NJOY Status

Jeremy Lloyd Conlin

November 4–6, 2019

Managed by Triad National Security, LLC for the U.S. Department of Energy's NNSA

NJOY21 Updates

5 updates were made to NJOY21:

- 1.0.1 Separate documentation from code
- 1.0.2 Adding `Ngen8` parameter for MATXSR
- 1.0.3 Removes dependency on hopscotch third-party library
- 1.0.5 Adds capability to split `stdoutput` and `stderr`

Update information is available at: `ReleaseNotes.md` file:

NJOY2016 Updates

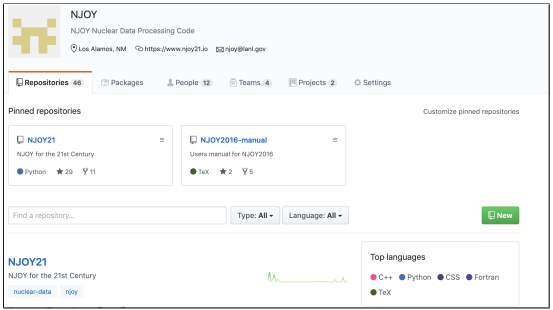
6 updates were made to NJOY2016:

- 2016.44 Corrections to the value of physical constants
- 2016.45 A fix in ACER (a wrong index was used in the XSS array)
- 2016.46 Update to LEAPR documentation included in the source code
- 2016.47 Corrections to the value of physical constants
- 2016.48 Messages were added to the UNRESR module to inform user of evaluation related problems in the calculation of self-shielded cross sections in the URR
- 2016.49 GROUPR now prints MF6/MT16 data for every value of sigma0

Update information is now written to `ReleaseNotes.md` file:

Current NJOY Status

- **Production version:** NJOY21
  - Most recent version: 1.0.5 2019-08-25.
- **Legacy version:** NJOY2016.49 2019-02-21.
- NJOY2016 is deprecated
- The NJOY2016 manual is still valid for NJOY21



Getting Help—I need some help

- Send email to njoy@lanl.gov
- Forwarded to several individuals
- Fairly quick response

Getting Help—I have an issue/feature request

Please let us know: https://github.com/njoy/NJOY21

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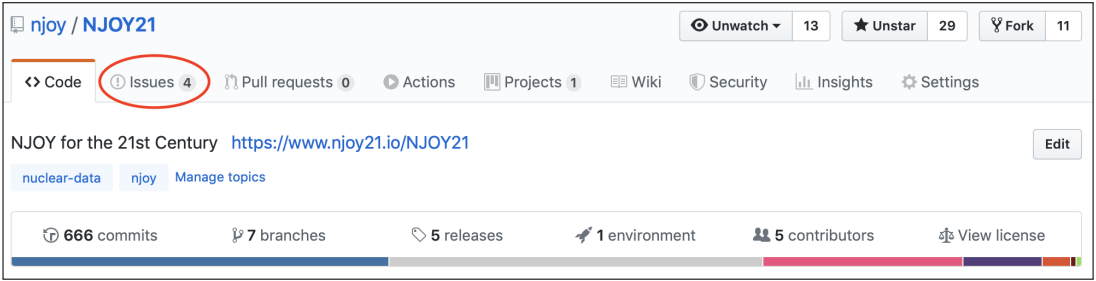

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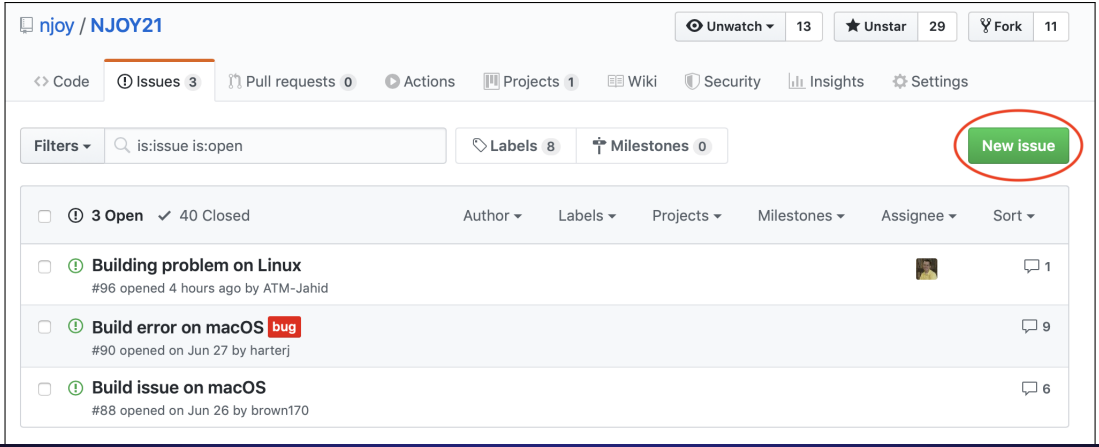

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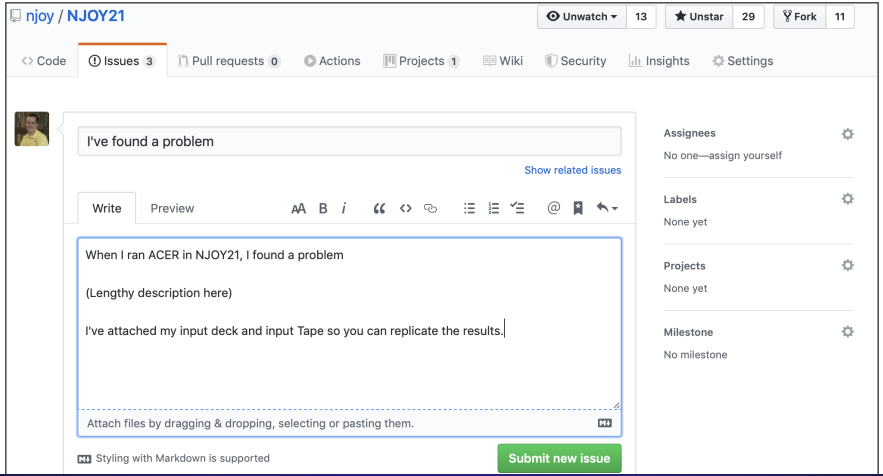


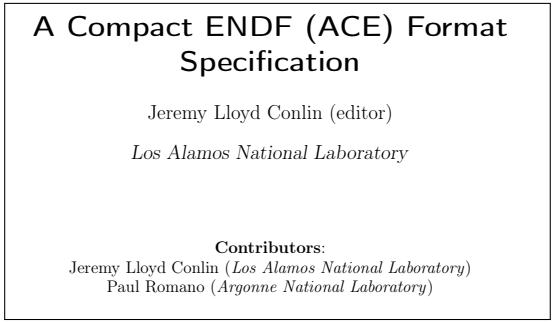
ACE Format Specification

- Formerly in MCNP5 Manual (controlled publication)

Open Availability

- Open Source Release
  LA-UR 19-29016
- github.com/NuclearData/ACEFormat

- $S(\alpha, \beta)$ specification by Paul Romano
- Still incomplete—help requested



A Compact ENDF (ACE) Format Specification

Jeremy Lloyd Conlin (editor)

Los Alamos National Laboratory

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Conclusions

- We are still working on NJOY21 as fast as resources allow
- NJOY2016 continues to receive bug fixes (Wim Haeck)
- ACE Format Specification now available on GitHub

WPEC SG-43 Status Report

Code Infrastructure to Support Generalized Nuclear Database Structure (GNDS)

Jeremy Lloyd Conlin

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