

1/25/2017



Improvements and New Features in OSLO 7

Improvements in OSLO 7

- Improved STEP File Exporter
- Improved Zemax [®] /OpticStudio [®] importer
- Improved Code V[®] importer
- Feature Improvements
 - Asymmetric Aspheres include base conic (OSLO Premium only)
 - Help > Check for Updates
 - Help > License
 - Updated glass catalogs

New Features in OSLO 7

• New licensing using CodeMeter

New Videos for OSLO 7

New Examples Page on Website and Updated Manuals

Improved STEP Export

- File→Export Lens to CAD
 - Now Exports Conics, Aspheres, and almost all lens types both for centered and decentered systems

Export lens drawing to CAD ×
File type
Lens drawing style (DXF) G Meridional section C End-on section C Solid model C Solid model C Solid model C Solid model
Lens drawing style (IGES) Sagittal section End-on section O Wire frame
Drawing option C All surfaces C Cross sections C No edges drawn C Obscurations drawn
First surface 0 Last surface 0
OK Cancel Help

STEP Export from the Shafer 5 Mirror system and then imported into OSLO as a STEP file



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Improved Zemax/OpticStudio Importer

- File→Import Lens File→Zemax
 - Will attempt to import every Zemax commands and will report any problems on import to the text window. Older importer would stop on the first non-recognized command.

28 D	ouble Gauss, 50mm f/2 20deg	[dblgauss.len] - OSL(O Premium Early Ac
File	Lens Evaluate Optimize	Tolerance Source	Tools Window
	New Lens	Ctrl+N	
	Open Lens	Ctrl+0	
	Save Lens	Ctrl+S	
	Save Lens As		
	Load Command File	_	
	Lens Database		
	Import Lens File	>	GENII
	Export Lens to CAD		SIGMA
	Open Database		CODE V
	Print Text Window		ZEMAX



Steps to use Zemax/OpticStudio Importer

- Step 1 Close the Surface Data Spreadsheet
- Step 2 File → Import Lens File → Zemax
- Step 3 Look in the

Text window for error

Messages

• Step 4 – Check the graphic

windows to make sure that

all rays passed through the

System

• Step 5 – Check that

Apertures are set correctly

-ile→7emax	
Image: Second	
Surface Data Image: Construct of the second se	Len Spe Rh Ape Wav hoe Air Mig OM Tra Sop Ref Fan Spd Ad Via Oue In: LINS TORMUT SRF 03: LINS TORMUT SRF 03: LINS CONSTRUCTION WVF.REF_SPH_ROS Exit pupil WVLNS 0.550000 WVF.REF_SPH_ROS Exit pupil WVLNS 0.550000 TH 0.500000 TH 0.500000 SRF 31: LING (marginal ray normal solve) not Supported by OSLO SRF 31: CV -0.664584 How Command (marginal ray normal solve) not supported by OSLO SRF 31: CV -0.664583 CV -0.664583 Kat MNOR command (marginal ray normal solve) not supported by OSLO AP 1.400000 SRF 41: CV -0.651000 SRF 41: CV -0.500000 SRF 41: CV -0.500000 SRF 42: LING COMMAND (SUPPORTAL SOLVE) NOT Supported by OSLO AP 1.400000 SRF 41: CV -0.51621 V -0.51621

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Second Example using Zemax/OpticStudio Importer

• Step 1 – Close the Surface Data Spreadsheet

• Step 2 – File \rightarrow Import Lens File \rightarrow Zemax

🔞 [Untitled lens] - OSLO Premium Early Access Build: 7.0.0.17016

File Lens Evaluate Optimize Tolerance Source Tools Window Help

	Υ	
Surface Data 🗖 🖾 🔀	TW 1*	
	Len Spe Rin Ape Wav Pxc Abr Mrg Chf Tra Sop Ref Fan Spd Auf Var One Ine	
	*LENS INPUT	^
	LID: THREE GLASS APOCHROMAT	
	UNI m	
en Setup Wavelength Field Points Variables Draw On Group Notes	UNI mm	
ns: THREE GLASS APOCHROMAT Zoom 1 of 1 Ef1 100.000000	WVF_REF_SPH_POS Exit pupil	
t beam radius 5.000000 Field angle 5.7296e-05 Primary wavln 0.546000	WAVLNS 0.404000	
RF RADIUS THICKNESS APERTURE RADIUS GLASS SPECIAL	WV3 0.546000	
BJ 0.000000 1.0000+20 1.0000+14 AIR AIR	WV4 0.600000	
<u>ST</u> 90.488914 1.00000 5.000000 AS F2 C	WV5 0.656000 WW1 1.000000	
2 1.4934e+03 1.00000 4.978768 S KZFS6 C	WW2 1.000000	
3 23.440925 2.00000 4.957207 S FK51 C	WW3 1.000000	
4 -63.072432 98.827642 4.941385 S AIR	WW5 1.000000	
M5 0.000000 0.000000 0.000100 5	WAVLNS 0.546000	
	WV2 0.404000	
Autodraw	WW2 1.000000	
	U WV3 0.480000	
THREE GLASS APOCHROMAT UNITS; MM	WV4 0.600000	
FOCAL LENGTH = 100 NA = 0.05 DES: OSLO	WW4 1.000000	
2.02	WW5 1.000000	
2.02	SRF 0:	
	TH 1.0000e+20	
	SRF 1:	
	SRF 1:	
	CV 0.011051	
	GLA F2	
	SRF 2:	
	CV 0.000670	
	GLA KZFS6	
	SRF 3:	
	TH 2.000000	
	GLA FK51	
	CV -0.015855	
	TH 98.827642	
	CV	
	тн	
	END 5	
		v
		P

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Improved CodeV Importer

- File→Import Lens File→CodeV
 - Will attempt to import every CodeV command and will report any problems on import to the text





Steps to use CodeV Importer

- Step 1 Close the Surface Data Spreadsheet
- Step 2 File → Import Lens File → CodeV
- Step 3 Look in the

Text window for error

Messages

Step 4 – Check the graphi

Windows to make sure that

all rays passed through the

System

• Step 5 – Check that

Apertures are set correctly

		V							
	III Surface Data	TW	1*						
	25.0 · · · · · · · · · · · · · · · · · · ·	E Len	Spe Rin Ape Wav	Pxc Abr Mrg Chf	Tra Sop Ref Fa	an Spd Auf Var©	loe lle		
	?	*LENS SRF 0	INPUT :						
	Gen Setup Wavelength Field Points Variables Draw Off Group Notes	SN02			11250				
	Lens:Double Gauss - U.S. Patent 2,532 Zoom 1 of 1 Efl 104.128543	LID: D	ouble Gauss -	U.S. Patent	2,532				
	SRF RADIUS THICKNESS APERTURE RADIUS GLASS SPECIAL	UNI	25.000000 mm						
	0BJ 0.000000 9.9394e+11 2.4782e+11 AIR AIR	WAVENS	0.65	6300					
	1 57.449765 V 8.746658 38.120801 S BK7 C	WV2 WV3	0.587600						
	3 34.887272 V 12.424230 34.561622 S SK1 C	WW1 WW2	1.000000						
	4 0.000000 3.776966 26.078721 5 F15 C	DES	1.000000						
	5 21.469207 V 15.107864 V 21.469207 S AIR	ANG SRF 0	14.000000						
	7 -27.034908 V 3.776966 20.726960 S F15 C	TH	9.9394e+11						
٦Ì	8 0.000000 10.833928 22.522299 5 SK16 C	GLA A SRF 1	.:						
1	9 -34.986743 V 0.298182 V 27.620069 S AIR	RD TH	57.449765 8.746658						
	11 -63.115214 V 63.137622 28.738683 S AIR	IN GLA GLA B	K7						
	IMS 0.000000 0.000000 V 26.432710 S	*UPDAT	E VARIABLES						
		VB V 1	SN CF TYP 1 - CV	MIN	MAX	DAMPING 1.000000	INCR 4.0000e-06	VALUE 0.017407	
- 11		END SRF 2	:						
		RD TH	188.460067 0.298182						
	DOUDIE GOUSS - U.S. POTENT 2,332 UNITS: MM	GLA A	IR						
	FUCAL LENGTH = 104.1 NA = 0.2401 DES: 1	*UPDAT	E VARIABLES	100000			50K.05	101003122.04	
		VB V 2	SN CF TYP 2 - CV	MIN	MAX	DAMPING 1.000000	INCR 4.0000e-06	VALUE 0.005306	
	15 4	END							
		VB	SN CF TYP	MIN	MAX	DAMPING	INCR	VALUE	
		END	2 - TH	077	5053	1.000000	0.002500	0.298182	
		SRF 3 RD	34.887272						
- 11		TH IN GLA	12.424230						
		GLA S	iK1						
		VB	SN CF TYP	MIN	MAX	DAMPING	INCR	VALUE	
		V 4 END	3 - CV	120	(27-7)	1.000000	4.0000e-06	0.028664	
		SRF 4 RD							
	I HIN HAT I	TH IN GLA	3.776966						
		GLA F SRF 5	15						
		RD TH	21.469207 15.107864						
		IN GLA	() IR						
		*UPDAT	E VARIABLES						
	4	VB V 5	SN CF TYP 5 - CV	MIN	MAX	DAMPING 1.000000	INCR 4.0000e-06	VALUE 0.046578	
		END							



Second Example using CodeV Importer

 Step 1 – Close the Surface Data Spreadsheet 	
Step 2 – File→Import Lens File→CodeV	
III Surface Data	■ TW 1*
	🖽 Len Spe Rin Ape Wav Pxc Abr Mrg Chf Tra Sop Ref Fan Spd Auf Var Ope lite
	STORED GLASS UNKNOWN
Gen Setup Wavelength Field Points Variables Draw Off Group Notes Lens: Cassegrain Ritchey-Chretien Zoom 1 of 1 Efl 1.7521e+03	STORED GLASS UNKNOWN Reading c:\users\Public\Documents\OSLO7 Premium Early Access\private/bin/glc/private.glc Writing C:\Users\Public\Documents\OSLO7 Premium Early Access\private/cdb/glass_private.cdb
Ent beam radius 75.000000 Field angle 0.600000 Primary wavln 0.632800 SRF RADIUS THICKNESS APERTURE RADIUS GLASS SPECIAL	*LENS INPUT
0BJ 0.000000 1.0000e+10 1.0472e+08 AIR	SRF 0: SNO2
AST -742.857200 -260.000000 75.000000 AS REFLECT A 2 -290.232796 471.717084 22.500000 REFLECT A	Cassegrain Ritchey-Chretien
3 -55.229670 7.500000 16.901850 5 SF11 C	EBR 75.000000 UNI mm
4 -118.498104 5.000000 17.832237 S AIR IMS 0.000000 -0.016718 18.347856 S	UNI mm WAVLNS 0.632800
	WW1 1.000000 ANG 0.600000
W 1 - Lens Drawing *	RD TH 1.0000e+10
	GLA AIR SRF 1:
COSSEGRAIN RITCHEY-UNRETIEN UNITS: MM	RD -742.857200 TH -260.000000
100AL LENGTT = 1752 TVA = 0.04201 DES. 0310	IN GLA() GLA REFLECT
	*** Command CON not recognized *** CC -1.046192
53.9	SRF 2: AP 75.00000
	SRF 2: RD -290.232796
	TH 471.717084 IN GLA()
	GLA REFLECT *** Command CON not recognized ***
	AP 22.500000 SRF 3:
	RD -55.229670 TH 7.50000
	IN GLA() GLA SF11
	SRF 4: RD -118.498104
	IN GLA()
	SRF 5: RD
	TH -0.016718 GLA AIR
	END 5

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Help Improvements – Check for Updates

• Help→Check for Updates

- Shows the license type which is either fixed or network and Key Serial Number
- Has 3 buttons to Resolve, Refresh or Upgrade the license

Tip of the Day		
	License Information	
Check for Updates	2-2542464 2-2542464 Key Serial No: 2-2542464 This is a Lambda Research USB Key. OSI O network license.	~
About OSLO	Network ight license seats: 1 Network standard license seats: 1 Network premium license seats: 1 Temporary license expires on December 28, 2017.	
	Please select a license key from the list above to upgrade or resolve.	v
	Resolve Refresh Upgrade	
	OK	

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Help Improvements in Check for Updates - Resolve

- Help→Check for Updates—Resolve
 - Select this option to troubleshoot a licensing issue

Tip of the Day	License Information		
License	List of License Key(s):	License Details:	
Check for Updates About OSLO	2-2542464	Key Serial No: 2-2542464 This is a Lambda Research USB Key. OSLO network license. Network light license seats: 1 Network standard license seats: 1 Network premium license seats: 1 Temporary license expires on December 28, 2017.	^
		ey serial no. 2-2542464 is functioning correctly.	
	Resolve Re	fresh Upgrade	



Help Improvements Check for Updates - Refresh

- Help→Check for Updates—Refresh
 - select this option to refresh the license information after connecting/disconnecting
 USB keys or network connections

 OSLO Help F1	
Tip of the Day	_ [∟]
License	
Check for Updates	
About OSLO	

2-2542464	Key Serial No: 2-2542464 This is a Lambda Research USB Key. OSLO network license. Network light license seats: 1 Network standard license seats: 1 Network premium license seats: 1 Temporary license expires on December 28, 2017.	^
		v
Please select a license key from Resolve Ref	the list above to upgrade or resolve. esh Upgrade	

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Help Improvements Check for Updates - Upgrade

- Help→Check for Updates—Upgrade
 - select the license in the List of License Key(s), then select this option to open another page of options related to making changes to the existing license

Tip of the Day	License Information		
License	List of License Key(s):	License Details:	
Check for Updates	2-2542464	Key Serial No: 2-2542464 This is a Lambda Research USB Key. OSLO network license.	^
About OSLO		Network standard license seats: 1 Network premium license seats: 1 Network premium license seats: 1	
			~
	Please select a license key from	m the list above to upgrade or resolve.	
	Please select a license key from Resolve	efresh	
	Please select a license key from	m the list above to upgrade or resolve.	

Help Improvements Check for Updates – Upgrade Options

- Upgrade License select this option to upgrade the current OSLO license (change the OSLO Edition, add time to a temporary license, etc) – this option sends an e-mail to license@lambdares.com with a context file taken from an existing license
- Purchase Upgrade select this option to upgrade the current OSLO license (change the OSLO Edition, add time to a temporary license, etc) – this option sends an e-mail to sales@lambdares.com with a context file taken from an existing license
- Send Receipt select this option to send verification that a license update has been activated (most commonly used for a software key exchange) – this option sends an e-mail to license@lambdares.com with a context file taken from an existing license





Help Improvements – Check for Updates

- Help→Check for Updates
 - Checks to see if a new version is available on the website





Updated Glass Catalogs

- Hikari
- Hoya
- Ohara
- Schott
- Schott Radhard



New OSLO Videos on the Lambda Research Website & YouTube

- OSLO SCP Video demonstrating how to create a simple SCP macro to output lens parameters
- OSLO CCL for Lens Output The first of three videos demonstrating how to create a simple CCL macro to output lens parameters
- OSLO CCL for Lens Output Intermediate The second of three videos demonstrating how to create an intermediate CCL macro to output lens parameters
- OSLO CCL for Lens Output Complex The third of three videos demonstrating how to create a complex CCL macro to output lens parameters
- OSLO CCL Spiral Graphic Example Writing to the Graphics Window An example showing how to create a CCL macro writing to the graphics window.
- OSLO CCL Technical Example to Iterate through Field Points A technical example of a CCL macro with the particularly useful technique of sweeping through field points in an analysis



OSLO Examples Pages & Updated Manuals

- OSLO User Guide: <u>http://www.lambdares.com/images/pdf/oslo-user-guide.pdf</u>
- OSLO Optics Reference <u>http://www.lambdares.com/images/pdf/oslo-</u>
- OSLO Examples Page <u>http://www.lambdares.com/oslo/oslo-examples</u>
 - 31 new examples added
- OSLO Installers -<u>http://www.lambdares.com/CustomerSupportCenter/index.php/oslo/early-</u> <u>access</u>
 - OSLO7EA_Premium_Installer.exe
 - OSLO7EA_Standard_Installer.exe
 - OSLO7EA_Light_Installer.exe

