A modern nuclear database structure beyond the ENDF format

NEA/WPEC Sub Group 38 Report

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We've made excellent progress toward the development of a modern database structure/representation

- Detailed requirements have been drafted and reviewed in 3 documents
  - Many thanks to David Brown, Bret Beck and Caleb Mattoon for documentation efforts
  - High-level vision and requirements
  - Basic numeric and text data
  - Particle information
  - Reaction information

  } *Finished!?*

- Initial specifications will be finished (I hope this week!)
  - Terminology/conventions chosen
  - Hierarchy agreed to, what's required versus optional
  - Still capturing it all into a written document

  } *Will continue to evolve under version control.*

I propose to close SG38 with a summary report that references all documentation prepared by SG38

Two new subgroups will carry the effort to modernize our nuclear data infrastructure

Extended Group: Recommended definition for a General Nuclear Database Structure (EG-GNDS)

- A long-term sub-group to serve as a governance body
- Promote format, infrastructure into the future

New subgroup (SG-43): Code infrastructure to support a general nuclear database structure

- Code infrastructure will enable international adoption
- There is a lot of work to do -- a separate focused effort
- After completion, long-term subgroup can oversee efforts

Proposed approach for this week

- Try to finish writing the specifications documentation
- Discuss and conclude areas where we can come to agreement
- Areas for further work where there are still disagreements
  - Capture current state of affairs in GND/Fudge
  - Capture reason for diagreement and EG-GNDS will have to take them up in the future