OAK RIDGE National Laboratory

Status of GNDS Support in AMPX

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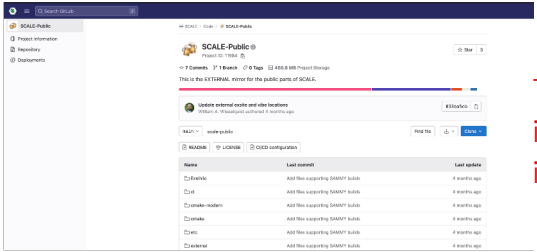
AMPX OPEN SOURCE AVAILABILITY

An open source subset of SCALE, including AMPX, is available at `https://code.ornl.gov/scale/code/scale-public`.

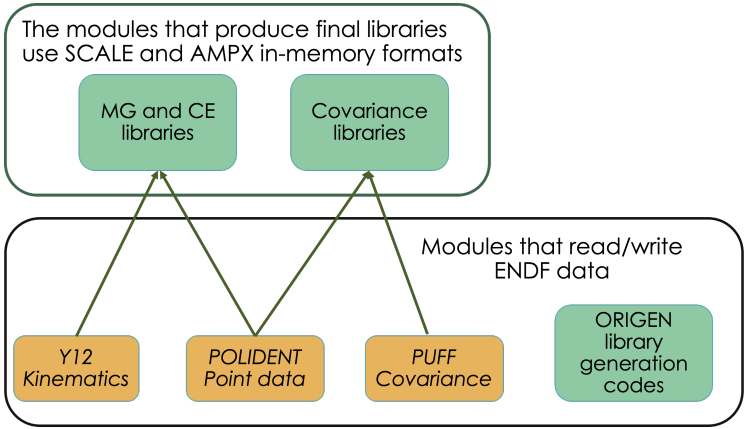
All components of AMPX can be built and utilized.

The AMPX GUI, ExSite, may be found at `https://code.ornl.gov/scale/code/external/exsite`.



This open-source subset of SCALE is available as a beta release, and is subject to change.

OVERVIEW OF GNDS SUPPORT IN AMPX



The processing codes use AMPX's in-memory structures, which are in turn populated by "wrappers" that directly access the ENDF or GNDS formatted files.

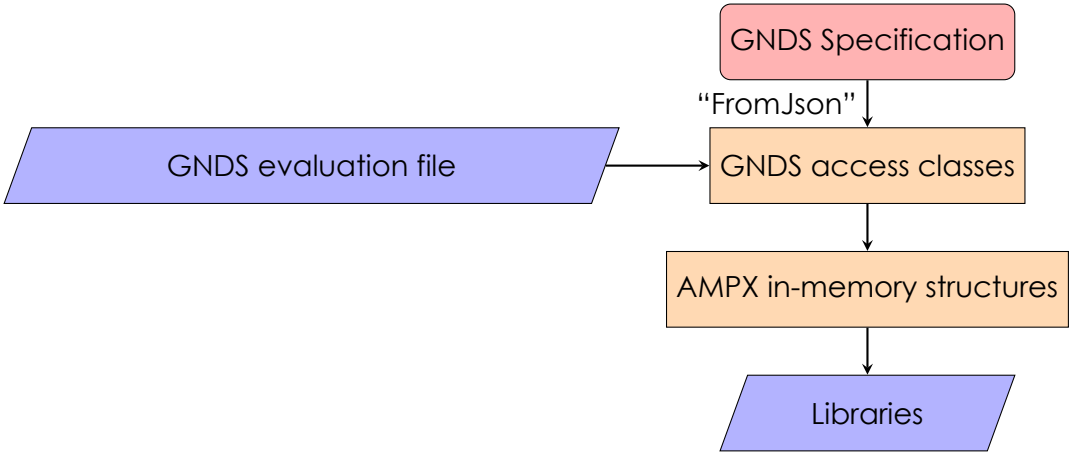
This decoupling enables the processing codes to be agnostic to the on-disk format.

OVERVIEW OF GNDS SUPPORT IN AMPX

- Several low-level access classes are used to access the GNDS files.
  - These classes are generated from the GNDS specification by a `FromJson` utility
- Code has been updated to work with GNDS-2.0
- The GNDS low-level access classes are available at `https://code.ornl.gov/scale/code/external/gnds`
  - The branch that supports GNDS-2.0 is available at:

`https://code.ornl.gov/scale/code/external/gnds/-/tree/GNDS-2.0`

GNDS IN AMPX PROCESS



GNDS IN AMPX "CHECKLIST"

- ✓ Resonance data
- ✓ Point data
- ✓ Covariance data
- TODO Kinematic data

CONTINUING EFFORT

- Sharing of code between AMPX and SAMMY
  - Using AMPX code for ENDF format I/O in SAMMY under development
  - GNDS format I/O will immediately follow
- Finalization of GNDS-2.0 support

CONCLUSION

- AMPX can be built from the open source repo:
  `https://code.ornl.gov/scale/code/scale-public`
- AMPX support for the GNDS library continues. Public repo for GNDS compatibility layer:
  `https://code.ornl.gov/scale/code/external/gnds`

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