

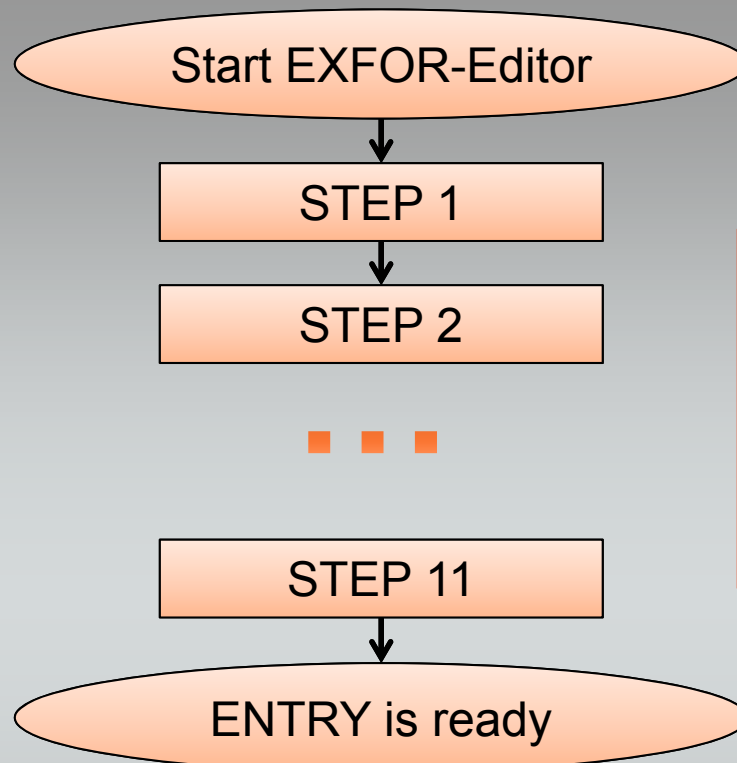
EXFOR-EDITOR: QUICK START TUTORIAL AND SOME USEFUL FEATURES

October 24 – 28, 2016, IAEA, Vienna, Austria,

G. Pikulina

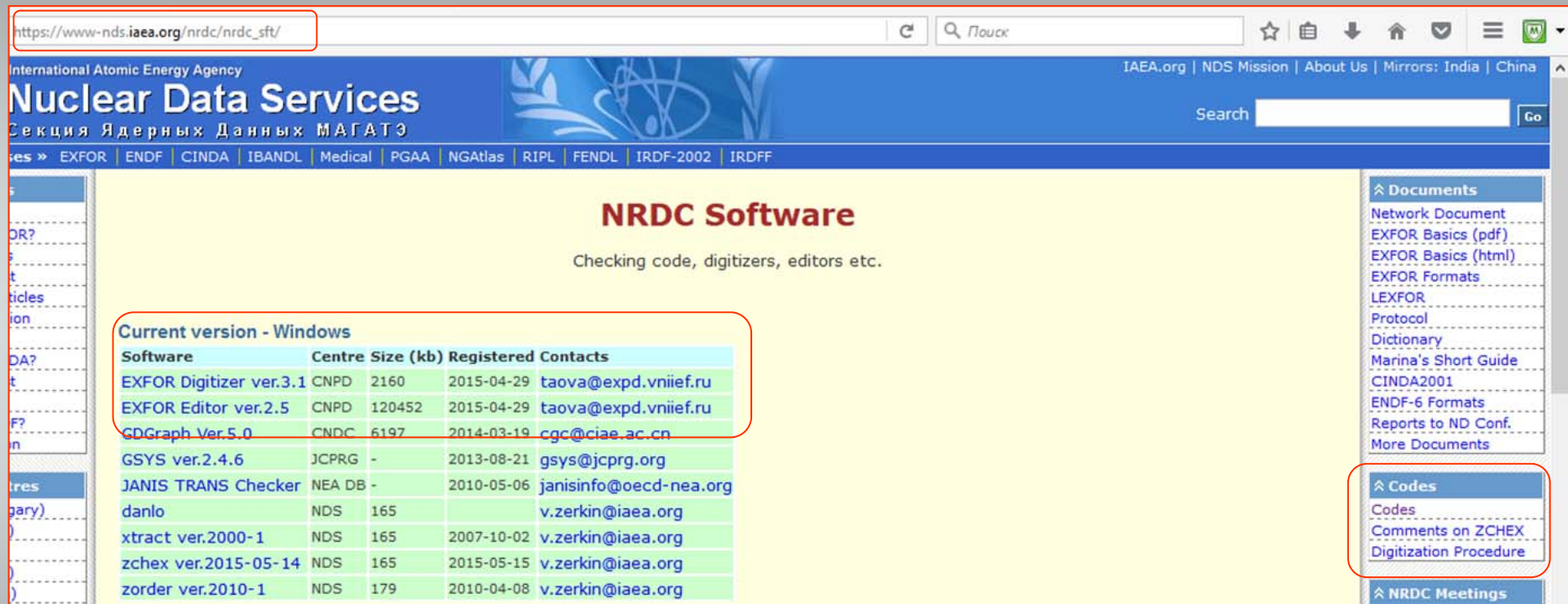
CNPD, Russian Federal Nuclear Center – VNIIEF,

Sarov 607188, Russia



The algorithm of EXFOR file compilation is a set of simple steps.
The result is an EXFOR file.

- Download archive from NDS or CNPD site
- Unpack archive



International Atomic Energy Agency
Nuclear Data Services
 Секция Ядерных Данных МАГАТЭ

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Search Go

EXFOR | ENDF | CINDA | IBANDL | Medical | PGAA | NGAtlas | RIPL | FENDL | IRDF-2002 | IRDFF

NRDC Software

Checking code, digitizers, editors etc.

Current version - Windows

Software	Centre	Size (kb)	Registered	Contacts
EXFOR Digitizer ver.3.1	CNPD	2160	2015-04-29	taova@expd.vniief.ru
EXFOR Editor ver.2.5	CNPD	120452	2015-04-29	taova@expd.vniief.ru
GDGraph Ver 5.0	CNDC	6197	2014-03-19	cgc@ciae.ac.cn
GSYS ver.2.4.6	JCPRG	-	2013-08-21	gsys@jcprg.org
JANIS TRANS Checker	NEA DB	-	2010-05-06	janisinfo@oecd-nea.org
danlo	NDS	165		v.zerkin@iaea.org
xtract ver.2000-1	NDS	165	2007-10-02	v.zerkin@iaea.org
zchex ver.2015-05-14	NDS	165	2015-05-15	v.zerkin@iaea.org
zorder ver.2010-1	NDS	179	2010-04-08	v.zerkin@iaea.org

Documents

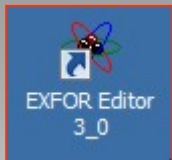
- Network Document
- EXFOR Basics (pdf)
- EXFOR Basics (html)
- EXFOR Formats
- LEXFOR
- Protocol
- Dictionary
- Marina's Short Guide
- CINDA2001
- ENDF-6 Formats
- Reports to ND Conf.
- More Documents

Codes

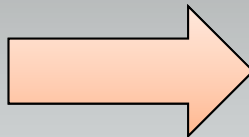
- Codes
- Comments on ZCHEX
- Digitization Procedure

NRDC Meetings

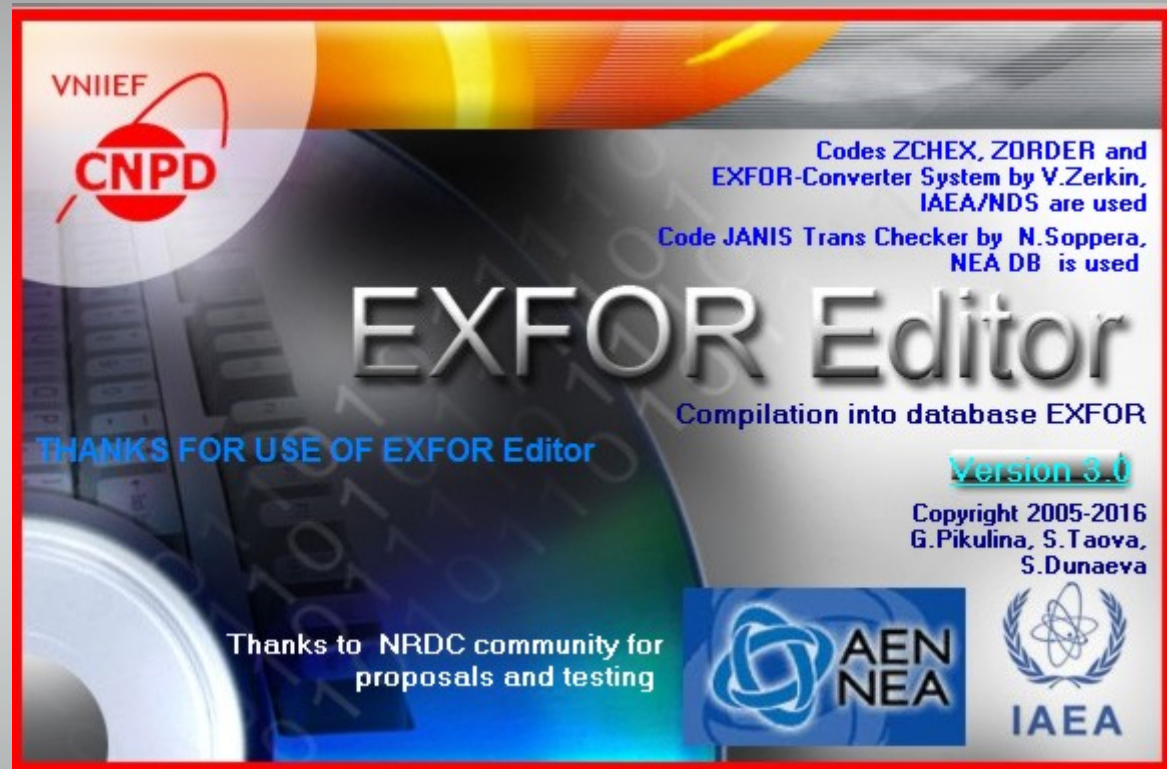
The user could work with the EXFOR-Editor in off-line mode at any convenient place.



OR



ORDER	03.06.2016
Pictures	03.06.2016
Trans_checker	03.06.2016
x4plus	03.06.2016
ZCHEX	03.06.2016
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	03.06.2016
ExfData3_0.exe	05.10.2016
F1271.xml	05.07.2016
Help_ExfData.chm	19.08.2010
importlog_seq.xsl	05.07.2016
LEXFOR_HELP.chm	01.12.2010
Manual_ExfData.doc	22.05.2013
ReadMe_ExfDatar.txt	03.06.2016



Create new file and define its structure and content or **File/New/EXFOR file**

Enter or edit bibliography or **Keywords Bibliography**

Enter or edit experiment description: physics, related data, bookkeeping or **Keywords/Physics; Keywords/Related Data; Keywords/Bookkeeping**

Enter or edit Common Section or **Sections/COMMON**

Enter or edit Data Section or **Sections/DATA**

Enter or edit data Reaction or **Keywords/Data Specification**

EXFOR File Structure

Column:	Row:	Total:	Insert:	C:\MyPrograms\Exfor\EXFOREditor\F1257.EXF
F1257.EXF	A0409_m27.exf	f1288_TEST.EXF		
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 elastic differential cross sections in the second resonance region.			F1257 1 3
				F1257 1 4
				F1257 1 5

EXFOR Dictionary Panel

- 001 - System Identifiers
- 002 - Information Identifiers
- 003 - Institute Codes
- 004 - Reference Type
- 005 - Journal Codes
- 006 - Reports
- 007 - Conference Codes

Selected Column: 1 Selected Row: 2

	ANG-CM	MOM	DATA-CM	DATA-ERR
	ADEG	MEV/C	MB/SR	MB/SR
1	40.	800.25	1.784	0.063
2	40.	800.25	1.784	0.063
3	40.	803.75	1.611	0.056
4	40.	803.75	1.633	0.056
5	40.	810.75	1.577	0.054
6	40.	814.54	1.575	0.037
7	40.	818.13	1.586	0.036
8	40.	822.17	1.560	0.046
9	40.	822.17	1.531	0.045
10	40.	829.92	1.482	0.035
11	40.	833.58	1.501	0.034
12	40.	837.67	1.478	0.052
13	40.	841.33	1.464	0.050
14	40.	845.17	1.546	0.040
15	40.	848.83	1.549	0.038
16	40.	852.67	1.553	0.054
17	40.	856.33	1.466	0.052
18	40.	859.95	1.457	0.038
19	40.	863.71	1.464	0.037
20	40.	867.58	1.524	0.054
21	40.	871.42	1.614	0.054
22	40.	874.88	1.540	0.042
23	40.	878.79	1.513	0.040
24	40.	882.50	1.563	0.061

Current Subentry: F1257002

DATA

- Import
- Sort
- Paste
- Chart
- Clear
- Check

Column

- Add
- Insert
- Copy
- Delete
- Rename
- Move Left
- Move Right
- Calculations
- Set Value
- Set Precision

Row

- Add
- Insert
- Copy
- Delete
- Move Up
- Move Down

Undo

- Undo Last Action

Table

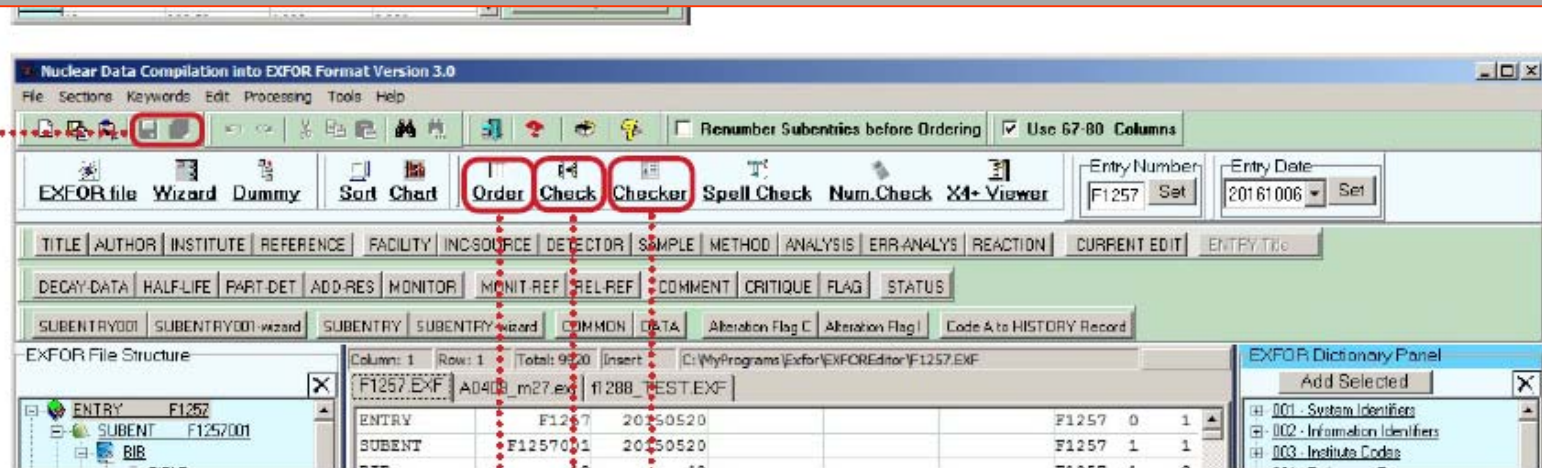
- Precision for Table
- Clear Data Table
- Export Data Table
- Add Data Table
- Cancel
- EXFOR Help
- Help

Process numeric data in Data Table Mode:

- Import or Copy/Paste
- Calculations
- Sort
- Set Precision
- Check numeric data

11

Save EXFOR file
or File/New/Save
or File/New/Save as



9

Order lines of EXFOR file

- use ZOrder
or Processing/Order

10

Check format and context of EXFOR-file:

- use ZChex
- Trans Checker
or Processing/Check
or Processing/Checker

EXFOR File Structure

Column: 12 Row: 9 Total: 93

F1257.EXF A0409_m27.exf f1288

ENTRY F1288

SUBENT F1288001

BIB

TITLE

AUTHOR

INSTITUTE

REFERENCE

FACILITY

SAMPLE

DETECTOR

METHOD

STATUS

ERR-ANALYS

HISTORY

ENDBIB

COMMON

ENDSUBENT

SUBENT F1288002

BIB

REACTION

ENDBIB

NOCOMMON

DATA

ENDDATA

ENDSUBENT

ENDENTRY

ENTRY	F1288	2			
SUBENT	F1288001	2			
BIB	11				
TITLE	Angular correla				
AUTHOR	(L.I.Galanina,M				
INSTITUTE	(4RUSMOS)				
REFERENCE	(J,IZV,80,(3),3				
	#doi:10.7868/S0				
	(J,BAS,80,(3),3				
	#doi:10.3103/S1				
FACILITY	(CYCLO,4RUSMOS)				
SAMPLE	Aluminum foil v				
	used as a targ				
DETECTOR	(SIBAR) Detecto				
	(diam of 23 cr				
	was 100 mu-m.				
METHOD	(BCINT)				
STATUS	(TABLE) Data w				
ERR-ANALYS	(ERR-1) Error c				

Confirm Deletion

Delete Selected Section?

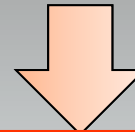
Replace by NOSUBENT

OK Cancel

EN	ERR-1	ERR-2	E
MEV	PER-CENT	PER-CENT	P
	7.4	20.	7.
ENDCOMMON	3	0	
ENDSUBENT	34	0	
NOSUBENT	F1288002	20160804	

- Click the left mouse button on any node to navigate through file.
- Click the right button on a **SUBENTRY node**. Select the **DELETE item** of popup menu. Set the flag to replace Subentry by the keyword NOSUBENT.
- Do the same to delete DATA section or COMMON section.

ENDBIB	2	0	
COMMON	4	3	
EN	ERR-1	ERR-2	ERR-3
MEV	PER-CENT	PER-CENT	PER-CENT
7.4	20.	7.	3.
ENDCOMMON	3	0	



Input of Common Data

COMMON section

EN	ERR-1	ERR-2	ERR-3
MEV	PER-CENT	PER-CENT	PER-CENT
7.4	20.	7.	3.

Heading: EN - Energy of incident projectile, laboratory system

Units: MEV - MeV

Value: 7.4

Actions with Columns: Add, Insert, Delete, Move Left, Move Right

Current Position: SUBENTRY F1288001 COMMON section

OK, Cancel, Help, EXFOR-Help

- Click the right button on a keyword or section node.
- Select the EDIT item of popup menu.
- Edit information.

EXFOR File Structure

- ENTRY F1257
 - SUBENT F1257001
 - BIB
 - TITLE
 - AUTHOR
 - INSTITUTE
 - REFERENCE
 - REL-REF
 - FACILITY
 - INC-SOURCE
 - SAMPLE
 - DETECTOR
 - ERR-ANALYS
 - STATUS
 - HISTORY
 - ENDBIB
 - COMMON
 - ENDSUBENT
 - SUBENT F1257002
 - BIB
 - REACTION
 - PART-DET
 - ENDBIB
 - NOCOMMON
 - DATA
 - ENDDATA

Column: 12 Row: 24 Total: 9920 Insert C:\MyPrograms\Exfor

F1257.EXF	A0409_m27.exf	f1288_TEST.EXF
REL-REF	(I,,I.Alekseev+,J,NIM/A,578,2	
FACILITY	(SYNCH,4RUSITE) The ITEP 10-G	
INC-SOURCE	The secondary pion beam line	
	synchrotron.	
SAMPLE	Liquid hydrogen placed into m	
	diameter and 250 mm length al	
	a target.	
DETECTOR	(DRFTC) Two chambers closest	
	sensitive area 600*400 mm2. S	
	sensitive area 1200*800 mm2.	
	Ar and 30% CO2 is used in the	
	Selection of the elastic even	
	angular correlation of pion a	
ERR-ANALYS	(ERR-SYS) Systematic error	
	(MOM-ERR) Error of beam cali	
	(ERR-1) Beam pollution of	
	(ERR-2) Luminosity normali	
	(ERR-3) Tracking efficienc	
	(ERR-4) Monte-Carlo simula	

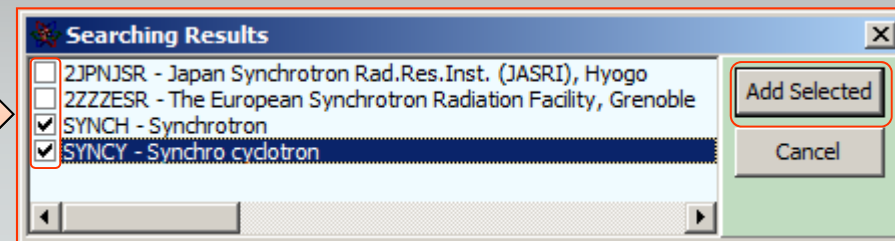
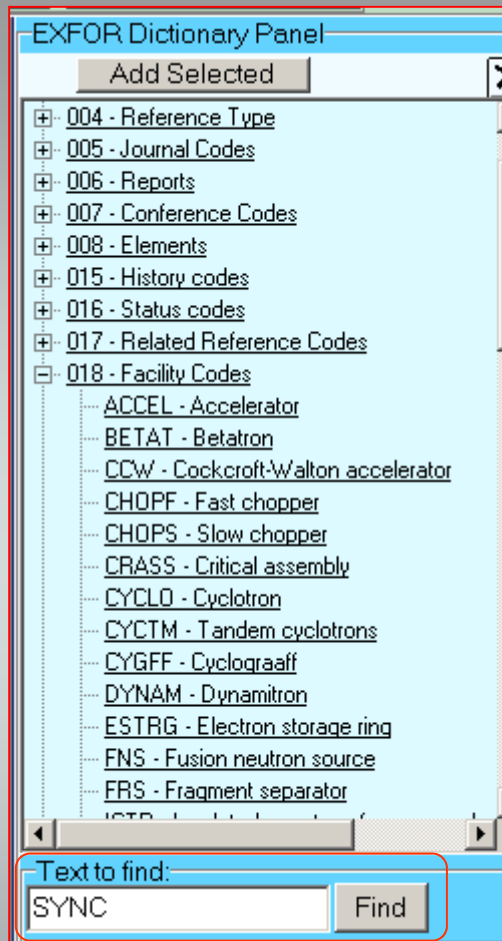
EXFOR Dictionary Panel

Add Selected

- 016 - Status codes
- 017 - Related Reference Codes
- 018 - Facility Codes
- 019 - Incident Source Codes
- 020 - Additional Result Codes
- 021 - Method Codes
- 022 - Detector Codes
 - BAF2 - Scintillator BaF2
 - BF3 - Boron Trifluoride neutron detector
 - BGO - Bismuth-Germanate crystal detector
 - BPAIR - Electron-pair spectrometer
 - BUBLC - Bubble chamber
 - CEREN - Cerenkov detector
 - COIN - Coincidence counter arrangement (Detectors used in
 - COMPL - Compton Polarimeter
 - CSICR - Cesium-Iodide crystal
 - D4PI - 4pi detector
 - DRFTC - Drift chamber
 - FISCH - Fission chamber
 - GE - Germanium detector (to be used when specific type is
 - GE-IN - Germanium intrinsic detector
 - GELI - Germanium-Lithium detector
 - SEMUS - Silicon Micro

Text to find: Find

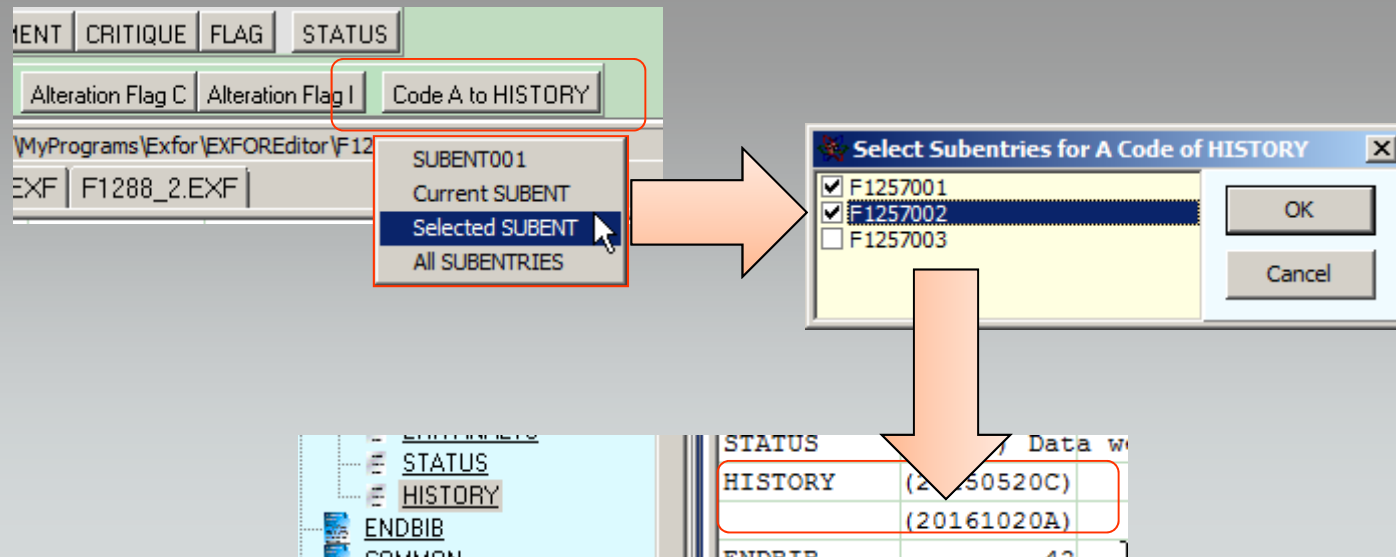
- Click the left button on the code word to select it.
- Press the Alt or Shift button on the keyboard at the same time to select several code words.
- Drag and drop codes into selected position.



- Print text into the Text to find field
- Click the Find button
- Set flags for the selected codes
- Click the Add Selected button

ENTRY	C	F1257	20161020				F1257	0	1
SUBENT	C	F1257001	20161020				F1257	1	1
BIB		12	42				F1257	1	2
TITLE		High-precision measurements of the pion-proton					F1257	1	3

- Click the **Alternation Flag C** button.
- Select menu item where to insert the alternation flag.
- Do the same with the **Alternation Flag I** button.



- Click the **Code A to HISTORY** button.
- If the Selected SUBENT is chosen than set flags for Subentries.

ENTRY	F1257	20150520
SUBENT	F1257001	20150520

Ordering Use 67-80 Columns

Back X4+ Viewer

Entry Number: F1259

Entry Date: 20161020

ANALYS REACTION CURRENT EDIT

Октябрь 2016

Пн	Вт	Ср	Чт	Пт	Сб	Вс
26	27	28	29	30	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	1	2	3	4	5	6

Сегодня: 20.10.2016

ENTRY	F1259	20161020
SUBENT	F1259001	20161020
BIB	12	42

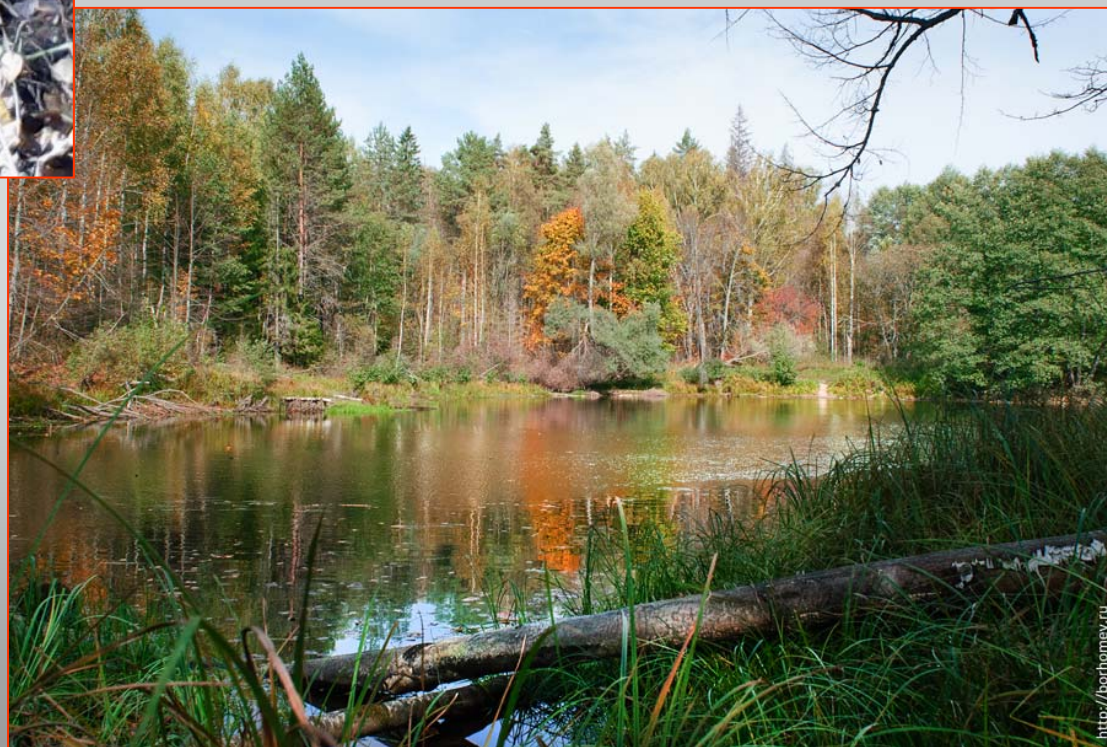
■ Input new value in the **Entry Number** field and click the **Set** button.

■ Input new value in the **Entry Date** field and click the **Set** button.

■ New values will be set in all Subentries. The number of subentries will be ordered.



THANK YOU!



<http://borhomey.ru>