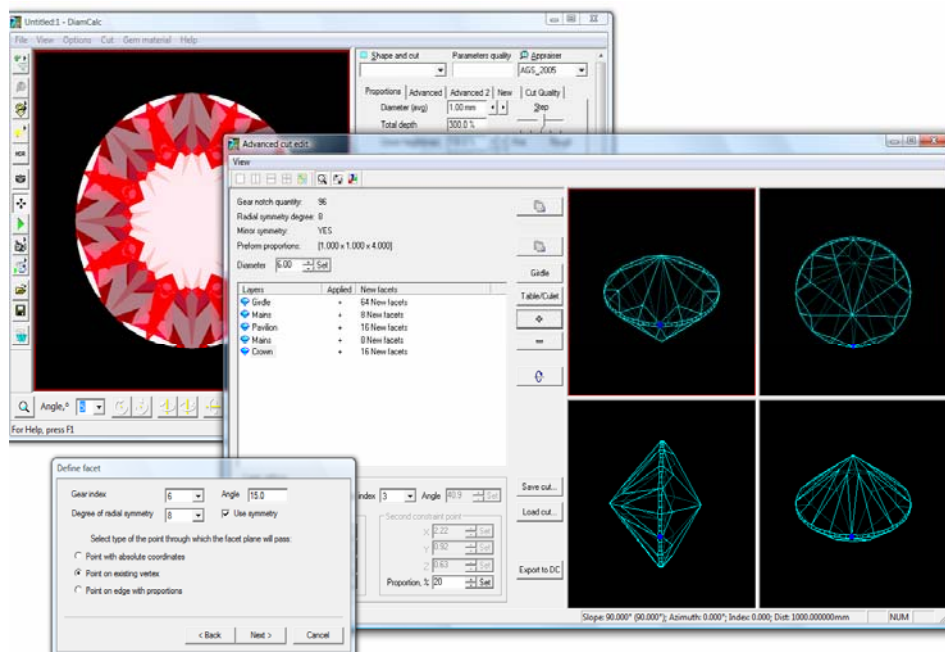


# Creating Cuts with Cut Designer

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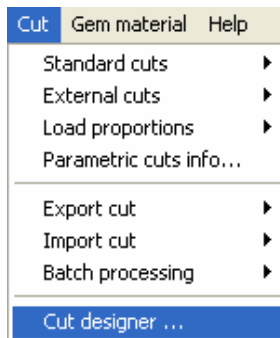
## 1.1 Overview

Cut Designer allows constructing different types of cuts. For companies active in designing special cuts such as many Sightholders, Tiffany and Swarovski, the new cut designer tool enables creation of parametric models with tied proportions; each and parameters can be varied.

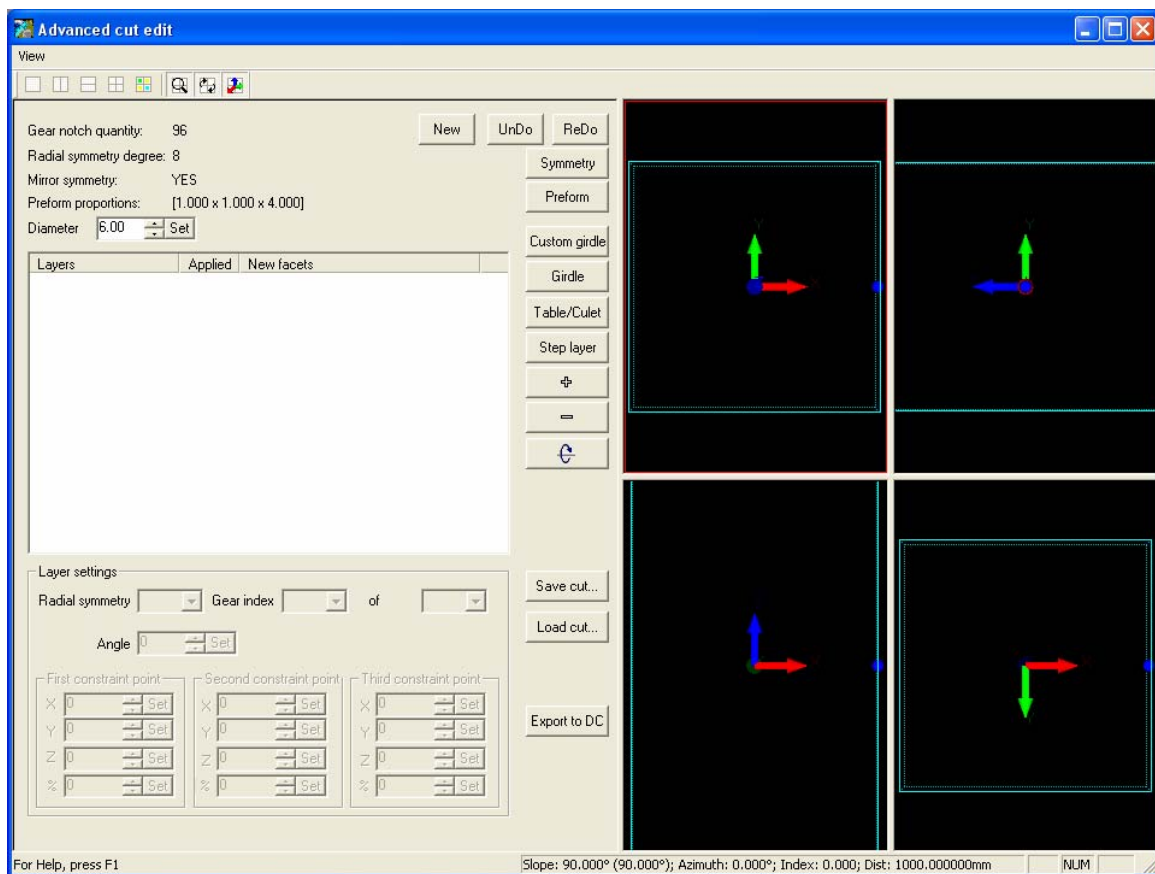


## 1.2 Getting started with Cut Designer

To work with Cut Designer select **Cut designer...** from menu **Cut**:



**Cut designer** appears.







There are cut editor dialog window on the left side and model view on the right side.




The View panel allows switching different types of the model view, changing move and zoom options.



Types of model view:

-  Remove all splits of the model view
-  Split model view in two (vertical)
-  Split model view in two (horizontal)
-  Split model view in four

Move and zoom options:

-  Synchronize zoom factor in all view during changing
-  Rotate all view synchronously
-  Show coordinate system axes in all views

The general settings of cutting

Gear notch quantity:	96
Radial symmetry degree:	8
Mirror symmetry:	YES
Preform proportions:	[1.000 x 1.000 x 4.000]
Diameter	6.00 <input type="button" value="Set"/>

- Gear notch quantity
- Radial symmetry degree
- Mirror symmetry
- Preform proportions
- Diameter

To edit symmetry settings:

- Press button **Symmetry**: 
- Edit **Gear notch quantity**, **Radial symmetry degree** and **Mirror symmetry**

**Edit symmetry settings** ✕

Degree of radial symmetry 8 ▼

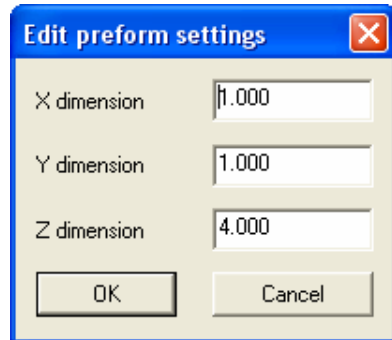
Gear notch quantity 96 ▼

☒ Mirror symmetry



To edit Preform proportions:

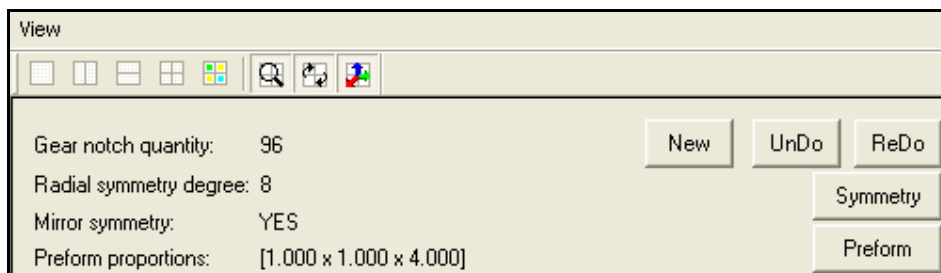
- Press button **Preform**
- Edit **X dimension**, **Y dimension** and **Z dimension**



To build cut use buttons **Custom girdle**, **Girdle**, **Table/Culet**, **Step layer**, **+**, **-** and **Flip**.

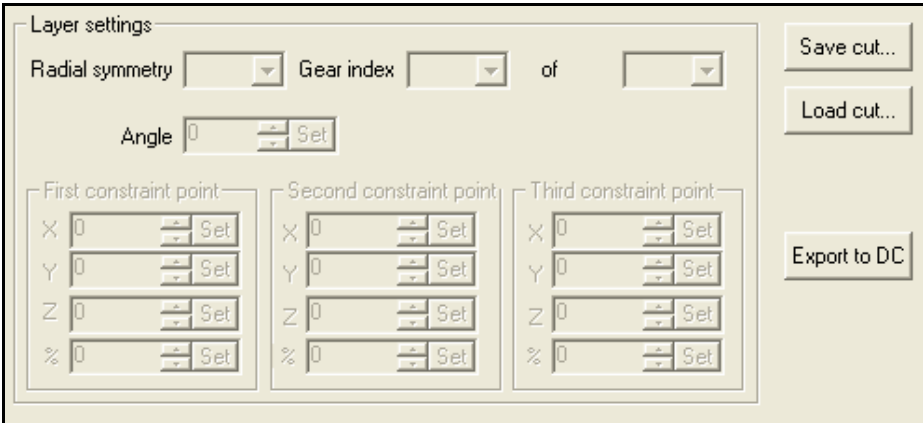


To reset all and create new cut press button **New**





To save and load cuts in XML format press buttons **Save cut...** and **Load cut...**



Button **Export to DC** allows export cut to DiamCalc main window. (See section **Save Cut, Load cut and Export to DC**).

Read the examples of creating *Brilliant*, *Princess*, *Gabrielle* and *Emerald* below.

**1.3 Creating Brilliant cut**

**General settings (as defaults)**

Edit Symmetry Settings:

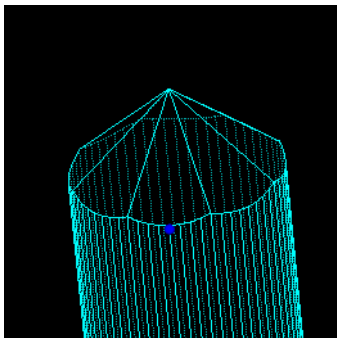
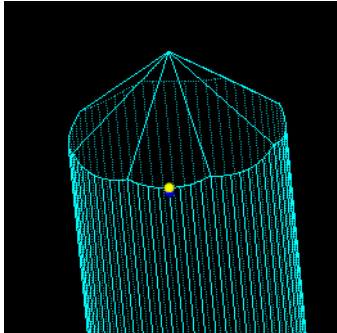
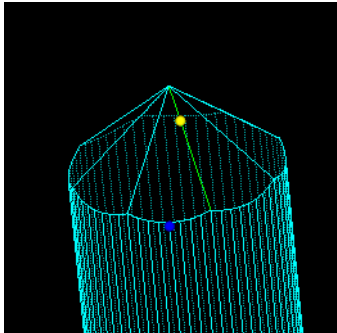
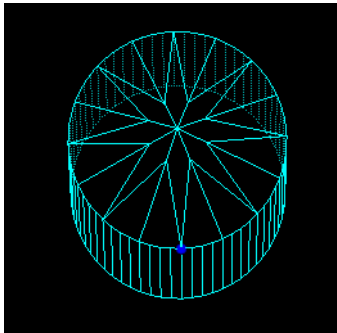
- Degree of radial symmetry: **8**
- Gear notch quantity: **96**
- Mirror symmetry: **YES**

Edit Preform Settings:


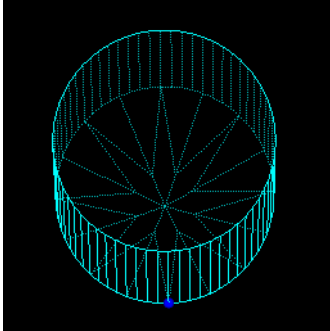

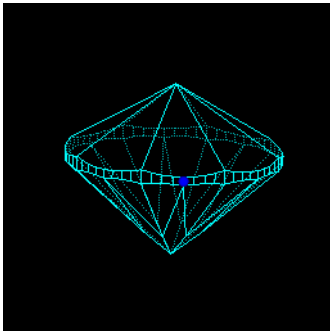

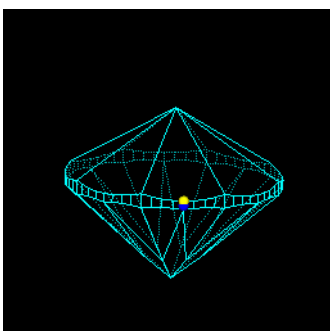
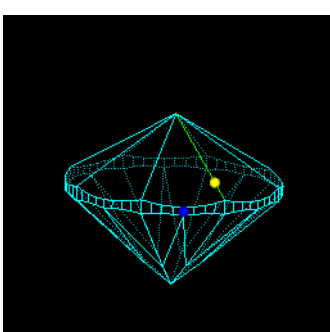
- X dimension: **1**
- Y dimension: **1**
- Z dimension: **4**

**Cutting Steps**

Step		Result
1	<div><div>Girdle</div><ul style="list-style-type: none"><li>• Gear index: <b>1</b></li><li>• Degree of radial symmetry: <b>32</b></li></ul></div>	

2	<div data-bbox="252 246 389 297" data-label="Image"></div> + Mains <ul style="list-style-type: none"> <li>• Gear index: <b>0</b></li> <li>• Angle: <b>41</b></li> <li>• Degree of radial symmetry: <b>8</b></li> </ul>	
3	<div data-bbox="252 613 389 665" data-label="Image"></div> + Facet through two points <ul style="list-style-type: none"> <li>• Gear index: <b>3</b></li> <li>• Degree of radial symmetry: <b>8</b></li> <li>• Use symmetry: <b>YES</b></li> <li>• 1st pt. Point on existing vertex.</li> </ul> Select the vertex marked by blue point. Put on yellow point:	
	<ul style="list-style-type: none"> <li>• 2nd pt. Point on edge with proportions.</li> </ul> Select the edge point marked with yellow (Proportion value is about 70%):	
	Facets are ready:	



4		
5	 + Mains <ul style="list-style-type: none"> <li>• Gear index: <b>0</b></li> <li>• Angle: <b>33</b></li> </ul> Degree of radial symmetry: <b>8</b>	
6	 + Facet through two points <ul style="list-style-type: none"> <li>• Gear index: <b>3</b></li> <li>• Degree of radial symmetry: <b>8</b></li> <li>• Use symmetry: <b>YES</b></li> <li>• 1st pt. Point on existing vertex.</li> </ul> Select the vertex marked by blue point. Put on yellow point:	
	<ul style="list-style-type: none"> <li>• 2nd pt. Point on edge with proportions.</li> </ul> Select the edge point marked with yellow (Proportion value is about 20%):	



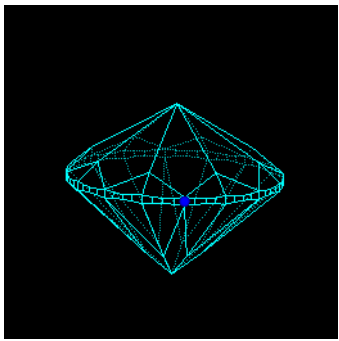
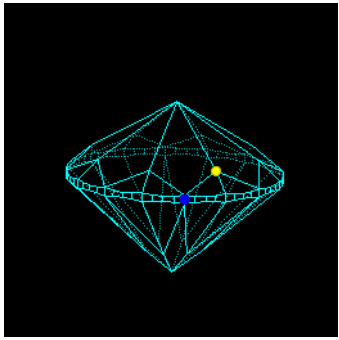
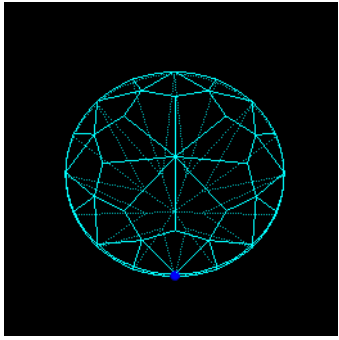
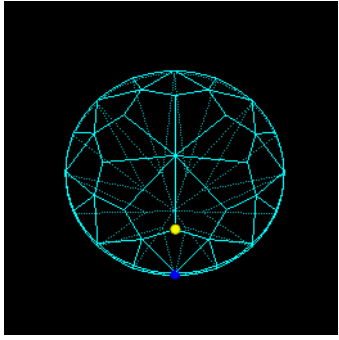
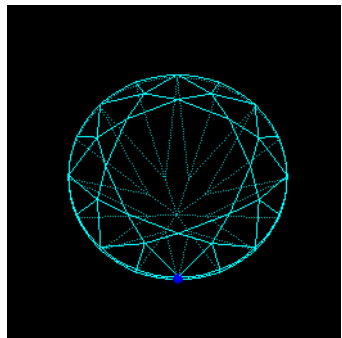
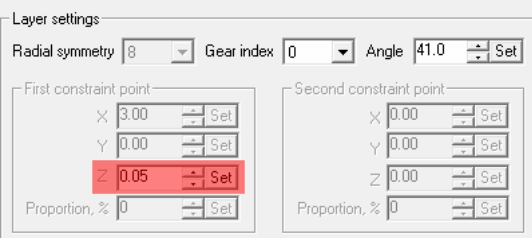
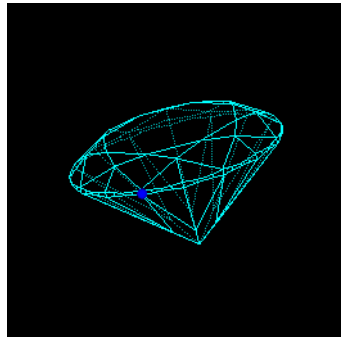
	<p>Facets are ready.</p>	
7	<div><div><div>+</div></div></div> + Facet through one point <ul style="list-style-type: none"><li>• Gear index: <b>6</b></li><li>• Angle: <b>15</b></li><li>• Degree of radial symmetry: <b>8</b></li><li>• Use symmetry: <b>YES</b></li></ul> <p>Point on existing vertex Select the vertex marked with yellow:</p>	
	<p>Facets are ready.</p>	
8	<div><div>Table/Culet</div></div> + Point on existing vertex  Select the vertex marked with yellow:	





	Table is ready.	
9	<p>Return to the 2nd step (Mains, 8 facets) and change Z-coordinate of First constraint point to <b>0.05</b></p> 	

The cut is ready.

## 1.4 Creating Princess cut

### General settings

Edit Symmetry Settings:

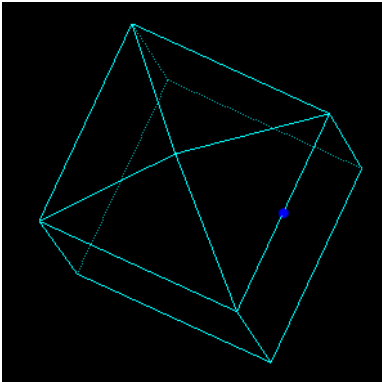
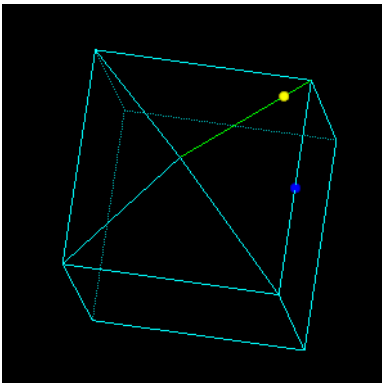
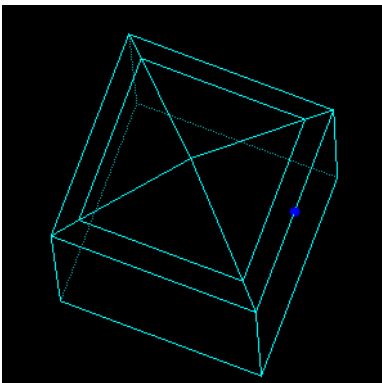
- Degree of radial symmetry: **4**
- Gear notch quantity: **120**
- Mirror symmetry: **YES**

Edit Preform Settings:

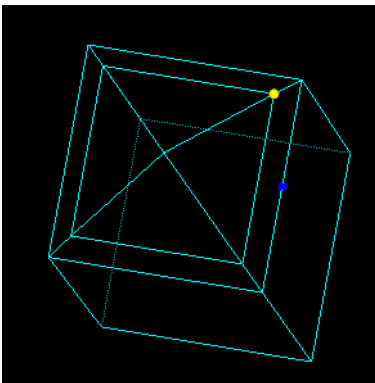
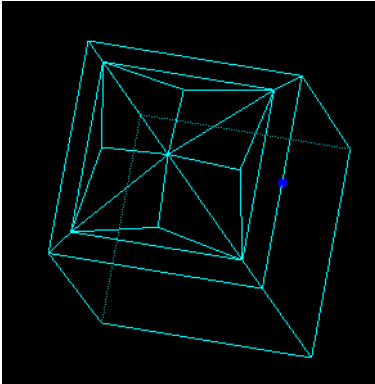
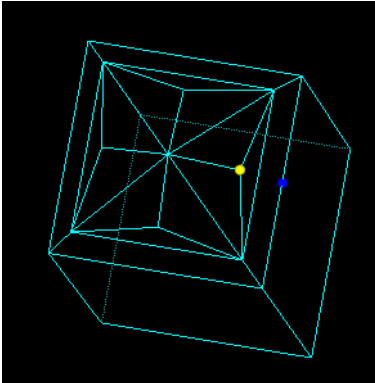
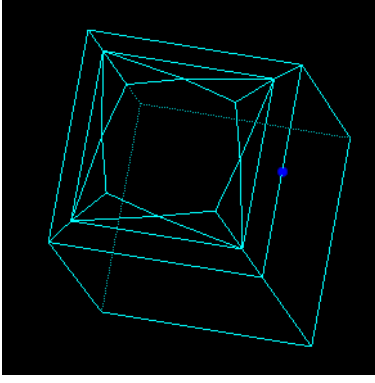
- X dimension: **1**
- Y dimension: **1**
- Z dimension: **4**




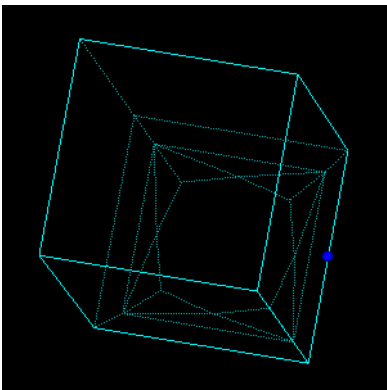

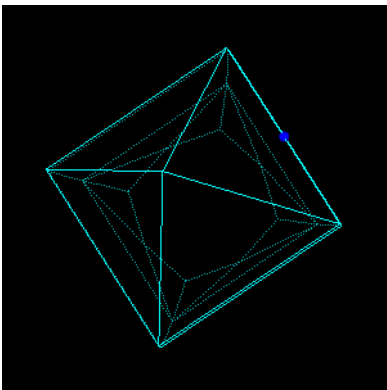

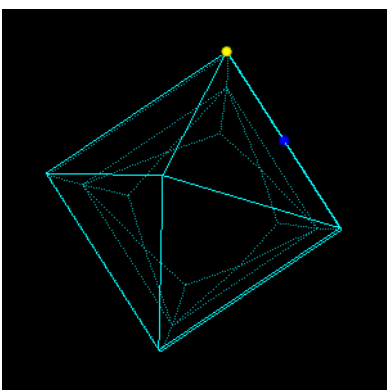
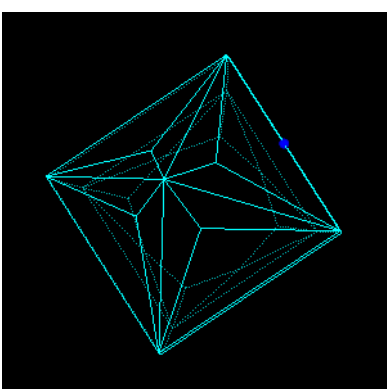
## Cutting Steps

Step	Result
<p>1</p> <div data-bbox="240 421 379 477" style="border: 1px solid black; padding: 2px; display: inline-block;">+</div> + Mains <ul style="list-style-type: none"> <li>• Gear index: <b>0</b></li> <li>• Angle: <b>45</b></li> <li>• Degree of radial symmetry: <b>4</b></li> </ul>	
<p>2</p> <div data-bbox="240 835 379 891" style="border: 1px solid black; padding: 2px; display: inline-block;">+</div> + Facet through one point <ul style="list-style-type: none"> <li>• Gear index: <b>0</b></li> <li>• Angle: <b>40</b></li> <li>• Degree of radial symmetry: <b>4</b></li> <li>• Use symmetry: <b>YES</b></li> <li>• Point on edge with proportions</li> </ul> <p>Select the edge point marked with yellow (Proportion value is about <b>20%</b>):</p>	
<p>Facets are ready.</p>	



3	<div data-bbox="240 241 379 297" data-label="Image"> </div> <div data-bbox="384 264 751 309" data-label="Text"> + Facet through one point </div> <ul data-bbox="288 309 751 521" style="list-style-type: none"> <li>• Gear index: <b>5</b></li> <li>• Angle: <b>20</b></li> <li>• Degree of radial symmetry: <b>4</b></li> <li>• Use symmetry: <b>YES</b></li> <li>• Point on existing vertex</li> </ul> <p data-bbox="240 555 770 600">Select the vertex marked with yellow:</p>	
	<p data-bbox="240 667 475 712">Facets are ready.</p>	
4	<div data-bbox="240 1081 379 1137" data-label="Image"> </div> <div data-bbox="384 1104 751 1149" data-label="Text"> + Point on existing vertex </div> <p data-bbox="240 1182 770 1227">Select the vertex marked with yellow:</p>	
	<p data-bbox="240 1507 448 1552">Table is ready.</p>	



		
5	 + Mains <ul style="list-style-type: none"> <li>• Gear index: <b>0</b></li> <li>• Angle: <b>50</b></li> <li>• Degree of radial symmetry: <b>4</b></li> </ul>	
6	 + Facet through one point <ul style="list-style-type: none"> <li>• Gear index: <b>1</b></li> <li>• Angle: <b>47.5</b></li> <li>• Degree of radial symmetry: <b>4</b></li> <li>• Use symmetry: <b>YES</b></li> <li>• Point on existing vertex</li> </ul> <p>Select the vertex marked with yellow:</p>	
	Facets are ready.	

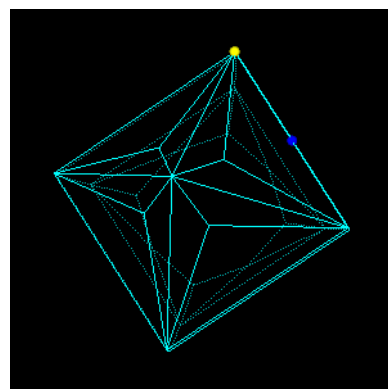
7



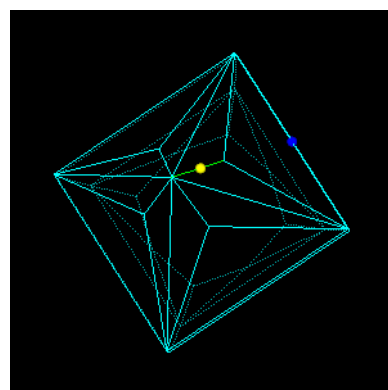
+ Facet through two points

- Gear index: **14**
- Degree of radial symmetry: **4**
- Use symmetry: **YES**
- **1st pt.** Point on existing vertex

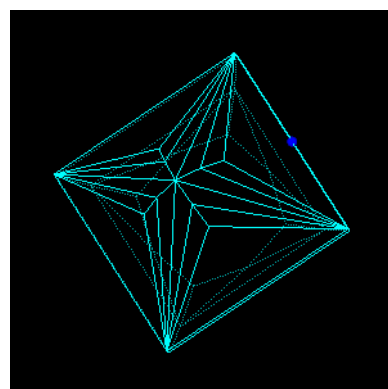
Select the vertex marked with yellow:



- **2nd pt.** Point on edge with proportions

Select the edge point marked with yellow  
(Proportion value is about **45%**):

Facets are ready.



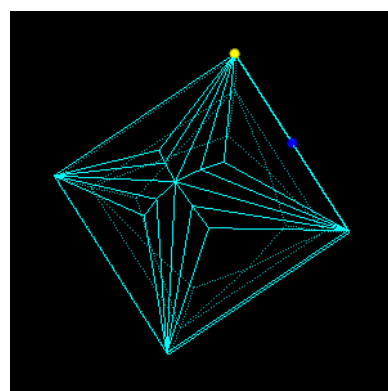
8



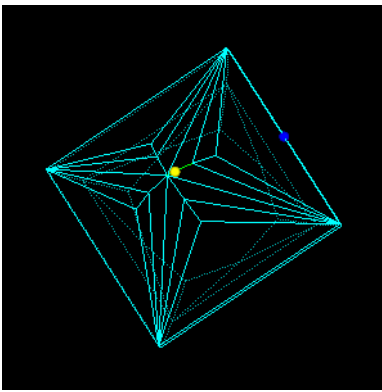
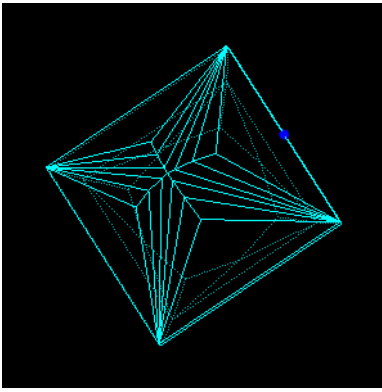
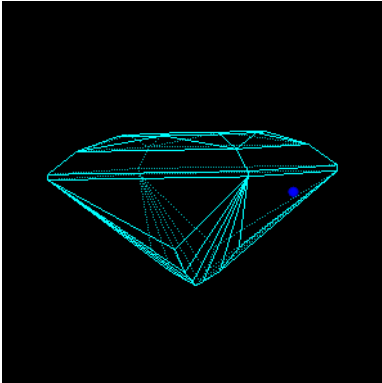
+ Facet through two points

- Gear index: **15**
- Degree of radial symmetry: **4**
- Use symmetry: **YES**
- **1st pt.** Point on existing vertex

Select the vertex marked with yellow:





	<ul style="list-style-type: none"> <li>• <b>2nd pt.</b> Point on edge with proportions</li> </ul> <p>Select the edge point marked with yellow (Proportion value is about <b>70%</b>):</p>	
	<p>Facets are ready.</p>	
9	<p>Z-coordinate fixing: Return to the 1st step (Mains, 4 facets) and change Z-coordinate of First constraint point to <b>-0.65</b>. Return to the 5th step (Mains, 4 facets) and change Z-coordinate of First constraint point to <b>-0.50</b>.</p>	

The cut is ready.



## 1.5 Creating Gabrielle cut. Variant 1

### General settings

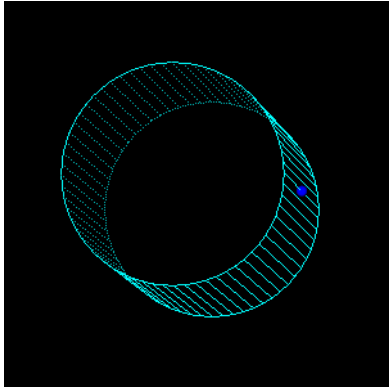
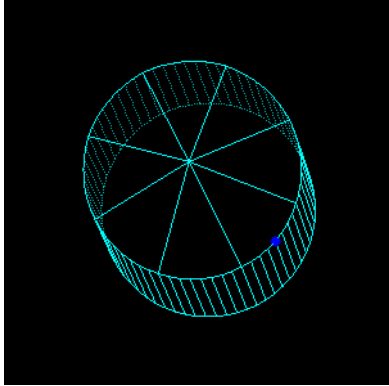
Edit Symmetry Settings:

- Degree of radial symmetry: **8**
- Gear notch quantity: **96**
- Mirror symmetry: **YES**

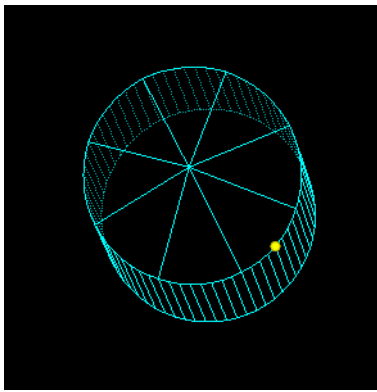
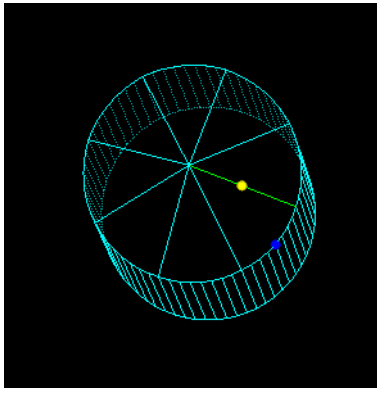
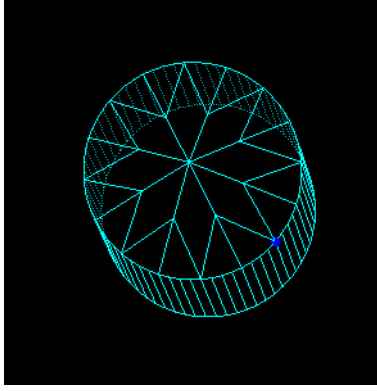
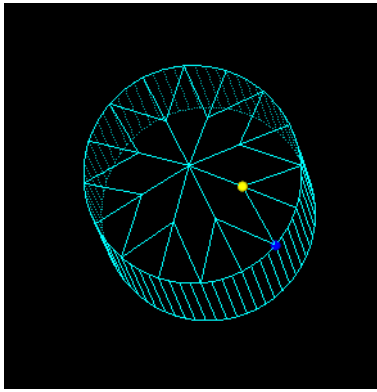
Edit Preform Settings:

- X dimension: **1**
- Y dimension: **1**
- Z dimension: **4**

### Cutting Steps

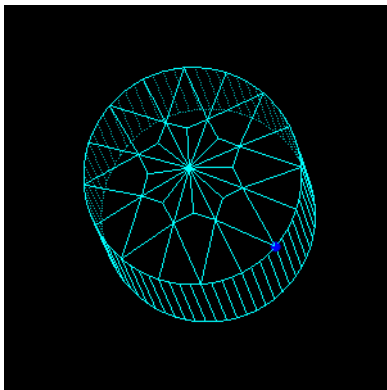
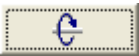
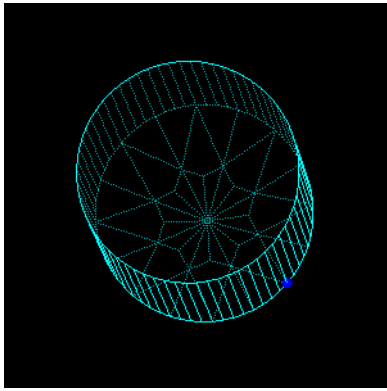

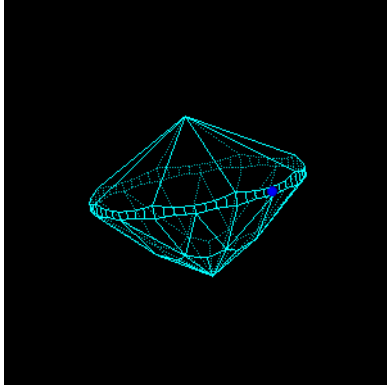

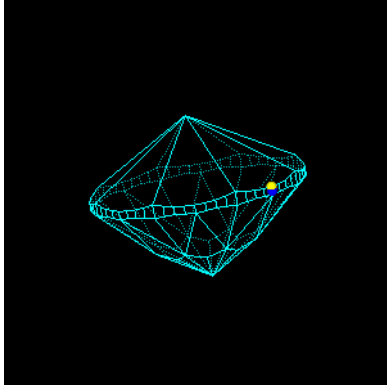
Step	Result
<p>1</p> <div data-bbox="272 976 411 1028" style="border: 1px solid black; padding: 2px; display: inline-block;">Girdle</div> <ul style="list-style-type: none"> <li>• Gear index: <b>1</b></li> <li>• Degree of radial symmetry: <b>32</b></li> </ul>	
<p>2</p> <div data-bbox="272 1393 411 1444" style="border: 1px solid black; padding: 2px; display: inline-block;">+</div> Mains <ul style="list-style-type: none"> <li>• Gear index: <b>0</b></li> <li>• Angle: <b>41</b></li> <li>• Degree of radial symmetry: <b>8</b></li> </ul>	



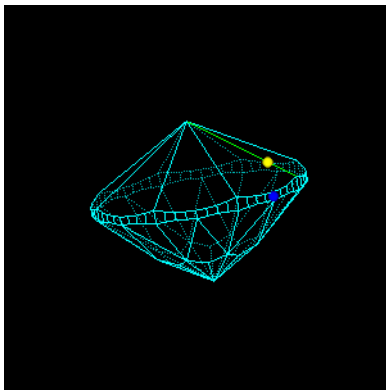
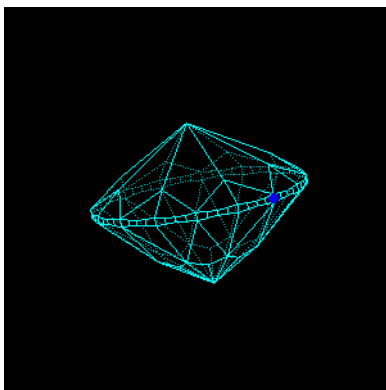
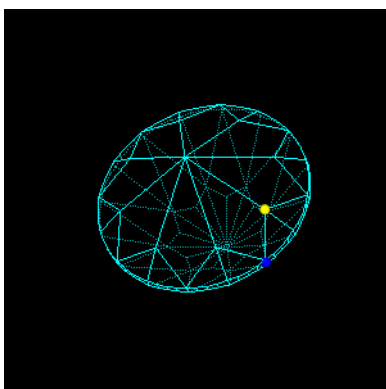
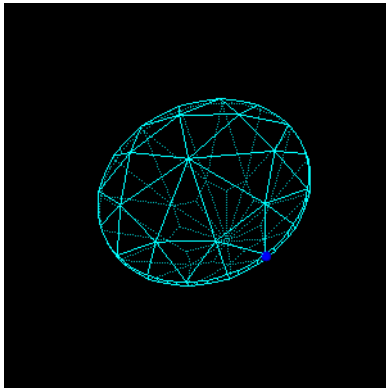
3	<div data-bbox="272 241 408 297" data-label="Image"> </div> + Facet through two points <ul style="list-style-type: none"> <li>• Gear index: <b>3</b></li> <li>• Degree of radial symmetry: <b>8</b></li> <li>• Use symmetry: <b>YES</b></li> <li>• 1st pt. Point on existing vertex</li> </ul> Select the vertex marked with yellow:	
	<b>2nd pt.</b> Point on edge with proportions.  Select the edge point marked with yellow (Proportion value is about <b>50%</b> ):	
	Facets are ready.	
4	<div data-bbox="272 1487 408 1543" data-label="Image"> </div> + Facet through one point <ul style="list-style-type: none"> <li>• Gear index: <b>2</b></li> <li>• Angle: <b>33</b></li> <li>• Degree of radial symmetry: <b>8</b></li> <li>• Use symmetry: <b>YES</b></li> <li>• Point on existing vertex</li> </ul> Select the vertex marked with yellow:	



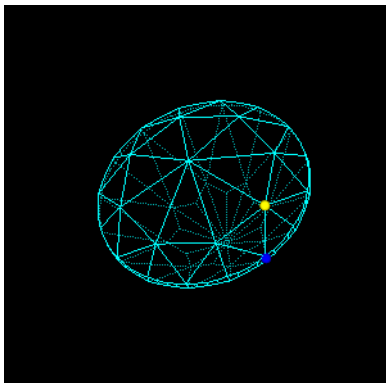
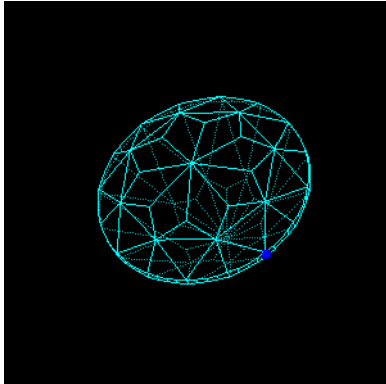
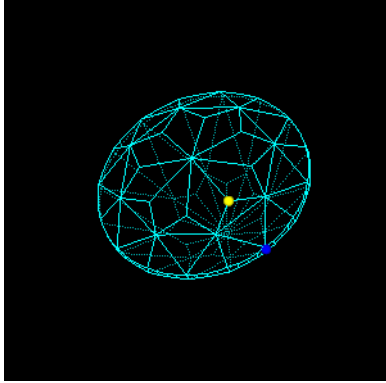
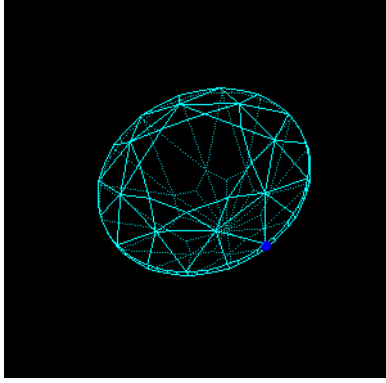


	Facets are ready.	
5		
6	 + Mains <ul style="list-style-type: none"> <li>• Gear index: <b>0</b></li> <li>• Angle: <b>33</b></li> <li>• Degree of radial symmetry: <b>8</b></li> </ul>	
7	 + Facet through two points <ul style="list-style-type: none"> <li>• Gear index: <b>3</b></li> <li>• Degree of radial symmetry: <b>8</b></li> <li>• Use symmetry: <b>YES</b></li> <li>• <b>1st pt.</b> Point on existing vertex</li> </ul> Select the vertex marked with yellow:	

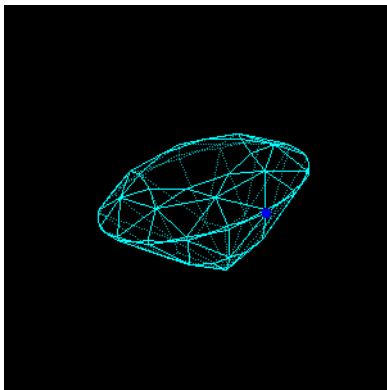


	<ul style="list-style-type: none"> <li>• <b>2nd pt.</b> Point on edge with proportions</li> </ul> <p>Select the edge point marked with yellow (Proportion value is about <b>25%</b>):</p>	
	<p>Facets are ready.</p>	
8	<div data-bbox="268 1070 411 1126" data-label="Image"> </div> <p>+ Facet through one point</p> <ul style="list-style-type: none"> <li>• Gear index: <b>0</b></li> <li>• Angle: <b>25</b></li> <li>• Degree of radial symmetry: <b>8</b></li> <li>• Use symmetry: <b>YES</b></li> <li>• Point on existing vertex</li> </ul> <p>Select the vertex marked with yellow:</p>	
	<p>Facets are ready.</p>	



9	<div data-bbox="272 241 408 293" data-label="Image"> </div> <div data-bbox="416 264 782 304" data-label="Text"> + Facet through one point </div> <ul style="list-style-type: none"> <li>• Gear index: <b>6</b></li> <li>• Angle: <b>16</b></li> <li>• Degree of radial symmetry: <b>8</b></li> <li>• Use symmetry: <b>YES</b></li> <li>• Point on existing vertex</li> </ul> <div data-bbox="272 517 799 557" data-label="Text"> Select the vertex marked with yellow: </div>	
	<div data-bbox="272 660 507 701" data-label="Text"> Facets are ready. </div>	
10	<div data-bbox="272 1079 408 1131" data-label="Image"> </div> <div data-bbox="416 1095 782 1135" data-label="Text"> + Point on existing vertex </div> <div data-bbox="272 1173 799 1214" data-label="Text"> Select the vertex marked with yellow: </div>	
	<div data-bbox="272 1498 478 1538" data-label="Text"> Table is ready. </div>	



11	Return to the 2nd step (Mains, 8 facets) and change Z-coordinate of First constraint point to <b>0.05</b>	
----	---	---

The cut is ready.



## 1.6 Creating Gabrielle cut through three points. Variant 2

This is new way to create Gabrielle cut - **through three points**. One of the main advantage of this method is you need not to know and set Gear indexes and Angles while you create layers of facets.

### General settings

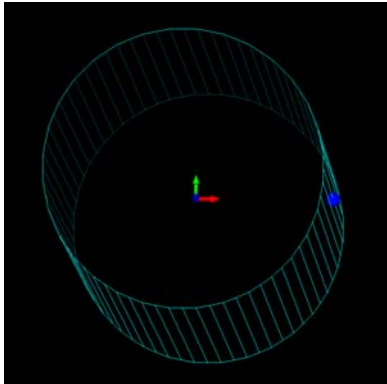
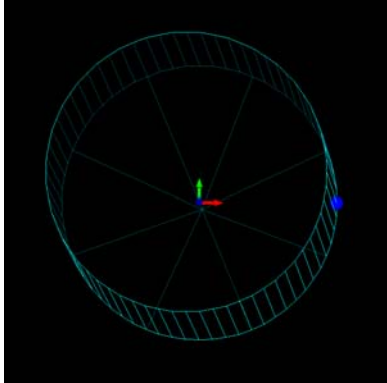
Edit Symmetry Settings:

- Degree of radial symmetry: **8**
- Gear notch quantity: **96**
- Mirror symmetry: **YES**

Edit Preform Settings:

- X dimension: **1**
- Y dimension: **1**
- Z dimension: **4**

### Cutting Steps

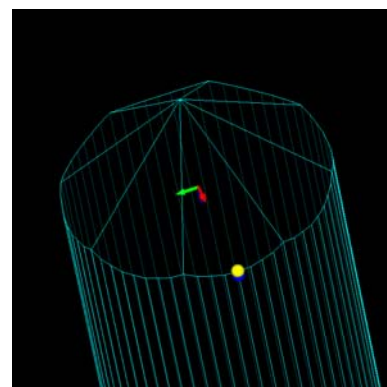
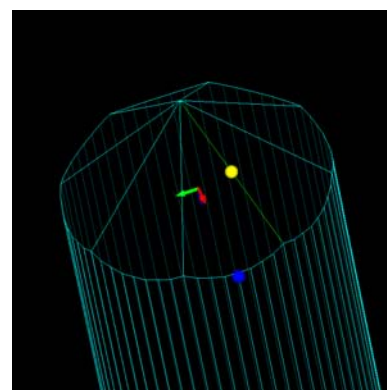
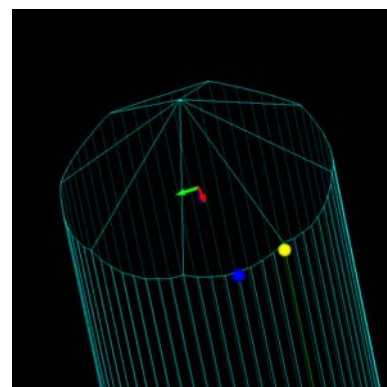
Step	Result
<p>1</p> <div data-bbox="272 1128 408 1182" style="border: 1px solid black; padding: 2px; display: inline-block;">Girdle</div> <ul style="list-style-type: none"> <li>• Gear index: <b>1</b></li> <li>• Degree of radial symmetry: <b>32</b></li> </ul>	
<p>2</p> <div data-bbox="272 1543 408 1597" style="border: 1px solid black; padding: 2px; display: inline-block;">+</div> + Mains <ul style="list-style-type: none"> <li>• Gear index: <b>0</b></li> <li>• Angle: <b>41</b></li> <li>• Degree of radial symmetry: <b>8</b></li> </ul>	

3

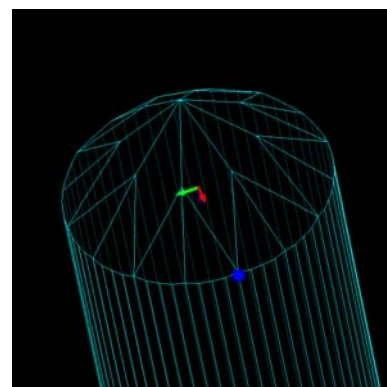
+ **Facet through three points** **new**

- Degree of radial symmetry: **8**
- Use symmetry: **YES**
- Mirror symmetry: **YES**
- **1st pt.** Point on existing vertex

Select the vertex marked with yellow:

**2nd pt.** Point on edge with proportions.Select the edge point marked with yellow  
(Proportion value is about **50%**):**3rd pt.** Point on edge with proportions.Select the edge point marked with yellow  
(Proportion value is about **98%**):

Facets are ready.

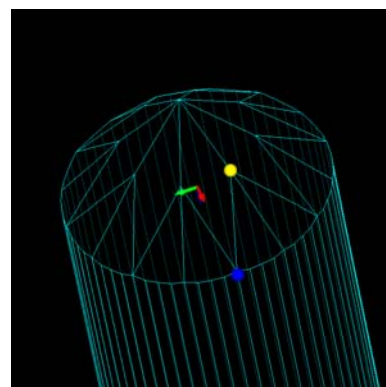


4

+ **Facet through three points** **new**

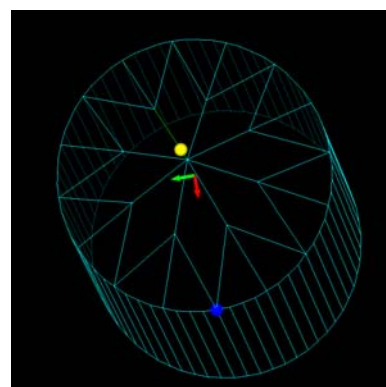
- Degree of radial symmetry: **8**
- Use symmetry: **YES**
- Mirror symmetry: **YES**
- **1st pt.** Point on existing vertex

Select the vertex marked with yellow:



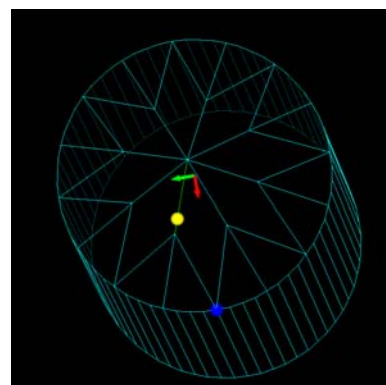
**2nd pt.** Point on edge with proportions.

Select the edge point marked with yellow  
(Proportion value is about **80%**):

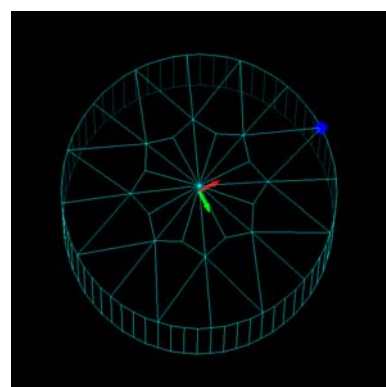


**3rd pt.** Point on edge with proportions.

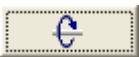
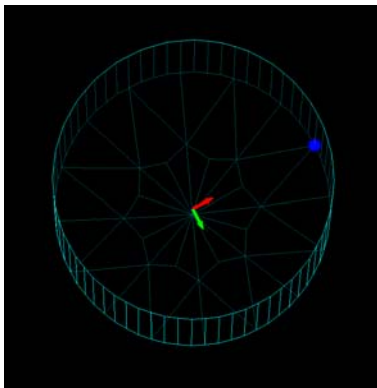

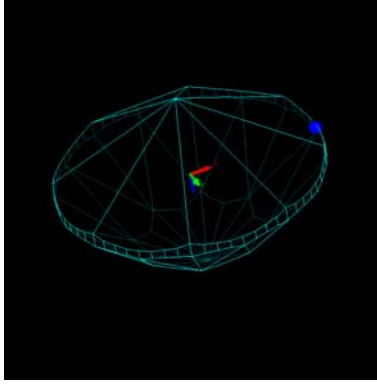
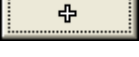
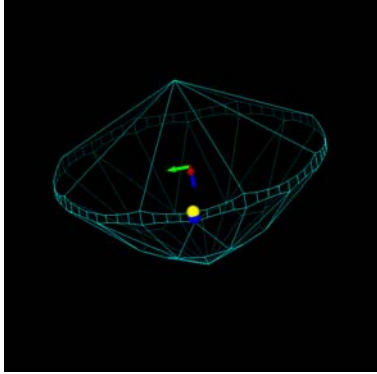
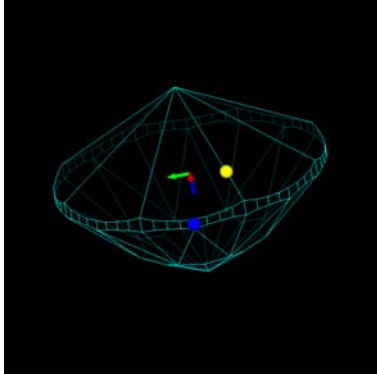
Select the edge point marked with yellow  
(Proportion value is about **20%**):



Facets are ready.







5		
6	 + Mains <ul style="list-style-type: none"> <li>• Gear index: <b>0</b></li> <li>• Angle: <b>33</b></li> <li>• Degree of radial symmetry: <b>8</b></li> </ul>	
7	 + <b>Facet through three points new</b> <ul style="list-style-type: none"> <li>• Degree of radial symmetry: <b>8</b></li> <li>• Use symmetry: <b>YES</b></li> <li>• Mirror symmetry: <b>YES</b></li> <li>• <b>1st pt.</b> Point on existing vertex</li> </ul> <p>Select the vertex marked with yellow:</p>	
	<p><b>2nd pt.</b> Point on edge with proportions</p> <p>Select the edge point marked with yellow (Proportion value is about <b>25%</b>):</p>	



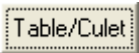


	<p><b>3rd pt.</b> Point on edge with proportions.</p> <p>Select the edge point marked with yellow (Proportion value is about <b>75%</b>):</p>	
	<p>Facets are ready.</p>	
8	<p> + <b>Facet through three points new</b></p> <ul style="list-style-type: none"> <li>• Degree of radial symmetry: <b>8</b></li> <li>• Use symmetry: <b>YES</b></li> <li>• Mirror symmetry: <b>YES</b></li> </ul> <p><b>1st pt.</b> Point on existing vertex</p> <p>Select the vertex marked with yellow:</p>	
	<p><b>2nd pt.</b> Point on edge with proportions</p> <p>Select the edge point marked with yellow (Proportion value is about <b>25%</b>):</p>	



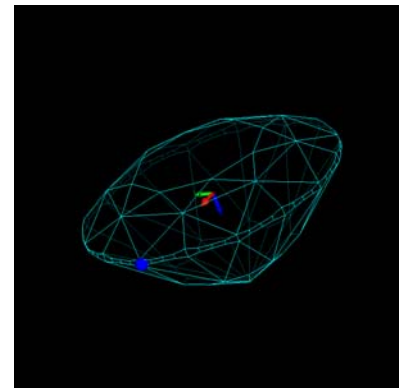
	<p><b>3rd pt.</b> Point on edge with proportions.</p> <p>Select the edge point marked with yellow (Proportion value is about <b>85%</b>):</p>	
	<p>Facets are ready.</p>	
9	<p> ++ <b>Facet through three points new</b></p> <ul style="list-style-type: none"> <li>• Degree of radial symmetry: <b>8</b></li> <li>• Use symmetry: <b>YES</b></li> <li>• Mirror symmetry: <b>NO</b></li> </ul> <p><b>1st pt.</b> Point on existing vertex</p> <p>Select the vertex marked with yellow:</p>	
	<p><b>2nd pt.</b> Point on edge with proportions</p> <p>Select the edge point marked with yellow (Proportion value is about <b>40%</b>):</p>	



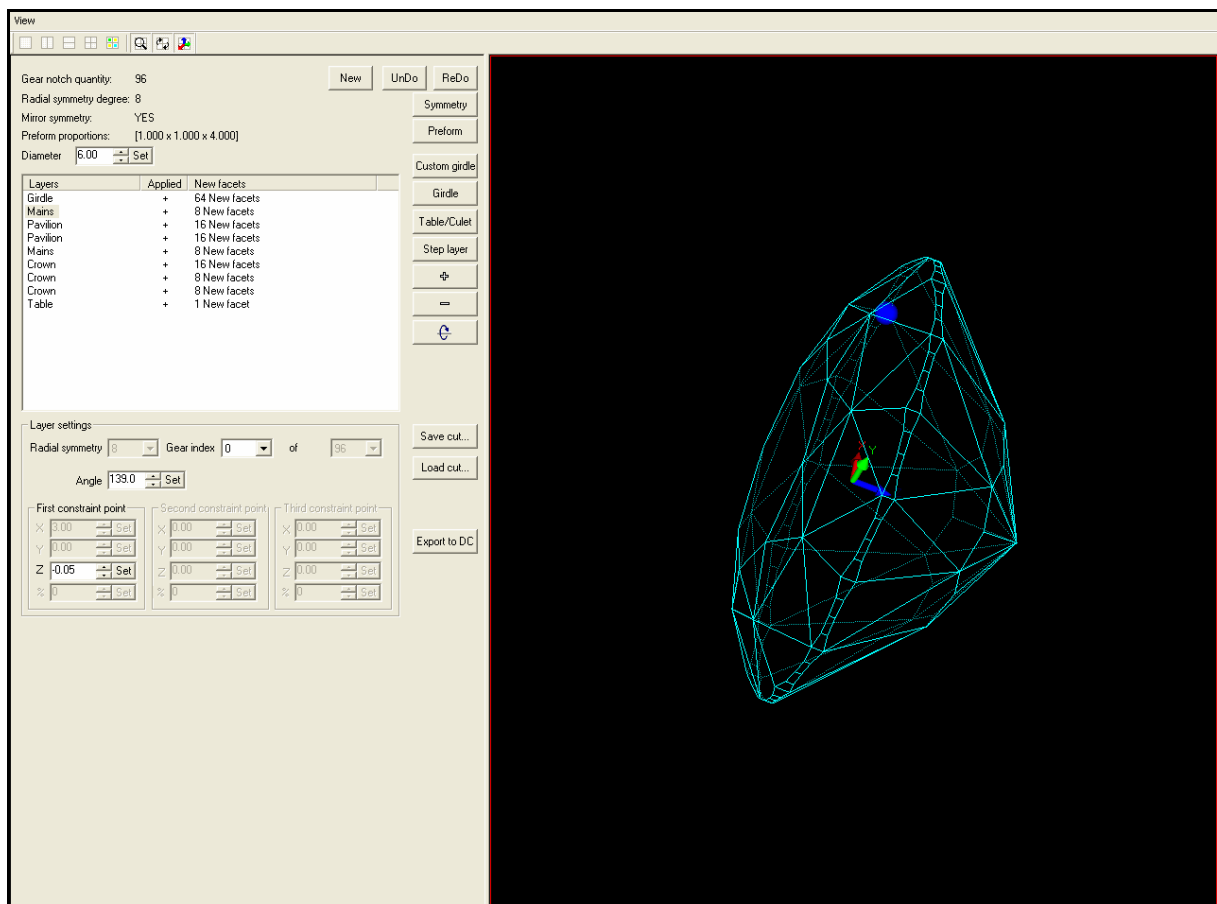
	<p><b>3rd pt.</b> Point on edge with proportions.</p> <p>Select the edge point marked with yellow (Proportion value is about <b>40%</b>):</p>	
	<p>Facets are ready.</p>	
10	<p> + Point on existing vertex</p> <p>Select the vertex marked with yellow:</p>	
	<p>Table is ready.</p>	

11

Return to the 2nd step (Mains, 8 facets) and change Z-coordinate of First constraint point to **-0.05**



The cut is ready.





## 1.7 Creating Emerald cut

### General settings


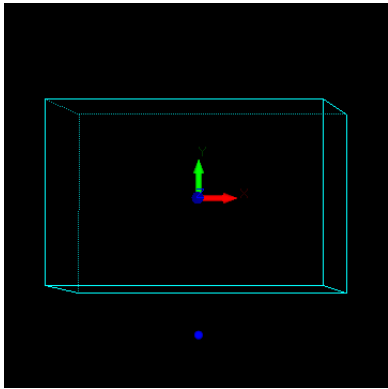
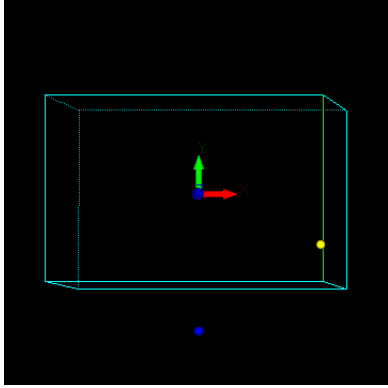
Edit Symmetry Settings:

- Degree of radial symmetry: **2**
- Gear notch quantity: **96**
- Mirror symmetry: **YES**

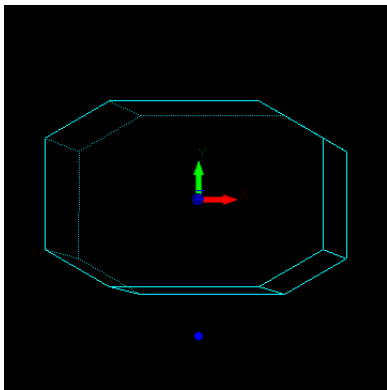
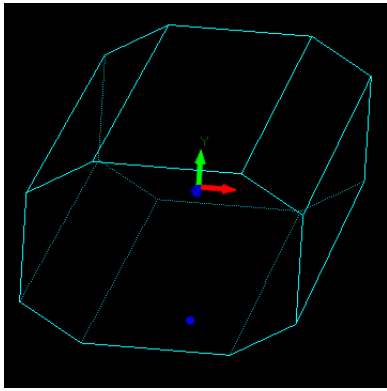
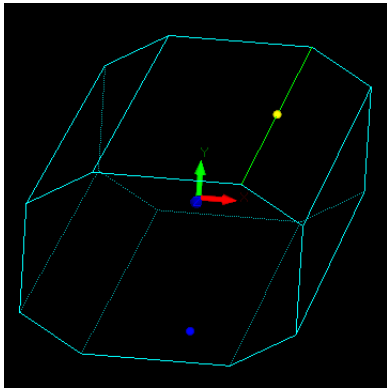
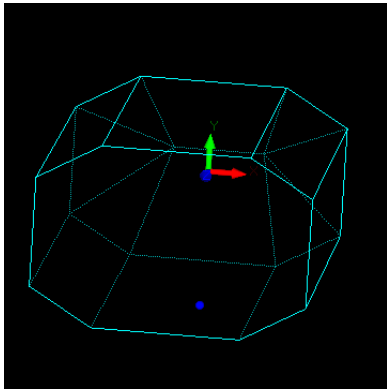
Edit Preform Settings:

- X dimension: **1.5**
- Y dimension: **1**
- Z dimension: **4**

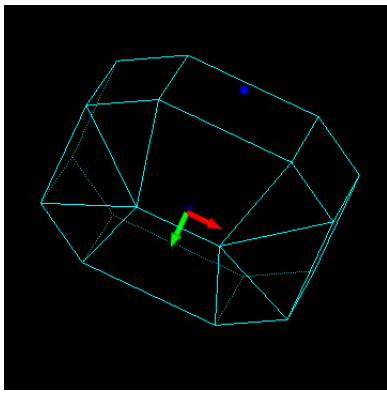
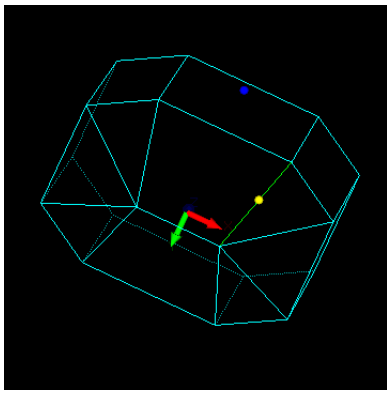
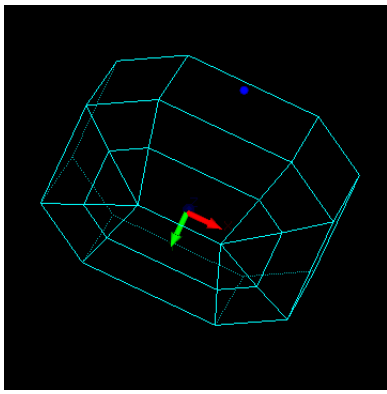
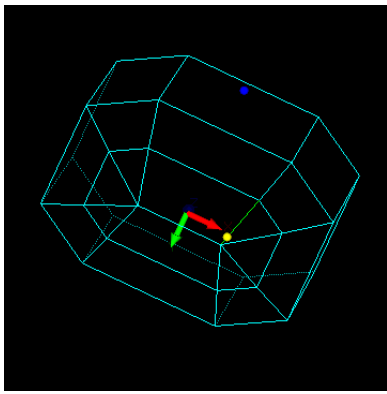
### Cutting Steps

Step	Result
<p>1  + Facet through one point</p> <ul style="list-style-type: none"> <li>• Gear index: <b>16</b></li> <li>• Angle: <b>90</b></li> <li>• Degree of radial symmetry: <b>2</b></li> <li>• Use symmetry: <b>YES</b></li> <li>• Point on edge with proportions</li> </ul>	
<p><b>1st pt.</b> Point on edge with proportions.</p> <p>Select the edge point marked with yellow (Proportion value is about <b>80%</b>):</p>	

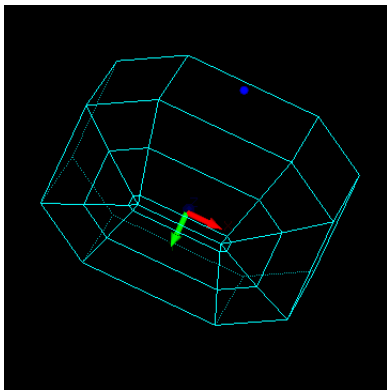
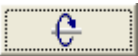
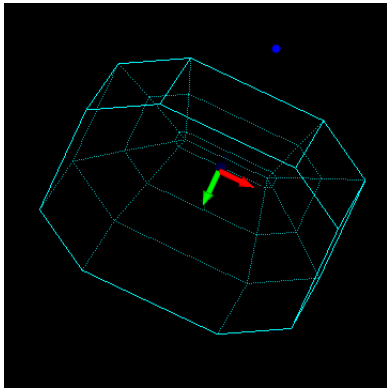
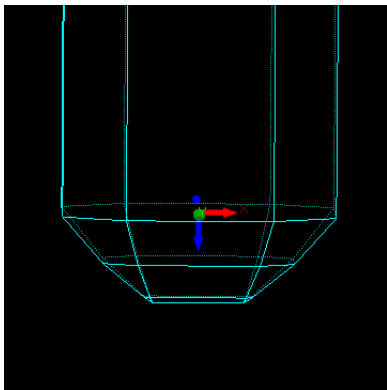
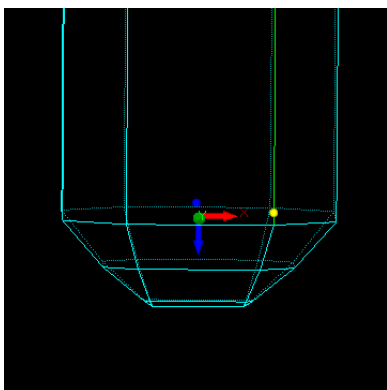


	Facets are ready.	
2	<div>Step layer</div> <ul style="list-style-type: none"> <li>Angle: <b>50</b></li> <li>Point on edge with proportions</li> </ul>	
	<p><b>1nd pt.</b> Point on edge with proportions.</p> <p>Select the edge point marked with yellow (Proportion value is about <b>50%</b>):</p>	
	Facets are ready.	



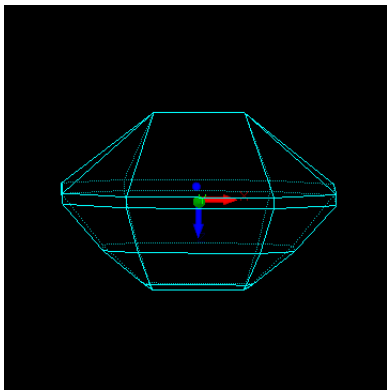
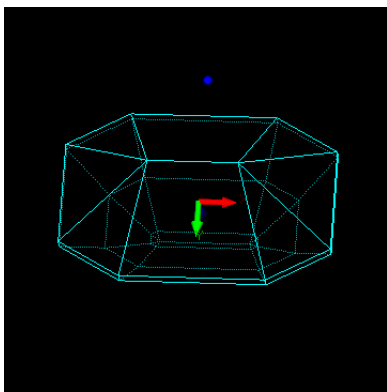
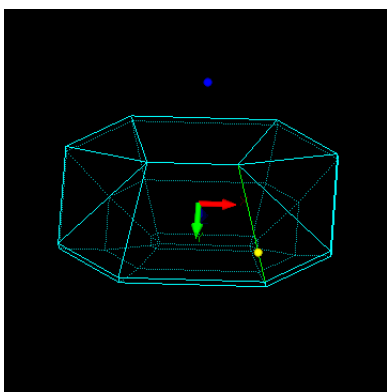
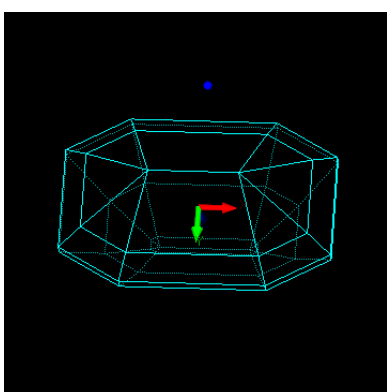
3	<div data-bbox="272 248 408 297" data-label="Section-Header">Step layer</div> <ul style="list-style-type: none"> <li>• Angle: <b>41</b></li> <li>• Point on edge with proportions</li> </ul>	
	<p><b>1nd pt.</b> Point on edge with proportions.</p> <p>Select the edge point marked with yellow (Proportion value is about <b>45%</b>):</p>	
	<p>Facets are ready.</p>	
4	<div data-bbox="272 1491 408 1541" data-label="Section-Header">Step layer</div> <ul style="list-style-type: none"> <li>• Angle: <b>36</b></li> <li>• Point on edge with proportions</li> </ul> <p><b>1nd pt.</b> Point on edge with proportions.</p> <p>Select the edge point marked with yellow (Proportion value is about <b>83%</b>):</p>	



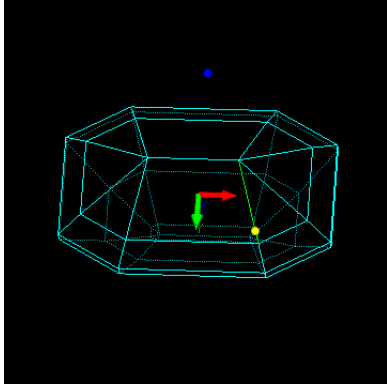
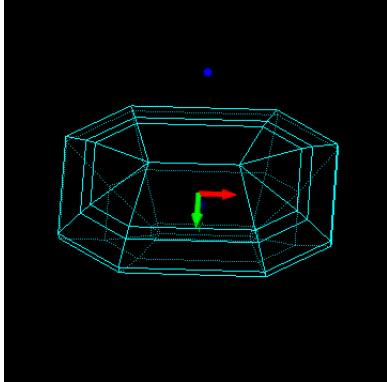
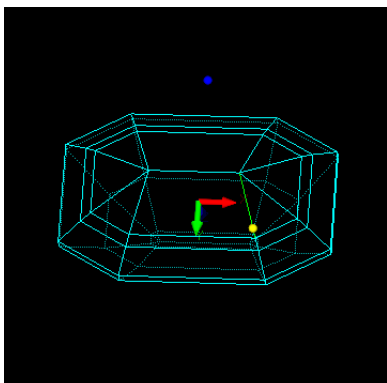
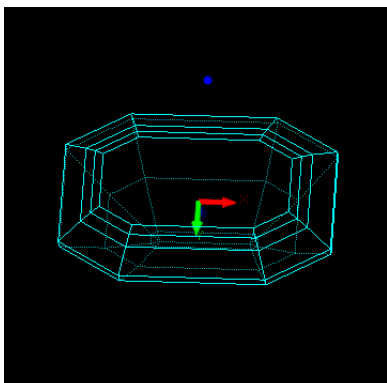
	Facets are ready.	
5		
6	<div>Step layer</div> <ul style="list-style-type: none"> <li>• Angle: <b>40</b></li> <li>• Point on edge with proportions</li> </ul>	
	<p><b>1nd pt.</b> Point on edge with proportions.</p> <p>Select the edge point marked with yellow (Proportion value is about <b>3%</b>):</p>	





	Facets are ready.	
7	<div>Step layer</div> <ul style="list-style-type: none"> <li>Angle: <b>35</b></li> <li>Point on edge with proportions</li> </ul>	
	<p><b>1nd pt.</b> Point on edge with proportions.</p> <p>Select the edge point marked with yellow (Proportion value is about <b>25%</b>):</p>	
	Facets are ready.	



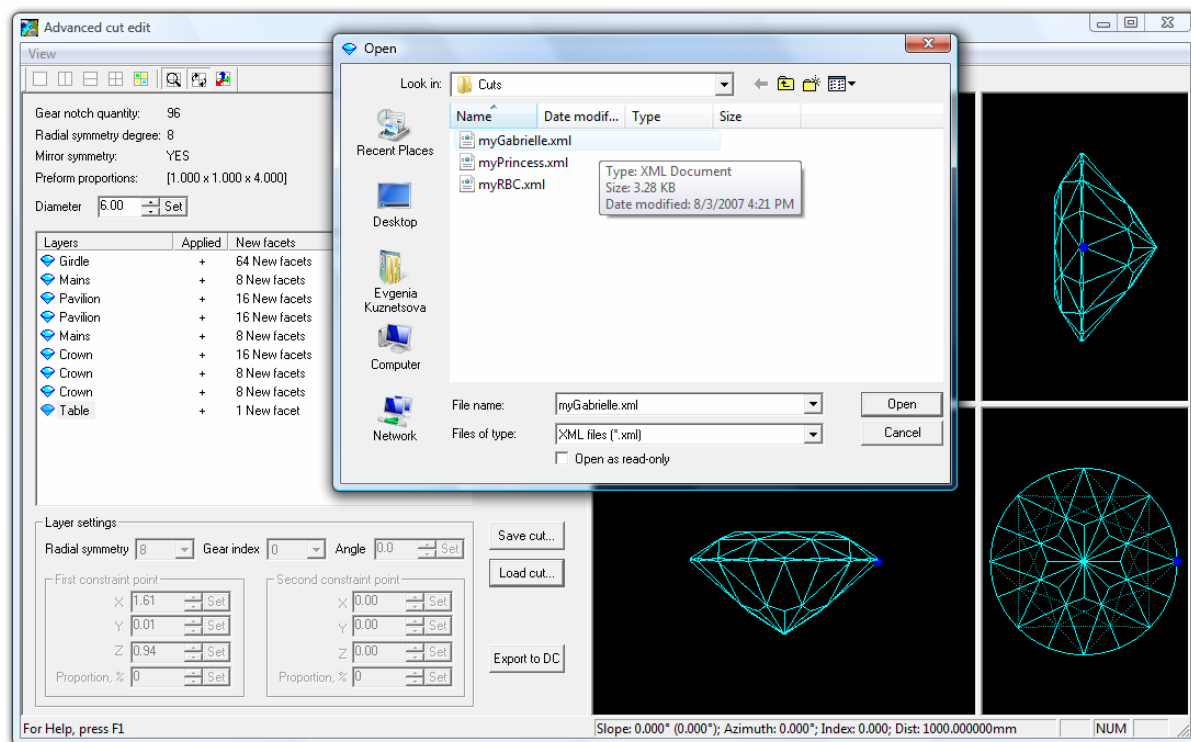
8	<div data-bbox="272 286 408 338" data-label="Text">Step layer</div> <ul style="list-style-type: none"> <li>• Angle: <b>26</b></li> <li>• Point on edge with proportions</li> </ul> <div data-bbox="272 495 826 533" data-label="Text"><b>1nd pt.</b> Point on edge with proportions.</div> <div data-bbox="272 573 1007 651" data-label="Text">Select the edge point marked with yellow (Proportion value is about <b>15%</b>):</div> <div data-bbox="272 701 507 739" data-label="Text">Facets are ready.</div>	 
9	<div data-bbox="272 1115 408 1167" data-label="Text">Table/Culet</div> + Point on edge with proportions <div data-bbox="272 1216 858 1254" data-label="Text">Select the edge point marked with yellow:</div> <div data-bbox="272 1529 478 1568" data-label="Text">Table is ready.</div>	 

The cut is ready.

## 1.8 Save cut, load cut and export to DC

Cut Designer allows to save, load and export to DC created cuts.

- To save cut in XML format press button Save cut..
- To open cut in XML format press button Load cut..

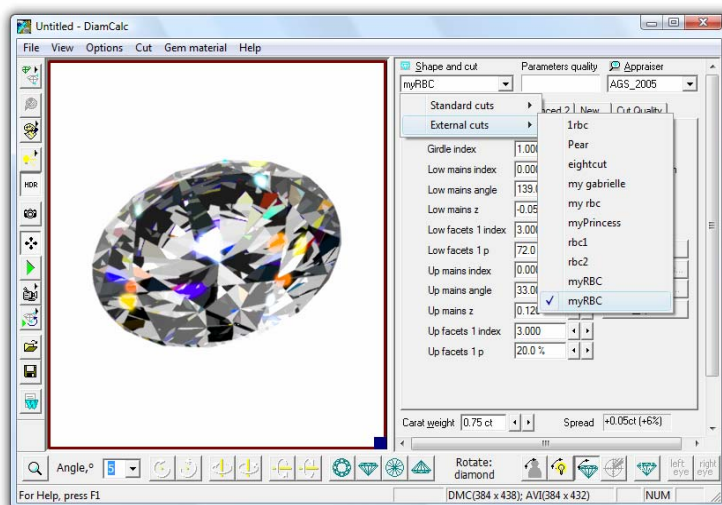


To export cut to DiamCalc:

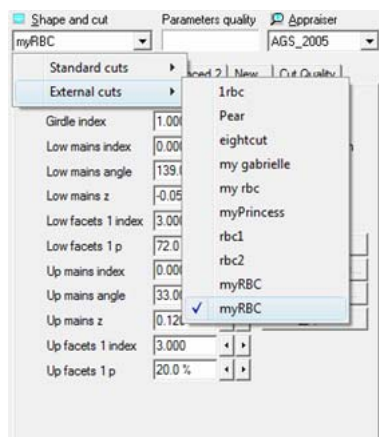
- Press button Export to DC
- Type a name for new cut and press Ok



- Explore your cut in DiamCalc main window



- Find your cut in the external cut list



If you need to get addition information about cuts open panel **Parametric cuts info** from menu **Cut / Parametric cuts info**. See Visible cut name, Cut name for appraiser, ID and Module name.

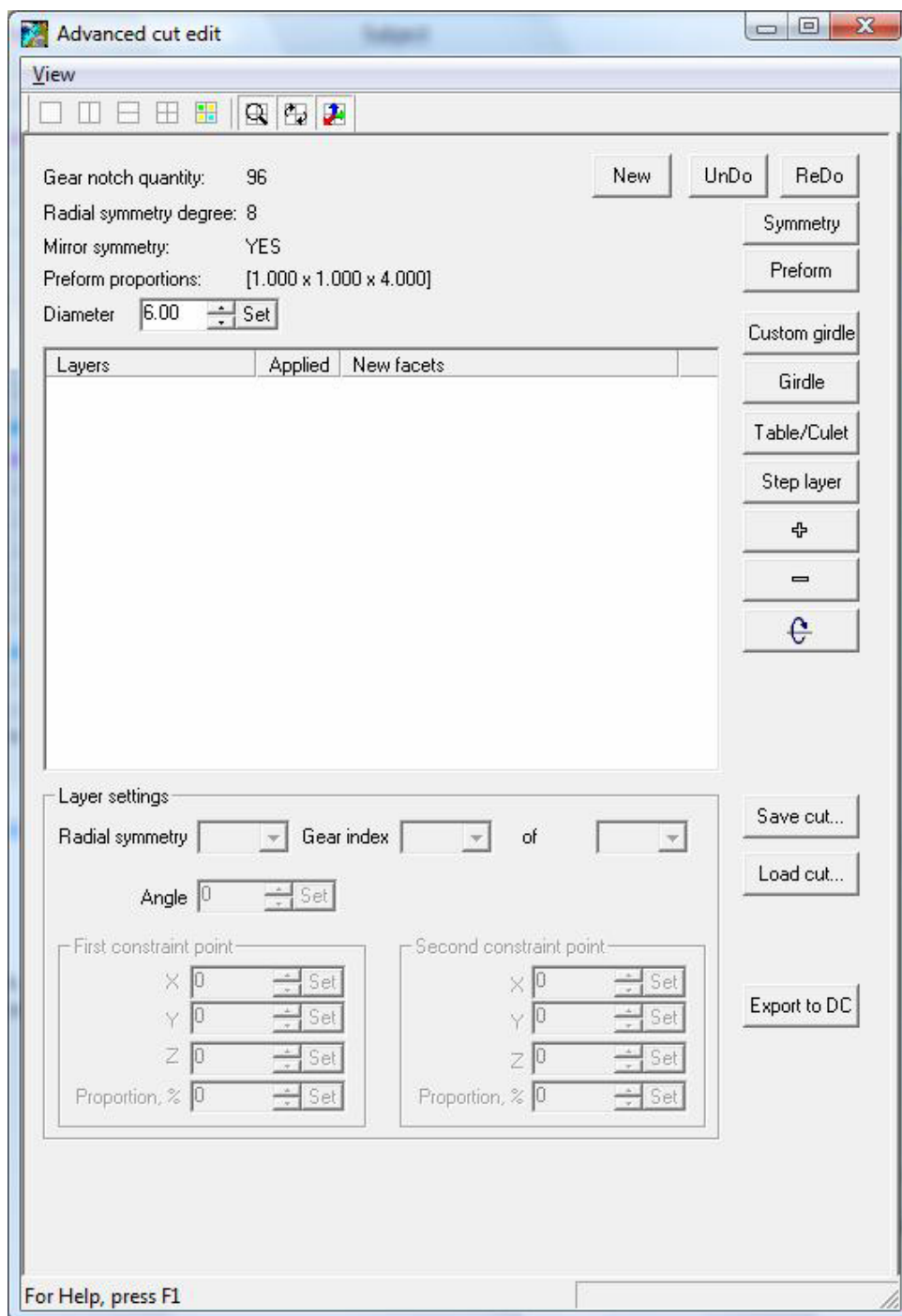
Parametric cuts info					
Visible cut name	Cut name for appraiser	ID	Module name		Choose cut
Heart	Heart	{C3A527D4-1198-4CEF-BD65-824429DDCF8C}	DiamCalc.exe		Cancel
Marquise	Marquise	{FE6BC6ED-1C29-11D4-8C66-00105A711E33}	DiamCalc.exe		
Oval	Oval	{FE6BC6EE-1C29-11D4-8C66-00105A711E33}	DiamCalc.exe		
Pear	Pear	{FE6BC6EF-1C29-11D4-8C66-00105A711E33}	DiamCalc.exe		
Princess 2-chevron	Prince	{FE6BC6F0-1C29-11D4-8C66-00105A711E33}	DiamCalc.exe		
Princess 3-chevron	Princess 3s	{7E9CA5C6-ACCD-4851-B39A-2BA1AB105C78}	DiamCalc.exe		
Prism	Prism	{0984E6B1-FA0A-4DCD-9B0F-26342A574E60}	DiamCalc.exe		
Radiant	Radiant	{6C2C8945-8300-433E-A197-E139E94E5BCE}	DiamCalc.exe		
Marquise_wBT.P...	Marquise_wBT.P24C32	{B128D821-71B9-46C8-A6FE-C6E6D19E0DD2}	MarquiseWBT_P24C...		
MoonMarquise.P...	MoonMarquise.P34C32	{06C6CD36-2318-4E24-B885-42A18B0BE444}	MoonMarquise_P34...		
MoonMarquise.P...	MoonMarquise.P36C32	{80A4B5F6-9EBB-4BD2-9FA8-98F413EB0B33}	MoonMarquise_P36...		
MoonMarquise...	MoonMarquise_wBT.P...	{EA7BE78E-20B2-47F6-89C1-A7CF243999E6}	MoonMarquiseWBT...		
MoonMarquise...	MoonMarquise_wBT.P...	{EF87513E-480B-41AF-B15A-362DA2950272}	MoonMarquiseWBT...		
MoonOval.P36C32	MoonOval.P36C32	{F1E2BCCA-181F-450C-B8A2-4E88A9D4D962}	MoonOval_P36C32.dll		
MoonOval_wBT....	MoonOval_wBT.P36C32	{41644482-C736-4E9B-9489-36E27E1D0663}	MoonOvalWBT_P36...		
MoonPear_wBT....	MoonPear_wBT.P32C32	{15D55151-28DA-4782-9EC1-E2903F2464DF}	MoonPearWBT_P32...		
MoonPear_wBT....	MoonPear_wBT.P36C32	{B86B970A-4790-47C8-94EC-7397D95A4E10}	MoonPearWBT_P36...		
MoonPear_wBT....	MoonPear_wBT.P36C32	{465FADDC-6A40-485C-984F-857C9C58C8E0}	MoonPearWBT_P36...		
Octagon-Emeral...	Octagon-Emerald.P32...	{F091487A-9FDF-4E8C-AB6E-61E455A76DF9}	OctagonEmerald_P...		
Octagon.P32C24	Octagon.P32C24	{B300D832-4AA8-4402-B587-89D6744526FA}	Octagon_P32C24.dll		
Oval_wBT.P24C32	Oval_wBT.P24C32	{CD9C989B-82D0-4583-B6CE-53E912233536}	OvalWBT_P24C32.dll		
Pear	Pear	{FE6BC6E2-1C29-11D4-8C66-00105A711E33}	Pear.dll		
Pear_wBT.P24C32	Pear_wBT.P24C32	{C3C1A347-D4B9-490C-A469-7852D53915FE}	PearWBT_P24C32.dll		
Radiant P28C24	Radiant P28C24	{C2E71C02-3CEB-4E4A-9F49-0AE0D4F3C184}	Radiant_P28C24.dll		
myPrincess	myPrincess	{EE94B57C-564F-453B-BC12-99D5722BD20E}	GingemaUser.dll		

## 1.9 Creating custom girdle

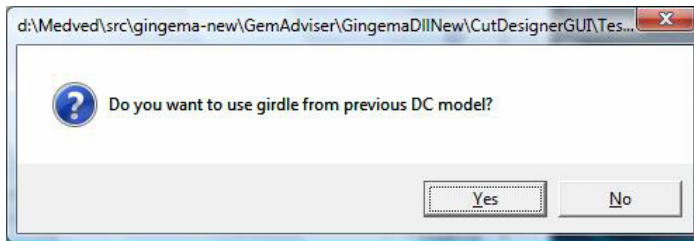
This feature allows creating various shapes of girdle for user choice.

To create custom girdle:

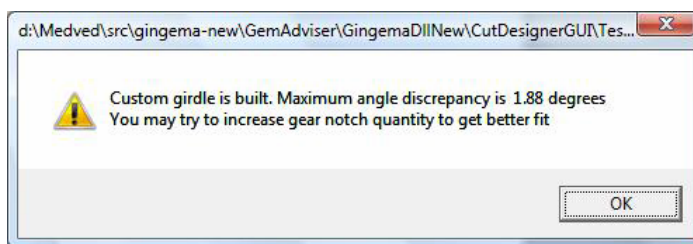
- Press button **Custom Girdle**



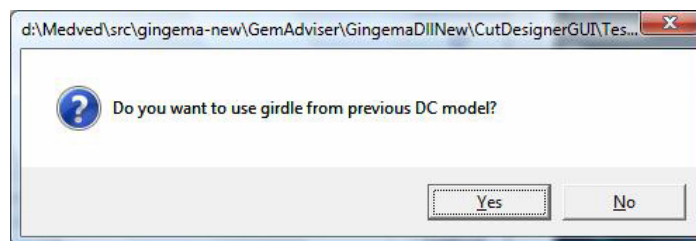
- In case some scanned model is loaded in DC before launching CutDesigner, the dialog window appears:



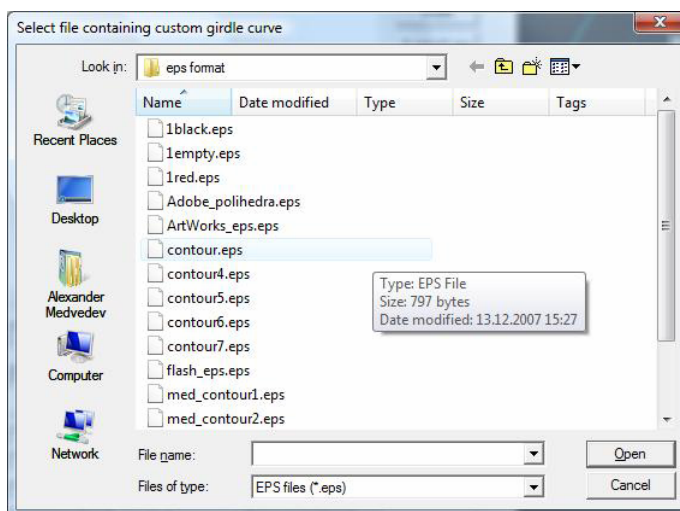
- To use girdle from previous DC model press button **Yes**
- The alert window appears.



- Press **OK**
- To use some custom girdle from EPS file press button **No**



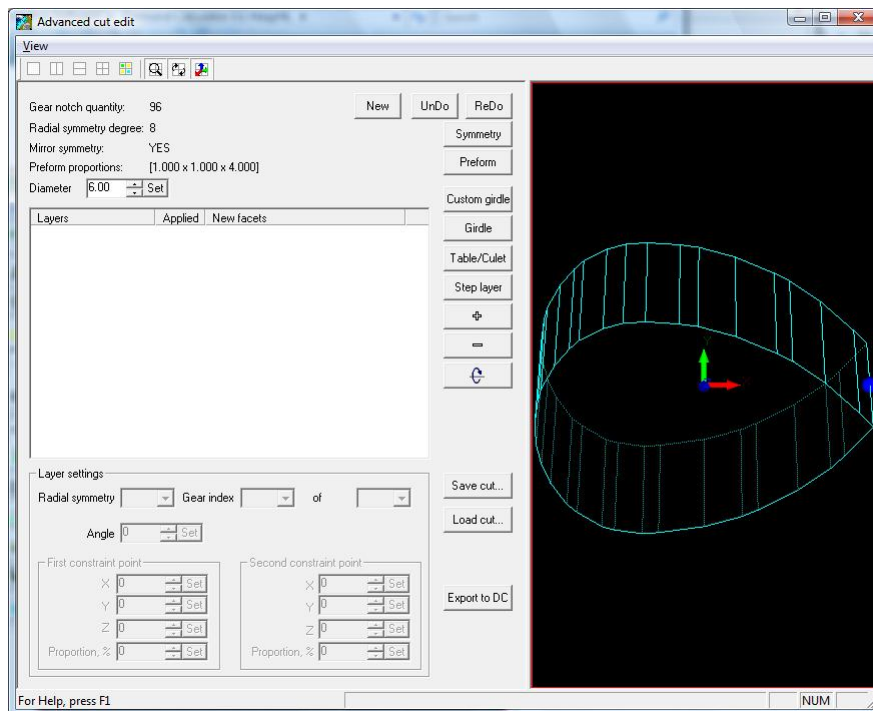
- Select **EPS** file with girdle shape and press button **Open**



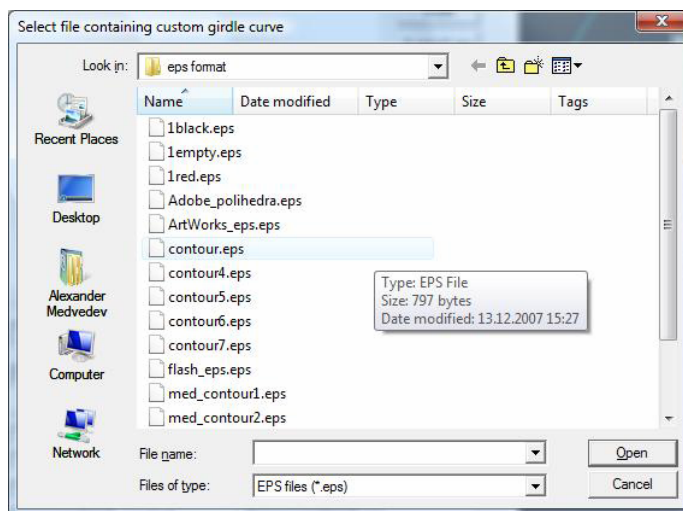
- Press **OK** in the alert window.



- The Girdle shape is ready

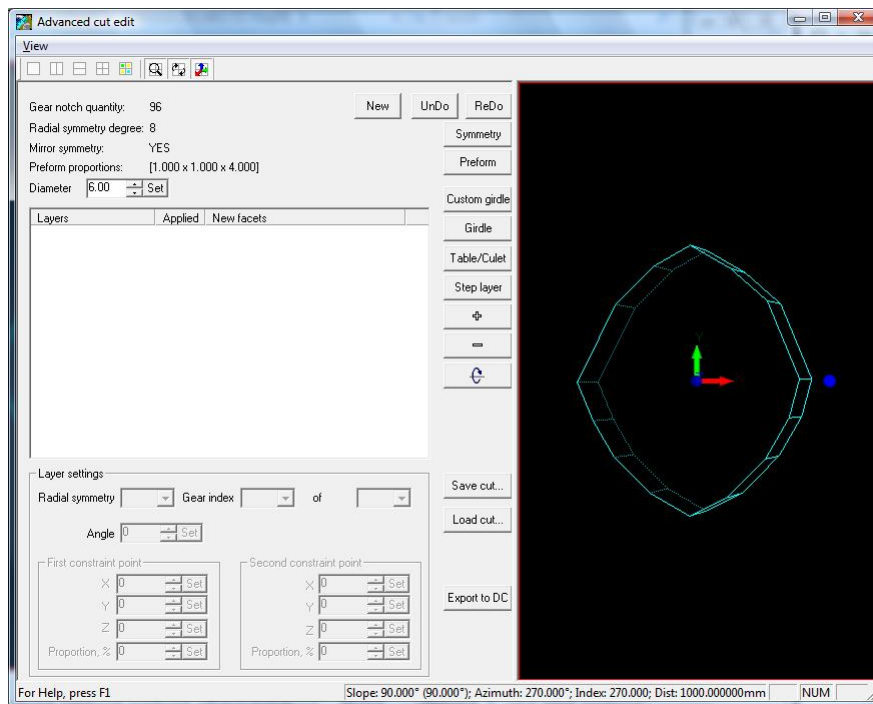


- In case no scanned model is loaded in DC the **Select file containing girdle curve** window appears:



- Select ***EPS*** file with girdle shape and press button **Open**.

- Press **OK** in the alert window.
- The Girdle shape is ready



### 1.10 Creating custom girdle shape by third-party software

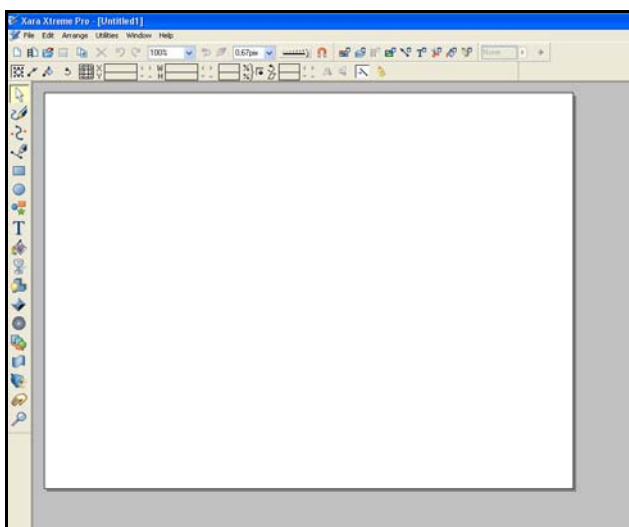
Xara Extreme software allows to create various shape 2D contours.

#### Step 1

Download **Xara Extreme Pro 3.2 - 30 Day Trial** from Xara's web-site.

<http://www.xara.com/downloads/xtreme/>

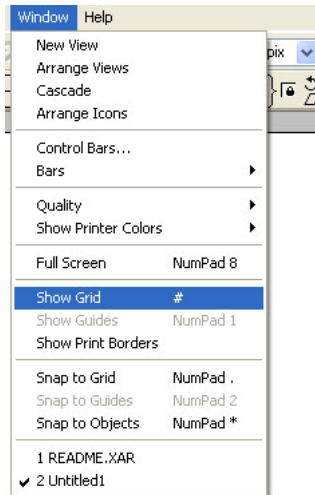
Install and run.



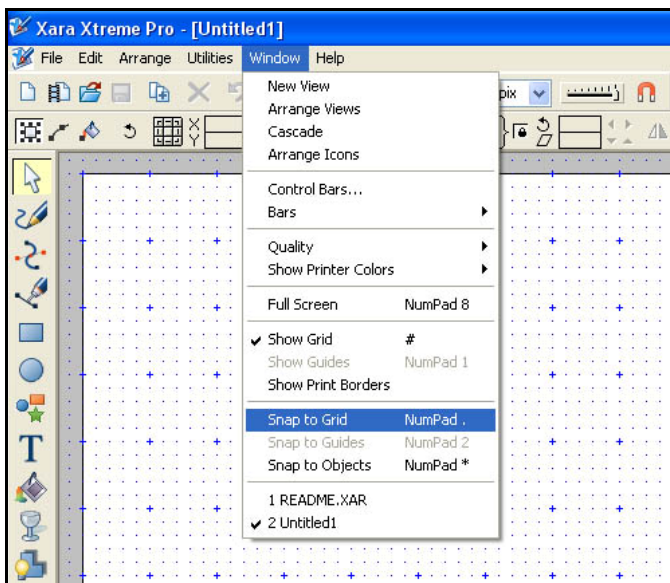


## Step 2

*Grids* help to create contours more precious and easy. To show Grids select from menu **Window / Show Grid**.

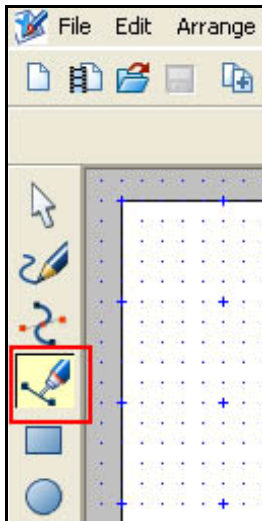


## Select Snap to Grid

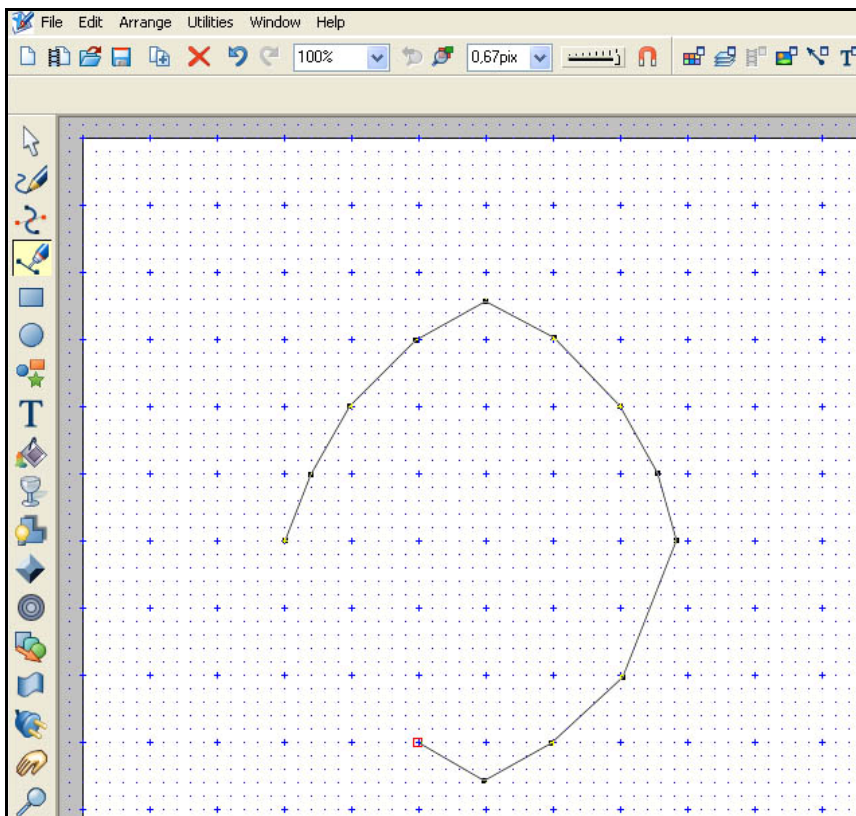


### Step 3

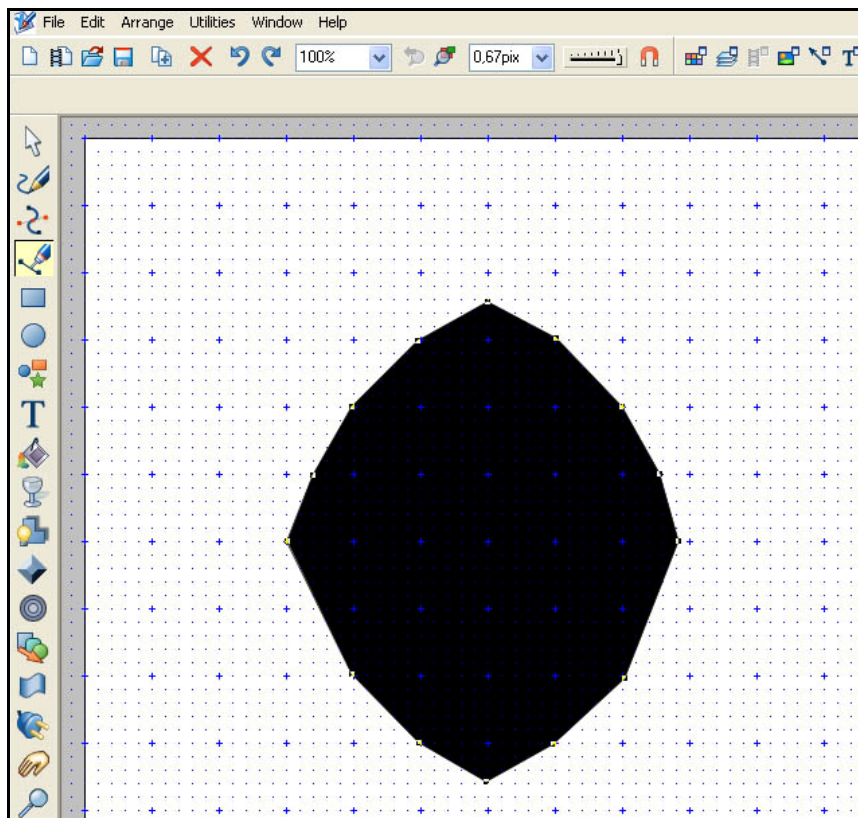
Select **Pen Tool** form the left bar.



Create a contour with **Pen Tool**

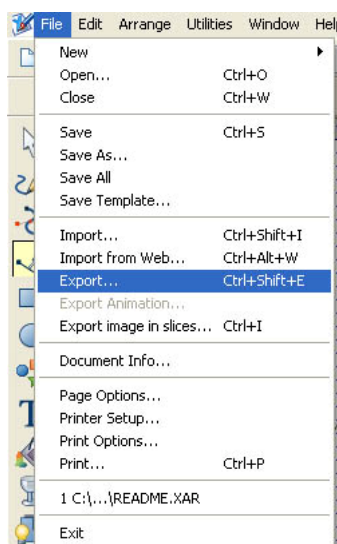


Your contour is ready!

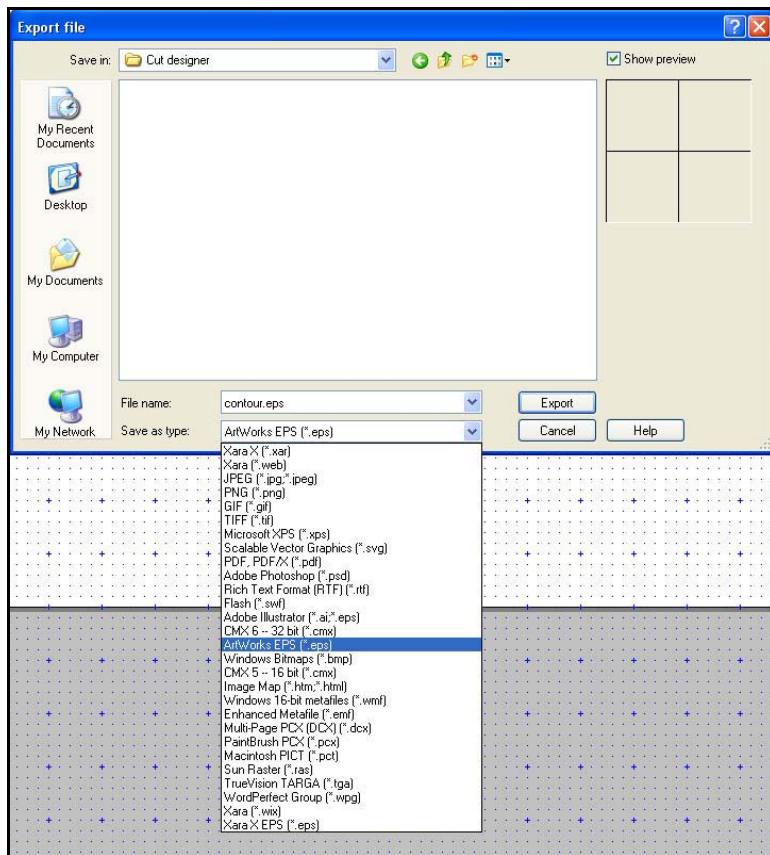


## Step 4

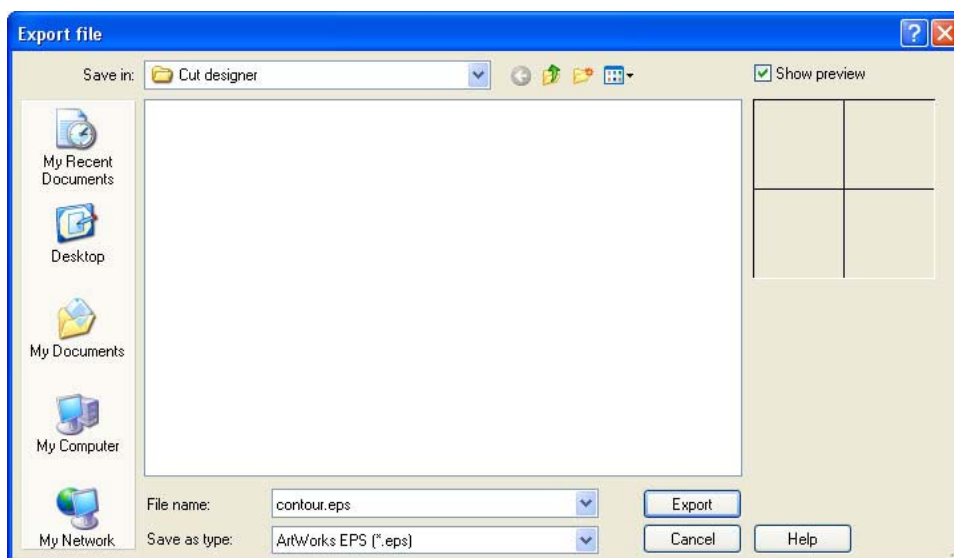
To export your contour into **EPS** file select menu **File / Export...**



Select type of file **ArtWorks EPS** [\*.eps].

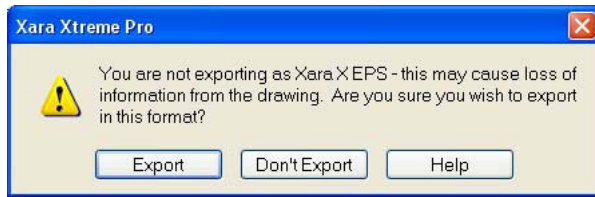


Press **Export** button.





Press **Export** button In the **Xara Xtreme Pro** alert window



Your file \*.eps with contour is ready. Import it in the Cut Designer.