

Workshop on validation and implementation of NDS-Java  
Triangle Universities Nuclear Laboratory  
Secretary: J.H. Kelley  
May 9-11, 2016

Participants: Balraj Singh, Jun Chen, Jagdish Tuli, Libby McCutchan,  
Filip Kondev, Shamsu Basunia, Grace Sheu, John Kelley.

Meeting start and welcome: Prof. Calvin Howell

The first order of business was to clarify the objectives. The aim was to arrive at the final description of changes in the NDS-Java code that will describe the appearance of the .pdf output file produced by Latex'ing the NDS-Java code output. We concluded the focus would be on verifying the *completeness* of the output, the *legibility* of the information and the *aesthetic* presentation.

Dr. Bajraj Singh began with a thorough overview on the history of Nuclear Data Sheets and the development of the NDS-Java code. Along with the history, it is highlighted that output from the code has already been used to produce some drawings published in NDS.

[http://www.tunl.duke.edu/~gsheu/NDS/JAVA\\_NDS\\_TUNL\\_Working\\_Group\\_09may16.pdf](http://www.tunl.duke.edu/~gsheu/NDS/JAVA_NDS_TUNL_Working_Group_09may16.pdf)

At the end of Balraj's presentation, the group developed an outline of the agenda for the meeting. While the outline was thoughtful, the topics blended and the discussion was permitted to freely transition across boundaries.

Agenda: as developed at the meeting.

1. Discussion on General Structure of the Output
  - a. Tables
  - b. Drawings
  - c. Comments (including flagged footnotes)
  - d. References
2. Translation
3. Execution of the program
  - a. Distribution/installation
  - b. Control file
4. Specialized comments
5. Implementation

Dr. Jun Chen followed with an overview that explained some of the NDS-Java development philosophy. In the presentation, some differences between NDS-Java and NDS-Pub were highlighted. Jun demonstrated how the code should be run, and explained some new capabilities that have been added.

[http://www.tunl.duke.edu/~gsheu/NDS/JAVA\\_NDS\\_workshop2016\\_JunChen.pptx](http://www.tunl.duke.edu/~gsheu/NDS/JAVA_NDS_workshop2016_JunChen.pptx)

June 2016 version of the codes:

[http://www.tunl.duke.edu/~gsheu/NDS/McMaster\\_MSU\\_JAVA\\_NDS\\_v3-6-16.zip](http://www.tunl.duke.edu/~gsheu/NDS/McMaster_MSU_JAVA_NDS_v3-6-16.zip)

- I. The group made a general agreement on the open discussion format for raising points of concern from notes. And the wild rumpus began. Issues were raised, item by item, and those present discussed the best solution. Issues raised are summarized in detail in the **Appendix of detailed items (available at [http://www.tunl.duke.edu/~gsheu/NDS/NDS\\_Java\\_minutes\\_updated\\_JunChen.docx](http://www.tunl.duke.edu/~gsheu/NDS/NDS_Java_minutes_updated_JunChen.docx) )**.

- II. Translation issues were covered throughout the discussions. The utilization of the dictionary and present limits on updates, etc. pose a logistic problem for individual users.
- III. Execution of the code. Covered throughout.
- IV. Specialized comments. Covered throughout.
- V. Implementation
  - a. Next major version is expected in July, with a major update to follow in August (to implement more difficult suggested changes in drawings).
  - b. XUNDL submissions will be used to evaluate NDS-Java performance.
  - c. NSDD/NDS submissions will utilize NDS-Java for the review process starting in August.
  - d. Aim for January transition to publish Nuclear Data Sheets manuscripts using NSD-Java.

A Summary of the workshop findings follows.

- 1. The move from NSD-pub to NDS-Java is favored.
- 2. All present are agreeable to the new format with the suggested tweaks added. Prior to the workshop, the attendees had sought input from users that critiqued the proposed new presentation. Those comments carried a clear favorability toward the changes present in the NDS-Java output.
- 3. Jun and Balraj have done an outstanding job

Close of meeting.