# Skip to content Intersect (Knife)

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The Intersect tool lets you cut intersections into geometry. It is a bit like the Boolean tool, but, does not calculate interior/exterior geometry. Faces are sp along the intersections, leaving new edges selected.

#### Source

#### **Self Intersect:**

Operate on the overlapping geometry of the mesh.

#### Selected/Unselected:

Operate between the selected and unselected geometry.

#### Separate Mode

All:

Splits the geometry at the new edge.

Cut:

Keep each side of the intersection separate without splitting the faces in half.

#### Merge:

Merge all the geometry from the intersection.

#### Solver

Algorithm used to calculate the intersections.

### Fast:

Uses a mathematically simple solver which offers the best performance; however, this solver lacks support for overlapping geometry.

## Merge Threshold

Tolerance for close faces to be considered touching. It may be useful to increase this when some intersections aren't detected that should be and when extra geometry is being created because edges aren't detected as overlapping.

Warning

A threshold approaching the size of faces may cause very slow calculation, in general keep this value small.

## Exact:

Uses a mathematically complex solver which offers the best results and has full support for overlapping geometry; however, this solver is much slower than the *Fast Solver*.

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