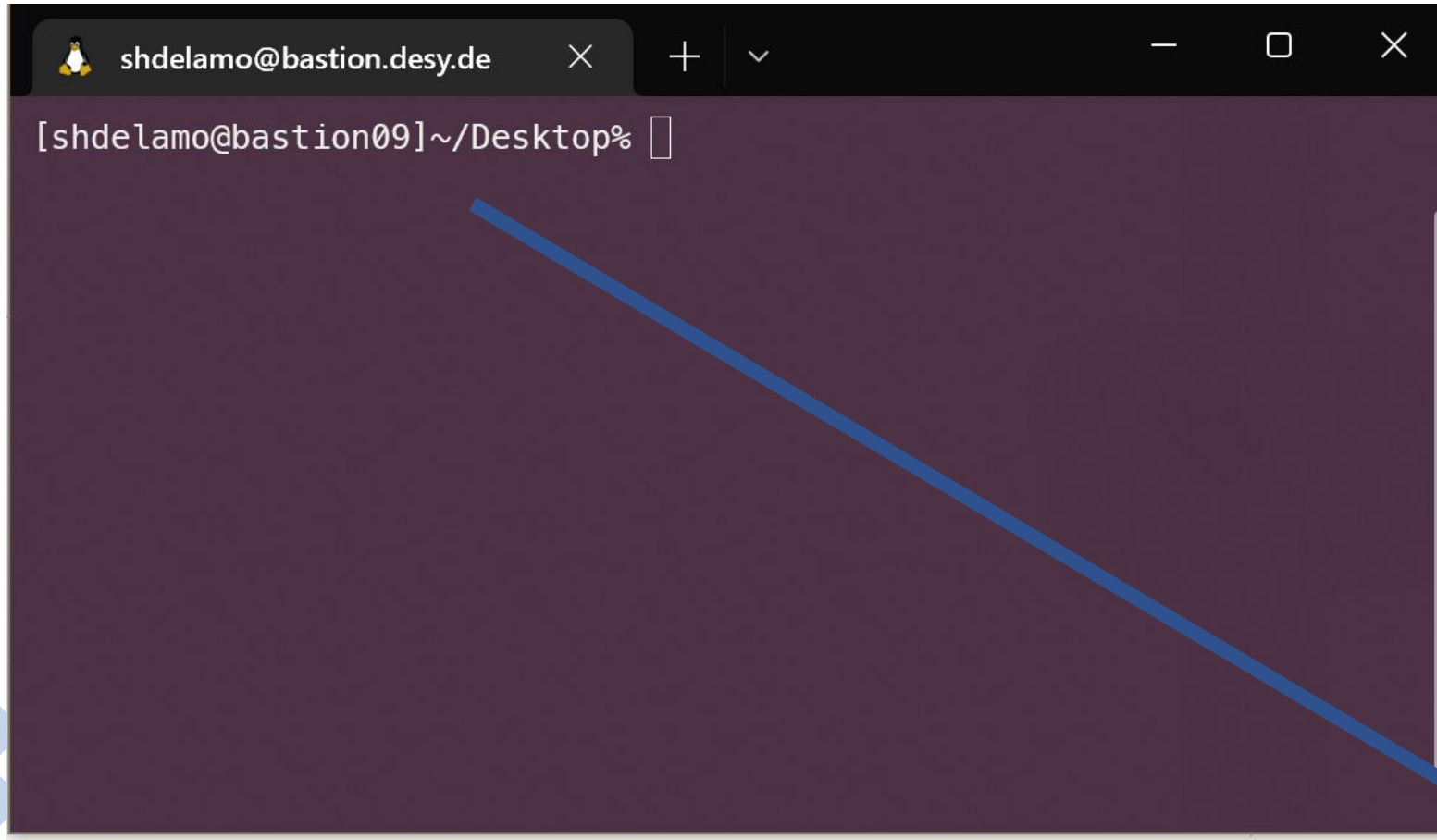
Terminal program:
<https://apps.microsoft.com/store/detail/windows-terminal/9N0DX20HK701>

For graphics/X forwarding: Xming,
<https://sourceforge.net/projects/xming/>



You can even use an Ubuntu colour scheme, so you can hide from your friends that you're afraid of committing 100% to Linux.

What your terminal might currently look like...

A screenshot of a terminal window. The title bar shows a penguin icon, the text 'shdelamo@bastion.desy.de', and window control buttons. The terminal content shows the prompt '[shdelamo@bastion09]~/Desktop%' followed by a cursor. A blue arrow points from a text box on the right to the prompt.

```
shdelamo@bastion.desy.de
```

```
[shdelamo@bastion09]~/Desktop% 
```

Let's jazz this up!
primary prompt

Solution: *export PS1* in your bashrc

- PS1: “primary prompt variable”
- [www.ezprompt.net](https://ezprompt.net)

Add your error/git status too!

Just copy and paste the output into your
~/.bashrc!

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The screenshot shows the EZPROMPT website, which is an "Easy Bash PS1 Generator". The interface is divided into four main steps:

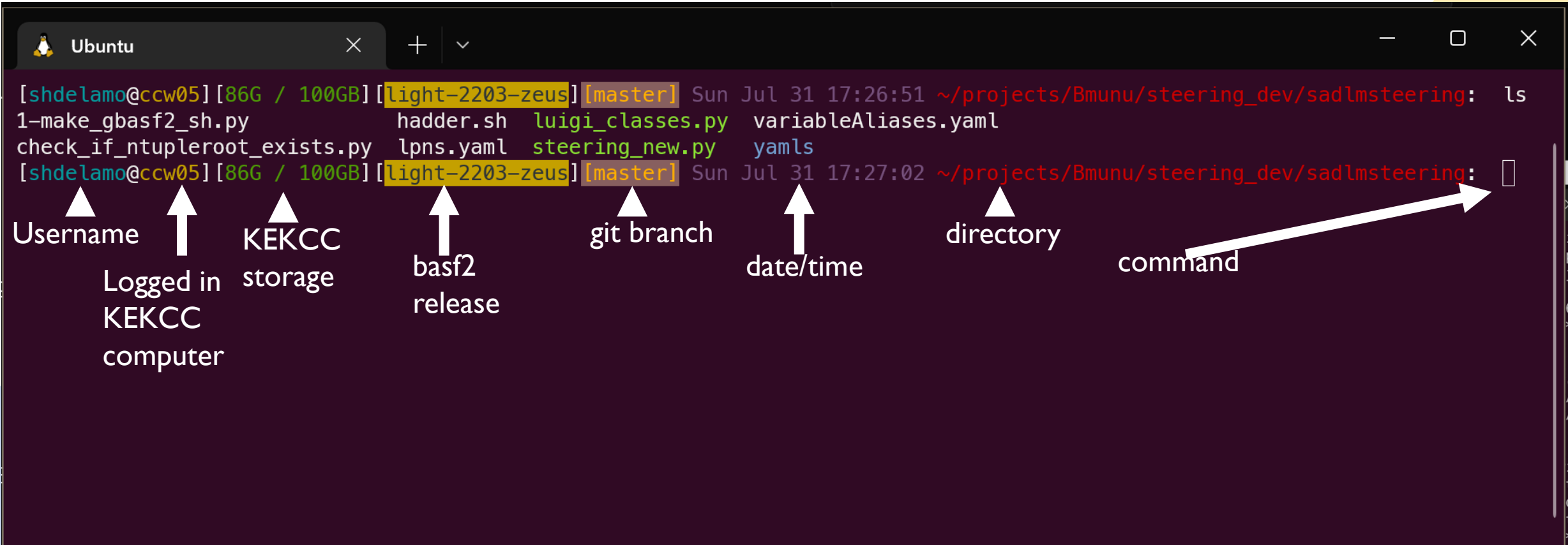
- 1.) Pick the elements you want to use in your prompt.** This section includes tabs for "Basic Elements", "Status Elements", "Date & Time Elements", and "Extra Characters". Below these tabs are buttons for various prompt elements like "@", ":", "[", "]", "-", "_", "*", and a text input field for "Enter custom text:". A red banner in the top right corner says "Fork me on GitHub".
- 2.) Select colors and rearrange elements here.** This section shows a preview of the prompt elements with color selection buttons. It includes buttons for "Username", "@", "Hostname", "]", "Date", "24hr Time w/ Seconds", and "Current Directory". Below these are buttons for "Delete", "Reset", "FG" (with a red color swatch), "BG" (with a black color swatch), "Reset All", and "Delete All".
- 3.) Preview the output.** This section shows a preview of the generated prompt string: `[user@host] Sun Jul 31 17:29:17 dir`.
- 4.) Copy and paste the code into your bashrc.** This section shows the final command to be copied: `export PS1="[\\[\\e[36m\\]\\u\\[\\e[m\\]@\\[\\e[33m\\]\\h\\[\\e[m\\]] \\[\\e[35m\\]\\d\\[\\e[m\\]] \\[\\e[35m\\]\\t\\[\\e[m\\]\\[\\e[31m\\]\\W\\[\\e[m\\]] "`

Starting my terminal @KEKCC

- Additional PS1 attrs
 - Wrote small function in bashrc that greps the setup release from the env variable `${BELLE2_RELEASE}` (or says if `gbasf2` is setup via `${GBASF2BIN}`)
 - Wrote small function to show KEKCC directory usage from the `hquota` command

```
Ubuntu
What terminal are you starting? Enter (1-8)
1) python3  3) work    5) phoenix  7) ssh
2) diary    4) kekcc    6) jack    8) other
?# 4
Last login: Sun Jul 31 17:06:31 2022 from 130.87.104.33
*****
* KEKCC Work Server (2020)                                     *
*                                                                 *
* Support: https://wiki.kek.jp/display/kekcc                   *
* User Guide: http://bit.ly/kekccguide_ja (ja)                 *
*               http://bit.ly/kekccguide_en (en)                *
*                                                                 *
* Caution:                                                    *
* If you login the system with ssh public key authentication,   *
* please use a public/private key pair with a passphrase.      *
* The system administrator deletes your .ssh directory        *
* when a private key without a passphrase is detected.         *
*****
* Work Servers :                                              *
* Type-1 nodes (192GB memory) : ccw.cc.kek.jp, login.cc.kek.jp *
* Type-2 nodes (384GB memory) : ccx.cc.kek.jp                 *
*****
HOME directory usage: 86/100 GB (86%)
root      16749  0.1  0.0 205096  6544 ?      Ss   17:11  0:00 sshd: shdelamo [priv]
shdelamo  42433  0.0  0.0 205428  2764 ?      S    17:11  0:00 sshd: shdelamo@pts/70
shdelamo  47509 15.0  0.0 128632  4432 pts/70  Ss+  17:11  0:00 -bash
shdelamo  48856  0.0  0.0 166156  2108 pts/70  R+   17:11  0:00 ps aux
shdelamo  48857  0.0  0.0 112820   972 pts/70  S+   17:11  0:00 grep --color=auto shdel
amo
shdelamo  62797  0.0  0.0  72552  1228 ?      Ss   17:06  0:00 /usr/bin/ssh-agent
b2file-metadata-show-first-parent kill_jupyter.sh      shollittpath.txt
binfit kill_ps_aux.sh      storage.txt
del2.out lept.err      sub00
del3.out lept.out      toget.out
del4.out phil_analysis  useful_scripts
del.out projects        --user
eclcond95ccf1b005 quick_bash.sh      usercert.p12
gb2_job_kill_delete.sh sadlm_modules     WGSkims
gbasf2 setup-phil-analysis.sh
bash: jupyter: command not found...
Initialising new SSH agent...
succeeded
Enter passphrase for /home/belle2/shdelamo/.ssh/id_rsa:
Identity added: /home/belle2/shdelamo/.ssh/id_rsa (/home/belle2/shdelamo/.ssh/id_rsa)
Warning: Changing existing PYTHONPATH from :/gpfs/home/belle2/shdelamo/sadlm_modules/ to
/cvmfs/belle.cern.ch/tools
Belle II software tools set up at: /cvmfs/belle.cern.ch/tools
Environment setup for release: light-2203-zeus
Central release directory : /cvmfs/belle.cern.ch/el7/releases/light-2203-zeus
[shdelamo@ccw05] [86G / 100GB] [light-2203-zeus] Sun Jul 31 17:18:30 ~/projects:
```

Starting my terminal @KEKCC



A terminal window titled "Ubuntu" showing a shell prompt. The prompt is: `[shdelamo@ccw05][86G / 100GB][light-2203-zeus][master] Sun Jul 31 17:26:51 ~/projects/Bmunu/steering_dev/sadlmsteering: ls`. Below the prompt, a list of files is displayed: `1-make_gbasf2_sh.py`, `check_if_ntupleroot_exists.py`, `hadder.sh`, `lpns.yaml`, `luigi_classes.py`, `steering_new.py`, `variableAliases.yaml`, and `yamls`. The prompt is repeated on the next line: `[shdelamo@ccw05][86G / 100GB][light-2203-zeus][master] Sun Jul 31 17:27:02 ~/projects/Bmunu/steering_dev/sadlmsteering:` . White arrows point from labels below to specific parts of the prompt: "Username" points to `shdelamo`, "Logged in KEKCC computer" points to `ccw05`, "KEKCC storage" points to `86G / 100GB`, "basf2 release" points to `light-2203-zeus`, "git branch" points to `master`, "date/time" points to `Sun Jul 31 17:27:02`, "directory" points to `~/projects/Bmunu/steering_dev/sadlmsteering`, and "command" points to the `ls` command.

```
[shdelamo@ccw05][86G / 100GB][light-2203-zeus][master] Sun Jul 31 17:26:51 ~/projects/Bmunu/steering_dev/sadlmsteering: ls
1-make_gbasf2_sh.py      hadder.sh  luigi_classes.py  variableAliases.yaml
check_if_ntupleroot_exists.py lpns.yaml  steering_new.py   yamls
[shdelamo@ccw05][86G / 100GB][light-2203-zeus][master] Sun Jul 31 17:27:02 ~/projects/Bmunu/steering_dev/sadlmsteering: 
```

Username

Logged in KEKCC computer

KEKCC storage

basf2 release

git branch

date/time

directory

command

Extra: Using zsh instead of bash



A different shell, uses ~/.zshrc, which is still compatible with bash commands! Just prettier, more powerful.



Install <https://ohmyz.sh/> + <https://github.com/romkatv/powerlevel10k>

```
What terminal are you starting? Enter (1-8)
1) python3 2) diary 3) work 4) kekcc 5) phoenix 6) jack 7) ssh 8) other
?# 3
[task next]

ID Age P Project Tag Description Urg
47 1.0y Write scripts for B ell ell reconstruction 10
111 1.0y Make all tunings 10
126 tasks, truncated to 48 lines
Activating conda...

z lattice/sopython
vim scp://kekcc//gpfs/home/belle2/shdelamo/sadlm_modules/sadlm/histogram.py
```

Command prediction!!!



Danke!

(ps I brought Australian
cookies and beer!)

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