

So Long, and Thanks for All the Fish

JUST SOME RANDOM THOUGHTS ABOUT THE MEANING OF LIFE, THE UNIVERSE, AND EVERYTHING

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How to make a “Ultra-Geek” Linux Workstation

Written by Andrea Fortuna • on May 19, 2017 • in Linux

“Avoid interpreted languages, web-based desktop apps, and JavaScript garbage”

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Win32/StealthFalcon malware uses Windows Background Intelligent Transfer Service (BITS) to communicate to its C&C servers

Yesterday i read a [really inspiring article](#) written by [Joe Nelson](#), concerning the making of a ***extremely-geek** Linux workstation*, with a minimalist and reactive user interface.

Truly interesting, imho, are the ‘Design Goals’ (with my highlights in **bold**):

- User actions should complete instantaneously. While I understand if compiling code and rendering videos takes time, opening programs and moving windows should have no observable delay. **The system should use minimalist tools.**
- Corollary: **cache data offline when possible.** Everything from OpenStreetMaps to StackExchange can be stored locally. **No reason to repeatedly hit the internet to query them.** This also improves privacy because the initial download is indiscriminate and doesn’t reveal personal queries or patterns of computer activity.
- No idling program should use a perceptible amount of CPU. **Why does CalendarAgent on my Macbook sometimes use 150% CPU for fifteen minutes?** Who knows. **Why are background ChromeHelpers chugging along at upper-single-digit CPU? I didn’t realize that holding a rendered DOM could be so challenging.**
- Avoid interpreted languages, web-based desktop apps, and JavaScript garbage. **There, I said it. Take your Electron apps with you to /dev/null!**
- **Delegate to quality hardware components.** Why use a janky ncurses Linux audio mixer when you can use...an actual audio mixer?
- **Hardware privacy. No cameras or microphones that I can’t physically disconnect. Also real hardware protection for cryptographic keys.**
- **Software privacy. Commercial software and operating systems have gotten so terrible about this.** I even catch Mac command line tools trying to call Google

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Analytics. Sorry homebrew, your cute emojis don't make up for the surveillance.

The selected distro is a **Debian stable** with **i3** as Windows Manager, and a really interesting list of installed softwares:

Desktop

- Window manager—**i3**
- X11 configured for **secondary selection** with the **Sun Type 6 Keyboard**. Map the special keys with xkb and call out to xsel.
- Application launcher—**dmenu**
- Color management: Dell UltraSharp ICC **color profile**. Load it with **xcalib**. Adjust color tone at night with **Redshift**.
- Screen magnifier—**vmg**
- Screenshots—**maim**
- Screen lock—**slock**
- Terminal emulator: **rxvt**, or possibly urxvt for unicode

Mouse

- Enabling back/forward buttons **1, 2**
- Customized **acceleration**

System tools and utilities

- Shell: **dash**
- VPN: **OpenVPN** with PrivateInternetAccess **config files**

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simjacker, anda bisa dimata-matai hanya dengan modal kartu sim - High3 Blog on Simjacker: a brand new mobile vulnerability exploited by surveillance companies for espionage operation

Andrea Fortuna on How to make a “Ultra-Geek” Linux Workstation

Juan on How to make a “Ultra-Geek” Linux Workstation

Process Injection Teknikleri - Process Hollowing ve Atombombing - Manalysiz on RunPE: a practical example of Process Hollowing technique

- **RFC** downloader/reader. Caches locally.
- Web browser: when possible **NetSurf**, when necessary Firefox.
- Pipe text to clipboard: **xclip**
- Todo manager: **tudu**
- Map and driving directions: **Navit** with downloadable **OpenStreetMap data**
- Desktop notifications—**Dunst**, be sure to use >= v1.1.0 for a memory leak fix
- Calendar—**calcurse** includes support for CalDAV and triggering **notification** commands
- Weather forecast—**weather** retrieves METARs (Meteorological Aerodrome Reports) directly from NOAA
- File manager—**ViFM**
- REST client—**Resty** + **jq**
- Backup and tape rotation—**Bacula**

Email

- MUA—**NeoMutt** includes scriptable new-mail hook, and notmuch indexer
 - Use the **maildir** storage format
- MTA—**msmtp** supports storing password using GnuPG
- MRA—**mbsync** syncs the local mailbox with remote imap
- **urlview** creates a menu from urls in a text file to open them
- **abook** to store and retrieve addresses
- Calendar integration: **mutt** + **calcurse**

GnuPG

- Password management—[passwordstore](#)
- OpenSSH key management—gpg-agent
- Editing encrypted files—[vim script](#)

Chat

- video: [Jitsi](#)
- audio: [Mumble](#)
- instant messenger: [psi](#)
- irc client: [irssi](#) (console) or [hexchat](#) (x11)
 - desktop notification via [irssi-libnotify](#)
 - hexchat uses libnotify by default I think
- SMS: [dterm](#) through GSM modem
 - Use AT commands like AT+CMGS to send a text
 - Hook up to an RS232 GSM modem like the [SIMCOM SIM900](#)

Offline Stackoverflow queries

- Get quarterly xml [data dump](#) of questions and answers
- How to import XML into postgres: <http://stackoverflow.com/a/33211885>
- Map the “help” button on keyboard to search with highlighted text

Video editing

- [kdenlive](#) No need to run KDE window manager, for the KDE part you should only need kdelibs, kdelibs-devel, qt and qt-devel packages.
Store editing artifacts on [ram drive](#) for super speed

System monitoring

- Resource usage—[xosview](#)
- Processes—[LXTask](#)

Calculator

- [Qalculate!](#) for the tough stuff
- [tapecalc](#) for adding up simple lists

Audio player

- [cmus](#)

Documents

- Scanning—[Sane](#) with [XSane](#) frontend
- PDF viewing and annotation—[MuPDF](#)
- Adding OCR text to PDF—[PDF Sandwich](#)

Images

- Browsing—[feh](#)
- Editing, raster—[GIMP](#)
- Editing, vector—[Inkscape](#)

Office

- Tech prose editing: Vim + [goyo](#)

- Spreadsheets: [sc-im](#)
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For more technical information, hardware specifications and setup instruction, take a look to the original (fantastic) post of [Joe Nelson](#):

<https://begriffs.com/posts/2017-05-17-linux-workstation-guide.html>

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Andrea Fortuna

[← Reverse shell with Netcat: some use cases](#)

2 COMMENTS



Juan

September 9, 2019 at 10:34 pm

but his article is about bsd , not linux

REPLY



Andrea Fortuna

September 10, 2019 at 11:08 am

The post I quote was modified by the author after publication: he changed some parts related to software, and one of that is the operating sistem of the workstation.

Here the original post:

<https://web.archive.org/web/20170521050123/https://begriffs.com/posts/2017-05-17-linux-workstation-guide.html>

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COMMENTS

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