ADVANCE Continuous Integration Updates

Enhancements and Improvements in Code, CI/CD, and Reporting

Rebecca Coles

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Overview of ADVANCE Updates

- Code Cleanup and Optimization
- ADVANCE and ENDF Repositories Continuous Integration and Continuous Deployment (CI/CD)
- Markdown Report Automation
- Wiki Report Automation (in development)

Code Cleanup and Optimization

- Optimized and cleaned an older codebase with years of continuous development.
- Added more comments and aligned the code with current standards.
- Improved readability and maintainability.

```
class PlotGenerator:
    """
    Base class for all of the plot reports for all the kinds of ENDF sublibraries

    The driver codes for generating the plots are plot_evalualtion.py and plot_covariance.py and fpy_view.py.
    The plot_evals.py code has a bunch of "potential" observables.  Only crossSection, formFactor,
    anomolousScatteringFactor, and energyTransfer are ready for production.  The other codes are not
    ready for production at all.
    """

    def __init__(self):
        self.results = {}

    def make_plots(self, prefix, observable, filesToPlot, verbose=False):

        myCommand = ['plot_evaluation.py', '--observable', observable, '--showParts', '--skipBadData', '--continuumSpectraFix', '-o', prefix
        if verbose:
            print("\n---->", os.getcwd(), '\n')
```

ADVANCE CI/CD Integration (1/2)

Integrated ENDF GitLab repositories with auto-updating Wiki pages.

Each ENDF repository now has:

- A Wiki showing recent commits.
- Output products from ADVANCE.
- Status of analysis.

ENDF / library / gammas / Wiki / **Gammas Artifacts**

Gammas Artifacts

Last edited by **Rebecca Coles** 11 months ago

Atomic Number (Z)	Symbol	Atomic Mass (A)
001	H	002
002	He	003
003	Li	006, 007
004	Be	009
006	C	012, 013, 014
007	N	014, 015
008	O	016, 017, 018
009	F	019
011	Na	023
012	Mg	024, 025, 026
013	Al	027
014	Si	027, 028, 029, 030

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ADVANCE CI/CD Integration (2/2)

Integrated ENDF GitLab repositories with auto-updating Wiki pages.

ENDF / library / gammas / Wiki / Gammas artifacts / g 006_C_012

g 006_C_012

Edit

Last edited by **GAMMAS_ACCESS_TOKEN** 1 week ago

Last updated: 2024-11-04 15:39:56.647397

Legend: success = 👍, failed = 👎, warning = ⚠, canceled = ✕, pending = ◯, running = ◯, manual = ◯, scheduled = ◯, ❓ = Default emoji for unknown status

👍 verify_endf 2024-11-04 15:39:56.647438
Job Status: Job Details
Artifacts created by this job: None

👍 verify_endf 2024-08-30 20:17:06.262207
Job Status: Job Details
Artifacts created by this job: None

👍 verify_endf 2024-08-02 22:40:54.176101
Job Status: Job Details
Artifacts created by this job: https://git.nndc.bnl.gov/api/v4/projects/25/jobs/18208/artifacts

👍 verify_endf 2024-08-02 22:40:36.812678
Job Status: Job Details
Artifacts created by this job: https://git.nndc.bnl.gov/api/v4/projects/25/jobs/18208/artifacts

On this page
Last updated: 2024-11-04 15:39:...

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- g 002_He_003
- g 003_Li_006
- g 003_Li_007
- g 004_Be_009
- g 006_C_012
- g 006_C_013
- g 006_C_014
- g 007_N_014
- g 007_N_015
- g 008_O_016
- g 008_O_017

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Markdown Report Automation

- ADVANCE now automatically generates Markdown reports detailing analysis results.
- Reports summarize code runner outputs.
- Planned improvements: Transitioning outputs to individual Wiki pages for better user accessibility.

NNDC

National Nuclear Data Center

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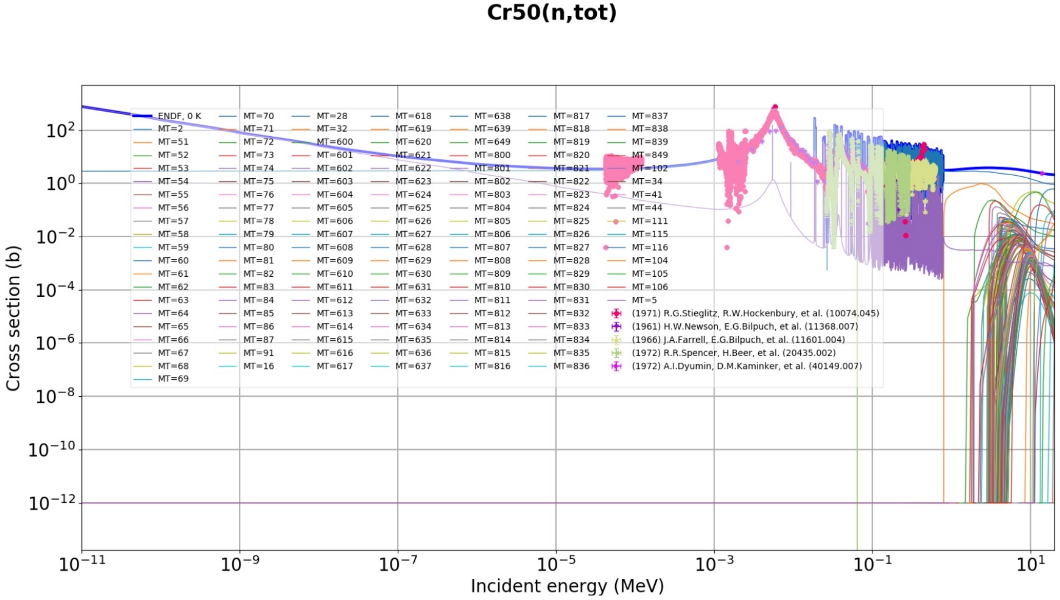
0.1 Cross Sectional Energy Plots (n024 Cr050)

The EXFOR data is taken from the EXFOR library. Note: if the number of available EXFOR sets is large, they will not be listed in a plot legend.

0.2 Aggregate Channels Including Total

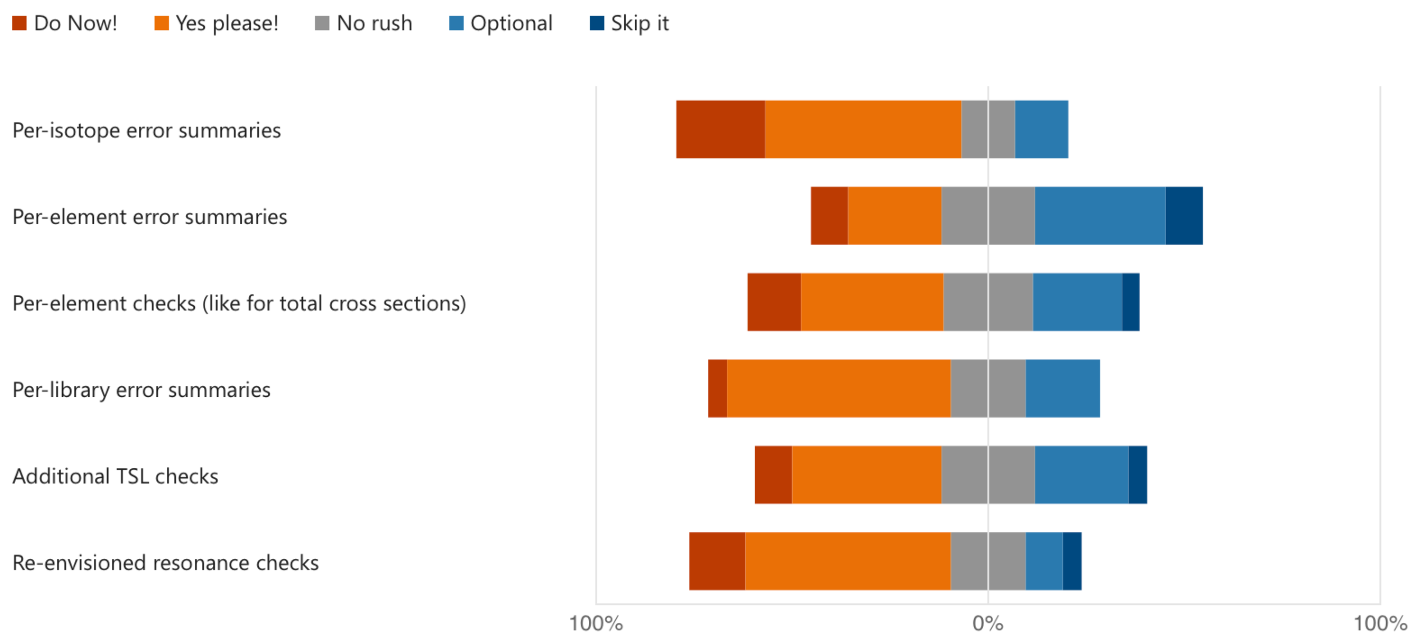


Current Challenges and Next Steps

- Migrating Markdown reports to Wiki-based output.
- Continuous optimization of CI/CD pipelines.
- Expanding the testing suite and further automating quality checks (adding AMPX to ADVANCE).

ADVANCE CI/CD: Please help us prioritize what features to (re)enable into the ADVANCE CI/CD system.

More Details



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ENDF Wikis (Quick Links)

Alphas: https://git.nndc.bnl.gov/endf/library/alphas/-/wikis/Alphas-Artifacts

Atomic Relax: https://git.nndc.bnl.gov/endf/library/atomic_relax/-/wikis/Atomic-Relax-Artifacts

Decay: https://git.nndc.bnl.gov/endf/library/decay/-/wikis/Decay-Artifacts

Deuterons: https://git.nndc.bnl.gov/endf/library/deuterons/-/wikis/Deuterons-Artifacts

Electrons: https://git.nndc.bnl.gov/endf/library/electrons/-/wikis/Electrons-Artifacts

Gammas: https://git.nndc.bnl.gov/endf/library/gammas/-/wikis/Gammas-Artifacts

Helium3s: https://git.nndc.bnl.gov/endf/library/helium3s/-/wikis/Helium3s-Artifacts

Neutrons: https://git.nndc.bnl.gov/endf/library/neutrons/-/wikis/Neutron-Artifacts

Neutron FPY: https://git.nndc.bnl.gov/endf/library/nfy/-/wikis/Neutron-FPY-Artifacts

Photo-Atomic: https://git.nndc.bnl.gov/endf/library/photoat/-/wikis/Photo-Atomic-Artifacts

Protons: https://git.nndc.bnl.gov/endf/library/protons/-/wikis/Protons-Artifacts

Spontaneous-FPY: https://git.nndc.bnl.gov/endf/library/sfy/-/wikis/Spontaneous-FPY-Artifacts

Thermal Neutron Scattering: https://git.nndc.bnl.gov/endf/library/thermal_scatt/-/wikis/Thermal-Neutron-Scattering

Tritons: https://git.nndc.bnl.gov/endf/library/tritons/-/wikis/Tritons-Artifacts

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