

Data and Interaction in Interactive 3D Reports

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Quick Intro

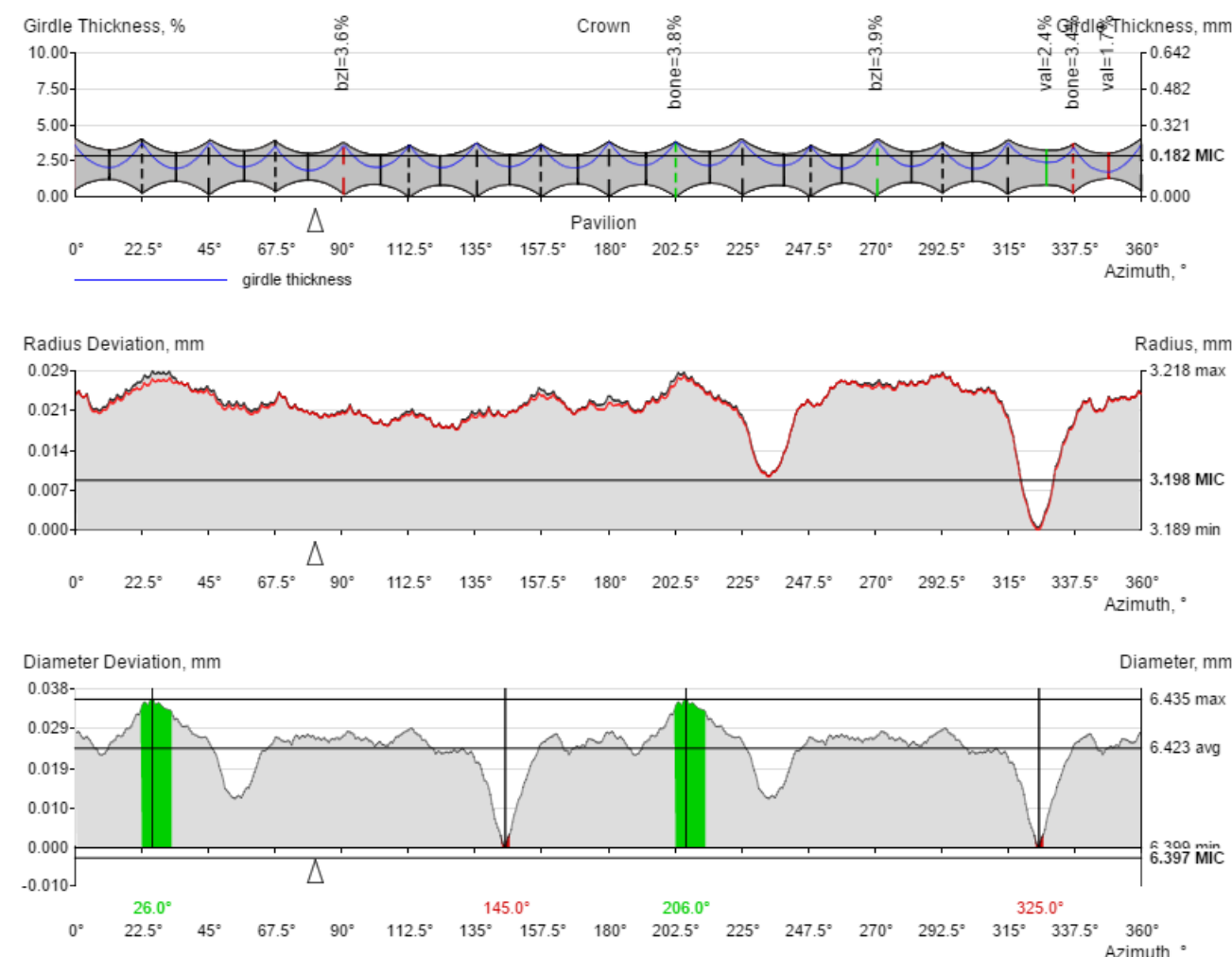
Video I3D - Interactive Report				
Published:	2021, March 29	Last Updated:	2021, March 29	v.1.4
Your browser does not support the HTML5 video element				
Video summary: <ul style="list-style-type: none">Interactive 3D Report is opened in your browser from within HP CarbonIn the presented report you can:Toggle elements visibility (the visible ones will be included in a printed version)Configure your views (one or several, different modes, "what-to-show" options for each)Use interactivity of your views to explore all aspects of your models (rotate and zoom, mouse over the facet to get pop-up with the facet details)Save your configuration as preset and re-use itPrint report shaped by you and suiting your needs				
Video keywords: configure, I3D, interact, interactive 3D report, print, view				
Published in:	Release Notes	NA		
	Documentation	Interactive 3D Report, Data and Interaction in Interactive 3D Reports		
	Playlists	Short Videos YouTube: HP Carbon		
	Also	As Separate Page On YouTube No Specification (Short Video)		

2D Girdle Plots

The following 2D plots are presented for Polish and Comparative reports:

- Girdle Thickness
- Radius Deviation
- Diameter Deviation

 In the Comparative report, these plots are only available as plots for individual stones — Current and Reference (according to table mode selector).



Photorealistic Images and Optical Metric Images

When generating an I3D report in HPOxygen, you can choose to include Photorealistic images in the report.

Open RTF

Print RTF

Open HTML

Interactive 3D

Data Path:

C:\Users\Tisevich\Documents\OctoNus Software\I3D Rep

...

Viewer Path:

C:\ProgramData\OctoNus Software\I3D Report Viewer

...

☒ Add Photorealistic Images to report

☒ Open Interactive 3D Report in default browser after generation

Open Data Folder

If the option is selected, a pre-defined set of images will be generated and included in the report document. Please note that Photorealistic image generation is a rather time-consuming procedure and enabling this option will add a few extra seconds to report generation time. This only concerns initial report generation in HPOxygen and does not significantly affect I3D Report document loading time.

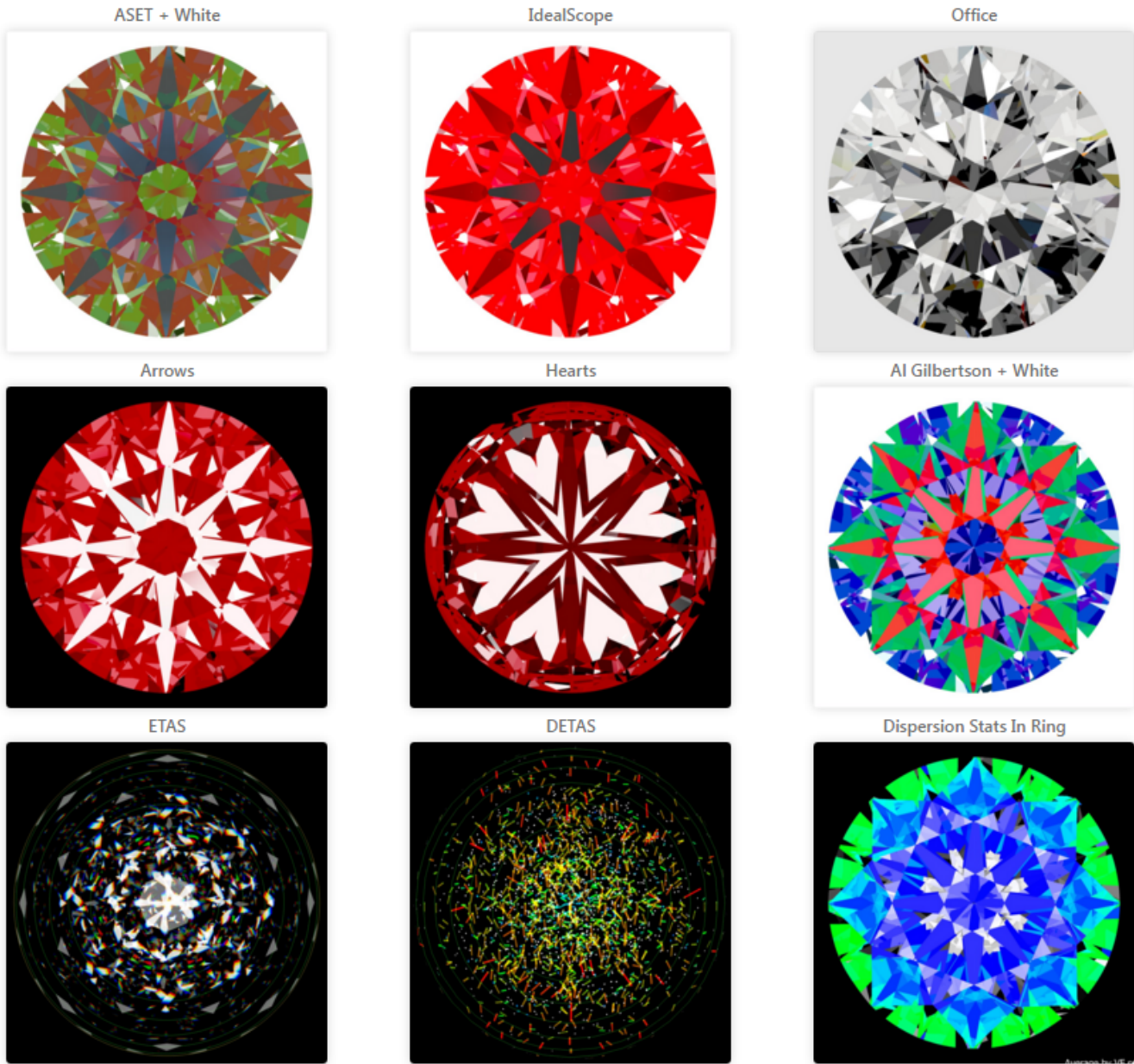
The following images are generated

- For Brillaints and Cushions:

ASET + White	IdealScope	Office
Arrows	Hearts	AI Gilbertson + White
ETAS (small sphere)	DETAS	Dispersion Statistics Diagram in Ring

- For other cuttings:

ASET + White	IdealScope	Office
ETAS (small sphere)	DETAS	Dispersion Statistics Diagram in Ring



Please note that you can collapse the image block in the document by clicking on the block header:

▼ Photorealistic Images:

Gallery Mode

You can also click on any image to enter Gallery mode. This allows you to see images in larger size and in better detail.

You can also use on-screen arrow links (pictured in the screenshot) or keyboard arrow keys (and) to quickly navigate between images in Gallery mode.

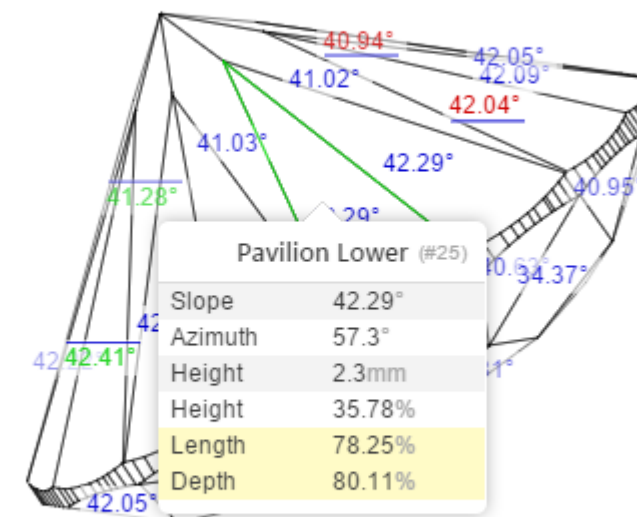
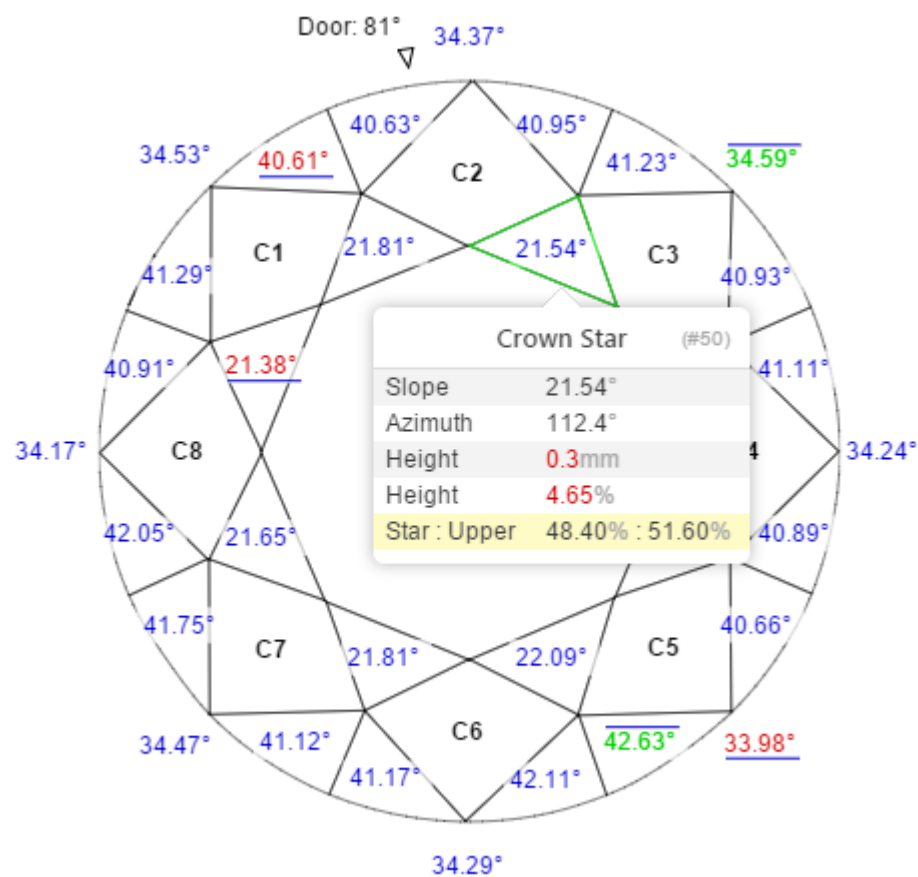
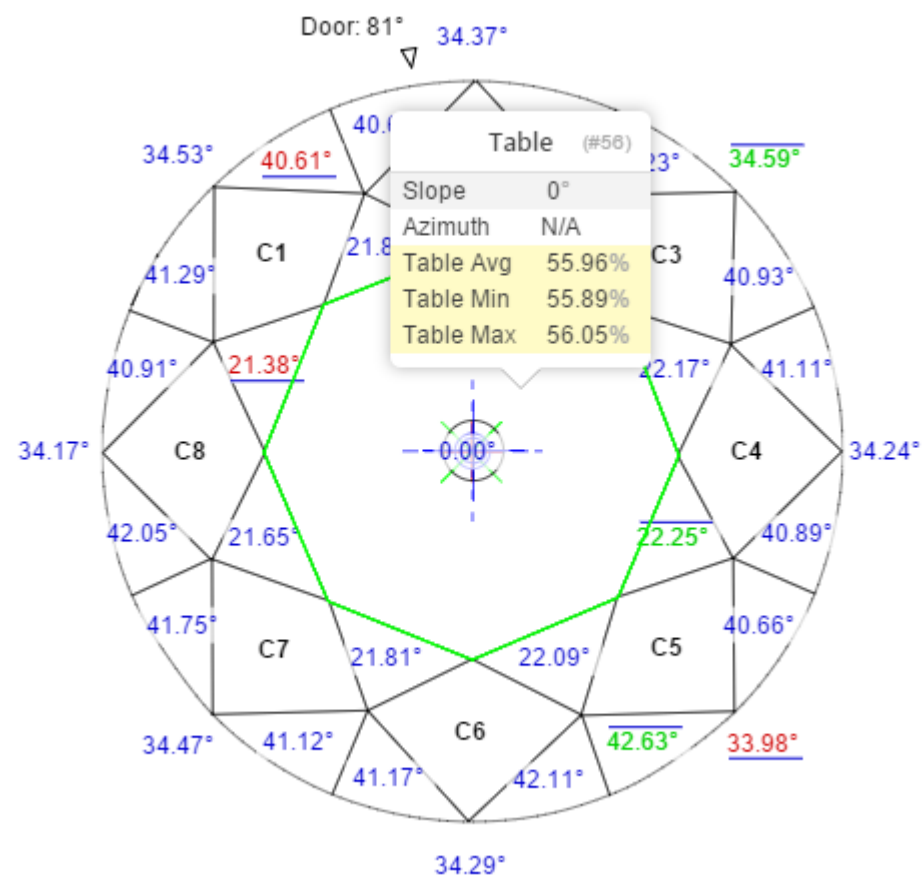
This is especially handy if you want to compare corresponding images of Current and Reference stones in Comparative report mode. You can simply open one of the images in Gallery mode and then use the keyboard arrow keys to switch back and forth between images of the two stones to clearly see the difference in patterns.



You can exit Gallery mode either by pressing the Escape key or by clicking on the "x" icon in the top right corner of the image.

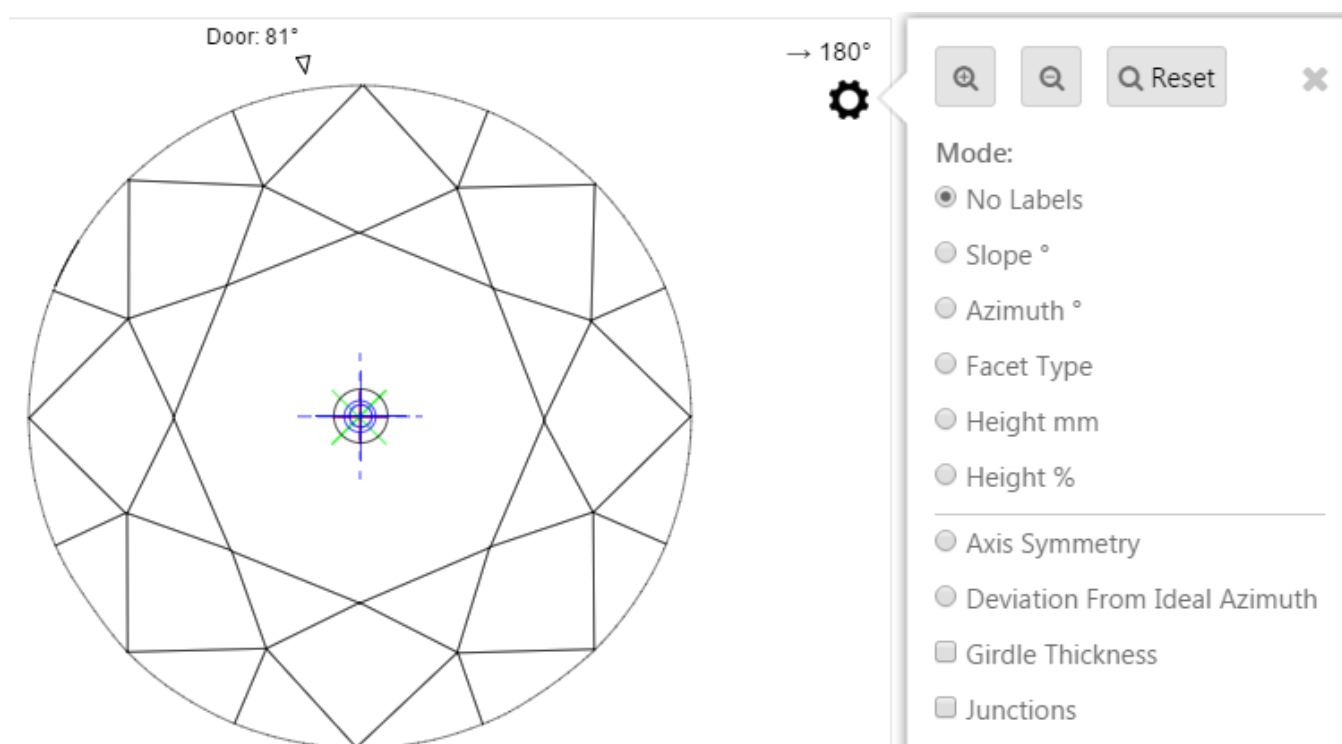
Facet-Specific Parameters in Tooltips

Facet-specific parameters are presented in tooltips displayed on the mouse over a facet.



No Labels Mode

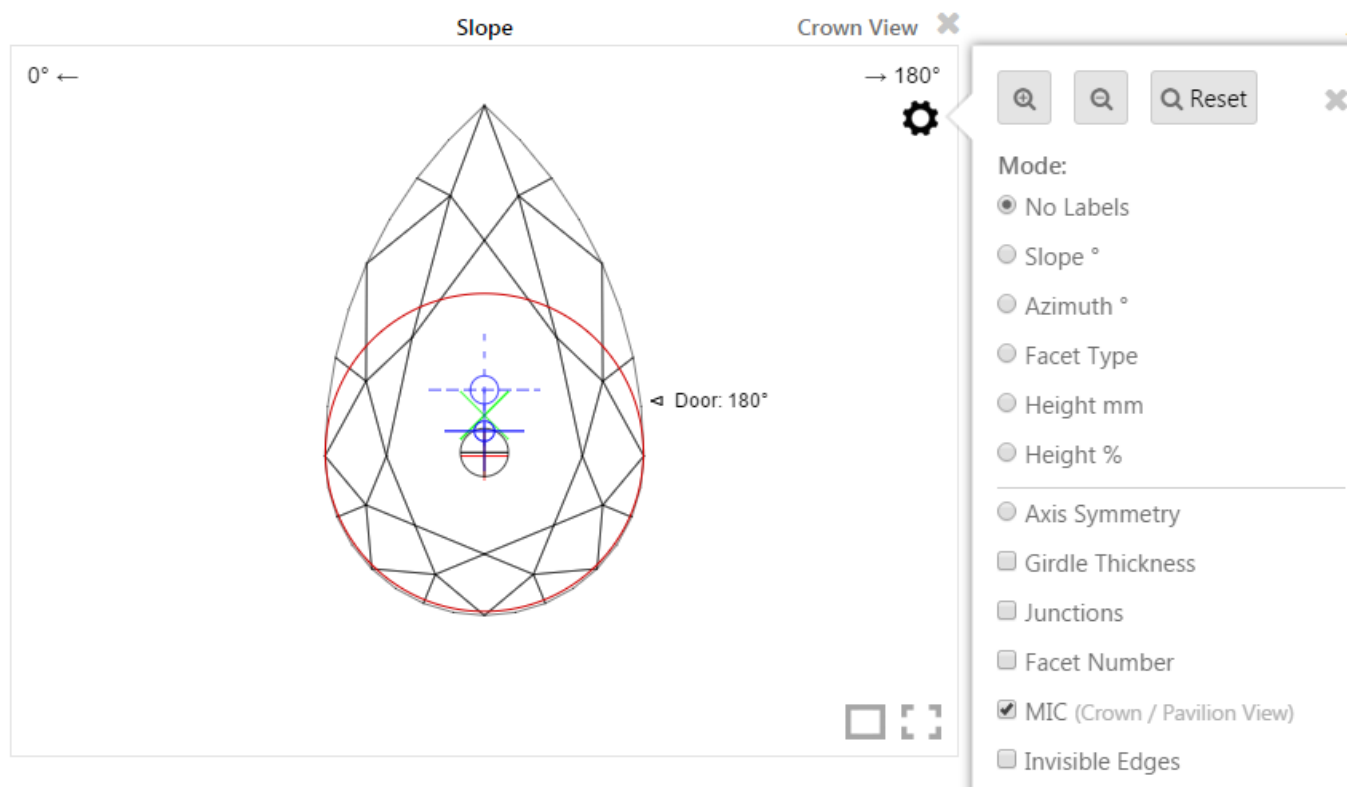
Sometimes it is better to have no textual labels over the model to make it easier to comprehend geometrical features and symmetry of the stone. The "No Labels" mode which hides main labels from the stone. Please note that additional labels (such as Junctions, Girdle Thickness markers, and others) are controlled by separate switches and are not affected by this mode:



MIC Indication in Crown / Pavilion Views

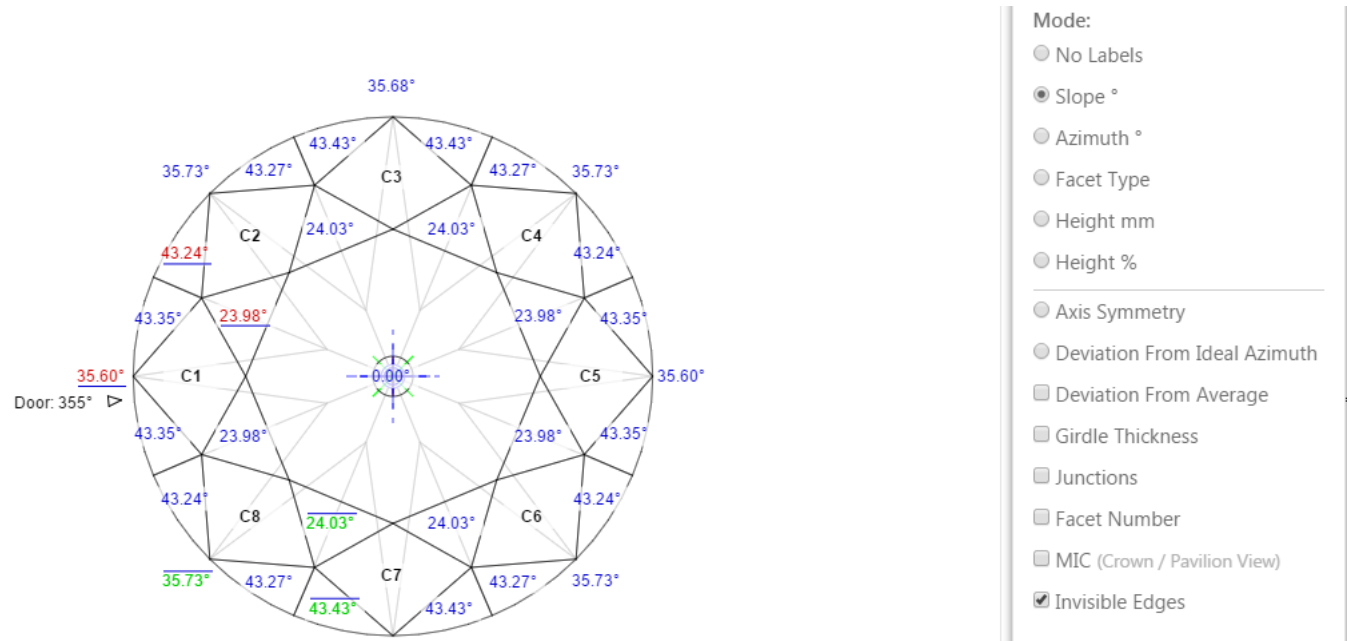
In the Crown and Pavilion views, MIC indication is available. Any stone rotation, even insignificant, disables this feature until the stone is put back into one of the specified view positions.

MIC circle is drawn in red color:



Invisible Edges Without Refraction

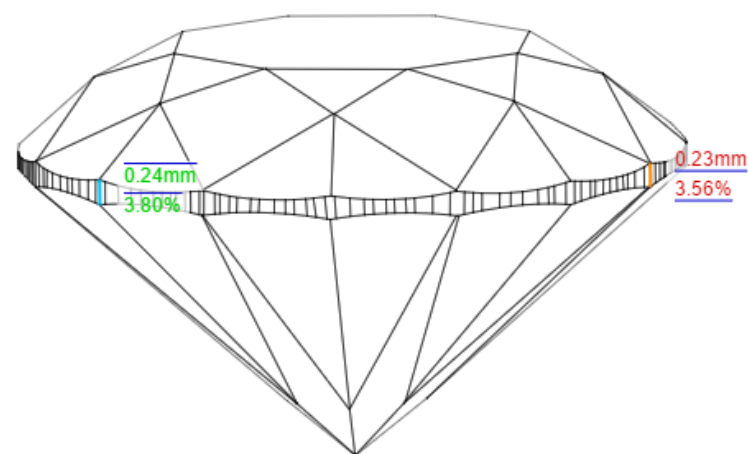
Using the "Invisible Edges" option you can enable drawing of invisible model edges without refraction effects, which can help better judge model symmetry:



This mode is only available when one stone model is displayed (not two like in Comparative view).

Min / Max Girdle Thickness Markers Only

The new "Min / Max" setting only shows Min and Max values of Girdle Thickness:



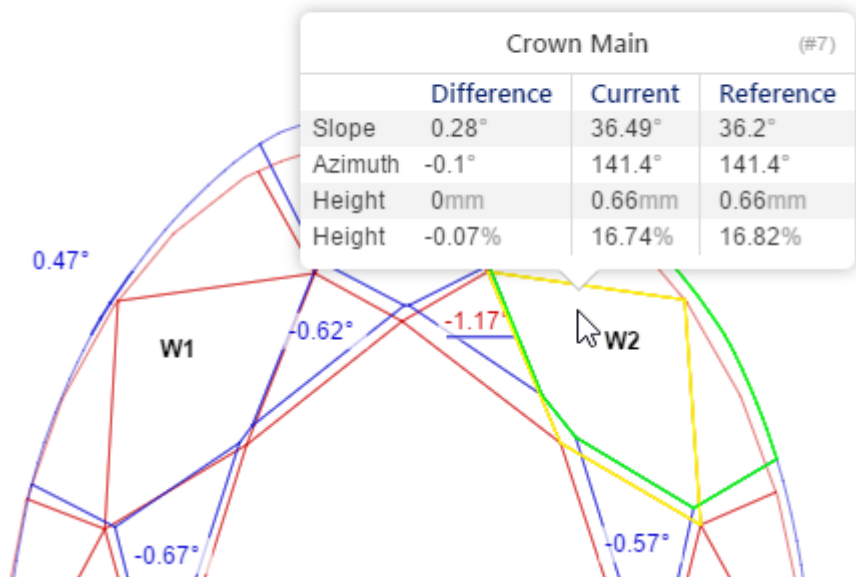
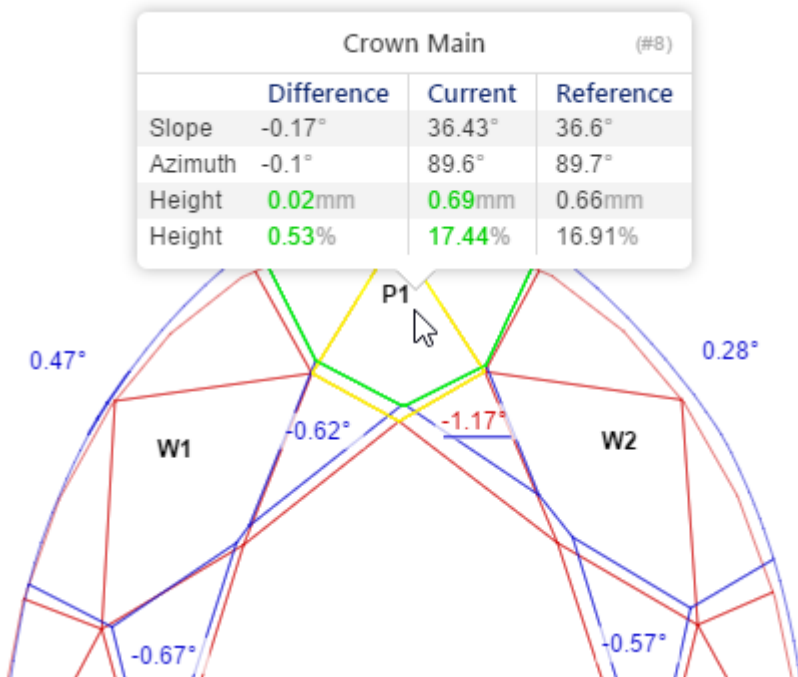
- Mode:
- ☒ No Labels
 - ☐ Slope °
 - ☐ Azimuth °
 - ☐ Facet Type
 - ☐ Height mm
 - ☐ Height %
-
- ☐ Axis Symmetry
 - ☐ Deviation From Ideal Azimuth
 - ☒ Girdle Thickness
- ☒ Min / Max ☐ All

Please note that if there are numerous Girdle Thickness values equal to min or max value, all of them will be shown to avoid misunderstanding.

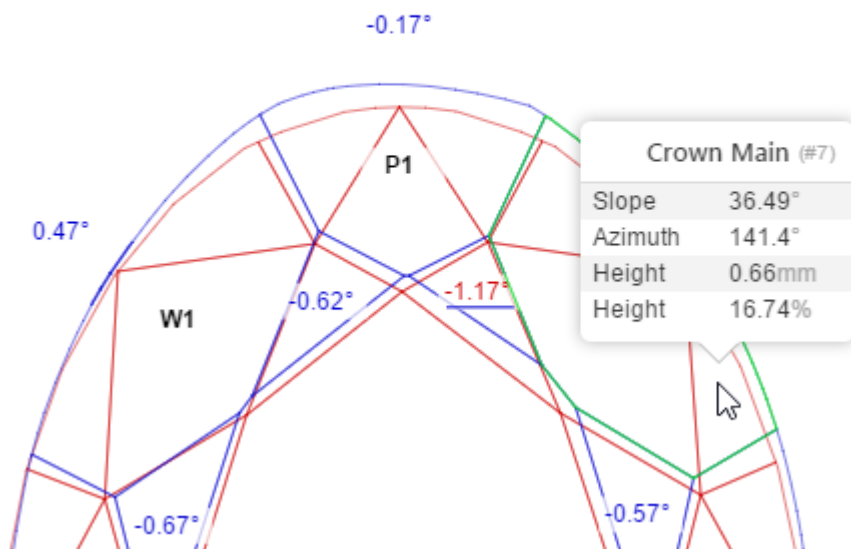
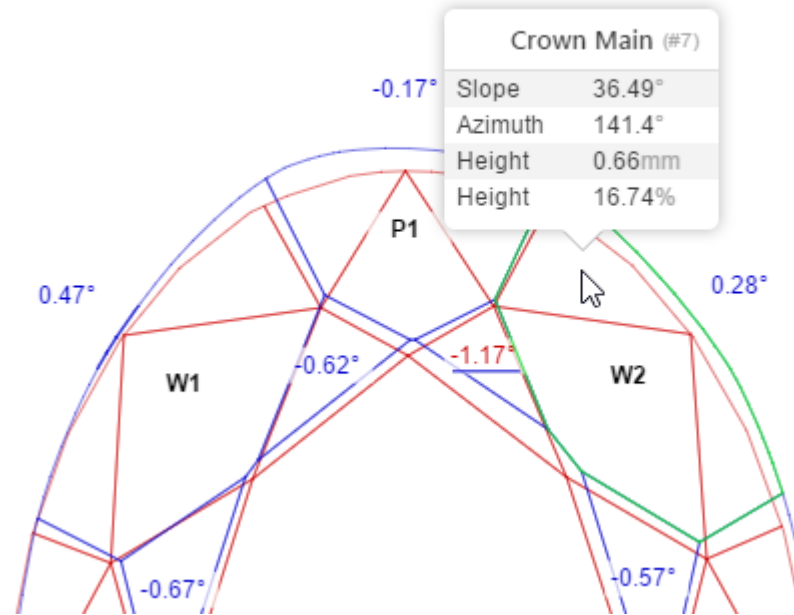
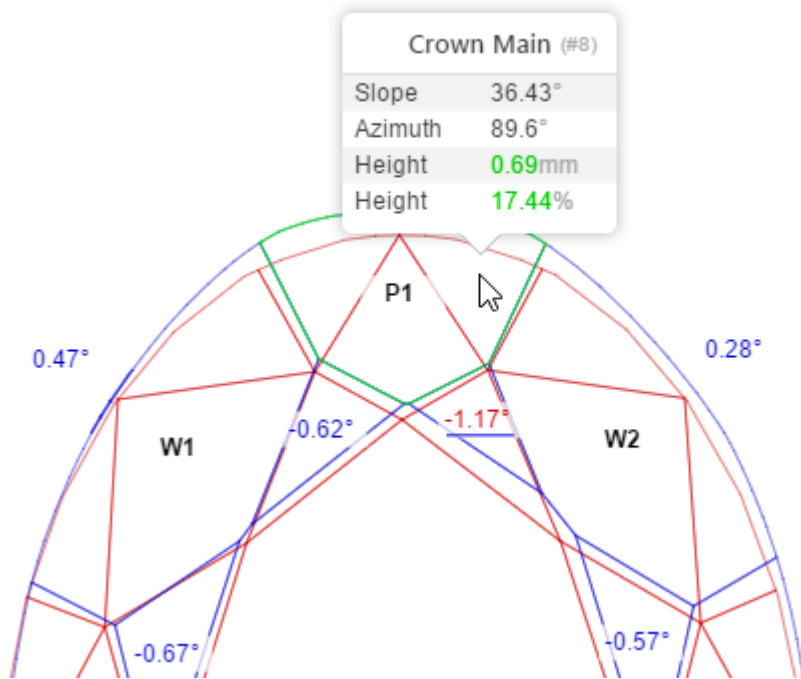
Thus, if you create a report for an ideally symmetric stone (solution), you will likely see no difference between these two modes, whereas on a real scanned stone the difference will be immediately observable.

Comparative Difference Only for Paired Facets

You will see **Difference** and **Reference** columns only when the mouse cursor hovers over both facets (Current and Reference) that were matched during report generation. In this case, both facets will be highlighted with special edge color:



If you hover the cursor over two facets that were not matched, difference info will not be shown:



Grid Presets and Preset Manager

You can configure a selection of report **Preset**s, which can automatically activate the specified number of 3D views with predefined settings.

You can also select specific **Default Presets** for both Polish and Comparative report. A Default Preset will be automatically activated whenever a new Report of the specified type is opened.

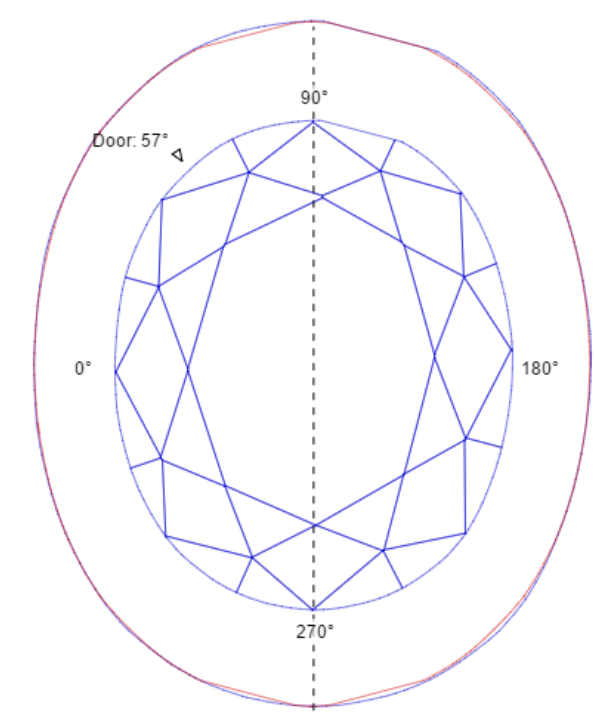
Active Preset: Crown Views ▼ Make Default Preset Delete Current Preset Save Config

Name: Unnamed Store As New Preset

For detailed information on how to use the Preset Manager, please refer to the following document:

[Configuring I3D Report Presets Using the Preset Manager](#)

Both Axes Symmetry Mode



Mode:

Slope °

Azimuth °

Facet Type

Height mm

Height %

Axis Symmetry

Settings:

Symmetry Axis:

Length Actual

Length Corrected

Width Actual

Width Corrected

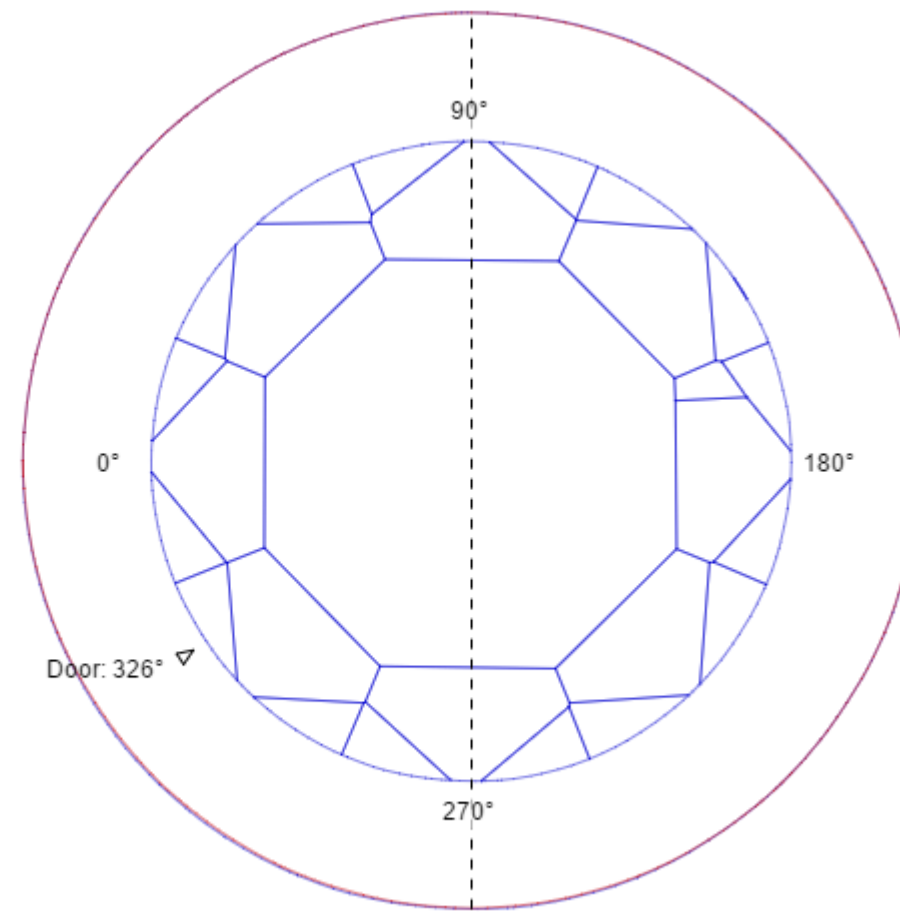
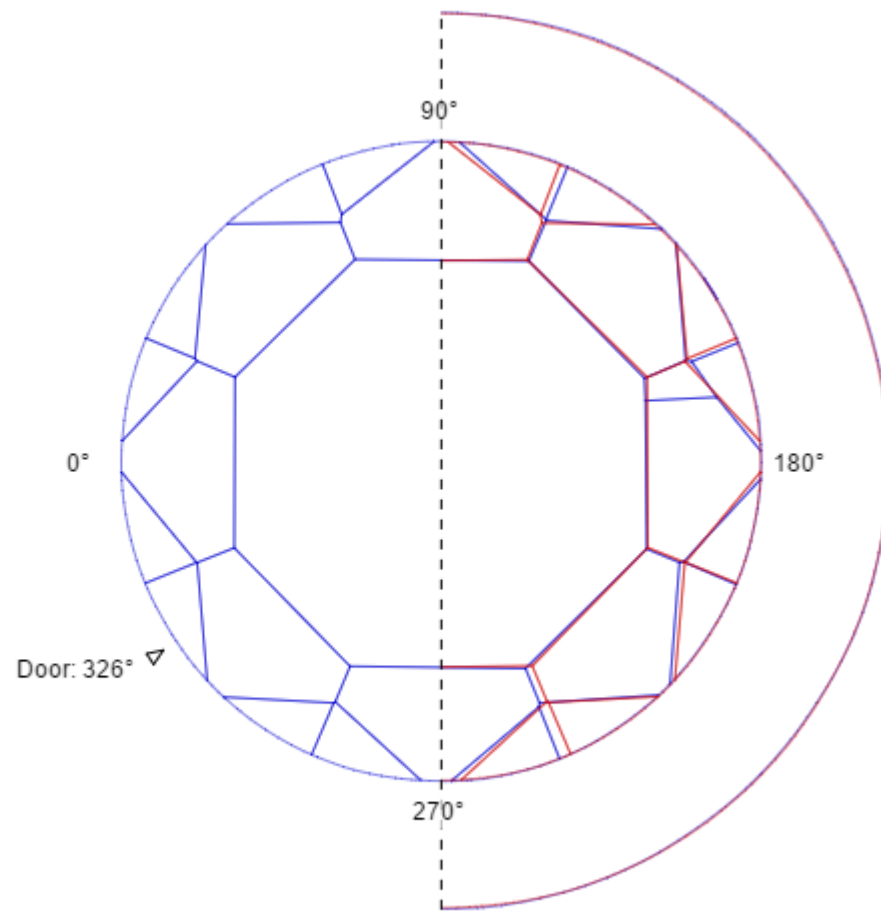
Both Axes Corrected

View:

Crown

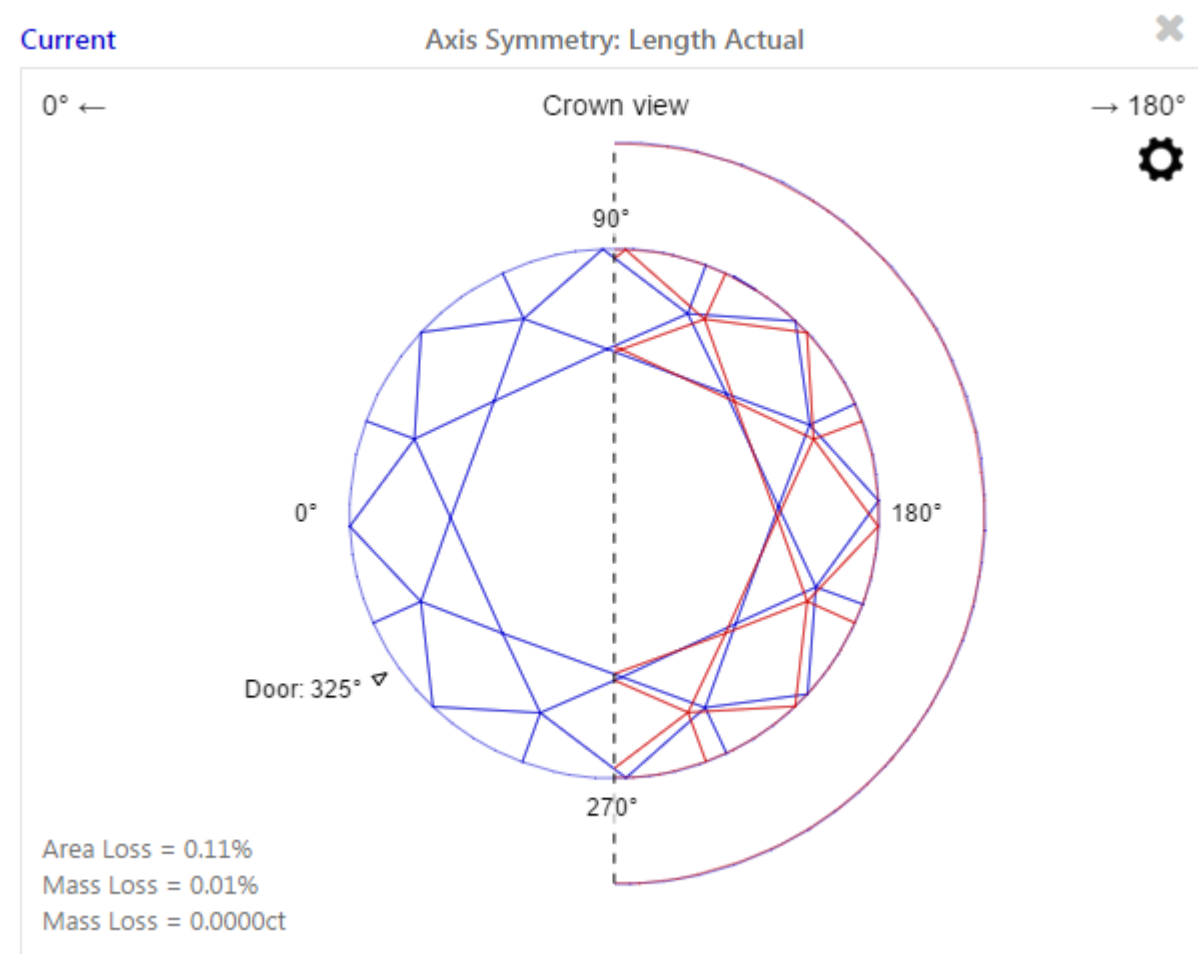
Pavilion

Area and Mass Loss indication in Axis Symmetry

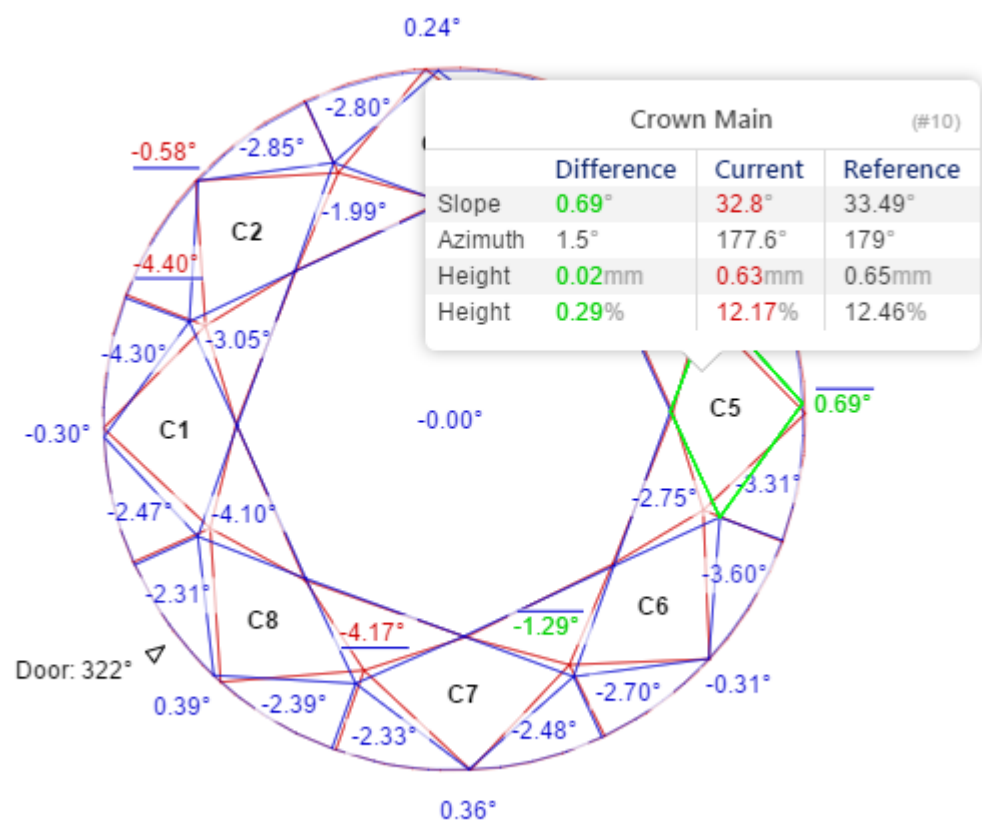


Detailed View Description

The view description at the top now details which Symmetry mode is active, which model (Polish Current / Polish Reference) is displayed in the Comparative Report, and other relevant info:

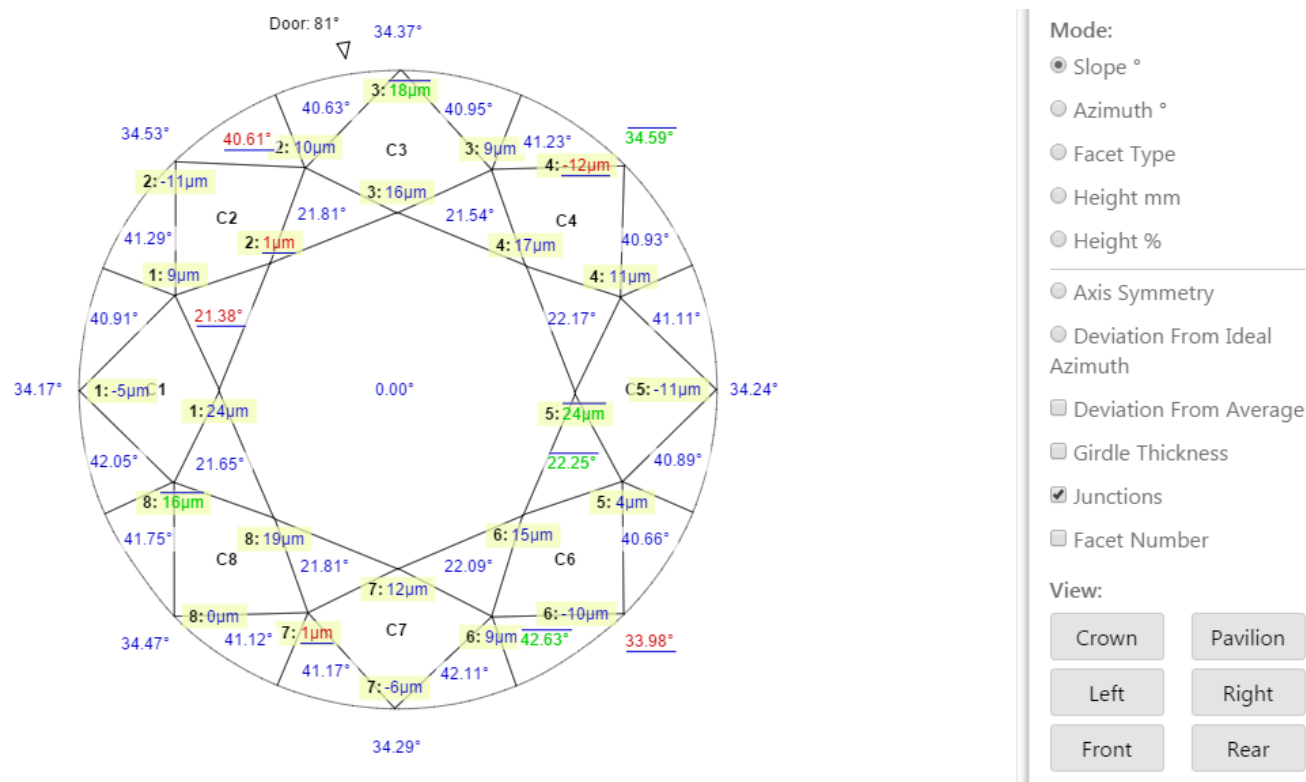


Reference Stone Parameters in Comparative Report Facet Info Pop-up



Junctions

Use the **Junctions** option to enable junctions indication in any of the main modes:

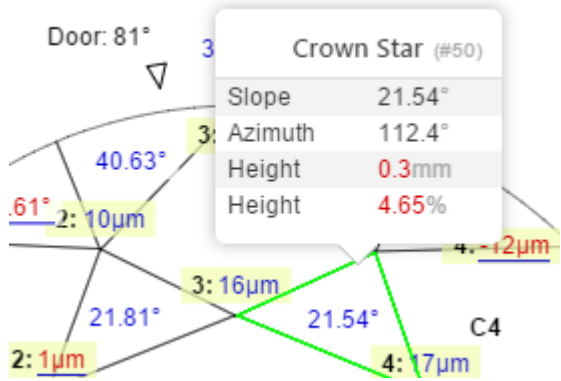


The format of the Junction labels is

Junction Number: Junction Value, μm

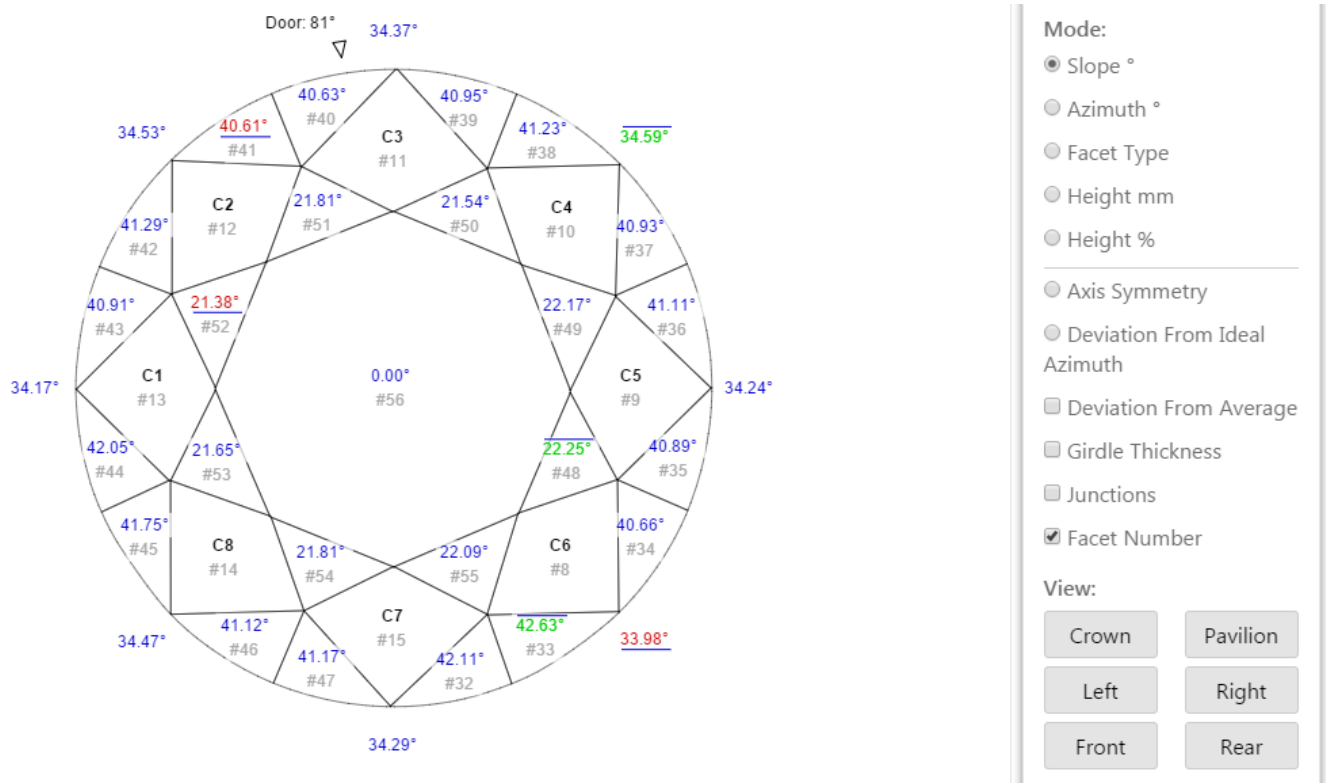
Facet Number

Facet number is indicated in pop-up facet description:



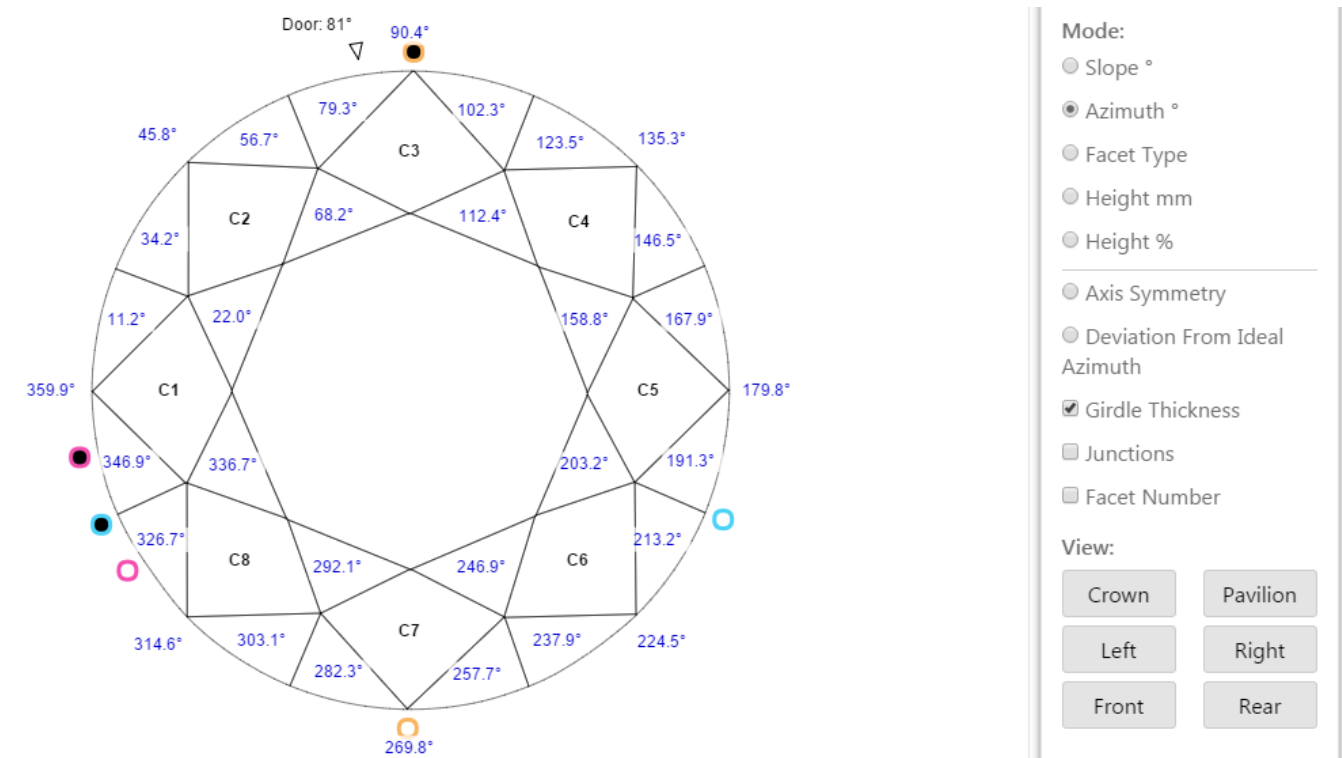
Here, we've selected facet #50. This can be used to precisely match facet in report and facet of the model in HPO software.

You can also enable the **Facet Number** option to permanently show facet numbers beside normal facet property labels:

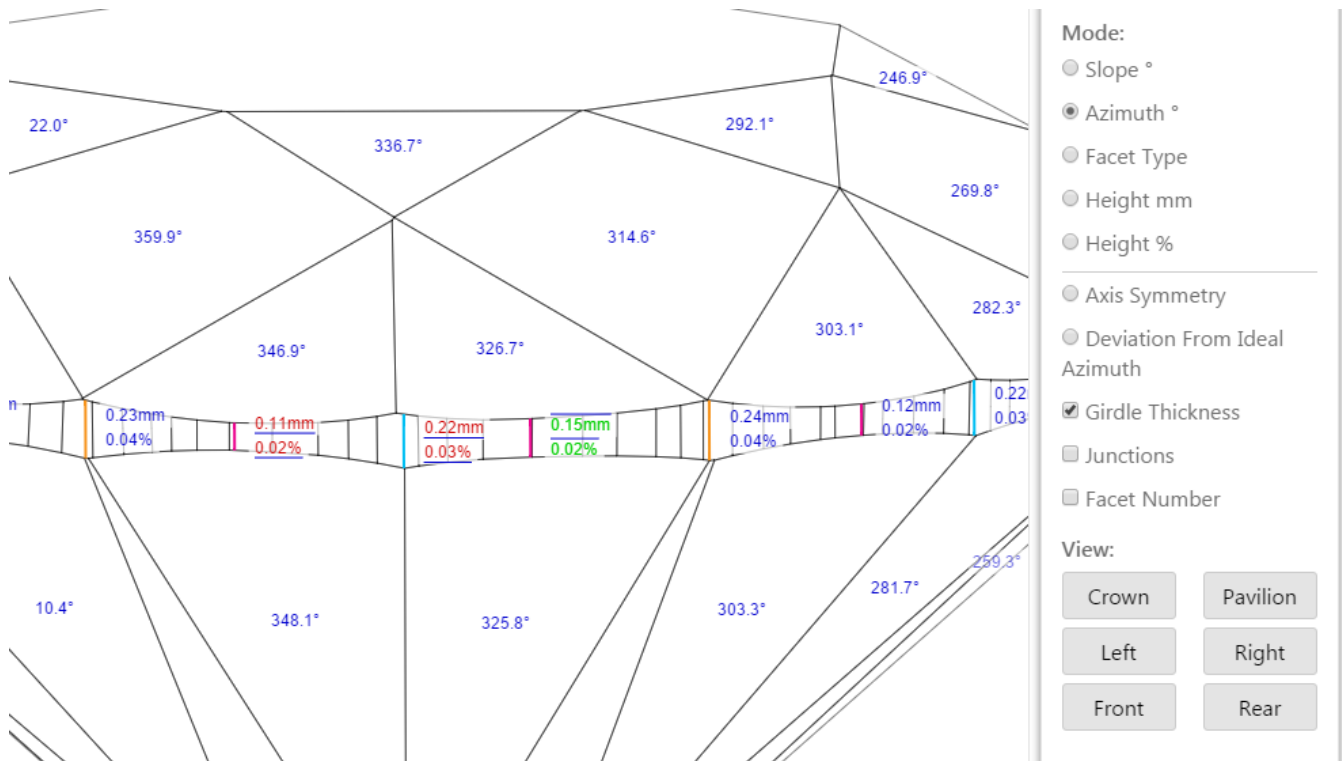


Girdle Height / Thickness (Bezel, Bone, Valley)

If the **Girdle Thickness** option is enabled, in Crown and Pavilion view you can see special markers, indicating positions of Minimum and Maximum Girdle Bezel, Bone and Valley measurements:



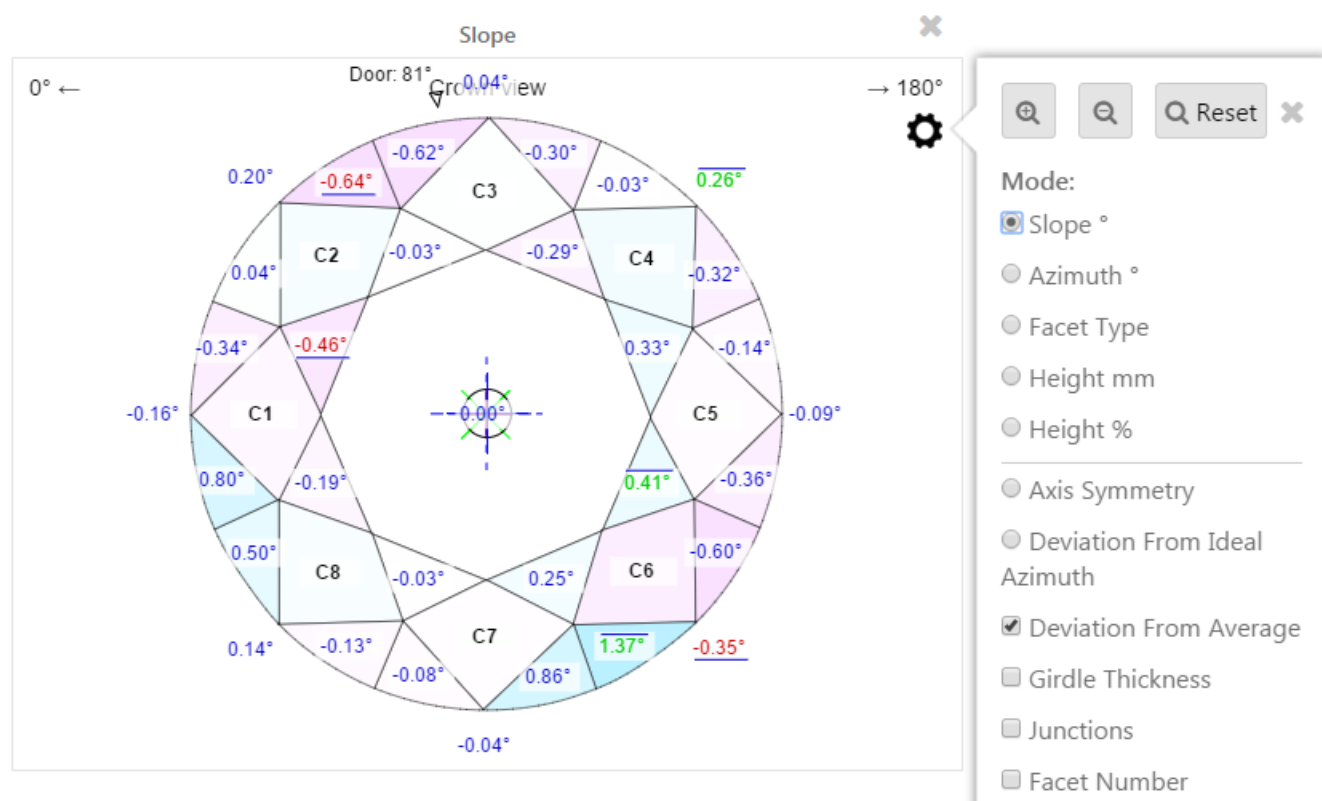
In side views, you can see detailed Girdle measurements in each point indicated with a corresponding color marker, including highlighting of Minimum and Maximum values:



Deviation From Average

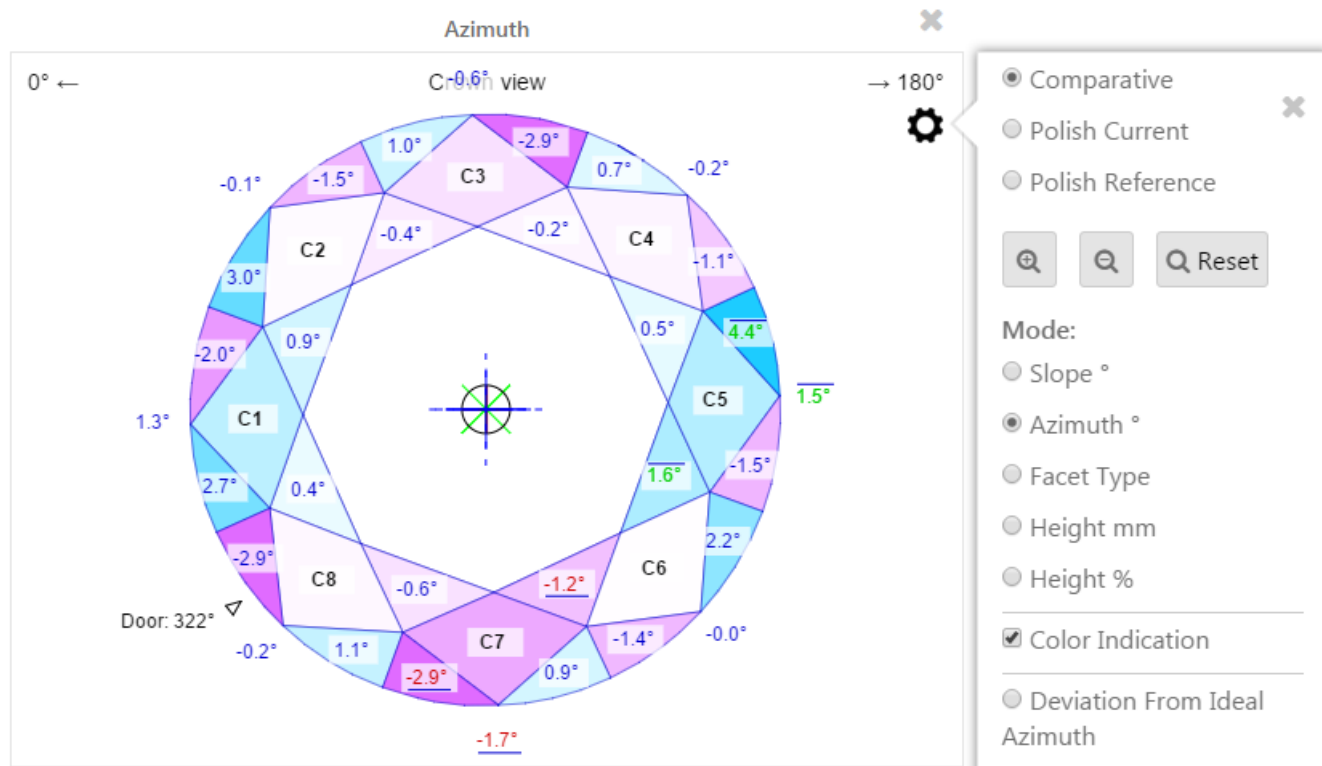
In Polish mode you can select the **Deviation From Average** option in the 3D Views for Slope or Height to enable color-coding of difference between properties of current facet an average values of the same property among the facet group.

I.e. you can see how the Slope of the specific Main or Star or Upper or any other facet differs from the average Slope of all the facets of the same type:



Color Indication of Values in Comparative Report

In Comparative mode you can select the **Color Indication** option in the 3D Views to enable color-coding of difference in selected parameter (Slope, Azimuth, Height):



Polish Report Data for Current and Reference Stones in Comparative Report

In Comparative report you can switch between detailed data of **Comparative** Report, **Current** Polish Report and **Reference** Polish Report:

Use the highlighted selector to switch between report data modes:

Comparative report for Brilliant

Demo: Comparative

Polished Brilliant17.11.2015

Current model: Demo: ComparativeExpert name: N/AReference model: 3Δ Real weight, ct: N/AReport type: Comparative (Reference - Current), Compare: Fixed Table Δ Calculated weight, ct 0.01, 0.0086Current Parameters: 0.49 ct Cut: N/A Sym: EXΔ Spread 0.00 ct, -0.57 %Reference Parameters: 0.50 ct Cut: N/A Sym: GDΔ AGS Spread 0.00 ct, -0.57 %

ComparativeCurrentReference

Δ Ratio (L/W)	Δ Minimum Diameter	Δ Maximum Diameter	Δ Total height
0.000	0.020 mm	0.019 mm	0.019 mm

Δ Crown height	Δ Pavilion depth	Δ Table	Δ Culet	Δ Girdle		
				Bezel	Bone	Valley
0.001 mm	0.016 mm	0.015 mm	-0.016 mm	0.001 mm	0.049 mm	0.025 mm
-0.02 %	0.14 %	0.05 %	-0.31 %	0.01 %	0.93 %	0.48 %

Δ Crown Angle, °	Δ Pavilion Angle, °	Δ Star Length, %	Δ Upper, %	Δ Lower Half, %	Δ Culet, %
0.00	0.00	-9.91 %	9.91 %	-0.48 %	-0.31 %

Comparative report for Brilliant

Demo: Comparative

Polished Brilliant17.11.2015

Current model: Demo: ComparativeExpert name: N/AReference model: 3Scale weight, ct: N/AReport type: Comparative (Reference - Current), Compare: Fixed Table Corrected mass, ct 0.49, N/ACurrent Parameters: 0.49 ct Cut: N/A Sym: EXMeasurements 5.178 (5.168 - 5.186) x 3.039 / 0.005 mmReference Parameters: 0.50 ct Cut: N/A Sym: GDSpread 0.02 ct, 4.24 %AGS Spread 0.02 ct, 4.21 %Extra Facet Girdle / Nat 1 (1/0)

ComparativeCurrentReference

Width	Length	Ratio (L/W)	Diameter Minimum	Diameter Maximum	Diameter Average	Total height
5.168 mm	5.186 mm	1.003	5.168 mm	5.186 mm	5.178 mm	3.039 mm

Crown height	Pavilion depth	Table	Culet	Girdle height		
				Bezel	Bone	Valley
0.638 mm	2.258 mm	3.213 mm	0.025 mm	0.143 mm	0.159 mm	0.063 mm
12.32 %	43.61 %	62.05 %	0.48 %	2.78 %	3.08 %	1.22 %

Crown Angle, °	Pavilion Angle, °	Star Length, %	Upper, %	Lower Half, %	Culet, %
33.00	41.24	54.89 %	45.11 %	80.70 %	0.48 %

You can also see individual Polish stone parameters in Comparative report header data block:

Comparative report for Brilliant

















Polished Brilliant

Current model:	Demo: Comparative		
Reference model:	3		
Report type:	Comparative (Reference - Current), Compare: Fixed Table		
Current Parameters:	0.49 ct	Cut: N/A	Sym: EX
Reference Parameters:	0.50 ct	Cut: N/A	Sym: GD

Detailed Legend

We've added more information to the Legend block:

Toggle legend

Models:	 Current	 Reference	 Selected Facet	Values:  Min  Max	
Centers:	 Girdle center	 Culet center	 Table center	 MIC center	 Girdle center mass
Girdle:	 Bezel Min	 Bone Min	 Valley Min		
	 Bezel Max	 Bone Max	 Valley Max		