

ON NEW FEATURES OF THE EXFOR-EDITOR

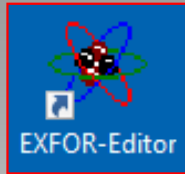
December 13 – 16, 2022, IAEA,

S. Taova, G. Pikulina

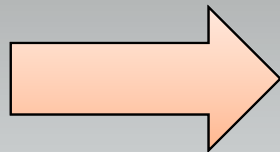
CNPD, Russian Federal Nuclear Center – VNIIEF,
Sarov 607188, Russia

To enhance functionality of the EXFOR-Editor program on preparation of the following information for the EXFOR library:

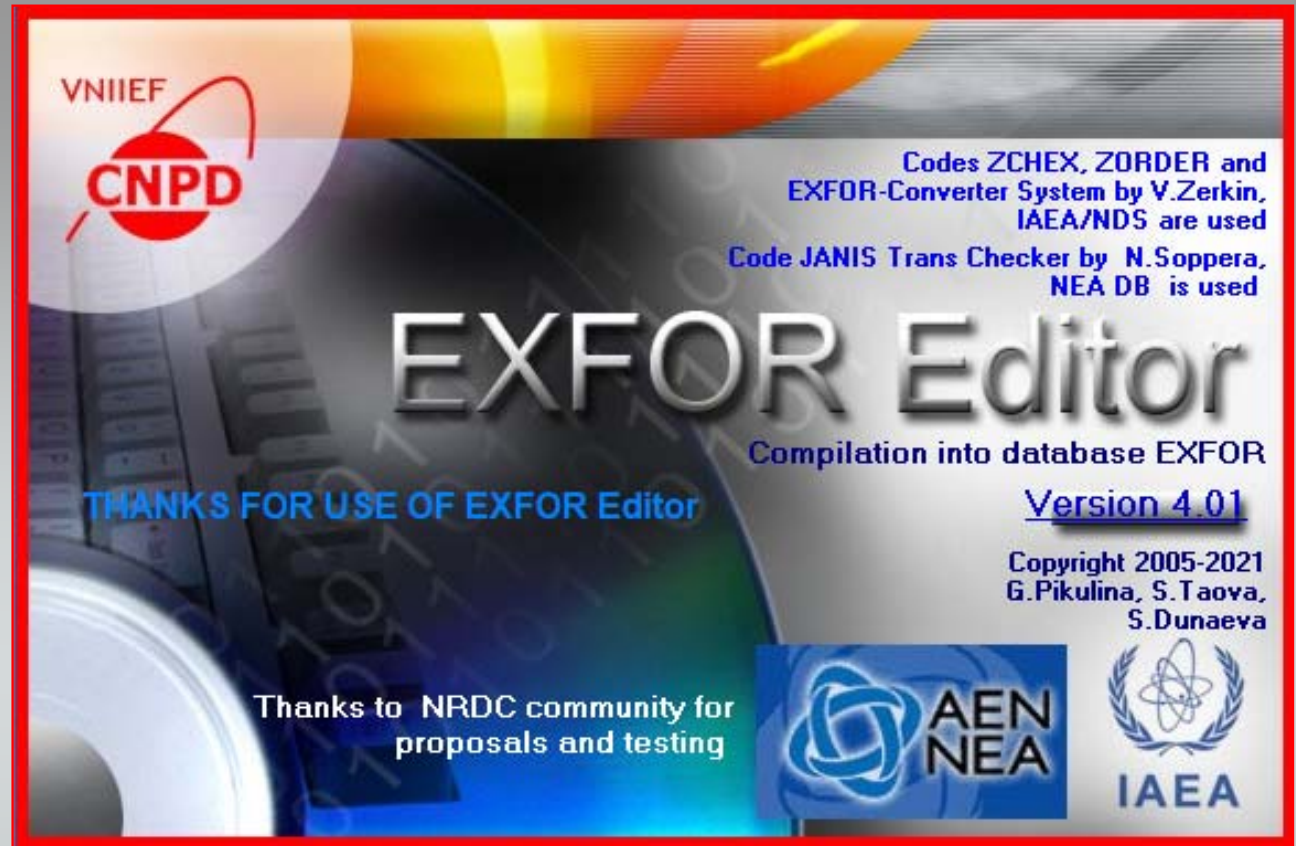
- numerical data on incident neutron spectra, or resolution or response function according to the new EXFOR rules;
- exchange files with experimental data of nuclear reactions.



OR

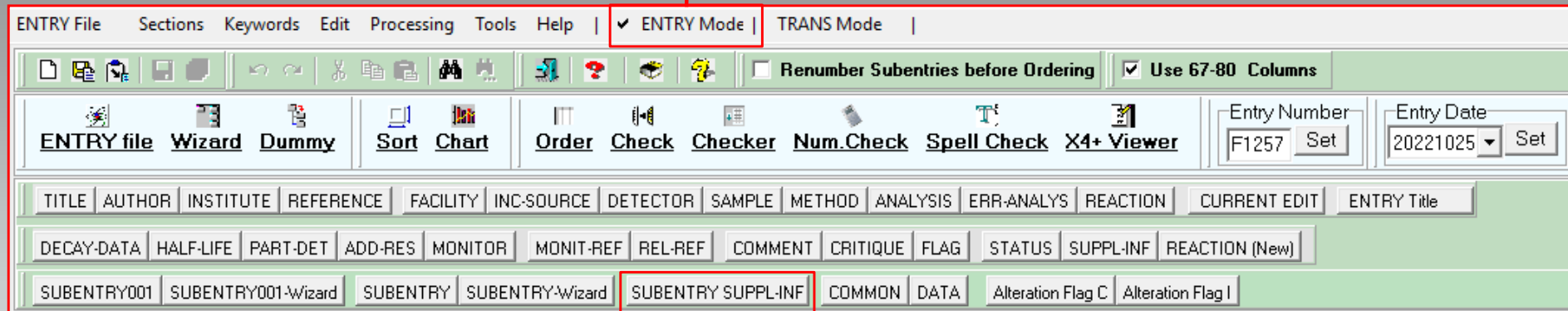


ORDER	08.12.2022
Trans_Checker	08.12.2022
x4plus	08.12.2022
ZCHEX	08.12.2022
allSF3.txt	02.10.2009
allSF5.txt	17.09.2007
allSF6.txt	02.10.2009
allSF7.txt	02.10.2009
allSF8.txt	02.10.2009
d4acc1.mdb	08.12.2022
ExfData4_01.exe	07.12.2022
Help_ExfData.chm	19.08.2010
LEXFOR HELP.chm	01.12.2010
Manual_ExfData.doc	16.05.2022

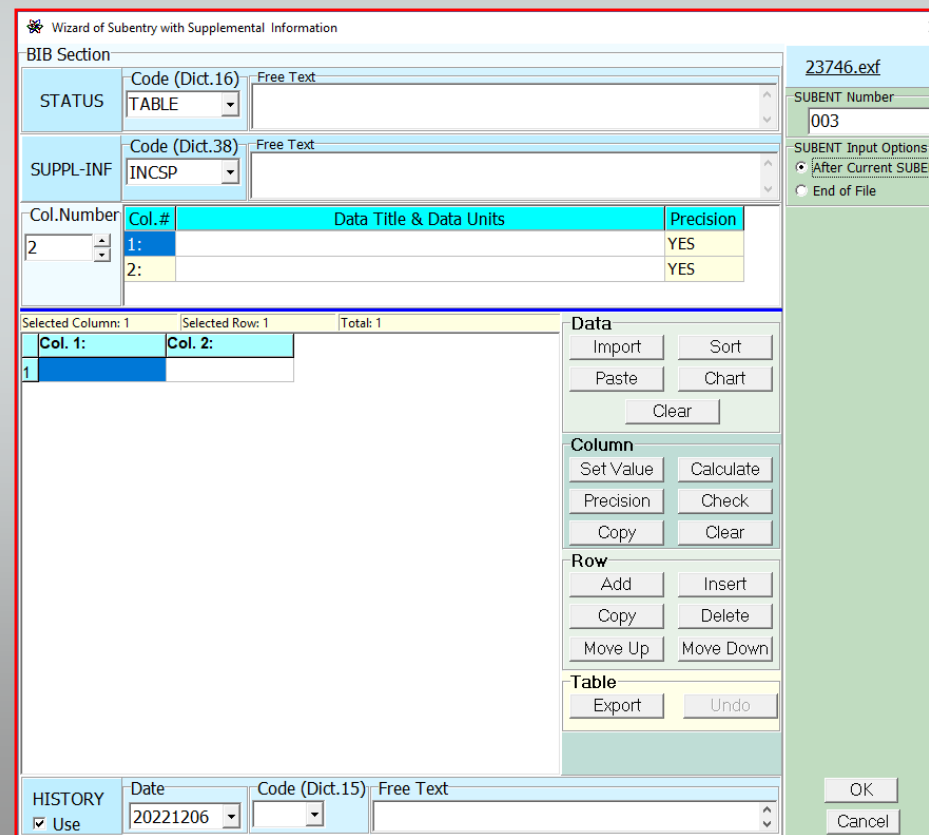
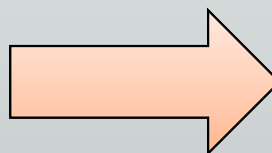


Click the program icon or run **ExfData4_01.EXE** from the program directory to launch the **ExfData**

Switch on the Entry-mode of the EXFOR-Editor



Click to create a new SUPPL-INF Subentry



Set a code word

Input additional information

Wizard of Subentry with Supplemental Information

BIB Section

STATUS	Code (Dict.16)	Free Text
	TABLE	Fig.20(b) of Nucl.Instr.Meth.A1003(2021)165318 Data were obtained from AUTHOR

Switch on the flag to enable the **HISTORY** keyword use

Input the date

Select a code

Input additional information

HISTORY <input checked="" type="checkbox"/> Use	Date 20221206	Code (Dict.15) R	Free Text Data were recieved from AUTHOR
		C D E L R S T U	

Select a code

Input additional information

SUPPL-INF	Code (Dict.38)	Free Text
	INCSP	23.5 keV filtered neutron spectrum (Fe 20cm) calculated by the Monte-Carlo simulation code PHITS.
Col.Number	RESFN	Data Title & Data Units

Set the number of numerical data columns

Input the data titles and their units for every numerical data column in free text

Set the **YES** code to enable precision setting

Col.Number	Col.#	Data Title & Data Units	Precision
2	1:	Neutron energy (eV)	YES
	2:	Relative neutron intensity (per energy)	YES

Click to paste data from the Clipboard

Data

Import Sort

Paste Chart

Clear

Clipboard context

Click to refresh the Clipboard context

Click to delete the left spaces

Paste

Clipboard Context: Refresh Context Trim Left Spaces

Separator

<SPACE> <:> - Semi

<TAB> Another String

<,> - Comma

Line End

<CR> <LF><CR>

<LF>

Destination Table

Start Column Number: 1

Start Row Number: 1

Add to End of Table

Paste Regime

Insert New Rows

Replace Rows

OK Cancel

1.74E+04	0.0000E+00
1.78E+04	3.6229E+03
1.82E+04	1.6003E+05
1.86E+04	2.3098E+05
1.90E+04	2.8200E+05
1.94E+04	4.0978E+05
1.98E+04	8.4756E+05
2.02E+04	1.0844E+06
2.06E+04	1.4047E+06
2.10E+04	1.6991E+06
2.14E+04	2.3265E+06
2.18E+04	2.9752E+06
2.22E+04	3.8573E+06
2.26E+04	5.0179E+06
2.30E+04	6.8988E+06
2.34E+04	8.9683E+06
2.38E+04	1.1188E+07
2.42E+04	1.2276E+07
2.46E+04	1.2177E+07
2.50E+04	9.0053E+06
2.54E+04	2.8128E+06
2.58E+04	5.3112E+05
2.62E+04	5.8190E+03
2.66E+04	6.3347E+00
2.70E+04	0.0000E+00

Set options for numerical data input

Click to input data into the table

Import data from external file

Import data from clipboard

Input a constant value

Set data precision

Copy data from one column to another

Add a row to the end of table

Make a copy of the selected row

Move the row up

Export data into external file

Data	
Import	Sort
Paste	Chart
Clear	
Column	
Set Value	Calculate
Precision	Check
Copy	Clear
Row	
Add	Insert
Copy	Delete
Move Up	Move Down
Table	
Export	Undo

Sort data by columns

Make a plot

Clear the table

Make calculations with columns

Check correctness

Clear the selected column

Insert a row in the selected position

Delete the row

Move the row down

Cancel the last operation

Integer numbers

Decimal numbers with
fixed or floating point

Number of digits
before 'E'

Number of digits
after 'E'

Erasing low-order
zeroes

Data Precision of Column Col. 1:
✕

Integer Format

Decimal Format

Fixed Point Format
 Floating Point Format

Floating Point Format

Number of digits before 'E':
(without sign and point)

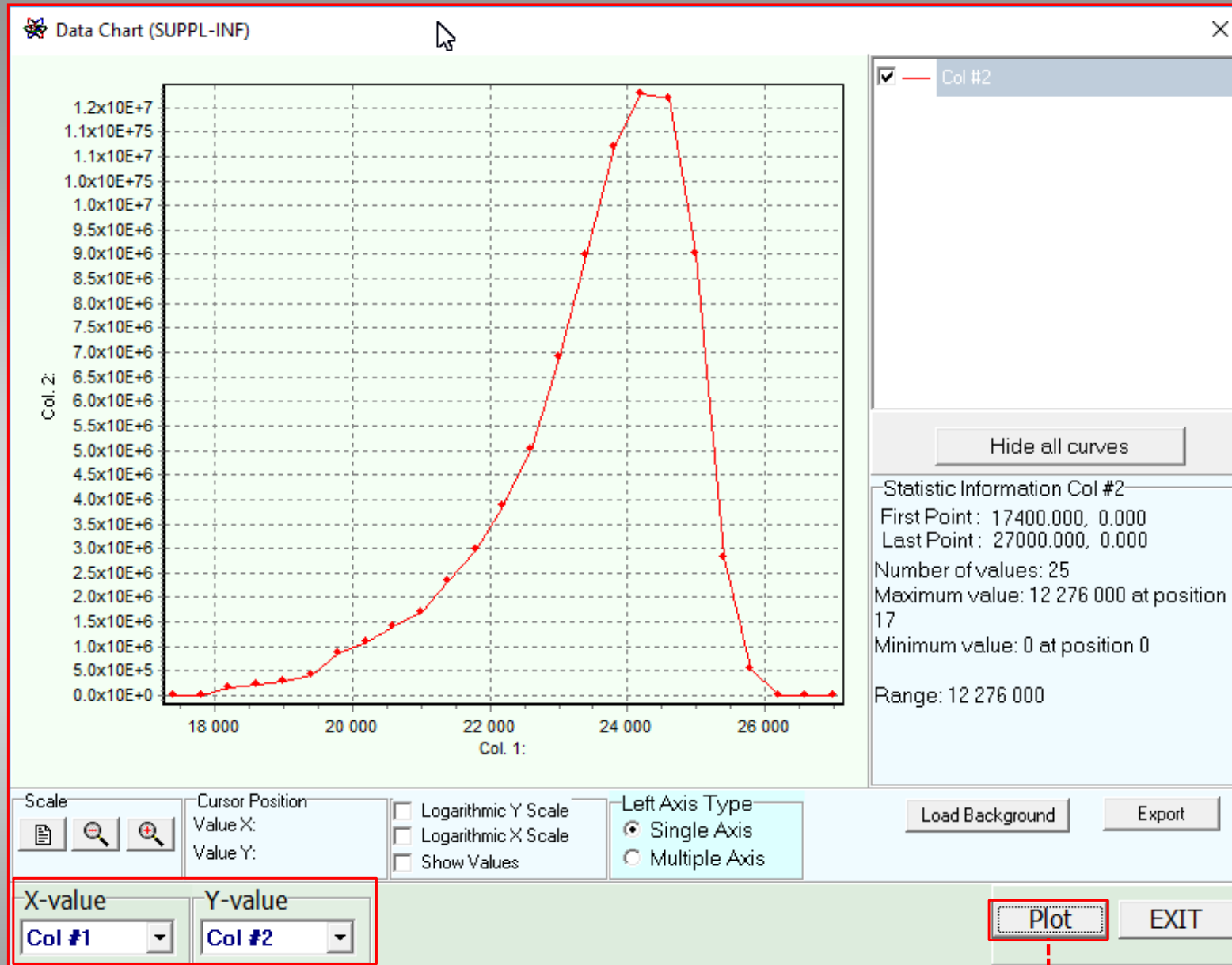
Minimum number of digits
after 'E' (without sign):

Erase Trailing Zero

Example: 1.00E+00

OK

Cancel



Select columns for axes

Click to show a plot

Save the SUPPL-INF Subentry into the Entry

23746.exf

SUBENT Number
003

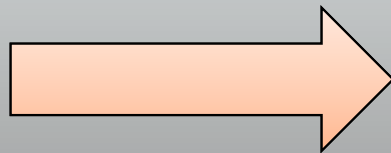
SUBENT Input Options
 After Current SUBENT
 End of File

OK
Cancel

Set the Subentry number

Select position to insert the Subentry

Click to input into the Entry



SUBENT	23746003	20221021		
BIB	2	33		
STATUS	(TABLE) Fig.20(b) of Nucl.Instr.Meth.A1003(2021)165318			
	Data were obtained from AUTHOR			
SUPPL-INF	(INCSP) 23.5 keV filtered neutron spectrum (Fe 20cm)			
	calculated by the Monte-Carlo simulation code PHITS.			
	Col. 1: Neutron energy (eV)			
	Col. 2: Relative neutron intensity (per energy)			

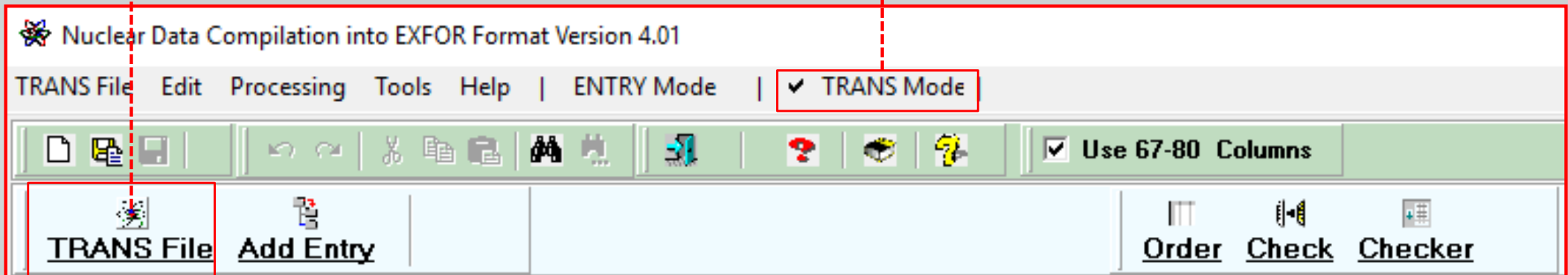
	1.74E+04	0.0000E+00		
	1.78E+04	3.6229E+03		
	1.82E+04	1.6003E+05		
	1.86E+04	2.3098E+05		
	1.90E+04	2.8200E+05		
	1.94E+04	4.0978E+05		
	1.98E+04	8.4756E+05		
	2.02E+04	1.0844E+06		
	2.06E+04	1.4047E+06		
	2.10E+04	1.6991E+06		
	2.14E+04	2.3265E+06		
	2.18E+04	2.9752E+06		
	2.22E+04	3.8573E+06		
	2.26E+04	5.0179E+06		
	2.30E+04	6.8988E+06		
	2.34E+04	8.9683E+06		
	2.38E+04	1.1188E+07		

To enhance functionality of the EXFOR-Editor program on preparation of the following information for the EXFOR library:

- numerical data on incident neutron spectra, or resolution or response function according to the new EXFOR rules;
- exchange files with experimental data of nuclear reactions.

Click to create the exchange file

Switch on the TRANS-mode of the EXFOR-Editor



Select a new file type from the drop-down list

Input a four-character file identification

Input a filename extension

Click to create a new file

Mark ENTRY filenames for a new TRANS

Click to include additional Entries

ИМЯ	Дата
14133_1.ext	21.08.2022 10:28
F1257.EXF	08.12.2021 10:01
F1346.exf	08.12.2021 10:01
14155.exf	08.12.2021 10:01
a0510.EXF	08.12.2021 10:01
A1094_C.EXF	08.12.2021 10:01
222850002.exf	04.03.2021 10:25
A0000.EXF	20.05.2019 16:33
20040.exf	07.12.2017 17:31
f1288_TEST.EXF	06.12.2017 13:09
F1111.exf	18.05.2017 14:14
F2222.exf	17.05.2017 9:02
F0001.exf	16.05.2017 17:28
F0000.exf	16.05.2017 17:23

Click to add
new Entries

Edit the
exchange file

TRANS File Structure

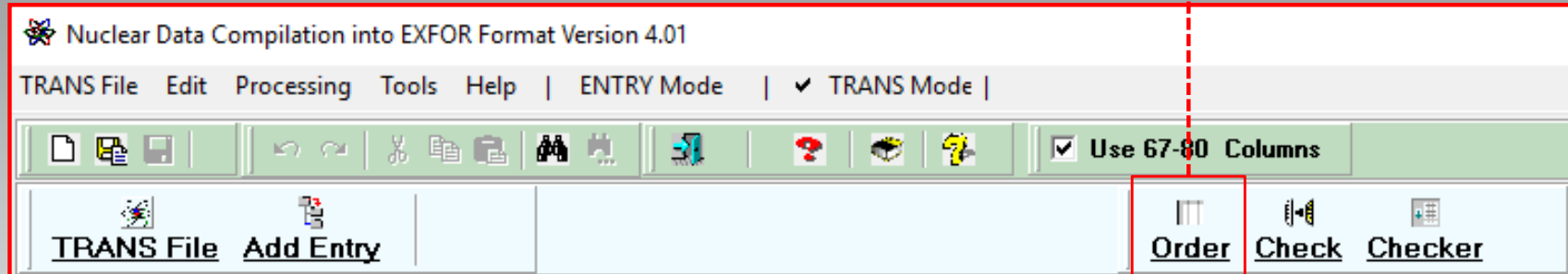
C:\MyPrograms\Delphi2007\EXFOR\EXFOR-Editor\PrelimF9998.TXT

Column: 12 Row: 3 Total: 10546 Insert C:\MyPrograms\Delphi2007\EXFOR\EXFOR-Editor\PrelimF9998.TXT SUBENTRY F1346001 BIB sect

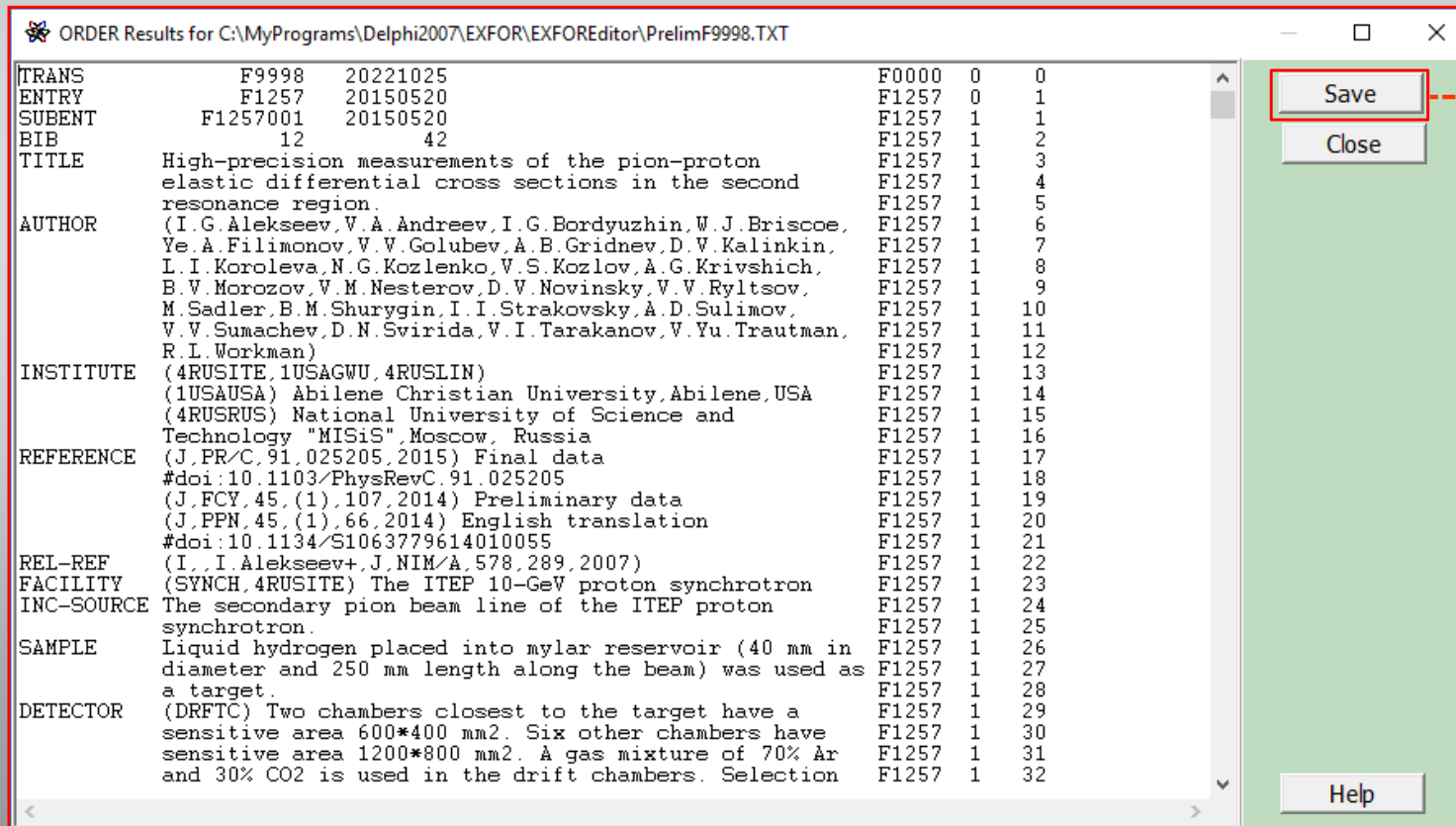
Column	Row	Total	Insert
SUBENT	F1257001	20150520	
BIB	12	42	
TITLE	High-precision measurements of the pion-proton elastic differential cross sections in the second resonance region	F1257 1 3	
AUTHOR	(I.G.Alekseev, V.A.Andreev, I.G.Bordyuzhin, W.J.Briscoe, Ye.A.Filimonov, V.V.Golubev, A.B.Gridnev, D.V.Kalinkin, L.I.Koroleva, N.G.Kozlenko, V.S.Kozlov, A.G.Krivshich, B.V.Morozov, V.M.Nesterov, D.V.Novinsky, V.V.Ryltsov, M.Sadler, B.M.Shurygin, I.I.Strakovsky, A.D.Sulimov, V.V.Sumachev, D.N.Svirida, V.I.Tarakanov, V.Yu.Trautman, R.L.Workman)	F1257 1 6	
INSTITUTE	(4RUSITE, 1USAGWU, 4RUSLIN)	F1257 1 13	
REFERENCE	(J, PR/C, 91, 025205, 2015) Final data #doi:10.1103/PhysRevC.91.025205 (J, FCY, 45, (1), 107, 2014) Preliminary data (J, PPN, 45, (1), 66, 2014) English translation #doi:10.1134/S1063779614010055	F1257 1 17	
REL-REF	(I, I.Alekseev+, J, NIM/A, 578, 289, 2007)	F1257 1 22	
FACILITY	(SYNCH, 4RUSITE) The ITEP 10-GeV proton synchrotron	F1257 1 23	
INC-SOURCE	The secondary pion beam line of the ITEP proton synchrotron.	F1257 1 24	
SAMPLE	Liquid hydrogen placed into mylar reservoir (40 mm in diameter and 250 mm length along the beam) was used as a target.	F1257 1 26	
DETECTOR	(DRFTC) Two chambers closest to the target have a sensitive area 600*400 mm2. Six other chambers have sensitive area 1200*800 mm2. A gas mixture of 70% Ar and 30% CO2 is used in the drift chambers. Selection	F1257 1 29	

Use to navigate
through the
opened
exchange file

Click to run the ZOrderW program

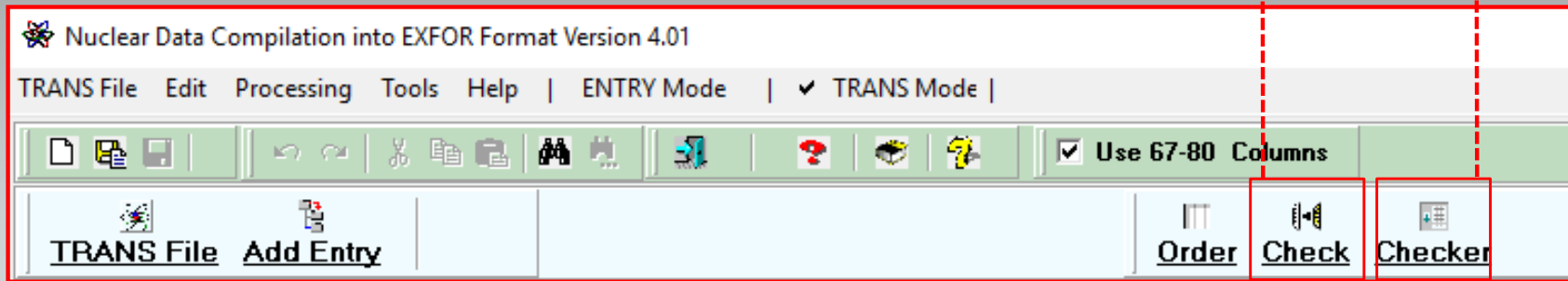


Click to save the result file



Click to run the Zchex program

Click to run the Trans Checker program



C:\MyPrograms\Delphi2007\EXFOR\EXFOREditor\PrelimF9998.TXT

Column:	1	Row:	10065	Total:	10546	Insert	C:\MyPrograms\Delphi2007\EXFOR\EXFOREditor\PrelimF9998.TXT
30.	72.			0.90	0.01		F1305 4 25
34.	73.			0.65	0.08		F1305 4 26
32.	77.			0.52	0.06		F1305 4 27
35.	77.			0.90	0.01		F1305 4 28

-Errors for C:\MyPrograms\Delphi2007\EXFOR\EXFOREditor\PrelimF9998.TXT

** Nonmonotonic data field	ISOMER						
79.	196.	0.	0.39	0.05		F1305002	54
** Incorrect units, should be dimension	B field: 1 [NO]					F1305003	
** Incorrect units, should be dimension	B field: 2 [NO]					F1305003	
** Nonmonotonic data field	ELEMENT						
30.	72.			0.90	0.01	F1305004	25
** Nonmonotonic data field	ELEMENT						
32.	77.			0.52	0.06	F1305004	27

Click to highlight the wrong record

TRANS	F9998	20221020			F0000	0	0
ENTRY	F1257	20150520			F1257	0	1
SUBENT	F1257001	20150520			F1257	1	1
BIB	12	42			F1257	1	2
TITLE	High-precision measurements of the pion-proton				F1257	1	3

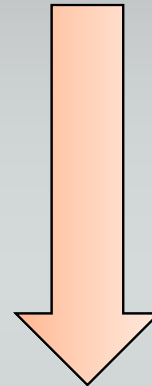
-Errors for C:\MyPrograms\Delphi2007\EXFOR\EXFOREditor\PrelimF9998.TXT

Statistics				
ERRORS:	2	WARNINGS:	0	
Error Type	SUBENTRY	Error Message	Details	Line
EXCEPTION	null	Expected blanks	TRANS record, columns 12-18 [F9998_2021	0
EXCEPTION	null	Missing closing system identifier		1

Click to highlight the wrong record

DECAY-DATA	(47-AG-111-G, 7.45D, DG, 245.4, 0.0124, DG, 342.13, 0.067)
Text Input Regime	
<input checked="" type="radio"/> Compress	
<input type="radio"/> User's Format	
Spell Check	
Compress	Clear

Select the option "User`s Format" to save the author's formatting of text information in the Entry.



DECAY-DATA	(47-AG-111-G, 7.45D, DG, 245.4, 0.0124,			
			DG, 342.13, 0.067)	