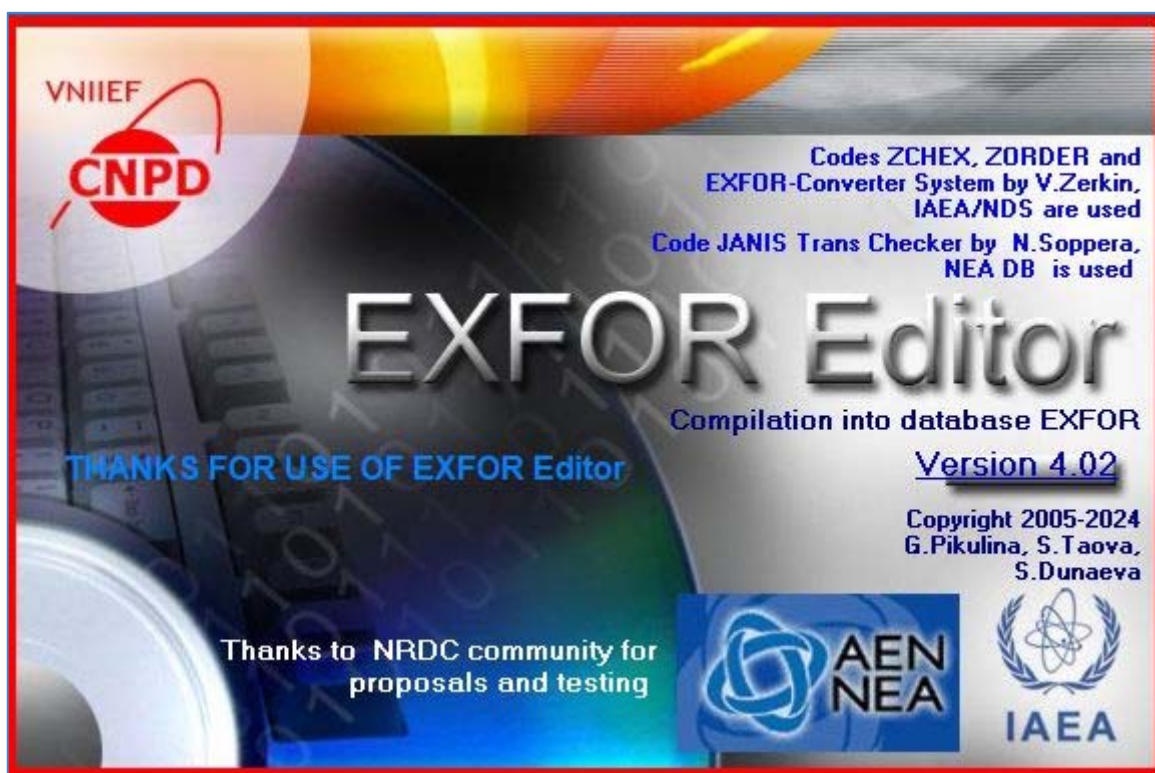


EXAMPLES OF EXCHANGE FILE PROCESSING BY EXFOR-EDITOR 4.02

G. Pikulina, S.Taova



Exchange File Processing Mode

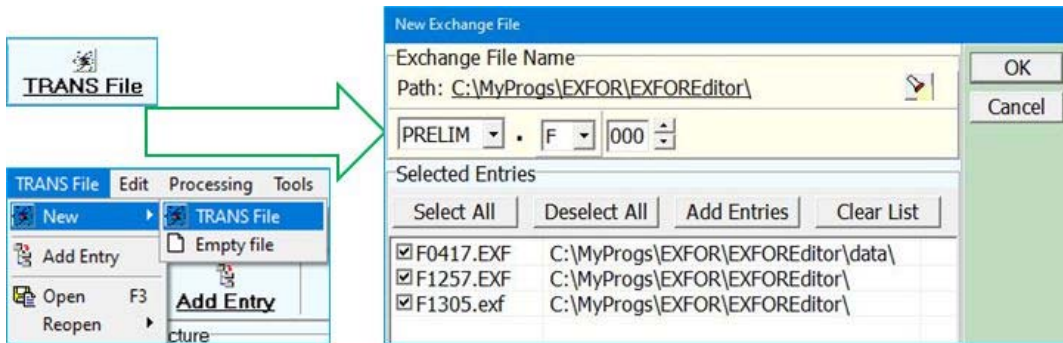
Notes:

TRANS File Edit Processing Tools Help | ENTRY Mode | ✓ TRANS Mode

Set the **TRANS Mode** flag in the menu of the main ExfData window to switch on the regime of EXFOR exchange file processing.

Exercise 1: Create an exchange file

1. Click the **TRANS File** button on the functional panel or select the **New/ TRANS File** item of the **TRANS File** menu:




Use the **New Exchange File** window to arrange an exchange file context.

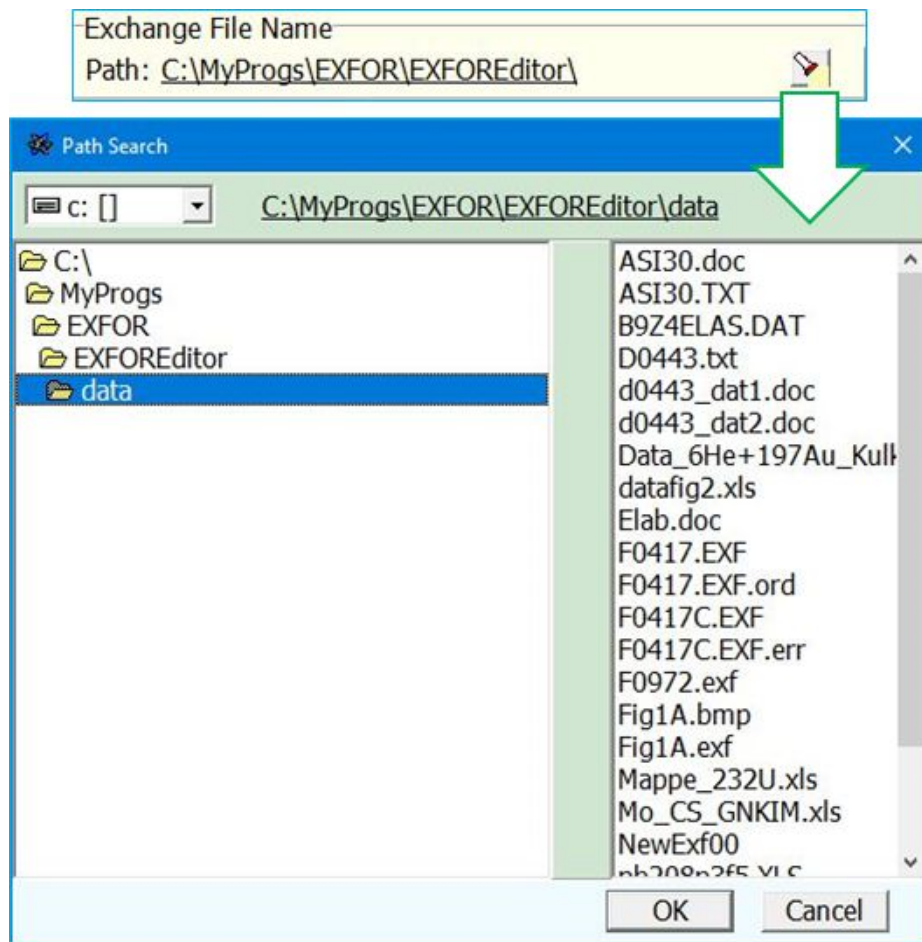
2. Make up the exchange filename:
➤ select a file type from the drop-down list on the **Exchange File Name** panel. This string will be used as a filename;

➤ select a **Centre Identification Character** from the drop-down list and input a three-character file identification in the edit field for a filename extension.

3. If necessary, change the **Path** string to save a new exchange file.


Use the  browse button on the **Exchange File Name** panel. Specify a new path in the **Path Search** window:

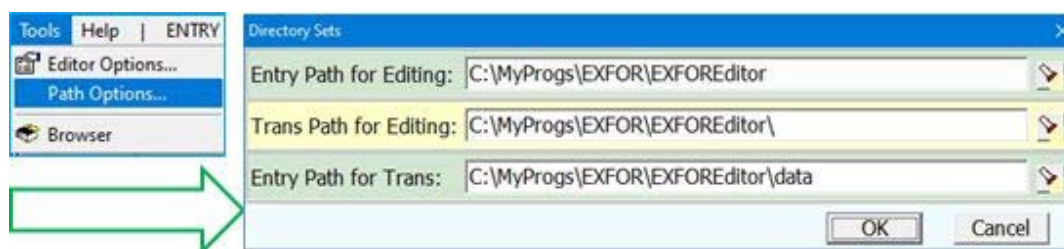
Notes:



Comment

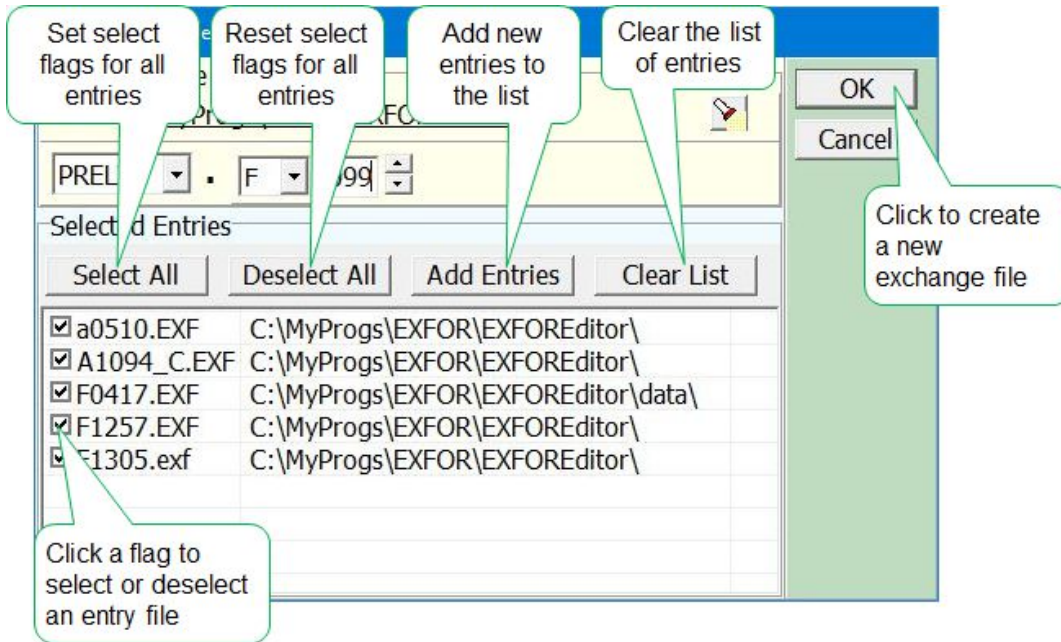
For usability, the program has an additional service to specify the main paths for edited entries, edited exchange files and for entry files to make up an exchange file.

Select the **Path Options** item in the **Tools** menu (the **Tools** menu is available in all working modes of the program). Edit path strings in the **Directory Sets** window. Use  browse buttons to search paths.



4. Compose a list of entries to create a new exchange file using interface elements on the **Selected Entries** panel.

The list is represented as a table with two columns: the first column contains entry filenames, the second one contains the path names of these files. Near every row there is a flag to select an entry file for the exchange file.



Notes:

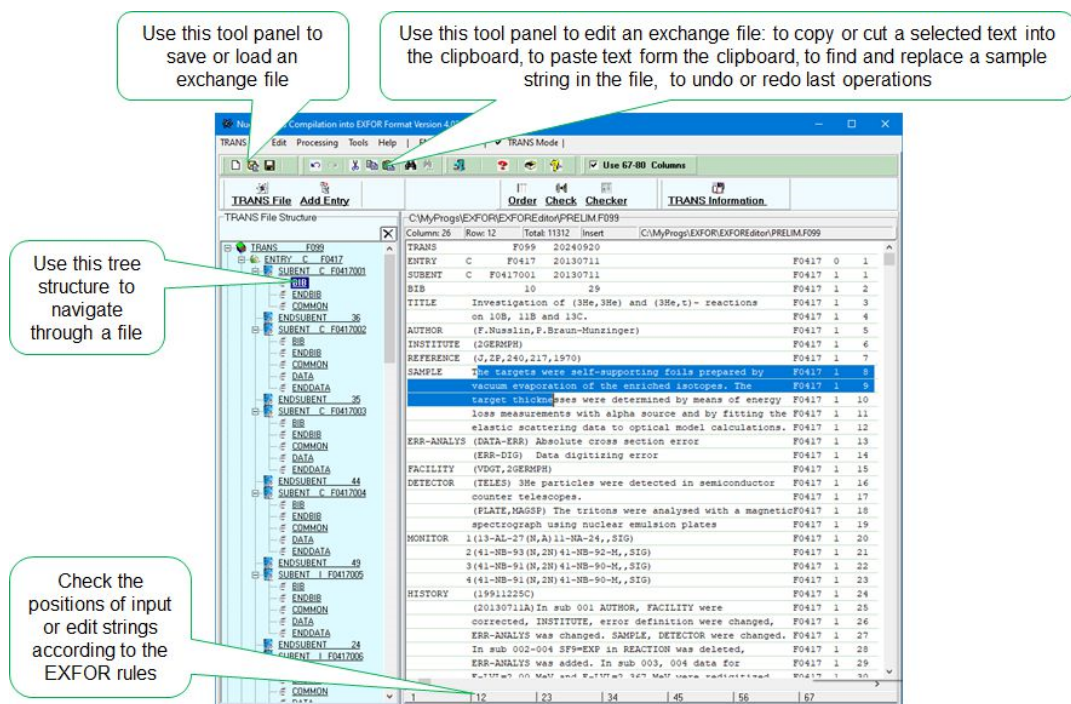
By default the list contains entries opened in the **Entry** mode window. To modify the list, use the buttons on the **Selected Entries** panel:

- use the **Add Entries** button to search saved entry files by Windows Explorer and add them to the **Selected Entries** list. File search with *.EXF and *.TXT extensions is available;
- use the **Select All** button to set the select flags for all entries of the list;
- use the **Deselect All** button to reset the select flags for all entries of the list;
- use the **Clear List** button to delete all entries from the list.

5. Click the **OK** button to create the EXFOR exchange file with the specified filename and context.

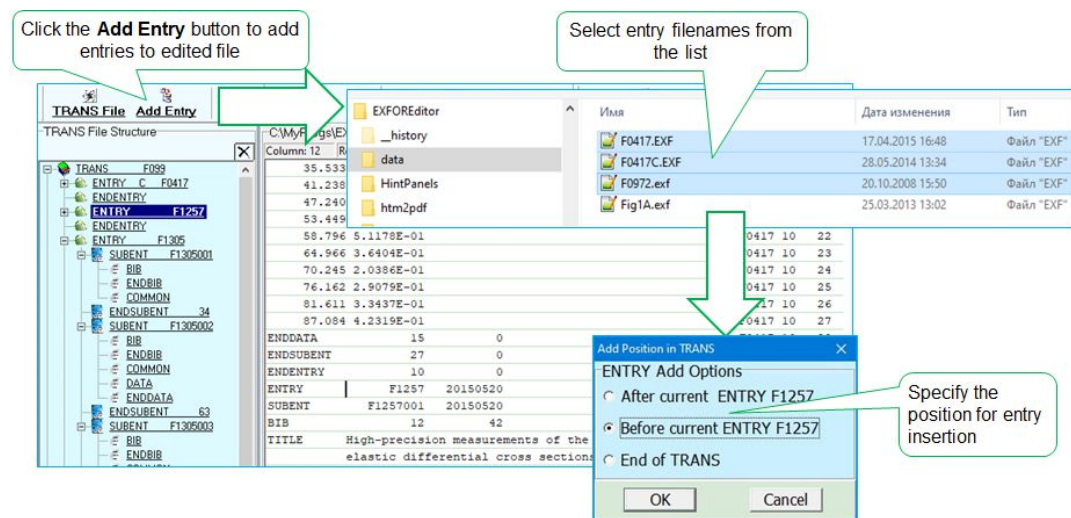
Exercise 2: Edit an exchange file

1. Edit the context of an exchange file in the editor area of the **TRANS** mode window. The editor area is divided into columns for convenient data entering. At the bottom of the editor area, there is a special rule with reference column numbers. The TRANS editor has all standard functions of editors operating under Microsoft Windows (opening, closing, saving, clipboard coping and pasting, searching and replacing strings, etc.). Only one exchange file is processed at a time.



2. Click the **Add Entry** button and select entry files in a standard open file window to add entries to the exchange file.

Specify a position of the entry insertion in the exchange file.

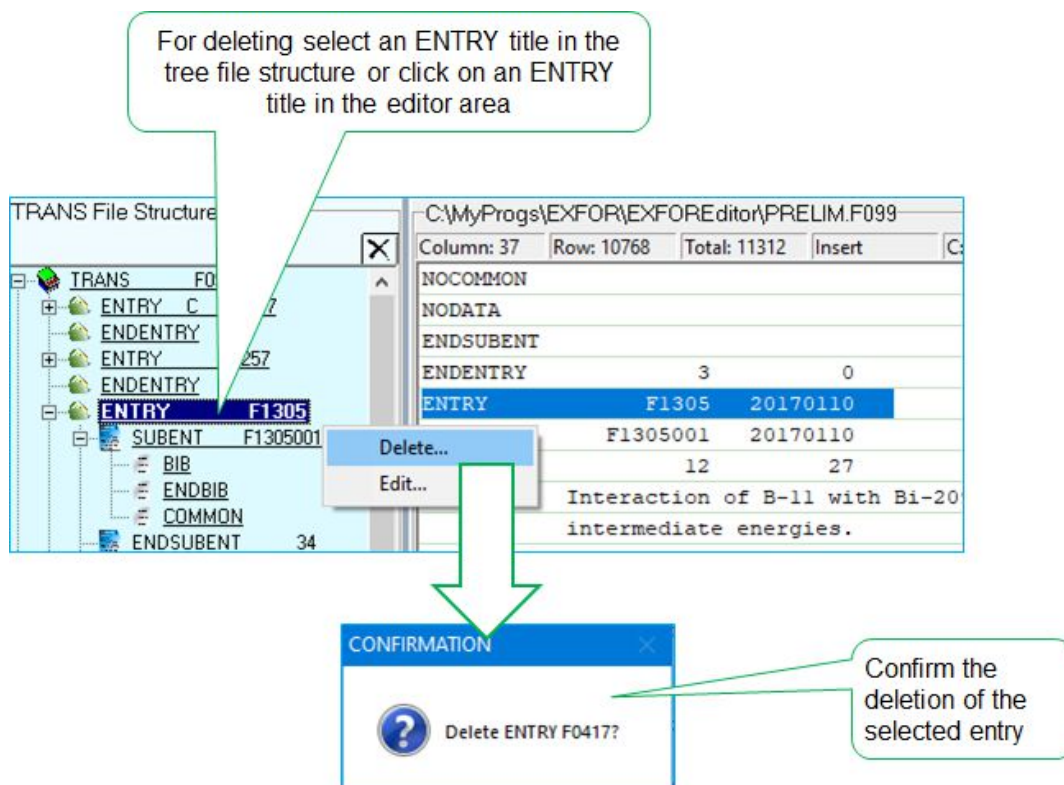


3. To delete an entry from the exchange file, select the ENTRY title in the tree file structure or click on the ENTRY title in the editor area.

Right-click on the selected title in the tree file structure and select the **Delete** item in the popup menu.

Confirm the deletion of the entry from the file.

Notes:



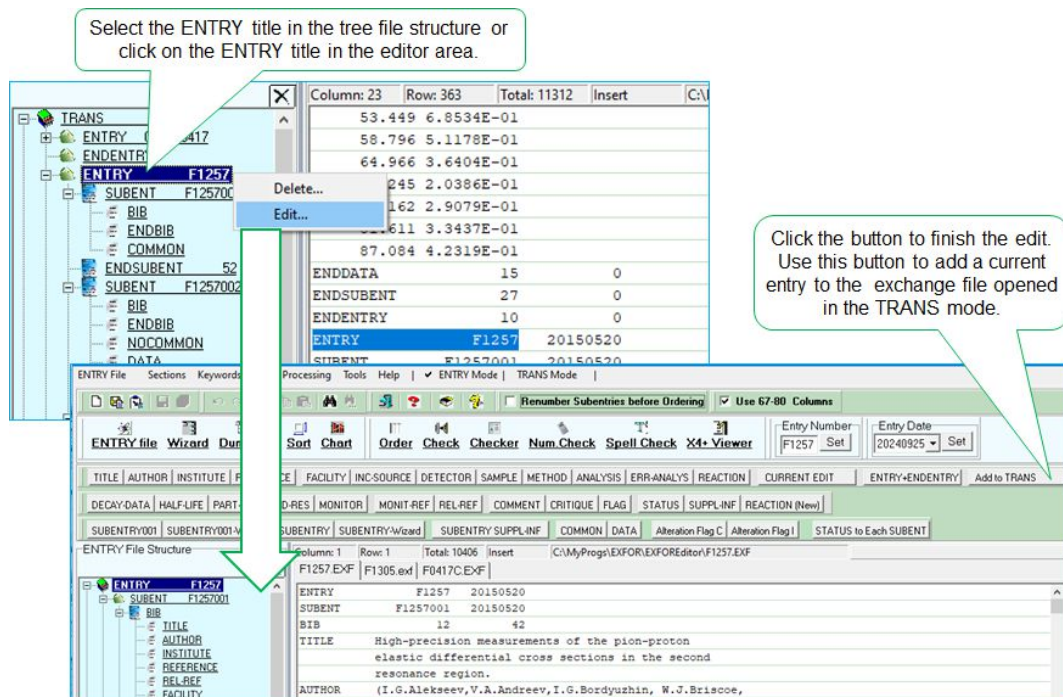
4. If you need to make essential modifications in the entry text of the exchange file (to change numerical data, for example), use the functionality of the **ENTRY** mode window.

Select the **ENTRY** title in the tree file structure or click on the **ENTRY** title in the editor area.

Right-click on the selected title in the tree file structure and select the **Edit** item in the popup window. The program automatically opens the selected entry in the **ENTRY** mode window.

To finish the edit, click the **Add to TRANS** button on the tool panel.

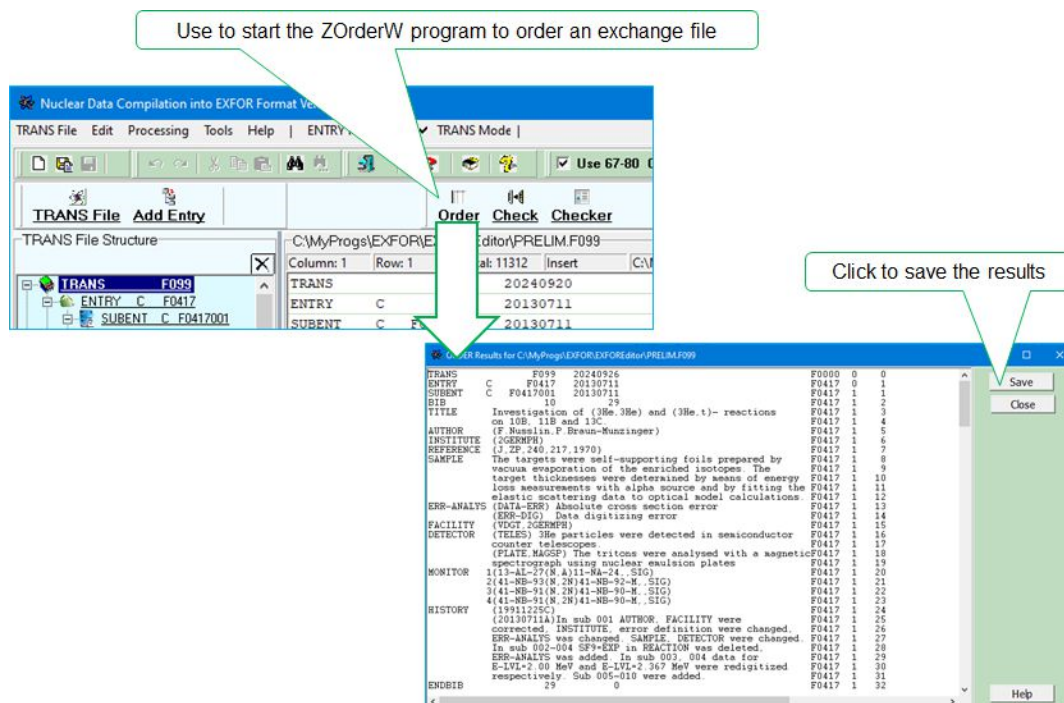
Use also the **Add to TRANS** button to add the current entry to the exchange file opened in the **TRANS** mode window.



Exercise 3: Order an exchange file

1. Click the **Order** button on the tool panel to start the ZOrderW program.

The results of the exchange file ordering are represented in a special window.

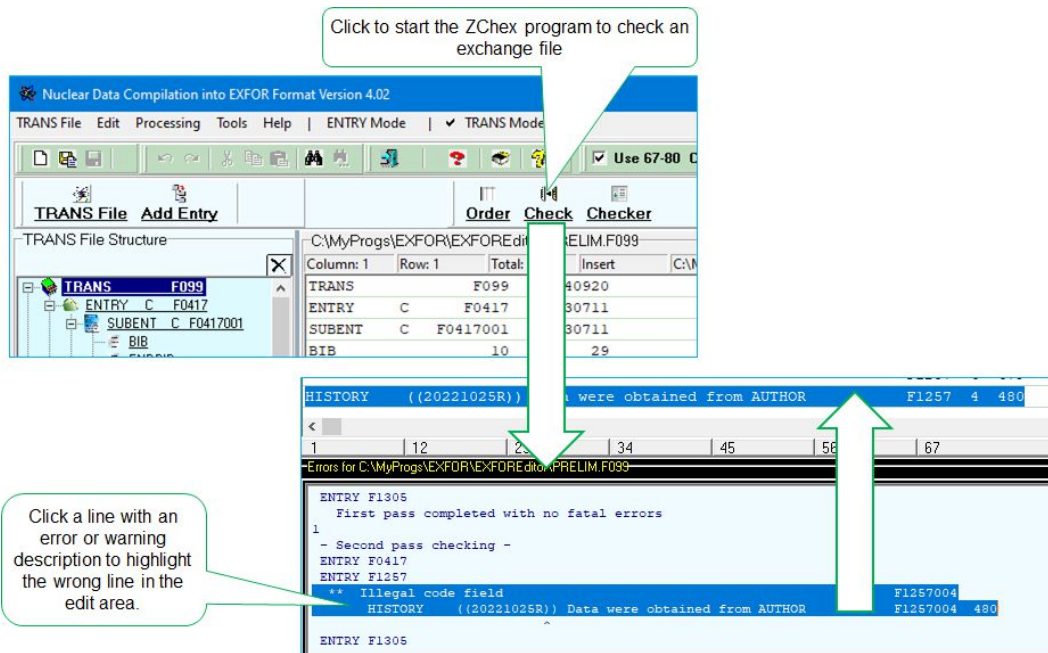


2. Click the **Save** button to rewrite the ordered exchange file into the edit area.

Exercise 4: Check an exchange file according to the EXFOR format rules

Notes:

1. Click the **Check** button to start the ZChex program to check an exchange file. The results of checking by the ZChex program are represented on a special panel at the bottom of the edit area.
2. Click a line with an error or warning description to highlight the wrong line in the edit area. Correct all errors and warnings.



3. Click the **Checker** button on the tool panel to start the Trans Checker program to check an exchange file. The results of checking by the Trans Checker program are represented as a table on a special panel at the bottom of the edit area.

4. Click a table row with an error or warning description to highlight the wrong line in the edit area. Correct all errors and warnings.

Click to start the Trans Checker program to check an exchange file

The screenshot shows the 'Nuclear Data Compilation into EXFOR Format Version 4.02' application. The 'Order Check Checker' buttons are visible. A callout points to the 'Checker' button. Below, a table lists errors and warnings:

Error Type	SUBENTRY	Error Message	Details	Line
WARNING	F1257002	[DATA]: Duplicate data point	Data point (ANG-EM=4E+1,MOM=6	5070
WARNING	F1257004	[HISTORY]: Bad History (date length)	(20221025R)	10761
WARNING	F1305001	[REL-REF]: Bad Book reference coding, only two subfields given. Volume and Page/Paper# subfields absence must be	B.FIRESTONE,1998	10780
WARNING	F1305001	OBS METHOD code : obsolete (not to be used on EXFOR	MASSP	10803

Exercise 5: Support Service Database

1. Click the **TRANS Information** button on the tool panel to obtain a table with service information about the current exchange file. This information is used to maintain an internal service database or to prepare statistical information about the current exchange file structure.
2. Click the **Text File** button to export the table into an external text file. Click the **Data Base** button to export the table into the service database file of the Microsoft Word format.

Click to obtain a table with service information about the current exchange file

The 'TRANS Information' dialog box shows the 'Export to:' options: 'Text File' and 'Data Base'. Callouts point to these options. Below, a table shows the data extracted from the exchange file:

ENTRY	FLAG	FIRST AUTHOR	REFERENCE	COMMENT
F0417	C	F.Nusslin	J,ZP,240,217,1970	Check HISTORY code
F1257		I.G.Alekseev	J,PR/C,91,025205,2015	
F1305		G.S.Karapetyan	J,PR/C,94,024618,2016	

Click to export the table into an external text file

Click to export the table into the service database file

Exchange File Identification: F099
Input Date: 26.09.2024

1 Exchange File Identification: F099
2 Input Date: 26.09.2024
3 ENTRY FLAG FIRST AUTHOR REFERENCE COMMENT
4 F0417 C F.Nusslin J,ZP,240,217,1970 Check HISTORY code
5 F1257 I.G.Alekseev J,PR/C,91,025205,2015
6 F1305 G.S.Karapetyan J,PR/C,94,024618,2016

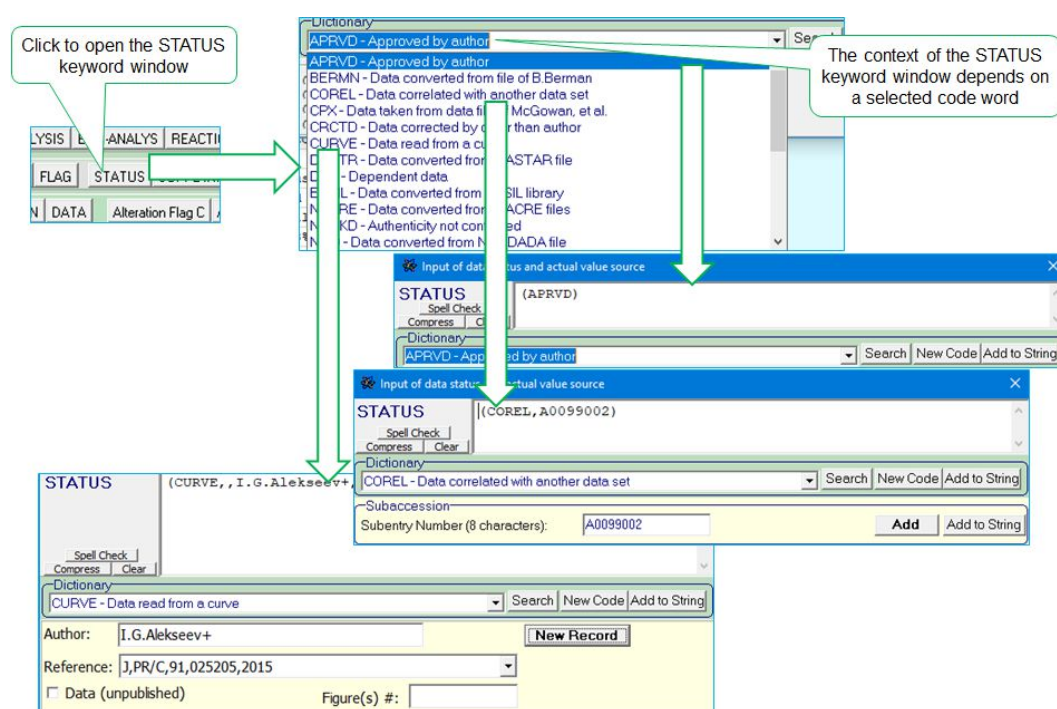
DateBase_TRANS.DOC - Word

Exchange File Identification	Input Date	ENTRY	FLAG	FIRST AUTHOR	REFERENCE	COMMENT
F099	26.09.2024	F0417	C	F.Nusslin	J,ZP,240,217,1970	Check HISTORY code
F099	26.09.2024	F1257		I.G.Alekseev	J,PR/C,91,025205,2015	
F099	26.09.2024	F1305		G.S.Karapetyan	J,PR/C,94,024618,2016	

Some New Functions of the EXFOR Editor 4.02 Program

Exercise 6: Input and Edit Data for the STATUS Keyword according to the New EXFOR Rules

1. Click the **STATUS** button on the tool panel of the **ENTRY** mode window to open an input data window for the STATUS keyword. Select different code words from the drop-down list on the **Dictionary** panel. The context of the STATUS keyword window depends on the selected code words and corresponds to the new EXFOR rules.



2. Place a cursor into the STATUS keyword position of a sub-entry text to edit data for the TABLE or CURVE code word and right-click. Select the **EDIT** item from the popup menu.

The **Author** and **Reference** edit fields are filled automatically according to the information of the AUTHOR and REFERENCE keyword in the entry.

If it is necessary, insert the table or curve number from the source that is used as a free text.

Click the **New Record** button to create a new Status record in the **STATUS** field.

Click the **OK** button to insert or replace STATUS data in the subentry text.

Notes:

The screenshot shows the 'Input of data status and actual value source' window. The STATUS field contains the text: '(TABLE, , I.G.Alekseev+, J, PR/C, 91, 025205, 2015) Data were received from Dr. I.G.Alekseev.' Callouts indicate: 'Select the EDIT item to open the STATUS edit Window' pointing to the 'EDIT...' button; 'The Author and Reference fields are filled automatically' pointing to the 'Author: I.G.Alekseev+' and 'Reference: J,PR/C,91,025205,2015' fields; 'Click to create a new STATUS record in the STATUS field' pointing to the 'New Record' button; 'Input a table number from the source' pointing to the 'Table(s) #' field; and 'Click to insert or replace the STATUS information in the subentry' pointing to the 'OK' button. Below the window, a table snippet shows the updated STATUS field: '(TABLE, , I.G.Alekseev+, J, PR/C, 91, 025205, 2015) Data were received from Dr. I.G.Alekseev.'

3. Click the **STATUS to Each SUBENT** button on the tool panel of the **ENTRY** mode window to edit or input data for the STATUS keyword in every subentry of the current entry beginning from the second one.

Select a code word from the drop-down list for every subentry in the CODE column of the table in the **Add STATUS to Each SUBENT with DATA** window (TABLE or CURVE). Input a table or figure numbers from the source in the **#TABLE(FIG.)** column that are used as free text.

The **Author** and **Reference** edit fields are filled automatically according to the information of the **AUTHOR** and **REFERENCE** keywords in the entry.

Click the **OK** button to insert or replace STATUS data in every subentry.

The screenshot shows the 'Add STATUS to Each SUBENT with DATA' window overlaid on a table. The window has 'Author: G.S.Karapetyan+' and 'Reference: J,PR/C,94,024618,2016' fields. Below is a table with columns 'SUBENTRY', 'CODE', and '#TABLE (FIG.)'. Callouts indicate: 'Click to edit or input data for the STATUS keyword in every subentry of the current entry beginning with the second one' pointing to the window title; 'The Author and Reference fields are filled automatically' pointing to the author and reference fields; 'Input a table or figure number from the source' pointing to the '#TABLE (FIG.)' column; 'Select a code word from a drop-down list' pointing to the 'CODE' column; and 'Click to insert or replace the STATUS information in the subentry' pointing to the 'OK' button. Below the window, a table snippet shows the updated STATUS field: '(TABLE, , G.S.Karapetyan+, J, PR/C, 94, 024618, 2016) Table 1'.

Exercise 7: Edit Data for the AUTHOR Keyword

Notes:

1. The AUTHOR keyword window has an additional function to delete automatically footnotes and other service chars from the author list.
2. Open the article text and copy the author list into the clipboard. Right click on the **AUTHOR** edit field, select the **Paste** item from the popup menu to copy the clipboard context into this field.
3. Footnotes in the author list could contain letters, digits, asterisks and other service chars. Click the **Delete Footnotes (Digits)** button or **Delete Footnotes (Letters)** button to delete corresponding footnotes automatically.

NUCLEI Experiment

Measurement of Cumulative Yield of the ^{103}Ru Radionuclide for ^4He -, ^3He -, Proton- and Deuteron-Induced Reactions on ThO_2 Targets

A. A. Smirnov^{1)*}, M. N. German¹⁾, V. A. Zagryadskiy¹⁾, K. A. Makoveeva¹⁾, T. Y. Malamut¹⁾, V. I. Novikov¹⁾, and V. N. Unezhev¹⁾

The source author list

Author List Input

AUTHOR A. A. Smirnov^{1)*}, M. N. German¹⁾, V. A. Zagryadskiy¹⁾, K. A. Makoveeva¹⁾, T. Y. Malamut¹⁾, V. I. Novikov¹⁾, and V. N. Unezhev¹⁾

The author list pasted from the clipboard

Compress Clear

Use spaces between Authors Convert Cyrillic Name Name of Collaboration nTOF Collaboration Add

Delete Footnotes (Digits)

Delete Footnotes (Letters)

Click do delete digits and asterisks as footnotes

AUTHOR (A.A.Smirnov, M.N.German, V.A.Zagryadskiy, K.A.Makoveeva, T.Y.Malamut, V.I.Novikov, V.N.Unezhev)

The result author list

Compress Clear

Yu. G. Sobolev^{a,*)}, Yu. E. Penionzhkevich^{a, b)}, V. V. Samarin^{a, c)}, M. A. Naumenko^{a)}, S. S. Stukalov^{a)}, I. Sivaček^{a, d)}, S. A. Krupko^{a)}, A. Kugler^{a)}, and J. Louko^{e)}

^aJoint Institute for Nuclear Research, Dubna, Moscow oblast, 141980 Russia
^bNational Nuclear University (MEPhI), Moscow, 115409 Russia

The source author list

Author List Input

AUTHOR Yu. G. Sobolev^{a,*)}, Yu. E. Penionzhkevich^{a, b)}, V. V. Samarin^{a, c)}, M. A. Naumenko^{a)}, S. S. Stukalov^{a)}, I. Sivaček^{a, d)}, S. A. Krupko^{a)}, A. Kugler^{a)}, and J. Louko^{e)}

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Use spaces between Authors Convert Cyrillic Name Name of Collaboration nTOF Collaboration Add

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The result author list

Compress Clear