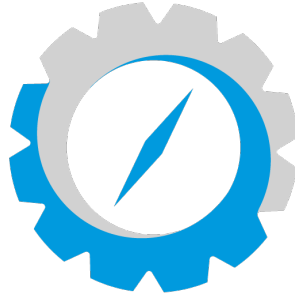


# CoMPAS

## Description

Configuration Modules for Power industry Automation Systems

The mission of LF Energy's CoMPAS project is to develop open source software components related to IEC 61850 model implementation (profile management) and configuration of a power industry Protection Automation and Control System (PACS).



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The project seeks to:

- leverage multi-vendor and multi-end-user development resources and 61850 competences to accelerate the development of common software blocks;
- promote top-down configuration processes and common model implementation choices (thus also accelerate the conformity to IEC 61850 through software implementation);
- deliver a production grade and reference implementation of the standard.

*The project strives not to duplicate works already carried out in standardization groups. When the rules and principles from the standard are not comprehensive enough or subject to interpretation or still work in progress, the project may have to take choices for the implementation. In such case it should strive to a configurable implementation.*

## Technical Information

- [Github repository](#)
- [Functional and technical architecture documentation](#)
- [Functional Scope](#)
- [System Architecture and Technology Stack](#)
- [Contributing and deployment](#)
- [Project Roadmap](#) including Process and Priorities

## The CoMPAS current features

CoMPAS SCT tool contains the following features:

- SCL datamanagement / SCL data storage service: store and load SCL files
- SCL file versioning (semver)
- CIM to IEC61850 conversion
- Single sign on
- Role-based access per file type: CRUD: Create, Read, update and delete
- Filetypes SCL supported: ICD / SCD / SSD / ISD / CID / IID / SED
- Display/edit SCL files e.g.
  - GOOSE/Sample value subscription
  - Create datasets
  - Cleanup un used data
- Multi language support

## Try CoMPAS

A Docker compose is used to try CoMPAS. More information can be found here:

[com-pas/compas-deployment: CoMPAS Deployment repository \(github.com\)](#)

## Background

Due to the Energy Transition the use of power transmission and distribution grids is changing. The control architecture of power grids needs to be swiftly adapted to take account of infeed at lower grid levels, higher dynamics in flow patterns and more distributed controls (both internal controls and grid flexibility services from third parties).

In this context TSOs and DSOs require a new generation of [Digital Substation Automation Systems \(DSAS\)](#) allowing for more dynamic protection settings and adaptive automation functions. Moreover, data management becomes significant, both for administration of deployed automation and protection functions as well as operational grid data.

The design of the new DSAS will have to allow for a drastically higher level of modularity, interoperability and scalability compared to the previous generations. An open source collaboration is essential to meet those requirements in a cost-efficient way by sharing the effort through a leveraged development approach that involves all stakeholders from equipment manufacturers to end-users, fostering vendor-agnostic implementations and convergence of utility practices.

## Community

The idea of the communication is to be as open as possible (open governance). This allows others to trace requirements and join relevant conversations.

- The [LF Energy slack channel](#) will be the chat communications channel for the CoMPAS project.
- High level and generic requirements and feature will be described in the [architecture documentation here](#) and on [Github](#).
- [Github issues](#) will be used for technical issues and low level requirements/userstories.
- The mailing lists can be used for more formal communication:

Name	Description
<a href="#">CoMPAS</a>	CoMPAS general discussion list
<a href="#">CoMPAS-announce</a>	CoMPAS Announcements
<a href="#">CoMPAS-dev</a>	CoMPAS developers
<a href="#">CoMPAS-tsc</a>	CoMPAS Technical Steering Committee

## Regular meetings

The TSC will meet once a month. Meetings will be announced on the [mailing list](#) and available through the [project calendar](#). Meeting minutes are published on the [CoMPAS Meeting Archive](#) page.

Community call will be held bi-weekly. CoMPAS refinements will be done every week (see [calendar](#)).

## Important Links

- [Project Charter](#) on GitHub
- [Project License](#) on GitHub
- [Maintainers](#) on GitHub