# Continuous Integration in NOvA

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FIFE Workshop

June 21<sup>st</sup>, 2017

## How We Use Cl

- Runs triggered by commits.
  - 15 minute stand-off to pick up clusters of commits.
  - Uses standard build system
- Runs 1 event in a variety of standard jobs
  - Raw file reformatting
  - Reconstruction
  - Calibration
  - MC Generation
- Integrated into a Slack channel along with commit messages.
  - Makes it very quick to diagnose problems.



testbot success APP 4:57 PM

#### Jenkins Slave user

CI build of NOvA CI SRT workflow for slf6 Succeeded

spambot APP 5:45 PM

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#### p-novaart@ccdcvsvm.fnal.gov r25653 - trunk/CAFAna/XSec

Author: slin Date: 2017-06-19 17:45:03 -0500 (Mon. 19 Jun 2017) New Revision: 25653 M.

CI build of NOvA\_CI\_SRT workflow for slf6 Failed at phase ci\_tests Failures Warnings CI Tes...

CI build of NOvA\_CI\_SRT workflow for slf6 Succeeded NOvA-Art version: trunk Build numb..

testbot failure APP 6:46 PM uploaded this email .

#### Jenkins Slave user

CI build of NOvA\_CI\_SRT workflow for slf6 Failed at phase ci\_tests

spambot APP 9:14 PM uploaded this email >

#### p-novaart@ccdcvsvm.fnal.gov

r25654 - in branches/R17-02-22-legacy-cafs-v1-br/CAFAna: Systs Vars data/xs Author: jwolcott Date: 2017-06-19 21:14:34 -0500 (Mon, 19 Jun 2017) New Revision: 256..

testbot failure APP 10:04 PM uploaded this email .

#### Jenkins Slave user

CI build of NOvA\_CI\_SRT workflow for slf6 Failed at phase ci\_tests

CI build of NOvA\_CI\_SRT workflow for slf6 Failed at phase ci\_tests Failures Warnings CI Tes...

Today

spambot APP 2:13 AM uploaded this email -

p-novaart@ccdcvsvm.fnal.gov

r25655 - in trunk/CAFAna/nue: . systs systs/ppfx

Author: bnayak Date: 2017-06-20 02:13:24 -0500 (Tue, 20 Jun 2017) New Revision: 2565...

testbot success APP 3:03 AM uploaded this email •

#### Jenkins Slave user

CI build of NOvA\_CI\_SRT workflow for slf6 Succeeded

CI build of NOvA CI SRT workflow for slf6 Succeeded NOvA-Art version: trunk Build numb..

- CI has been a real success for us.
  - Has helped us diagnose and fix problems quickly.
    - We build the repository HEAD every night and it is *very* rare that it does not build and run successfully.
  - Avoid bugs when preparing for production releases.
    - This was a common problem in the 2015 production campaign, and lead us to make CI a high priority request.
  - Currently looking into expanding the suite of tests.
    - More specialized samples.
    - Expand to include DAQ and Trigger software suites

### Wishlist

- One big one: reduce friction when adding new tests.
  - I think the key here may be to reduce the required choices that need to be made (directory structure, inputs, etc.)
  - I strongly support "sensible defaults" that can be overridden as a design scheme.