

Web tool for uploading experimental data to the Web server for using them in EXFOR Web system

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NDS EXFOR database web retrieval system provides users with a lot of useful functions and tools. Initially the system searches and retrieves data from EXFOR database in EXFOR format and then offers to user selection of tools for various data processing. Some of these tools allow input of users' data and work with them (e.g. adding user's data to the plot). Applying the tools for the experimental data from outside of EXFOR database can be achieved via EXFOR Uploading system (MyExfor), where user sends own EXFOR file to the web server, and then can: run checking code and various utilities, send data to EXFOR retrieval system, search similar data in EXFOR database and work with all data using all systems' capabilities. MyExfor was developed for EXFOR compilers, it requires authorization, and accepts data in EXFOR format only. At the same time, there is an interest among the users to use EXFOR system's capabilities with their own data, but without authorization, without knowledge of EXFOR format and without preparing correct EXFOR file. The tool described in this paper [1] serves this purpose.

User inputs the data in columns format, selects reaction code from the list, and adds uncertainties defining their types and values using the input form shown on Fig.1. The form requires the minimum information for creating a valid EXFOR file.

Input data to Web EXFOR system
 Uploading experimental data for interactive construction of covariance matrix
 by V.Zerkin, IAEA-NDS, 2015, ver-2015-10-23

Submit Reset

Author:

Reaction: ?

Method: ?

Data Examples: [\[1\]](#) [\[2\]](#) [\[3\]](#) [\[4\]](#) [\[5\]](#)

Data description

Uncertainties Δy : | ; nn=4

Var: {X}	{Y}	{ΔY}1	{ΔY}2	{ΔY}3	{ΔY}4
Header: EN	DATA	ERR-TOT	ERR-1	ERR-2	ERR-3
Units: MeV	mb	mb	per-cent	ERR-TOT	per-cent
Type: Table	Table	Table	Const	ERR-STAT	Const
Value:			5.	ERR-SYS	15.

x	y	Δy	...	input your data below (copy/paste)
4.33	7.7E+09	.77E+09		
4.60	8.3E+09	.83E+09		
4.70	8.9E+09	.89E+09		
4.92	7.9E+09	.79E+09		
5.28	8.2E+09	.82E+09		
5.54	7.8E+09	.78E+09		
5.71	8.5E+09	.85E+09		
6.14	8.5E+09	.85E+09		
6.81	8.9E+09	.89E+09		

Submit Reset

Submit in new Window

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Fig.1. Form for input data

The data flow of the system is shown on Fig.2. After user input the data, they are converted into simplified EXFOR Entry, sent to the EXFOR Uploading system, and then (together with data from EXFOR database found by reaction code) coming to the EXFOR Retrieval system. After that, almost all functions can be applied to the users' data.

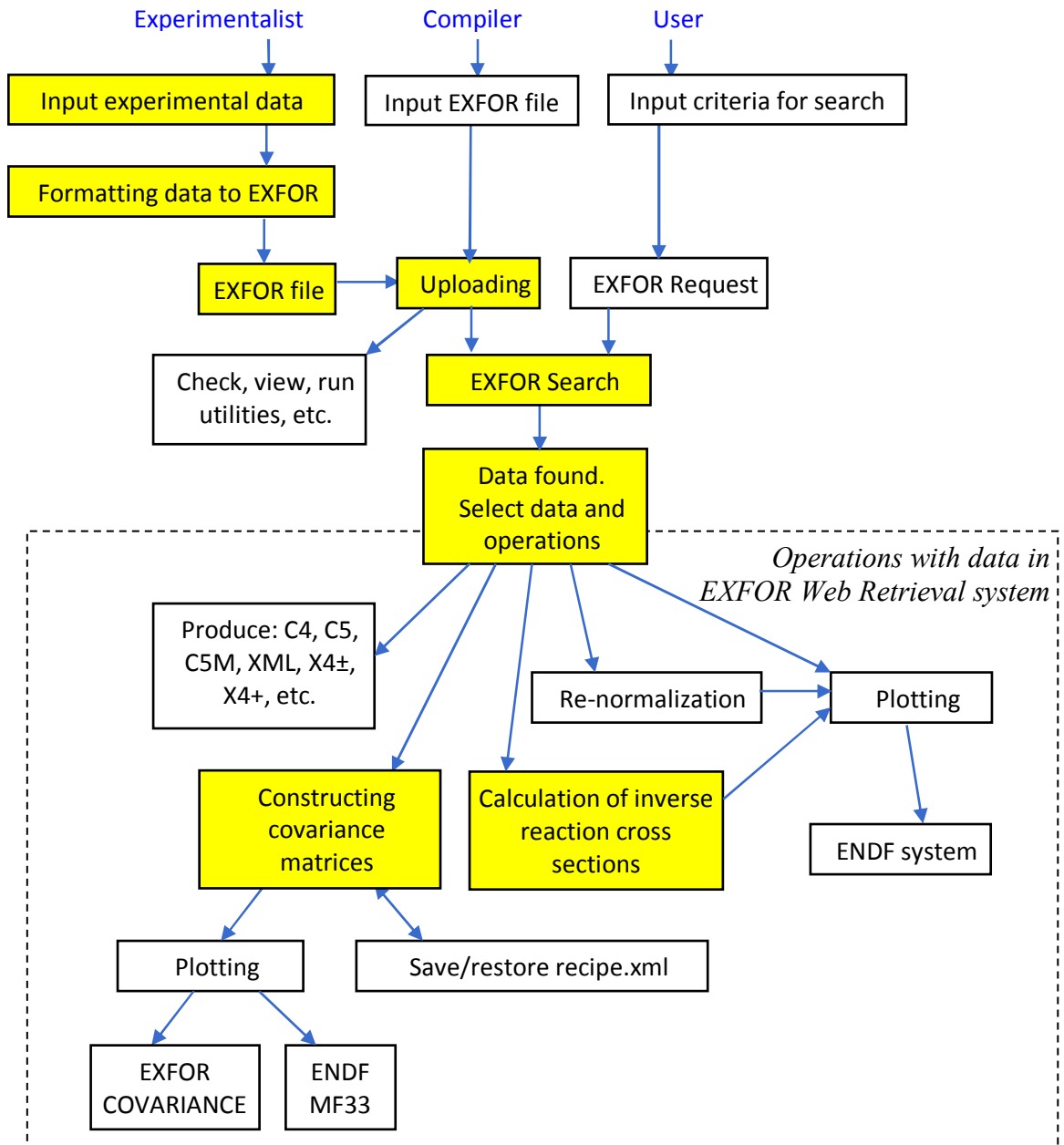


Fig.2. Data flow in the system

The tool was primary developed for experimentalists for constructing covariance matrices, and for evaluators calculating of cross sections of inverse reactions.

Reference:

1. "Uploading experimental data for constructing covariance matrix, calculating inverse reaction cross sections, etc.", <https://www-nds.iaea.org/exfor/x4data.htm>