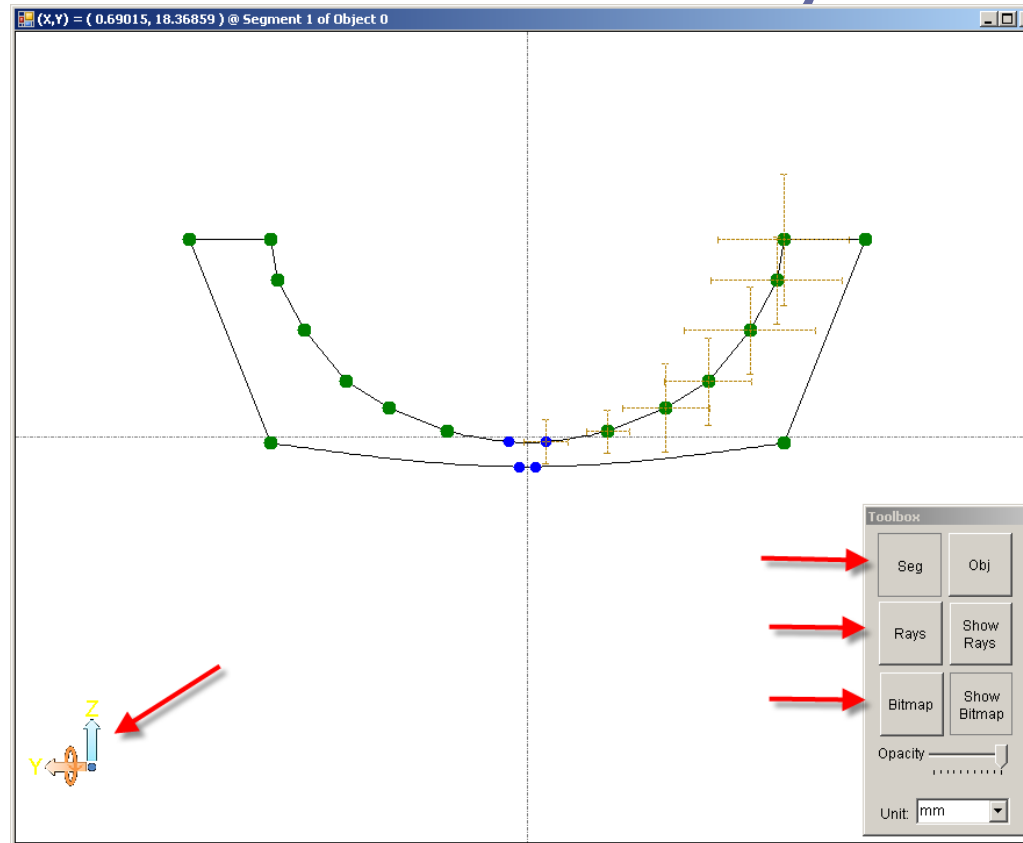




# Sketch Utility

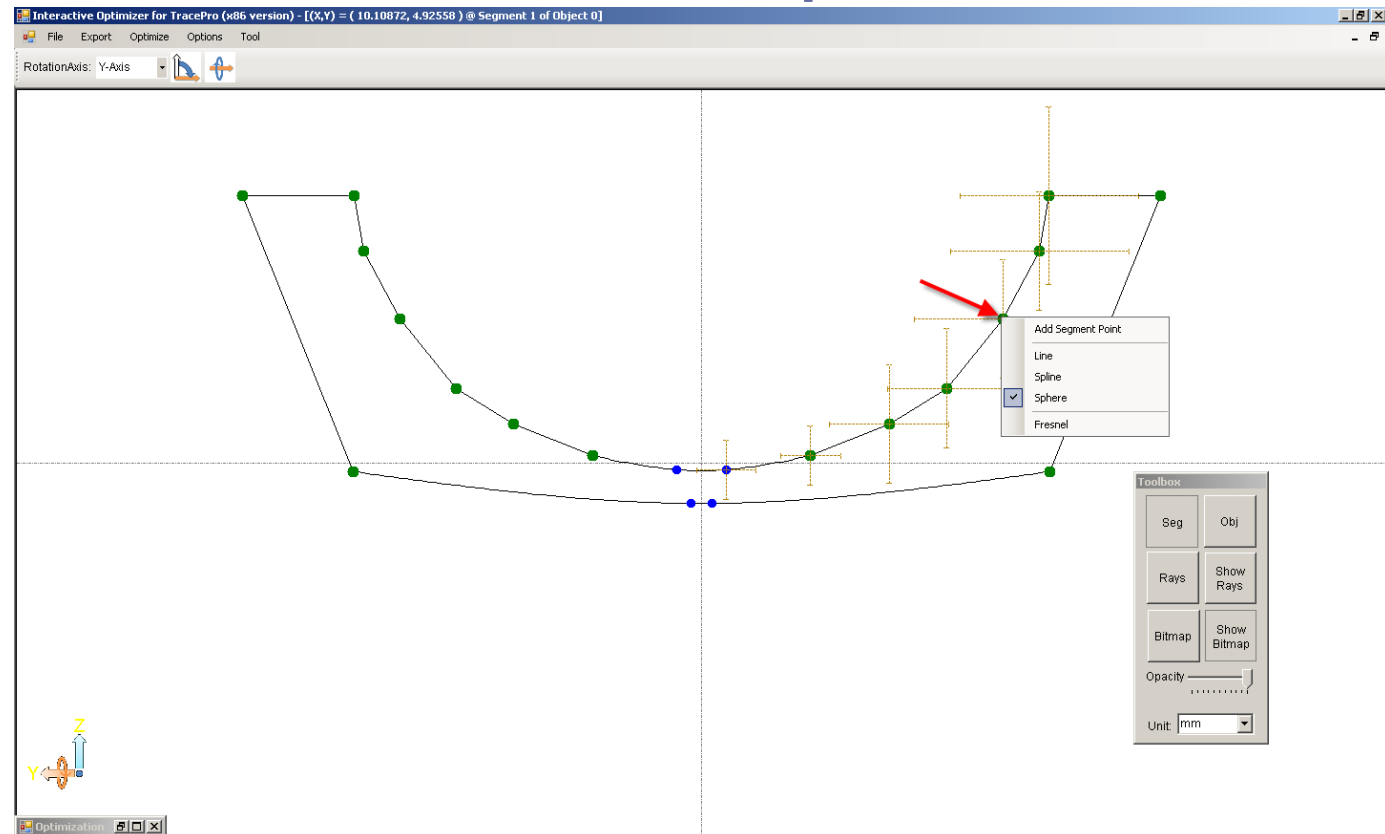


TracePro

The main Toolbox of the optimizer allows you to digitize in a design, do interactive raytracing and bring in bitmaps to digitize sketches. In this example we are digitizing in a faceted reflector for a downlight with the reflector pointed down the Z axis.



# Lines and Splines



TracePro

When the Seg tool is active, you can select any segment or add segments to your design. Shown is the capability to add a line or spline segment to your design

After inserting a segment you can sketch in control points and change segment points as needed. Just pull on a segment control point to change curvature



# Defining Reflectors and surface properties

Interactive Optimizer for TracePro (x86 version)

RotationAxis: Y-Axis

(X,Y) = ( 23.35892, 5.9459 )

Property Editor

General Object

Selected type: Segment

Selected Item: Segment 19

Parent object: Object 0

Description	Value	Variable?	Lower limit	Upper limit
Name				
Curve Type	Line			
SurfProp catalog	Default			
Surface Property	Perfect Mirror			
Reflector?	<input checked="" type="checkbox"/>			

Toolbox

Seg Obj

Rays Show Rays

Bitmap Show Bitmap

Opacity

Unit: mm

Optimization

TracePro

After selecting a segment point you can make it reflective or transmissive or specify a surface property from the TracePro database by selecting the line segment and selecting the value in the Surface Property portion of the Property Editor dialog.



# Defining Variables

Interactive Optimizer for TracePro (x86 version)

File Export Optimize Options Tool

RotationAxis: Y-Axis

(X,Y) = (-8.54723, 9.39665)

Property Editor

General Object

Selected type: Segment Point

Selected Item: Segment point 11

Parent object: Object 0

Description	Value	Type	Lower limit / Pickup	Upper limit
Position-X	11.35594	Variable	3	3
Position-Y	7.154389	Variable	2	2

Toolbox

Seg Obj

Rays Show Rays

Bitmap Show Bitmap

Opacity

Unit: mm

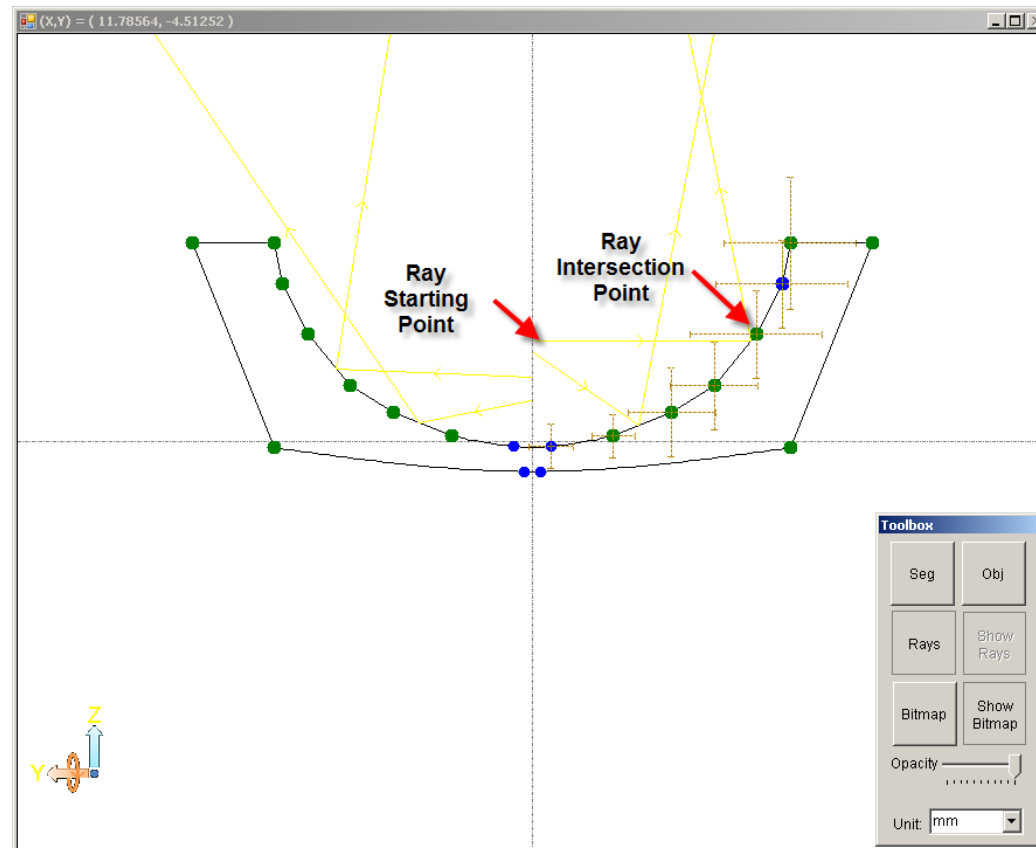
Optimization

TracePro

After selecting a point on the reflector the Property editor's Object tab allows to specify an exact value, the point as a variable with limits or a pickup to another point.



# Rays Toolbox Tool

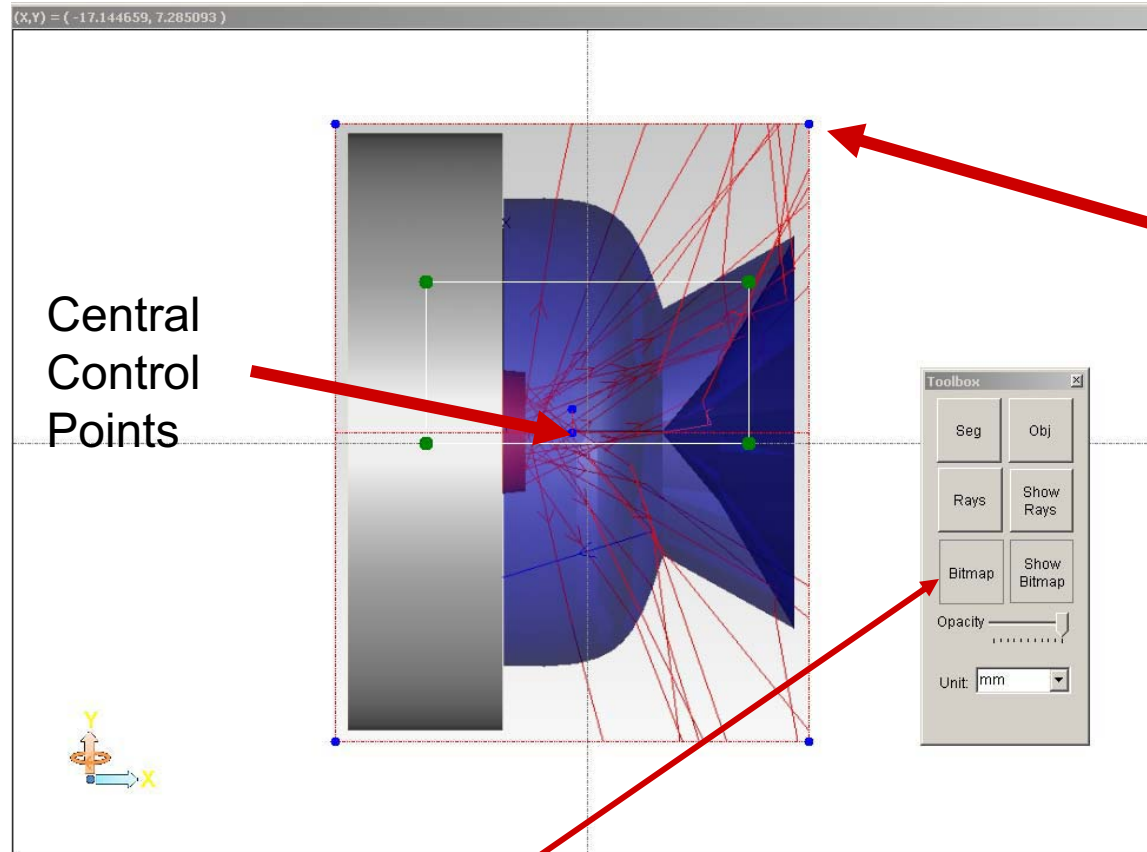


TracePro

After selecting the Rays tool from the Toolbox you can interactively trace rays in the Optimizer Utility. You can then switch to the Seg Tool to move segment points so that you can quickly analyze and control angular ray control for each facet



# Bitmap Toolbox Tool



Using the Bitmap tool you can import any screen captured image. After importing the image you use the blue control points to make the image larger or smaller, use the central control points to rotate the image and move it into place



# Defining Targets, materials, and geometry

**Optimization**

Save path: C:\Temp4

File prefix: zz

Variables

Object / Var name	ID	Type	Value	Low limit	Hi limit
0	3	Pos-X	11.72852	5	5
0	3	Pos-Z	9.015883	5	5

**Operands**

Type	Opt.	Wgt.	Surface	Location	Target
Can Profile	Similarity	1.0			{4006257,0}
		1.0			

**Objects**

Output?	Object ID	Name	Mat. Catalog	Mat. Property	Geo. type	Linked Obj / Length	After-scheme
		Pre-processor					
<input checked="" type="checkbox"/>	0	Object 0			RadialSym...		<input type="checkbox"/>

Enter the directory where you want to put interim files, create a target for the merit function, define the material of each object and how each geometry type will be exported to TracePro, extrusion, revolution, or biaxial combination.