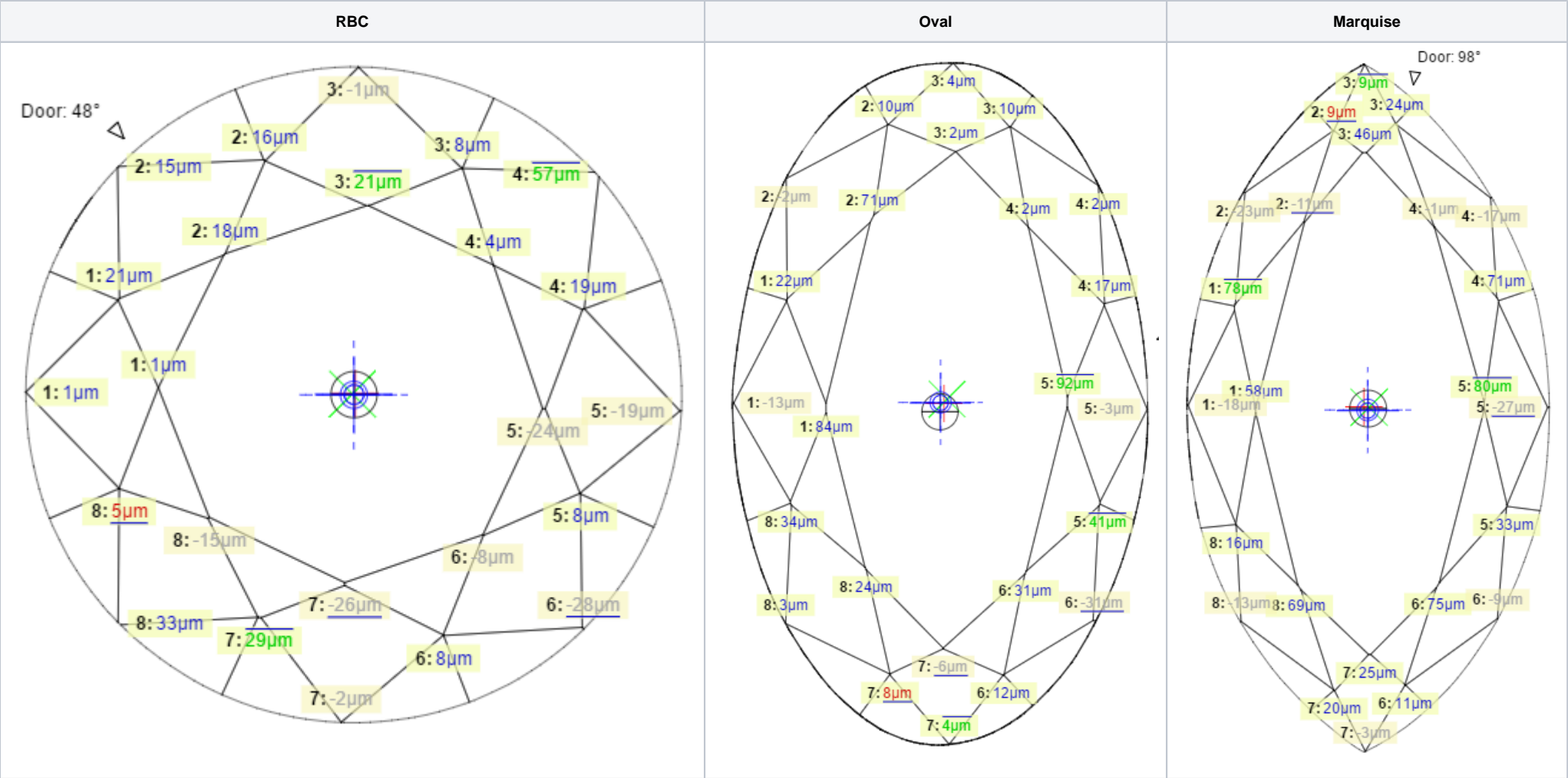


- [Reports](#)
- [Smart Recut](#)
- [Interface](#)
- [Scanning](#)
- [Recut](#)
- [Bugfixes](#)

Reports

1. **Table Edge Junctions** are now calculated for all cutting types. Corresponding bookmarks were implemented and added to report templates:



- TABLE\_EDGE\_JUNCTION\_MM\_MIN
- TABLE\_EDGE\_JUNCTION\_MM\_MAX
- TABLE\_EDGE\_JUNCTION\_MM\_AVG
- TABLE\_EDGE\_JUNCTION\_MM\_DEV
- TABLE\_EDGE\_JUNCTION\_MM\_1..8
- TABLE\_EDGE\_JUNCTION\_PC\_MIN
- TABLE\_EDGE\_JUNCTION\_PC\_MAX
- TABLE\_EDGE\_JUNCTION\_PC\_AVG
- TABLE\_EDGE\_JUNCTION\_PC\_DEV
- TABLE\_EDGE\_JUNCTION\_PC\_1..8
- TABLE\_EDGE\_MM\_MIN
- TABLE\_EDGE\_MM\_MAX
- TABLE\_EDGE\_MM\_AVG
- TABLE\_EDGE\_MM\_DEV
- TABLE\_EDGE\_MM\_1..8
- TABLE\_EDGE\_PC\_MIN
- TABLE\_EDGE\_PC\_MAX
- TABLE\_EDGE\_PC\_AVG
- TABLE\_EDGE\_PC\_DEV
- TABLE\_EDGE\_PC\_1..8
- MODEL\_TABLE\_EDGE\_MM\_MIN
- MODEL\_TABLE\_EDGE\_MM\_MAX
- MODEL\_TABLE\_EDGE\_MM\_AVG
- MODEL\_TABLE\_EDGE\_MM\_DEV

- MODEL\_TABLE\_EDGE\_MM\_1..8
  - MODEL\_TABLE\_EDGE\_PC\_MIN
  - MODEL\_TABLE\_EDGE\_PC\_MAX
  - MODEL\_TABLE\_EDGE\_PC\_AVG
  - MODEL\_TABLE\_EDGE\_PC\_DEV
  - MODEL\_TABLE\_EDGE\_PC\_1..8
2. Fixed an outstanding issue that caused randomly missing images in RTF Polish reports, most notably in Full reports. All images should now be successfully generated every time, given a correct and valid template.
  3. Completely re-worked the **Comparative report** model matching algorithms for **better all-round results** on all cuttings.
  4. Improved matching of **Culet, Cavity, Knife, Girdle** facets in **Comparative report** for non-trivial cases.
  5. **GIA Rounded** parameter values are added to the **Standard Report** for RBC. Available with **GIA Facetware** appraiser.

Standard Report

Settings | Print... | Quick Print

Cutting type	Brilliant	Model	1
Spread	-0.21 ct, -5.44 %	Scale weight, ct	
Extra Facet Girdle / Nat	No	Corrected mass, ct	4.09, 4.0966
Cut appraiser	GIA Facetware Mfg	Cut grade	EX
Symmetry appraiser	GIA Facetware Mfg	Sym grade	EX
Model building info		Final grade	EX

Parameter	Avg	GIA Rounded	Min	Max	Dev	Cut	Sym
Diameter, mm	10.170	—	10.148	10.191	0.43 %	—	EX
Table, %	5.809 mm 57.12 %	57	57.03	57.21	0.18	EX	EX
Crown angle, °	35.69	35.5	35.65	35.74	0.08	EX	EX
Pavilion angle, °	40.84	40.8	40.66	41.06	0.40	EX	EX
Star length, %	54.91	55	54.91	54.91	0.00	EX	EX
Lower girdle length, %	76.99	75	76.98	77.00	0.02	EX	EX
Girdle bezel, %	0.402 mm 3.95 %	4.0	3.95	3.96	0.01	EX	EX
Girdle bone, %	0.419 mm 4.12 %	—	4.12	4.13	0.01	—	—
Girdle valley, %	0.234 mm 2.30 %	—	2.27	2.33	0.06	—	—
Girdle valley minimum, %	2.27	STK	—	—	—	EX	—
Girdle valley maximum, %	2.33	STK	—	—	—	EX	—
Culet, %	0.000 mm 0.00 %	NON	0.00	0.00	0.00	EX	—
Crown painting, °	0.23	0.2	—	0.45	0.45	EX	—
Pavilion painting, °	0.23	0.2	—	0.45	0.45	EX	—
Sum painting, °	0.45	0.4	—	—	—	EX	—
Crown height, %	1.569 mm 15.43 %	15.5	15.42	15.43	0.00	—	EX
Pavilion height, %	4.399 mm 43.25 %	43.5	43.25	43.26	0.00	—	EX
Total height, %	6.369 mm 62.63 %	62.6	—	—	—	—	—
Table offset, %	0.000 mm 0.00 %	—	—	—	—	—	EX
Culet offset, %	0.031 mm 0.30 %	—	—	—	—	—	EX
Table-culet offset, %	0.031 mm 0.30 %	—	—	—	—	—	EX
Star angle, °	23.37	23.4	23.37	23.37	0.00	—	EX
Inner girdle angle, °	42.99	42.9	42.93	43.04	0.12	—	EX

6. Added **mm values** of most important parameters to **Standard Report**. % values are still available in the same column.

Standard Report

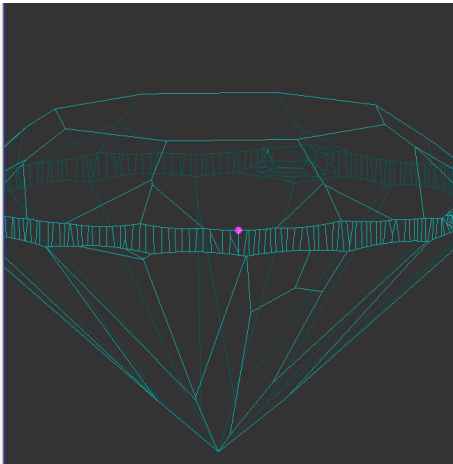
Settings | Print... | Quick Print

Cutting type	Brilliant	Model	1
Spread	-0.21 ct, -5.44 %	Scale weight, ct	
Extra Facet Girdle / Nat	No	Corrected mass, ct	4.09, 4.0966
Cut appraiser	GIA Facetware Mfg	Cut grade	EX
Symmetry appraiser	GIA Facetware Mfg	Sym grade	EX
Model building info		Final grade	EX

Parameter	Avg	GIA Rounded	Min	Max	Dev	Cut	Sym
Diameter, mm	10.170	—	10.148	10.191	0.43 %	—	EX
Table, %	5.809 mm 57.12 %	57	57.03	57.21	0.18	EX	EX
Crown angle, °	35.69	35.5	35.65	35.74	0.08	EX	EX
Pavilion angle, °	40.84	40.8	40.66	41.06	0.40	EX	EX
Star length, %	54.91	55	54.91	54.91	0.00	EX	EX
Lower girdle length, %	76.99	75	76.98	77.00	0.02	EX	EX
Girdle bezel, %	0.402 mm 3.95 %	4.0	3.95	3.96	0.01	EX	EX
Girdle bone, %	0.419 mm 4.12 %	—	4.12	4.13	0.01	—	—
Girdle valley, %	0.234 mm 2.30 %	—	2.27	2.33	0.06	—	—
Girdle valley minimum, %	2.27	STK	—	—	—	EX	—
Girdle valley maximum, %	2.33	STK	—	—	—	EX	—
Culet, %	0.000 mm 0.00 %	NON	0.00	0.00	0.00	EX	—
Crown painting, °	0.23	0.2	—	0.45	0.45	EX	—
Pavilion painting, °	0.23	0.2	—	0.45	0.45	EX	—
Sum painting, °	0.45	0.4	—	—	—	EX	—
Crown height, %	1.569 mm 15.43 %	15.5	15.42	15.43	0.00	—	EX
Pavilion height, %	4.399 mm 43.25 %	43.5	43.25	43.26	0.00	—	EX
Total height, %	6.369 mm 62.63 %	62.6	—	—	—	—	—
Table offset, %	0.000 mm 0.00 %	—	—	—	—	—	EX
Culet offset, %	0.031 mm 0.30 %	—	—	—	—	—	EX
Table-culet offset, %	0.031 mm 0.30 %	—	—	—	—	—	EX
Star angle, °	23.37	23.4	23.37	23.37	0.00	—	EX
Inner girdle angle, °	42.99	42.9	42.93	43.04	0.12	—	EX

7. Crown Height and Pavilion Height interactive values are now available in Standard Report for RBC and AnyCut:

Parameter	Avg	GIA Rounded	Min	Max	Dev	Cut	Sym
Diameter, mm	10.351	--	10.298	10.372	0.72 %	--	VG
Table, %	6.184 mm 59.75 %	60	59.45	60.06	0.61	Unknown	EX
Crown angle, °	35.06	35.0	34.81	35.19	0.37	Unknown	EX
Pavilion angle, °	41.38	41.4	41.09	41.63	0.55	Unknown	EX
Star length, %	N/A	N/A	N/A	N/A	N/A	Unknown	N/A
Lower girdle length, %	76.70	75	64.50	90.62	26.32	Unknown	FR
Girdle facet, %	0.468 mm 4.53 %	4.5	4.25	4.83	0.59	Unknown	EX
Girdle bone, %	0.468 mm 4.52 %	--	1.45	0.01	4.56	--	--
Girdle valley, %	0.369 mm 3.57 %	--	0.47	4.61	4.13	--	--
Girdle valley minimum, %	0.47	VTN	--	--	--	VG	--
Girdle valley maximum, %	4.61	VTK	--	--	--	GD	--
Culet, %	0.028 mm 0.27 %	NON	0.22	0.29	0.07	EX	--
Crown painting, °	-0.04	0.0	--	-0.49	0.97	EX	--
Pavilion painting, °	0.06	0.1	--	-1.06	1.85	EX	--
Sum painting, °	0.02	0.1	--	--	--	EX	--
Crown height, %	1.466 mm 14.16 %	14.0	13.93	14.34	0.41	--	EX
Pavilion height, %	4.546 mm 43.95 %	44.0	43.87	44.06	0.19	--	EX
Total height, %	6.483 mm 62.64 %	62.7	--	--	--	--	--
Table offset, %	0.021 mm 0.20 %	--	--	--	--	EX	--
Culet offset, %	0.040 mm 0.47 %	--	--	--	--	EX	--
Table-culet offset, %	0.070 mm 0.67 %	--	--	--	--	EX	--
Star angle, °	N/A	N/A	N/A	N/A	N/A	--	N/A
Upper girdle angle, °	41.23	41.2	40.58	41.65	1.07	--	EX
Lower girdle angle, °	42.51	42.5	41.57	42.74	1.17	--	EX
Facet twist, °	1.45	--	0.68	1.92	1.24	--	--
Junction bezel twist, °	-1.67	--	-5.96	3.67	9.63	--	--
Junction bone twist, °	-1.44	--	-2.67	-0.26	2.61	--	--
Malalignment (ALN), °	5.96	6.0	--	--	--	FR	--
2*radius roundness, %	--	--	--	--	--	VG	--
15°	0.74	--	--	--	--	VG	--
23°	0.80	--	--	--	--	VG	--
30°	0.86	--	--	--	--	VG	--
45°	0.95	--	--	--	--	VG	--
90°	0.95	--	--	--	--	VG	--
Model table edge, %	24.70	--	24.29	25.08	0.79	--	EX
Table edge (TEV), %	24.70	24.7	24.29	25.08	0.79	--	EX
Table edge junction, %	0.00	--	0.00	0.00	0.00	--	--



When the parameter is selected, you will see a dot located on the upper or lower girdle line at the point where the corresponding measurement was made. You can then align the selected stone element to the scanner door by pressing the "Rotate to door: **Selected Facet**" button.

Clicking on a selected parameter once more will deselect it.


8. Precision setting in Standard Report now affects all relevant parameters.

9. Improved Star facets detection on rounded fancies.

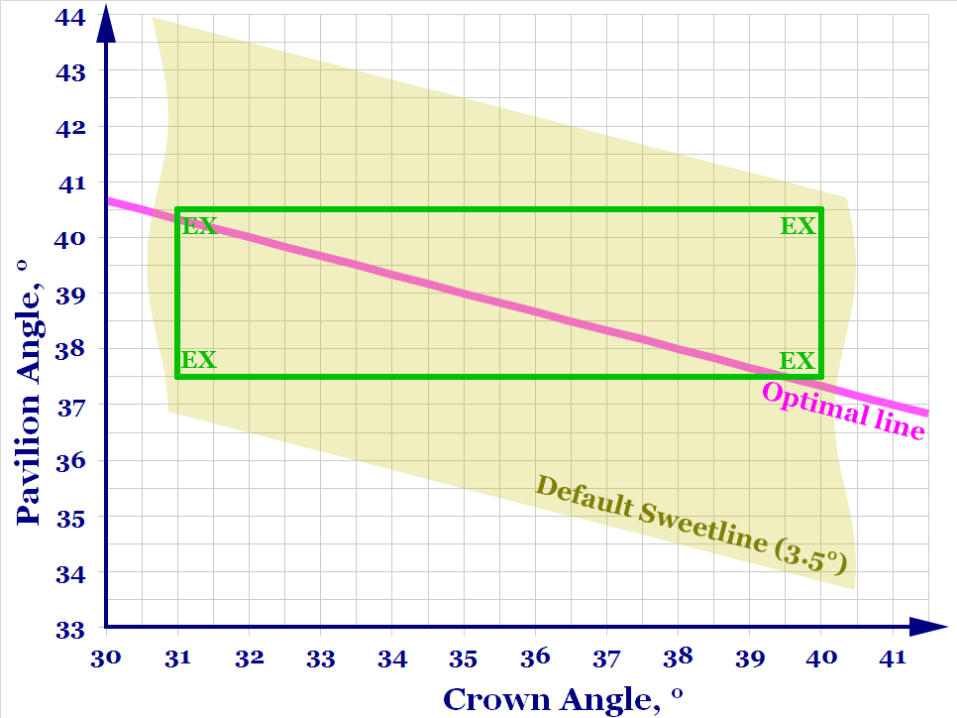
10. Improved facet type detection on RBC.

Smart Recut

- 1. It is now possible to run SmartRecut algorithm on Copy cuttings.

2. Oval **Sweetline** parameter is added to the SmartRecut Oval presets. 

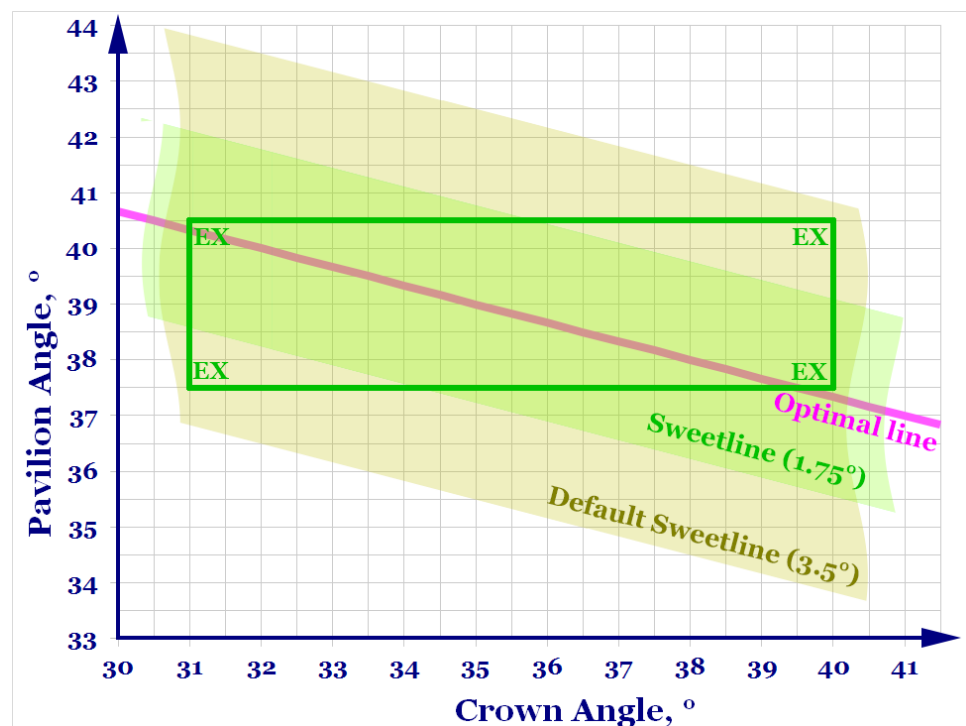
Presently the optimal line is defined as the line with negative slope 1:3 passing through the point with CrownAngle = 36.5 and PavilionAngle = 38.5.



SweetLine is currently not revealed in MyAppraiser and can be managed only via presets. There default value of Oval SweetLine in presets is 3.5°. This value determines zone/stripe by PavilionAngle, upper and lower edges of this zone/stripe pass in 3.5° by PavilionAngle from sweetline as shown on graphics above. i.e. zone is stripe with "width" of 7 degrees by PavilionAngle. Green frame "EX" shows current intervals of MyOval appraiser of EX group for Crown Angle (from 31° to 40°) and Pavilion angle (from 37.5° to 40.5°) which are set by operator in AppraiserEditor panel.

MyOval											Presets																		
Profile: Default (read only)																													
Cut	Symmetry	Other																											
Parameter	Grade	Value	[FR]	[GD]	[VG]	[EX]	[EX]	[VG]	[GD]	[FR]	UltraSymmet	hOpticalSym	umOpticalSym	valOpticalSym	5. Standard	ExtendedLim	OpticalSym	8. MaxMass											
GirdleRatio	EX	1.339	1,2	1,2	1,2	1,25	1,75	1,8	1,8	1,8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
SquareDeviation	EX	0	-10	-5	-3	-1,5	3	6	9	14	1	1	1	1	1	1	1	1	1	1	1	1	1	1,5	1,5				
Table	EX	62.772	50	50	52	54	63,5	65	66	66	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
CrownAngle	EX	35.736	29	29,5	30	31	40	46	50	51	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
CrownHeight	EX	13.436	10	11	11,5	12	16	16,5	17	18	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
PavilionAngle	EX	40.023	34	34,5	35	37,5	40,5	42	42,5	43	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
PavilionHeight	EX	43.332	35	36	36,5	39	44,5	46,5	47,5	48,5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
GirdleBezel	EX	4.281	1,5	2	2,2	2,5	5,5	6,5	8	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
LowerGirdleLength	EX	78.352	70	72	76	78	82	84	86	90	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
TotalHeight	EX	61.05	51,5	52,5	56,5	58	64,5	65	65,5	66,5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
Culet	EX	0.361	0	0	0	0	0,5	1,5	2,5	3,5	-	0,5	-	1	-	1	-	1	-	1	-	1	-	1,35					
StarHeightRatio											25	35	25	35	25	35	25	35	25	35	25	35	25	35	25	35			
SweetLine											-	3,5	-	3,5	-	3,5	-	3,5	-	3,5	-	3,5	-	3,5	-	3,5			

Sweetline value can be decreased to smaller value to get final solutions with CrownAngle/PavilionAngle more close to Optimal Line. For example, if operator decrease sweetline value to 1.75° (zone is shown on picture below) then final solutions will contain CrownAngle and PavilionAngle values in the limits of zone Sweetline 1.75°, more close to optimal line than default value 3.5°. This "tightening" results in better optical performance but could results in worse weight of plan diamond also. Operator can adjust sweetline value to reach optimal ratio "optical performance/weight of plan diamond.



- 3. **MyOval** appraiser and **presets** are improved to achieve resulting solutions with better optical performance and symmetry.
- 4. **MyRound** appraiser and **presets** were improved to better suite GIA Facetware limits.  
Two SmartRecut presets still retain relaxed intervals to showcase possible maximum mass gains while exceeding some of the MyAppraiser target group limits.
- 5. SmartRecut algorithm is improved to achieve higher EX target group result rate.

## Interface

- 1. **Corrected mass** can now be shown in the model list, if the corresponding option is enabled.

To enable Corrected mass display, right-click anywhere in the model list area and select "Corrected Mass" option in the "Show Scan Mass" group:

Allocation solutions

Plans & Scans

CompareStandard Report

#

Price

Weight

Mass

Field

Clarity

Col

Sym-O

Gr

Cut

Sym

☐

Sample0.9997+7.99

☒

Shadow scan0.7557+6.36

Main Scan

✓

Set as Main Scan

Show Scan Mass

☒

Model Mass

☐

Corrected Mass

Diamond Color

Estimate color grade for Shadow scan, 0.7557 ct

Optical Symmetry

✓

Calculate Optical Symmetry

Export Model

Export Model...

Allocation solutions

Plans & Scans

CompareStandard Report

#

Price

Weight

Mass

Field

Clarity

Col

Sym-O

Gr

Cut

Sym

☐

Sample0.9997+7.99

☒

Shadow scan0.7543+6.36

Corrected Mass

If you hover the mouse pointer over the "Mass" column header, a tooltip will display current mass setting.

2. In **MyAppraiser editor** a tooltip was added that shows details on parameter difference from the default profile:

Appraiser Editor

GIA Facetware + MyRound

Profile: MyRound\_Profile1

Show Presets

Cut

Symmetry

Parameter	Grade	Value	[ FR ]	[ GD ]	[ VG ]	[ EX ]	[ EX ]	[ VG ]	[ GD ]	[ FR ]
Table	EX	59.746	10	46.5	49.5	51.5	62.5	66.5	69.5	99
CrownAngle	EX	35.052	10	21.75	26.25	31.75	35.9	38.75	40.25	90
PavilionAngle	EX	41.381	10	38.7	39.7	40.5	41.9	42.5	43.1	90
StarLength	Poor		10	32.5	37.4	42.5	67.5	72.6	77.5	90
LowerGirdleLength	EX	76.704	50	57.5	62.5	67.5	72.6	72.5	72.5	99
GirdleBezel	EX	4.53	0	1.25	1.75	2.25				20
GirdleValley	VG	0.475	0	0	0	0.75	2.94	4.14	6.14	20
CrownHeight	EX	14.163	5	10.5	12	12.3	15.5	17.5	18.5	40
TotalHeight	VG	62.637	10	54	57	58	62.5	64	66	90
Culet	EX	0.269	0	0	0	0	1.1	1.5	2	20
CrownPainting	EX	-0.0397	-9	-6	-3	-2.3	2.3	4.3	7	20
PavilionPainting	EX	0.0597	-9	-5	-3	-2.5	2.5	4	6	20
SumPainting	EX	0.02	-9	-6	-5	-3.5	5	8	10	20
GirdleAngleMax	GD	4.805	0	0	0	0	2	4	6	20
HeightGirdleExtraFacet	FR	13.432	0	0	0	0	5	6	7	20
GirdleCrownExtraFacets	VG	2	0	0	0	0	0	2	4	20
GirdlePavilionExtraFacets	GD	4	0	0	0	0	1	2	6	20
GirdleExtraFacets	GD	8	0	0	0	0	2	4	8	20

Import...

Export

☒ Highlight differences from Default profile

Set To Defaults

Discard

Apply

To display difference between current profile and default profile, select the "Highlight differences from Default profile" checkbox.  
To see the tooltip with details, hover the mouse cursor over a changed value.

3. **Shortcuts configuration** window is enhanced with the following capabilities:

a. Pressing a shortcut which is already taken causes the name of the other command to appear in a tooltip.

Shortcuts

Logs

File Save As: Ctrl+Shift+S

File Save: Ctrl+S

Start Scanning: Ctrl+F5

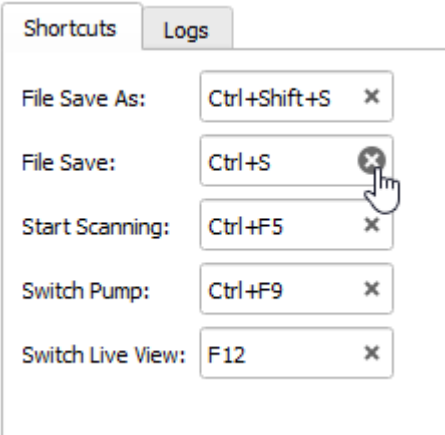
Switch Pump: Ctrl+F9

Switch Live View: F12

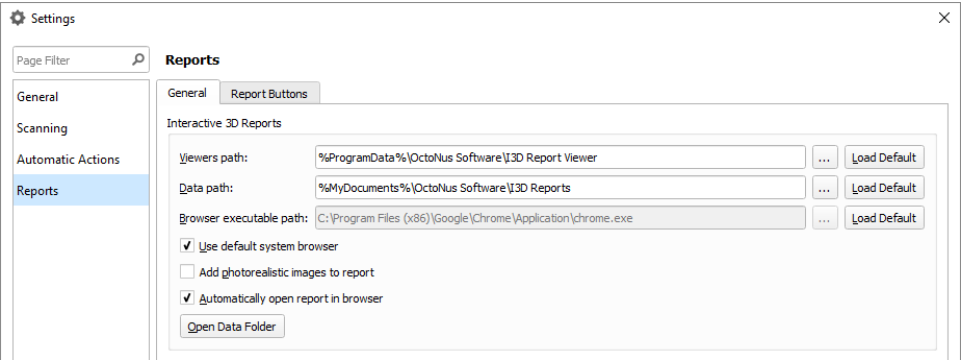
Shortcut Ctrl+S is already assigned to File Save action

If you hover the mouse pointer over the "Mass" column header, a tooltip will display current mass setting.

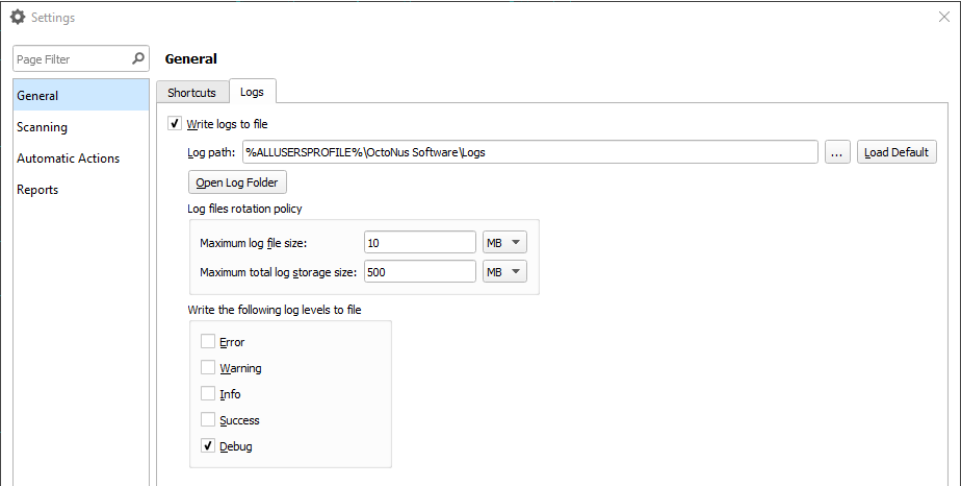
b. Pressing the (x) **button** removes an existing shortcut:



4. **I3D Report** configuration settings are moved to the Settings dialog:

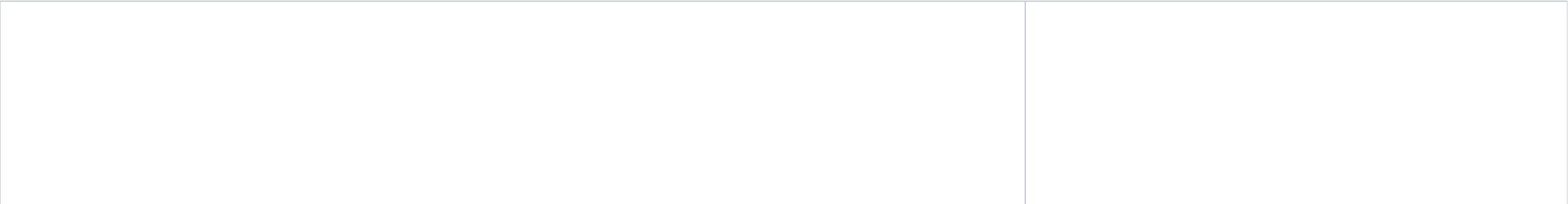


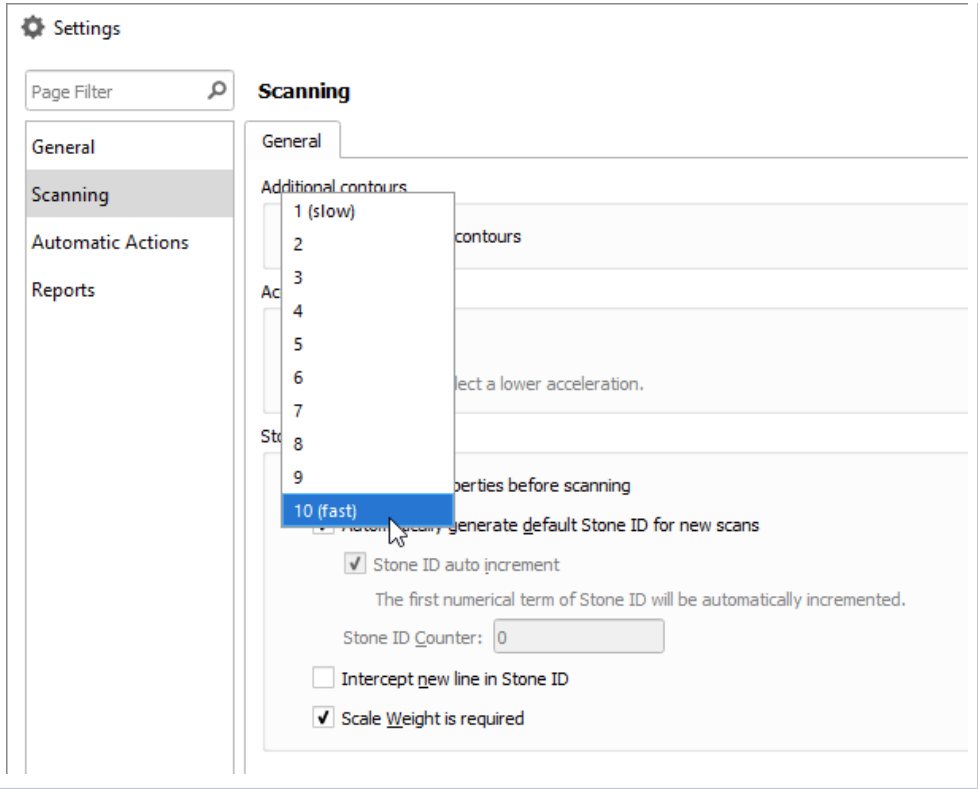
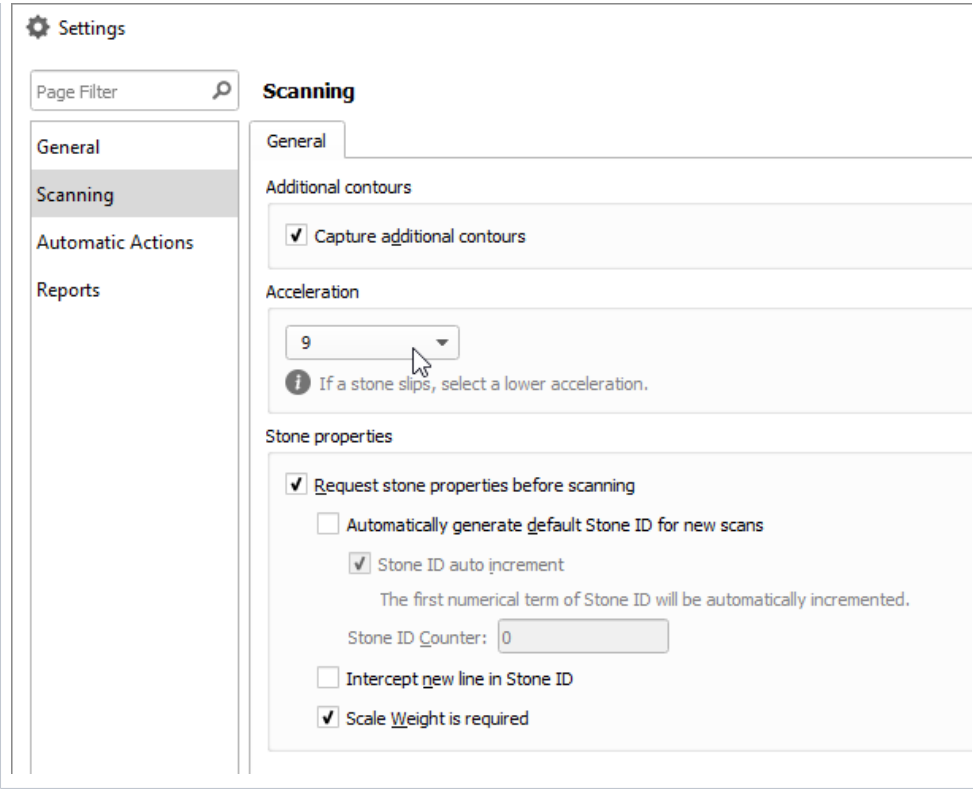
5. Logger settings are now available in the General settings dialog under *General Logs*



# Scanning

1. Manual **Acceleration** setting GUI is now available:





You can choose acceleration setting from ten options with 1 being the slowest and 10 being the fastest. For this setting to be available you have to update the **HPODrivers.ini** file.

## Recut

1. **06. Semicut (final)** algorithm now properly considers model orientation so that Recut solutions are always oriented correctly in relation to the semi-cut stone.

[06-Semicut-Final\\_Sample.oxgz](#)

Previous versions	HPO 3.22.41

## Bugfixes

1. You can now run Recut after importing a model from an MME file.



2. Multiple small bugs fixed.