

October 30, 2025 maintainers meeting minutes

Minutes taken by Peter Barnes

Agenda

- Agenda/notes: <https://www.nsnam.org/wiki/MaintainersOct2025>
- Documentation progress (Alberto)
- Orientation (Eduardo)
- Units update (Tom)

Attendees

- Peter Barnes
- Biljana Bojovic
- Gabriel Ferreira
- Alberto Gallegos
- Tom Henderson
- Eduardo Almeida

Documentation

This discussion led by Alberto

- Continue revising Sphinx docs according to the new outline agreed earlier this year
- Working on the low hanging fruit for missing documentation chapters
- Some are harder: missing lots of examples, complicated,
 - Antenna: what models work with what technology?
 - LTE
- SixLoPan and ND: Worked with the GSOC student to also improve these sections
- WiFi chapter is massive, lots of docs, multi-level, lots of clicking, back and forth
- DSDV was similar, now fixed
- TH: is help needed? For example would you like CTTC to help with LTE?
 - AG: Not yet, would like to work on smaller ones first
- BB: can you make an issue, with the tasks outlined?
 - AG: look at new Antenna documentation to see the outcome and what is missing
 - For some models the topics are covered, just need reorganizing
 - For others, the topics are missing, need to be written
 - AG: look at [#693](#) for example of todo list, with MR links, for defining and tracking smaller tasks
 - BB: could you start an issue like this for LTE?
- AG: see [Contributing 4.5.1](#) for desired outline
 - Need to add some details, such as how to format references and links
- TH: what is next for dark mode support?

- AG: need to upgrade Sphinx to 5.x
 - Then need update to style sheet, porting our customizations
 - Especially for code snippets
 - TH: not clear what to do with figures which are very white in the dark mode. Other open source projects must have tackled this...
 - EA: Believe that more professional websites have to maintain two image versions? light and dark?
 - AG: my priority is content, first, before working on images for dark mode
- TH: lets freshen an [master issue for documentation #1139](#)
 - AG: need [automatic Attributes list in Doxygen #1221](#)
 - PB: dependent on [matching Typeld and Doxygen groups #1245](#)

Node Orientation

- EA: Worked with some colleagues on a project regarding node orientation. Would an orientation be generally useful for the mainline, or is it too niche?
- BB: covered in some antennas, especially 3GPP
 - Expensive conversions
- PB
 - Did something like this for another project
 - Node (platform) orientation (dynamic)
 - Series of fixed orientations to get to antenna
 - Dynamic antenna beam pointing
 - Helpful to pre-compute stacked (static) transformations
 - Wanted this for airborne nodes
 - Led to need for dynamic orientation models: coordinated flight
- TH: is this generally useful? or maintenance headache
 - PB: more involved than we expected, only important if you have airborne/satellite and really care about antenna gain
 - TH: seems like there may not be enough energy/interest to pursue this feature

Units

- TH: tried to reach Jiwoong about an updated library after our last meeting, but no response. Sebastien also did not have an update, other than to say that Jiwoong's library is now a header library and is still actively being developed.
 - PB: if that is being brought up as a viable alternative the code must be visible, otherwise `nholtaus` is the only option
- EA: concern that `nholtaus` is not maintained
 - TH: yes, open MR have lingered
 - PB: the reason may be that the author(s) are working on mp-units. some history: all the major units devs abandoned their individual efforts and started to develop mp-units collectively, aiming for C++ standardization
 - That did not seem as far along as `nholtaus` at the time we started

- Believe that switching at some point to mp-units would be viable
 - The hard work on our side is deciding the unit for every variable, which will be done
- TH: WiFi anxious to get this settled, so they don't have to keep maintaining two versions: doubles and units
 - PB: it's fine to publish just WiFi when it's ready
 - Address migration path for other models afterwards
 - Big open question needed some thought is how to manage the boundaries between old (double) models and new (unit'ed) models
- TH: continue the discussion off line, reached meeting time limit