

# Jiskefet, a bookkeeping system for ALICE

Marten Teitsma<sup>1</sup> on behalf of the ALICE O2/FLP project

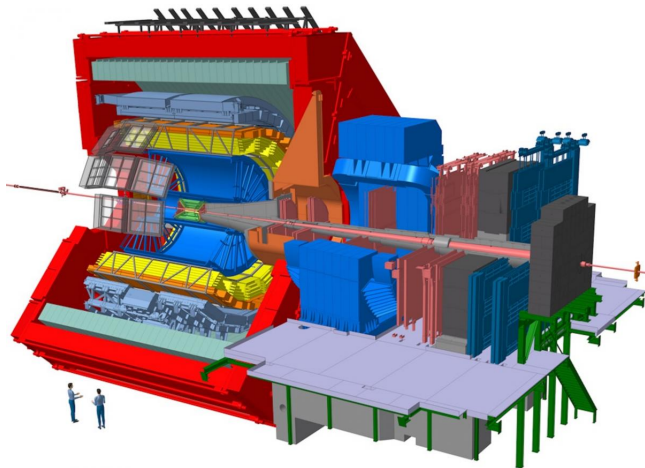
<sup>1</sup>Amsterdam University of Applied Sciences

CHEP, 4-8 November 2019





# ALICE





# E-logbook from Run 1 and Run 2

## ITS Run 3 logbook v1.116

Patrick Hendriks [Logout]

[Logbook](#) | [Admins](#) | [Links](#)

Page Browsing		Log Entries filters		Actions					
1-20 of 84 (Page 1 of 5)		No active filters		<input type="button" value="View mode"/> <input type="button" value="Compact"/>					
				<input type="button" value="Add Log Entry"/>					
Log Entries		Files	Overview						
Created	Subsystem	Class	Type	Author	Title	Log Entry	Followups	Files	Actions
25/04/2019 19:33:11	Outer Barrel	HUMAN	GENERAL	Matteo	Reboot fip1s0	Trying to reboot the fip1s0 for CRU 86:0.0 bklife up		1	<a href="#">+</a>
25/04/2019 17:08:48	Inner Barrel	HUMAN	GENERAL	Mijkeno	Re Half Layer 0 RUs FW flash, currently on 600	HLO RUs were flashed back to RUv1_top_190326_1			<a href="#">+</a>
26/04/2019 18:38:48	Inner Barrel	HUMAN	HARDWARE	Ivan	Test of IB-1_1 - Slave-Q001	The MOSAIC setup was prepared for testing IBSTAV			<a href="#">+</a>
26/04/2019 17:03:39	Inner Barrel	HUMAN	GENERAL	Mijkeno	Re Half Layer 0 RUs FW flash, currently on 600	In order to test DFE equalisation and 600 mbps rea	1		<a href="#">+</a>
26/04/2019 16:20:41	Inner Barrel	HUMAN	DQM/QA	Mijkeno	Re Half Layer 0 Readout Test with DFE equalis	Additional information: 450 pixels in one row pulsed			<a href="#">+</a>
26/04/2019 16:20:26	Inner Barrel	HUMAN	DQM/QA	Mijkeno	Re Half Layer 0 Readout Test at -3 Vbb -> Half	Additional information: 450 pixels in one row pulsed			<a href="#">+</a>
26/04/2019 16:15:05	Inner Barrel	HUMAN	DQM/QA	Mijkeno	Re Half Layer 0 Readout Test -> Half Layer 0 Re	Additional information: 1 ROW pulsed per trigger			<a href="#">+</a>
26/04/2019 15:12:38	Inner Barrel	HUMAN	HARDWARE	Ivan	Test of IB-1_1 - Slave-R002	The MOSAIC setup was prepared for testing IBSTAV			<a href="#">+</a>
26/04/2019 15:11:54	Inner Barrel	HUMAN	HARDWARE	Ivan	Test of IB-1_1 - Slave-Q002	The MOSAIC setup was prepared for testing IBSTAV			<a href="#">+</a>
26/04/2019 14:54:28	Multiple	HUMAN	SOFTWARE	Svirin	Readout updated + Q2 python 3 support	readout was updated on fip1s0-1 to v0.23.1. see rel			<a href="#">+</a>
26/04/2019 14:32:59	Inner Barrel	HUMAN	DQM/QA	Mijkeno	Half Layer 0 Readout Test with DFE equalis	Readout Test done on 26/04/2019: RU FW XCDL to	1	2	<a href="#">+</a>
26/04/2019 14:23:40	Inner Barrel	HUMAN	DQM/QA	Mijkeno	Half Layer 0 Readout Test at -3 Vbb	Readout Test done on 26/04/2019: VBB -3V DVDD r	1	2	<a href="#">+</a>
26/04/2019 14:20:06	Inner Barrel	HUMAN	DQM/QA	Mijkeno	Half Layer 0 Readout Test	Readout Test done on 16/04/2019: DVDD range 1.7	1	2	<a href="#">+</a>
26/04/2019 14:19:06	Inner Barrel	HUMAN	HARDWARE	Michael Joseph	Re VBB channels on CAEN PS switched OFF	9:50 was when I connected to alltads1, noticed th		2	<a href="#">+</a>
26/04/2019 10:20:08	Inner Barrel	HUMAN	HARDWARE	Mijkeno	VBB channels on CAEN PS switched OFF	When checking that the threshold panel is running b	1	1	<a href="#">+</a>
25/04/2019 15:56:45	Inner Barrel	HUMAN	HARDWARE	Ivan	Test of IB-1_1 - Slave-N006	The MOSAIC setup was prepared for testing IBSTAV			<a href="#">+</a>
25/04/2019 15:54:22	Inner Barrel	HUMAN	HARDWARE	Ivan	Test of IB-1_1 - Slave-N001	The MOSAIC setup was prepared for testing IBSTAV			<a href="#">+</a>
25/04/2019 14:21:29	Inner Barrel	HUMAN	GENERAL	Matteo	Reboot fip1s1	fip1s1 was rebooted after having issues of lack of m		1	<a href="#">+</a>
24/04/2019 09:51:50	Inner Barrel	HUMAN	HARDWARE	Ivan	Test of IB-HS-1_1 - Slave B002	The MOSAIC setup was prepared for testing IBSTAV			<a href="#">+</a>
23/04/2019 18:14:47	Inner Barrel	HUMAN	HARDWARE	Ivan	Test of IB-HS-1_1 - Slave B001	The MOSAIC setup was prepared for testing IBSTAV			<a href="#">+</a>





# 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

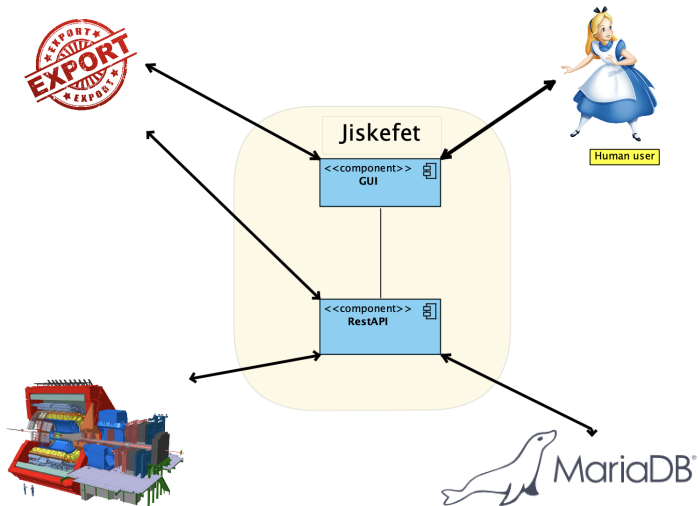
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**Figure:** Environment of Jiskefet





# Software stack

## Front end:

- ▶ TypeScript → JavaScript
- ▶ NodeJs
- ▶ Mithrill
- ▶ Bootstrap

## Back end

- ▶ NodeJs
- ▶ NestJs
- ▶ MariaDB





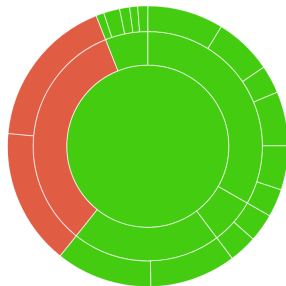


# API





# Testing



/ src /

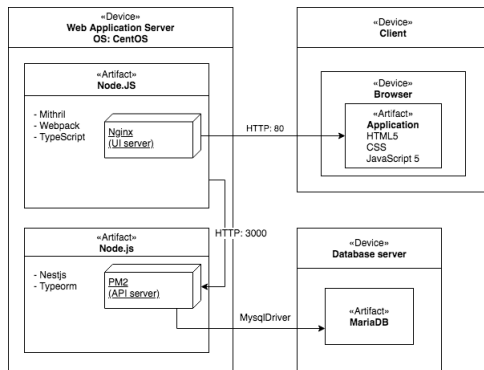








# Deployment



**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:

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- ▶ independence from infrastructure.





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## 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 → 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



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