

Research data management of laser-plasma science at HZDR

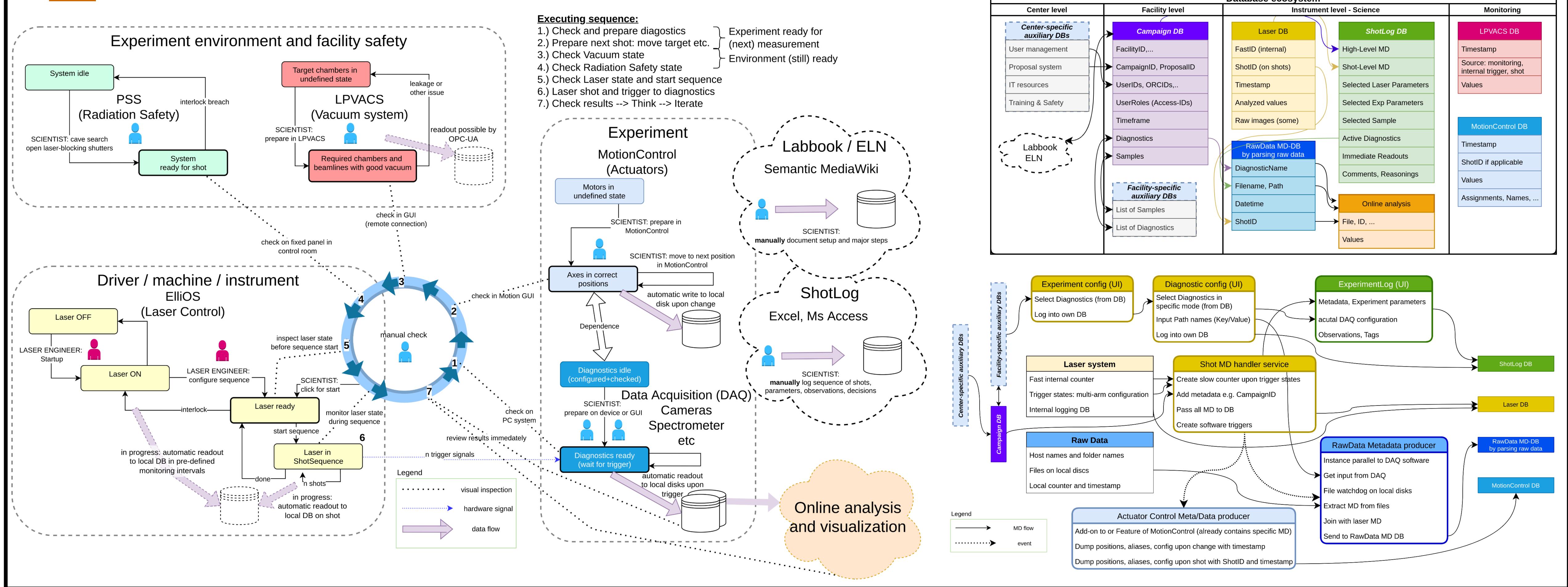
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Status assessment and concept



Comprehensive data taking into DB via web app

The ExperimentLog: Ions web application provides a comprehensive interface for data management, including:

- Main View:** Displays Shot identification, Laser parameters, Interaction parameters, Post-shot readout, Target details, and Diagnostics sections.
- Form Layout Configuration:** Allows users to adjust and add new templates for different experiment types.
- Toolset:** Lists the technologies used: Python, Flask, WTForms, #?!, MongoDB, plotly, SciCat, and Grafana.
- Built-in search, filter, visualize:** Features a search form and search results table for data filtering and visualization.
- Presets of diagnostics:** Shows a list of available diagnostics and their configurations.
- Parameter fields:** Displays detailed information about specific parameters and their configurations.
- Which diagnostics:** A section for managing and selecting diagnostic modules.

Experiment shotcounter and software trigger web app

The Experiment ShotCounter and enrichment app provides real-time monitoring and control of experimental data, including:

- Real-time Chart:** Shows live data from various counters and triggers.
- Display:** Provides a summary of triggered events (160), latest timestamp (11.9.2023), and receiver control buttons.
- Configuration:** Allows users to manage ZMQ Software Triggers and Kafka Logging.
- Diagram:** A block diagram of the system architecture, showing the flow from Draco embedded network to various databases (Draco Data, Channel Data, etc.) and external consumers.