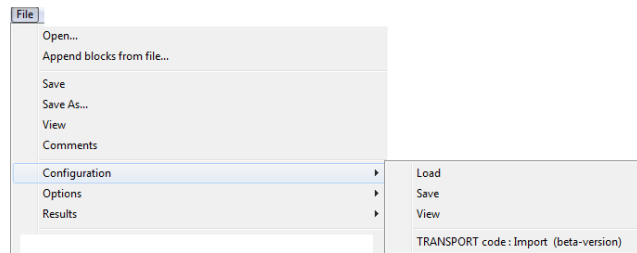


How to create LISE++ setup from a TRANSPORT “deck”

Version 9.8.89, Menu “File → Configurations
→ Transport code : import”



Rules for interpreting the deck

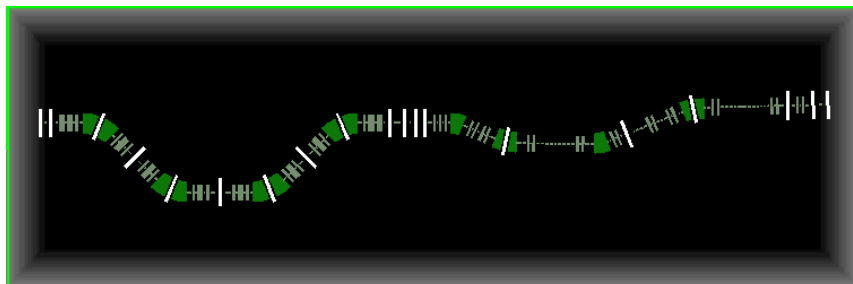
1. The first line always contains a title
2. Spaces are ignored at the beginning of line
3. LISE++ is looking for a line beginning with “0” to start interpretation
4. If “0” line is absent, then LISE++ terminates interpretation
5. Next line after “0”-line begins the “deck”, LISE++ creates an empty configuration and starts to analyze the Transport file
6. A deck line is valid if it starts with a number (“-”, text and so on lines are not analyze)
7. Labels (block names) are selected by characters [“], [’] or [/]
8. LISE++ uses semicolons to separate inputs on one line
9. LISE++ ends importation when a line starts with “SENT”

LISE++ settings for initial empty configuration

1. Target, stripper thicknesses are zero
2. Setting fragment is the same as the beam
3. Mechanism set to Projectile fragmentation
4. First block after stripper will be 0-length “tuning” dipole
5. After TRANSPORT file is imported, LISE++ runs automatically the “save as” file dialog

Transport cards can be imported as of 07/07/2014

1. Beam	2. Pole face rotation
3. Drift	4. Dipole
5. Quadrupole	16.1 Quadratic term of bending field
16.4 X Half-aperture	16.5 Y Half-aperture
16.7 Fringe coefficient K1	16.8 Fringe coefficient K2
16.12 Curvature of entrance face	16.13 Curvature of exit face
18. Sextupole	20. Beam rotation



Notes

1. LISE⁺⁺ automatically calculates 2nd order matrices
2. User has to set the size of the block bounds (apertures)

Block	Given Name	Start(m)	Length(m)	B0(kG)	Br(Tm)corr/real	DriftM/*Angle	Rapp(cm)/R(m)	L_eff(m)/L_dip(m)	2 nd order	CalcMatr/*Z-Q	AngAcc	Aperture, Slits	CDSY_link
S	Drift	Object	0.000	0.0000								HV	-
S	Drift	_008	0.000	0.5600								HV	-
Q	Drift	T1A	0.560	0.4300	+6.7722	5.3370	quadrupole	2.5400	0.4300	yes	1	HV	-
S	Drift	_010	0.990	0.2080								HV	-
Q	Drift	T1B	1.198	0.4300	-6.9599	5.3370	quadrupole	2.5400	0.4300	yes	1	HV	-
S	Drift	_012	1.628	0.2080								HV	-
Q	Drift	T1C	1.836	0.4300	+3.3594	5.3370	quadrupole	2.5400	0.4300	yes	1	HV	-
S	Drift	_014	2.266	0.6287								HV	-
D	Dipole	_016	2.895	1.2336	+16.9899	* 5.3370	* 22.5	* 3.1413	* 1.2336	yes	* 0	HV	-
S	Drift	_018	4.128	0.3577								HV	-
S	Drift	Waist1	4.486	0.0000								HV	-
S	Drift	_020	4.486	0.3577								HV	-
D	Dipole	_022	4.844	1.2336	+16.9899	* 5.3370	* 22.5	* 3.1413	* 1.2336	yes	* 0	HV	-
S	Drift	_024	6.077	0.7107								HV	-
Q	Drift	T2A	6.788	0.4300	+0.8246	5.3370	quadrupole	2.5400	0.4300	yes	1	HV	-
S	Drift	_026	7.218	0.2080								HV	-
Q	Drift	T2B	7.426	0.4300	-5.5963	5.3370	quadrupole	2.5400	0.4300	yes	1	HV	-
S	Drift	_028	7.856	0.2080								HV	-
Q	Drift	T2C	8.064	0.4300	+7.2094	5.3370	quadrupole	2.5400	0.4300	yes	1	HV	-
S	Drift	_030	8.494	0.7360								HV	-
S	Drift	Image	9.230	0.0000								HV	-
S	Drift	_032	9.230	0.7360								HV	-
Q	Drift	T3A	9.966	0.4300	+7.2094	5.3370	quadrupole	2.5400	0.4300	yes	1	HV	-

LISE⁺⁺ sets automatically ellipse aperture +/- 50 mm.

3. Quad effective length solution under development!