

MEMO CP-C/60

Date: August 22, 1979
From: S. Pearlstein
Subject: Protocol Updates

Reference: Memos CP-C/54, CP-D/83

The revised protocol with the Paris revisions was transmitted in Memo X4-79/5 (April 3, 1979). (This probably crossed in the mail with Memo CP-D/83). The updates proposed are in reference to this version.

Enclosed is a complete copy of the Protocol produced by our text formatting program (RUNOFF) with the proposed changes marked.

In reply to Memo CP-D/83:

Paragraph E.2 was changed in the April 1977 revision which was adopted at the Kiev meeting.

The changed marked on item F.3 was left from the June 1978 revision. NNCSC was changed to NNDC.


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PROTOCOL FOR COOPERATION BETWEEN
NATIONAL NUCLEAR DATA CENTRE, NEA-DATA BANK,
IAEA NUCLEAR DATA SECTION AND CENTRE PO JADERNYM DANNYM
FOR THE SYSTEMATIC EXCHANGE OF NEUTRON DATA INFORMATION

Original Draft - April 1972

Revised - April 1977, June 1978, October, 1979

A. DEFINITIONS

1. Neutron Data Information in the context of this protocol is defined to mean measured microscopic experimental data which have resulted from neutron physics experiments, and their associated bibliographic and physical descriptive information.
2. The Exchange Format, or EXFOR, is a computer-compatible set of agreed upon definitions and conventions, designed for the transmission of neutron data information between neutron data centres.
3. The EXFOR Manual, comprising the currently agreed set of EXFOR definitions, conventions, formats and codes, is designed to serve as the basis and guide for the description and coding of neutron data information in EXFOR and for data transmission between neutron data centres.
4. EXFOR data is defined as all neutron data information coded and exchanged in EXFOR.
5. Service Areas of the Four Centres

The responsibility for the collection, compilation and dissemination of neutron data information is shared among the four major neutron data compilation centres, each being responsible for a defined service area.

The four centres and their respective service areas are:

- a) The National Nuclear Data Center (NNDC), at the Brookhaven National Laboratory, services the USA and Canada.
- b) NEA-Data Bank (NEA-DB), at Saclay (France), services the non-American member Countries of the OECD.
- c) The USSR Centre po Jadernym Dannym (CJD) at Obninsk (USSR) services the USSR.
- d) The IAEA Nuclear Data Section (NDS) in Vienna services IAEA Member States not included in the service areas of the above three centres, that is countries in Eastern Europe, Asia, Africa, South and Central America, and Australia and New Zealand.

B. FOUR-CENTRE COMMITMENT

1. Within the scope of this protocol each centre is expected to compile the data measured in its service area as fast and as thoroughly as possible.
2. The four centres agree that "new" data should be coded in EXFOR (where new is defined as data collected by the centres at the time of, or after, formal transmission of data was initiated). This does not preclude the transformation of "old" data into EXFOR.
3. Each centre may compile data measured outside its service area. Regular transmission of EXFOR data from any one centre shall include data only from its own service area.
4. Each centre shall keep an archival copy of the latest version of each of the EXFOR entries which it originated and shall be ready to provide the data to any centre should it be required.

C. IMPLEMENTATION OF EXFOR

1. Implementation schedule

- a) The date after which all "new" data should be coded into EXFOR is 1 July 1970.
- b) Data tapes will be exchanged regularly between the four centres at a maximum interval of three months, with the possibility to transmit timely data at more frequent intervals. If deemed necessary, a stricter, or less rigid schedule could be agreed upon at any time in the future.

2. Method of data transmission

- a) EXFOR data will be transmitted in accordance with the conventions laid down in the EXFOR Manual.
- b) Only the character set specified in the EXFOR Manual is permitted.
- c) The working language of EXFOR shall be English, and all free text comments within all EXFOR entries shall be English.

3. Scope of transmitted data

- a) The general scope of EXFOR data will be all experimental microscopic neutron data.
- b) Modifications to the general scope of EXFOR data can be adopted only as a result of an agreement between the four centres.

D. CORRECTIONS, REVISIONS AND DELETIONS OF TRANSMITTED EXFOR ENTRIES

1. Corrections or revisions

In the event of partial corrections or revisions of an EXFOR entry, at least the subentry containing the correction shall be transmitted by the originating centre to the other three centres, in accordance with the conventions laid down in the EXFOR Manual.

2. Accession numbers used

Once transmitted, no accession or subaccession number should be reused for another entry or subentry. The accession number of a deleted entry (subentry) should not be used for another entry (subentry).

E. EXFOR DICTIONARIES

1. Updating of Dictionaries

a) To prevent duplications and conflicts, the NDS is responsible for the coordination and the updating of the EXFOR dictionaries.

b) Alterations (meaning additions, corrections or deletions) to EXFOR dictionaries can be termed consequential, which would entail changes in transmitted data, and thus required Four-Centre approval, or inconsequential, which would not entail changes in transmitted data or Four-Centre approval. Without exception, all changes to Dictionaries 1, 2, 4, 10, 11, 12, 16, 24, 28, 29, 30, 31, 32, 33, 34, and 35 are consequential and require Four-Centre approval.

c) Consequential Dictionary Alterations

Alterations of EXFOR dictionary entries which entail changes to data already transmitted cannot be implemented without specific four-Centre approval.

d) Inconsequential Dictionary Alterations

Proposals for alterations of EXFOR dictionary entries which do not entail changes to data already transmitted, and which do not fall in the Dictionary list given in E.1.b. above, should be submitted by the centres to NDS together with their mnemonic terms and definitions via Four-Centre Memo. NDS shall transmit the approved dictionary entries to all centres simultaneously, in the form of photocopies of the input forms used for the NDS dictionary update program.

e) In their function to update EXFOR dictionaries, the NDS is given some latitude in reformulating the definition, but must not change the meaning without the approval of the originating centre. In questionable cases NDS shall consult with the other three centres for their opinions. It is the responsibility of each Centre to update its own sets of Dictionaries.

2. Routine Transmission of Dictionaries

The NDS will transmit a complete set of dictionaries to the other three centres every three months, as a separate EXFOR transmission.

F. COMPILERS' MANUAL

1. The EXFOR Compilers' Manual, LEXFOR, is designed as a companion to the EXFOR Manual giving more detailed guidelines for compilers on the specification and compilation of the data to be transmitted in EXFOR, as mutually agreed on by the data centres. Included are definitions of physics terms, their nomenclature and interrelations.
2. Changes and revisions to LEXFOR follow the same procedures as with the EXFOR Manual (see section H. below), in accordance with the conventions laid down in the EXFOR Manual.
3. The centre responsible for the updating of LEXFOR is the NNDC.

G. EXFOR COMMUNICATIONS BETWEEN CENTRES

Two forms of documents are used for the proper distribution and referencing of all documentation on EXFOR.

1. CP Memos for the communication of proposals, programming details and other general considerations which touch upon the overall aspect of EXFOR. This series of memoranda are numbered as follows:

Memo-CP-n/m

(where n is the centre identification number, and m the chronological memo number within the centre).

2. Four-Centre Memos for the communication of details dealing only with neutron data or other Four-Centre (non-EXFOR) matters, e.g. WRENDA, CINDA.
3. Exchange Format Memos for the transmittal of updating EXFOR Manual pages. This series of memoranda is issued by the NNDC only, to each of the other three centres, and is numbered as follows:

Memo-X4-m

(where m is the chronological memo number).

H. CHANGES AND REVISIONS OF EXFOR

1. No changes in the structure of EXFOR will be allowed without Four Centre agreement.
2. If any one of the four centres proposes an alteration which would result in changes of the EXFOR structure and content, it will be the responsibility of the centre originating such proposal to obtain four centre agreement, following the procedure outlined in Paragraph H.3, below.

3. The following procedure should be followed by each of the four centres in obtaining the agreement to every one of its proposals to change or revise EXFOR within the context of Paragraph H.2, above; all communications with regard to such proposal shall be in the form of Four-Centre Memos.
 - a) The initial proposal should be disseminated to all four centres.
 - b) In the case where there is discussion on a proposal, the initiating centre shall then collect and digest all comments, suggestions and counter proposals.
 - c) In this review, the initiating centre shall consider such facts which would affect the EXFOR data base and associated computer codes.
 - d) The initiating centre shall then distribute a technical evaluation of alternatives to the other three centres.
 - e) After receiving the response to this technical evaluation, the initiating centre shall:
 - (i) In the case of positive agreement of the six effectively participating centres, (the four centres plus Charged Particle Nuclear Data Group (KACHPAG), Karlsruhe and CAJaD, Moscow), submit the proposed alteration to the centre responsible for the EXFOR Manual updating.
 - (ii) Otherwise, submit it for inclusion in the agenda of the next Four-Centre Meeting.
4. Proposals for changes to be considered at Four-Centre meetings should be sent out one month prior to the meeting date to allow centre personnel time to review them.
5. Whenever decisions are made which require Manual changes, the new updates are to be prepared and sent out at most by one month after the draft minutes are received. The proposed changes should be written into the minutes in such a way that they can be inserted directly into the Manual if they are accepted.
6. The centre responsible for the updating of the Manuals is the NNDC. Within one month after a decision has been made, this centre shall be responsible for producing a sufficient number of copies of the updated pages and distributing them in accordance with an established EXFOR distribution list.
7. The centre responsible for updating the Manual may introduce changes for the purpose of editing. However, proposed Manual wordings submitted in 4C-Memos are entered in the Manual unchanged, unless an objection is expressed in due time. This centre is also responsible for maintaining the internal consistency of the Manual; that means, e.g., to check whether an agreed proposal entails changes (cross-references, etc.) in other parts of the Manual.

8. A change on a Manual page, as compared to its previous version, is marked by a vertical line in the left-hand margin. The date of the latest revision to that page is given in the lower right-hand corner.
9. Further details on changes and revisions to EXFOR are laid down in the EXFOR Manual.

I. CHANGES AND REVISIONS OF THIS PROTOCOL

1. Any change to this Protocol which is deemed necessary shall come into effect only after submission of a proposal and approval at a Four-Centre Meeting.
2. The centre responsible for the updating of this Protocol is the NNDC.