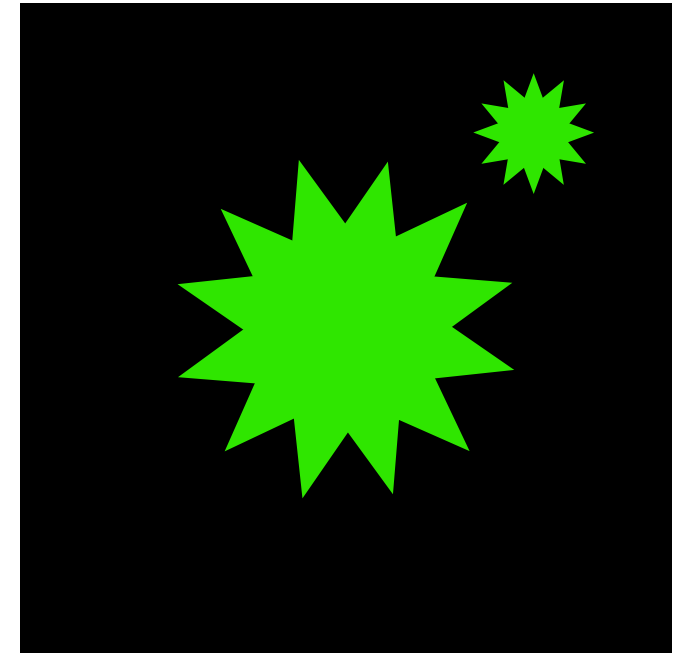


Region Transformation Tools

Manipulate regions directly by moving, scaling, stretching, or rotating them. Without rebuilding them from scratch.

ID:	FD-MANIPULATION-REGION
Solution Guide:	-
Document type:	Feature Demo
Version:	2026.2
Package:	Platform



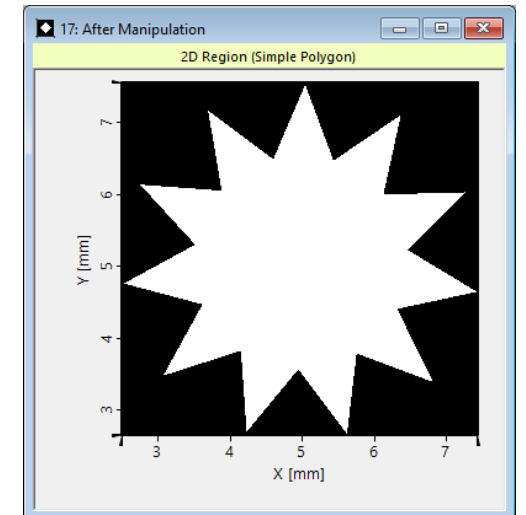
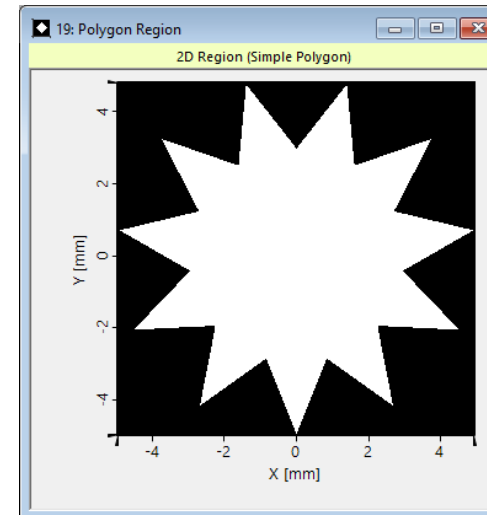
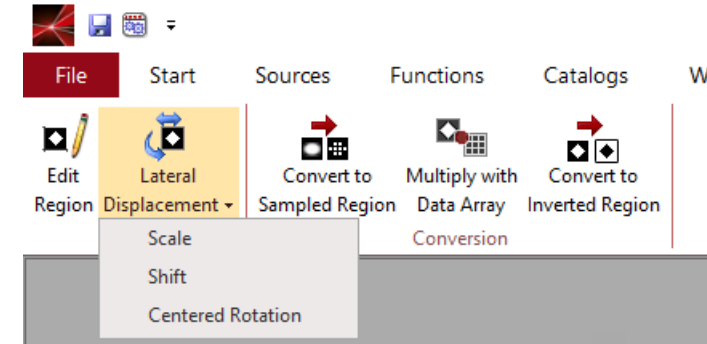
What Can Region Transformation Tools Be Used For?

💡 Modify Regions on the Fly

- Regions define spatial areas, such as apertures, masks, detector zones, or lightguide regions.
- The new tools make it easy to move, rotate, scale, or stretch existing regions.
- This enables fast design variations without recreating the region geometry.

📈 Typical Applications

- Adjust aperture/masks shapes and positions.
- Modify lightguide interaction regions.
- Refine detector or evaluation areas.



Comparison Between two Aperture Regions

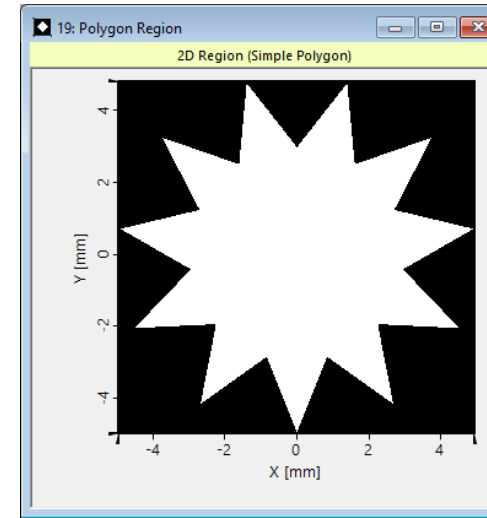
💡 Major Observations

- To visualize the effect of the region we have applied it to an aperture twin and detected the irradiance directly behind it.
- We then adjusted the region according to the table below and repeated the simulation.

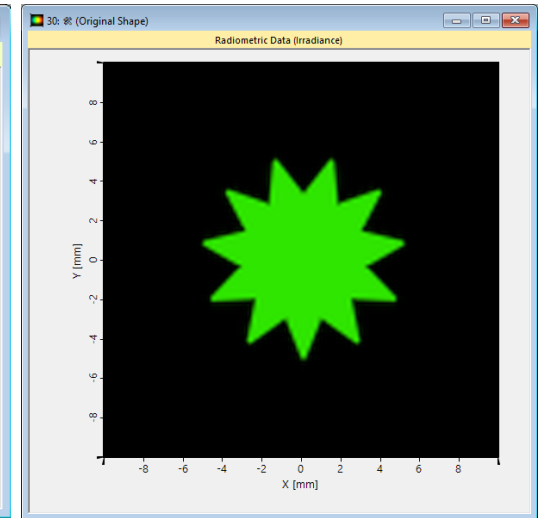
🔧 Region Manipulations

Component	Specification
1: Rotation	15° around center
2: Resize	(0.5, 0.5) of original size
3: Shift	(5 mm, 5 mm) in top right corner

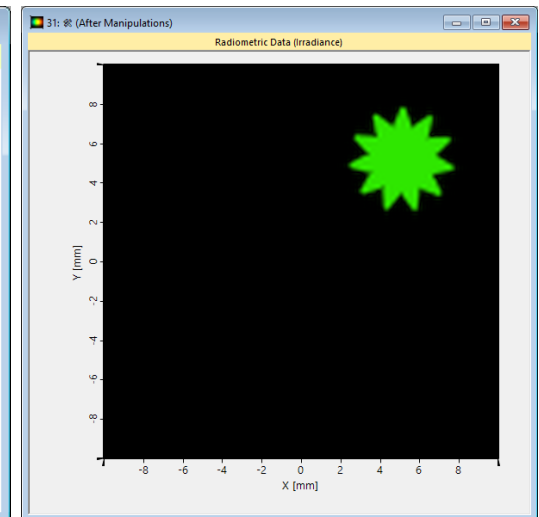
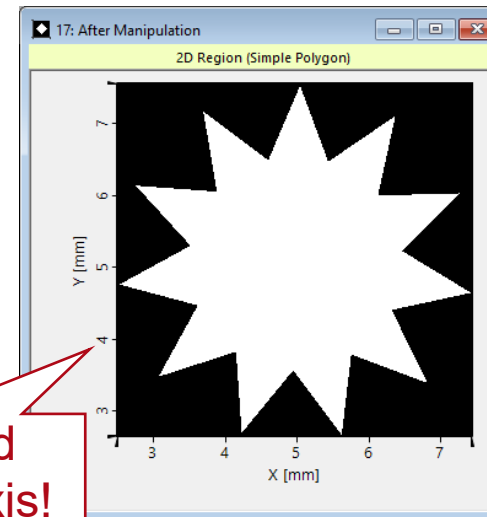
Regions



Field after aperture



Before Manipulation



After Manipulation

Workflow

1 2 3 What the User Does

1. Open the aperture demo file.
2. Extract the region from the aperture digital twin.
3. Apply a transformation, such as rotation, translation, or scaling.
4. Load the updated file into the aperture twin. Repeat the simulation.
5. Inspect how the field behind the aperture changes.

