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Memo CP-C/362.

DATE: September 26, 2005
TO: Distribution
FROM: D. Rochman
SUBJECT: Easier comparison between evaluation and experimental data
                   and necessity for a tabulated format

Dear all,

I would like in the following to point out the difficulties to plot together experimental data and evaluation from the present web interface at NDS or NNDC. This memo is in preparation of the 2005 NRDC meeting.

A useful feature of the web interface at http://www.nndc.bnl.gov/exfor/exfor00.htm, or http://www-nds.iaea.org/exfor/exfor00.htm is to perform a clone request with the ENDF database. But it is not easy to plot both results together. For instance, if one is using the quantity "CS" on the EXFOR interface and try a clone request to the ENDF interface, no data are found in the evaluated libraries. This can mislead an inexperienced user.
Then it is not straightforward to plot both requests together (I didn't succeed). Once the ENDF interface is opened, there is no easy way to link experimental data and evaluations.

We also had comments on the necessity to provide EXFOR data in a tabular format. In the present output format, after an EXFOR retrieval, a computational tabular array is proposed. We think that in its present format, it is difficult to manipulate, especially if one wants to use a plotting software, where the expected format is a column for "X", one for "Y" and eventually two columns for "DX" and "DY".

Here is an example of the "TAB" format from the EXFOR interface:

```
REQUEST      587001  20050926     3    101426        0 0  0
PHYSENT        1     0      46 3.5000E+03 1.9500E+06  1 0  0
 0.0000E+00 0.0000E+00 0.0000E+00 0.0000E+00 0.0000E+00 0.0000E+00   1 0   0
 3.5000E+03 5.0000E+02 5.0000E+02 2.0260E+00 0.0000E+00 0.0000E+00   1 1   2
 4.5000E+03 5.0000E+02 5.0000E+02 2.3160E+00 1.9732E-01 1.9732E-01   1 1   1
 5.0000E+03 1.0000E+03 1.0000E+03 1.9140E+00 0.0000E+00 0.0000E+00   1 1   2
 7.0000E+03 1.0000E+03 1.0000E+03 2.0530E+00 1.7533E-01 1.7533E-01   1 1   1
```

We think that this format needs some modifications to answer user's requests. In the goal to facilitate the usage of our web interfaces, it would be useful to discuss this matter at our next NRDC meeting.

Best regards,

Dimitri

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