

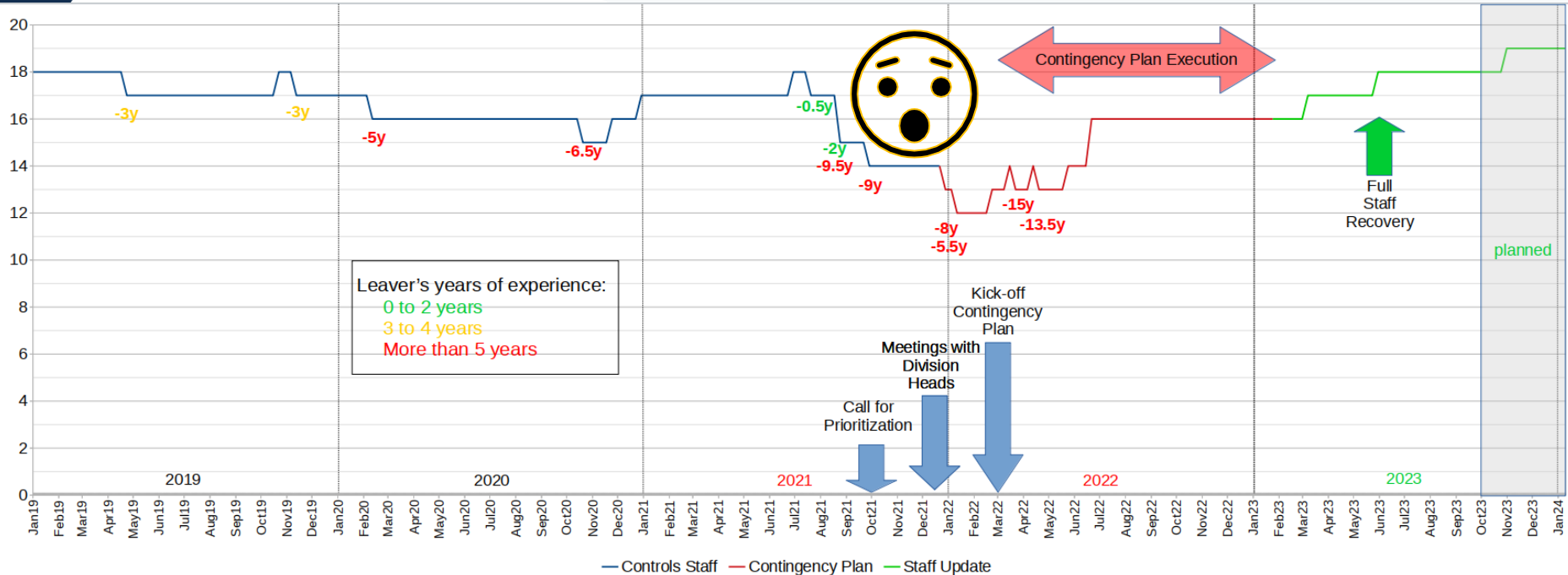
A Successful Emergency Response Plan: Lessons in the Controls Section of the ALBA Synchrotron

Guifré Cuní
10.10.2023 –TU2AO03

Contents of this talk:

1. Introduction (Trigger + Contingency Plan)
2. Who (Customer Units + Control System Team)
3. Organization (Service Support + Software Development)
4. Reporting + Monthly Follow-up
5. Wrap-up (Conclusions + Lessons Learned)

Trigger



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Controls Contingency Plan 2022



Feb22 Contingency Plan for the Controls Section announced by the Director

Mar22 kick-off with Coordination Office (CO) + start

<https://confluence.cells.es/display/CO/Controls+Contingency+Plan+2022>

Work only on:

1. Incidents to assure operation
2. Assure progress in new BLs program
3. Few selected activities (EXP, ACE, COM)
4. Until Dec 2022

Assumptions:

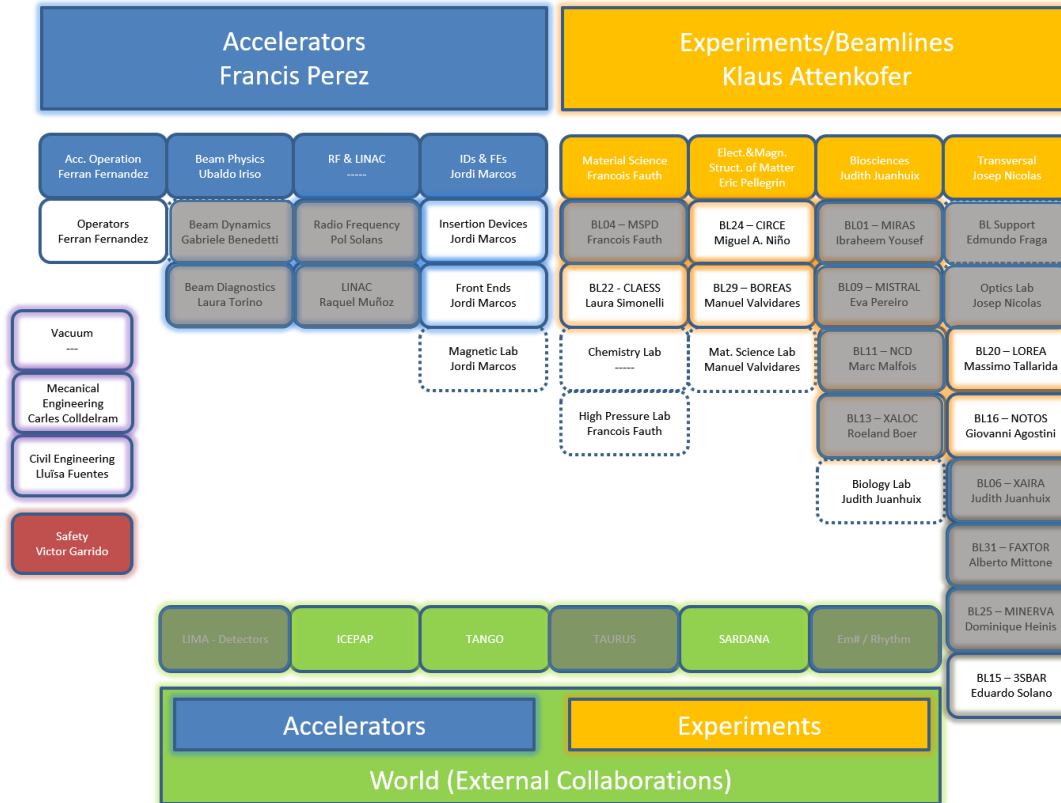
1. Urgent tasks treated as Exceptions
2. Internal activities self-managed
3. Services reduced (no changes or new features)

Exclusions:

1. PLC Team activities
2. Activities related to International Collaborations, Students, Newcomers

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Controls Section Customer Units

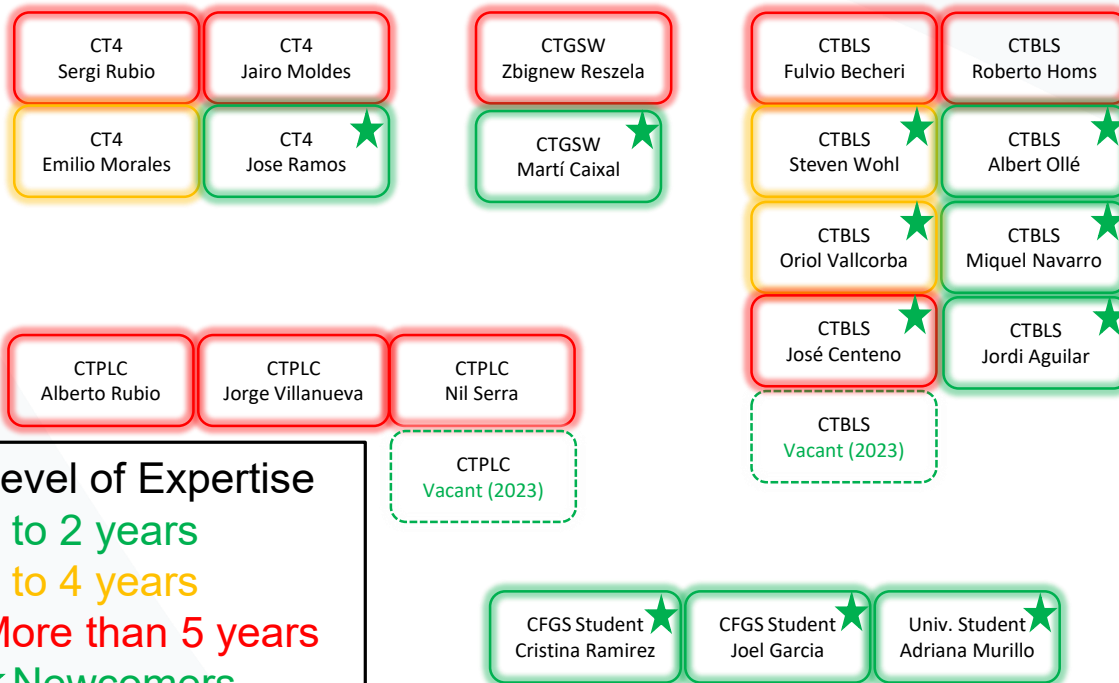


Areas of knowledge deeply affected

No direct contacts for any Customer Unit

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Controls Section Teams



Level of Expertise
 0 to 2 years
 3 to 4 years
 More than 5 years
 ★ Newcomers

1. Priority in **Newcomers**★
 Knowledge transfer
 Gain expertise
 Mentoring
 Training
2. Improve guides/how-to docs
3. Expecting to have same level of operation by 2024-Q2

Organization: Service Support (i)



<https://confluence.cells.es/display/CS/CT+Service+Support>

Pages / Control Systems   1 Jira link

CT Service Support

Created by Zbigniew Reszela, last modified on May 17, 2022

- What is it?
- When does it apply?
- Who gives the support?
- What does the support person do?
 - Triage issues
 - Work on issues
 - Note on notifying development team
 - Monitor overall Control System status
 - Where to log the time spent on SS?
- What do the rest of the Controls engineers?
- CS Service Support Kanban Board
 - Card
 - Columns
 - Swimlanes
- What is considered a "service support task"?
 - Note on deployment tasks
- TODOs

Service Support Role definition

Triage:

gather basic information and set priority predefined questions to requestors

Monitor:

check all subsystems and status

Mentor/train:

mentor, train newcomers in specific interventions

Document:

promote improvement of guides and how-to docs

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Organization: Service Support (ii)



<https://confluence.cells.es/display/CS/CT+Service+Support+-+role+calendar>

Today < > October 2023 Subscribe Add Event

Mon	Tue	Wed	Thu	Fri
2	3	4	5	6
shutdown				
Alba Operation - W				
9	10	11	12	13
Alba Operation - M Roberto Javier Homs Puron: BK Jorge Villanueva Cuenda: SS Marti Caixal Joaniquet: SS	Alba Operation - BL Steven Wohl: BK Jorge Villanueva Cuenda: SS Jairo Moldes Fuentes: SS	Alba Operation - BL Albert Ollé Sabaté: BK Jorge Villanueva Cuenda: SS Emilio José Morales Alejandre: SS EM	Alba Operation - BL Jorge Villanueva Cuenda: SS	Alba Operation - BL Oriol Vallcorba Valls: BK: OV Jorge Villanueva Cuenda: SS Jordi Aguilar Larruy: SS: JA
16	17	18	19	20
Alba Operation - M Miguel Navarro Fernández: BK Fulvio Becheri: SS Alberto Rubio Garcia: SS	Alba Operation - BL José Gabriel Centeno Gabadinho: BK: JG Alberto Rubio Garcia: SS Roberto Javier Homs Puron: SS	Alba Operation - BL Jordi Aguilar Larruy: BK: JA Alberto Rubio Garcia: SS Sergio Rubio Manrique: SS: SR	Alba Operation - BL Marti Caixal Joaniquet: BK Alberto Rubio Garcia: SS Steven Wohl: SS	Alba Operation - BL Sergio Rubio Manrique: BK: SR Alberto Rubio Garcia: SS Albert Ollé Sabaté: SS
23	24	25	26	27
Alba Operation - M Jairo Moldes Fuentes: BK: JM Nii Serra Peinado: SS Oriol Vallcorba Valls: SS: OV	Alba Operation - BL Emilio José Morales Alejandre: BK: EM Nii Serra Peinado: SS Miquel Navarro Fernández: SS	Alba Operation - BL Jose Antonio Ramos Andrades: BK: JR Nii Serra Peinado: SS José Gabriel Centeno Gabadinho: SS: JG	Alba Operation - BL Fulvio Becheri: Backup Nii Serra Peinado: SS Jose Antonio Ramos Andrades: SS: JR	Alba Operation - BL Roberto Javier Homs Puron: BK Nii Serra Peinado: SS Zbigniew Reszela: SS: ZR
30	31	1	2	3
Alba Operation - M Miguel Navarro Fernández: BK Nii Serra Peinado: SS Marti Caixal Joaniquet: SS	Alba Operation - BL Albert Ollé Sabaté: BK Nii Serra Peinado: SS	Alba Operation - BL Nii Serra Peinado: SS	Alba Operation - BL Oriol Vallcorba Valls: BK: OV Nii Serra Peinado: SS	Alba Operation - BL Steven Wohl: BK Nii Serra Peinado: SS Emilio José Morales Alejandre: SS: EM
6	7	8	9	10
Alba Operation - M José Gabriel Centeno Gabadinho: BK: JG Jorge Villanueva Cuenda: SS Jose Antonio Ramos Andrades: SS: JR	Alba Operation - BL Jordi Aguilar Larruy: BK: JA Fulvio Becheri: SS Alberto Rubio Garcia: SS	Alba Operation - BL Zbigniew Reszela: Backup Nii Serra Peinado: SS Roberto Javier Homs Puron: SS	Alba Operation - BL Marti Caixal Joaniquet: BK Jorge Villanueva Cuenda: SS Steven Wohl: SS	Alba Operation - BL Alberto Rubio Garcia: SS Zbigniew Reszela: SS

CT Service Support - role calendar

Created by Guifré Cuní Soler, last modified by Zbigniew Reszela on Feb 17, 2022

How to fill the calendar?

1. Click on "Add event" button or directly double click on a day cell in the calendar.
2. Choose the day you would like to make the role assignment.
3. In "What" field specify what role you are assigning: either "SS" (Service Support) or "backup" (backup for SS).
4. In "Who" field set yourself (or in case you make an assignment for another person then select him/her).

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Organization: Service Support (iii)



<https://jira.cells.es/secure/RapidBoard.jspa?rapidView=181>

CT Service Support

Kanban board

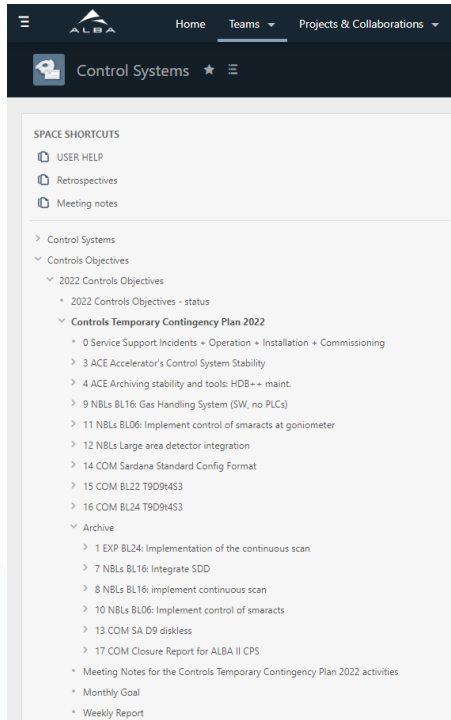
Board

QUICK FILTERS: Unassigned Unassigned Issues + My Issues My Issues Last Updated (-3d) Recently Updated (-14d)

TO DO 28	IN TRIAGE 20	READY 6	IN PROGRESS 24	STALLED 9	WAITING FOR VERIFICATION 2	DONE 97 OF 18944	Release...
> Expedite 27 issues							
> Fixed Date 9 issues							
> Standard 143 issues							
> Maintenance 7 issues							

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<https://confluence.cells.es/display/CS/Controls+Temporary+Contingency+Plan+2022>



Four Types of Activities (with JIRA filters):

Type 1 Service Support Incidents

Type 2 Assure Operation, Installation and Commissioning

Type 3 Coordination Office Contingency Plan Activities

JIRA filter + Confluence Page Description + Committed People Monthly Goal + Weekly report Meetings Summary

Type 4 Other activities (Internal)

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Organization: Software Development (ii)



<https://jira.cells.es/secure/RapidBoard.jspa?rapidView=182>

CT Developments

Kanban board

Board

QUICK FILTERS: Obj23 Act23 T2 T3 T4 T5 NextShutdown EPIC MyIssues SS | BL BL-EXTRA BL01 BL04 BL06 BL09 BL11 BL13 BL15 BL16 BL20 BL22 BL24 BL25 BL31 Motion DAQ

Detectors | MACH MACH-EXTRA ACCOP BeamPhys+BL34 BL29 Eng FE+IDs LINAC RF Safety TANGO | GSW GSW-EXTRA DevOps GUIs LAOP Sardana SciSoft Taurus | NO-NOISE NO-SUB

NO-PLC CSBL CSMACH CSGSW NO-BL RecentlyUpdated ChangeReview 2023 ... Show fewer

PLANNED 79 IN DESIGN 6 IN PROGRESS 315 STALLED 148 IN REVIEW 22 WAITING FOR VERIFICATION 35 DONE 108 OF 8642 Release...

› Expedite 47 issues

› Fixed Date 137 issues

› T2 268 issues

› T3 115 issues

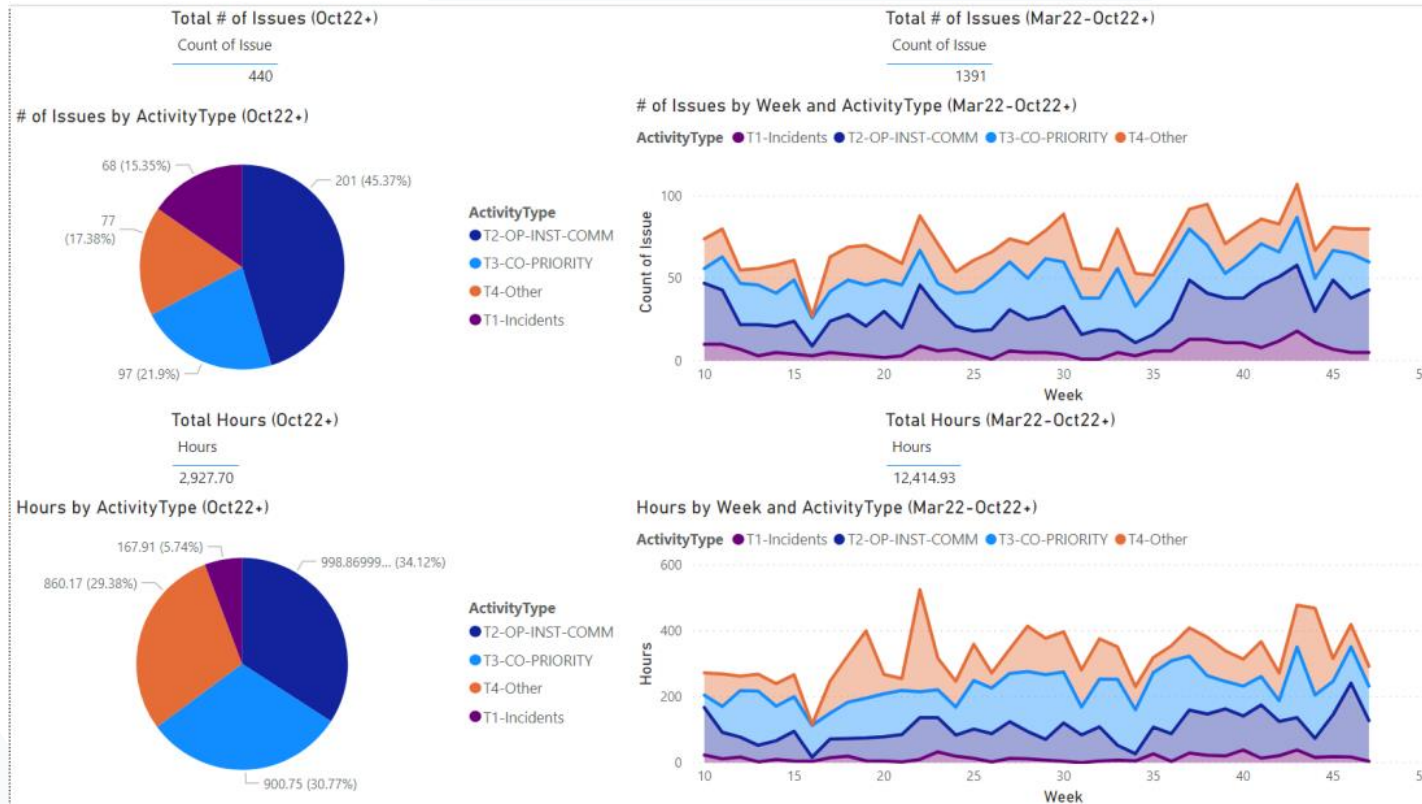
› T4 53 issues

› T5 92 issues

› Everything Else 1 issue

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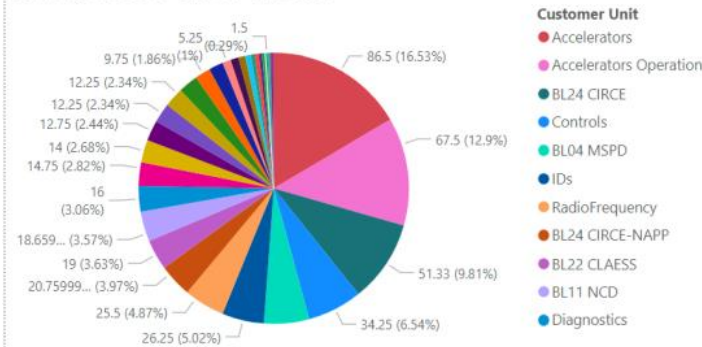
Monthly follow-up with the CO (i)



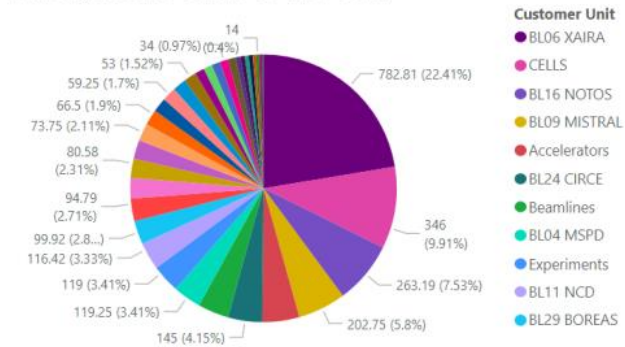
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Monthly follow-up with the CO (ii)

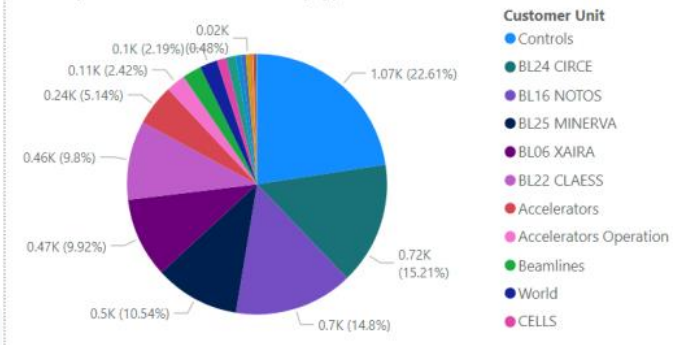
Hours by Customer Unit (T1-Incidents)



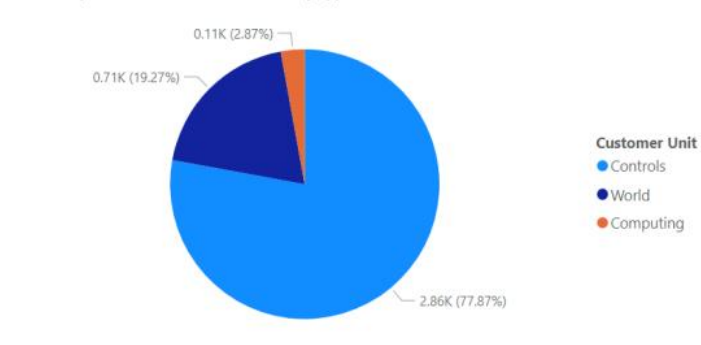
Hours by Customer Unit (T2-OP+INST+COMM)



Hours by Customer Unit and ActivityType (T3-CO-PRIORITY)



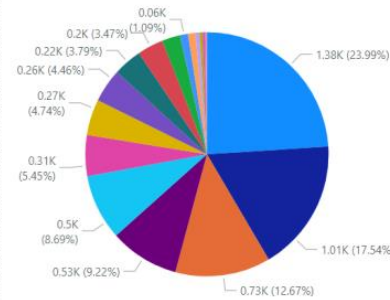
Hours by Customer Unit and ActivityType (T4-Other)



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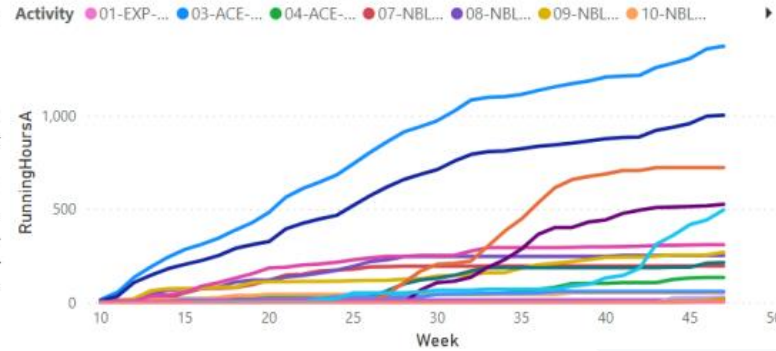
Monthly follow-up with the CO (iii)

Hours by Activity

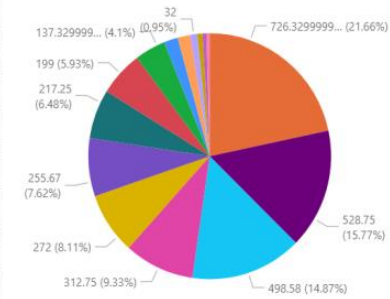


- Activity**
- 03-ACE-CT-SystemStability
 - 13-COM-SA-D9Diskless
 - 16-BL24-T9D9t4S3
 - 15-BL22-T9D9t4S3
 - 19-NBLs-BL25-BasicControl
 - 11-NBLs-BL06-Goniometer
 - 09-NBLs-BL16-GHS
 - 08-NBLs-BL16-ContScans
 - 12-NBLs-Large-Area-Dete...
 - 07-NBLs-BL16-IntegrateS...
 - 04-ACE-CT-ArchivingStabil...
 - 14-COM-SardanaConfigSy...
 - 10-NBLs-BL06-Smaracts

RunningHoursA by Week and Activity

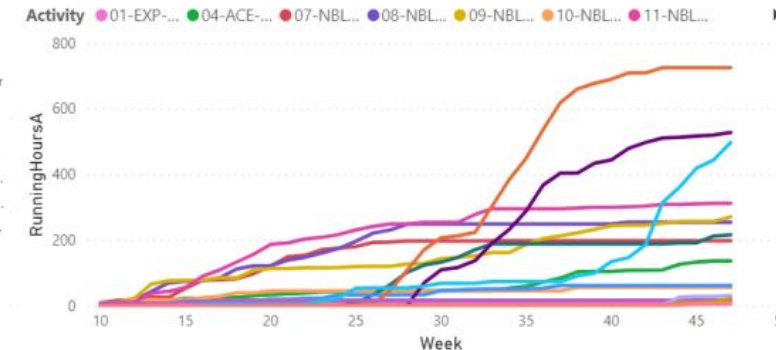


Hours by Activity



- Activity**
- 16-BL24-T9D9t4S3
 - 15-BL22-T9D9t4S3
 - 19-NBLs-BL25-BasicControl
 - 11-NBLs-BL06-Goniometer
 - 09-NBLs-BL16-GHS
 - 08-NBLs-BL16-ContScans
 - 12-NBLs-Large-Area-Dete...
 - 07-NBLs-BL16-IntegrateS...
 - 04-ACE-CT-ArchivingStabil...
 - 14-COM-SardanaConfigSy...
 - 10-NBLs-BL06-Smaracts
 - 18-ACE-Waveguide-K1
 - 21-EXP-BL20-User-GUI

RunningHoursA by Week and Activity



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Results and insights

- **JIRA** system provides **enough data** for follow-ups, reviews, reports, and analysis
- **Incidents** and **P1 requests**
 - Around 5% of our time
 - But there are **still direct calls not following the Service Desk** which are not Incidents or P1 requests and should be issued via our Service Desk Portal
- The number of **stalled issues** in our backlogs **increased**
 - some tasks were unblocked and treated as **exceptions** based on the **cost/benefit ratio**
- Newcomers **onboarding is a high priority investment**
- **Coordination, Planning**, and **Prioritization** is key for the **Performance** and **Efficiency** of the Controls Software Developers
 - Once this Controls Contingency Plan finished, an **extended coordination** in order to improve organization, planning, dependencies, and scope of the work of several support groups will be implemented (**hopefully in 2024**)

Conclusions and Lessons Learned

• Culture

- Implementing a culture of **reporting on all activities** and **progress** centrally, including the **time invested, is crucial** (not just distributing responsibilities)
- This culture will be the foundation for **any urgent structural change** needed
- The culture **cannot be changed in the middle of an emergency**
- **Automatic** processes for **compiling** information is valuable
- **Reporting publicly** is of great worth

• **Less context-switching** is good for the Development Team and for the quality delivered

- The description of the activities must clearly state **when the work is considered as finished and accepted**
- A **rotating Service Support role** among all the developers helps the transfer of knowledge and avoids context switching

• Alignment

- **Checking periodically** the **alignment** of the Developers' efforts with the **facility-wide Divisions' priorities** helps everybody

• Service Level

- Service Level **can be reduced** (of course, at a cost that needs to be accepted)
- By announcing a Contingency Plan with **transparent rules publicly**, **clients' pressure** of new requests **can be reduced**

Thanks,

to You for your time

to ALBA Management for their involvement and commitment
to Controls People for the effort and flexibility

Questions and Feedback are very welcome!