2017-09-15 - HPOxygen Server 3.23.13

Reports

1. Scanning **Sample file name** is now exported to report bookmark
   SAMPLE_FILENAME

   Example:

   ```
   SAMPLE_FILENAME=MyFancySample.dmc
   ```

2. Added **Min / Max Star Length** and **Lower Girdle Length** interactive clickable parameters to Standard Report:

Parameter	Avg		GIA Rounded	Min	Max	Dev	Cut	Sym
Diameter, mm	4.929		–	4.919	4.938	0.39 %	–	EX
Table, %	2.866 mm	58.15 %	58	57.86	58.42	0.57	EX	EX
Crown angle, °	36.19		36.0	35.70	36.60	0.90	EX	EX
Pavilion angle, °	40.86		40.8	40.52	41.15	0.63	EX	EX
Star length, %	57.40		55	55.90	58.60	2.70	EX	EX
Lower girdle length, %	72.60		75	71.78	73.42	1.64	EX	EX
Girdle bezel, %	0.206 mm	4.18 %	4.0	3.97	4.36	0.39	EX	EX
Girdle bone, %	0.198 mm	4.03 %	–	3.74	4.24	0.50	–	–
Girdle valley, %	0.115 mm	2.33 %	–	1.68	2.54	0.86	–	–
Girdle valley minimum, %	1.68		MED	–	–	–	EX	–

3. Added interactive clickable parameters to **Rounded Fancies Standard Report** template:

	Avg		Min	Max	Dev	Cut	Sym
Girdle valley, %	0.132 mm	3.35 %	2.63	4.21	1.58	N/A	EX
Girdle height valley local, %	0.68		0.00	1.14	1.14	–	EX
Facet twist, °	19.10		18.36	19.47	1.11	–	N/A
Star length, %	50.63		50.21	51.05	0.84	–	N/A
Star angle, °	20.06		19.75	20.36	0.61	–	N/A
Upper girdle angle, °	48.32		47.22	49.94	2.72	–	N/A
Lower girdle angle, °	37.20		34.18	40.53	6.35	–	N/A
Junction bezel twist maximum, °	0.00		–	–	–	–	EX
Crown height, %	0.631 mm	15.99 %	15.98	16.00	0.03	EX	EX
Pavilion height, %	1.622 mm	41.10 %	41.09	41.11	0.02	EX	EX
Lower girdle length, %	76.05		75.76	76.29	0.53	N/A	N/A
Total height, %	2.468 mm	62.52 %	–	–	–	EX	–
Table offset, %	0.000 mm	0.00 %	–	–	–	–	EX

4. Fixed grade bookmarks for Table and Culet parameters, added Crown Breadth parameter to **Rounded Fancies Standard Report** template:

	Avg		Min	Max	Dev	Cut	Sym
Pavilion curve angle, °	38.95		38.75	39.15	0.40	EX	EX
Pavilion head angle, °	N/A		N/A	N/A	N/A	–	–
Pavilion point angle, °	N/A		N/A	N/A	N/A	–	–
Pavilion wing angle, °	33.65		33.43	33.88	0.46	–	EX
Table, %	1.541 mm	64.16 %	59.04	69.28	10.24	EX	N/A
Crown breadth, %	0.417 mm	20.51 %	20.49	20.53	0.03	–	EX
Culet, %	0.000 mm	0.00 %	0.00	0.00	0.00	EX	N/A
Girdle bezel, %	0.110 mm	5.42 %	5.38	5.44	0.06	EX	EX
Girdle bone, %	0.110 mm	5.41 %	5.36	5.45	0.09	–	N/A
Girdle valley, %	0.069 mm	3.41 %	2.70	4.26	1.55	N/A	EX
Girdle height valley local, %	0.66		0.00	1.10	1.09	–	EX

5. Added the following bookmarks indicating model building error value and status:
   MODEL_BUILDING_AVG_ERR_VALUE
   MODEL_BUILDING_MAX_ERR_VALUE
   MODEL_BUILDING_MAX_ERR_STATUS
   MODEL_BUILDING_MAX_ERR_STATUS

6. Added bookmarks indicating Sweetline parameter values and grade:
   CALCULATED_SWEETLINE_DEG
   GRADE_CALCULATED_SWEETLINE
   BASIC_SWEETLINE_CROWNANGLE_DEG
   BASIC_SWEETLINE_PAVILIONANGLE_DEG
   BASIC_SWEETLINE_SLOPE

7. Added a bookmark for Square Deviation, %:
   SQUARE_DEVIATION_PC

8. Added separate Cut grade bookmarks for combined Grid + Interval appraisers:
   GRID_CUT
   INTERVAL_CUT

9. New Facet Marking Sample selection interface for **Custom Report**:

If you're working on a non-trivial cutting that requires Custom Report with specific Facet Marking or the stone proportions make it difficult for automatic facet detection algorithm to apply correct Facet Marking, you can apply a marking from a previously created Sample.

To do so, in the Custom Report dialog press **From Sample...**
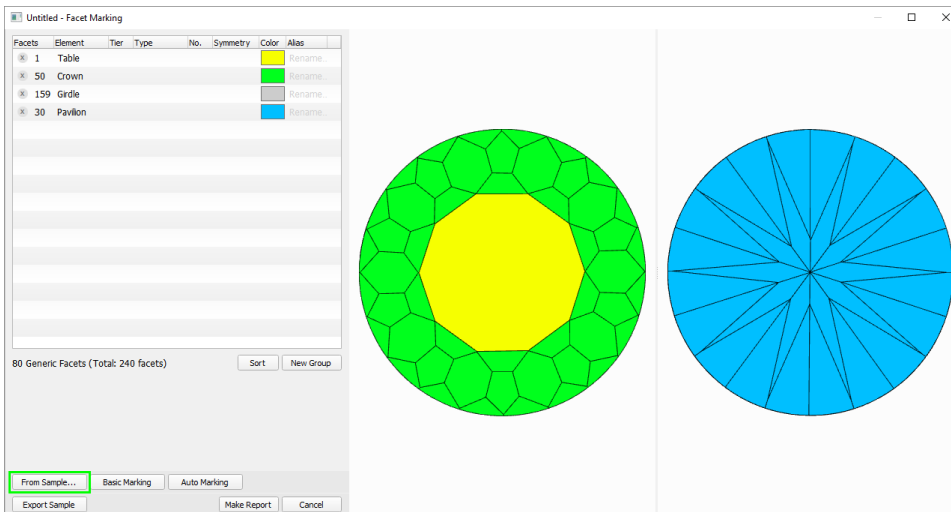
You will be presented with a Sample selection and Facet Marking preview dialog. In the dialog, press **Browse...** to specify a folder containing your marking Sample.
This folder will be remembered the next time you open the dialog:
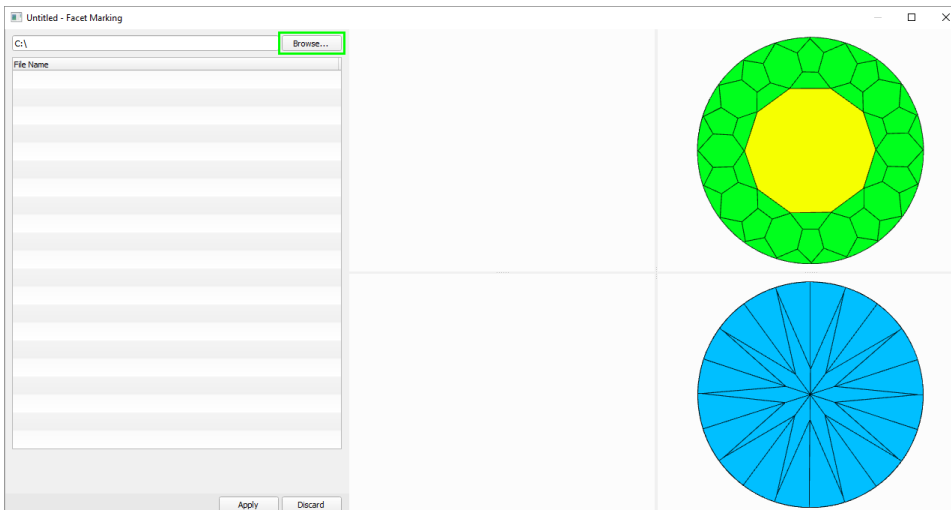
After the folder is selected, you will be presented with a list of DMC sample file names in the folder. Please note that the samples should contain Facet Marking data, otherwise they can not be aaplied.
You can select desired samples from the list and preview the sample model and its Facet Marking as well as automatic transfer of marking to the current model:
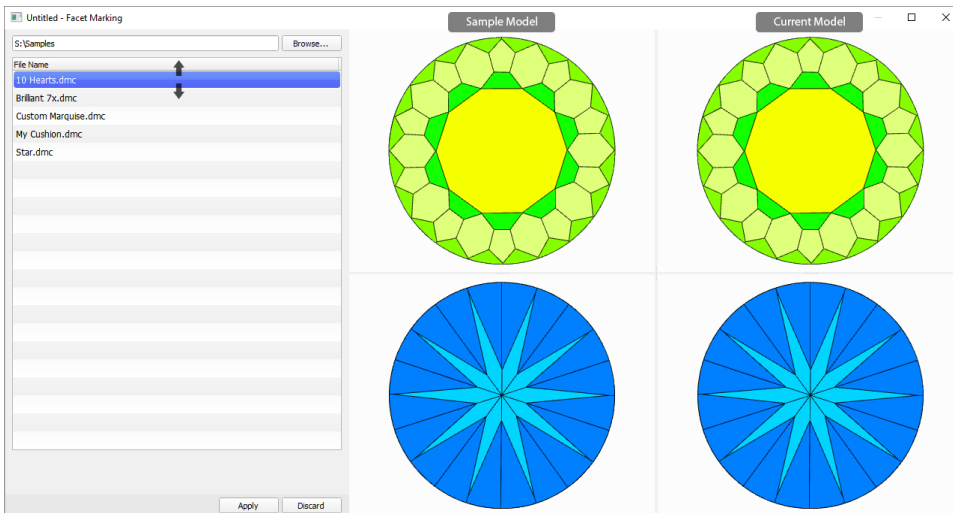
While the input focus is in the Sample list, you can use **Arrow Up**, **Arrow Down** keyboard buttons to quickly scroll through the list and preview various sample markings.

If you would like to apply current marking and proceed with marking editing and Custom Report generation, press **Apply**.
Otherwise, press **Discard** to get back to editing the the original marking you were working on.
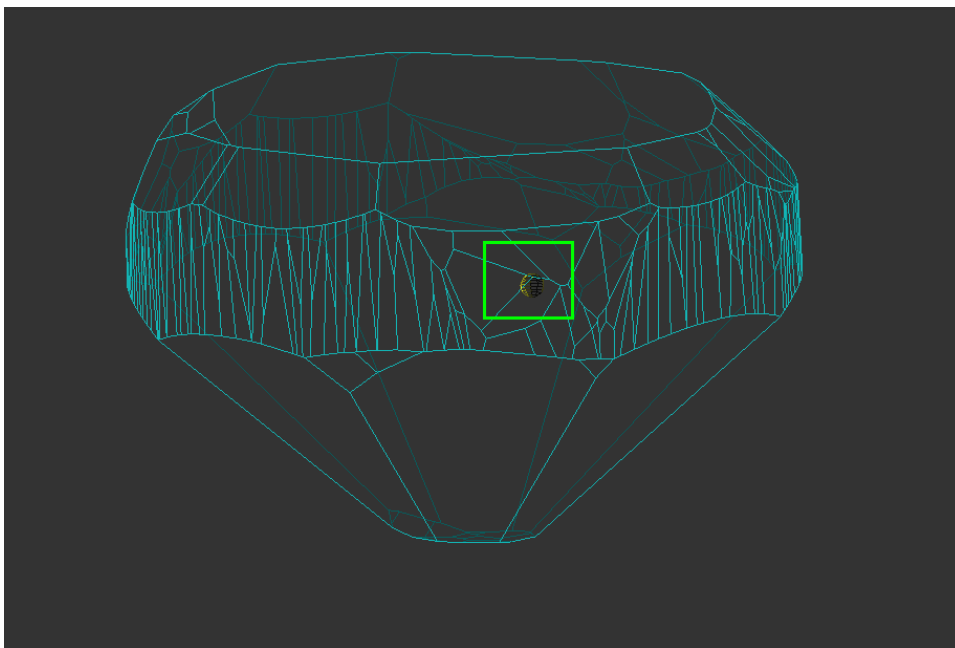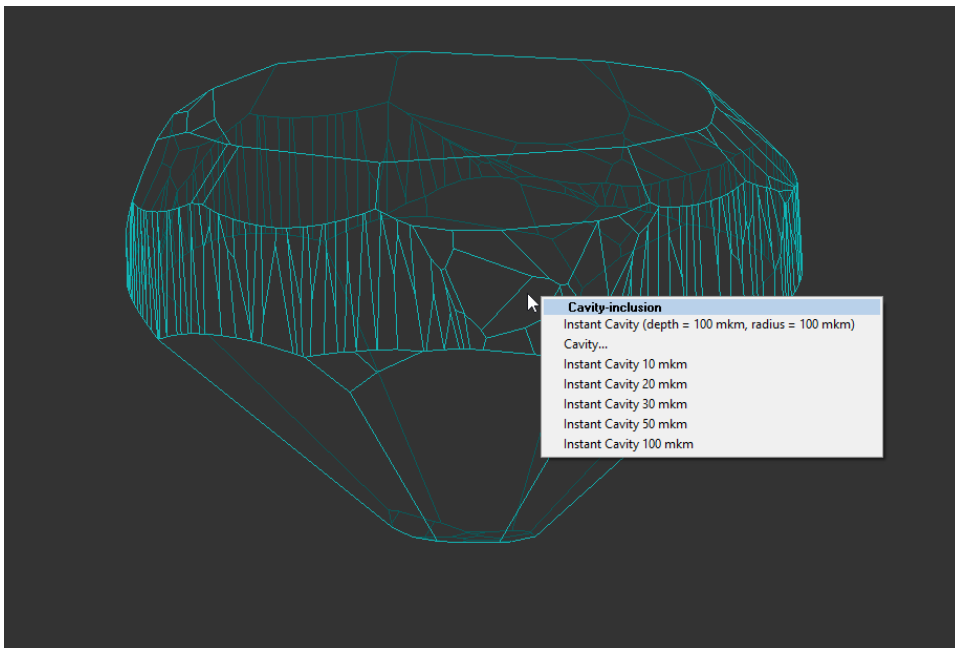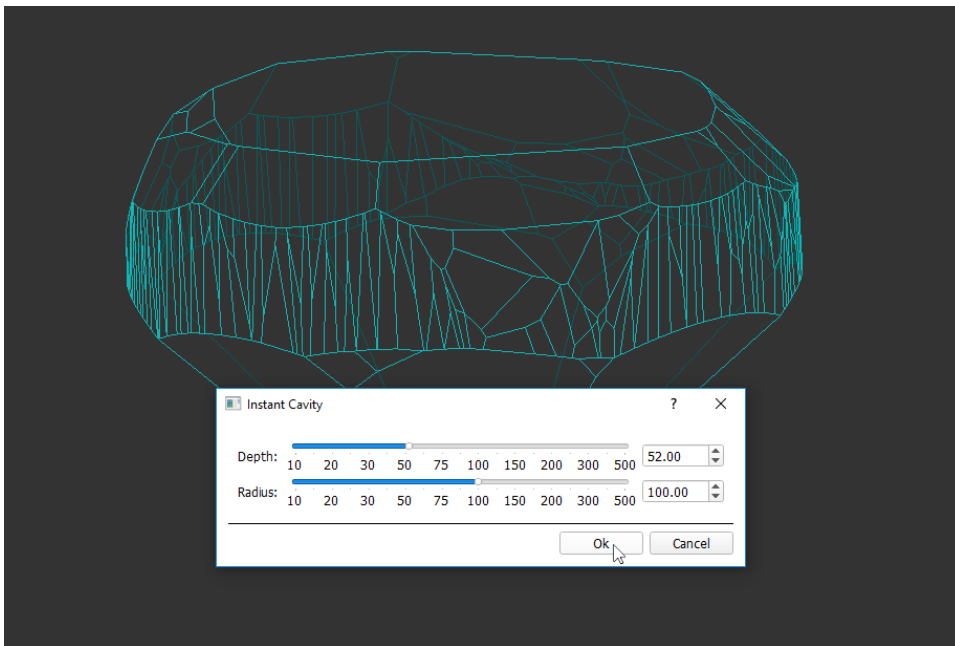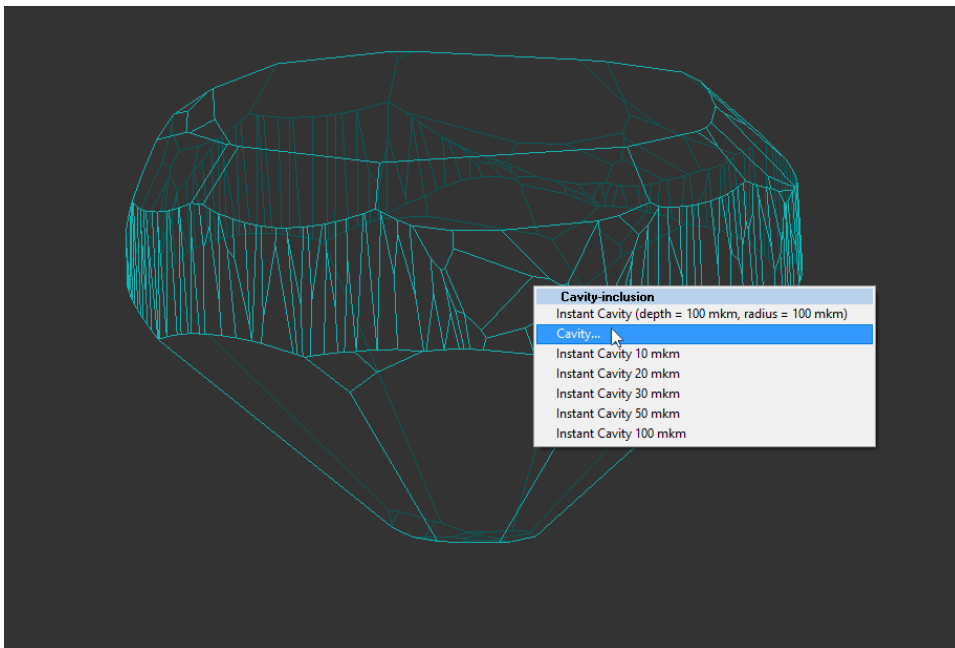
Smart Recut
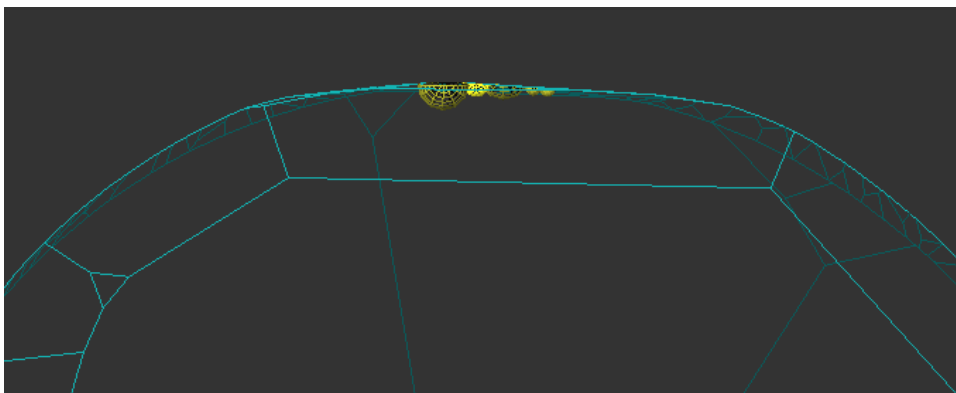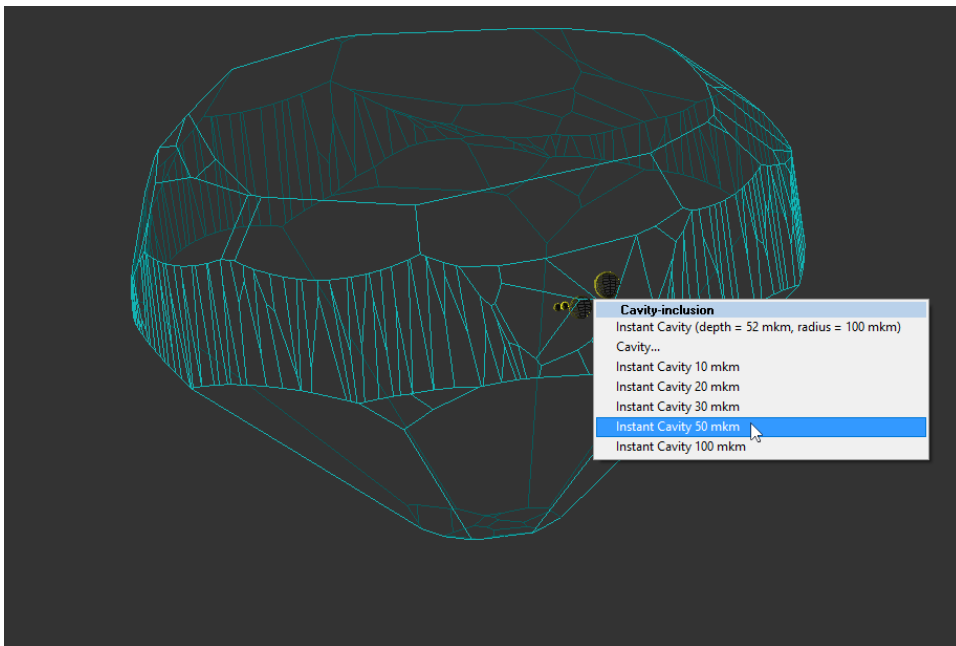
1. Added **SweetLine** parameter to **MyOval** appraiser

Parameter		Grade	Value	[FR	[GD	[VG	[EX	EX]	VG]	GD]	FR]
GirdleRatio	ⓘ	EX	1.252	1.2	1.2	1.2	1.25	1.75	1.8	1.8	1.8
SquareDeviation	ⓘ	EX	4.011	-10	-5	-3	0	6	8	10	14
FlexureGirdleShape		EX	-0.748	-3	-2	-1.5	-1	1	1.5	2	3
Table	ⓘ	EX	54.126	50	50	52	54	63.5	65	66	66
CrownAngle	ⓘ	EX	34.794	29	29.5	30	31	40	46	50	51
CrownHeight	ⓘ	EX	15.967	10	11	11.5	12	16	16.5	17	18
PavilionAngle	ⓘ	EX	39.974	34	34.5	35	37.5	40.5	42	42.5	43
PavilionHeight	ⓘ	EX	43.543	35	36	36.5	39	44.5	46.5	47.5	48.5
GirdleBezel	ⓘ	EX	4.941	1.5	2	2.2	2.5	5.5	6.5	8	10
LowerGirdleDepth		EX	78	70	72	76	78	82	84	86	90
TotalHeight	ⓘ	EX	64.45	51.5	52.5	56.5	58	64.5	65	65.5	66.5
StarHeight		EX	30.769	17	22	25	27	35	37	40	45
StarLength	ⓘ	EX	50.078	30	35	40	45	55	60	65	70
Culet_mm		EX	0	0	0	0	0	0.03	0.09	0.4	0.8
SweetLine		EX	0.905	-9	-6	-3	-1.5	1.5	3	6	9

Interface

1. Instant **Spherical Cavity Inclusion** tool is now available.

Cavity-inclusion
Instant Cavity (depth = 100 mkm, radius = 100 mkm)
Cavity...
Instant Cavity 10 mkm
Instant Cavity 20 mkm
Instant Cavity 30 mkm
Instant Cavity 50 mkm
Instant Cavity 100 mkm

Cavity-inclusion
Instant Cavity (depth = 100 mkm, radius = 100 mkm)
Cavity...
Instant Cavity 10 mkm
Instant Cavity 20 mkm
Instant Cavity 30 mkm
Instant Cavity 50 mkm
Instant Cavity 100 mkm

Instant Cavity   ?   ✕

Depth: 10 20 30 50 75 100 150 200 300 500   52.00
Radius: 10 20 30 50 75 100 150 200 300 500   100.00

Ok   Cancel

Cavity-inclusion
Instant Cavity (depth = 52 mkm, radius = 100 mkm)
Cavity...
Instant Cavity 10 mkm
Instant Cavity 20 mkm
Instant Cavity 30 mkm
Instant Cavity 50 mkm
Instant Cavity 100 mkm

2. It is now possible to control rotation (Rx) **motor position**:

   In the Scan panel, a new set of Rx position controls was added.

   On the left, there is a readout of current Rx position, which can also be used to manually enter a new desired Rx position.
   After pressing Return (Enter) the motor will move to the new position:

   On the right, there's a motor step angle control (Rotate by ...) and two buttons for rotating the motor one step left (clockwise) or right (counter-clockwise):
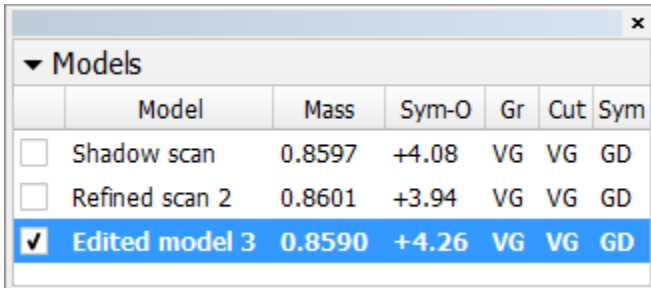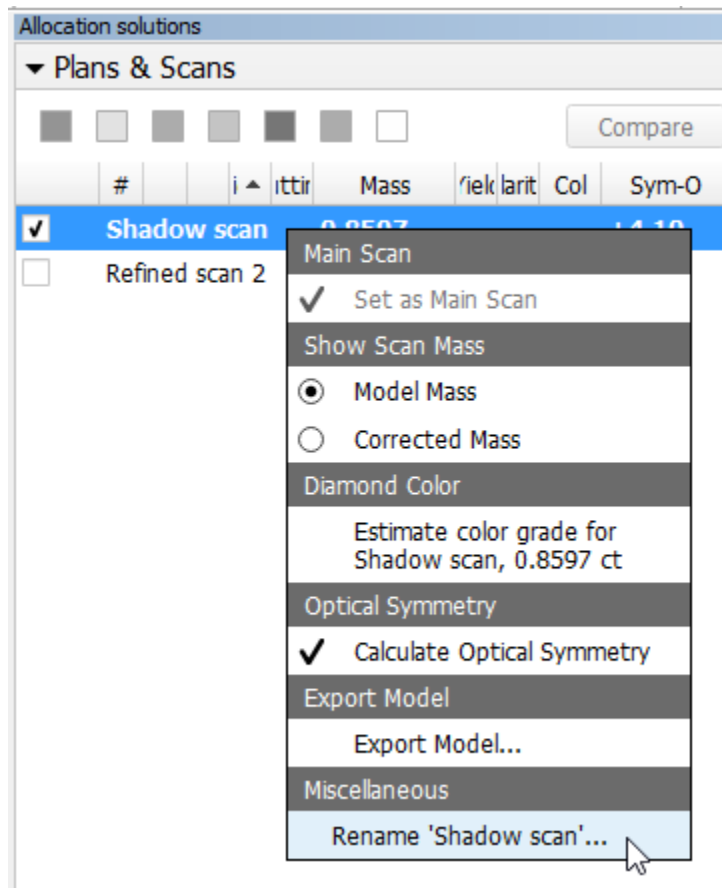
3. **Model names** now have an automatically incremented numerical suffix to enable unambiguous model identification by name:

	Model	Mass	Sym-O	Gr	Cut	Sym
☐	Shadow scan	0.8597	+4.08	VG	VG	GD
☐	Refined scan 2	0.8601	+3.94	VG	VG	GD
☑	**Edited model 3**	**0.8590**	**+4.26**	**VG**	**VG**	**GD**

4. It is now possible to set **user-defined names** to scanned, imported and edited models:
   a. In the **Models** or **Plans & Scans** list, right-click on the model that you want to rename
   b. In the context menu, select **Rename '*current model name*'...**
   c. An editable text field will appear in the list in place of the model name
   d. Enter a desired model name and press Return (Enter)
   e. The model was renamed

Allocation solutions

▼ Plans & Scans

Compare

	#		i ▲	ittir	Mass	'iek	larit	Col	Sym-O
☑	**Shadow scan**								
☐	Refined scan 2								

Main Scan

✓ Set as Main Scan

Show Scan Mass

⦿ Model Mass

◯ Corrected Mass

Diamond Color

Estimate color grade for
Shadow scan, 0.8597 ct

Optical Symmetry

✓ Calculate Optical Symmetry

Export Model

Export Model...

Miscellaneous

Rename 'Shadow scan'...

5. **Model sorting** is now preserved for projects saved with the new version.

Scanning

1. Multiple improvements to **Model Refinement** algorithms.

Bugfixes

1. Fixed DLL loading problem which affected some installations
2. Fixed a few scenarios where the application would occasionally crash during Shadow scanning
3. Fixed PAV_MAIN_EDGE_JUNCTION calculation in reports
4. Fixed Star Ratio parameters calculation fancy cut reports (was limited to max 8 values before)
5. Fixed calculation of Girdle Facet (= Pavilion Lower) Length, Depth in certain specific cases
6. Fixed a crash in Comparative Report Recut modes with specific stone positions
7. Fixed Comparative Report Recut: Fixed Table mode which always failed to find a suitable matching position
8. Fixed copy / paste by shortcuts which was broken in some GUI panels including MyAppraiser
9. Fixed autosave file name extensions, the files are now saved as *project*.autosave[N].oxg