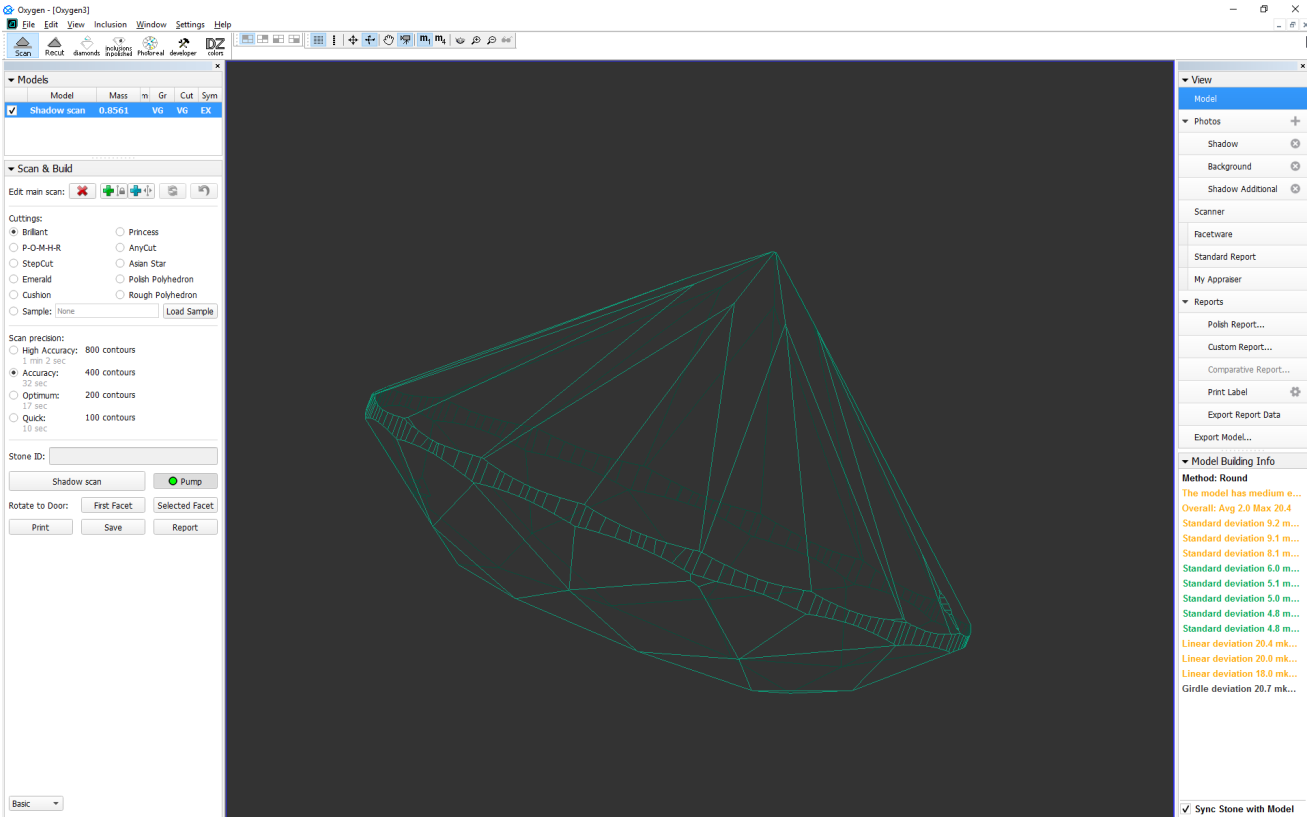


Model Building Info (MBI)

Model Building Info (MBI) panel displays the building info, which describes how well the model matches the scanned contours.



Normally, any scan (Shadow, Reflect, or Refined) would contain its own building info data attached, and the information on the **Model Building Info** panel would update as soon as the scan in is selected in the list of models.

 Scanned models prepared in the older versions of HPOxygen may lack the Model Building Info.

On this page:

1

[Model building details](#)

2

[Visualization features](#)

3

[Color encoding](#)

Model building details

Model Building Info panel contains the header referring to the overall model quality, followed by the lines that describe individual problem spots. Lines are color-coded according to the severity of the errors they signify (red-yellow-green, from highest to lowest). Errors in the girdle area are listed separately and colored in gray.

▼ Model Building Info

Method: Round

The model has big errors.

Overall: Avg 3.0 Max 51.2

Standard deviation 21.6 mkm on edge 714

Standard deviation 20.1 mkm on edge 74

Standard deviation 9.7 mkm on edge 650

Standard deviation 9.2 mkm on edge 62

Standard deviation 7.8 mkm on edge 23

Standard deviation 6.7 mkm on edge 726

Standard deviation 6.6 mkm on edge 415

Standard deviation 6.3 mkm on edge 728

Linear deviation 51.2 mkm on edge 74

Linear deviation 50.8 mkm on edge 714

Linear deviation 37.5 mkm on edge 62

Linear deviation 18.6 mkm on edge 23

Linear deviation 11.8 mkm on edge 650

Overall quality

Individual spots

Linear deviation is the maximum deviation of an edge from the corresponding contour.

Standard deviation is the averaged (root-mean-square) deviation of an edge from the corresponding contour.

Visualization features

Each of the lines related to the individual spots in the **Model Building Info** panel is a link. Pressing such a link while viewing the model in the Scanner or Photo mode would orient the model so as to display the corresponding contour. The matching photo is also shown. The problem-causing edge is highlighted in the same color as the corresponding line in the **Model Building Info** panel.

▼ Scan Info

Shadow scan: cutting: --, Mass: 1.5659 ct, Price: --, Clarity: --, Discount: --, DZ Color: PFC, Grade: --

▼ Inclusions

▼ Active Appraiser and Pricelist

Appraiser: MyGIA | GIA RecSoftware + MyGIA, Profile: MyGIA_Profile1, Pricelist: LEXUS_PRICE_09MARCH_2012

Select algorithm and diamonds for allocation.

Algorithm: 06. Semicut (final), grade of 1st diam: EX, Cutting list: Brilliant, Brilliant

Run Diamond Results

▼ View

Model

▼ Photos

Shadow

Background

Shadow Additional

Scanner

Facetware

Standard Report

My Appraiser

▼ Reports

Polish Report...

Custom Report...

Comparative Report...

Print Label

Export Report Data

Export Model...

▼ Model Building Info

Method: Round

The model has big errors.

Overall: Avg 3.0 Max 51.2

Standard deviation 21.6 mkm on edge 714

Standard deviation 20.1 mkm on edge 74

Standard deviation 9.7 mkm on edge 650

Standard deviation 9.2 mkm on edge 62

Standard deviation 7.8 mkm on edge 23

Standard deviation 6.7 mkm on edge 726

Standard deviation 6.6 mkm on edge 415

Standard deviation 6.3 mkm on edge 728

Linear deviation 51.2 mkm on edge 74


Linear deviation 50.8 mkm on edge 714

Linear deviation 37.5 mkm on edge 62

Linear deviation 18.6 mkm on edge 23

Linear deviation 11.8 mkm on edge 650

Sync Stone with Model

 Note that the shadow contours are now displayed as dotted yellow lines.

If the photo shows evident signs of dirt, the user is advised to clean the stone and run the scan again. To facilitate this, enable the **Sync Stone with Model** check box, which makes the stone on the scanner to be oriented simultaneously with the model.

Model Building Info

Method: Round

The model has big errors.

Overall: Avg 3.0 Max 51.2

Standard deviation 21.6 mkm on edge 714

Standard deviation 20.1 mkm on edge 74

Standard deviation 9.7 mkm on edge 650

Standard deviation 9.2 mkm on edge 62

Standard deviation 7.8 mkm on edge 23

Standard deviation 6.7 mkm on edge 726

Standard deviation 6.6 mkm on edge 415

Standard deviation 6.3 mkm on edge 728

Linear deviation 51.2 mkm on edge 74


Linear deviation 50.8 mkm on edge 714

Linear deviation 37.5 mkm on edge 62

Linear deviation 18.6 mkm on edge 23

Linear deviation 11.8 mkm on edge 650

☒ Sync Stone with Model

 Note that the said checkbox **does not** synchronize all motions of the model in Model view, Photo view, and Scanner view.

Color encoding

Color encoding of the errors implies the following recommendations:

Message color	Error rate	Description and recommendation
The model has small errors	Small error	Edge is most probably built properly and there is no need to re-check in a routine study.
Standard deviation		In case of a high-precision investigation, further analysis may be required.
Linear deviation		
The model has medium errors	Medium error	The edge may or may not be built properly.
Standard deviation		It is recommended to check for the error reason.
Linear deviation		

The model has big errors	Big error	Edge is probably built incorrectly because of dust or another reason. Must be checked.
Standard deviation		
Linear deviation		
Girdle deviation	-	Girdle edge could contain dust. It is strongly recommended to check. Dust on a girdle can result in the wrong diameter value.

Each error line is colored according to the magnitude of the error it describes. The thresholds of various colors depend on the hardware model, as shown below.

Scanner\Status	Average model error (Avg)			Standard deviations of edges (Standard deviation)			Maximal deviations of edges (Linear deviation)		
	small, mkm	medium, mkm	big, mkm	small, mkm	medium, mkm	big, mkm	small, mkm	medium, mkm	big, mkm
HP4.4D(1:1) pixel ~ 3.2 mkm	< 3.3	3.3 - 6.6	> 6.6	< 4.95	4.95 - 9.9	> 9.9	< 9.9	9.9 - 19.8	> 19.8
HP8.5D(1:1) pixel ~ 6.4 mkm	< 4.1	4.1 - 8.2	> 8.2	< 6.15	6.15 - 12.3	> 12.3	< 12.3	12.3 -24.6	> 24.6
HP17D(1:2) pixel ~ 12.7 mkm	< 5.675	5.675 - 11.35	> 11.35	< 8.51	8.51 - 17.03	> 17.03	< 17.025	17.025 - 34.05	> 34.05
HP23ProD(1:2) pixel ~ 14.8 mkm	< 6.2	6.2 - 12.4	> 12.4	< 9.3	9.3 - 18.6	> 18.6	< 18.6	18.6 - 37.2	> 37.2
HP34D(1:4) pixel ~ 25.4 mkm	< 8.85	8.85 - 17.7	> 17.7	< 13.28	13.28 - 26.55	> 26.55	< 26.55	26.55 - 53.1	> 53.1
HP47ProD(1:4) pixel ~ 29.8 mkm	< 9.95	9.95 - 19.9	> 19.9	< 14.93	14.93 - 29.85	> 29.85	< 29.85	29.85 - 59.7	> 59.7