



A Review of the Tango Documentation Update and Restructure

Presented by
Becky Auger-Williams

on behalf of
Benjamin Bertrand, Reynald Bourtembourg, Thomas Braun, Andy Götz,
Vincent Hardion, Anton Joubert, Thomas Jürges, Damien Lacoste, Vicente
Rey-Bakaikoa, Nicolas Tappret

Aspects of the update

- **Review** the original documentation:

- Sections to be removed
- Sections to be updated

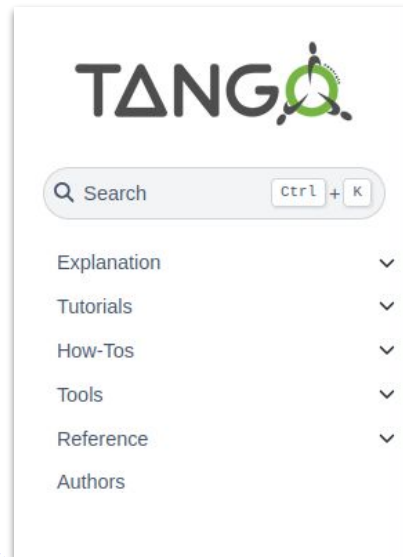
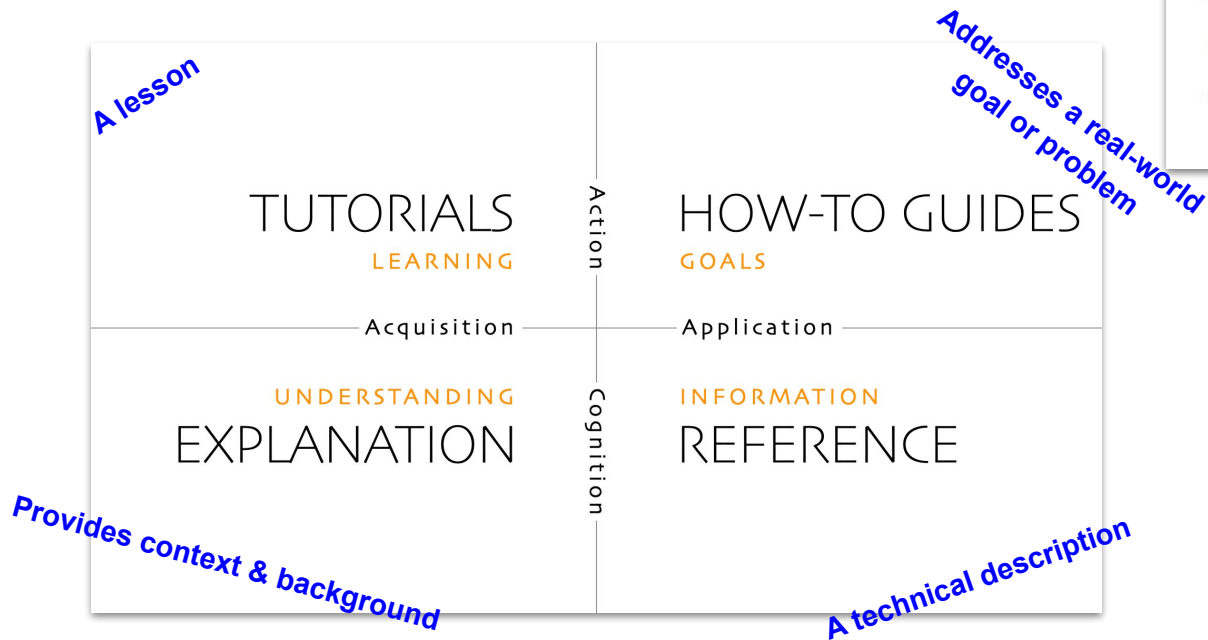
Page	Reviewer	Section	Language	Rating (/5)	Comments
Developers guide - overview	Becky A-W	Explanation	N/A	3	about how this would be displayed in the PDF version - v hoverover descriptions in the text. Have a section of each up.
Developers guide - general guidelines	Becky A-W	Explanation	N/A	5	
Developers guide - general guidelines - object name	Becky A-W	Explanation	N/A	4	Minor rewording/spelling. This is almost a 'How-to' name. Minor layout updates needed
Developers guide - Tango client	Becky A-W	Explanation	N/A	5	Contents page
Developers guide - Tango client - Writing a client user	Becky A-W	Explanation	C++	3	Refers to Tango homepage but should really give a direct documentation. Add link to Getting Started section. Spelling links mis-formatted. There are some examples of how to use these should be in a 'How-to'. Equally there are some code snippets. So parts of this section need to be split up and restructured well.
Developers guide - Tango client - Tango ATK program	Becky A-W	Explanation	Java	3	Links to a 'Tango ATK Tutorial' (pdf) which I think should be a link to the tutorial. Some confusing sentences could be reworded (describing the tutorial). Some bits read a bit colloquial. Re-format some code without scrolling horizontally and fix tabs. Minor spelling issues and Explanation so needs to be split out a bit (restructured).
Developers guide - Tango client - PyTango (same as Developers guide - Device servers - introduction)	Becky A-W	Explanation	Python	4	Minor spelling issues. Links of on to own PyTango README.
Developers guide - Device servers - introduction	Becky A-W	Explanation	N/A	4	Missing description of how section is organised. Minor spelling issues. Refers to itself as a document so I think it should be updated to read 'section'.

- **Restructure** to follow the Diataxis documentation approach, a.k.a. The Grand Theory of Documentation (GUTD).

diataxis

Diataxis/GUTD

- Approach for writing documentation.
- Identifies **4** distinct needs of the reader



Documentation Workshops

October 2024 Documentation Workshop

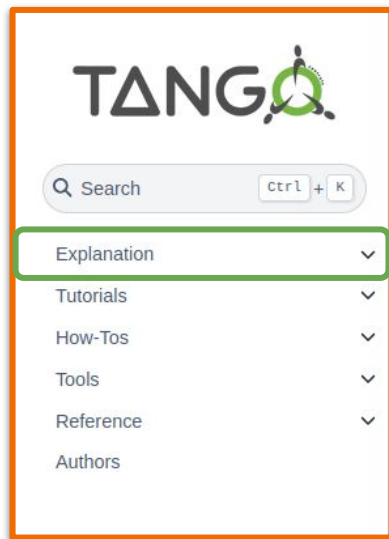
- Took place in Autrans, near Grenoble
- Participants: Benjamin Bertrand, Reynald Bourtembourg, Thomas Braun, Andy Götz, Vincent Hardion, Anton Joubert, Thomas Jürges, Damien Lacoste, Vicente Rey-Bakaikoa, Nicolas Tappret, Becky Auger-Williams (remote).
- Performed the initial restructure of the documentation.

Remote Documentation Workshop

- Dedicated 2 hour workshop every Thursday on Zoom
- Shout out: Benjamin Bertrand, Reynald Bourtembourg, Thomas Braun, Anton Joubert, Thomas Jürges

Restructure

Explanation	^
Overview of Tango Controls	
Device	
Command	
Attribute	
Property	
Events	
Device polling	
Tango object naming (device, attribute and property)	
Tango Data Model	
Tango Database	
Attribute alarms	
Archiving	▼
Pipe	
Threading	
Communication paradigms	
The Tango device server model	
Long Term Support	
History	



Restructure

Explanation

Overview of Tango Controls

Device

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Long Term Support

History

Tutorials

Getting started

Example deployment of a Tango Controls System

ATKPanel

Developing clients with the TangoATK

Guidelines for developing a Tango Device Server

Developing a Tango device server



Search

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Explanation

Tutorials

How-Tos

Tools

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Q Search

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Explanation



Tutorials



How-Tos



Tools



Reference



Authors

How-Tos

- Installation
- Getting Started
- Deployment
- Development
- Debugging and Testing
- Contributing

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How-Tos

- Installation
- Getting Started
- Deployment
- Development
- Debugging and Testing
- Contributing

Reference

- RFC
- Ecosystem
- Tango Core: C++
- Tango Core: Python
- Tango Core: Java
- Bindings
- ATK Java documentation
- Glossary
- Reference part
- CORBA
- HDB++ Design and implementation
- Legacy HDB tables structure
- schema CQL source (Cassandra)
- Configuration Manager interface
- Event Subscriber interface
- schema SQL source (MySQL)

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Tools

- Developer's Toolkit
- Tango Application Toolkit "ATK"
- Astor
- Jive
- Starter
- LogViewer
- Tango Admin utility
- JDraw

New features

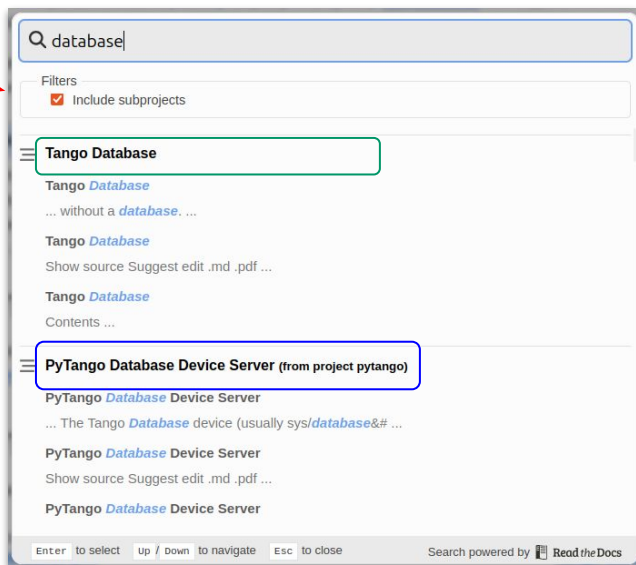
- Use of **subprojects**
 - Fall under same domain name
 - E.g. Jive, PyTango, Astor
 - **Search feature** allows searching through subprojects as well!
 - Easier **cross-referencing** within the documentation

Main page:

tango-controls.readthedocs.io/en/latest/

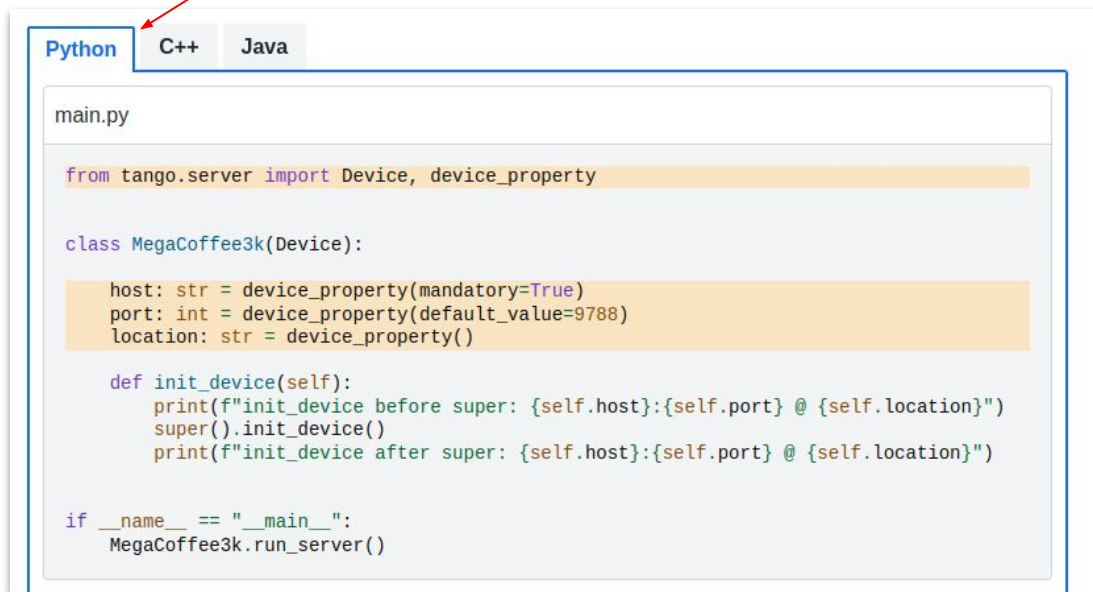
Subproject:

tango-controls.readthedocs.io/projects/pytango/en/latest/index.html



New features

- How-tos have been developed across all* languages (not split out)



The screenshot shows a code editor with three tabs: Python, C++, and Java. The Python tab is selected, and a red arrow points to it. The code is in a file named 'main.py' and defines a class 'MegaCoffee3k' that inherits from 'Device'. It includes imports, class attributes, an initialization method, and a main block to run the server.

```
main.py

from tango.server import Device, device_property

class MegaCoffee3k(Device):

    host: str = device_property(mandatory=True)
    port: int = device_property(default_value=9788)
    location: str = device_property()

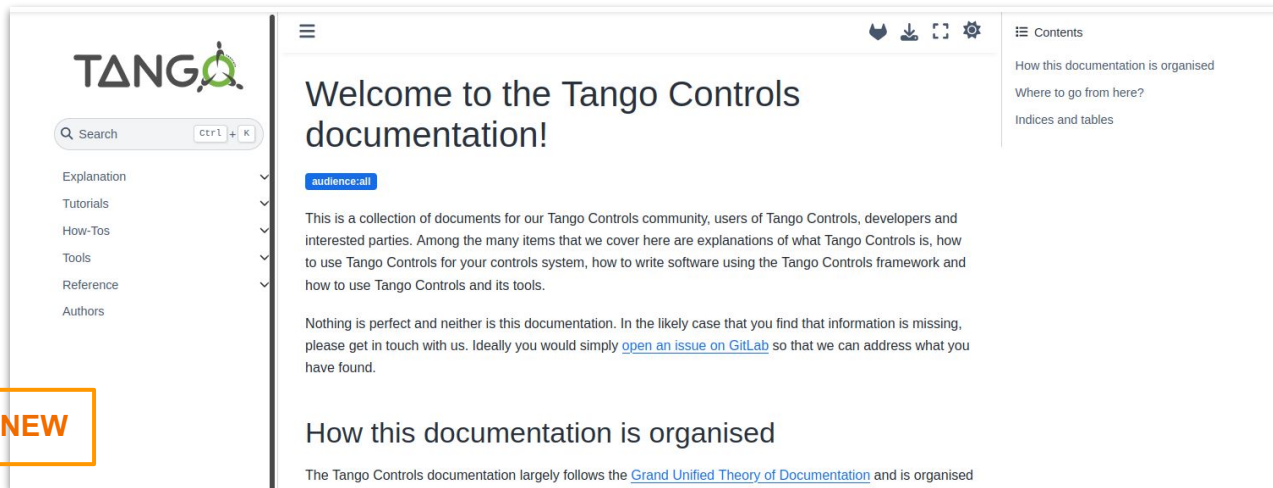
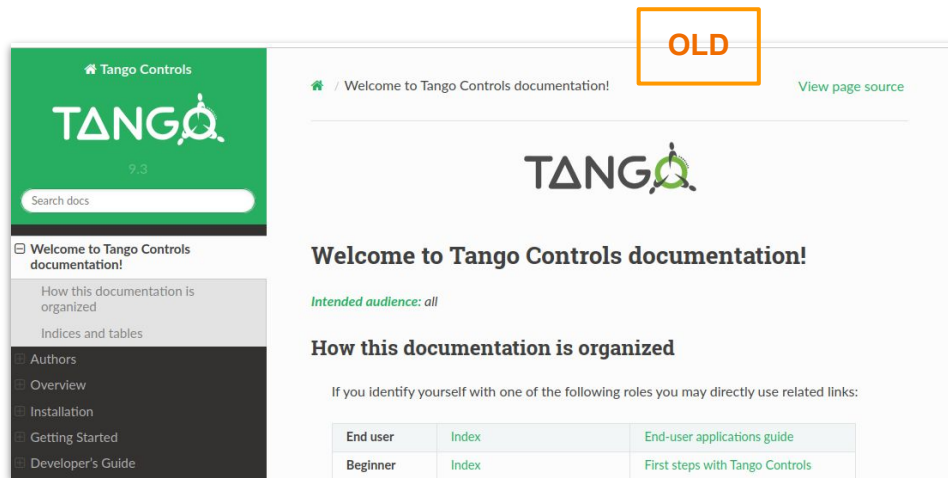
    def init_device(self):
        print(f"init_device before super: {self.host}:{self.port} @ {self.location}")
        super().init_device()
        print(f"init_device after super: {self.host}:{self.port} @ {self.location}")

if __name__ == "__main__":
    MegaCoffee3k.run_server()
```

* work in progress...

Further changes

- Focuses on latest version of Tango (v10+)
- Updated theme



Further changes

- Improved cross-referencing throughout
- Fixed broken links
- Not split into 'users'/'developers' section
 - Doesn't pigeon hole the reader
 - **Tags** can be used as guidance

Welcome to the Tango Controls documentation!

audience:all



Write your first Tango client


audience:developers

lang:all



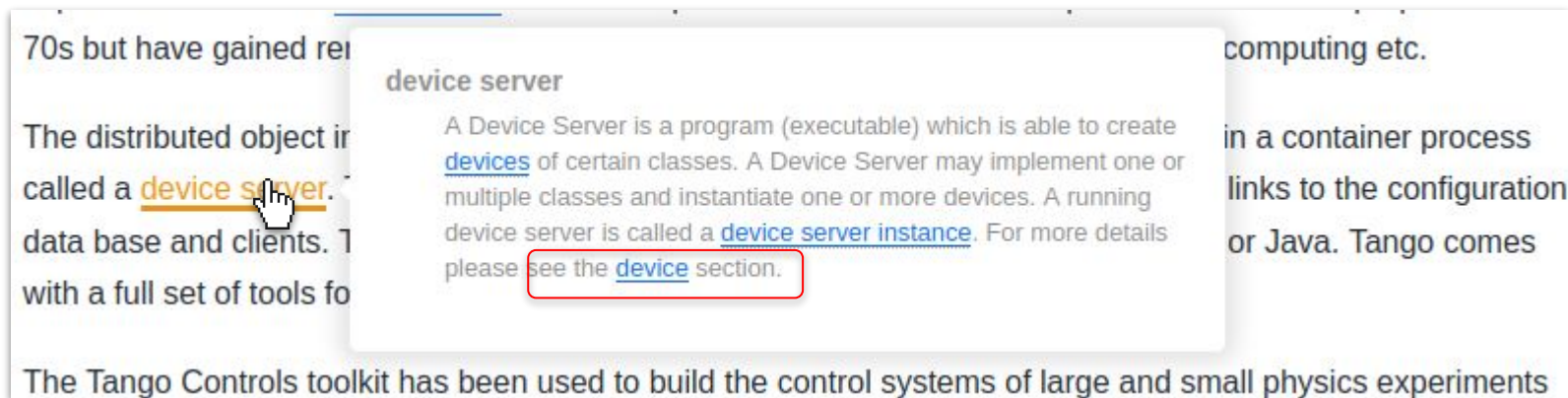
Use Tango with systemd integration

audience:administrators



Further changes

- Glossary term 'hover-overs'



- Terms can be added '**in place**', i.e. where they are documented (No need to add to a separate glossary file).

Future

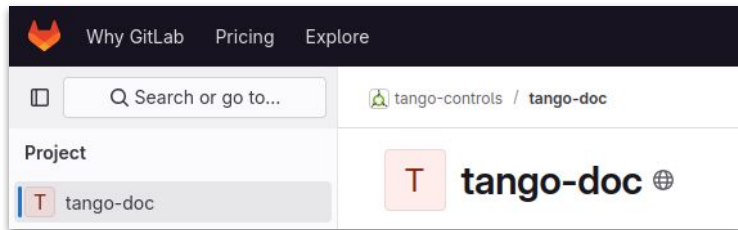
Todo:

- Still need to add different languages to some **How-tos**.
- Review tango-doc **GitLab issues** (so we can start fresh)

Ongoing:

- **NEEDS TO BE MAINTAINED!!!**
 - Document new features
 - Add new How-Tos as they are discovered
- How to contribute to tango-docs has been well documented... all/any contributions are ALWAYS welcome.

<https://tango-controls.readthedocs.io/en/latest/How-To/contributing/docs/docs.html#documentation-workflow-tutorial>





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Welcome to the Tango Controls documentation!

audience:all

This is a collection of documents for our Tango Controls community, users of Tango Controls, developers and interested parties. Among the many items that we cover here are explanations of what Tango Controls is, how to use Tango Controls for your controls system, how to write software using the Tango Controls framework and how to set up Tango Controls on a Raspberry Pi.

Nothing is perfect and neither is this documentation. In the likely case that you find that information is missing, please let us know in the [feedback](#) section. We will try to update the documentation as soon as we can. We have a list of [contributors](#) who have helped us with this.

How this documentation is organised

The Tango Controls documentation largely follows the [Grand Unified Theory of Documentation](#) and is organised in the following categories (with some overlap):

Explanation

Overview of what Tango Controls is, its origins and who uses it. **If you are new to Tango Controls, then we recommend that you start**

Tutorials

We show you how to implement Tango Devices, Tango clients and other Tango-related software.

Contents

How this documentation is organised

Where to go from here?

Indices and tables

latest

Thank you to everyone who has contributed to the documentation update!