

# 2019-12-13 - HPOxygen Server 5.4.7

Here you can find information about what is new in HPOxygen Server version 5.4.7.

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## SmartRecut RBC GIA borders for VG/GD Diameter Deviation

It is now possible to get a much higher mass for RBC when running SmartRecut with the GIA Facetware+MyRound appraiser, as the **Diameter** (Symmetry) for VG and GD grades now may vary in full GIA boundaries (previously it was limited by 0.7 as for the EX grade).

New boundaries are:

- EX = 0,7 (not changed)
- VG = 1,4
- GD = 2,8
- FR = 5,6

Allocation solutions

Plans & Scans

Compare

Standard Report

#	Cutting	Price	Mass	Alloc	Yield	Carat	Sym-O	Gr	Cut	Sym
Imported model 1.3243 +2.48 UNK-Poor UNK-Poor UNK-P										
161	Brilliant	4940\$	0.9524		71.73%	VS1	H +7.47	VG	VG	VG
160	Brilliant	4992\$	0.9648		72.49%	VS1	H +7.21	VG	VG	VG
✓ 170	Brilliant	5096\$	0.9797	SR	74.00%	VS1	H +4.93	VG	VG	VG
172	Brilliant	4459\$	0.9823	SR	74.00%	VS1	H +2.72	VG-GD	VG	GD
171	Brilliant	4459\$	0.9835	SR	74.00%	VS1	H +2.39	VG-GD	VG	GD
173	Brilliant	4459\$	0.9843	SR	74.00%	VS1	H +2.62	VG-GD	VG	GD
174	Brilliant	4459\$	0.9856	SR	74.00%	VS1	H +2.62	VG-GD	VG	GD
175	Brilliant	4459\$	0.9866	SR	74.00%	VS1	H +2.43	VG-GD	VG	GD
176	Brilliant	3861\$	0.9945	SR	74.76%	VS1	H +2.24	VG-FR	VG	GD-FR
177	Brilliant	2574\$	0.9980	SR	74.76%	VS1	H +1.16	UNK-Poor	UNK-Poor	UNK-P
✓ 184	Brilliant	5761\$	1.0107	SR	76.27%	VS1	H +5.90	VG-GD	VG	GD
181	Brilliant	5818\$	1.0251	SR	77.02%	VS1	H +3.38	VG-GD	VG	GD
183	Brilliant	5818\$	1.0263	SR	77.02%	VS1	H +2.56	VG-GD	VG	GD
182	Brilliant	5818\$	1.0269	SR	77.02%	VS1	H +2.38	VG-GD	VG	GD
178	Brilliant	5875\$	1.0285	SR	77.78%	VS1	H +1.36	VG-GD	VG	GD
180	Brilliant	5875\$	1.0289	SR	77.78%	VS1	H +1.76	VG-GD	VG	GD
179	Brilliant	5035\$	1.0308	SR	77.78%	VS1	H +1.23	VG-FR	VG	GD-FR
185	Brilliant	3357\$	1.0367	SR	77.78%	VS1	H +1.05	UNK-Poor	UNK-Poor	UNK-P

Cut Symmetry

Parameter	Grade	Value
Diameter	EX	0.683

Cut Symmetry

Parameter	Grade	Value
Diameter	GD	1.809

## Custom Facet Marking in Polish Reports

Sometimes, the custom facet marking of a model (if it has this marking) may differ from the facet marking applied to the model in Polish Report (Auto Marking). Now the Polish Report dialog provides you information about this difference and allows to select which marking to use in the report.

Polish Report

View

Cutting type  
Radiant  
Auto  
Detect cutting type automatically

Facets types  
Edit facet types  
Press left mouse button on facet to change facet type  
Press right mouse button on facet to set the current color  
Press left mouse button on color boxes to set the current color

Facets \ Tier  
Pavilion main  
Pavilion lower  
Pavilion corner  
Crown main  
Crown upper  
Crown corner  
Crown star  
Knife  
Additional  
Unknown

No  
1  
2  
3  
4  
5

4

4

20

4

4

4

8

8

1

8

Girdle

Table

Culet

Cavity

Extra parameters  
Stone ID  
Model name  
Expert  
Real weight  
Use GIA grading rules  
Higher precision (plus one digit)

Report templates  
Open RTF  
Print RTF  
Open HTML  
INI Export  
Interactive 3D  
Full report for radiant  
Illustrated report for any cut  
Illustrated report for radiant

Black and white report  
Color report

Make Report  
Open Templates Folder  
Close Window

- If the custom facet marking differs from Auto Marking, the custom will be applied by default.
- To change the marking, in the **Marking** section, click **From Auto Marking** or **From Custom Report**. The **Current facet types: From ...** will change; the **View** will be updated.
- To edit facet types manually, select the **Edit facet types** checkbox, in the **Facets\Tier** table, select the required type, then in the **View**, click the facet(s) to belong to the type. The **Current facet types:** will change to **Manual**.
- If there is no custom facet marking, the Auto Marking will be applied.

No custom marking	Markings identical	Markings differ
<div> <div>Marking</div> <div>Current facet types: From Auto Marking</div> <div>From Auto Marking</div> <div>From Custom Report</div> <div>  No Custom Report </div> </div>	<div> <div>Marking</div> <div>Current facet types: From Auto Marking</div> <div>From Auto Marking</div> <div>From Custom Report</div> <div>  Custom Report matches Auto Marking </div> </div>	<div> <div>Marking</div> <div>Current facet types: From Custom Report</div> <div>From Auto Marking</div> <div>From Custom Report</div> <div>  Custom Report doesn't match Auto Marking </div> </div>

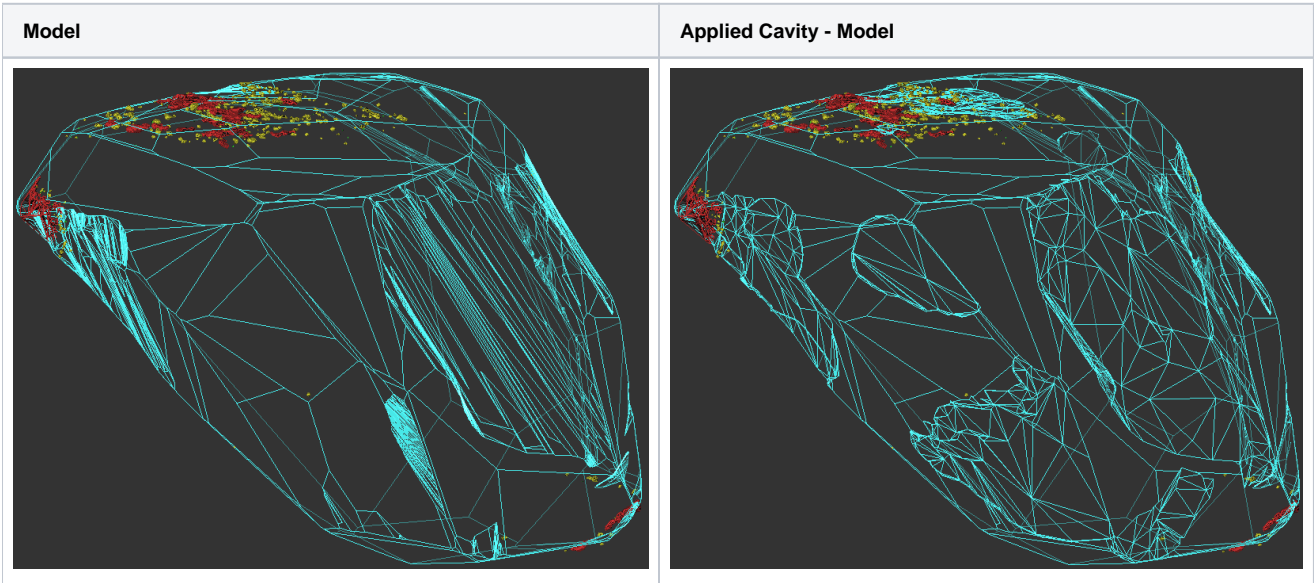
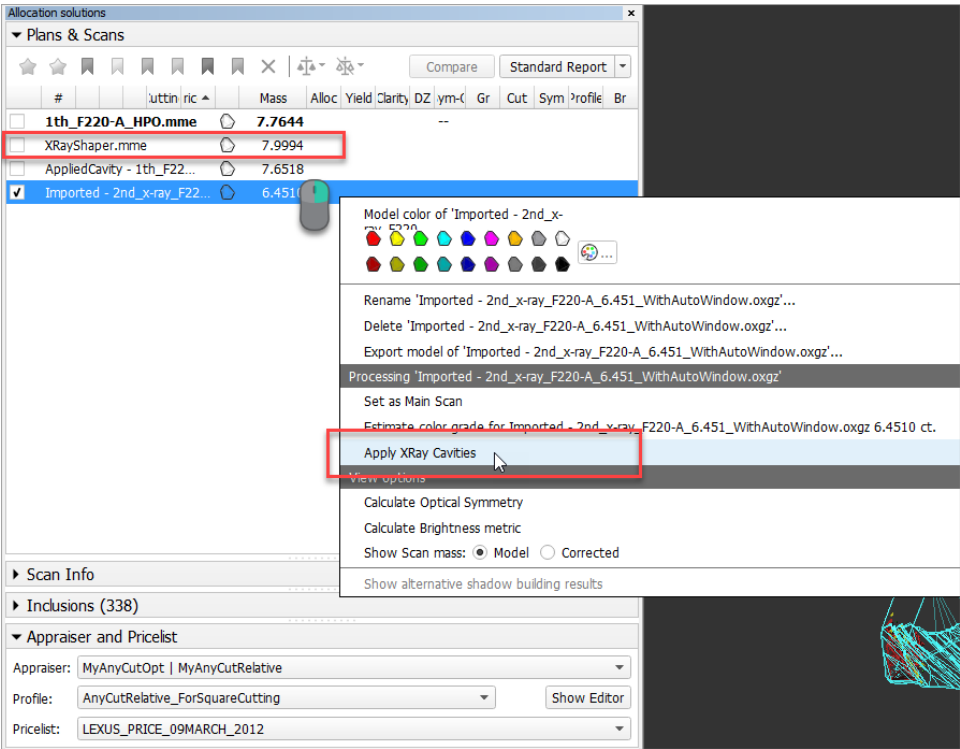
## XRay Cavities

In HP Oxygen, starting from version 4.3.12, for the shadow models, cavities previously built with XRay may be applied. This can be done several times throughout the polishing process.

The general workflow is the following:

(in the steps below "Intersector" is an XRay model from DM containing cavities)

- 1. In HPO, open the shadow model aligned with the Intersector.
- 2. Import the Intersector model.
- 3. Rename imported Intersector into "XRayShaper".
- 4. Right-click the HPO shadow model and then from the context menu select **Apply XRay Cavities**. In the solution list, the new model appears with the cavities applied. Its name is "AppliedCavity - [Initial Model Name]"
- 5. Stone is sent to the next production stage, the modified stone is scanned.
- 6. Open the new scan in HPO via **File > Import** with the **Use recognition** option selected.
- 7. For your next stage model, apply XRay cavities again.



## Algorithm List Changes

From the **Algorithm** list, the outdated algorithms have been removed: only algorithms of 2013 and later plus "06. Semicut (final)" are now in the list.

Also, on opening, the list of algorithms now only shows the algorithms marked as **Favorites**.








Was	After deletion of outdated
18. Semipolished	☆ 06. Semicut (final)
13. Single (Rough)	☆ 13. Cascade-2M
13. Cascade-2M	★ 13. Single (Rough)
08. Complex 1	★ 13. SmartRecut (Brilliant, Oval)
09. Adaptive.Beta	☆ 17. SmartZoom
08. Adaptive	★ <b>18. Semipolished</b>
08. Single.Flex	
08. Single	Currently selected algorithm is highlighted with <b>bold</b> .
06. Single	To add the algorithm to favorites, click ☆ . Clear the star to re
08. Quick Duo	
07. Complex	
07. Adaptive.Simple	
07. Adaptive (beta)	
06. Smart C1	
06. Complex 1	
06. Semicut	
06. Semicut (final)	
13. SmartRecut (Brilliant, Oval)	
17. SmartZoom	

## Relative Appraiser - Intervals Validation

In Relative appraiser, now:

- You cannot set value which module is less than 0,01.
- You can set only negative values for left boundaries.

Wrong values are highlighted with red. On editing finish, the wrong value is automatically substituted with the nearest correct (0,01 or -0,01).

Cut		Symmetry							
Parameter		[ FR	[ GD	[ VG	[ EX	EX ]	VG ]	GD ]	FR ]
GirdleRatio		-0,3	-0,3	-0,3	-0,1	0,01	0,3	0,3	0,3
Table		-7,9	-7,8	-6,9	-0,0		0,01	7,1	8,5
CrownHeight		-13,5	-13,5	-13,5	-8	0,01	0,01	3	4
GirdleBezel		-3,7	-2,6	-2,6	-2,6	3	3	3	4
PavilionHeight		-9,6	-4,6	-3,1	-0,01	4,3	4,3	5	10
TotalHeight		-9,7	-9,7	-9,7	-9,7	1,5	4,5	6,5	7,5

# Crown and Pavilion Reflect Algorithms Improvements

The speed and accuracy of the Crown and Pavilion Reflect algorithms are increased.

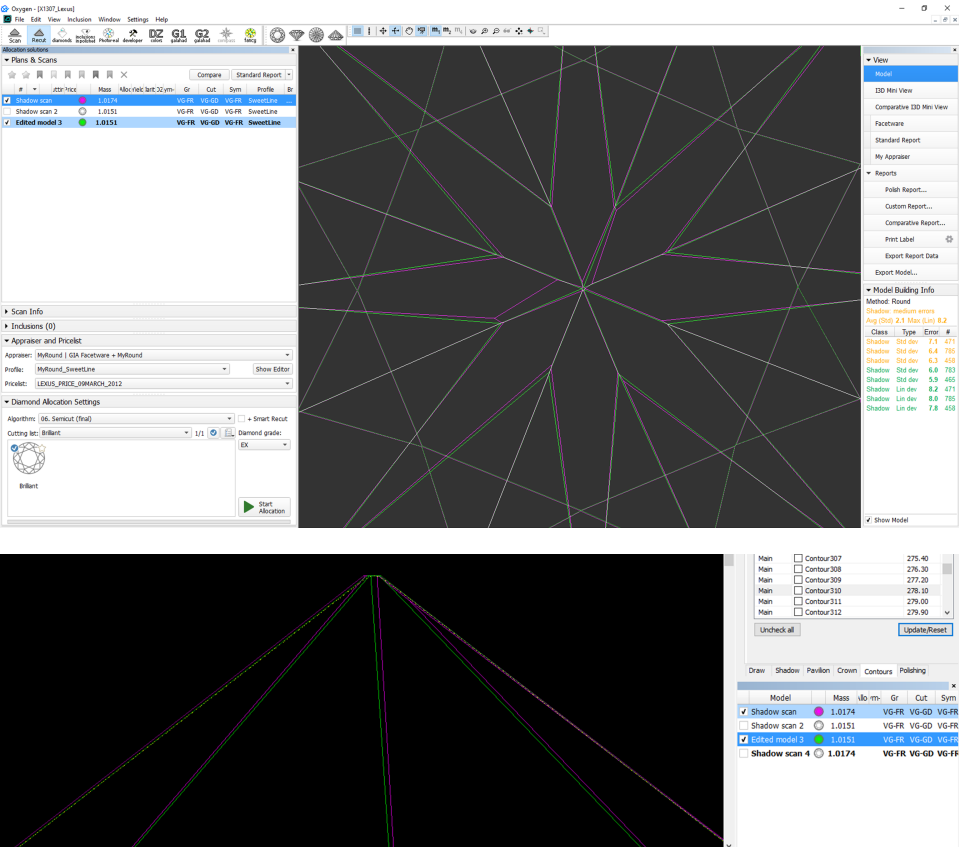
## Fixed Problems and Improvements

The following fixes for the known problems and improvements have been implemented:

- The problem with the excessive facets near the culet in the RBC scan has been solved.

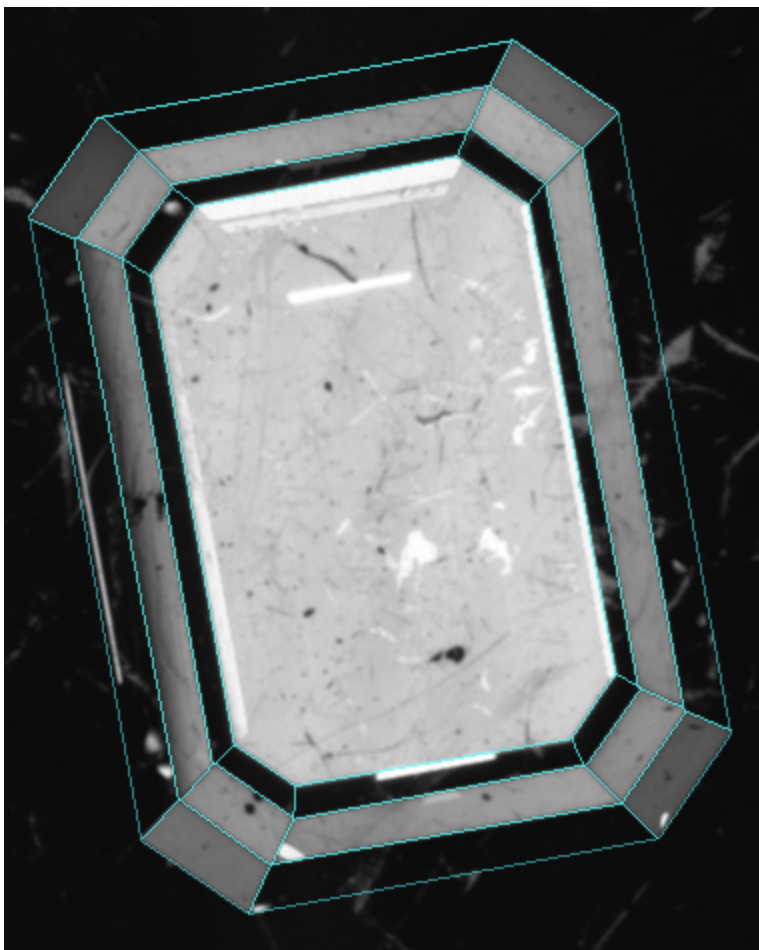
It has been found that during the shadow scanning for Brilliant cutting, the excessive facets were created near the culet. In the case of scanning the same stone for AnyCut cutting, these facets were not presented. This meant there had been an error in RBC scanning.

The example is presented in the picture:

















In the pictures: magenta - RBC, green - AnyCut.

- The table correction rules have been changed, which solves some problems including not highlighting facets on Crown Reflect



- When working with Solutions Report and accidentally entering "0" or empty value for the **Columns per page** option, the report stopped working (black screen). It did not work after the system re-start either. To solve this problem now you can re-run the program or re-open the project which will restore the normal functioning of the Solutions Report.

Sort by Cut grade							
Solution number	27	50	30	27	26	31	75
Weight, ct	5.4449	5.4063	5.3742	5.3684	5.3469	5.3450	5.3457
Price, \$	13219	13122	13049	13025	12976	12976	12976
ASET							
Office							
Cutting	MyRad_Ankit	MyRad_Ankit	MyRad_Ankit	MyRad_Ankit	MyRad_Ankit	MyRad_Ankit	MyRad_Ankit
Yield, %	94.69	93.99	93.47	93.30	92.95	92.95	92.95
Clarity	S12	S12	S12	S12	S12	S12	S12
Color	O	O	O	O	O	O	O
Optical symmetry	6.57	6.66	7.12	7.25	7.19	7.24	7.21
Final grade	EX	EX	EX	EX	EX	EX	EX
Cut grade	EX	EX	EX	EX	EX	EX	EX
Symmetry grade	EX	EX	EX	EX	EX	EX	EX
Brightness	0.79	0.77	0.83	0.83	0.84	0.83	0.85

Page: 1 2 3 4 Columns per page: 7

- For the Crown Reflect, the check for the table overexposure is added which prevents measurement accuracy decrease.