Jiskefet, a bookkeeping system for ALICE

Marten Teitsma[1] on behalf of the ALICE O2/FLP project
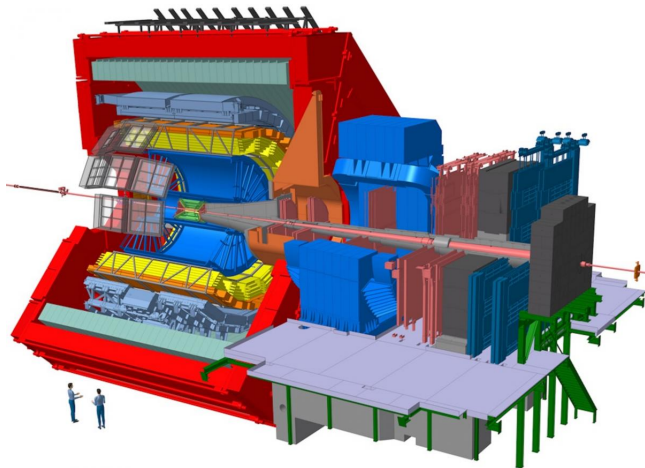
[1]Amsterdam University of Applied Sciences

CHEP, 4-8 November 2019

ALICE

E-logbook from Run 1 and Run 2

Motivation

Business goals:

- ▶ Adapt to new O^2 data model.
- ▶ Consolidate existing ALICE Electronic Logbook and Run Conditions Table in a single product.
- ▶ Refresh used technologies and make the product more future oriented.
- ▶ Integrate gathered experience and introduce missing features.

Requirements

Functional requirements:

► Dashboards for run metadata with different levels of detail.

► Search for data sets that match given criteria.

► Forms for creating textual log entries. Notifications for interventions, main events and summary reports.

► API for read/write access to metadata repository.

Non-functional requirements:

► Development Stack

► Availability and performance

► Documentation

► Interoperability and security

► Licences

► Serviceability

► Connectivity

Requirements

Functional requirements:

► Dashboards for run metadata with different levels of detail.

► Search for data sets that match given criteria.

► Forms for creating textual log entries. Notifications for interventions, main events and summary reports.

► API for read/write access to metadata repository.

Non-functional requirements:

► Development Stack

► Availability and performance

► Documentation

► Interoperability and security

► Licences

► Serviceability

► Connectivity
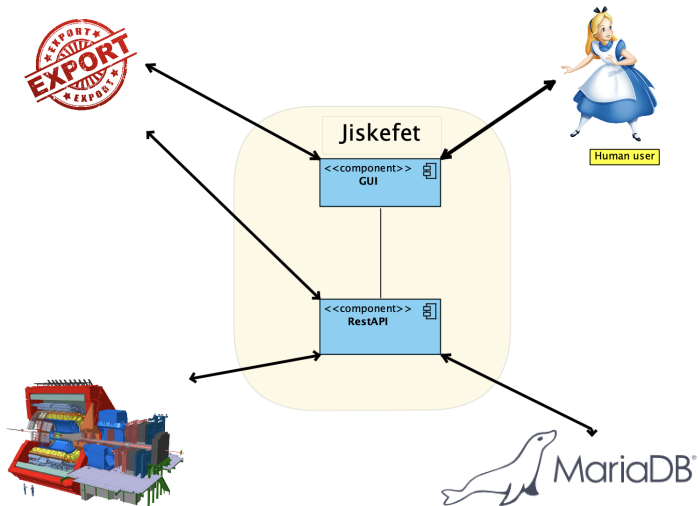
Figure: Environment of Jiskefet

Software stack

Front end:

- ► TypeScript → JavaScript
- ► NodeJs
- ► Mithrill
- ► Bootstrap

Back end

- ► NodeJs
- ► NestJs
- ► MariaDB

API

Testing

/ src /

Front end current status

Front end current status
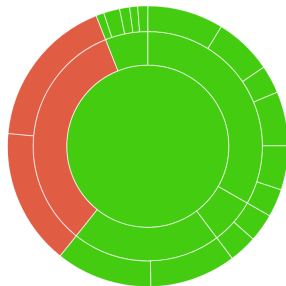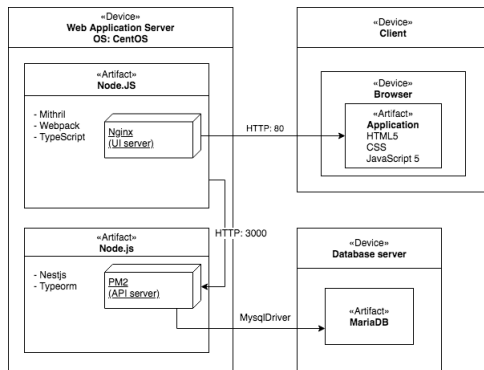
Deployment

Figure: Deployment diagram

Maintenance

To create a sustainable application de Souza differs between intrinsic and extrinsic sustainability[3].

Intrinsic sustainability:

► level of documentation,

► testing,

► readability,

► usage of third party libraries,

► usefulness and

► scalability.

Extrinsic sustainability:

► availability,

► resourcefulness,

► level of community actions and relations,

► independence from infrastructure.

Maintenance

To create a sustainable application de Souza differs between intrinsic and extrinsic sustainability[3].

Intrinsic sustainability:

▶ level of documentation,

▶ testing,

▶ readability,

▶ usage of third party libraries,

▶ usefulness and

▶ scalability.

Extrinsic sustainability:

▶ availability,

▶ resourcefulness,

▶ level of community actions and relations,

▶ independence from infrastructure.

Maintenance

To create a sustainable application de Souza differs between intrinsic and extrinsic sustainability[3].

Intrinsic sustainability:

► level of documentation,

► testing,

► readability,

► usage of third party libraries,

► usefulness and

► scalability.

Extrinsic sustainability:

► availability,

► resourcefulness,

► level of community actions and relations,

► independence from infrastructure.

Several teams

Amsterdam University
of Applied Sciences

Several teams from two
minors:

► Software for Science
(Dep. Computer
Science)

► Web Development
(Dep. Communication
and Media Design)

moscow
polytech

One team from the
department of Computer
Science

Problems

Problems to solve:

► Teams work for one semester $\rightarrow$ How to transfer knowledge?

► Teams work in different countries with different cultures

► Staff is changing

Future Work

Requirements we want to work on in the near future:

► Run Condition Table

► export the data stored in the logbook to several formats (eg. XML, EXCEL)

► porting Jiskefet to O2 WebUI framework

Bibliography

V Altini, F Carena, W Carena, S Chapeland, V Chibante Barroso, F Costa, R Divià, U Fuchs, I Makhlyueva,
F Roukoutakis, et al.
The alice electronic logbook.
In *Journal of Physics: Conference Series*, volume 219, page 022027. IOP Publishing, 2010.

Stefano Bagnasco, L Betev, P Buncic, F Carminati, C Cirstoiu, C Grigoras, A Hayrapetyan, A Harutyunyan,
AJ Peters, and Pablo Saiz.
Alien: Alice environment on the grid.
In *Journal of Physics: Conference Series*, volume 119, page 062012. IOP Publishing, 2008.

Mario Rosado de Souza, Robert Haines, and Caroline Jay.
Defining sustainability through developers' eyes: Recommendations from an interview study.
In *Proceedings of the 2nd Workshop on Sustainable Software for Science: Practice and Experiences
(WSSSPE 2014)*, 2014.