

TANGO

The logo features a stylized grey figure of a person with arms raised, holding a green circle. Inside the green circle is a white circle with a black dot in the center, resembling a target or a connection point. The figure is positioned behind the word 'TANGO'.

Connecting things together

TANGO V10 Roadmap

EUROPEAN SYNCHROTRON RADIATION FACILITY

- TANGO V10 - Breakout Session

- **Gather** requirements from :
 - Forum (RFC4)
 - Members (slides)
 - Kernel developers (oral)
- **Discuss** major changes
- **Agree** on Roadmap + Resources
- We will produce a **Report** of the breakout (before September 2016)

- TANGO V10 - Participants

- Kernel developers
 - **Pascal, Nicolas, Gwenaelle, Reynald**
- Experts
 - **Igor, Guifre, Lorenzo, Claudio**
- Managers
 - **David, Alain, Andy, Lize**
- **ESRF, SOLEIL, ELETTRA, ALBA, SKA**

- TANGO V9 - Latest Major release

- Pipes
- Dynamic Commands
- Enumerated types
- Forward attributes
- Interface change event
- ...
- Bug fixes

- TANGO V10 - Major requests

- **Replace CORBA - ALL**
 - To ensure long term maintenance
- **Flexible state names - SKA**
 - But still limit number
- **Multiple parameters for commands - SKA**
 - But respect the TANGO paradigm
- **Long Term Support (LTS) - ALL**
- **Documentation - ALL**

- TANGO V10 -

Minor requests

- **Event subscription (bug)**
 - Improve algorithm when client subscribes to server
- **Threads (documentation)**
 - How to manage threads (YAT/other)
- **Database (bug)**
 - Improve cleanup after delete
- **Device server diagnostics (feature)**
 - Provide metrics about number of connections, calls, performance

- TANGO V10 - Removing CORBA

- **Has been discussed since 2012 :**
 - TANGO Meeting @ ESRF (2012)
 - ICALEPCS Conference (2013)
 - Some tests of serialisation (2015)
- Long discussion yesterday
 - **Agreed : if *doable* + *no performance hit* + *backwards compatible* then do it in V10**

- TANGO V10 - Removing CORBA

- **TANGO Meeting @ ESRF (ET/2012):**

- T1 : Protocol / Serialization system choice / string encoding**

- Object finding in server
 - Allow future evolution

- T2 : Basic design in term of ZMQ socket / threading model**

- Synchronous and asynchronous requests
 - Check performance

- T3 : System compatibility**

- Mixing Tango 10 and Tango < 10 devices in the same CS

- T4 : Tools compatibility**

- DevVarXXXArray, omni_thread, omni_mutex, CORBA::Any,...

- T5 : Implementation**

- Based on C++11 ?

- TANGO V10 -

Roadmap

• September - November 2016

- Move to **Git** + Travis
- **Study**/Solve all questions raised about **critical issues**
- Work to be done @ ESRF by **Kernel team** + **Igor** TCC to finance)
- **Monthly followup** by Experts from SOLEIL, ELETTRA, ALBA, ESRF
- **Prototype+Report** → **Feasibility** → **Decision** how to include in V10

• January - December 2017

- Work on V10 to **replace/isolate CORBA** in kernel (ESRF as lead with support and contributions from SOLEIL, ELETTRA, ALBA, ...)
- Implement bug fixes + minor requests
- **Beta release** of V10.0 for testing + early adopters end 2017
- **Resources** are 2 people fulltime (TCC to partially finance)
- **Documentation** (re)write missing documentations (TCC to finance)

- TANGO V10 - LTS

- **Long Term Support (LTS)**

- Request not implemented due to lack of resources
- Support for **4 years**
- Proposed for **V9**
- **Git** will help us ... *“so help me Git”*

- TANGO V10 - Other

- **Many feature requests not part of V10 core :**
 - Documentation
 - Device server Catalogue
 - REST API
 - Web app
 - ...
- ◆ **Many Feature requests are decoupled from the core and lifecycle**

- TANGO V11 - Major requests

- **Timing**
 - Integrate nanosecond timing
- **Delayed commands**
 - Executing commands in the future
- **Alarms management**
 - Integrate more features for alarms in core
- **Your COOL idea ... e.g.**

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Connecting things together

Thank you!

Any questions?