



ACS Delivery Process



Agenda

- Planning
- Release Core Tasks
- Tickets Implementation
- SCCB Requests
- Integration
- Publishing
- Reporting
- ACS Community



Planning

- Plan for future releases
 - Two months work windows
- Analyze tickets and projects
 - Impact and priority (Downtime, performance, benefits, recovery times, etc.)
 - Implementation effort
 - Agreements and scheduled deliverables (Java 11, Python 3, O.S. upgrade, etc.)
- Request for feedback
 - Stakeholders requirements gathering meeting
- People available for the period
 - Vacations, medical leave, etc.
- Prepare release notes
 - Confluence page
 - Transition JIRA tickets to 'Accepted' state with appropriate "Fix version"

Release Core Tasks

- Core tasks ticket
- Update ACS version
 - Branch task/ICT-<#>
 - ACS_VERSION + .bash_profile.acs
 - Pull request
- Create integration branch
 - integration/COMMON-YYYYMMM
- Release notes confluence page
- Build system jobs (Jenkins)
 - Build ExtProds, ACS, ARCHIVE and ICD
 - ACS' phase A tests
 - Publishing jobs

| 2018DEC | 2019DEC | 2020APR | 2020AUG | 2020DEC | 2020FEB | 2020JUN | 2020OCT | 2021FEB | |
|---------|---------|------------------|--------------------|--------------------|---------------|---------|---------|---------|--|
| S | W | Name | Last Success | Last Failure | Last Duration | | | | |
| | | ACS-2021FEB | 2 days 1 hr - #17 | 1 mo 5 days - #10 | 1 hr 2 min | | | | |
| | | ACS-test-2021FEB | 2 days 0 hr - #14 | N/A | 9 hr 26 min | | | | |
| | | COMMON-2021FEB | N/A | 2 days 0 hr - #14 | 2 hr 2 min | | | | |
| | | COMMON-2021FEB-2 | 1 mo 22 days - #18 | 1 mo 22 days - #14 | 1.1 sec | | | | |
| | | ExtProd-2021FEB | 6 days 23 hr - #9 | N/A | 42 min | | | | |
| | | Publish-2021FEB | 2 days 3 hr - #2 | N/A | 3 min 43 sec | | | | |

Create branch

Repository

Branch type

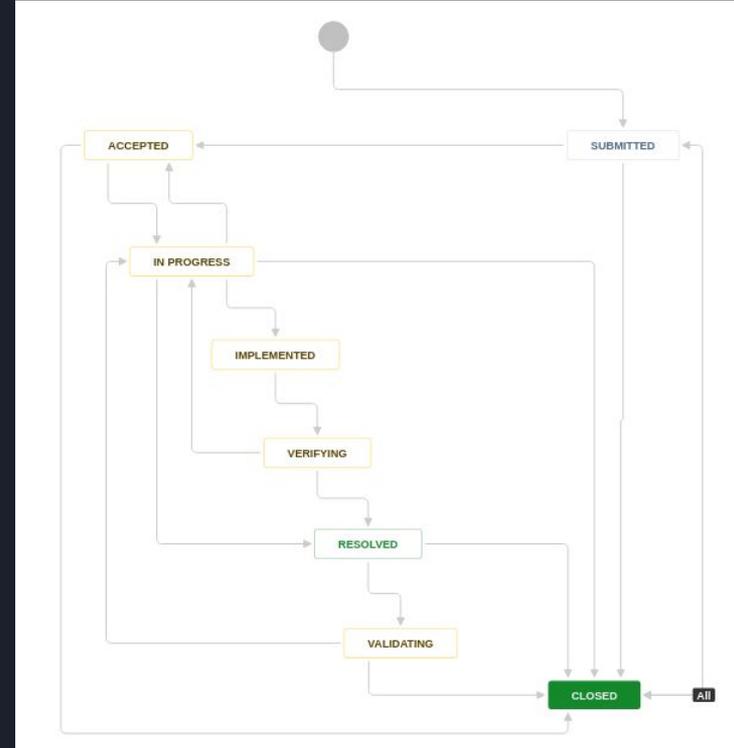
[Learn about branch types](#)

Branch from

Branch name

Tickets Implementation

- Varying complexity
- Branch per ticket with flexibility
 - Do not require code changes
 - Interrelated tickets may be better off sharing a branch
 - Sub-features/Sub-tasks may share parent's branch
- Tasks
 - Transition JIRA ticket to 'In progress'
 - Create branch from 'master'
 - Implementation
 - Coding, configuration, etc.
 - Manual/Automatic phase A tests
 - Commits with ticket information to help IRM integration procedures
 - Transition JIRA ticket to 'Implemented'
 - Design a phase B testing strategy
 - Create pull request back to 'master'
 - Assign to IRM for phase B testing





SCCB Tickets

- Some software changes require attention from stakeholders
- There are three kinds of SCCB tickets
 - Patch request (RM + AM)
 - Backport changes from newer releases than a stable one (i.e. 2021FEB → Cycle 7)
 - The process has stabilized to mostly admit emergency bug-fixes only
 - Change request (RM + (optionally) TAG + ICT Leads + AM)
 - Change on shared interfaces
 - Upgrading/Downgrading 3rd party software
 - Adopting/Dropping technologies
 - Changes in production configuration (For instance RTI DDS QoS configuration)
 - Move resources from subsystem/directory which may have implications for stakeholders
 - Persistent data structure changes (RM + DB Advisory Group + ICT Leads + AM)
 - Changes to the related databases (For instance, TMCDB changes)
- The SCCB process is moderated by the release manager
- The SCCB ticket is marked as completed when the acceptance manager accepts/rejects the request

Integration

- Development and Phase A testing
- “integration/COMMON-YYYYMMM” branch
- Early integration with other subsystems
- Procedure
 - Creation of branch
 - Merge of release pull requests
 - Script looking at PRs + “Fix version”
 - Build system job to generate new release
 - ExtProds, ACS, ARCHIVE and ICD
 - ~640 Phase A tests are executed
 - Some ~20 historically failing

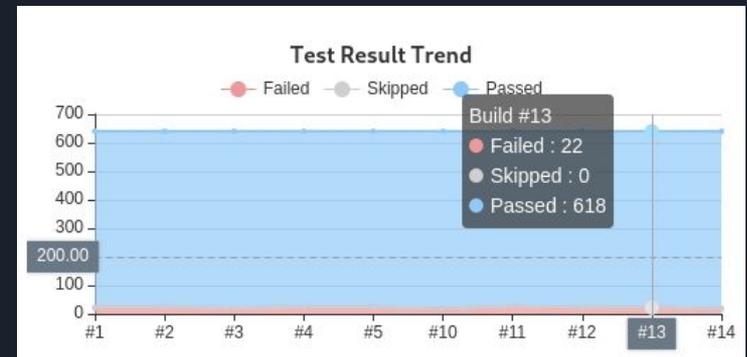
```
COMMON-2021FEB
COMMON-2021FEB
COMMON-2021FEB
Merging origin/feature/ICT-17857
COMMON-2021FEB
Merging origin/feature/ICT-17580
The merge seems to be ok. You are ready to push the branch
```

Project ACS-test-2021FEB

 Last Successful Artifacts

 Recent Changes

 Latest Test Result (18 failures / -4)





Publishing

- Each Common/ACS release requires publishing
 - At least one pre-release
 - From “integration/COMMON-YYYYMMM”
 - At least one release
 - Phase B tests finished
 - Tickets merged back to “master”
 - Branch “acs/YYYYMMM” created from “master”
- Pre-releases are communicated to ICT workers mailing list
 - Release notes
 - Tarballs available for download in webdav service
- Releases are not directly communicated to ICT workers
 - Stored as branches for historical purposes
 - Integration branches can be removed or re-created at convenience
 - Released to ACS community in the public repository

Reporting

- Prepare memorandum ~~monthly~~ yearly
 - Year being reported
 - Releases associated with the year of work
 - List of tasks (be them tickets or otherwise)
 - New features implemented
 - Improvements implemented
 - Bug-fixes implemented
 - Distribution of the FTEs of work (2 FTEs as of the moment of writing)
- The report is sent to the head of ICT-CL for review and then sent to ICT-EU.

Improvements - 6 issues

| Key | T | P | Summary |
|-----------|---|---|--|
| ICT-16565 | ↑ | 🟡 | LoggingProxy directory creation should be thread safe |
| ICT-16500 | ↑ | 🟡 | ACSErrorChecker/Subsystem.py should be Python 2 and 3 compatible |
| ICT-16489 | ↑ | 🟡 | Make ACS/Benchmark/analyzer Python 2 and 3 compatible |
| ICT-16479 | ↑ | 🟡 | Make accsim Python 2 and 3 compatible |
| ICT-16462 | ↑ | 🟡 | Bash profile should not select a Python version |
| ICT-15821 | ↑ | 🟢 | ComponentCaller: Use ContainerServices instead of PySimpleClient |

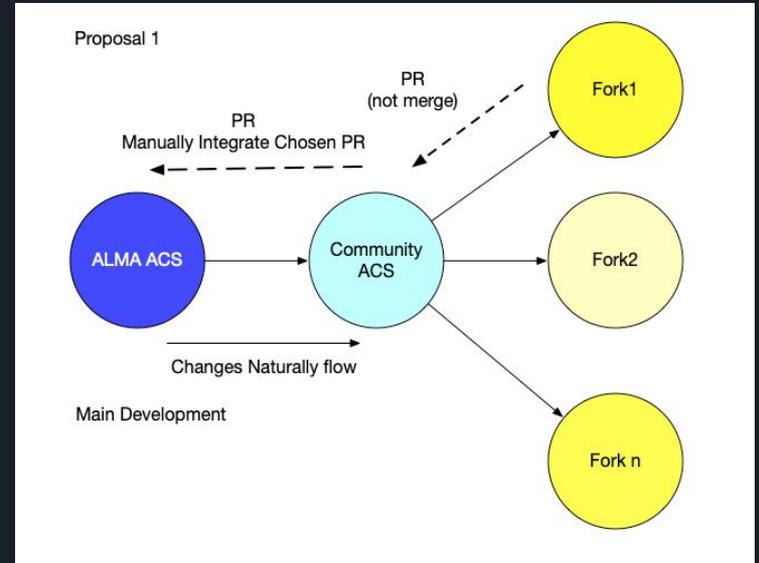
6 issues

Tickets

- All - 259 issues
- Tasks - 121 issues
- Features - 37 issues
- Improvements - 48 issues
- Bug-Fixes - 52 issues

ACS Community

- Coordination
 - Quarterly ACS community meetings
 - Additional meetings with CTA
 - Other on-demand meetings
- Resources
 - Confluence page
 - Public repository
 - Public JIRA project
 - ACS official docker image
 - Official slack space
- ACS workshops
- Collaboration model
 - Natural flow from ALMA to Community
 - Manual integration of community contribution
 - Currently analyzing different model alternatives





References

- <https://confluence.alma.cl/display/ICTACS/Responsibilities>
 - <https://confluence.alma.cl/display/ICTACS/Planning>
 - <https://confluence.alma.cl/display/ICTACS/Release+Tasks>
 - <https://confluence.alma.cl/display/ICTACS/Implementation>
 - <https://confluence.alma.cl/display/ICTACS/Integration>
 - <https://confluence.alma.cl/display/ICTACS/Publishing>
 - <https://confluence.alma.cl/display/ICTACS/Reporting>
- <https://confluence.alma.cl/display/ICTACS/Release+Calendars>
- <https://confluence.alma.cl/display/ICTACS/Requirements+Gathering>
- <https://confluence.alma.cl/display/ICTACS/Release+Notes>
- <http://bh-node221.sco.alma.cl:8080/view/Integration/>
- <http://webdav.sco.alma.cl/>
- <https://bitbucket.alma.cl/projects/ASW/repos/acs>
- <https://confluence.alma.cl/display/ICTACS/Meetings>
- <https://ictjira.alma.cl/projects/ACS>