

# SKAO

## New dawn: Tango Controls on macOS

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# Tango Controls and OSes

## Supported:

- Windows
- Linux

## Unsupported:

- You name it
- and macOS (focus of this talk :-)



# Why macOS? (part 1)

- I like it
  - Why not?
    - macOS is "just" BSD, i.e. another Unix
    - It all is "just" software.
- It should "just" work
- How hard can it be? (We will see about this later)



# Why macOS? (part 2)

## But Seriously:

- macOS not a niche OS any more
  - Widely used among developers/engineers/scientists in astronomy (SKAO!)
  - Increasing potential target audience
- No container-caused inconveniences
  - I want to use my IDE!
- Faster iterations (code, test, swear, fix, repeat)

**More developers = more potential contributors**



# What's in that box? (part 1/2)

Tango Controls on macOS is:

- Based on
  - tango-idl: main
  - cppTango: main + patch after(!) installation
  - TangoTest: main
  - pyTango: develop\_9.4 (New: no patch!)
- Likely buggy
  - Almost all tests fail
- Developed by only a handful of "volunteers"



# What's in that box?

## (part 2/2)

Tango Controls on macOS is:

(Caveat: All based on circumstantial evidence!)

- It is working nicely with pyTango
  - iTango!
  - Client, Attributes, Commands, Events (macOS <-> macOS), Devices (macOS & Linux), Device Servers (macOS & Linux), Tango DB access (TANGO\_HOST running in container on macOS)
  - Cross OS: Device on macOS, client on Linux (arm64!)
    - Fix me: Events macOS <-> Linux are a bit rickety (could be my Raspberry Pi 4b)



# So then. It is a hack, right?

Yes. For now.

Plan:

- Add macOS support to official repos
  - When?  
9.4.x, i.e. soon! - Though no committed release date.
  - Will it change the API/ABI?  
No. macOS support will be added in a non-intrusive way, i.e.
    - You will not notice it unless you are on macOS
    - Your source code will not need "is this running on macOS?" paths



# Where can I find it?

Please head over to:

[https://gitlab.com/tjuerges/build\\_tango.git](https://gitlab.com/tjuerges/build_tango.git)





Thank you very much for your attention!

Questions?

*We recognise and acknowledge the Indigenous peoples and cultures that have traditionally lived on the lands on which our facilities are located.*

**SKAO**

[www.skao.int](http://www.skao.int)