



Japanese Editor HENDEL software

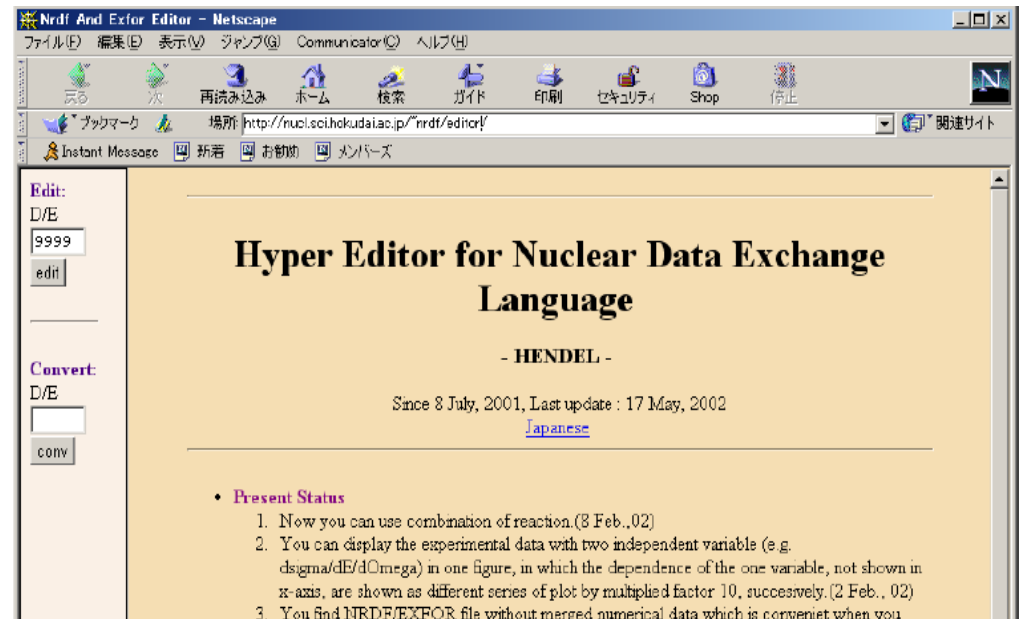
Hokkaido University

JCPRG

Ayano Makinaga

What is “HENDEL” ?

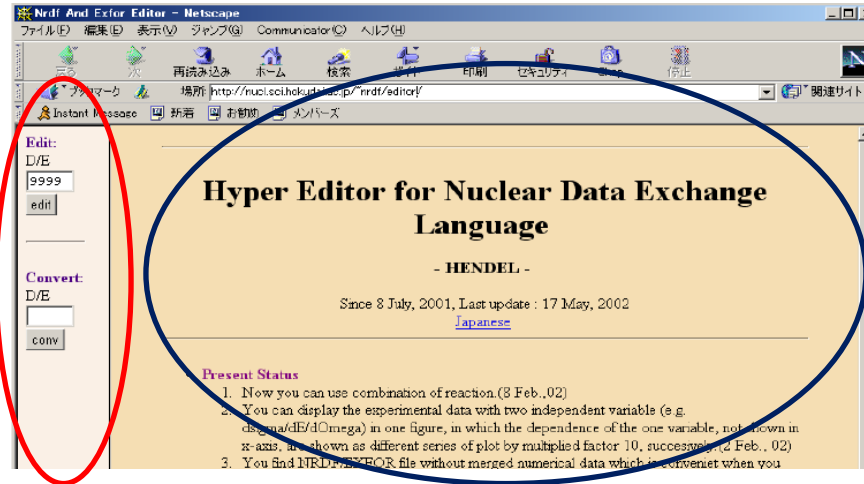
- HENDEL(Hyper Editor for Nuclear Data Exchange Language)
- Web-based compilation editor
- EXFOR file & NRDF file
- Made by N.Otsuka(2001~)
- Plotting system
- Perl lang.



Overview

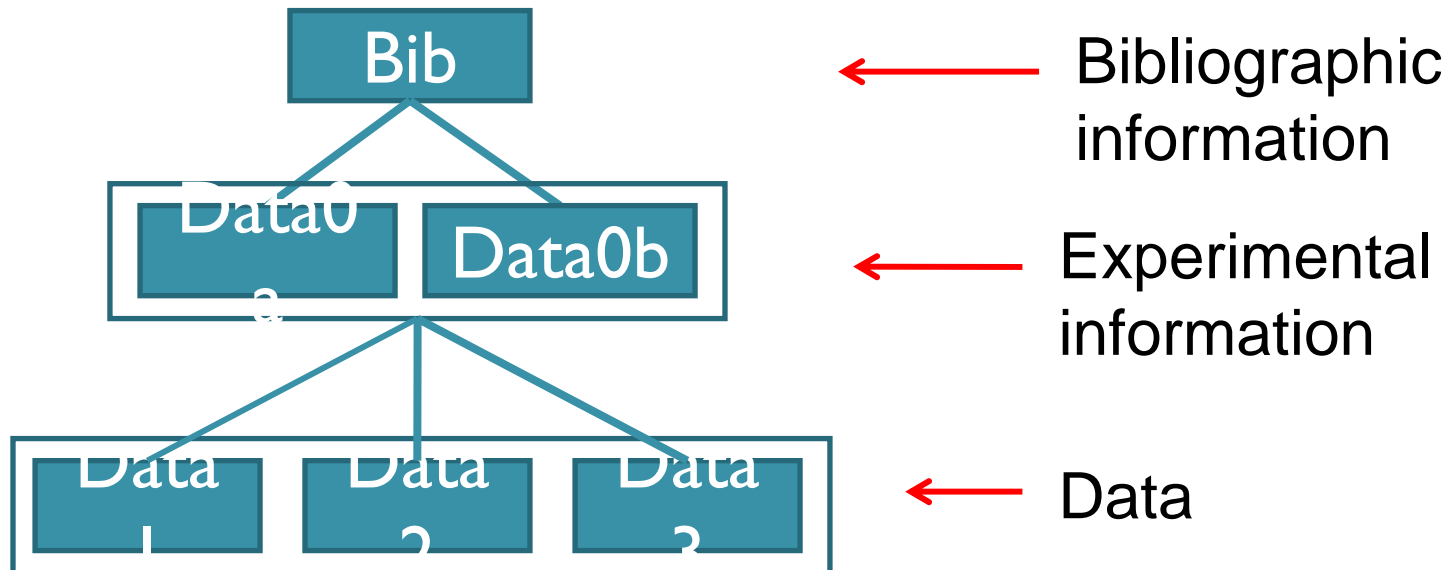
Sub frame

•Control



Main frame

•Input



Main Page

1. Edit:
D/E
9999
edit

3. Convert:
D/E
9999
conv

2. Add or Delete author(s), institute(s) or data section(s).
Following 0 th author .
add 0 author(s) load

D / E 9999
Volume none, none PHYSICAL REVIEW C January, 2000

A short guide to the browser editor "HENDEL"

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[RIP](#)
[Data 0A](#)
[Data 0B](#)
[Data 1](#)
[Data 2](#)
[Data 3](#)

1. D/E number

2. input

3. Convert to EXFOR&NRDF

- Number of authors
- Number of institutes
- Number of data sets

Bibliographic Information

D / E 9999 - Bibliographic Information

Presence is obligatory / Presence is optional

Title
A short guide to the browser editor "HENDEL"

Purpose
To show the usage of newly developed excellent compile editor

Authors Name and Institute ID

1.	N.Otuka	L	<input type="checkbox"/>
2.	E.Noto	E	<input type="checkbox"/>
3.	E.Yoshida	F	<input type="checkbox"/>
4.	A.Ohnishi	F	<input type="checkbox"/>
5.	K.Kato	F	<input type="checkbox"/>

Institutes Name [Institute Dict.](#)

1.	Japan (Meme Media Laboratory, Hokkaido Univ)
2.	Japan (Management and Information, Hokusei G)
3.	Japan (Division of Physics, Hokkaido Univers
4.	JAERI, Tokai (Advanced Science Research Center

Reference ('Month' is optional)

Journal: Physical Review, Part C, Nuclear Physics
Volume: none Year: 2000 Month: Jan
Current Institutes: 1

Japan

- [2ITYTRI](#) (Univ. of Trieste)
- [2ITYIUP](#) (Politecnico di Torino)
- [2ITYTUR](#) (Univ. of Turin)
- [2ITYUBO](#) (Bologna, Univ. + Ist. Naz. di Fis. Nucl)

[Top/ Canada/ USA/ Austria/ Belgium/ France/ Germany/ Italy/ Japan/ Netherlands/ Switzerland/ UK/ Argentine/ Australia/ Brazil/ China/ Czech/ Ind/ Korea/ Poland/ SouthAfrica/ Russia/ Ukraine/ Skip/ Close](#)

- [2JPNFE](#) (Fuji Electric)
- [2JPNAOY](#) (Aoyama Gakuin Univ., Tokyo)
- [2JPNFUK](#) (Fukuoka Univ., Fukuoka)
- [2JPNHIR](#) (Hiroshima, University of Hiroshima)
- [2JPNHIT](#) (Himeji Inst. of Technology, Himeji)
- [2JPNHOS](#) (Hosei University, Tokyo)
- [2JPNHYO](#) (Hyogo Agricult. Univ., Sasayama)
- [2JPNIPC](#) (Inst of Physical and Chemical Res. (RIKEN), Wakou)
- [2JPNISS](#) (Inst of Solid State Physics, Univ. of Tokyo)
- [2JPNJAE](#) (JAERI, Tokai)
- [2JPNICL](#) (Cyclotron Lab., Inst. of Phys + Chem. Res., Satama)
- [2JPNITR](#) (Elect Post Res Com. JFTI Tokyo)

✓ Title

✓ Purpose (NRDF only?)

✓ Authors

✓ Institutes

✓ Reference

We can chose each code from selection list.

Experimental Info. (A)

D / E 9999 - Common Experimental Info. (A)

▼ : Presence is obligatory. / ▼ : Presence is optional.

Reaction

▼ Reaction

- Nucleus:** use right form, e.g. '12C' for carbon 12.
- Natural element:** put mass number 0, e.g. '0Pb' for natural lead
- Elastic process:** choose 'Elastic' at Emit.Part.1. (Do not give Emit.Part.2... and Residual)
- Fission process:** choose 'Fission' at Emit.Part.1. (Do not give Emit.Part.2... and Residual)
- unspecified process:** choose 'X' at Emit.Part.1. or Residual (the selection depends on the case by case).
- Sequential process:** put Emit. Particle 1, Emit. Particle 2... in the order of emission and choose 'Sequential' in Residual.
- If more than two particle is emitted, you may give the particle species and its number in left and right form, respectively.

	Reaction I	Reaction II	Reaction III
Target:	<input type="text" value="incommon"/> <input type="text" value="nocommon"/>	<input type="text" value="none"/> <input type="text" value="none"/>	<input type="text" value="none"/> <input type="text" value="none"/>
Projectile:	<input type="text" value="Proton"/> <input type="text" value="none"/>	<input type="text" value="none"/> <input type="text" value="none"/>	<input type="text" value="none"/> <input type="text" value="none"/>
Emit part 1:	<input type="text" value="Pion+"/> <input type="text" value="none"/>	<input type="text" value="none"/> <input type="text" value="none"/>	<input type="text" value="none"/> <input type="text" value="none"/>
Emit part 2:	<input type="text" value="none"/> <input type="text" value="none"/>	<input type="text" value="none"/> <input type="text" value="none"/>	<input type="text" value="none"/> <input type="text" value="none"/>
Emit part 3:	<input type="text" value="none"/> <input type="text" value="none"/>	<input type="text" value="none"/> <input type="text" value="none"/>	<input type="text" value="none"/> <input type="text" value="none"/>
Emit part 4:	<input type="text" value="none"/> <input type="text" value="none"/>	<input type="text" value="none"/> <input type="text" value="none"/>	<input type="text" value="none"/> <input type="text" value="none"/>
Emit part 5:	<input type="text" value="none"/> <input type="text" value="none"/>	<input type="text" value="none"/> <input type="text" value="none"/>	<input type="text" value="none"/> <input type="text" value="none"/>
Residual:	<input type="text" value="X"/> <input type="text" value="none"/>	<input type="text" value="none"/> <input type="text" value="none"/>	<input type="text" value="none"/> <input type="text" value="none"/>
Combinat:	Reaction I <input type="text" value="none"/>	<input type="text" value="none"/>	<input type="text" value="none"/>

▼ Reaction Type (NRDF)

1:

Information(A)

=> mainly experimental condition

Reaction

✓ Target

✓ Projectile

✓ Emit.part

✓ Residual

Reaction type

(NRDF only?)

Experimental Info. (A)

2: none

Physical Quantity(NRDF)

Physical Quantity(EXFOR) [Reaction Dict.](#)

1. Data in arbitrary units (ARB-UNITS): the modifier **REL** is added to 4th field e.g. "DA,,REL", "POL/DA,,ANA/REL" etc.)
2. Sequential Reaction: If you choose 'Sequential' as Residual, the branch code **SEQ** is needed at the beginning of the reaction type. But you cannot add SEQ by your hand.

Reaction I: DA

Reaction II: none

Reaction III: none

Target Information

Target Enrichment NAT % (NAT for natural element)

Reaction Code Dictionary - Netscape

M+PY	(Product yield, including formation, including isomeric transition)
PAR_PY,G,IT	(Product yield for thick target)
SEQ.PY	(Product yield for special product yield for specific)

Angular distributions, general

[skip](#) [none](#) [nocommon](#) [close](#)

DA	(Differential c/s with respect to angle)
DA_RS	(Differential c/s d/dA * sin(theta))
DA_RSQ	(Differential c/s d/dA relative to sin(theta))
DA_RSD	(Differential c/s d/dA relative to sin(theta) distribution, dff sig/sig(S))
DA_RTH	(Differential c/s d/dA relative to sin(theta) distribution, relative to sin(theta) (Rutherford scattering))

✓ Physical Quantity

✓ Target Info.

- Target Enrichment
- Chemical, Physical form
- Target Thickness

✓ Accelerator Info.

- Accelerator type
- Incident energy, intensity
- Ion source

Code list

✓ Detected particle

Experimental Info. (A)

The screenshot shows a Netscape browser window titled 'D/E9999.Common Experimental Info. (A) - Netscape'. The main page contains sections for 'Physical Quantity(NRDF)' and 'Physical Quantity(EXFOR) Reaction Dict.'. A 'Reaction Code Dictionary' pop-up window is open, listing various codes and their descriptions. A red arrow points from the text 'Code list' below to the pop-up window.

Code	Description
M,PY	(Product yield, including yield, including formation isomeric transition)
PAR,PY,G,IT	(Product yield for thick product yield for specific)
SEQ,PY	(Product yield for specific product yield for specific)
Angular distributions, general	
skip none nocoromon close	
,DA	(Differential c/s with res)
,DA,,RS	(Differential c/s d/dA *)
,DA,,RS0	(Differential c/s d/dA re distribution, dff sig/sig(C
,DA,,RSD	(Differential c/s d/dA re distribution, dff sig/sig(S
,DA,,RTH	(Differential c/s d/dA rel distribution, relative to s (Rutherford scattering))

Code list

✓ **Detector**

- Detector type
- Detector resolution
- Calibration info.
- Monitor reaction
- Efficiency info.

✓ **Additional info.**

- Analysis
- Approvals
- Figure info
- Table info.
- history

Experimental Info. (B)

Experimental info.(B)
=>general, error info.

D / E 9999 - Common Experimental Info. (B)

▼ Presence is obligatory / ▼ Presence is optional

General information for each data

▼ Compound nucleus
()

▼ Intermediate nucleus
()

▼ Q value MeV
()

▼ Tot. Error (1-sigma) %
()

▼ Syst. Error (1-sigma) %
()

▼ Stat. Error (1-sigma) %
()

▼ Normalization

Kinematical Variable

Particle	E value	E unit	E frame	theta (DEG)	theta err. (DEG)	frame (theta)	phi (DEG)	phi err. (DEG)	frame (phi)
Det.Part 1	<input type="text" value="none"/>	<input type="text" value="MeV"/>	<input type="text" value="Lab"/>	<input type="text" value="none"/>	<input type="text" value="none"/>	<input type="text" value="Lab"/>	<input type="text" value="none"/>	<input type="text" value="none"/>	<input type="text" value="Lab"/>

General information

- Compound nucleus
- Intermediate nucleus
- Q value

Total error

- Systematic error
- Statistical error

Normalization

Optical model parameters
(NRDF only?)

Experimental Info. (B)

D/F9999-1:Experimental Information/Data Table - Netscape

ファイル(F) 編集(E) 表示(V) ジャンプ(J) Communicator(C) ヘルプ(H)

戻る 進む 再読み込み ホーム 検索 ガイド 印刷 セキュリティ Shop 停止

ブックマーク 場所 http://nuclsc.hokudai.ac.jp/~nrcf/editor/99999/d9999-1.html 関連サイト

Instant Message 新着 お勧め メンバース

▼ Data Heading 1

NRDF Scattering angle theta in lab. system

(unit) degree

EXFOR ANG (Angle, Laboratory System)

(unit) ADEG (Angular Degrees)

(type) x-linear

Comment none

▼ Data Heading 2

NRDF $d\sigma/d\Omega$

(unit) mb/sr

EXFOR DATA (Value of Quantity Specified under)

(unit) MB/SR (millibarns per steradian)

(type) y-linear

Comment none

▼ Data Heading 3

NRDF Error in $d\sigma/d\Omega$

(unit) mb/sr

EXFOR DATA-ERR (Error in Value of Quantity, defin)

(unit) MB/SR (millibarns per steradian)

(type) y-error (sym.)

Comment none

▼ Data Heading 4

NRDF none

(unit) none

EXFOR none

(unit) none

(type) none

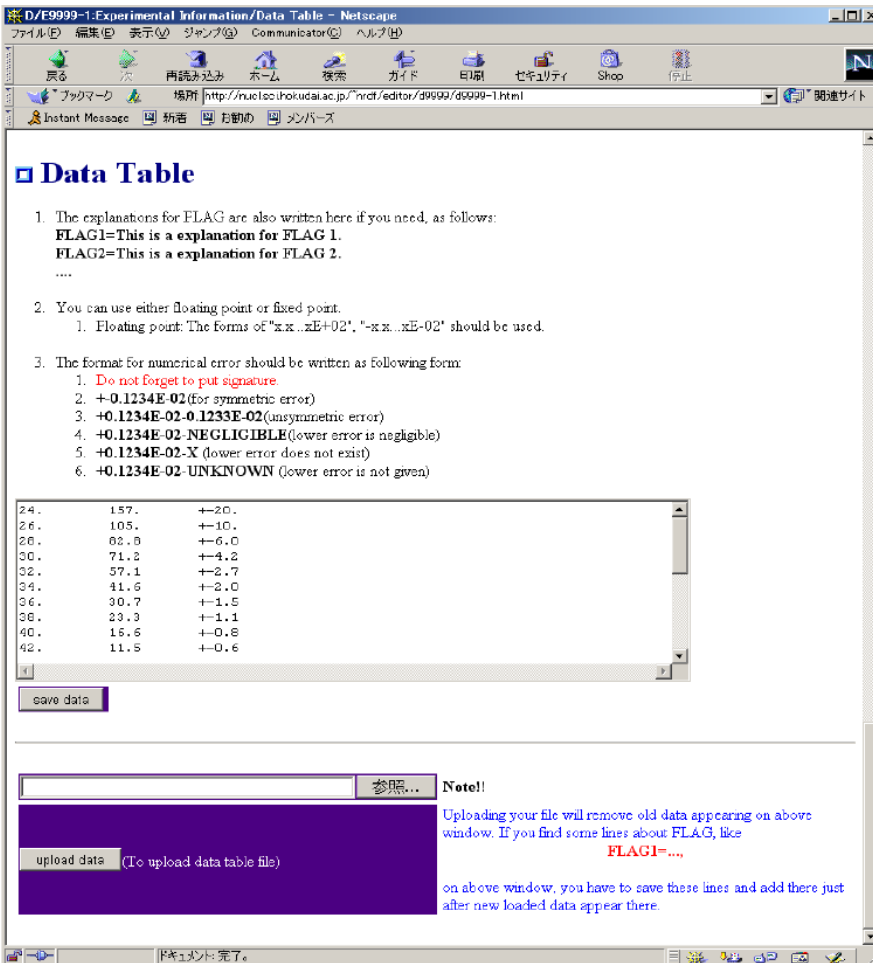
Comment none

コメント:完了。

Data heading

- Heading
- Unit
- Comment

DATA section



Data Table

- The explanations for FLAG are also written here if you need, as follows:
FLAG1=This is a explanation for FLAG 1.
FLAG2=This is a explanation for FLAG 2.
....
- You can use either floating point or fixed point.
 - Floating point: The forms of 'x.x...xE+02', '-x.x...xE-02' should be used.
- The format for numerical error should be written as following form.
 - Do not forget to put signature.
 - +0.1234E-02(for symmetric error)
 - +0.1234E-02-0.1233E-02(unsymmetric error)
 - +0.1234E-02-NEGLIGIBLE(lower error is negligible)
 - +0.1234E-02-X (lower error does not exist)
 - +0.1234E-02-UNKNOWN (lower error is not given)

24.	157.	+20.
26.	105.	+10.
28.	82.9	+6.0
30.	71.2	+4.2
32.	57.1	+2.7
34.	41.6	+2.0
36.	30.7	+1.5
38.	23.3	+1.1
40.	15.6	+0.8
42.	11.5	+0.6

save data

upload data (To upload data table file)

Not!!
Uploading your file will remove old data appearing on above window. If you find some lines about FLAG, like
FLAG1=...,
on above window, you have to save these lines and add there just after new loaded data appear there.

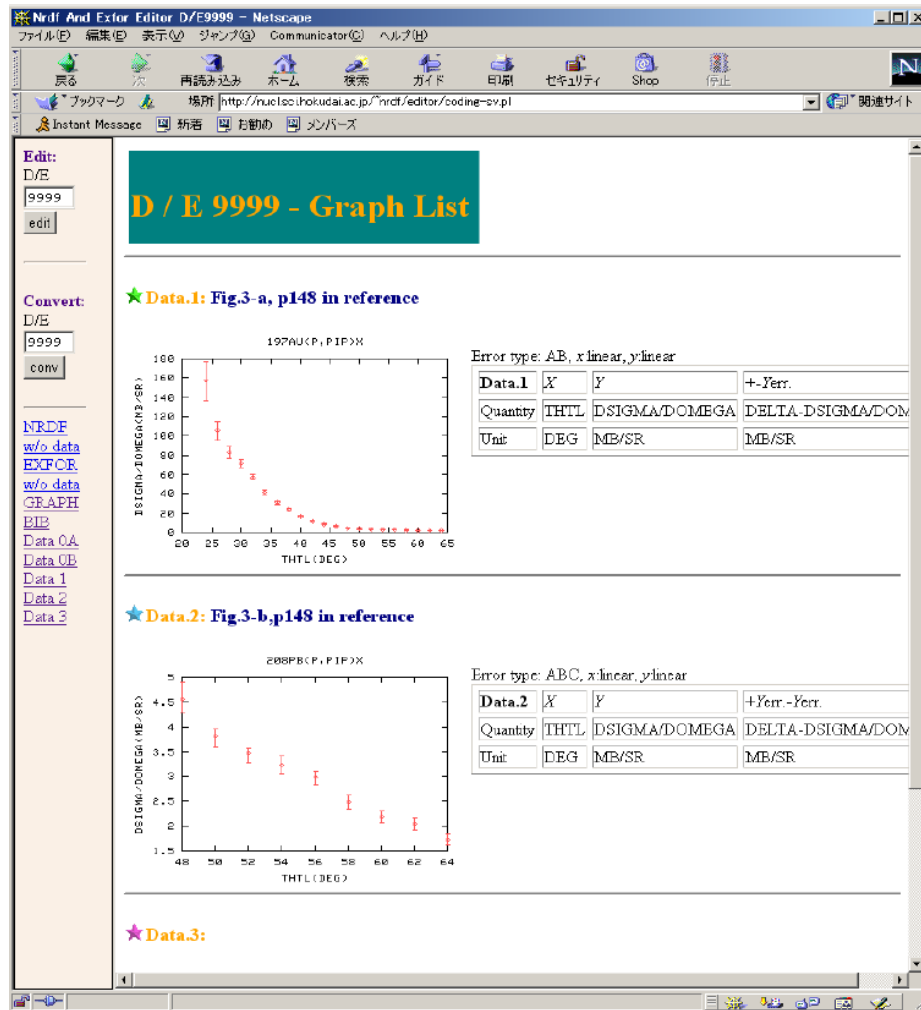
Numerical data From

- ✓ authors
- ✓ digitized with GSYS (k.Tsubakihara's talk)
- ✓ table

Input

- ✓ Input data directly
- ✓ Copy & paste from data files
- ✓ Read data files directly

Plotting system



It is easy to check...

- ✓ the numerical data
- ✓ heading

After the compilation

We push the “convert” button

So, EXFOR & NRDF file are created.

We check the error of the file with CHEN(NRDF) & CHEX(EXFOR) program

The screenshot shows a Netscape browser window with the following content:

- Browser title: **Nrdf And Exfor Editor D/E9999 - Netscape**
- Address bar: <http://ruel.cc.hokudai.ac.jp/~rvdf/editor/coding-sv.pl>
- Page header: **D / E 9999**
- Page content: **PHYSICAL REVIEW C**, Volume none, none, January, 2000.
- Section title: **A short guide to the browser editor "HENDEL"**
- Authors: N. Otuka¹, H. Noto², H. Yoshida³, A. Ohnishi^{3,4}, K. Kato³
- Footnote 1: *Meme Media Laboratory, Hokkaido University, 060-8628 Sapporo, Japan*
- Footnote 2: *Department of Management and Information, Hokusei Gakuen University, 004-8531 Sapporo, Japan*
- Footnote 3: *Division of Physics, Hokkaido University, 060-0810 Sapporo, Japan*
- Footnote 4: *Advanced Science Research Center, JAERI Tokai*
- Form: **Add or Delete author(s), institute(s) or data section(s).**
Following: 0 th author
add 0 author(s) load

Summary

- In Japan, we use “HENDEL” compilation editor.
- This is web-based editor.
- “HENDEL” can create both “EXFOR file” and our original “NRDF file” at the same time.
- It is very easy to use and useful editor.