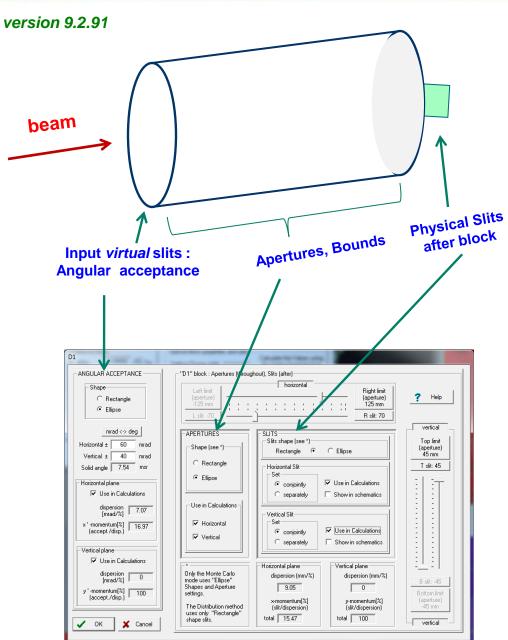


## **SLITS in LISE++**





- Classical configuration: dispersive block contains quads, drifts, dipole and so on
- Extended configuration: like in TRANSPORT all elements are separated, and their matrices can be calculated inside LISE+

Configuration	Angular Acceptance	Apperture	Slits after block		
Classical ("segment")	Yes	No	Yes		
Extended ("element")	No	Yes*	please use only for "slits" element		

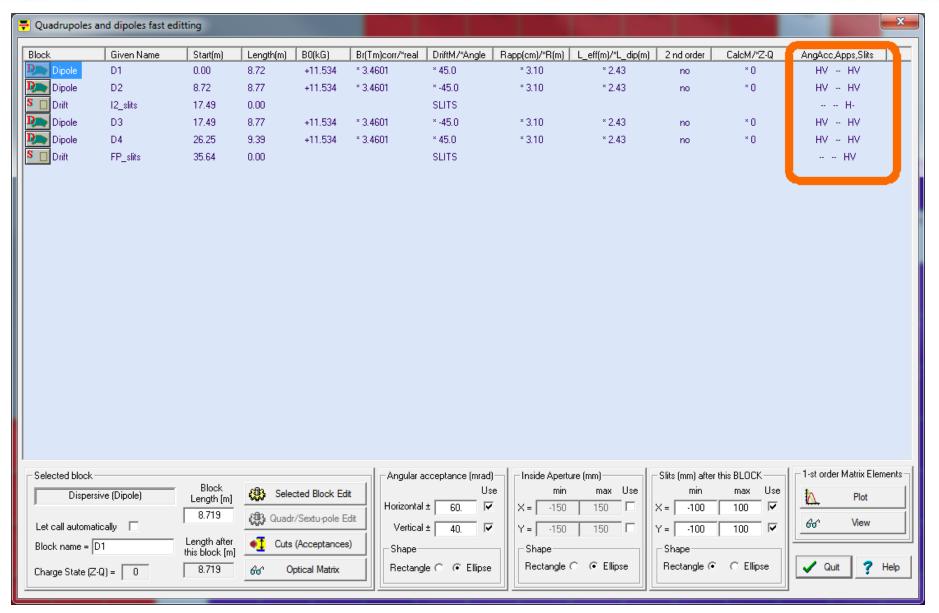
OT. 05/12/11, East Lansing

<sup>\* -</sup> Apertures are used only in Monte Carlo calculations



## A1900 "Classical" configuration





OT. 05/12/11, East Lansing 2



## A1900 "Extended" configuration



FILE: C:\user\c\lise_pp_92\files\A1900\A1900_extended_2011_v3_temporary.lpp																					
1 2 N Block name	3 Kind of	4 Start	5 Tenath	6 ; DriftMode H	 7 BN(kG)	8 Br-corrsp	9 Rapp(cm)	10 T eff(m)	11 2nd	12 Calc	13 Angacc	14 Slits	15 Ymin	16 Ymax	17 Vmin	18 Vmax	19 Appert	20 Ymin	21 Ymax	22 Vmin	23 Vmax
or block name	Block	(m)	(m)	Angle(*)*	55 ( KG )	Br-dip*	R(m)*		order					slit						limit	
1. dr L1A (016)	Drift	0.000	0.396	standard								rectn					ellps	-100	+100		+100
<ol> <li>QL1TA-017</li> <li>dr L1AB</li> </ol>	Drift Drift	0.396 1.144	0.748 0.176	quadrupole standard	+9.333	3.0000	13.30	0.75	yes	1		rectn rectn					ellps ellps	$-100 \\ -100$	+100 +100		+100 +100
4. QL1TB-019	Drift Drift	1.320 2.068	0.748 0.172	quadrupole standard	-8.674	3.0000	13.30	0.75	yes	1		rectn					ellps	-100	+100 +100	-100	+100 +100
5. dr L1BC 6. QL1TC-021	Drift	2.240	0.430	quadrupole	+6.240	3.0000	15.00	0.43	yes	1		rectn rectn					ellps ellps	$-100 \\ -100$	+100	-100	+100
7. dr L1C 8. D1	Drift Dipole	2.670 3.196	0.526 2.430	standard +45.0 * -	<b>-</b> 10 000	3.0000*	3.09*	2.43*	ves			ellps rectn		+100 +120		+100 +45	ellps ellps	-100 -125	+100 +125		+100 +45
9. dr R1A (026)	Drift	5.626	0.564	standard					-			rectn	120	1120	40	143	ellps	-100	+100	-100	+100
10. QR1TA-031 11. dr R1AB	Drift Drift	6.190 6.620	0.430 0.136	quadrupole standard	+6.897	3.0000	15.00	0.43	yes	1		rectn rectn					ellps ellps	$-100 \\ -100$	+100 +100		+100 +100
12. QR1TB-033 13. dr R1BC	Drift Drift	6.755 7.567	0.812 0.136	quadrupole standard	-8.508	3.0000	15.00	0.81	yes	1		rectn rectn					ellps ellps	$-100 \\ -100$	+100 +100		+100 +100
14. QR1TC-035	Drift	7.703	0.430	quadrupole	+7.476	3.0000	15.00	0.43	yes	1		rectn					ellps	-100	+100	-100	+100
15. dr R1C 16. Image1(037)	Drift Drift	8.133 8.719	0.586 0.000	standard SLITS								rectn rectn	-100	+100	-100	+100	ellps ellps	-100	+100	-100	+100
17. dr Ĭ2A`(038) 18. QL2TA-039	Drift Drift	8.719 9.305	0.586 0.430	standard quadrupole	17 476	2 0000	15.00	0.43	ves	1		rectn rectn					ellps	$-100 \\ -100$	+100 +100		+100 +100
19. dr L2AB	Drift	9.735	0.136	standard					-			rectn					ellps ellps	-100	+100	-100	+100
20. QL2TB-041 21. dr L2BC	Drift Drift	9.871 10.683	0.812 0.136	quadrupole standard	-8.397	3.0000	15.00	0.81	yes	1		rectn rectn					ellps ellps	$-100 \\ -100$	+100 +100		+100 +100
22. QL2TC-043 23. dr L2C	Drift Drift	10.819	0.430 0.563	quadrupole	+6.903	3.0000	15.00	0.43	yes	1		rectn	100	.100	100	.100	ellps ellps	-100 -100	+100 +100	-100	+100 +100
24. D2	Dipole	11.812	2.430		+10.000	3.0000*	3.09*	2.43*	yes			ellps rectn			-100 -45		ellps	-125	+125	-45	+45
25. dr R2A (047) 26. QR2TA-053	Drift Drift	14.242 14.794	0.552 0.430	standard quadrupole	+6.442	3.0000	15.00	0.43	ves	1		rectn rectn					ellps ellps	$-100 \\ -100$	+100 +100		+100 +100
27. dr R2AB	Drift	15.224	0.170 0.732	standard					-			rectn					ellps	-100	+100	-100	+100
28. QR2TB-055 29. dr R2BC	Drift Drift	15.394 16.126	0.176	quadrupole standard			15.00	0.73	yes	1		rectn rectn					ellps ellps	-150	+115 +150	-150	+115 +150
30. QR2TC-057 31. dr R2C	Drift Drift	16.302 16.828	0.526 0.658	quadrupole standard	+7.750	3.0000	21.00	0.53	yes	1		rectn rectn					ellps ellps	-150 -150	+150 +150	-150 -150	+150 +150
32. Image2(059)	Drift	17.486	0.000	SLITS								rectn	-150	+150	-150	+150	ellps				
33. dr L3A (060) 34. QL3TA-062	Drift Drift	17.486 18.143	0.658 0.526	standard quadrupole	+8.735	3.0000	21.00	0.53	yes	1		rectn rectn					ellps ellps	-150 -150	+150 +150	-150	+150 +150
35. dr L3AB 36. QL3TB-064	Drift Drift	18.669 18.845	0.176 0.732	standard guadrupole	_9 573	3 0000	15.00	0.73	ves	1		rectn rectn					ellps ellps	-150 -115	+150 +115		+150 +115
37. dr L3BC	Drift	19.577	0.170	standard					-			rectn					ellps	-100	+100	-100	+100
38. QL3TC-066 39. dr L3C	Drift Drift		0.430 0.553	quadrupole standard	+7.479	3.0000	15.00	0.43	yes	1		rectn ellps	-100	+100	-100	+100	ellps ellps	-100 -100	+100 +100		+100 +100
40. D3 41. dr R3A (070)	Dipole Drift	20.730 23.160	2.430 0.563	-45.0 * - standard	+10.000	3.0000*	3.09*	2.43*	yes			rectn rectn	-120	+120	-45	+45	ellps ellps	-125 -100	+125 +100	-45 -100	+45 +100
42. QR3TA-076	Drift	23.723	0.430	quadrupole	+7.728	3.0000	15.00	0.43	yes	1		rectn					ellps	-100	+100	-100	+100
43. dr R3AB 44. QR3TB-078	Drift Drift	24.153 24.289	0.136 0.812	standard quadrupole	-9.399	3.0000	15.00	0.81	yes	1		rectn rectn					ellps ellps	-100 -100	+100 +100	-100 -100	+100 +100
45. dr R3BC 46. QR3TC-080	Drift Drift	25.101 25.237	0.136 0.430	standard quadrupole			15.00	0.43	ves	1		rectn rectn					ellps ellps	-100 -100	+100 +100	-100	+100 +100
47. dr R3C	Drift	25.667	0.586	standard	+0.3/7	3.0000	13.00	0.43	y CS	1		rectn					ellps	-100	+100	-100	+100
48. Image3(082) 49. dr L4A (083)	Drift Drift	26.253 26.253	0.000 0.586	SLITS standard								rectn rectn	-100	+100	-100	+100	ellps ellps	-100	+100	-100	+100
50. QL4TA-084 51. dr L4AB	Drift Drift	26.839	0.430 0.136	quadrupole standard	+8.379	3.0000	15.00	0.43	yes	1		rectn					ellps	-100 -100	+100 +100	-100	+100 +100
52. QL4TB-086	Drift	27.405	0.812	quadrupole	-9.536	3.0000	15.00	0.81	yes	1		rectn rectn					ellps ellps	-100	+100	-100	+100
53. dr L4BC 54. OL4TC-086	Drift Drift	28.217 28.353	0.136 0.430	standard guadrupole	+7.731	3.0000	15.00	0.43	yes	1		rectn rectn					ellps ellps	-100 -100	+100 +100		+100 +100
55. dr L4C	Drift	28.783	0.564	standard					-	-		ellps		+100			ellps	-100 -125	+100 +125		+100 +45
57. dr R4A (097)	Dipole Drift	29.347 31.777	0.526	standard		3.0000*	3.09*	2.43*	yes			rectn rectn	-120	+120	-45	+45	ellps ellps	-100	+100	-100	+100
58. QR4TA-098 59. dr R4AB	Drift Drift	32.303 32.733	0.430 0.172	quadrupole standard	+5.895	3.0000	15.00	0.43	yes	1		rectn rectn					ellps ellps	$-100 \\ -100$	+100 +100		+100 +100
60. QR4TB-100	Drift	32.905	0.748	quadrupole	-7.669	3.0000	13.30	0.75	yes	1		rectn					ellps	-100	+100	-100	+100
61. dr R4BC 62. QR4TC-102	Drift Drift		0.176 0.748	standard quadrupole	+5.524	3.0000	13.30	0.75	yes	1		rectn rectn					ellps ellps			-100	+100 +100
63. dr R4C 64. Image4(104)	Drift Drift	34.576 35.480	0.904 0.000	standard SLITS							==	rectn rectn	-150	+150	-150	+150	ellps	-100	+100	-100	+100

symbol "\*" after values denotes, that these values belongs to Dipole settings, where column names are found in the second row of titles, and also marked by "\*"

Column 08: "Br-corrsp" - quadrupole(sextupole) field is scaled to this Brho-value; "Br-dip\*" - dipole magnetic rigidity [T\*m]

Column 09: "Rapp(cm)" - radius(half-aperture) of quadrupole(sextupole) in cm; "R(m)-dip\*" - dipole radius [m]

Column 10: "Leff(m)" - effective length of quadrupole(sextupole) in m, wich is used for Optical matrix calcualtiuons; "Len(m)\*" - dipole length at ther central axis [m]

Column 12: "Calc mode" - only for quadrupole(sextupole); 0 - no actions; 1 - recalculate automatically B(field), keep matrix;

2 - recalculate automatically the matrix, keep B(field)

Column 13: "AngAcc mode" - "H(V)": horizontal(vertical) angular acceptance will be applied for this block

Columns 15-18,20-23: slits and aperture(limit) sizes in [mm]. If slit or aperture(limit) does not have action, then its size value is absent