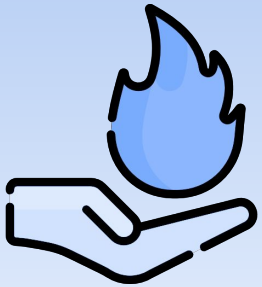
TRACTION

06/03/2024

Prometheus



SYNTHETIC SAMPLES SIMULATOR ENGINE

The **General Purpose** output can be used to supply training set shortage, develop PoCs, virtual experiments, run a variety of tests, etc …

A **Highly Extensible** tool that can easily accommodate & scale for new needs; simulate new failures, control sensor configurations, consider new assets

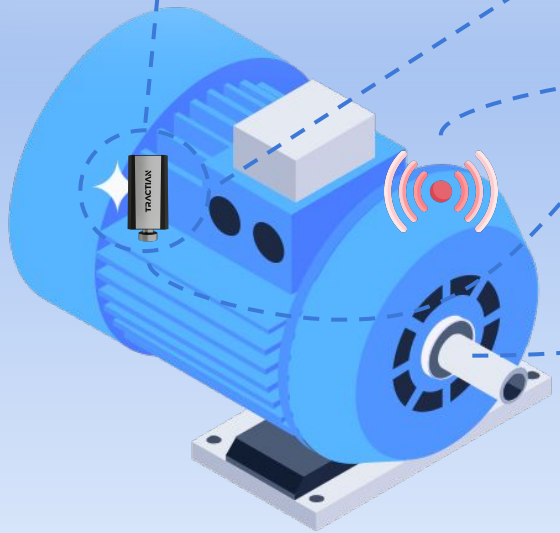
High Fidelity & Control allow to produce samples of the highest quality, useful for even production purposes

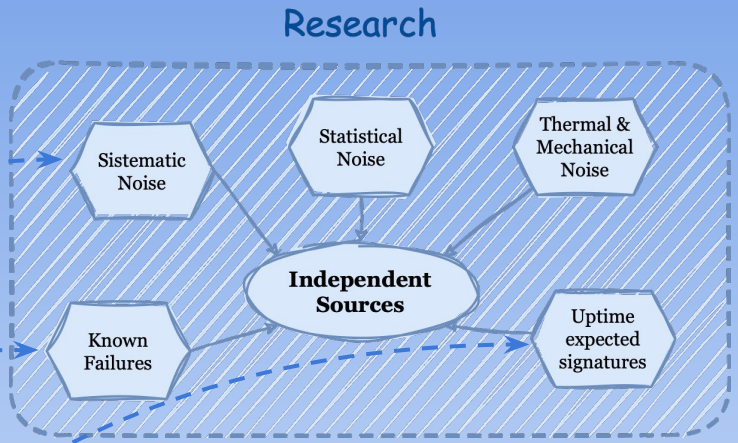
INSTALL & EXECUTE

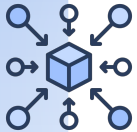
```
# with python >= 3.10.12
~ python -m venv venv

~ aws sso login

~ source setup_codeartifact.sh

~ pip install tractian-prometheus

~ python -m tractian_prometheus -f recipe.toml
```

INNER WORKINGS

Plenty of phenomena occurs from the event inception to reaching the sensor and even during measurement. To simplify the process we will **center around the sensor**.



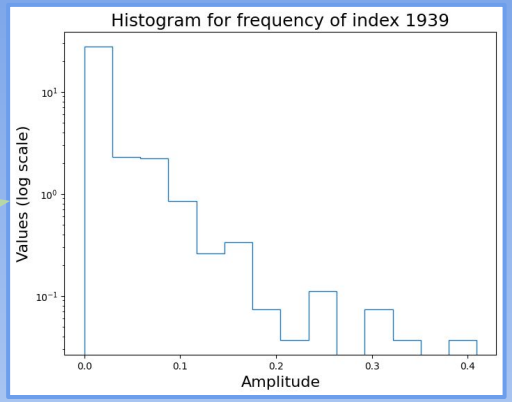


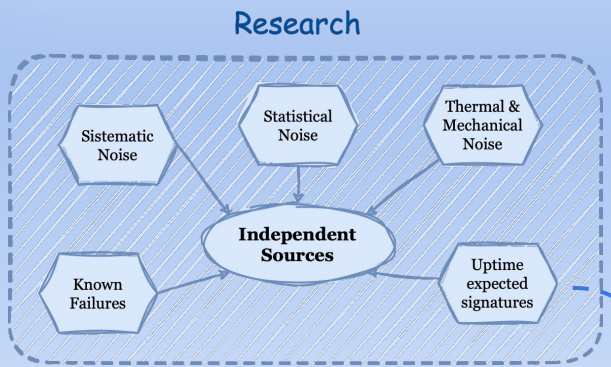


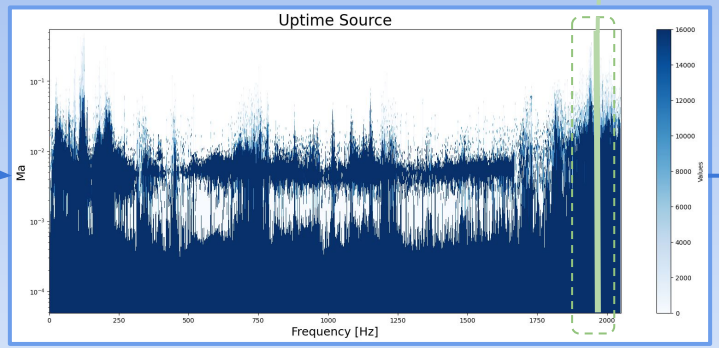
We will consider the contributions from **Independent Sources for coverage, extensibility and resemblance**

INNER WORKINGS

From each **Independent Source we will extract Seed Feature Distributions**
These will be stored in the cloud and we'll be safely accessible by the pkg only



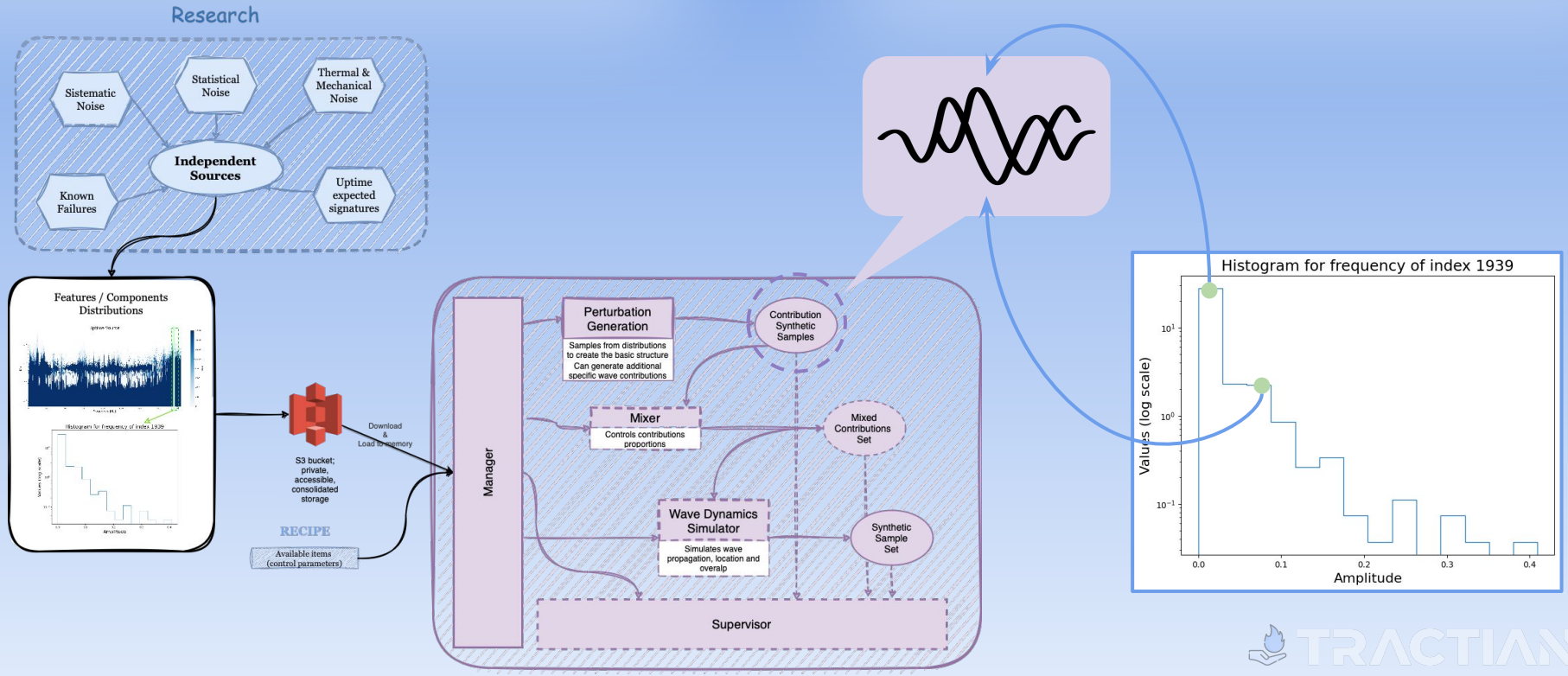




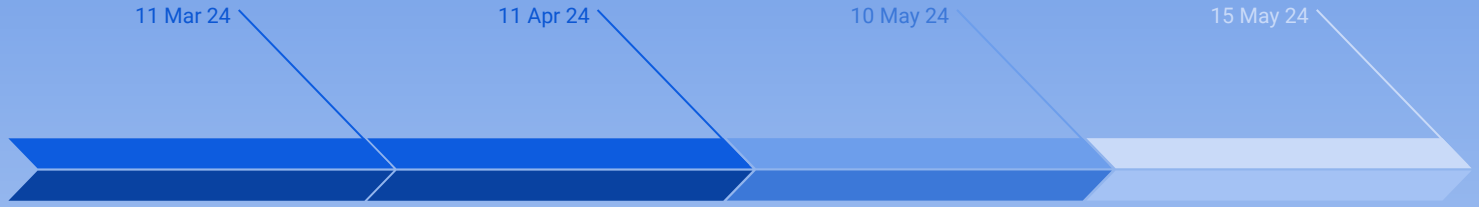
INNER WORKINGS

The package inner structure looks like this

To ***simulate*** is essentially to sample from a given distribution.



ROADMAP



Release 0.1.x

Mapped requirements from users feedback.

Quick mods to address user feedback on tool usage.

Release 1.0.0

Add most requested features. New seeds? Mixture? Op changes?

Call to Action to experts

Evaluation

Review previous month of usage.

Take 1 month of upgrades to collect feedback only.

Plan new release 2.0

If previous evaluation justifies it we'll plan & develop an upgrade.

Call to Action

- Release 0: this release has the purpose of identifying the urgent upgrades, thus **we need your feedback**. You will have 3 days to use the tool and provide feedback, via a GoogleForm.

- Release 1: given the feedback we'll fit in a month of development & deploy the top 3 or 5 most relevant features. Release 1.0.0 should cover at least 50% of use cases. This development stage will **count on your contribution**, mainly in adding new seeds. For that we have tools built in the pkg (tool) and guides detailed in the CONTRIBUTING.md file.

QUESTIONS & COMMENTS