

version	date	Changes
8.3.169	15.09.09	Stripper cross sections can be selected as EPAX1, EPAX2, EPAX2_modified according settings for Fragmentation cross sections. But No Abrasion-Ablation! New optics for A1900 Modifications for Angular and Lateral Stragglng in Physical Calculator
8.3.167	14.09.09	Modifications in COSY map reading subroutine Optics dialog
8.3.164	10.09.09	New A1900_2009 option and configuration files Increase of precision to write/view Optical matrices Correction in Qgg plot Pfaff option (Velocity dialog) -> exclude charge-exchange (n,p) & (p,n) reactions
8.3.158	04.09.09	High Order Optics in LISE++ (see http://groups.nsl.msui.edu/lise/8_3/HighOrder_v8_3_158.pdf)
8.3.155	12.08.09	New database (GANIL) isomers (Z=51,52) from JMD Output format of text files from LISE++ plots
8.3.153	07.08.09	Pickup dialog : proton & neutron mode, excitation energy plot cross sections from geometrical intersections Link for "Isomer (GANIL)" has been changed to redirect on MSU site due to innovations with GANIL server The Evaporation dialog: modification in the Decay analysis
8.3.148	16.07.09	Excitation energy entry in the Cluster radioactivity dialog Delay Block construction has been finished including plots Kinematic calculator: correction for the case of neutron
8.3.144	10.07.09	New BLOCK in the code: Delay block (see the Setup dialog) PACE4 & database Cluster radioactivity dialog
8.3.140	30.06.09	Plot from the "Alpha decay" dialog The "Alpha decay" dialog from the "Utilities" menu
8.3.138	29.06.09	Correction in tunneling.f Compound target in the Kinematics Calculator Corrections for Contour statistics in MC plot (mode -26 from Kinematic calculator)
8.3.135	26.06.09	Total revision table of nuclides (decay modes), observed isotopes New indexation in the database New Timing intervals for half-lives, revision of half-lives in the database half-life option to search for the Proton-dripline in the Isotope dialog Wait messages for the Isotopes dialog and T12 plots modification of T12 plots second new program for tunneling (the proton radioactivity dialog)
8.3.123	18.06.09	compilation of half-lives (see menu "Database->Plot->T12") the "tunnel.f" modification Halfives calculation : modification, optimization. Plots The "About" dialog from The Database dialog
8.3.118	15.06.09	the Database dialog : alpha,beta,proton-emission halfives The Proton radioactivity dialog: new options beta halfives database file alpha halfives database file beta+ plot & beta+ cell in the Database dialog
8.3.111	09.06.09	The Proton radioactivity dialog (Menu "Utilities") : Tunneling for proton-rich isotopes to estimate half-lives
8.3.109	03.06.09	Modification of transmission calculation
8.3.108	22.05.09	Modification of initial angular distribution after stripper
8.3.107	19.05.09	Corrections in Rotation block module FRIB logo internal : creation of an user file from the table of nuclides
8.3.103	04.05.09	LISE for Excel 2007, see for details http://groups.nsl.msui.edu/lise/changes.html
8.3.102	23.04.09	New mass excess file HFB17.lme Correction for Batch-mode calculations (memory leak problem)
8.3.100	02.04.09	Correction for velocity calculation in the case pickup at low energies

		New version warning has been corrected
8.3.98	31.03.09	Correction of the Bass Fusion barrier for light particles in LISE++ and PACE4 (problems with the
8.3.97	27.03.09	Target-wedge optimization process: possibility to cancel Corrections in MC subroutine for particles stopped/passed in material (transmission) Kinematic calculator's "Energy at the entrance of detectors" field corrections
8.3.93	09.02.09	Modification of velocity calculations for the nucleon pickup case Modification of The Channel Width plot in the Evaporation options dialog Number of Quadrupoles for a block (scheme)
8.3.90	06.01.09	New fission barrier model. File "fis-bar-Moller08.dat" P.Moller et al., Los Alamos NL preprint LA-UR-08-4190
8.3.89	05.01.09	New Mass Excess file "ktuy.lme" - H.Koura et al., PTP 113 (2005) 305 LISE++ table of nuclides has been corrected based on this file
8.3.88	31.12.08	Option of n- and p- odd-even corrections for Qg-plot & Qgg-plot
8.3.86	11.12.08	Output file with momentum distribution characteristics from the Fragmentation dialog Convolution momentum distribution: new boundaries (increasing range) Modifications: Surface separation energy, LISE++ geometrical corrections for AA, Prefragment search
8.3.83	10.12.08	New Qg-plot from the 1D-plot menu additionally to Qgg-plot Modification of Separation energy for the Convolution model Convolution model : modification of mean velocity calculation Gamma-factor in the Momentum width tab of the Fragmentation dialog Convolution model : velocity plot modification New parameter for Morrissey's velocity distribution
8.3.77	14.11.08	New LISE++ paper (EMIS2007). For citations please use <NIM B 266 (2008) 4657..4664>; The paper is available through the LISE++ About dialog MOTER 2.1.11. Optimization is available Curved profile degrader plot. Slit size value has been changed to plot.
8.3.75	14.09.08	Fixed: Problem with "Winger" charge states at high energies Fixed: Problem with "Global" charge states at low energies Optimal target thickness for the primary beam
8.3.72	27.08.08	MC transmission includes the option of loss due to reactions in materials Fragment transmission: corrections for tiny values of optical matrix elements
8.3.70	07.08.08	Display transmission of unsetting fragments in the Table of nuclides
8.3.69	22.07.08	Charge state optimization & Optimal target subroutines vs FPII New MOTER version 2.1.8
8.3.68	17.07.08	Urgent Update of the Target dialog for the "fusion" case
8.3.67	16.07.08	Registry assignment of files "lcn","motrace","motsec" to LISE++ , and "moter" to MOTER Exit LISE++ from the MOTER plot utility New MOTER version 2.1.5
8.3.66	14.07.08	Executing LISE++ from MOTER to read files "motsec" & "motrace" Modification of the Wedge profile dialog Transmission statistics dialog update (rate/background ratio) Target dialog update (Energy loss & d/R)
8.3.62	09.07.08	MOTER version (2.1) -- new I/O file format "*.moter" New GANIL configurations
8.3.60	01.07.08	MOTER result filenames have been changed
8.3.59	27.06.08	Solenoid tuning has been done Choice of solenoid block tuning parameter for Tuning plot for the Solenoid block Correction for calculation of MC dp/p value
8.3.52	09.06.08	X,T,Y,P,E values and their StDev values in the Solenoid block dialog Access to NNDC wallet and JAEA (Tokai) databases through fragment transmission window
8.3.49	04.06.08	Recalculation of Solenoid matrix for each event (fragment,energy) in Monte Carlo mode Access to NNDC database through fragment transmission window
8.3.47	03.06.08	Solenoid block in LISE++ file

8.3.46	02.06.08	Solenoid block is in LISE++ use (Optical matrix, selections)
8.3.45	29.05.08	Upgrade of the TwinSol utility: plots of Function (1) from (2) at (3) where (1),(2), and (3) are user's choices New Solenoid block in LISE++ (still under construction)
8.3.39	22.05.08	New MOTER version 2.0.22 Format of MOTER block position has been changed (X_MAX, Y_XAX) Smoothing T & P distributions (MOTER plot utility) Modification of smoothing utility for MOTER field distributions MOTER button from the MOTER plot utility
8.3.35	19.05.08	Trajectory and field 1d-plots for the MOTER plot utility New SuperFRS configuration files Modification of utility of fragment passed/stopped ratio for material FWHM calculation correction Cleaning, Average, smoothing of field distributions (MOTER utility) Ray selection for field plots (MOTER utility) File view in MOTER plot dialog (MOTER utility) MOTER field plot : block positions
8.3.23	12.05.08	Plot of MOTER FIELD trace results (1D-plots): New MOTER version 2.0.18.2
8.3.22	09.05.08	Plot of MOTER trace results (locations 2D-plots): Several trace Plots in one window Several Plots (plot type=25) in one window Contour class modification
8.3.21	08.05.08	Histogram method to draw 1D-plot has been implemented Update: Plot of MOTER trace results
8.3.18	07.05.08	Plot of MOTER trace results
8.3.17	29.04.08	Shift of RF TOF for the RFkicker in MC transmission mode Angular distribution for projectile fragmentation : edge effect The "Cancel/Continue?" dialog after pressing "Escape" in calculation mode
8.3.14	27.04.08	Kinematics Calculator: 3 possible reaction places option for Kinematics plot : taking into account energy loss of fragments in the target
8.3.13	23.04.08	Stripper Foil Dialog : LISE++ function k1(Z) Stripper Foil Dialog : Sublimation [1] - plot range revision
8.3.9	21.04.08	Stripper Foil Dialog : File I/O Stripper Foil Dialog : size optimization Correction for pseudo MC 2D-plot
8.3.6	18.04.2008	Upgrade of the Stripper foil lifetime utility
8.3.5	16.04.2008	New utility: Stripper foil lifetime
8.3.4	07.04.2008	Optimization of MC Rays generator
8.3.3	07.04.2008	Plot dialog: button "NZ chart" Set the next parameters: "2D", X="N", Y="Z", "N"=0-200
8.3.2	06.04.2008	MC dialog : Rays generator (see button "MC calculation to file")
8.3.1	04.04.2008	2D plot Contour : new calculated value $\langle XY \rangle = (x-\langle x \rangle)(y-\langle y \rangle)$