



Thirteenth Birthday
Presentation
(Bad luck it was late.)

Comparisons

- Snap, Flatpack and Appimage
- Brian's Home Assistant vs David's
- Apache vs nginx
- awk and Perl
- Backup tools

Snap, Flatpack and AppImage

- All containers serving the inside world:
- Flatpack: desktop only; uses LXC
- Snap: desktop and server; uses AppArmor
- Appimage:
- Docker = container serving the outside world
- Cf. also Steam for games and Singularity for HPC

Home Assistant

- Was a theme to which we returned frequently
- It can be run
 - As an image on a Raspberry Pi
 - In a Docker container
 - With the Supervisor on Debian Buster
 - Using Python venv

Brian's Home Assistant

The screenshot displays the Home Assistant mobile application interface. On the left is a navigation sidebar with the following items: Home Assistant, Overview (selected), Map, Logbook, History, Alarm, ESPHome, File editor, Media browser, Developer Tools, Notifications, and a user profile for Brian. The main dashboard area is titled "Home" and features several panels:

- Weather:** Sunny Home, 19.4 °C, 0 min.
- KITCHEN [C3]:**
 - Sensor C3 Temperature: 23.1 °C
 - Sensor C3 Humidity: 64 %
 - Sensor C3 Battery Level: 86 %
- PORTABLE INDOOR [C2]:**
 - Sensor C2 Temperature: 24.1 °C
 - Sensor C2 Humidity: 58 %
 - Sensor C2 Battery Level: [unreadable]
- OUTSIDE [C1]:**
 - Sensor C1 Temperature: 21.3 °C
 - Sensor C1 Humidity: 48 %
 - Sensor C1 Battery Level: 84 %
- BATHROOM [C4]:**
 - Sensor C4 Temperature: 23.0 °C
 - Sensor C4 Humidity: 70 %
 - Sensor C4 Battery Level: 82 %
- Bathroom Water Heater:**
 - WaterHeater: [toggle]
 - Sonoff S17021 Humidity: None %
 - Sonoff S17021 Temperature: None °C
 - Sonoff status: 64
- Kitchen fan:**
 - KitchenFan: [toggle]
 - Sonoff A42301 Temperature: 22.9 °C
 - Sonoff A42301 Humidity: 63.8 %
 - Sonoff status: 64

At the bottom of the screen is a dock with various system icons, including a red emergency call button.

David's Home Assistant

The screenshot displays the Home Assistant web interface. On the left is a sidebar with navigation options: Home Assistant, Overview (selected), Map, Logbook, History, Media Browser, Developer Tools, Configuration, and App Configuration. The main content area is divided into several panels:

- Bedroom:** Contains two entities: `bedwarmer` (off) and `bedroomlight` (off).
- Front room:** Contains two entities: `jet` (off) and `frontroomlight` (on).
- Person:** Shows `David Spencer` with a location of `Home`.
- Weather:** Shows `Rainy` in `Leesville` with a temperature of `10.2 °C` and a precipitation of `1.6 mm`.
- Office:** Contains eight entities: `bonus` (on), `central` (off), `circuloheopower` (off), `bobospower` (on), `speakers` (off), `photospower` (off), `ender3power` (off), and `officelight` (off).
- Sun:** Shows `Sun` is `Above horizon`.
- Binary Sensor:** Contains three entities: `Updater` (On), `ender3 Printing` (Off), and `ender3 Printing Error` (Off).
- Sensor:** Lists several network sensors with their data rates: `InternetGatewayDev...` (1,218,622,151 B), `InternetGatewayDevic...` (823,481,281 B), `InternetGatewayDeviceV2...` (85.2 KIB/s), `InternetGatewayDeviceV2...` (25.0 KIB/s), and `InternetGatewayD...` (5,816,870 packets).

Awk and Perl

- awk aims to be small, elegant and do one thing at a time
- Perl aims to be as complete and as useful as possible
- Comparing Perl and Python, Perl allows different ways of doing the same thing whereas Python aims to have only one way (though that does not always happen)

Backup tools

- Duplicity (which uses rsync)
- rsync
- Rsnapshot makes periodic snapshots
- Rclone for cloud backups

Hedgehog surveillance

- Infrared camera and LEDs
- Hedgehog pantry with turns to prevent other animals getting in
- Hedgehogs and a fox
- Hedgehogs fighting and rolling in a ball
- Hedgehogs rolling in a ball (for fun?)

Darren shared

- D programming
- Agile software development
- Using openstack with the Horizon Dashboard
- UMLet
- Apache Cordova

David shared

- Using 3D printers
- The differences between a resin and a filament printer
- Problems when the vat of resin runs out during printing
- Differences between versions of VNC
- Apparent DDOS attack from Apache Bench

Bernard shared

- reStructuredText and Sphinx to convert to HTML
- Using INDI with FITS and Python async
- Using LXD containers
- Installing Let's Encrypt using certbot
- Using the Python API from the Met Office and Met Office Datapoint

Bernard shared

- Using the IERS data on the earth's rotational speed
- Using the Raspberry Pi Pico's state machines for programming
- SSH tunnelling
- Python indentation
- W3.CSS layout examples
- Aladin client and the HEALPix diamond numbers

John shared

- Using KDElive
- mariadb authentication changes
- HTML and approaches to page layout

Topics mentioned in passing

- Apache Guacamole vs mosh
- openSUSE now more closely aligned with SUSE Enterprise
- Creating a systemd service
- LoRa networks
- Python sched

Topics mentioned in passing

- Bill Tutte who worked on the Lorenz cipher and for which Tommy Flowers built Colossus
- KDE Wallpapers with Bing Picture of the Day
- IPFS (Inter Planetary File System)
- Sonoff ZBBridge
- Dummy telephone numbers like Whitehall 1212

Topics mentioned in passing

- Excel spreadsheet disaster (plane overload)
- Bluetooth range – demonstrated by Brian
- Jitsi backgrounds
- NHS data transfer
- eMMC cards



Thank you

