

SatNOGS Wiki

The purpose of this document is to outline an alternative structure for the basis of the wiki. After not being involved with the project in any depth in over 12 months it was difficult to negotiate the various parts to the documentation. Whilst there is probably enough information to develop a ground station, the information required is in various places and has a number of obsolete components that affect the experience.

The proposal is to reduce the overall quantity of documentation and place much of the detail within the wiki. This has 2 significant advantages, firstly a single source of documents and secondly the ability for changes to affected quickly (and verified) if / when there significant developments.

The wiki currently has a structure that has a good structure. A slight change will, in my opinion, give us a better basis to work from. The structure is proposed to be changes as per figure 1 below

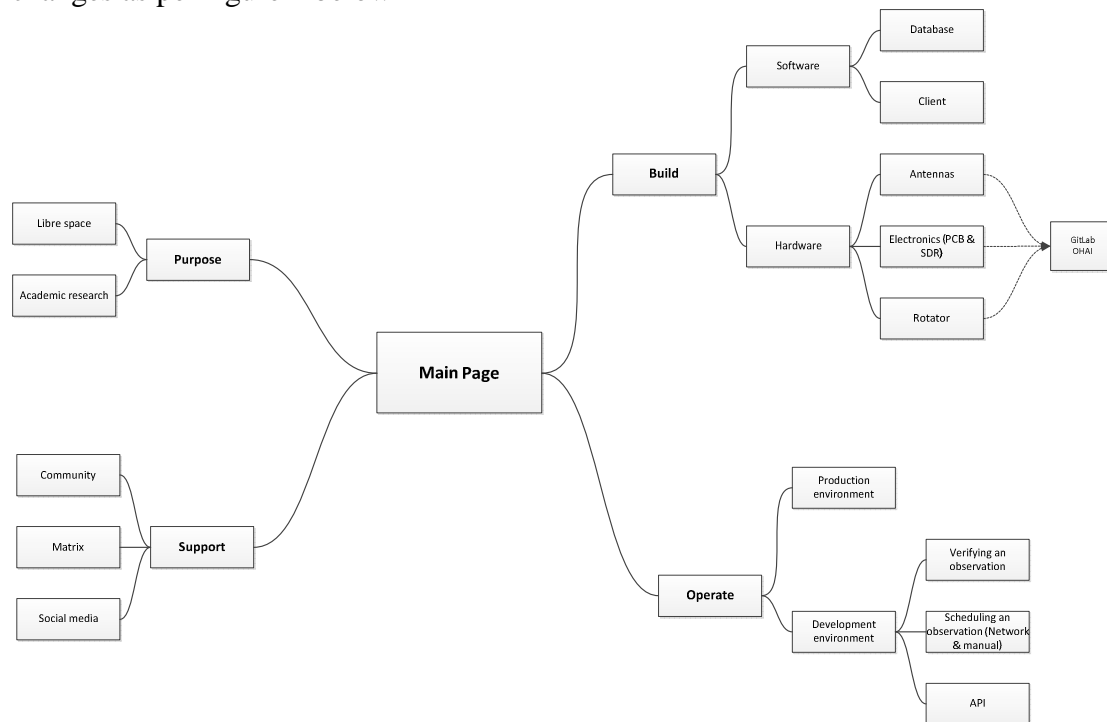


Figure 1 - proposed starting layout

Words highlighted like this – refer to pages

Word highlighted like this – refer to sections within pages

Words highlighted like this – refer to child pages

Main Page

The current front page with obvious links is fit for purpose. Therefore, no significant difference is proposed. A change to the linking will be required to align to the proposed structure. Other changes such as including mechanical drawings of the rotator and other visual improvements will not harm but are not crucial for now.

Purpose

A new page to explain what SatNOGS is and how it fits in with the overall Libre Space organisation. Some detail on the Hackaday prize and some history / development of mechanical and web stuff.

Libre Space

- What is libre space?
- Why are they doing it?
- How does SatNOGS fit in?

Academic research – current page with links could be consolidated into a section

- Links as before but with a more appropriate referencing (Harvard?)

Build

Software

Database

- Explain the database and where it gets its data from
- Contributing – how to do it and what needs doing
- API – what it does and doesn't provide
- Installation

Client

- Preferred platform – RPi 3
- Image
- Installation
- Initial setup
- Updating
- Testing

Hardware

Antennas

- Type – helical vs yagi vs turnstile etc – some basic antenna theory
- Helical design – explaining RHCP & LHCP / refer out to Wikipedia pages
- Yagi design – as above
- Turnstile design – as above

Electronics

- PCB – fabrication and population
- SDR – RTL dongles, Pluto SDR, SDR play i.e. what hardware works and what doesn't

Rotator

- Basis of design
- Parts make / buy
- Mechanical assembly
- Final assembly and offline testing (Generally referred to as setting to work – i.e. a script to test system. Travel , limits etc)
- Online testing

Operate

Development environment

Scheduling and verifying observation

- Current page is great, may benefit from a few additional images

Production environment

- Moving from a development to a production ground station

Support

Troubleshooting

- Common assembly issues
- Common client issues
- Common observation issues

Other places for help

- Community
- Matrix

Notes:

1. This proposal is only my opinion. Not based on much other than trying to find stuff. So no reason why alternative solutions wouldn't be better.
2. This does not intend to break links or completely re-write pages, there is some good stuff in there that needs to be preserved.
3. I have no idea what language is used in wiki so forgive me if the terms are not correct.