

**Nuclear Data Section
International Atomic Energy Agency
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Memo CP-D/433

Date: 2 May 2005
To: Distribution
From: V. Zerkin

Subject: Meeting "EXFOR-CINDA: revision of contents, compilation and plans", Vienna, IAEA, 26-28 April 2005.

The main purpose of the meeting was to discuss in details the algorithm for the import of information from EXFOR to new CINDA (extended by charged particles, photo-nuclear and missing neutron reaction data), and define the steps that should be taken by nuclear data centres to produce the new common CINDA database. Other important tasks and problems were discussed: contents of CINDA and EXFOR databases, compilation process, plans regarding CINDA database, ongoing project merging of NNDC and IAEA versions of EXFOR database (see Appendix).

Apart from many technical decisions, listed in detail below, a major result was that the final "new CINDA" file, partly generated by conversion from EXFOR, should be based on the new common EXFOR master file (which will be available as of 1 July). As a consequence, the deadline for the generation of the final new CINDA file is shifted accordingly, and that NDS will also maintain a common CINDA Master file.

Main decisions:

EXFOR:

1. EXFOR Merging project.
 - 1.1. NNDC and NDS will continue work on Merging project; deadline: 01/07/2005
 - 1.2. NEA-DB will prepare and send to NDS their Area-2 EXFOR data for comparison with NDS data; NDS will run comparison software; deadline: 12/10/2005
2. EXFOR editor.
 - 2.1. NDS will contact JCPRG about availability of their EXFOR editor for all compilers, and possibility to place it on other sites (NNDC and NDS) as well.

CINDA:

1. Production of new CINDA database
 - 1.1. Import from EXFOR
 - 1.1.1. NDS will implement all remarks in the algorithm of import EXFOR to CINDA software (multiple Labs and Products will not be implemented, upon the decision of next NRDC meeting), including new Dictionary-system; deadline: 01/07/2005

- 1.1.2. NEA-DB will compare old (VMS-backup) CINDA contents from NDS with their CINDA contents for Area-2; send missing lines to NDS; deadline: 01/07/2005
 - 1.1.3. NDS will run importing software on the basis of common EXFOR and NDS-CINDA after 01/07/2005
 - 1.1.4. NDS will prepare CINDA-Trans for every Area (including Area-2 and Area-1) with CINDA lines and log information for checking in all core Nuclear Data Centre; deadline: 15/09/2005
 - 1.1.5. All core Nuclear Data Centers will check Trans files (exchange and reader) and send corrections and comments to NDS; deadline: 12/10/2005.
 - 1.1.6. NDS will produce common CINDA database and send it to all Nuclear Data Centres; deadline 31/12/2005
- 1.2. Import from MSU Photonuclear-Index database: NDS will contact V.V.Varlamov to agree this topic.
2. CINDA editor. NDS will send CINDA editor software to all Centres for testing and feedback; deadline: 01/07/2005
3. CINDA book. NEA-DB will create software for producing CINDA book on the basis of the new CINDA database; deadline: approx. 01/07/2006; decision on when next book will be printed will be made later by NEA-DB, and will be communicated to the network.
4. CINDA contents maintenance (central storage). NDS will implement procedure making available full CINDA database (as backup) together with Trans files through the Web (similar to EXFOR Master/Trans files); deadline: 01/03/2006
5. Indexing ENDF libraries in CINDA. NEA-DB and NDS will explore ways to do this automatically for existing and non-existing CINDA lines. Deadline: 12/10/05
6. NDS will work out the possibility (and prepare software) for producing automatically CINDA Trans files from EXFOR Trans and from NDS local literature coverage control database; deadline: 12/10/05
7. CINDA Manual. Current changes will be done in NEA-DB with help of NDS. Concept of blocking should be explained in the manual.
8. CINDA Service. CINDA will be available on Web (NEA-DB, NDS, NNDC), on CD-ROM (NEA-DB and NDS), as book (NEA-DB and via NDS)
9. CINDA future. 3 Centres will explore following possibilities: XML format, introducing "Project" feature to simplify compilation.

Meeting "EXFOR-CINDA: revision of contents, compilation and plans"
Vienna, 26-28 April 2004

Participants*:

- Hans Henrikson, NEA-DB (EXFOR-CINDA manager; CINDA Manual)
- Dimitri Rochman, NNDC (EXFOR compiler)
- Svetlana Dunaeva, IAEA (EXFOR, CINDA compiler)
- Otto Schwerer, IAEA (EXFOR NRDC coordinator; Dictionaries manager)
- Viktor Zerkin, IAEA (Meeting Officer, EXFOR-CINDA-ENDF software developer)
- *Stanislav Maev, IPPE, Obninsk, was unable to attend

Agenda:

26/04/2005

1. EXFOR statistics at NNDC (Dimitri): contents, types of search, types of users
2. EXFOR Merging project: overview (Otto), software (Viktor)
3. Dictionaries: last update (Otto)
4. Digitizing software: results of benchmark (Svetlana)
5. Compilation to EXFOR (coverage journals by centers: Memo-reminder)
6. Import from EXFOR to CINDA in NDS (Viktor)
 - a) algorithm of import
 - b) possible organizational procedures (exchange, connections, error analysis)
 - c) statistics
 - d) conversion in NEA-DB (Hans): Area-2 statistics
7. Discussion of NDS algorithm, weaknesses, corrections

27/04/2005

1. CINDA input: Editor (Viktor)
 - a) program: demo / discussion
 - b) exchange via central storage in NDS
2. CINDA blocking: proposal of a new concept: Projects, multi-line input, etc.(Viktor)
3. Indexing ENDF in CINDA?
4. Coverage control in NDS (Svetlana)

28/04/2005

1. CINDA Manual (Otto, Hans): explain blocking conceptually
2. Organization of compilation to CINDA
 - a) options: automatically from EXFOR-Trans and/or manual editing (Viktor)
 - b) proposals of participants
3. Organization of work to produce new CINDA contents
 - a) actions: prepare Memo from the Meeting about procedure of creation of new CINDA in details
 - b) deadlines
4. Centres' plans regarding CINDA.
Web services, CD-ROMs, book, database implementation, extensions
(+ relations with NSR)
5. Conclusion