

Tracking Workflows & Maintenance

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- Jira is the new issues tracker provided via the DESY Atlassian infrastructure:
<https://agira.desy.de>
- You can login with your DESY user account (the same as for stash)
- More people create Jira tickets with bugs and feature requests instead of writing to the Mailing lists


Some Advantages:


- If you set the *Component* of your issue properly, there will always be a responsible person assigned. For Tracking, this is Martin Heck. Martin will probably re-assign the issue to the best suited person
- A *Priority* can be given to items: This helps us to understand what needs to be tackled immediately (with more person-power) and what can wait
- Users can be added as Watchers. This allows to add people who are maybe affected or should at least be aware of the issue, even if they are outside of the tracking group
- Feature branches and pull requests can be directly linked to issues



3/11

Creating a Jira Issue


Create Issue

 **Configure Fields** ▼

Project*  Belle II Software (BII) ▼

Issue Type*  Improvement ▼ 

Summary*

Priority  Minor ▼ 

Component/s ▼

Start typing to get a list of possible matches or press down to select.

Affects Version/s ▼

Start typing to get a list of possible matches or press down to select.

Fix Version/s ▼

Start typing to get a list of possible matches or press down to select.

Description

Style ▼

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☐ Create another **Create** Cancel

Adding Watchers to an Issue



Belle II Software / BII-1836

tracking crashes with multiple hypotheses tracking

Edit

Comment

Assign

More ▾

Reopen Issue

Restart Progress

Workflow ▾

Details

Type:

Priority:

Affects Version/s:

Component/s:

Labels:

Description

It looks like this happens when using genfit::Track objects. I used basf2 reconstruction/examples/example.py -p8 -n 100 to reproduce.

Two different main hypotheses are found, one giving a backtrace with

Agile Board

Rank to Top

Rank to Bottom

Log Work

Attach Files

Attach Screenshot

Voters

Stop Watching

Watchers

Create Sub-Task Manage the watchers of this issue

Convert to Sub-Task

Status:

DONE (View Workflow)

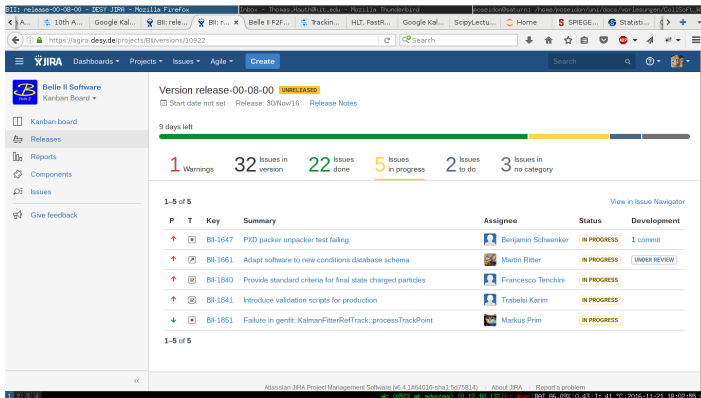
Resolution:

Done

Fix Version/s:

release-00-08-00

- With the *Fix Version* field, you can designate that an issue has to be done for a certain release
- Jira's Release view allows us to easily see which items are still open and being worked on for an upcoming release



The screenshot shows the Jira Release Management interface for the 'Belle II Software' project. The release is 'release-00-08-00' and is currently 'UNRELEASED'. It has a start date of '30/Nov/16'. The release progress bar shows '9 days left'. The summary statistics are: 1 Warning, 32 Issues in version, 22 Issues done, 5 Issues in progress, 2 Issues to do, and 3 Issues in no category. The table below lists the issues associated with this release.

P	T	Key	Summary	Assignee	Status	Development
↑	🔴	BI-1647	PXD packer unpacker test failing.	Benjamin Schwenker	IN PROGRESS	1 commit
↑	🟡	BI-1661	Adapt software to new conditions database schema	Martin Ritter	IN PROGRESS	UNDER REVIEW
↑	🟢	BI-1840	Provide standard criteria for final state charged particles	Francesco Tenchini	IN PROGRESS	
↑	🟢	BI-1841	Introduce validation scripts for production	Trabelsi Karim	IN PROGRESS	
↓	🔴	BI-1851	Failure in genfit: KalmanFitterRefTrack::processTrackPoint	Markus Prim	IN PROGRESS	

Proposal for Jira Tickets for Tracking Work

For Day-To-Day Bugfixes and Features

- Developers are encouraged to create (and update) Jira tickets
- Especially if you encounter a problem/bug which you cannot/won't fix right now: create a Jira ticket so it won't get lost
- Create Jira tickets for problems reported on the mailing list, which cannot be solved immediately and post the Jira link to the mailing list as reference

For Release Bugfixes and Features

- All (Tracking)-Features requested for upcoming release must be created in Jira and `Fix Version` set to the next upcoming release
- Make sure to mark the Jira issues with `Start Review` (and possibly link your Pull Request) to indicate that the development is done for a release
- If a feature or bugfix needs to be postponed to a later release, set the `Fix Version` field to the current release +1 (for example 00-09-00 instead of 00-08-00). This way, the issues won't get *lost*.
- We used this process for release 00-08-00 preparations and it was a great way to stay organized

- More and more algorithms in Tracking rely on MVA(mostly BDT)-based methods and the SectorMap training of VXDTF
- These classifiers need to be re-trained: simulated events, detector data (for example the background filter module), changed file formats, updated tracking algorithms etc.
- It is difficult for developers who did not implement a specific classifier:
 - Which training files are required for the standard reconstruction?
 - How can training files be recreated with the most recent version of the software?
- Mid-term goal: Also document and automatize the training of VXD-TF (2) sector map

Option 1 : Table in Confluence

[Pages](#) / ... / [Software TrackingGroup](#) 

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...

Trainings

[Thomas Hauth](#) posted on 21. Nov. 2016 18:39h - last edited by [Thomas Hauth](#) on 21. Nov. 2016 18:58h

This table lists all training data files which are required in order to run the standard reconstruction.

THIS TABLE CONTAINS EXAMPLE DATA AND IS JUST FOR TEST PURPOSES (YET)

Module Name	Training File Name	How to update	When to update	Expert
TrackFinderCDCAutomaton	RealisticSegmentPairRelationFilter_rev_1.root	run tracking/scripts /trainCDC.py	New Bkg Files xt-Relation Change	Oliver Frost
BackgroundClusterFilter	BackgroundClusterFilter_rev_4.root	run tracking/scripts /trainCDC.py	New Bkg Files	Nils Braun

Option 2 : Documented Shell Script

```
#!/bin/bash

# This script documents and executes the training files which are required by the
# tracking sequence
#
# Add your training script here and make sure to include the following information:
# - Short Description
# - Output files
# - Used by Module
# - When to update
# - Expert

# Train the BDT-based filter which can separate clusters from background hits
# from signal clusters
#
# Output Files: BackgroundClusterFilter.root
# Used by Module: BackgroundClusterFilterModule
# When to update: New background files
# Expert: Nils Braun
basf2 tracking/trackFindingCDC/mva/trainBackgroundClusterFilter.py
# ...
```

Advantage: Can be executed (with a smaller number of events) as part of the validation to ensure none of the trainings is broken. Not-executed code = dead code (see example scripts)

New at KIT: Close Monitoring



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