

SQuaRE's Documentation Efforts A (super) brief overview

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Square's role



The "User Guide"

SQuaRE inherited the "User Guide" and the "Developer Guide" from R&D, a set of pages in Confluence. This was essentially pipelines documentation. My main concerns were:

- Docs were "far from the code", became quickly obsolete
- Was distinct from the codebase tooling (git), making release management inefficient (eg can't branch docs along with code)
- Was not parsable so we could not eg. CI examples for accuracy
- There was a gap between low-level code documentation and the user guide that presented a barrier to users of the pipelines so we needed to incentivize creating that content
- Lots of useful snippets put in Confluence and then forgottten wikis are notoriously poor platform for software documentation
- Primary content also exists in (now defunct) TRAC

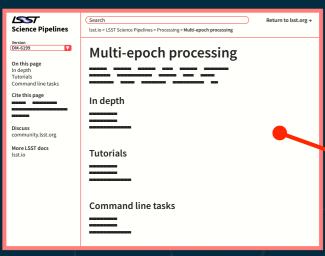
Square's plan



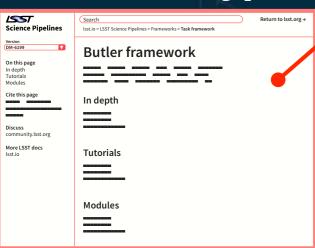
What was the roadmap

- 1. Hire someone who can refresh the toolchain, develop content and pivot into community management -> jsick $\overline{\checkmark}$
- 2. Get software docs off Confluence into git and put a publishing layer in front -> pipelines.lsst.io, developer.lsst.io $\overline{\lor}$
- 3. Create git-based workflow for "useful snippets" -> technotes $\overline{f V}$
- 4. Create publication platform (can't use OtS) -> LTD $\overline{\lor}$
- 5. Create templates for in-code documentation that guide developers to capturing the "what does this do and why" layer (cf. supertask) -> "API docs", in progress next 2 slides
- 6. Create curated landing page / indexer -> DocHub
- 7. Set up CI of examples
- 8. Move to higher levels of content (eg. video tutorials) and community outreach

processing type



framework type



pipelines.lsst.io homepage

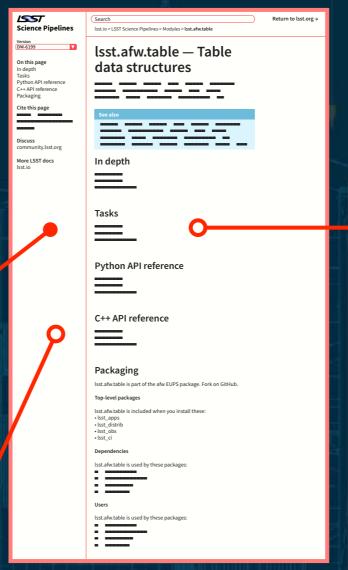


API type (auto)



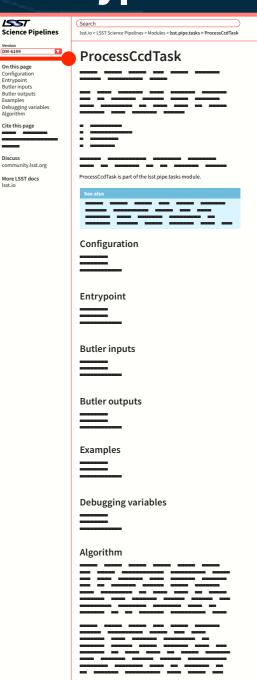


module type



more details: dmtn-030.lsst.io

task type



pipelines.lsst.io implementation

General sequence and priorities

Documentation engineering (SQuaRE)

- 1. Build system (integrate with Scons, EUPS, Jenkins, LSST the Docs).
- 2. Custom reStructuredText directives/roles for auto doc generation.
- 3. C++ & wrapped Python API reference (collab. with Pybind11 experts).
- 4. Tutorial/example authoring, run, and testing infrastructure.
- 5. Citeability (DOIs).
- 6. Web design & UX refinement.

Content (SQUARE and Science PIPELINES)

- 1. Author instructions and topic type templates.
- 2. Python docstrings: semi-automated (?) conversion and improvement.
- 3. Write pre-mapped topics within the type system:
 - Low-level first: module and task-topics.
 - High-level later: framework and processing topics.
- 4. Add tutorials and more examples when CI infrastructure is ready.

Meanwhile...



Victims of our own success...

- Publication Board asked for DOIs -> Zenodo
- Produced a DM documentation and communication policy -> $\overline{\lor}$ but $\overline{\lor}$
- Nobody wants to give up their preferred platform -> now need complex indexer -> DocHub
- Everybody hates Docushare but it is the project standard and it's lying fallow -> not SQuaRE's remit
- Nobody is keeping key project docs up to date -> not SQuaRe's remit

These are all good and important things but they are a distraction from the software/user documentation roadmap and have delayed us.

References

For more information

- sqr-000: technote platform
- sqr-006: LSST-the-Docs
- sqr-011: Communication platforms
- sqr-013: Dochub design
- Idm-493: Documentation architecture
- dmtn-030: Pipeline doc design