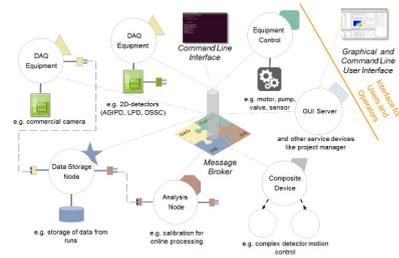


KaraboGui: The Cockpit of the Supervisory Control and Data Acquisition System Karabo



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References

- B.C. Heisen et al., "Karabo: an integrated software framework combining control, data management and scientific computing tasks", 14th International Conference on Accelerator & Large Experimental Physics Control Systems, ICALEPCS 2013, San Francisco, U.S.A.
- S. Hauf et al., "The Karabo Distributed Control System", Journal of Synchrotron Radiation (2019)

KaraboGui - Overview

- * Graphical User Interface for **Controls**
- * Limited data analysis inside application
- * Configuration Management (Karabo Projects / Comparison Features / Generic Configurator Panel)
- * Tight integration with archival features (influx database)

Daemon Services

- * Remote control of control services via daemon tools and web services

NAME	STATUS	START	STOP	RESTART	STOP	RESTART
karabo_daemon_manager	Running	Start	Stop	Restart	Stop	Restart
karabo_daemon_manager	Running	Start	Stop	Restart	Stop	Restart

Interactive Controls for Online Data Analysis

- * Region of Interest setting in holography experiment

Quick Archive Information

Motion and Camera Controls

- * Large set of generic widgets for data input and visualization
- * Simple Types
- * Vectors
- * Images
- * Standardized color schemes for States and Alarms
- * Standardized Icon Sets

Classic entry scenes

- * Link other scenes with scene links
- * Links to device provided scenes
- * Web link implementation

Scene in Edit Mode

- * Grid
- * Scene Tools (Images)
- * Alignment functions
- * Printing
- * Grouping / Layouts

Project Structure

- * Karabo projects store macros
- * Scenes (Panels)
- * Devices and Configurations
- * Double click on device can provide a device provided scene

Software updater for more widgets (extensions) on the fly

Scene Panel: Core Feature

- * Properties can be dragged from Configurator Panel (Device view)
- * Scenes can be translated into XML -> Separation of UI and Model (XML)
- * Scenes can be edited outside of the karaboGui (e.g. Inkscape)
- * Scenes can be translated easily to Python Code (Model) and be included in Karabo devices to provide UI features on runtime

Web translation (in progress ...)