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

<table>
<thead>
<tr>
<th>Created</th>
<th>Subsystem</th>
<th>Class</th>
<th>Type</th>
<th>Author</th>
<th>Title</th>
<th>Log Entry</th>
<th>Followups</th>
<th>Files</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>29/04/2019 19:33:11</td>
<td>Outer Barrel</td>
<td>HUMAN</td>
<td>GENERAL</td>
<td>Matteo</td>
<td>Reboot fips0</td>
<td>Trying to reboot the fips0 for CRU 86:0.0 bittle up</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>29/04/2019 17:08:48</td>
<td>Inner Barrel</td>
<td>HUMAN</td>
<td>GENERAL</td>
<td>Miljenko</td>
<td>Re Half Layer 0 RUs FW flash, currently on 600</td>
<td>HLO RUs were flashed back to RUs1_top_190326_1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26/04/2019 18:38:48</td>
<td>Inner Barrel</td>
<td>HUMAN</td>
<td>HARDWARE</td>
<td>Ivan</td>
<td>Test of IB-1_1 - Slave-Q001</td>
<td>The MOSAIC setup was prepared for testing IBSTAV</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26/04/2019 17:03:39</td>
<td>Inner Barrel</td>
<td>HUMAN</td>
<td>GENERAL</td>
<td>Miljenko</td>
<td>Half Layer 0 RUs FW flash, currently on 600</td>
<td>In order to test DFE equalization and 600 Mbps read</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26/04/2019 16:30:41</td>
<td>Inner Barrel</td>
<td>HUMAN</td>
<td>DQM/QA</td>
<td>Miljenko</td>
<td>Re Half Layer 0 Readout Test with DFE equals</td>
<td>Additional information: 455 pixels in one row pulse</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26/04/2019 16:20:26</td>
<td>Inner Barrel</td>
<td>HUMAN</td>
<td>DQM/QA</td>
<td>Miljenko</td>
<td>Re Half Layer 0 Readout Test at -3 Vbb -&gt; Half Layer 0 Re</td>
<td>Additional information: 455 pixels in one row pulse</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26/04/2019 16:15:05</td>
<td>Inner Barrel</td>
<td>HUMAN</td>
<td>DQM/QA</td>
<td>Miljenko</td>
<td>Re Half Layer 0 Readout Test -&gt; Half Layer 0 Re</td>
<td>Additional information: 1 ROW pulsed per trigger</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26/04/2019 15:12:38</td>
<td>Inner Barrel</td>
<td>HUMAN</td>
<td>HARDWARE</td>
<td>Ivan</td>
<td>Test of IB-1_1 - Slave-R002</td>
<td>The MOSAIC setup was prepared for testing IBSTAV</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26/04/2019 15:11:54</td>
<td>Inner Barrel</td>
<td>HUMAN</td>
<td>HARDWARE</td>
<td>Ivan</td>
<td>Test of IB-1_1 - Slave-D002</td>
<td>The MOSAIC setup was prepared for testing IBSTAV</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26/04/2019 14:54:28</td>
<td>Multiple</td>
<td>HUMAN</td>
<td>SOFTWARE</td>
<td>Sylvain</td>
<td>Readout updated + 02 python 3 support</td>
<td>readout was updated on fips0.1 to v0.23.1 see rel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26/04/2019 14:32:59</td>
<td>Inner Barrel</td>
<td>HUMAN</td>
<td>DQM/QA</td>
<td>Miljenko</td>
<td>Half Layer 0 Readout Test with DFE equals</td>
<td>Readout Test done on 26/04/2019: RF WL XCLU_to</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>26/04/2019 14:23:40</td>
<td>Inner Barrel</td>
<td>HUMAN</td>
<td>DQM/QA</td>
<td>Miljenko</td>
<td>Half Layer 0 Readout Test at -3 Vbb</td>
<td>Readout Test done on 26/04/2019: VBB -3V DVDV r</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>26/04/2019 14:20:06</td>
<td>Inner Barrel</td>
<td>HUMAN</td>
<td>DQM/QA</td>
<td>Miljenko</td>
<td>Half Layer 0 Readout Test</td>
<td>Readout Test done on 16/04/2019: DVDVD range 1.7</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>26/04/2019 14:19:06</td>
<td>Inner Barrel</td>
<td>HUMAN</td>
<td>HARDWARE</td>
<td>Michael Joseph</td>
<td>VBB channels on CAEN PS switched OFF (a)</td>
<td>9-5b was when f connected to All1dc1, noticed th</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26/04/2019 10:20:08</td>
<td>Inner Barrel</td>
<td>HUMAN</td>
<td>HARDWARE</td>
<td>Miljenko</td>
<td>VBB channels on CAEN PS switched OFF (a)</td>
<td>When checking that the threshold panel is running b</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>25/04/2019 15:56:45</td>
<td>Inner Barrel</td>
<td>HUMAN</td>
<td>HARDWARE</td>
<td>Ivan</td>
<td>Test of IB-1_1 - Slave-N006</td>
<td>The MOSAIC setup was prepared for testing IBSTAV</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25/04/2019 15:54:22</td>
<td>Inner Barrel</td>
<td>HUMAN</td>
<td>HARDWARE</td>
<td>Ivan</td>
<td>Test of IB-1_1 - Slave-N006</td>
<td>The MOSAIC setup was prepared for testing IBSTAV</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25/04/2019 14:21:29</td>
<td>Inner Barrel</td>
<td>HUMAN</td>
<td>GENERAL</td>
<td>Matteo</td>
<td>Reboot fips0</td>
<td>fips0 was restarted after having issues of lack of m</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24/04/2019 09:51:50</td>
<td>Inner Barrel</td>
<td>HUMAN</td>
<td>HARDWARE</td>
<td>Ivan</td>
<td>Test of IB-HS-1_1 - Slave B002</td>
<td>The MOSAIC setup was prepared for testing IBSTAV</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23/04/2019 18:14:47</td>
<td>Inner Barrel</td>
<td>HUMAN</td>
<td>HARDWARE</td>
<td>Ivan</td>
<td>Test of IB-HS-1_1 - Slave B001</td>
<td>The MOSAIC setup was prepared for testing IBSTAV</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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
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Figure: Environment of Jiskefet
Software stack

Front end:
- TypeScript → JavaScript
- NodeJs
- Mithril
- Bootstrap

Back end:
- NodeJs
- NestJs
- MariaDB
API

C++  GO

{...}
Testing
Front end current status
Front end current status

Log

Lorem Ipsum คืออะไร?

Log Id: 4
Subtype: not
Origin: human
Creation time: 00:08:05 02/05/2019
Author: 1

Content

Lorem Ipsum คืออะไร?

Lorem Ipsum คือ เครื่องจักรที่ข้อมูลเรียบๆ ที่ใช้ในการร่างสำหรับงานเริ่มต้น ได้กล่าวมาเป็นเนื้อหาข้อมูลมาตรฐานของบริษัทอย่างมากในค่าเฉลี่ยที่ 16 เนื้อเรียบเนียนในแม่เครื่องเรียลซิลิโคนสามารถทำให้เรียบร้อยได้ตามความต้องการของผู้ใช้งาน การใช้ Lorem Ipsum ยังช่วยให้สามารถทำงานในแบบที่ข้อมูลเรียบร้อยได้ดี แต่ละงานเป็นเรื่องที่

Lorem Ipsum คือเรื่องอย่างที่เราใช้สำหรับงานเริ่มต้น และยังคงเปรียบเทียบไว้ในการตัดสินใจในคุณค่า คุณภาพ ที่ชัดเจนโดยใช้เรื่องราวที่เป็น Lorem Ipsum และสูตรความนิยม คือเนื้อเรียบร้อยการทำให้เรียบร้อย (Desktop Publishing) อย่าง Altdus PageMaker ได้รับเพราะ Lorem Ipsum เข้าใจหลังๆ เสร็จเรียบร้อยเพื่อให้
Deployment

Figure: Deployment diagram
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

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- independence from infrastructure.
Several teams

Several teams from two minors:

- Software for Science (Dep. Computer Science)
- Web Development (Dep. Communication and Media Design)

Amsterdam University of Applied Sciences

moscow polytech

One team from the department of Computer Science
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
The alice electronic logbook.

Alien: Alice environment on the grid.

Mario Rosado de Souza, Robert Haines, and Caroline Jay.
Defining sustainability through developers’ eyes: Recommendations from an interview study.