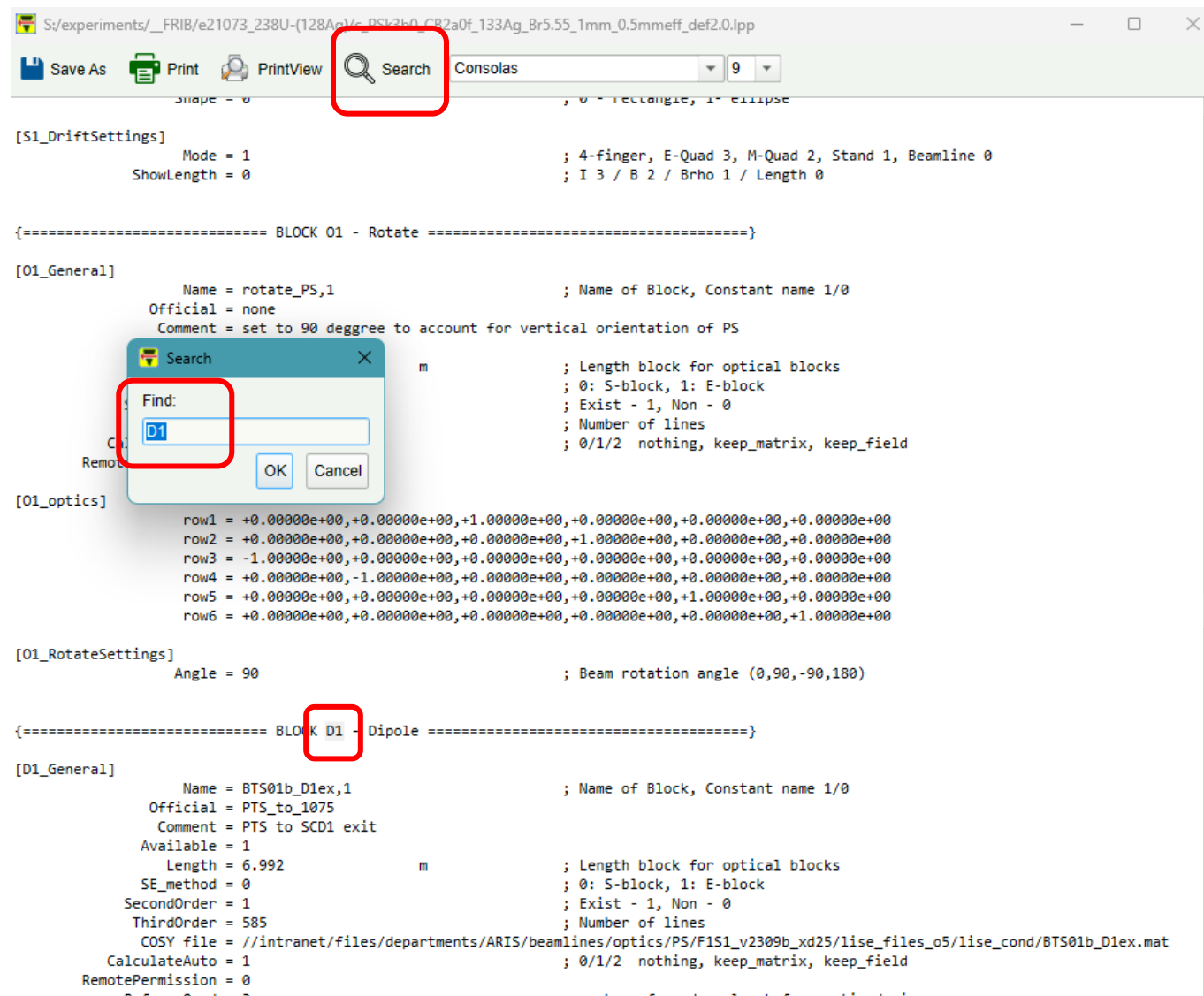


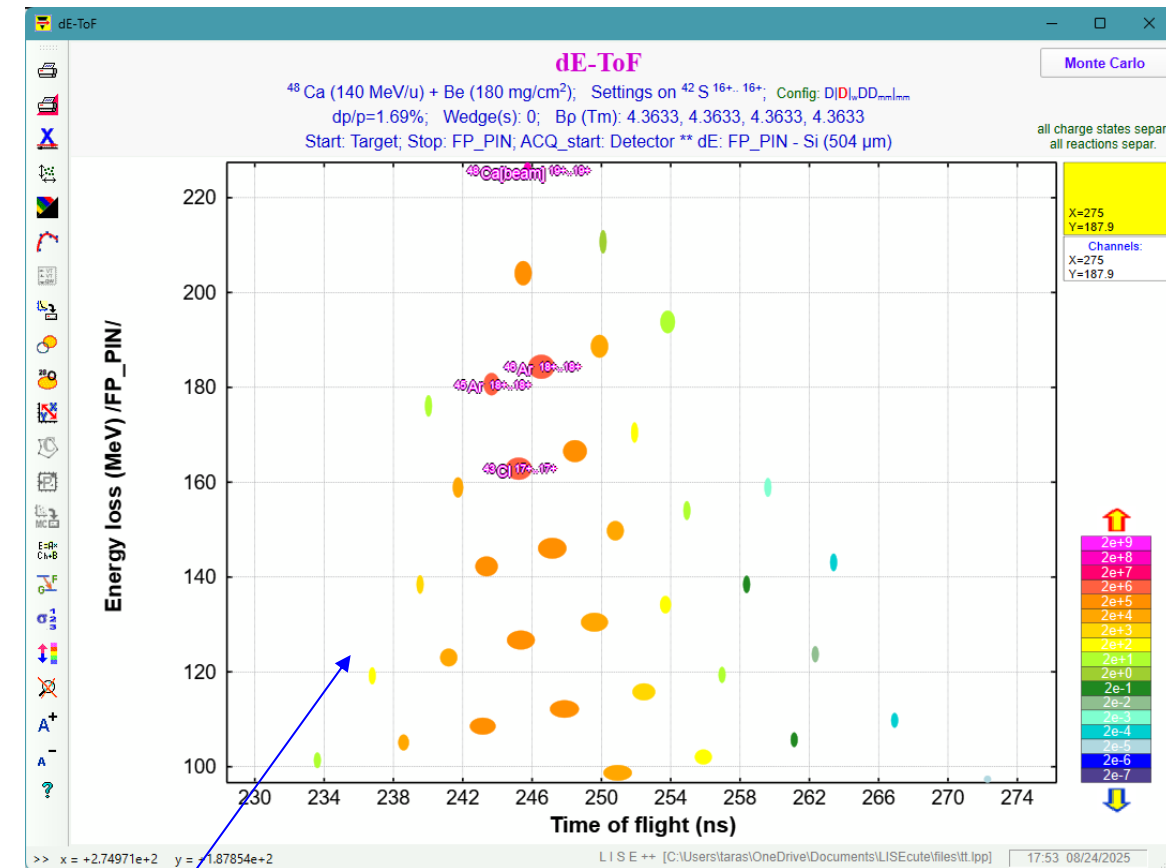
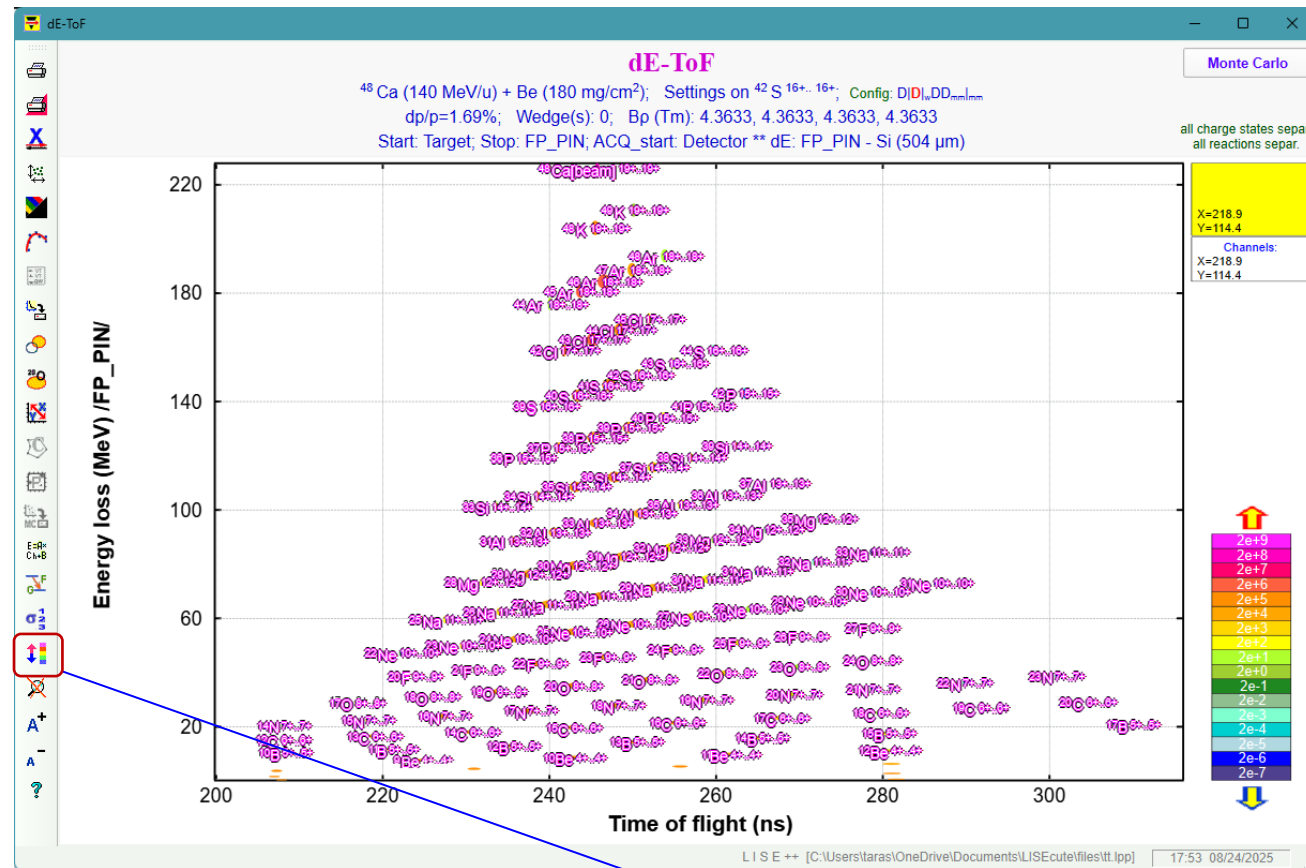
From 08/24/25

- File / text viewer: limit raised, search
- Threshold option for labels in 2D plots (mode=20).
- Update of Dialog and Gauge parent pointers
- Block ID : displayed in Setup dialog, Block ID read/write revision in Config files

- File viewer limit raised (up to 100,000 lines / 50 MB); supports larger files
- Added search in file/text viewer (F3 next, Shift+F3 previous, wrap-around)



# Implementation of Thresholds for plotting labels in 2D plots



**Edit Z-scale (log)**

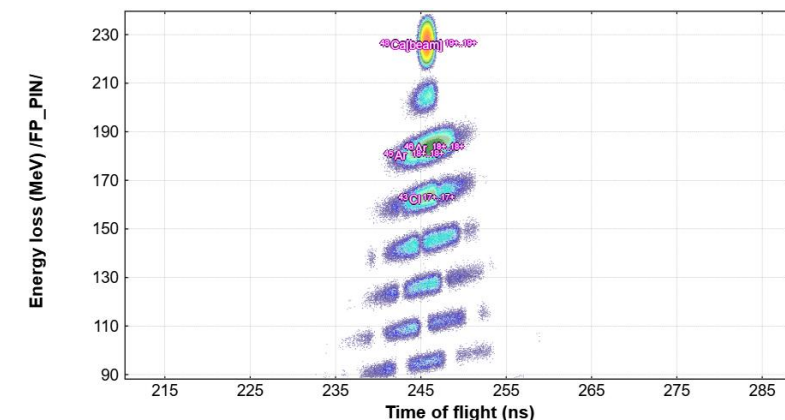
Threshold = 1.5112e-07

STEP = 10<sup>A</sup> 1

☒ Label Threshold = 1e6

OK Cancel

Should be checked



## Editable error cells in user cross-section dialog

## Updated contour result labels

Enter/Read a Cross-section value

Number of saved cross sections

	All CS	Intgd CS	Diff CS
All reactions	151	151	0
This reaction	151	151	0

A: 105, Element: Sb, Z: 51  
 p &  $\beta^+$  decay

Projectile & Target:  $^{124}\text{Xe} + \text{Be}$   
 Input new Intgd CS:  $\sigma$  (mb) = 9.88e-06,  $\delta\sigma$  = 9.00e-06

Selected Reaction: Projectile Fragmentation

Integral cross sections from models for selected reaction

0 - Abrasion/Ablation v.6.6.0	1.68e-07	mb
1 - EPAX 1.00: K.Summerer et al.,Phys.Rev.C42(1990)2546	8.34e-05	mb
2 - EPAX 2.15: K.Summerer et al.,Phys.Rev.C61(2000)034607	1.19e-04	mb
3 - EPAX 2.15 + user modifications	1.16e-04	mb
4 - EPAX 3.1a: K.Summerer,Phys.Rev.C86(2012)014601	7.45e-05	mb
5 - FRACS 1.1: B.Mei,Phys.Rev.C95(2017)034608 [E=300MeV/u]	1.37e-04	mb

Delete Current user CS  
 Delete All user cross sections  
 Quit

Intgd CS - Integrated Cross Section  
 Diff CS - Differential Cross Section

Preferences: cross sections from (set in the "Preference" dialog) FILE

Contour

$\Sigma$  1376  
 $Z_{\max}$  3  
 $\langle X \rangle$  -5.5893e-02  
 $\langle Y \rangle$  +1.0103e-01  
 $\sigma_x$  2.453e+00  
 $\sigma_y$  2.396e+00  
 $\sigma_{xy}$  9.312e-02

using 0 for QWidget \*parent -- pros & cons

chatGPT

In Qt, every `QWidget` constructor takes a `QWidget *parent` pointer that controls ownership, modality, stacking and lifetime. Passing `0` (or `nullptr`) has some **pros** and **cons**:

## ✓ Pros of using `parent = 0`

- **Independence:** The widget/dialog isn't tied to any other window. It can float freely and doesn't get minimized/hidden when the parent does.
- **Lifetime not tied:** If the parent is deleted, your dialog survives (you manage its lifetime yourself).
- **Testing / utility:** Handy for debugging small standalone widgets, or when you want a tool window that must always stay visible, regardless of other windows.

## ✗ Cons

- **No automatic deletion:** Parent widgets auto-delete their children; if you give `0`, you must remember to `delete` it yourself (or use `QScopedPointer`, `std::unique_ptr`, etc.), otherwise you leak memory.
- **Not modal/stacked to parent:** Dialog won't block its parent window with `exec()` modality and may appear behind it. Users can interact with the main window even while the dialog is open.
- **No centering:** Without a parent, Qt can't place the dialog relative to the main window, so it may open at an OS-default position (sometimes off-screen on multi-monitor setups).
- **Window management quirks:** The dialog won't minimize/restore along with the main window.

## Rule of thumb

- For dialogs bound to a main window, pass `this` as parent. This ensures modality, correct stacking, auto-cleanup, and a natural UX.
- Use `0/nullptr` only for:
  - truly independent top-level windows,
  - tools you want to persist outside the main app window,
  - or during development/debug.

Standardized dialog names to use “Dlg” at the end of name.

258 Dialog and 41 Gauge calls and were remade from 0 to real widget pointers for safety (and speed in Win11E ?)

**Important:** Please let us know if you notice any discrepancies in the new version that could be related to this update.

Some dialogs (e.g., TAboutDlg and d\_Apf) should continue to use a `nullptr` parent pointer.

Spectrometer design

Block	Nickname	Official	Z-q	Length, m	Enable
** Dipole	CD2_BTS06	FS_F2S2:WED_D1660	0	9.745	✓
Material	DB3_PPAC0	FS_F2S2:POSD_D1658			✓
_slits_	DB3_slit	FS_F2S2:SLH_D1662		0	✓
Material	DB3_PPAC1	FS_F2S2:POSD_D1663			✓
Wedge	DB3_wdg	FS_F2S2:WED_D1660			✓
Material	DB3_TID	FS_F2S2:TID_D1664			✓
** Dipole	CD3_BTS07		0	9.745	✓
_slits_	DB4_slit			0	✓
Material	DB4_PPAC	FS_F3S1:POSD_D1758			✓
** Dipole	CD4_BTS08		0	9.81	✓
Material	DB5_PPACs	FS_F3S2:POSD_D184...			✓
_slits_	DB5_slit	FS_F3S2:SLH/V_1854		0	✓
Material	DB5_TID	FS_F3S2:TID_D1855			✓
Material	DB5_PIN	FS_F3S2:ELD_D1857			✓
Material	PIN2				✓
Material	DB5_TKE1	FS_F3S2:ELD_D1858-1			✓
Material	DB5_TKE2	FS_F3S2:ELD_D1858-2			✓
Material	DB5_TKE3	FS_F3S2:ELD_D1858-3			✓
Material	DB5_TKE4	FS_F3S2:ELD_D1858-4			✓
Material	DB5_TKE5	FS_F3S2:ELD_D1858-5			✓
Material	DB5_TKE6				✓
Material	DB5_TKE_SCI	FS_F3S2:ELD_D1859			✓

Selected block: ☐ Enable ☐ Material(Detector)

Set block name automatically ☐

Block nickname: DB4 PPAC Block Length [m]: 0

Official name: FS\_F3S1:POSD\_D1758 Length after [m]: 75.77

Block Comment:  Index (ID): 45 (64)

Currently it's used in drag-drop actions is the Setup dialog (DK)

Save As Print PrintView Search Consoles 9

```

===== BLOCK A5 - FaradayCup =====
[A5_General]
    Name = FaradayCupPS4,1 ; Name of Block, Constant name 1/0
    Official = none
    Comment = nonexistent element
    Available = 0
    Length = 0 m ; Length block for optical blocks
    BlockId = 32 ; Internal Unique id
[A5_Compound]
    contents1 = 0,74,1,183.85 ; Nomer,Z,Atoms,Mass
    thickness = 0,10000000000,19.35,0,0,0 ; State,Thickness,density,angle,SolidGas,..
    Defect = 1,0 ; [0] choice - % or micron at 0 degree, [1]=value;
    Use for Q-states = 1
    ResolutionE = 0,0.5 ; [0] choice - % or MeV, [1]=value;
    Resolution2 = 0.1,0.5,0.5 ns,mm,mm ; Time&X&Y space
[A5_BlockCalibration]
    TOF = 1,1,0,ns
    dE = 1,1,0,MeV
    X = 1,1,0,mm
    Y = 1,1,0,mm

===== BLOCK M4 - Material =====
[M4_General]
    Name = DB1_Timing,1 ; Name of Block, Constant name 1/0
    Official = F1S2:TID_D1466
    Comment = DB1 thin scintillator
    Available = 0
    Length = 0 m ; Length block for optical blocks
    BlockId = 33 ; Internal Unique id
[M4_Compound]
    contents1 = 0,1,11,1.008 ; Nomer,Z,Atoms,Mass
    contents2 = 1.6,10,12,011 ; Nomer,Z,Atoms,Mass
  
```

- 17.15.01 (08/21/25) – Added unique block IDs to saves; fixed drag-and-drop saving.
- 17.15.02 (08/21/25) – File viewer limit raised (up to 100,000 lines / 50 MB); supports larger files.
- 17.15.03 (08/22/25) – Added search in file/text viewer (F3 next, Shift+F3 previous, wrap-around).
- 17.15.04 (08/22/25) – Editable error cells in user cross-section dialog.
- 17.15.05 (08/22/25) – Dialog OK responds to Enter key in thickness calibration dialog.
- 17.15.06 (08/22/25) – Block ID displayed in Setup dialog.
- 17.15.07 (08/22/25) – Block ID read/write revised in Config files.
- 17.15.08 (08/22/25) –  $\chi^2$ -box corrections in Data Minimization.
- 17.15.09 (08/23/25) – Updated contour result labels.
- 17.15.10 (08/23/25) – Threshold option for labels in 2D plots (mode=20).
- 17.15.11 (08/24/25) – Standardized dialog names to use “Dlg”.
- 17.15.12 (08/24/25) – Most dialog calls changed from QWidget \*0 to this (251 done, 12 left).
- 17.15.13 (08/24/25) – WGauge calls also revised from QWidget \*0 to this (46 done).