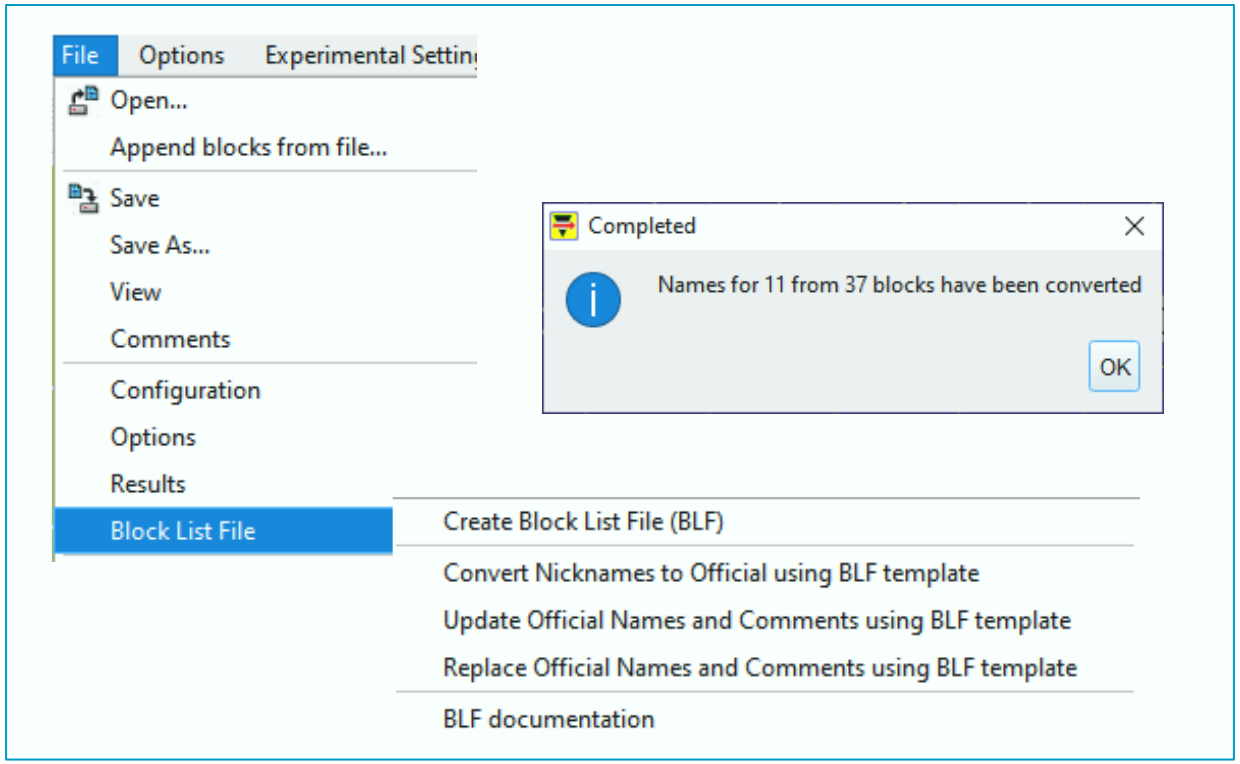
v.16.2.11
03/19/22

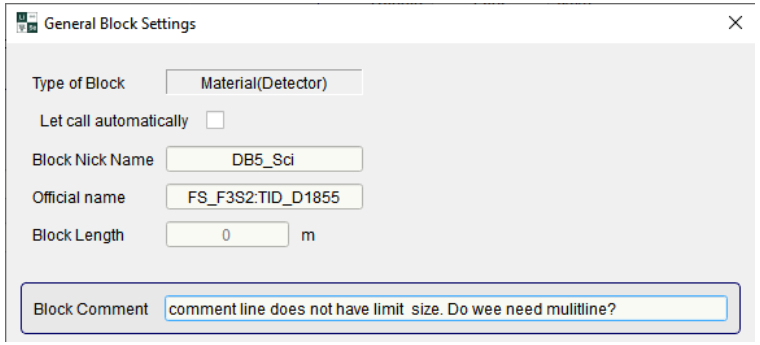
- Block names: nickname, official, comments
  http://lise.nscl.msu.edu/16/16_2_BlockNames.pdf
- Q3D "absolute path" envelope
  http://lise.nscl.msu.edu/16/16_1_19_AbsolutePath3D.pdf
- Abrasion-Fission 3EER model : excitation energy choice
- Important updates
  - Global revision of GEMINI-GUI (fixed serious bug)
  - Fixed bugs
  - Eliminate warnings
  - Multiline file comment
  - Moving from char* to QString
  - Non-latin file path support
  - ….

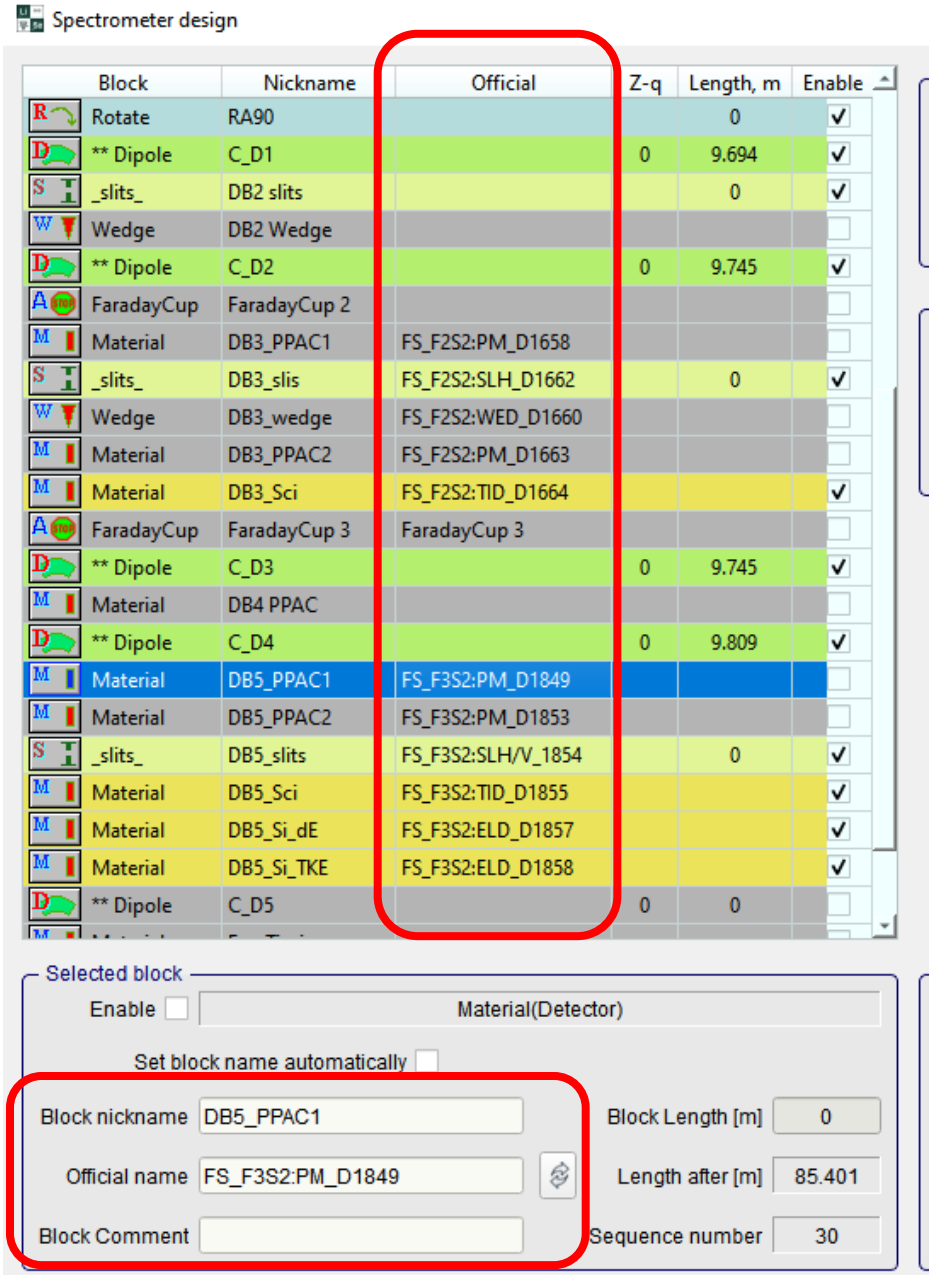
- List of all updates (versions 16.0.2 – 16.2.11)

Block names: nickname, official, comments

http://lise.nscl.msu.edu/16/16_2_BlockNames.pdf







Q3D "absolute path" envelope

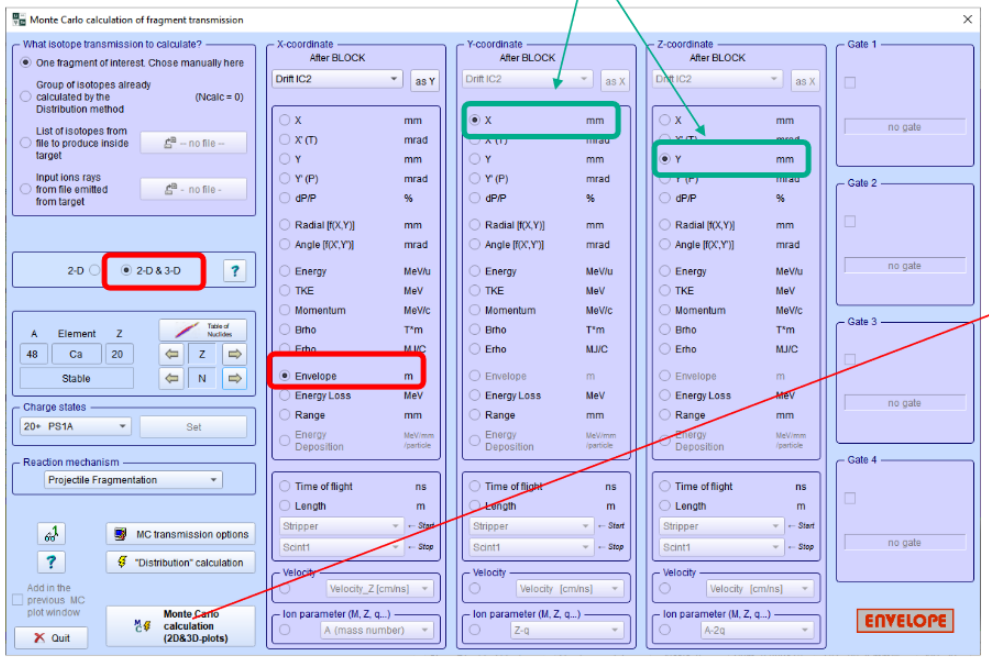
http://lise.nscl.msu.edu/16/16_1_19_AbsolutePath3D.pdf

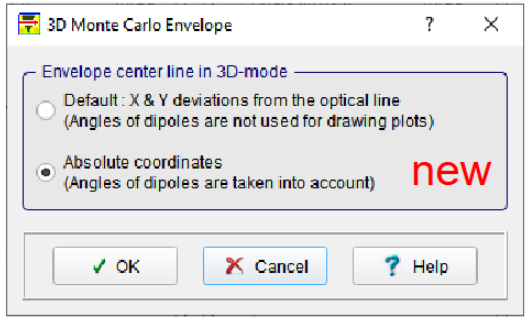
LISE++ cute : 3D absolute path

v.16.1.19
01/13/22

Coordinate assignment is important in the case of "absolute path" envelope
Because dipole angle is applied in the X-Z plane

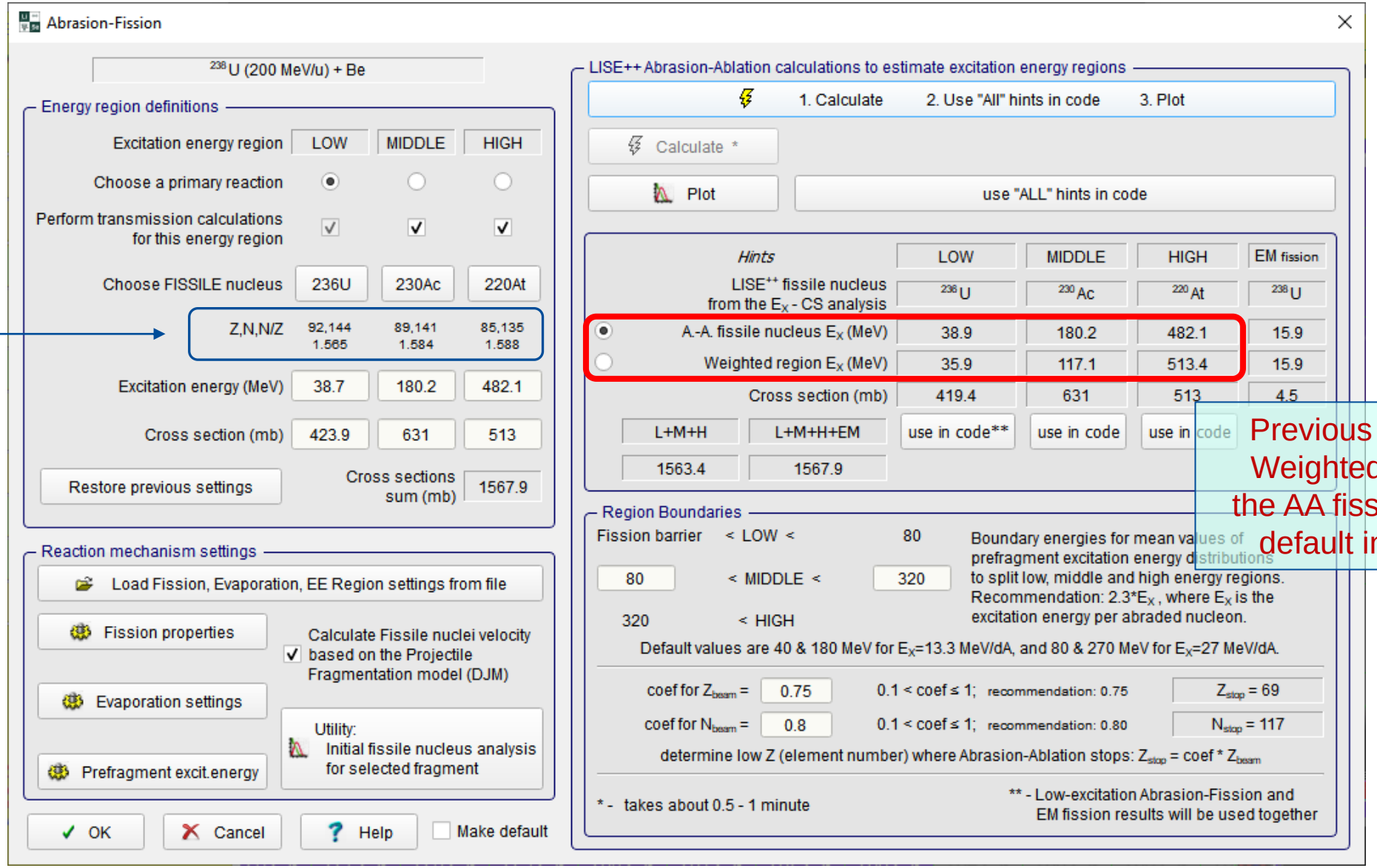
See 3D-envelope (deviations from the central axis)
http://lise.nscl.msu.edu/15/15_23_envelope3D.pdf





Abrasion-Fission 3EER model : excitation energy choice

16.1.40 03/09/22 choice from weighted average or fissile nucleus AA value



New feature

Previous version used only Weighted region E* model, the AA fissile nucleus E* is by default in the new version

List of updates : Bugs, Corrections

16.1.48 03/12/22 correction in Compound.cpp for GasMixMolarMass

16.1.42 03/12/22 All warnings are solved!

16.1.35 02/10/22 Fixed : bug in Power deposition caused by faraday cup charge state factor use

16.1.34 02/10/22 Fixed : bug in Power deposition because of charge states zero factor corrected through initialization of charge_state_factor=1 for all cases (no charge states, no opt.blocks)

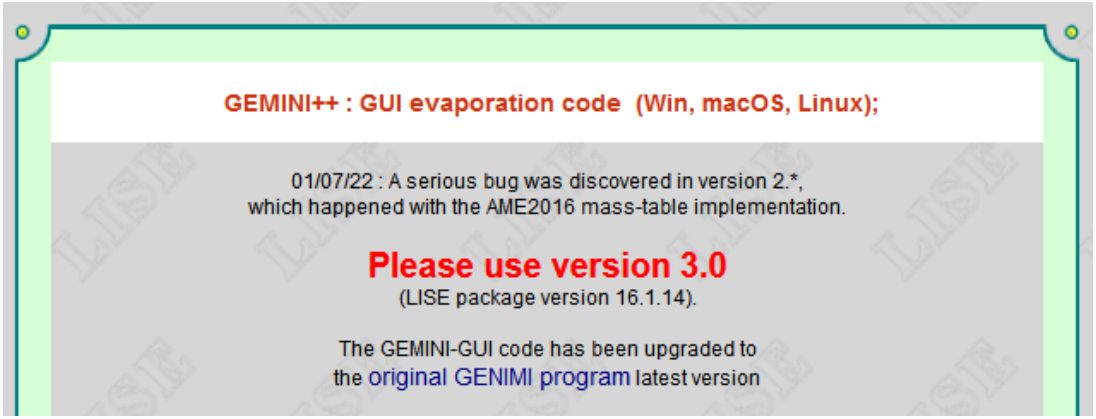
16.1.28 01/24/22 Fixed: bug in zoom action in the MC envelope mode

16.1.27 01/24/22 Correction in d_Setup and d_Setup_optics for block length entry : no make_static

16.1.14 01/07/22 Global revision of GEMINI-GUI. A serious bug during the porting process has been fixed. New GEMINI-GUI version 3.0

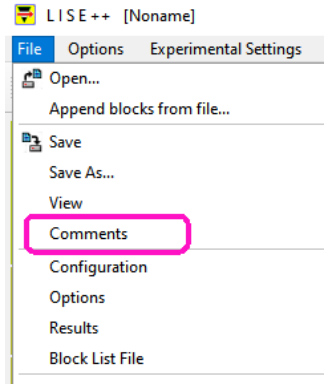
16.0.4-8 11/16/21
T* reactions : reactions in materials and wedges ---->
corrections for W_Graph for input plots in compound in the case of T* reactions
corrections for EnergyLoss in compound block for T* reactions
corrections for Energy after block for T* reactions
corrections for Energy after Stripper for T* reactions
corrections for T1/2 in Results output

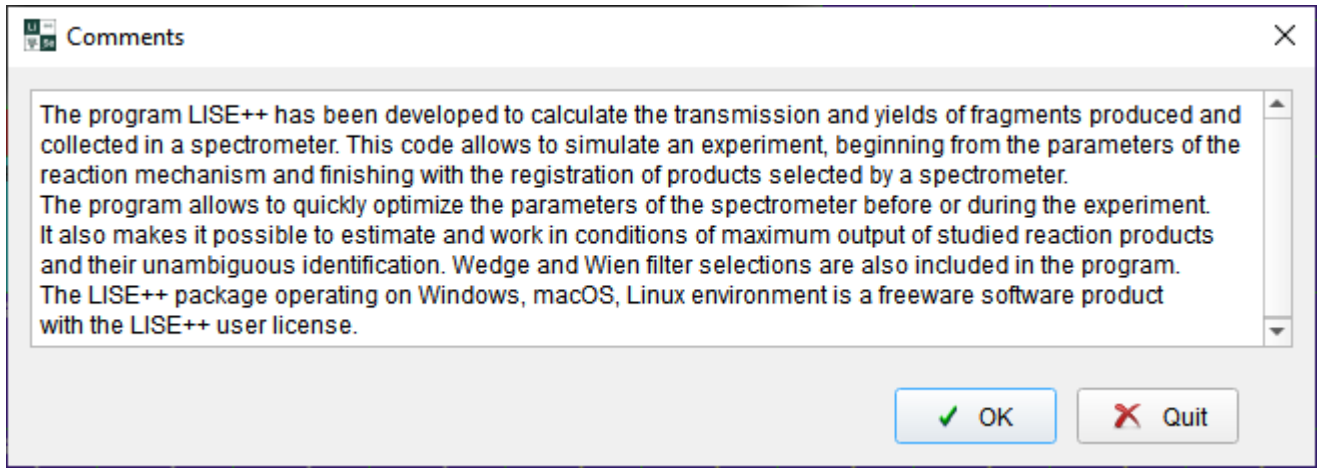
16.0.2 11/10/21 corrections in d_Block_Option for compound to eliminate crash

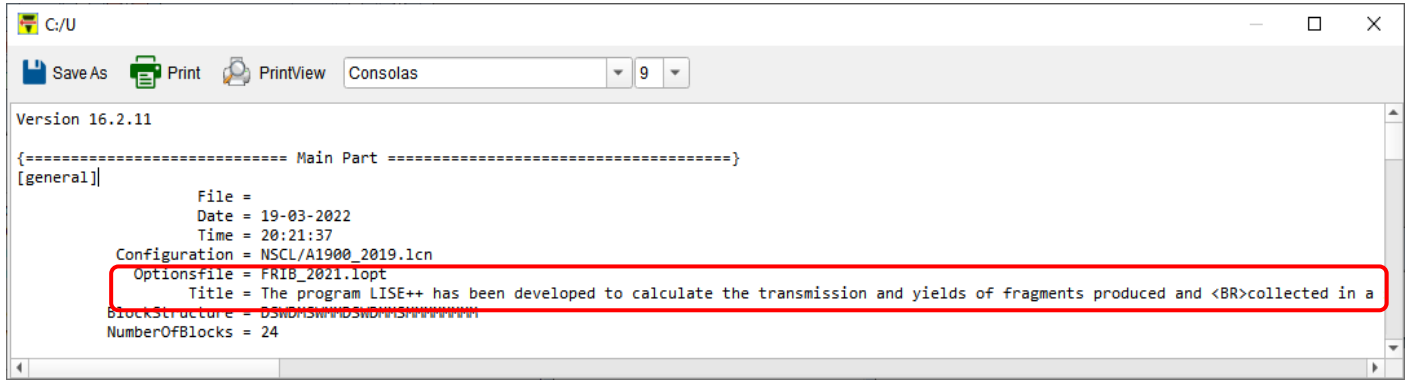


List of updates by topics

Multiline file comment







Other notable updates

16.2.6 03/19/22
symbol "*" to show modifications from saved LISE configuration

16.2.2 03/15/22
all calculators have got the windows min and max buttons
MC axis limits to work with 100 GeV/u beams

16.1.44 03/12/22
no more turn Y-title in the plot option dialog

16.1.30 01/26/22
restrictions 5,000 lines to download to LISE file viewer

16.1.29 01/24/22
prevention for all matrix[address] strings for memory leak in graph-plot functions

16.1.8 12/13/21
Wien dialog: calibration option

16.0.11-12 11/28/21
Ellipse method: simple analytical method to calculate fragment transmission used
in 2d-plots, in File menu "Output results", in the "Goodies" dialog -----> using rotation blocks in the ellipse plot method
using fragment angles in ellipse plot method: important for extended configurations (due to existing matrices with defocusing elements)

List of updates by topics

File structure, read/write

16.2.2 03/15/22
correction in file open dialog
ARIS lpp_list folder has been added for installation

16.1.57 03/12/22
extension lpp and list_lpp together to open file
ARIS_S800.lpp_list in package copy settings

16.1.47 03/12/22
elimination of some comments (Yes,No ...) in lise files

16.1.46 03/12/22
no more NULL lines in lise files (cosy file, profile file and so on)

16.1.45 03/12/22
config read-write : new two block lines for general segment

OS compatability

16.1.32 02/03/22
updates for macOS operations

16.1.10 12/29/21
updates for compatibility with linux

16.1.2 12/05/21
LISE satellites global update to support non-latin file path

16.1.1 12/03/21
LISE++ global update to support non-latin file path

Monte Carlo

16.1.33 02/04/22
MC dialog : MC write to file enabled option instead visible
Ray dialog : default "comma" instead "tab"
checkbox for random integer values

16.1.26 01/24/22
MC outside rays: rewind ray file, if the "continue" button pressed

16.1.24 01/23/22
Read & Write of NameIsotopeListFile & NameOutsideRayFile in LISE file

16.1.23 01/23/22
MC options : reverse flag for envelope to for correct angular
spline calculations

16.1.22 01/23/22
MC : stop reading file if EOF takes place in no-cycling mode

16.1.21 01/23/22
d_MC : rays and isotopes buttons corrections

16.0.3 11/11/21
"MC write to file": values written to file also for particles stopped in detector

List of updates by topics

char* → QString

16.2.5 03/19/22
comment from char* to Qstring, multiline comment

16.2.4 03/19/22
int AddPathToFileName(QString &filename, const QString &path) ==>
int AddPathToFileName(QString &filename, const QString &path);
int ErasePathFromFileName(QString &filename, const QString &path)
==> int ErasePathFromFileName(QString &filename, const QString
&path);
QString GetShortFileName(const QString &source, int opt=0) ==>
QString GetShortFileName(const QString &source, int opt=0)
all LISE date functions : from char* to QString

no more "QString *" at initialization, file_nameCfgBuffer from char* to Qstring, file_nameOptBuffer from char* to Qstring, CheckingDate from char[] to Qstring

16.1.41 03/11/22
Block : moving from char* to QString for privateName
class_CalcUnit : name -> moving from char* to QString
class BlockPlotPosition : name -> moving from char* to QString

Block Names

16.2.11 03/19/22
Creation of ARIS.blf template in files/examples/FRIB and
putting its name in the Documents-copy array

16.2.10 03/19/22 Development of Block name replace utility with use of BLF

16.2.9 03/19/22 Development of Block name update utility with use of BLF

16.2.8 03/19/22 Development of Block name converter with use of BLF

16.2.3 03/18/22 Correction in Block List File creation procedure

16.1.56 03/12/22 creation of Block list file

16.1.55 03/12/22 joint title for material block dialogs

16.1.54 03/12/22 joint title for optics block dialogs

16.1.53 03/12/22 menu actions to create blocks exchange file

16.1.52 03/12/22 d_Setup,d_SetupOptics dialog: new policy for columns

16.1.51 03/12/22 d_Setup dialog: new button exchange

16.1.50 03/12/22 d_SetupOptics dialog modification for new names

16.1.49 03/12/22 d_Setup dialog modification for new names

16.1.43 03/12/22 Block option dialog modified for Official and Comment strings

16.1.41 03/11/22 Block : new QString OfficialName, new Comments

List of all updates (versions 16.0.2 – 16.2.11) : #1

16.2.11 03/19/22
Creation of ARIS.blf template in files/examples/FRIB and putting its name in the Documents-copy array

16.2.10 03/19/22
Development of Block name replace utility with use of BLF

16.2.9 03/19/22
Development of Block name update utility with use of BLF

16.2.8 03/19/22
Development of Block name converter with use of BLF

16.2.7 03/19/22
Splitting MainWindow_file to MainWindow_file and MainWindow_fileTransport
Link to BLF documentation

16.2.6 03/19/22
symbol "*" to show modifications from saved LISE configuration

16.2.5 03/19/22
comment from char* to QString
multiline comment

16.2.4 03/19/22
int AddPathToFileName(QString &filename, const QString &path) ==> int AddPathToFileName(QString &filename, const QString &path);
int ErasePathFromFileName(QString &filename, const QString &path) ==> int ErasePathFromFileName(QString &filename, const QString &path);
QString GetShortFileName(const QString &source, int opt=0) ==> QString GetShortFileName(const QString &source, int opt=0)
all LISE date functions : from char* to QString

no more "QString *" at initialization
file_nameCfgBuffer from char* to QString
file_nameOptBuffer from char* to QString
CheckingDate from char[] to QString

16.2.3 03/18/22
Correction in Block List File creation procedure

16.2.2 03/15/22
correction in file open dialog
ARIS lpp_list folder has been added for installation
all calculators have got the windows min and max buttons
MC axis limits to work with 100 GeV/u beams

16.2.1 03/13/22
middle version changed

16.1.57 03/12/22
extension lpp and list_lpp together to open file
ARIS_S800.lpp_list in package copy settings

16.1.56 03/12/22
creation of Block list file

16.1.55 03/12/22
joint title for material block dialogs

16.1.54 03/12/22
joint title for optics block dialogs

16.1.53 03/12/22
menu actions to create blocks exchange file

16.1.52 03/12/22
d_Setup,d_SetupOptics dialog: new policy for columns

16.1.51 03/12/22
d_Setup dialog: new button exchange

16.1.50 03/12/22
d_SetupOptics dialog modification for new names

16.1.49 03/12/22
d_Setup dialog modification for new names

16.1.48 03/12/22
correction in Compound.cpp for GasMixMolarMass

16.1.47 03/12/22
elimination of some comments (Yes,No ...) in lise files

16.1.46 03/12/22
no more NULL lines in lise files (cosy file, profile file and so on)

16.1.45 03/12/22
config read-write : new two block lines for general segment

16.1.44 03/12/22
no more turn Y-title in the plot option dialog

16.1.43 03/12/22
Block option dialog modified for Official and Comment strings

16.1.42 03/12/22
all warnings are solved!

16.1.41 03/11/22
Block : moving from char* to QString for privateName
new QString OfficialName
new Comments

class_CalcUnit : name -> moving from char* to QString
class BlockPlotPosition : name -> moving from char* to QString

List of all updates (versions 16.0.2 – 16.2.11) : #2

16.1.40 03/09/22
3EER : excitation energy choice from weighted average or fissile nucleus AA value

16.1.35 02/10/22
Fixed : bug in Power deposition caused by faraday cup charge state factor use

16.1.34 02/10/22
Fixed : bug in Power deposition because of charge states zero factor corrected through initialization of charge_state_factor=1 for all cases (no charge states, no opt.blocks)

16.1.33 02/04/22
MC dialog : MC write to file enabled option instead visible
Ray dialog : default "comma" instead "tab"
checkbox for random integer values

16.1.32 02/03/22
updates for macOS operations

16.1.31 01/26/22
CS, Spectra and MARS calibration files are copied to the documents directory

16.1.30 01/26/22
restrictions 5,000 lines to download to LISE file viewer

16.1.29 01/24/22
prevention for all matrix[address] strings for memory leak in graph-plot functions

16.1.28 01/24/22
Fixed: bug in zoom action in the MC envelope mode

16.1.27 01/24/22
Correction in d_Setup and d_Setup_optics for block length entry : no make_static

16.1.26 01/24/22
MC outside rays: rewind ray file, if the "continue" button pressed

16.1.24 01/23/22
Read & Write of NameIsotopeListFile & NameOutsideRayFile in LISE file

16.1.23 01/23/22
MC options : reverse flag for envelope to for correct angular
spline calculations

16.1.22 01/23/22
MC : stop reading file if EOF takes place in no-cycling mode

16.1.21 01/23/22
d_MC : rays and isotopes buttons corrections

16.1.20 01/14/22
Q3D "absolute path" envelope has been completed

16.1.14 01/07/22
Global revision of GEMINI-GUI.
A serious bug during the porting process has been fixed
new GEMINI-GUI version 3.0

16.1.10 12/29/21
updates for compatibility with linux

16.1.8 12/13/21
Wien dialog: calibration option

16.1.7 12/12/21
Debug lines were cleaned

16.1.2 12/05/21
LISE satellites global update to support non-latin file path

16.1.1 12/03/21
LISE++ global update to support non-latin file path

16.0.11-12 11/28/21
Ellipse method: simple analytical method to calculate fragment transmission used
in 2d-plots, in File menu "Output results", in the "Goodies" dialog ----->
using rotation blocks in the ellipse plot method
using fragment angles in ellipse plot method: important for extended configurations
(due to existing matrices with defocusing elements)

16.0.9 11/26/21
Calibration file absence message is appeared only in MS Windows case

16.0.4-8 11/16/21
T* reactions : reactions in materials and wedges ---->
corrections for W_Graph for input plots in compound in the case of T* reactions
corrections for EnergyLoss in compound block for T* reactions
corrections for Energy after block for T* reactions
corrections for Energy after Stripper for T* reactions
corrections for T1/2 in Results output

16.0.3 11/11/21
"MC write to file": values written to file also for particles stopped in detector

16.0.2 11/10/21
corrections in d_Block_Option for compound to eliminate crash