

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



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.

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