2019.04.18 - HPOxygen Server 5.0.35

Here you can find information about what is new in HPOxygen Server version 5.0.35.

On this page:

Boundary Plane Tool

Now you can add boundary planes to exclude some parts of the stone from the optimization.

This can be useful when:

- You see one or several cavities is some area of the stone and want to exclude this area from optimization by cutting it off by plane.
- You need to set the offset of the round cavity with the help of an auxiliary plane (the plane is later deleted).
- Merge back into one facet what was wrongly split by the algorithm into several facets.

The **Boundary Plane Tool** allows placing the plane which virtually cuts off the part of the semi-polished stone to exclude this part from optimization.

Semi-polished stone

Solution fit inside remaining area

Area excluded from optimization by boundary plane
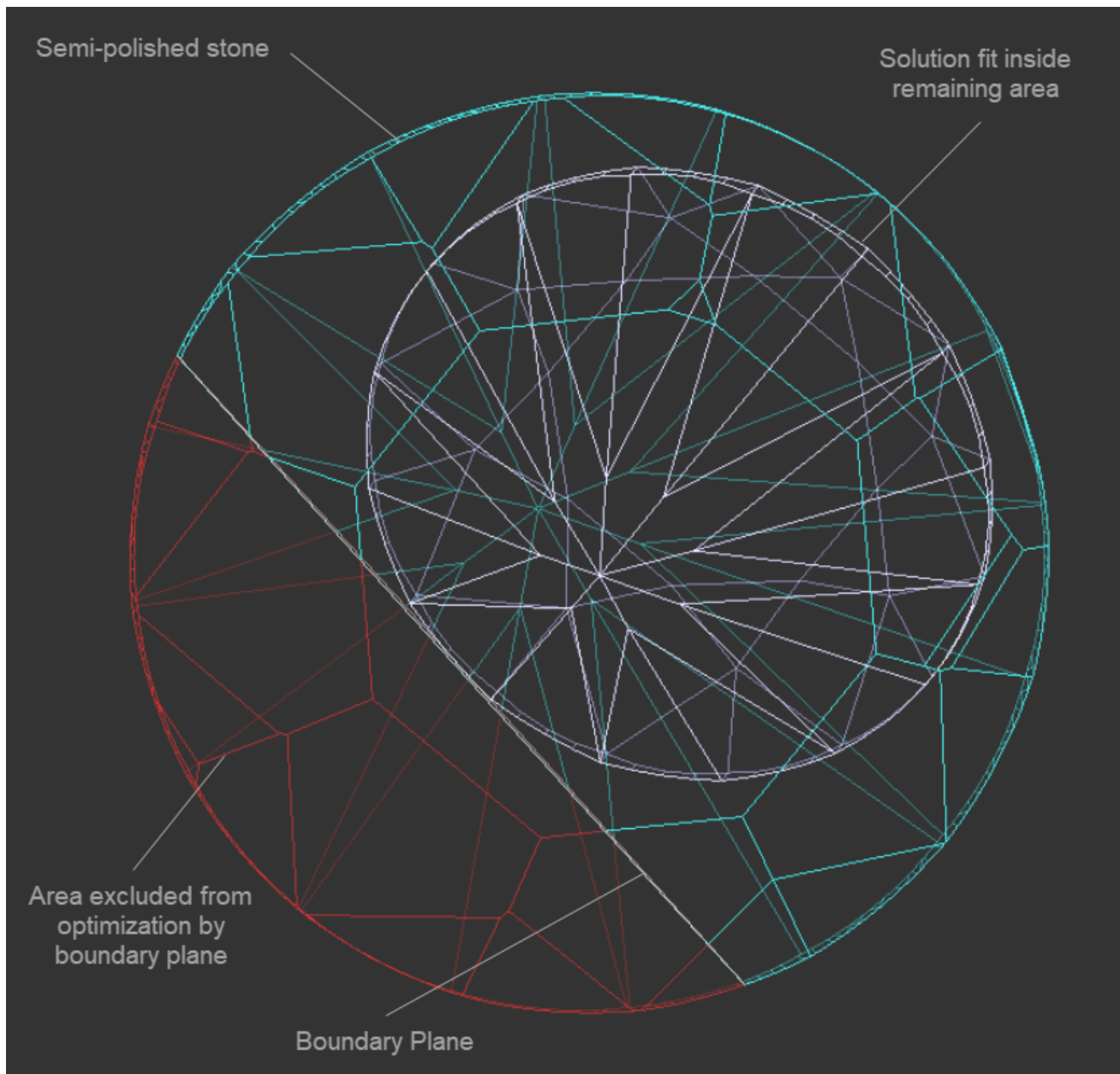
Boundary Plane

To add a new boundary plane, in the Scene, right-click the model, in the displayed context menu, in the **Planes** section, select one of the options:

- Plane from points
- Plane from facets

| Planes	Cavity-inclusion
Plane from points	Instant Cavity (depth = 100 ?m, radius = 100 ?m)
Plane from facets	Cavity...
	Instant Cavity 10 μm
	Instant Cavity 20 μm
	Instant Cavity 30 μm
	Instant Cavity 50 μm
	Instant Cavity 100 μm
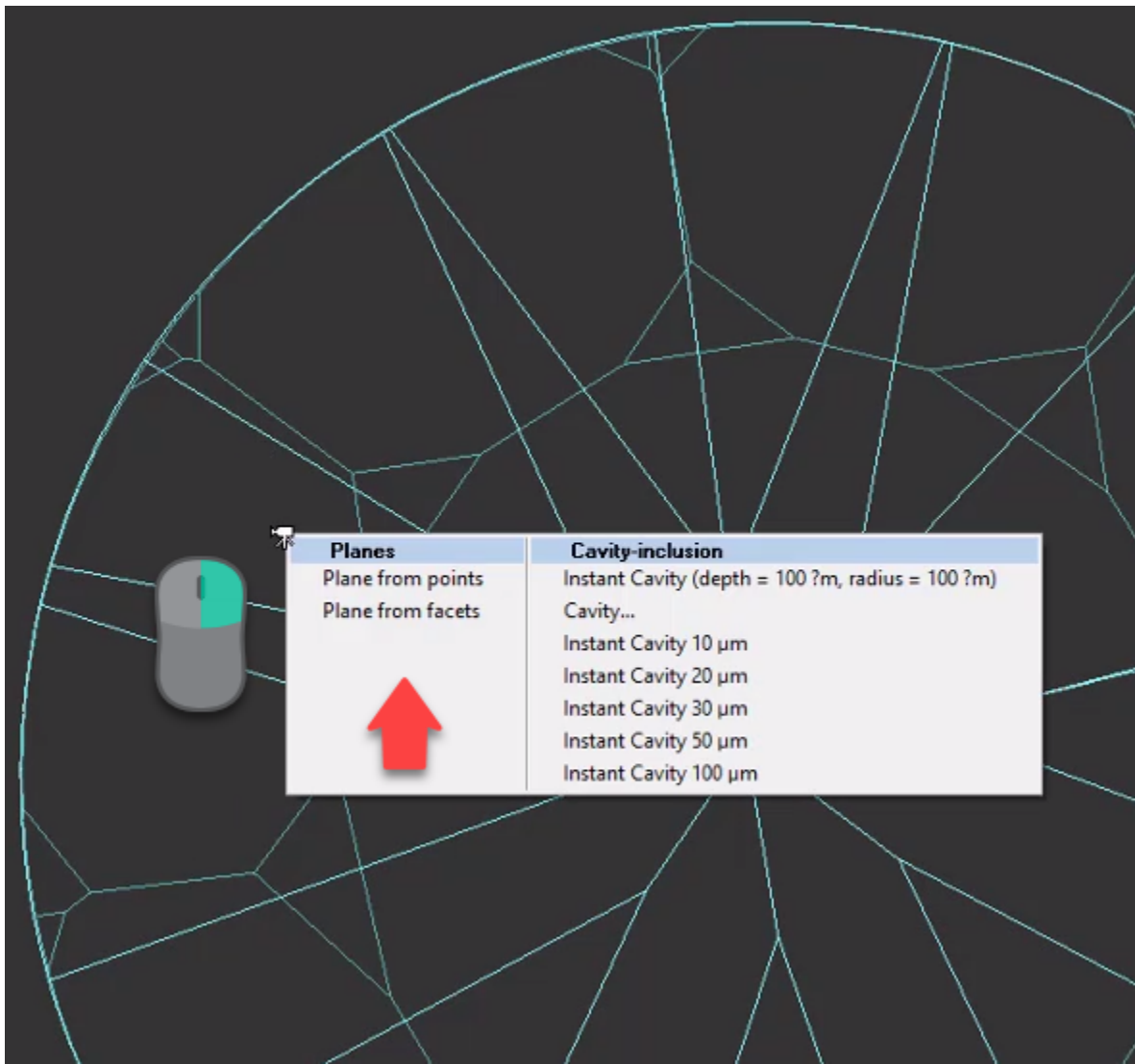
Plane from points

A new boundary plane can be plotted via specifying the set of points on the stone surface through which the plane should pass.

When using this option, you need to click the model to specify the points:

- The first click sets the vertical plane normal to the screen
- The second click changes the direction of the plane
- More clicks add additional points and set the plane closest to all the points added
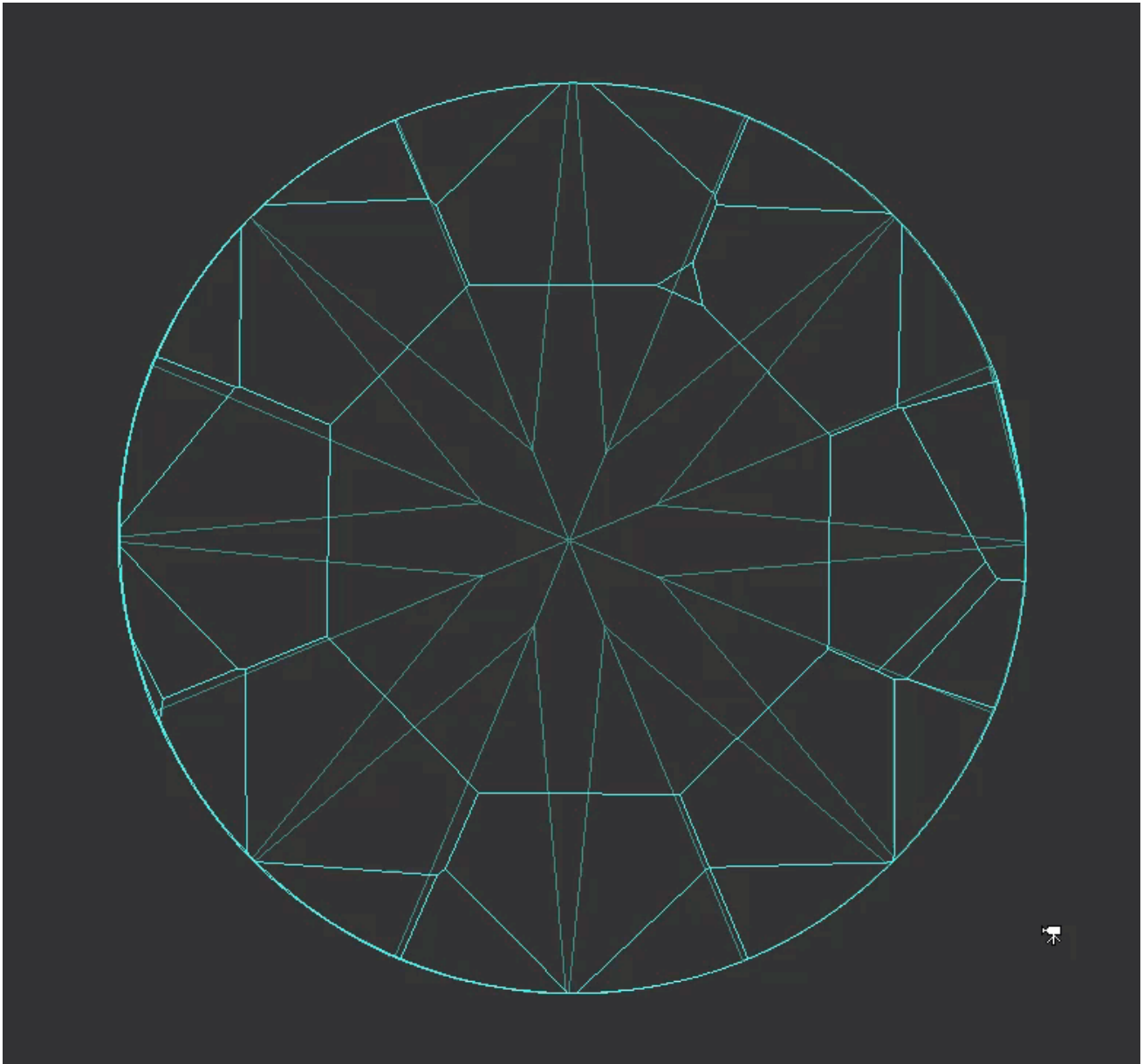
As soon as you set the plane, you may set the offset depth, then apply the changes.

Plane from facets

When using this option, you need to select the facets which will be used to calculate the combined facet (1), then set the offset depth (2), then apply the changes (3).
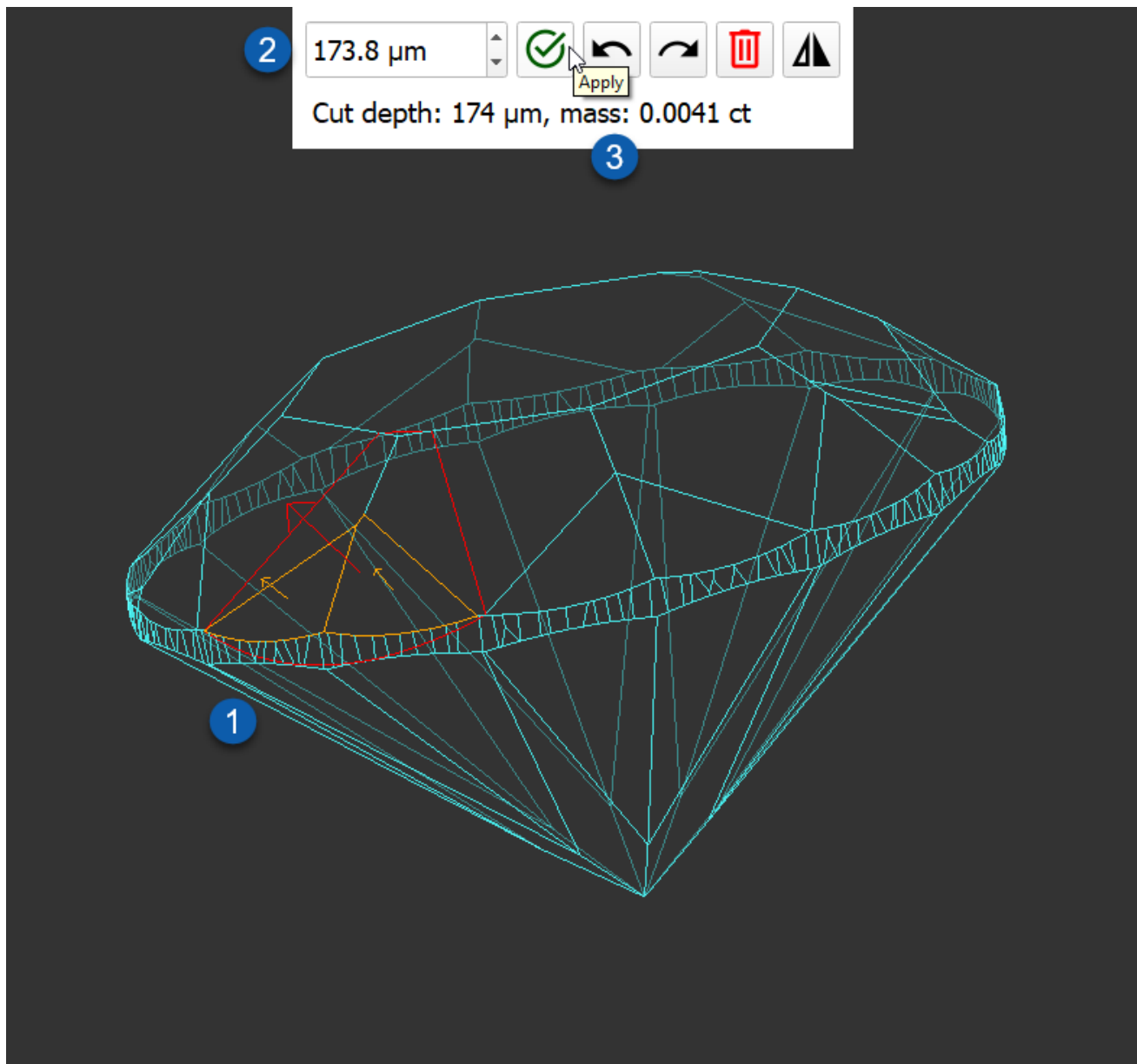
Offset Depth

Whether you create a boundary plane from points or from facets, after creating the plane, you can increase on decrease its depth by specifying the offset.

ⓘ You can type in the offset depth directly or use arrows or scroll the mouse button.
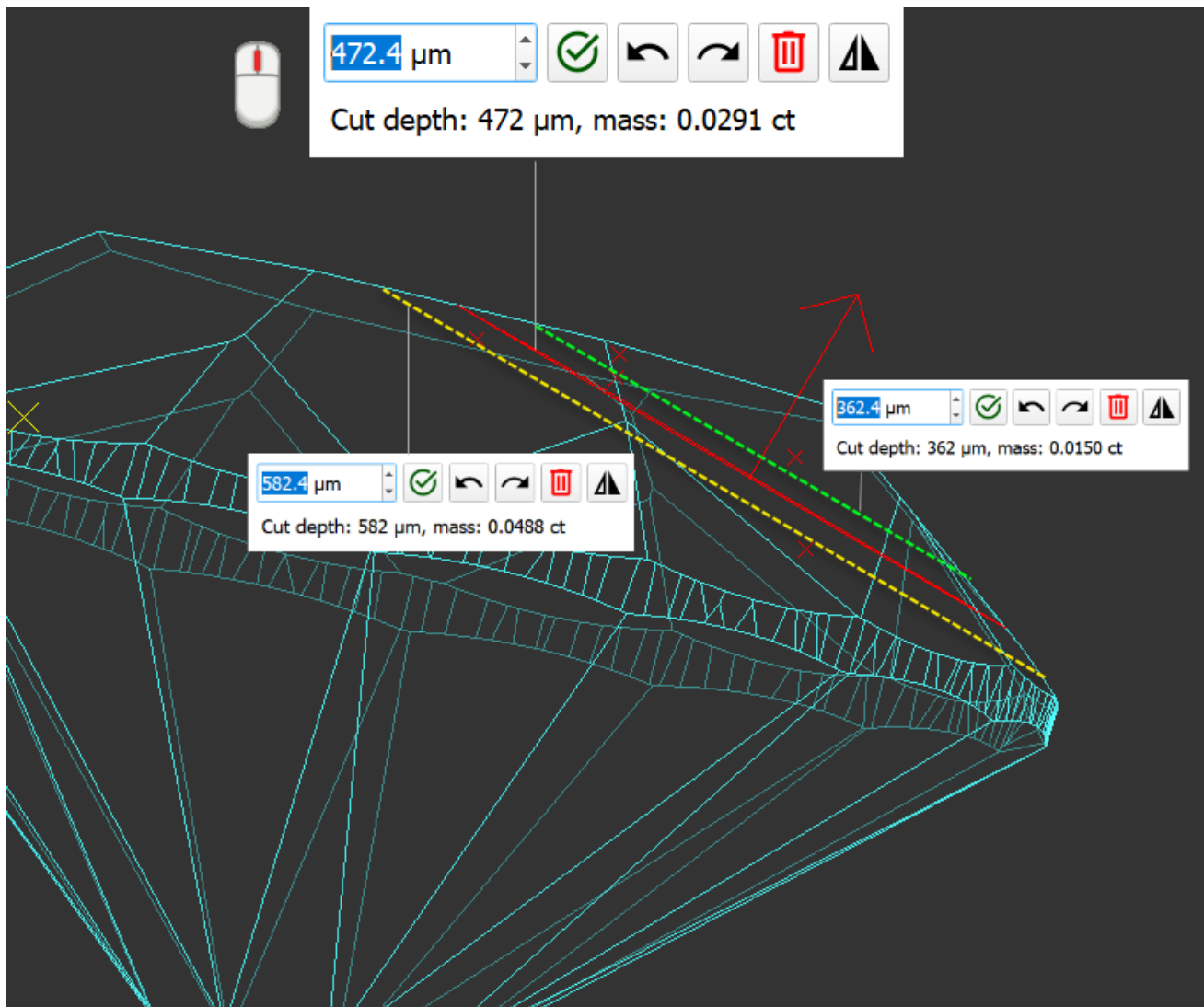
Editing Planes

You can create several boundary planes one by one. Any created plane can be edited or deleted at any moment. To edit the specified planes, in the Scene, right-click the model, in the displayed context menu, in the **Planes** section, select **Edit planes**. Select the plane, then edit it by:

- Adding points or facets
- Changing offset depth

To delete the plane, click .

"MyRound | GIA Facetware + MyRound" Appraiser

Changes in Profiles

New Limits for "MyRound_Max" Profile

For the "MyRound_Max" profile of the "MyRound | GIA Facetware + MyRound" appraiser, new intervals for some parameters have been set.

> ⓘ   "MyRound_Max" profile is a read-only profile with the enlarged intervals for receiving larger Facetware plans.

The intervals for the following parameters have been extended:

- Pavilion Angle
- Crown Height
- Total Height

Old

GIA Facetware + MyRound
Profile: **MyRound_Max** (read only)

Show Presets

Cut | Symmetry

Parameter		[FR	[GD	[VG	[EX	EX]	VG]	GD]	FR]
Table		10	46,5	49,5	51,5	62,5	66,5	69,5	99
CrownAngle		10	21,75	26,25	31,25	36,75	38,75	40,25	90
PavilionAngle		10	38,7	39,7	40,5	41,9	42,5	43,1	90
SweetLine		-9	-6	-3	-1,5	1,5	3	6	9
StarLength		10	32,5	37,5	42,5	67,5	72,5	77,5	90
LowerGirdleLength		50	57,5	62,5	67,5	87,5	92,5	97,5	99
GirdleBezel		0	1,25	1,75	2,25	4,75	5,75	7,25	20
GirdleValley		0	0	0	0,75	2,94	4,14	6,14	20
CrownHeight		5	10,5	12	12,3	17	17,5	18,5	40
TotalHeight		10	54	57	58	64,5	66	70	90
Culet		0	0	0	0	1	1,5	2	20
CrownPainting		-9	-6	-3,5	-3,2	4,2	5	7	20
PavilionPainting		-9	-5	-3,5	-3,2	3,2	4	6	20
SumPainting		-9	-6	-5	-4,2	6,2	8	10	20
GirdleVerticality		-20	-1,5	-1	-1	0,5	1	1,5	20
HeightGirdleExtraFacet		0	0	0	0	3	4	8	20
GirdleCrownExtraFacets		0	0	0	0	0	2	4	20
GirdlePavilionExtraFacets		0	0	0	0	3	4	6	20
GirdleExtraFacets		0	0	0	0	2	4	8	20

New

GIA Facetware + MyRound
Profile: **MyRound_Max** ✎

Show Presets

Cut | Symmetry   "Cushion" cut is not supported by current appraiser

Parameter		Grade	Value	[FR	[GD	[VG	[EX	EX]	VG]	GD]	FR]
Table				10	46,5	49,5	51,5	62,5	66,5	69,5	99
CrownAngle				10	21,75	26,25	31,25	36,75	38,75	40,25	90
PavilionAngle				10	38,7	39,7	⊕40,35	41,9	42,5	43,1	90
SweetLine				-9	-6	-3	-1,5	1,5	3	6	9
StarLength				10	32,5	37,5	42,5	67,5	72,5	77,5	90
LowerGirdleLength				50	57,5	62,5	67,5	87,5	92,5	97,5	99
GirdleBezel				0	1,25	1,75	2,25	4,75	5,75	7,25	20
GirdleValley				0	0	0	0,75	2,94	4,14	6,14	20
CrownHeight				5	⊕9	⊕10	⊕12	17	18,5	⊕19	⊕40
TotalHeight				10	54	⊕56	⊕57,5	64,5	66	70	90
Culet				0	0	0	0	1	1,5	2	20
CrownPainting				-9	-6	-3,5	-3,2	4,2	5	7	20
PavilionPainting				-9	-5	-3,5	-3,2	3,2	4	6	20
SumPainting				-9	-6	-5	-4,2	6,2	8	10	20
GirdleVerticality				-20	-1,5	-1	-1	0,5	1	1,5	20
HeightGirdleExtraFacet				0	0	0	0	3	4	8	20
GirdleCrownExtraFacets				0	0	0	0	0	2	4	20
GirdlePavilionExtraFacets				0	0	0	0	3	4	6	20
GirdleExtraFacets				0	0	0	0	2	4	8	20

⊕ **Extended boundary**
⊖ **Narrowed boundary**

New Profile - "MyRound_Commercial"

For the "MyRound | GIA Facetware + MyRound" appraiser, the new "MyRound_Commercial" profile has been added. This profile parameter ranges statistically match the brilliants produced by the large manufacturer.

Show Presets

GIA Facetware + MyRound
Profile: **MyRound_Commercial1** (read only)

Cut | Symmetry

Parameter	Grade	Value	[FR	[GD	[VG	[EX	EX]	VG]	GD]	FR]
Table			10	46,5	49,5	54,5	59,5	66,5	69,5	99
CrownAngle			10	21,75	26,25	31,8	36,6	38,75	40,25	90
PavilionAngle			10	38,7	39,7	40,55	41,75	42,5	43,1	90
SweetLine			-9	-6	-3	-1,5	1,5	3	6	9
StarLength			10	32,5	37,5	46	52	72,5	77,5	90
LowerGirdleLength			50	57,5	62,5	75	82	92,5	97,5	99
GirdleBezel			0	1,25	1,75	2,9	4,2	5,75	7,25	20
GirdleValley			0	0	0	1,35	2,4	4,14	6,14	20
CrownHeight			5	10,5	12	12,6	16,5	17,5	18,5	40
TotalHeight			10	54	57	59	64	66	70	90
Culet			0	0	0	0	0,5	1,5	2	20
CrownPainting			-9	-6	-3	-1,5	1,5	5	7	20
PavilionPainting			-9	-5	-3	-1,5	1,5	4	6	20
SumPainting			-9	-6	-5	-2,5	2,5	8	10	20
GirdleVerticality			-20	-1,5	-1	-1	0,5	1	1,5	20
HeightGirdleExtraFacet			0	0	0	0	3	4	8	20
GirdleCrownExtraFacets			0	0	0	0	0	2	4	20
GirdlePavilionExtraFacets			0	0	0	0	3	4	6	20
GirdleExtraFacets			0	0	0	0	2	4	8	20

Cut | Symmetry

Parameter	Grade	Value	EX]	VG]	GD]	FR]
Diameter			0,7	1,4	2,8	20
Table			0,85	1,7	3,4	20
CrownAngle			1	1,8	3,6	20
PavilionAngle			0,7	1,2	2,4	20
StarLength			3,5	12	24	48
LowerGirdleLength			3,2	8	16	32
GirdleBezel			0,9	1,8	3,6	20
GirdleBezelLocal			0,3	0,9	1,8	20
StarAngle			1,7	5,6	11,2	22,4
UpperGirdleAngle			2,75	8	16	32
LowerGirdleAngle			1,1	2,6	5,2	10,4
HalvesWidthLocal			6	10	15	20
CrownHeight			1	1,8	3,6	20
PavilionDepth			1	1,8	3,6	20
GirdleValley			1	1,8	3,6	20
GirdleValleyLocal			0,3	0,9	1,8	20
GirdleBone			1,1	1,8	3,6	20
GirdleBoneLocal			0,5	0,9	1,8	20
GirdleSlopeDeviationMax			3	4	5	32
2RRoundness22_5			1,1	1,5	2	20
2RRoundness45			1,3	2	2,8	20
2RRoundness90			1,3	2,4	3,6	20
TableOffset			0,5	0,8	1,6	20
CuletOffset			0,5	0,8	1,6	20
TableCuletOffset			0,7	1,2	2,4	20
TableEdge_TEV			2	3	4	20
BezelWidth			2,2	3	4	20
StarEdge			1,7	2,5	4	20
CrownPainting			4,5	6	8	20
PavilionPainting			4,5	6	8	20
TableAngle			4,5	6	8	20
OppositeAzimuth			2,75	4	6	20
FacetTwistMax			2,2	3	4	20
JunctionBezelTwistMax			1	2	3	20
OppositeSlopeSumHalf			0,5	1	1,5	20
StarFacetTwist			2	3	4	20
JunctionBoneTwistMax			1	2	3	20
MainCrownFacetsAzimuthSymm			3	4	6	20
MainPavilionFacetsAzimuthSymm			2	4	6	20
StarFacetsAzimuthSymm			3	4	6	20

Improved Functioning for Larger Mass for VG Grades

Basing on examples from the clients, improvements have been implemented for the "MyRound | GIA Facetware + MyRound". The implemented changes provide for the appraiser the ability to effectively interact with the complex set of parameters from GIA Facetware that have the VG grade there and as a result, the appraiser allows finding VG solutions with the larger mass.

#			Cutting	Price	Mass ▲	.llo	Yield	Clarity	DZ	ym-	Gr	Cut	Sym	Br
☑ **Shadow scan**					1.0533						**VG-Poor**	**VG-Poor**	**VG-Poor**	
1	▮	●	Brilliant	6518$	1.0002		94.94%	VS1	H		VG	VG	VG-EX	
7	▮	●	Brilliant	5148$	0.9980		93.99%	VS1	H		VG	VG	EX	
2	▮	●	Brilliant	5096$	0.9799		93.04%	VS1	H		VG	VG	VG	
3	▮	●	Brilliant	5044$	0.9727		92.09%	VS1	H		VG	VG	VG	
4	▮	●	Brilliant	4992$	0.9673		91.14%	VS1	H		VG	VG	VG	
8	▮	●	Brilliant	4992$	0.9666		91.14%	VS1	H		VG	VG	VG	
5	▮	●	Brilliant	4888$	0.9432		89.24%	VS1	H		VG	VG	EX	
9	▮	●	Brilliant	4836$	0.9299		88.29%	VS1	H		VG	VG	VG	

Active Appraiser and Pricelist

Appraiser: MyRound | GIA Facetware + MyRound
Profile: MyRound_ModernCut_2018-12-14
Pricelist: LEXUS_PRICE_09MARCH_2012

Select algorithm and diamonds for allocation.
Algorithm: 13. Single-M
Cutting list: Brilliant
grade of 1st diam: VG

▮ New version
▮ Old version

Smart Recut

▮ Starting from new version solution
▮ Starting from old version solution

Plans & Scans

#			Cutting	Price	Mass ▲	Alloc	Yield	Clarity	DZ	ym-	Gr	Cut	Sym	Br
☑ **Shadow scan**					1.0533						**VG-Poor**	**VG-Poor**	**VG-Poor**	
18	▮	●	Brilliant	6714$	1.0348	SR	97.79%	VS1	H		VG	VG	VG	
22	▮	●	Brilliant	6714$	1.0341	SR	97.79%	VS1	H		VG	VG	VG	
19	▮	●	Brilliant	6714$	1.0340	SR	97.79%	VS1	H		VG	VG	VG	
23	▮	●	Brilliant	6714$	1.0333	SR	97.79%	VS1	H		VG	VG	VG	
11	▮	●	Brilliant	6714$	1.0332	SR	97.79%	VS1	H		VG	VG	EX	
13	▮	●	Brilliant	6714$	1.0327	SR	97.79%	VS1	H		VG	VG	EX	
10	▮	●	Brilliant	6714$	1.0324	SR	97.79%	VS1	H		VG	VG	EX	
21	▮	●	Brilliant	6714$	1.0321	SR	97.79%	VS1	H		VG	VG	VG	
25	▮	●	Brilliant	6714$	1.0312	SR	97.79%	VS1	H		VG	VG	VG	
15	▮	●	Brilliant	6714$	1.0304	SR	97.79%	VS1	H		VG	VG	EX	
12	▮	●	Brilliant	6714$	1.0294	SR	97.79%	VS1	H		VG	VG	EX	
20	▮	●	Brilliant	6714$	1.0287	SR	97.79%	VS1	H		VG	VG	EX-VG	
17	▮	●	Brilliant	6714$	1.0286	SR	97.79%	VS1	H		VG	VG	EX	
16	▮	●	Brilliant	6649$	1.0234	SR	96.84%	VS1	H		VG	VG	EX	

Smart Recut with "Fix" Options - Remove Facets from Fixing

A new *Element Multi Selection Tool* can now be used with the "13. SmartRecut (Brilliant, Oval)" algorithm. Using the tool, you can adjust the **Fix Girdle**, **Fix Crown**, **Fix Pavilion** options usage by manual removing the facets from fixing. For example, if under the "13. SmartRecut (Brilliant, Oval)" algorithm, the **Fix Girdle** option is selected, it freezes all the facets of the girdle not allowing the algorithm to remove them; then, using the *Element Multi Selection Tool* you can exclude some facets from this freeze, so that the algorithm will mandatorily remove them from the future solution.

> ⓘ A detailed description of using Smart Recut with the **Fix Girdle**, **Fix Crown** and **Fix Pavilion** options is presented on the Smart Recut with restrictions page.

> ⚠ The "Remove facets from fixing" selection mode is applicable when all these conditions are met:
> - a convex scan is selected in the list
> - the "13. SmartRecut (Brilliant, Oval)" algorithm is selected
> - at least one "fix" option is selected

To use the tool, in the **Recut** mode select your convex scan in the list, then select the "13. SmartRecut (Brilliant, Oval)" algorithm, set "Fix" options, and then on the main panel toolbox, click 🖳 > **Remove facets from fixing**. This activates the Element Multi Selection Tool; now in the Scene, you can mark facets to be removed from fixing.
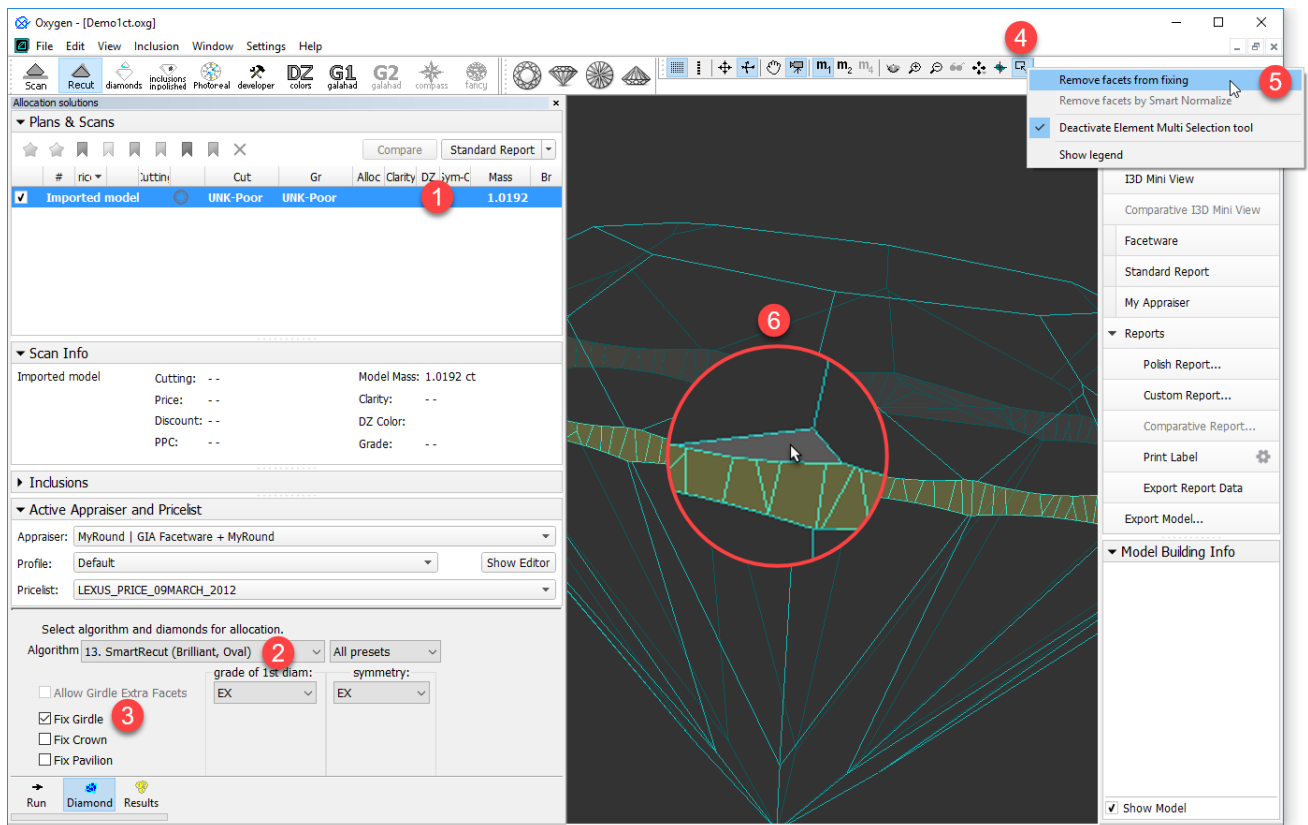
The Element Multi Selection Tool includes legend available on clicking **Show legend**.
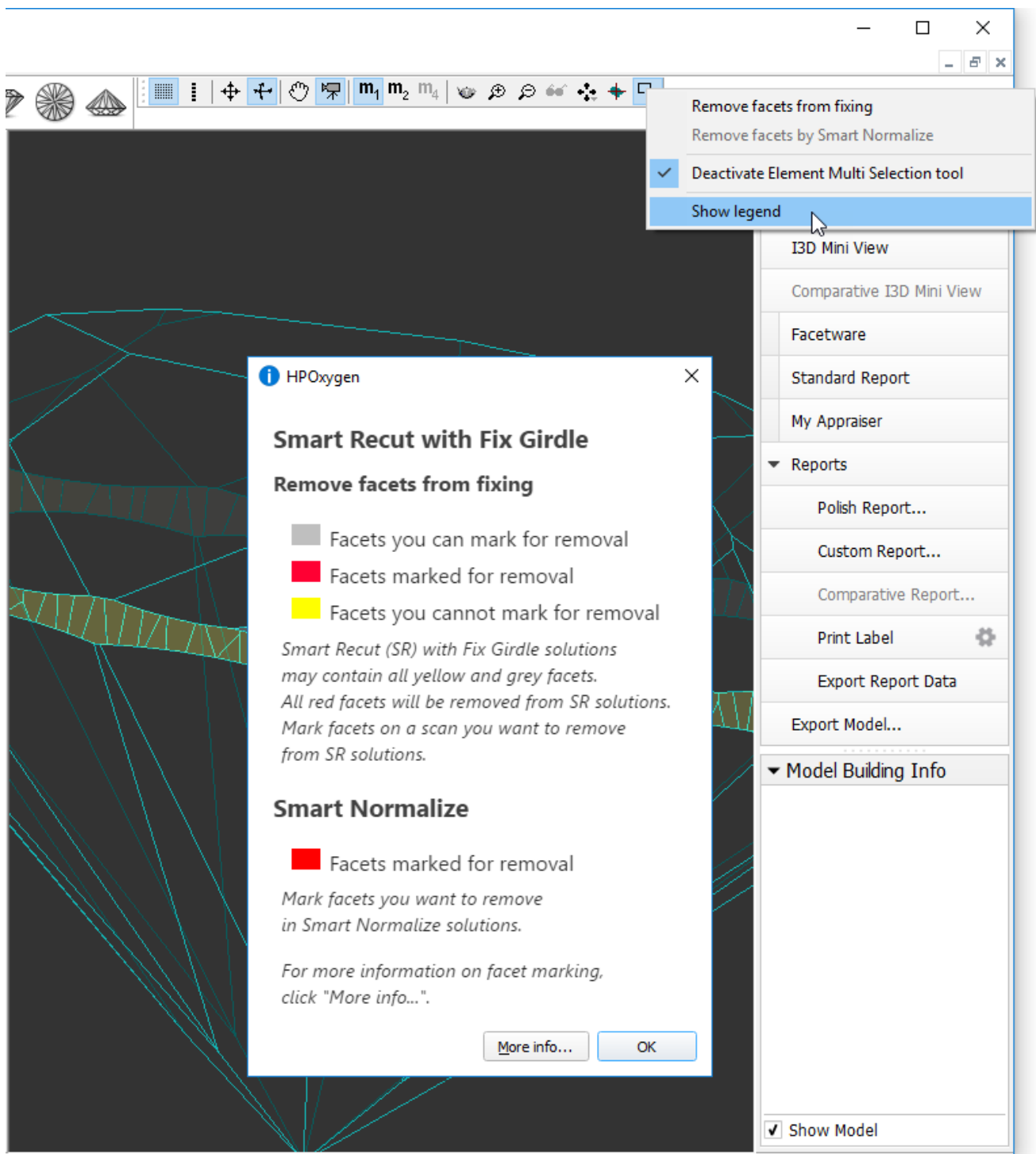
To view additional information, click **More info**. This will open a help page in your browser containing some detailed information on functionality.

As you finished with marking facets, on the main panel toolbox, click ⬚ > **Deactivate Element Multi Selection tool**. This deactivates the tool.

ⓘ Note that highlighting of current fixing options is only visible in the Scene when the "13. SmartRecut (Brilliant, Oval)" algorithm is selected and fixing options are enabled.

Interface - Configurable Set of Columns in Solution List

The set of displayed columns for the scan/solution list is now configurable: you can select columns to be displayed/hidden and also change their order. The function is available for:

- The **Recut** mode, the **Plans & Scans** section.

- The **Scan** mode, the **Models** section.

> ⓘ **Notes:**
>
> - The configuration for each mode is performed and stored separately.
>
> - The configuration is not available in the Lock to Scan mode.

To customize columns, right-click the name of any column, then in the context menu select/clear checkboxes for your columns. For advanced configuration (several columns at once, change order), in the context menu, click **Details**. The **Adjust columns** dialog is displayed. Here you can select/deselect several columns at once and change their order by drag-and-drop.

In the **Adjust columns** dialog, you can find 3 separate groups:

1. Core information - you cannot hide or move these columns.
2. Main information - you can hide, reorder is possible only within the group, columns from group "3" will never be able to go before these ones.
3. Other information - you can hide and reorder within the group.

Adjust columns ✕

Columns:

- ☑ Show/hide model or solution ①
- ☑ # (Model Name / Solution Number)
- ☑ Label Color
- ☐ Cutting
- ☑ Clarity Status ②
- ☑ Price
- ☐ Model Color
- ☑ Mass (Model Mass)
- ☑ Sym (Symmetry Grade)
- ☑ Alloc (Allocation Algorithm)
- ☐ Yield
- ☑ Clarity ③
- ☑ DZ (Diamond Color)
- ☐ Sym-O (Optical Symmetry)
- ☑ Gr (Final Grade)
- ☑ Cut (Cut Grade)
- ☐ Br (Brightness metric)

ⓘ Drag & Drop items to rearrange columns

[Reset columns set to defaults]

☐ Also save sorting order

[Ok]   [Cancel]

ⓘ

Note that for the **Multiple Diamonds in One Solution** mode, the **Adjust columns** dialog differs: you can customize both solution and diamonds columns.

To restore the default set of columns in the default order, click **Reset columns set to defaults**.

Besides setting the column set, you may also save sorting order you currently use (the **Also save sorting order** option).

Also save sorting order	
Selected	**Not Selected**
Sorting you use when closing the current project will be used for the next project you open. **Note** Once selected, the option stays active in spite of restarting the program or opening the next projects.	For the next project you open, its own saved sorting will be used. **Notes** • The sorting for the project is saved (or updated) when you apply **File** > **Save** operation to the project itself. • As soon as you deselect the option, the project immediately switches to its own sorting.

Generating Reports - New Paths and Naming

For some reports, the paths for storing generated report files and file naming has been changed:
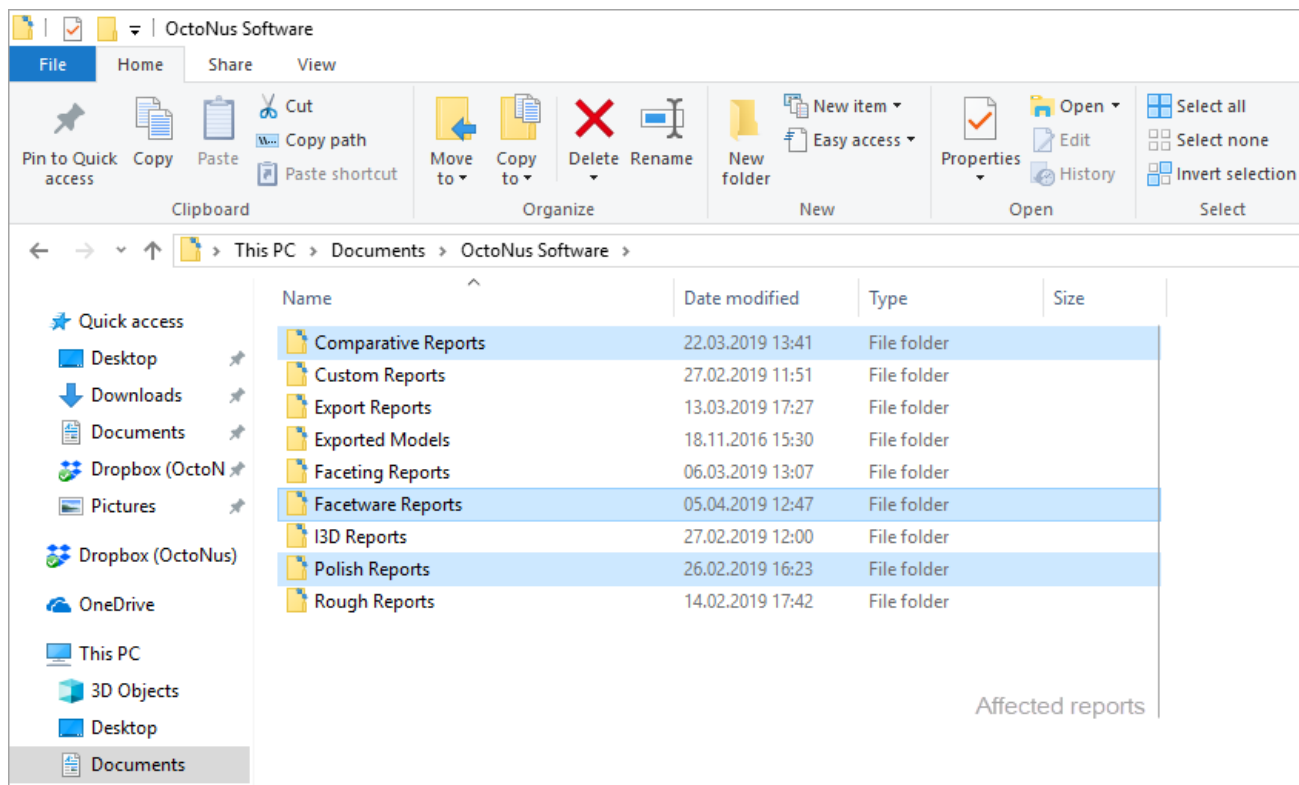
The new paths and file names are the following:

Legend:
- Foders
- Files
- **Project Name** - name of your .oxgz file
- **XXXX** - sequence number
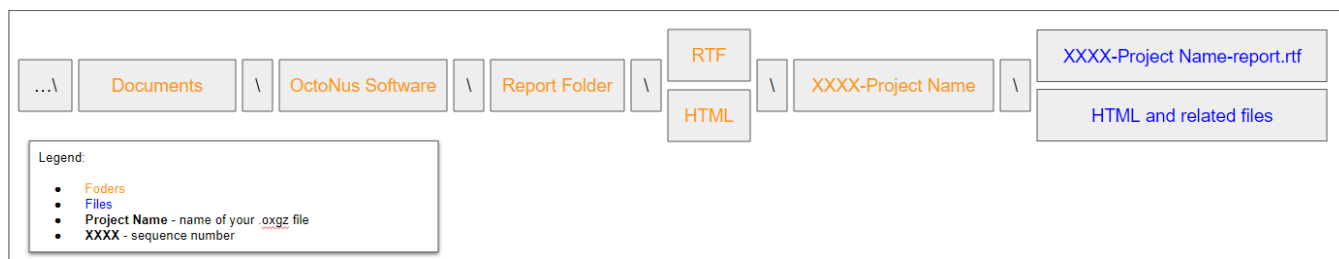
Comparative Reports. Now when you click on the right panel, the **Comparative Report**, then, in the **Select template** section, click the **Open RTF** tab, select the template and run the report, the generated RTF file will be automatically saved as:
...\Documents\OctoNus Software\Comparative Reports\RTF**Project Name\XXXX-Project Name** \ **XXXX-Project Name**-report.rtf
For example, if you run comparative report 3 times for the "Demo1ct.oxgz", you will obtain:
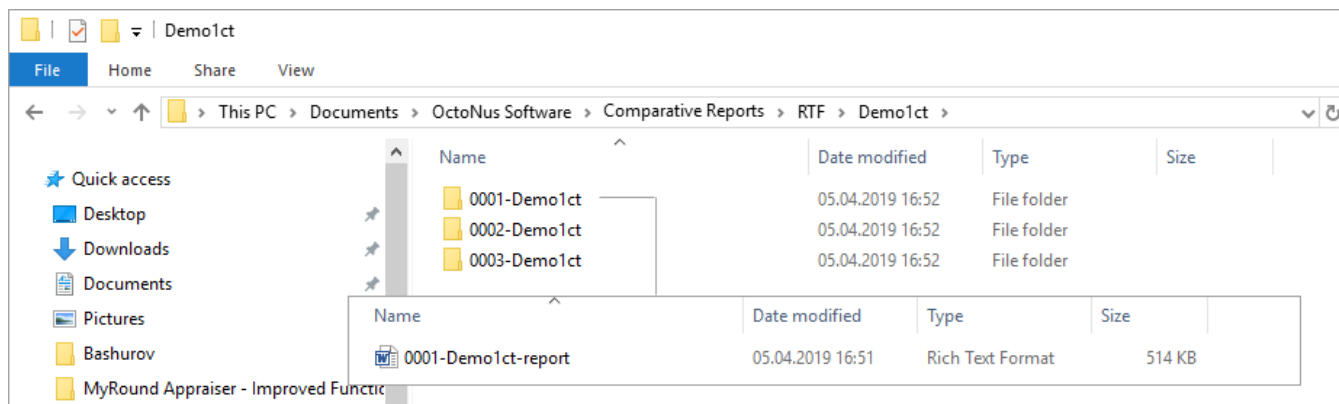
Facetware Reports. Now when you click on the right panel, the **Facetware**, and obtain the Facetware report in the HP Oxygen interface, then click the **Export to MS Word** button, the generated RTF file will be automatically saved as:
...\Documents\OctoNus Software\Facetware Reports\RTF**Project Name\XXXX-Project Name** \ **XXXX-Project Name**-report.rtf
For example, if you run Facetware **Export to MS Word** 3 times for the "Demo1ct.oxgz", you will obtain:
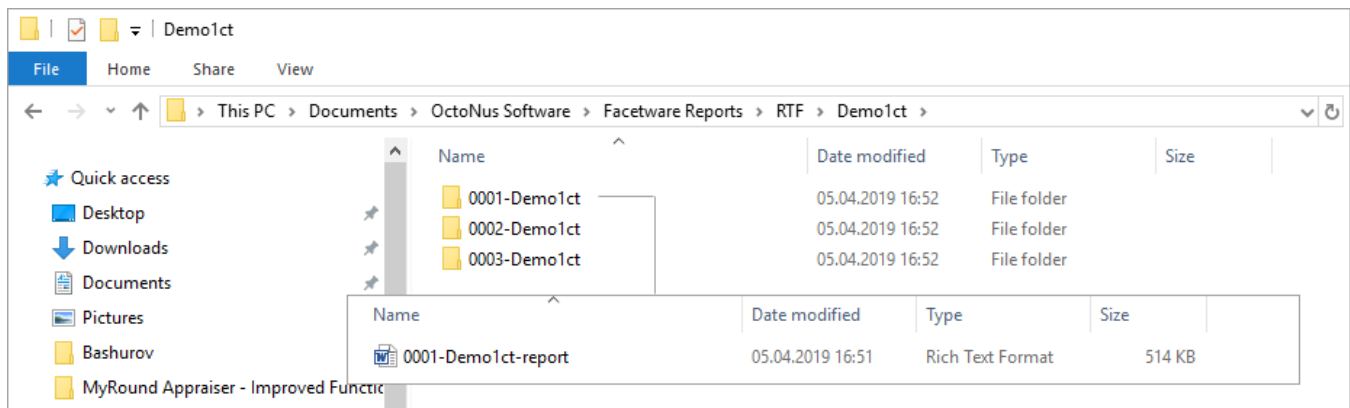
Polish Reports. Now when you click on the right panel, the **Polish Report**, then, in the **Report templates** section,

- click the **Open RTF** tab, select the template and run the report, the generated RTF file will be automatically saved as:
  ...\Documents\OctoNus Software\Polish Reports\RTF**Project Name\XXXX-Project Name** \ **XXXX-Project Name**-report.rtf

For example, if you run Polish report 3 times for the "Demo1ct.oxgz", you will obtain:
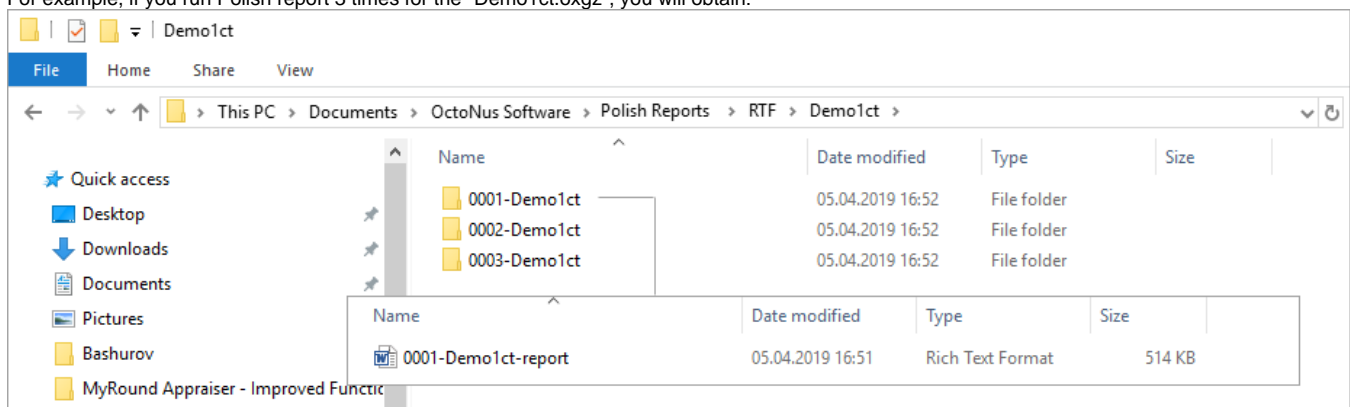
- If you select the **Open HTML** tab:
  ...\Documents\OctoNus Software\Polish Reports\HTML**Project Name\XXXX-Project Name** \files of the report .
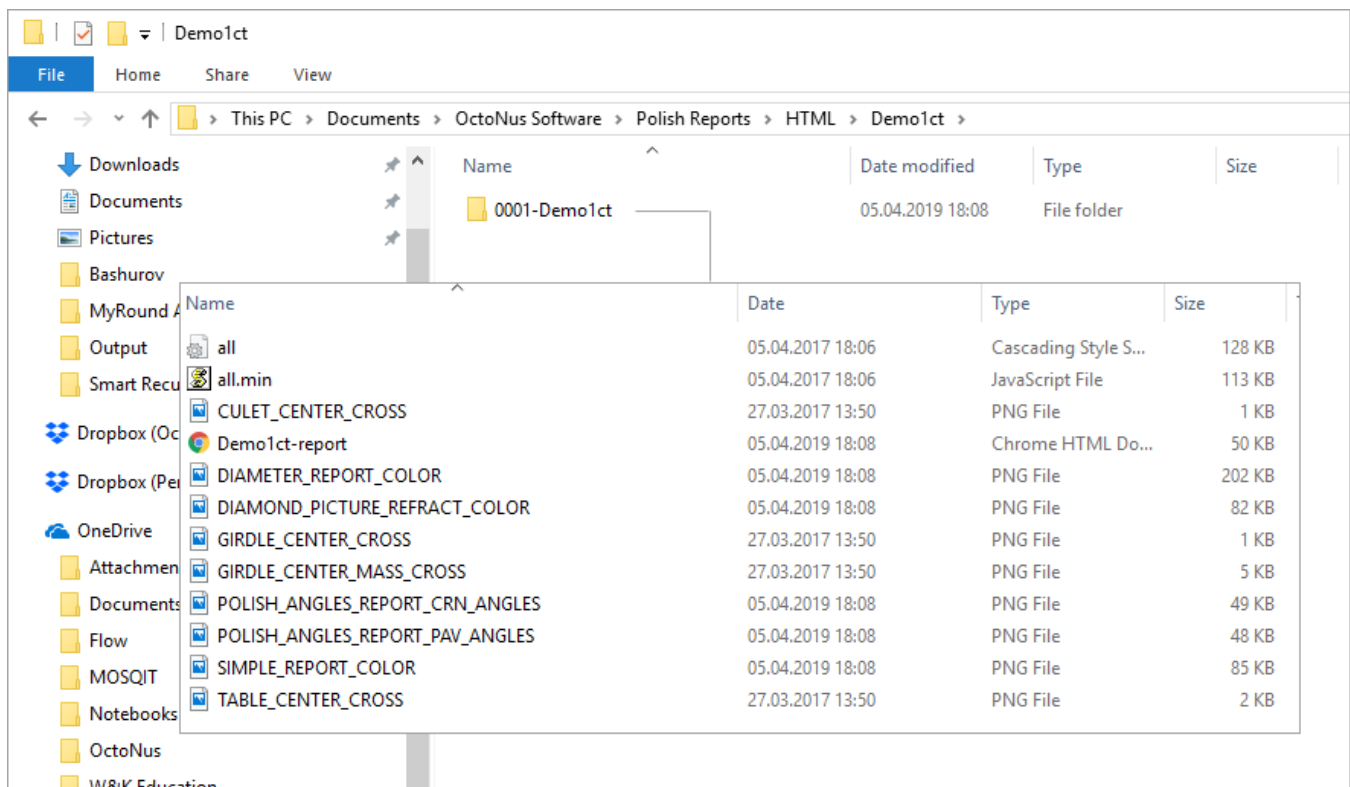
Scene Model and Photos View - Show Grid Option

Now for the Scene in Model or Photos view, you can show the grid. To enable the grid, set Scene to the Model or Photos view, then from the main menu, select **View** > **Show Grid**. To disable the grid, clear the **Show Grid** checkbox. As you zoom in/out, the grid step and units (mkm, mm) adjust to the current zoom level.
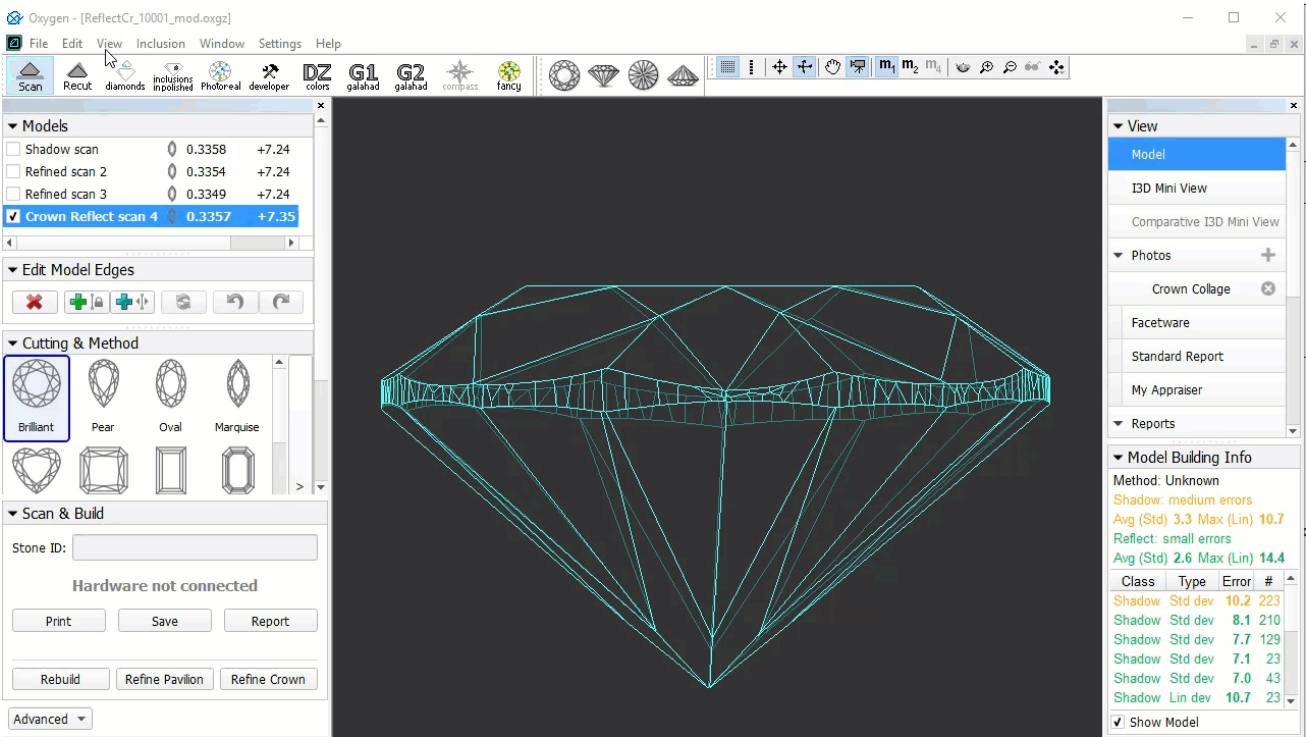
With the grid enabled, you can click to display vertical and horizontal measurements (mm) of the projection of the displayed model in its current position.
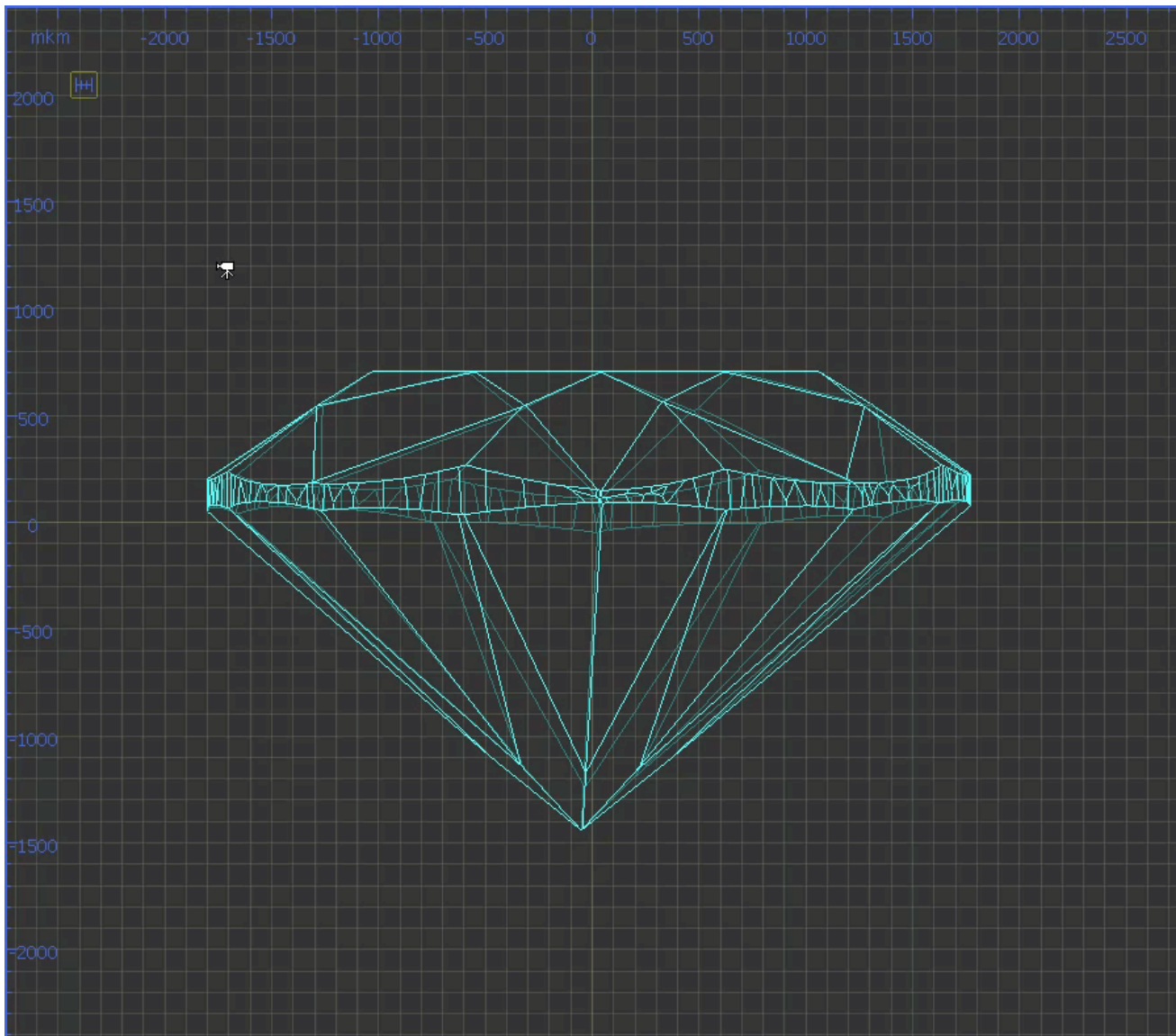
Click again to hide measurements

Input Stone Properties - Changes in Dialog

During scanning, on clicking the **Shadow scan** button, the **Input Stone Properties** dialog may be displayed.
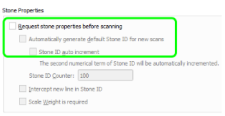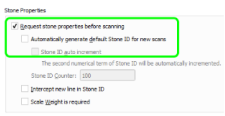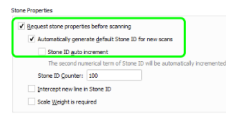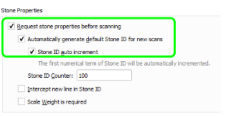
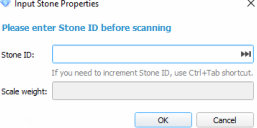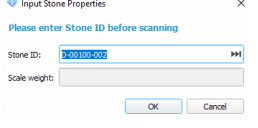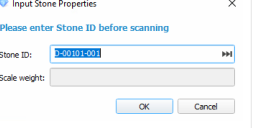> ⓘ   Detailed information about inputting stone properties on the start of scanning is presented on the Entering Stone ID and Measured Weight page.

In the **Input Stone Properties** dialog, you can use the **Next** ⏭ button or press Ctrl+Tab to increases the stone number by 1 and changes the scan number to 001.

To avoid pressing Ctrl+Tab by mistake, the following changes have been implemented for this dialog:

- The hint text for keyboard shortcut CTRL-TAB has been changed:
  - **Was** : "Use Ctrl+Tab shortcut to increment Stone ID"
  - **Now** : "If you need to increment Stone ID, use Ctrl+Tab shortcut"
- The hint:
  - **Was** : always displayed
  - **Now** : hidden when the **Automatically generate default Stone ID for new scans** option is selected.

ⓘ

> ⓘ Only the hint is hidden - the Ctrl-Tab combination still can be used.

Request stone properties before scanning	Off	On	On	On
Automatically generate default Stone ID for new scans	Disabled	Off	On	On
Stone ID auto increment	Disabled	Disabled	Off	On
Settings				
Popup window	None			

Fixed Problems and Improvements

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

1. The model building has been improved by the additional tuning of the facets blocking mechanism, which decreases the possibility of the wrong removal of the large parts of the stone.
2. One of the main facets was split, which was caused by the contour erroneously excluded from the calculation. This model building error has been fixed.

   blocked URL
3. Girdle additional facets classified as dust error has been fixed.
4. Fixed rare program crash from orphaned Smart Recut calculations finished on a closed or a new document.
5. Failure on export of the Facetware report has been fixed.
6. In the Comparative Report and Comparative I3D Mini View:
   a. the accuracy of facets mapping is increased, the number of facets mapped by mistake is reduced;
   b. some rare position fitting bugs have been fixed.
7. Sometimes MyRound allocation of Brilliant cut produced VG plans with "GirdleValley" parameter out of EX range (this might happen for plans with non-standard upper/lower girdle facets azimuth). Now, this issue is fixed and GirdleValley limitations are correctly considered during the allocation process.
8. For the Model Topology Editing Tool, the bug with the unexpected multiple edges appearance instead of edge deleting has been fixed.
9. The problem with automatic actions for Square Radiant also running actions for Radiant has been fixed.
10. The recognition error with the shift up sign when using the shift corrector has been fixed.
11. The problem with the program unexpected close on opening some .oxgz files of semipolished stones has been fixed.