

CINDA-editor

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Compiler edits the data in CINDA database performing some operations, like insert/delete/modify blocks/lines and save results in his database. All these changes are accumulated together with actions in the database as temporary. Then Compiler makes TRANS files (Exchange and Reader), dismiss all changes in the database and sends TRANS file to other Nuclear Data Centers. After approval procedure, all TRANS files (including own files) must be applied to the database and became permanent.

CINDA editor program was built as an extension of Java program used in CD "EXFOR-CINDA for Windows". Last CD-ROM distribution contains a batch file (ccompil.bat) running program X4java02 in CINDA compilation mode.

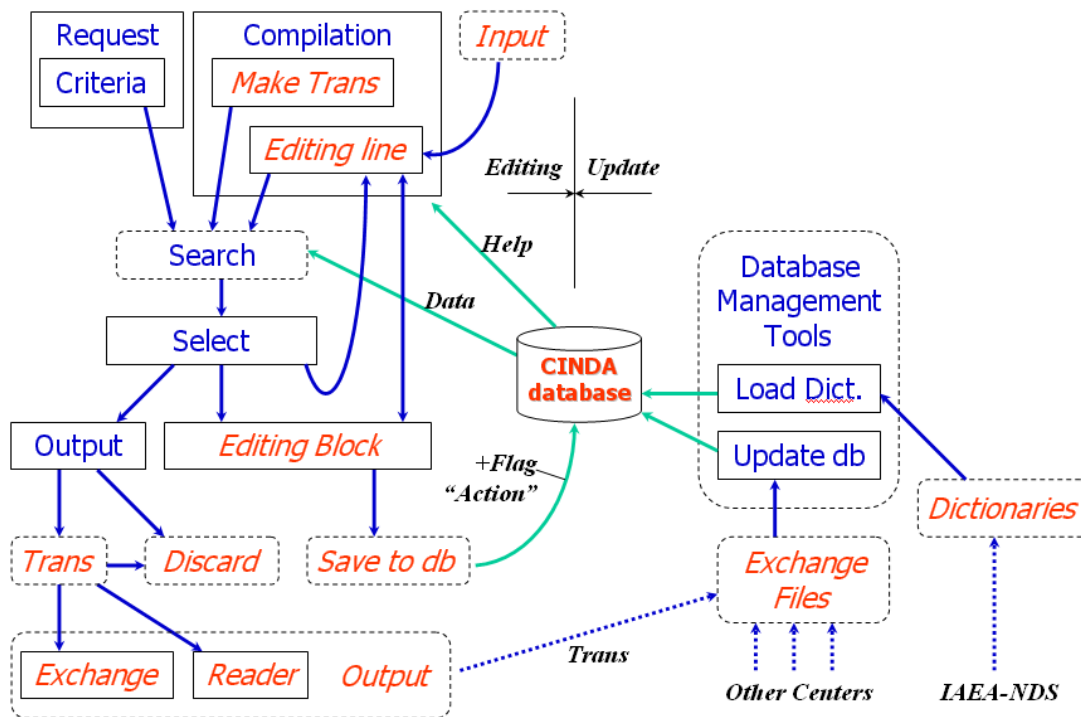


Fig.1 CINDA: data editing and database update

Editing process in details.

Editing actions provided by the program are following:

- Create new block and add lines to it
- Add lines to an existing block
- Delete line/block
- Modify line/block
- Attach block to an existing block (move)
- Move line to another block
- Save current editing; continue editing later in another session
- Output TRANS files and clean database

This functionality is implemented in the following way. Two new Tabs are added to existing panel: Compilation-Tab and CC-Help (CINDA Compilation Help). Compilation-Tab has 4 parts (areas):

- Block information: used as search criteria and for input of data of Block
- Line information: used for input/editing of the data of Line
- Edited block: contains Block in CINDA format which is currently edited with special flags for every line showing the status of the line
- Line related information: used for display of database internal information about edited line

Two Tabs existing in CD-ROM retrieval system have an extended functionality:

- Select-Tab: used to define block/line for editing, display flags of lines currently stored in the database, used for calls of editing functions via right-button pull down menu; have a buttons to make TRANS and dismiss accumulated changes in the database
- Output-Tab creates TRANS files in Exchange and Reader formats.

Editing existing data.

Process starts from a search of the data which should be edited. Then on Select-Tab by right-button click using pull-down menu compiler select Block for editing (now selected block appear in Block-edit area). From this menu (as well as from Block-edit area) a line can be copied to Line-edit area: line is disassembled to parts and prepared for editing. Other functions: Move line to edit-block area, Move block (attach) to edit-block area.

Values in Line-edit fields can be manually edited and/or taken from the Help-system based on EXFOR-CINDA dictionaries. When line is ready, compiler defines how s/he wants to store this line in Edit-block area: add new line or update edited Line: s/he does this by Edit-line actions at the bottom of Line-edit area. Block-edit area has also pull-down menu working for the actions for every line in the Block (Delete line, Restore line, Mark-up line, Edit line, etc.). On the top of Block-edit area there is a series of buttons for actions with the block when it is ready (Save in database, Restore from database, Restore original values, etc.).

Insert a new data.

Buttons "Block" on Compilation-Tab can be used for search of existing blocks with given BlockNo and Lab-code (compiler should define a BlockNo which is not yet occupied). Then compiler inputs data and codes for Block and Line and use action "New Block" or "Add Line". Then s/he edits block in the Block-edit area (same as described earlier) and store data in the database.

Make TRANS.

Button "Trans" on Compilation-Tab should be used to prepare a new TRANS: program will search for update Lines accumulated in the database and display them in Selection-Tab. Button "Roll-Back" Selection-Tab allow to dismiss all changes made until now in the database; button "Out Trans" makes two TRANS files (Exchange and Reader). These files can be stored locally and sent to other Centers...

Pictures in Appendix illustrate editing process.

Compilation form. Starting point.

The screenshot shows the CINDA-Session 1 application window. The interface includes a menu bar (Compilation, CC-Help, Request, SQL, Config, About, CINDA, Help) and a toolbar (Search, Reset, Block?, Updates, Trans, Example, Show: Block, Line, Info, Area: 3NDS). The main area is divided into several sections:

- Block Information:** Contains fields for Target (13-AL-27), Reaction (N,TOT), Quantity (CS), Laboratory (1USAANL), Block No (17910), and Old Quantity (TOT). A callout bubble points to this section with the text: "Here you will edit Block data".
- Line Information:** Contains fields for Seq.No (1), Reader (+), Hierarchy (1), WorkType (E), Min (eV) (0), and Max (eV) (2.0+7). A callout bubble points to this section with the text: "Here you will edit Line data".
- Reference:** Contains fields for Code (J,NIM), Volume (86), Number, Issue, Page (83), and Date (197002). It also has radio buttons for "Full article" (selected) and "Abstract". A callout bubble points to the "Full Reference Code" field with the text: "Put data to Block-edit area".
- Comment:** Contains a text field with the value "Finlay. +OHO. LAMPF. GRPH.".
- Editing Line:** A row of buttons: Add Line, Update *Line, New Block, Apply Block-Info.
- Edit Block...:** A large empty text area at the bottom. A callout bubble points to it with the text: "Block-edit area. Here you select Lines for editing and apply actions to database".

At the bottom left of the window, the text "1) chkLaboratory" is visible.

Select form. Actions on the blocks and lines
(pull-down menu is called by mouse right-button click).

CINDA-Session 1

Compilation | CC-Help | Request | SQL | Config | About | CINDA | Help | Select

Submit | View | BlockNo | Reactions:1 Blocks:11 Lines:39

Output Formats: CINDA Bibliography EXFOR Optional: Show full blocks in CINDA output

Data Selection: Selected Unselected All Use Mouse: <Shift>, <Ctrl>, Double-click, Right-button

1) 13-AL-27(N,TOT),CS									
1	IUSAANL	702	1	2.5+05	Expt Rept R,ANL-NDM-29	197706	Smith+VERIFY	LIGTOT,POOR	RESULT.MD
2	IUSAANL	701	1	1.7+06	5.0+06 Expt Prog P,ANL-8010,408			TOF.CFD	OTH EXPT METHOD.NDG
3	IUSAANL	700	1	2.8+04	6.3+05 Expt Priv W,HIBDON			NET METHODS,	2 TEMPS
4			2	2.8+04	6.3+05 Expt Data 4,EXFOR11460				
5			3	2.8+04	1.3+05 Expt Priv W,HIBDON				
E 6	IUSAANL	17	1	3.2+05	1.5+06 Expt Jour J,NSE,26,500			0.8KEV	RSLN
E 7			2	3.2+05	1.5+06 Expt Abst A,DA,26,6634			DC+TOF.	2 0.8KEV RSLN.
E 8			3	NDG	Expt Jour J,NIM,39,185			Whalen+COMPUTER	EXPT.NDG,CF BAP 9
E C 9			4	3.0+05	1.5+06 Expt Prog P,WASH-1068,1			196603	Chien+,TEP NSE
E M 10			4	3.0+05	1.5+06 Expt Prog P,WASH-1068-1			196603	Chien+,TEP NSE
E 11			5	5.0+05	1.5+06 Expt Abst A,BAP,10,576			196506	ABST AC7
E 12			6	3.0+05	1.5+06 Expt Prog P,WASH-1056,1			196503	Chien+ TOF+STEADY, H
E D 13			7	3.0+05	1.5+06 Expt Abst A,BAP,9,651			196410	ABST Q13
E 14			8	3.0+05	1.5+06 Expt Prog P,WASH-1053,1			196410	Whalen.RSLN1-10KEV N
E 15			9	3.0+05	1.5+06 Expt Prog P,WASH-1048,2			196406	Smith. TOF.ANS/M RSLN
E 16			10	3.0+05	1.5+06 Expt Prog P,WASH-1046,11			196401	Smith.VDG.RSLN .INS/
E 17			11	3.2+05	1.5+06 Expt Data 4,EXFOR11201			197606	873 PTS. SIGMA.
E 18			12	3.2+05	1.0+06 Expt Jour J,NSE,26,500			196601	Chien+
E A 19			13	1.1+05	2.2+07 Expt Data 4,EXFOR11201			197606	1000 PTS.
20	IUSAANL	16	1	1.4+05	1.6+05 Expt Jour J,PR,114,179			195904	Hibdon+ CURVES, 66 RES SEEN
21	IUSAANL	5	1	1.0+03	4.5+05 Expt Jour J,PR,114,179			195904	Hibdon+ CURVES, 66 RES SEEN

Edit Block #5591

- Move Block to Edit-block: #5591
- Edit Line:10 #430852
- Move Line to Edit-block:10 #430852
- Show Block #5591
- Show Line #430852
- Show Project #1490
- Close

Edit Block: BlockID=5591 13-AL-27(N,TOT) Q=TOT Ins=IUSAANL BlockNo=17

Save Restore Restore-00 Kill Empty Show result

1)	13 27 N,TOT	CS	IUSAANL	17	1EC	3.2+05	1.5+063J,NSE,26,500	196612	Chien+ TOF, 0.8KEV R
2)	13 27 N,TOT	CS	IUSAANL	17	2EC	3.2+05	1.5+063A,DA,26,6634	196605	Chien. VDG. DC+TOF.
3)	13 27 N,TOT	CS	IUSAANL	17	3ECNDG		3J,NIM,39,185	196601	Whalen+COMPUTER EXPT
4)	C 13 27 N,TOT	CS	IUSAANL	17	4E+	3.0+05	1.5+065P,WASH-1068,1	196603	Chien+,TEP NSE
5)	M 13 27 N,TOT	CS	IUSAANL	17	4E+	3.0+05	1.5+065P,WASH-1068-1	196603	Chien+,TEP NSE ---c-
6)	13 27 N,TOT	CS	IUSAANL	17	5EC	5.0+05	1.5+065A,BAP,10,576	196506	ABST AC7
7)	13 27 N,TOT	CS	IUSAANL	17	6EC	3.0+05	1.5+065P,WASH-1056,1	196503	Chien+ TOF+STEADY, H
8)	D 13 27 N,TOT	CS	IUSAANL	17	7EC	3.0+05	1.5+065A,BAP,9,651	196410	ABST Q13
9)	13 27 N,TOT	CS	IUSAANL	17	8EC	3.0+05	1.5+065P,WASH-1053,1	196410	Whalen.RSLN1-10KEV N
10)	13 27 N,TOT	CS	IUSAANL	17	9EC	3.0+05	1.5+065P,WASH-1048,2	196406	Smith. TOF.ANS/M RSLN
11)	13 27 N,TOT	CS	IUSAANL	17	10EC	3.0+05	1.5+065P,WASH-1046,11	196401	Smith.VDG.RSLN .INS/
12)	13 27 N,TOT	CS	IUSAANL	17	11EC	3.2+05	1.5+0664,EXFOR11201	197606	873 PTS. SIGMA.
13)	13 27 N,TOT	CS	IUSAANL	17	12E+	3.2+05	1.0+062J,NSE,26,500	196601	Chien+
14)	A 13 27 N,TOT	CS	IUSAANL	17	13E+	1.1+05	2.2+0764,EXFOR11201	197606	1000 PTS.

32) Found: Reactions:1 Blocks:11 Lines:39

Explanation of Action-codes of Lines of the Block-edit area (left side)

EXFOR+CINDA/Java2

CINDA Compilation Help

Compiler edits the data in database performing some operations, like insert/delete/modify blocks/lines and save resulting blocks in his database. All these changes are accumulated together with actions in the database as temporary. Than Compiler makes TRANS file, dismiss all changes in the database and sends TRANS file to other Nuclear Data Centers. After approval procedure, all TRANS files (including own file) must be applied to the database and became permanent.

Left side column in Edit-block area:

- 1 2 3 columns:
- X new operation: will be applied by button "Save"
- * marked line: it will be changed by button "Update line [*]"
- X old operation stored in database

blank line that was not changed after last trans

- C original line which was changed
- M update (modification) of changed ('C') line
- D original line which was changed
- A added line
- R restore original value (before last trans)
- K kill edited block ('D' for all lines)
- D existing line to be deleted
- C existing line to be changed

M . updated existing line (replacing line with new operation 'C')

a . existing line (from other block) moved to this block

A . new line added

K . kill existing block (other than edited)

D . delete existing line (from other block)

Browser...

Edit Block...

10) Written: 6 Lines

Actions of lines and block, editing line field by field.

The screenshot shows the CINDA software interface. At the top, there are menu options: Compilation, CC-Help, Request, SQL, Config, About, CINDA, Help, Select. Below the menu is a toolbar with buttons: Search, Reset, Block?, Updates, Trans, Example, Show: Block, Line, Info, Area: 3NDS. The main window is titled 'CINDA-Session 1' and contains several input fields for 'Line Information' (Seq.No, Reader, Hierarchy, WorkType, Energy, Reference, Full Reference Code, Comment) and a 'help:Code' window listing various journal codes and their descriptions. At the bottom, there is an 'Edit Block' window showing a list of lines with columns for line number, date, status, code, and description. A context menu is open over line 4, with options: Save, Restore, Restore-00, Kill, Empty, Show result, Edit Line: 4, Mark Line: 4, Restore Original Line: 4, Show Line #13203, and Close.

44) line-upd

Show result: how block will look after editing.

The screenshot shows the CINDA software interface after editing. The window title is 'C4-Block 1/1 2005/10/06 13:53:27'. The main window displays the 'Edit Block' window with the following table of lines:

Line No	Date	Status	Code	Line 1	Line 2	Line 3	Line 4
1)	13 27 N,TOT	CS	IUSAANL	17	1EC 3.2+05 1.5+063J,NSE,26,500	196612Chien+ TOF, 0.8KEV RSLN	19900117TOT
2)	13 27 N,TOT	CS	IUSAANL	17	2EC 3.2+05 1.5+063A,DA,26,6634	196605Chien. VDG. DC+TOF.	20051006TOT
3)	13 27 N,TOT	CS	IUSAANL	17	3ECNDG 3J,NIM,39,185	196601Whalen+COMPUTER EXPT.NDG,CF BAP 9 6	19900117TOT
4)	13 27 N,TOT	CS	IUSAANL	17	4E+ 3.0+05 1.5+065P,WASH-1068-1	196603=====	20051006TOT
5)	13 27 N,TOT	CS	IUSAANL	17	5EC 5.0+05 1.5+065A,BAP,10,576	196506.ABST AC7	19900117TOT
6)	13 27 N,TOT	CS	IUSAANL	17	6EC 3.0+05 1.5+065P,WASH-1056,1	196503Chien+ TOF+STEADY, HI RSLN, TBC	19900117TOT
7)	13 27 N,TOT	CS	IUSAANL	17	8EC 3.0+05 1.5+065P,WASH-1053,1	196410Whalen. RSLN1-10KEV NDC	19900117TOT
8)	13 27 N,TOT	CS	IUSAANL	17	9EC 3.0+05 1.5+065P,WASH-1048,2	196406Smith. TOF.ANS/M RSLN,AND MONOERBEAM	19900117TOT
9)	13 27 N,TOT	CS	IUSAANL	17	10EC 3.0+05 1.5+065P,WASH-1046,11	196401Smith.VDG. RSLN .INS/M.NDC TBC	19900117TOT
10)	13 27 N,TOT	CS	IUSAANL	17	11EC 3.2+05 1.5+0664,EXFOR11201.	197606.873 PTS. SIGMA.	19900117TOT
11)	13 27 N,TOT	CS	IUSAANL	17	12Ex 3.2+05 1.0+062J,NSE,26,500	196601Chien+ XAA	20050926TOT
12)	13 27 N,TOT	CS	IUSAANL	17	13EZ 1.1+05 2.2+0764,EXFOR11201	197606.1000 PTS.	20051006TOT
13)	13 27 N,TOT	CS	IUSAANL	17	0EC 3.0+05 1.5+065R,ABO-ANN-	2005 =====	20051006TOT

Make TRANS.

The screenshot shows the CINDA-Session 1 window. The menu bar includes Compilation, CC-Help, Request, SQL, Config, About, CINDA, Help, Select, and Output. The status bar shows 'Data Center: 3NDS Trans No.: 1' and 'Reactions:1 Blocks:1 Lines:6'. A data table is displayed with columns for reaction type, ID, name, and various parameters. A dialog box titled 'title' is open, asking 'Discard all the changes in the database?' with 'Yes', 'No', and 'Cancel' buttons.

Reaction	ID	Name	Other	Time	Rate	Order	Notes	Time	Rate	Order	Notes
M	1	1USAANL	17	2	3.2+05	1.5+06	Expt Abst A,DA,26,6634	196605			
M	2			4	3.0+05	1.5+06	Expt Prog P,WASH-1068-1	196603	Chien+,TBP NSE	---	---
M	3			4	3.0+05	1.5+06	Expt Prog P,WASH-1068-1	196603			
D	4			7	3.0+05						
A	5			13	1.1+05						
A	6			14	3.0+05						

Save Reader and Exchange files.

The screenshot shows the CINDA-Session 1 window with the 'Output Format' section. The 'Reader' and 'Exchange' fields are set to 'C:\DOCUME~1\zerkin\LOCALS~1\Temp\NDS001.READER' and 'C:\DOCUME~1\zerkin\LOCALS~1\Temp\NDS001.EXCHANGE' respectively. A 'Save As' dialog box is open, showing the file 'BNL180.c2k' selected in the 'c4trans' folder. The 'File name' field contains 'BNL180.c2k' and 'Files of type' is set to 'All Files (*.*)'.

View Reader file of TRANS.

The screenshot shows the C4-View window displaying the contents of the reader file. The file path is 'file: C:\DOCUME~1\zerkin\LOCALS~1\Temp\NDS001.READER'. The content is a table of reaction data.

Reaction	ID	Name	Other	Time	Rate	Order	Notes	Time	Rate	Order	Notes
M	13	27	N,TOT	CS	1USAANL	17	2EC 3.2+05	1.5+063A,DA,26,6634	196605		
M	13	27	N,TOT	CS	1USAANL	17	4E+ 3.0+05	1.5+065P,WASH-1068-1	196603	Chien+,TBP NSE	---
M	13	27	N,TOT	CS	1USAANL	17	4E+ 3.0+05	1.5+065P,WASH-1068-1	196603		
D	13	27	N,TOT	CS	1USAANL	17	7EC 3.0+05	1.5+065A,BAP,9,651	196410	ABST Q13	
A	13	27	N,TOT	CS	1USAANL	17	13E2 1.1+05	2.2+0764,EXFOR11201	197606	1000 PTS.	
A	13	27	N,TOT	CS	1USAANL	17	14EC 3.0+05	1.5+065R,ABO-AMN-	2005		