



Model created in COMSOL Multiphysics 6.4

# Creating Modeling Domains Around a CAD Geometry

## *Introduction*

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The majority of 3D CAD files include only the geometry of the product to be manufactured. For finite element analysis, however, you find yourself often in a situation where additional geometry is needed, for example, to analyze the flow inside or outside a device. This tutorial, involving the geometry for a loudspeaker enclosure, demonstrates how to create domains inside and outside an imported CAD assembly. The following steps are covered:

- Importing a STEP file,
- Finding and deleting holes and other details from the geometry,
- Creating the union of all imported objects needed to generate a domain inside the objects,
- Using the Cap Faces operation to create a domain inside the enclosure,
- Creating a domain that surrounds the imported enclosure.

For the step-by-step instructions of this tutorial, see the book *Introduction to LiveLink™ for Inventor®*.

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**Application Library path:** LiveLink\_for\_Inventor/Tutorials,\_CAD\_Import/  
loudspeaker\_modeling\_domains

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