

Daiquiri: a general overview, extensibility, and current integrations

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Daiquiri[1] is a web based User Interface (UI) framework for control system monitoring and data acquisition. It provides simple, intuitive, and responsive interfaces to control and monitor hardware, launch acquisition sequences, and manage associated metadata. Daiquiri concerns itself only with the UI layer, it does not provide a scan engine or controls system but can be easily integrated with existing systems. Daiquiri is implemented with a traditional client / server methodology with the intention of producing a generic extensible framework for acquisition. The server is implemented in Python 3 and provides a REST API and SocketIO service for real-time feedback. The client is implemented in javascript es6 making use of the popular front end framework React along with Redux.

Daiquiri is increasingly being used outside of the ESRF. Current integrations and investigations include SOLEIL and the RockIT project at DESY. DESY have taken the approach of integrating blissdata[2] with their controls systems (bluesky and sardana), allowing access to scan data in real time. In addition to this a REST API for BLISS[3] has recently been developed. Migrating daiquiri to use this API has essentially involved integrating a new controls system, allowing the relevant interfaces to be refined and documented. New interfaces have also been added for authentication, and a standalone project has been released allowing the demonstration of daiquiri completely separately from BLISS.

Further information can be found at <https://ui.gitlab-pages.esrf.fr/daiquiri-landing>

[1] Daiquiri, Fisher et al., J. Synchrotron Rad. (2021). 28, 1996-2002

[2] blissdata: <https://gitlab.esrf.fr/bliss/blissdata>

[3] BLISS REST API <https://bliss.gitlab-pages.esrf.fr/bliss/master/blissapi.html>

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