



Create Material Parts

INTRODUCTION

A Material Part can be created as either a domain or an interface.

A material Domain is a solid region (or regions) composed of one or more specified materials. Parts with 2D elements yield 2D material elements, and parts with 3D elements yield 3D material elements.

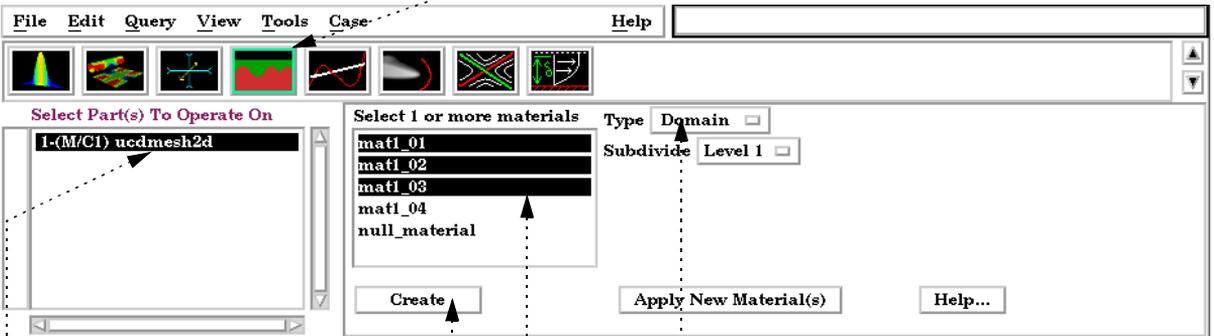
A material Interface is a boundary region (or regions) between adjacent materials composed of at least two or more specified materials. Parts with 2D elements yield 1D material elements, and parts with 3D elements yield 2D material elements.

The Material Part feature can be used to isolate specified elemental regions of interest in data sets with material fractions.

BASIC OPERATION

For Material Domain:

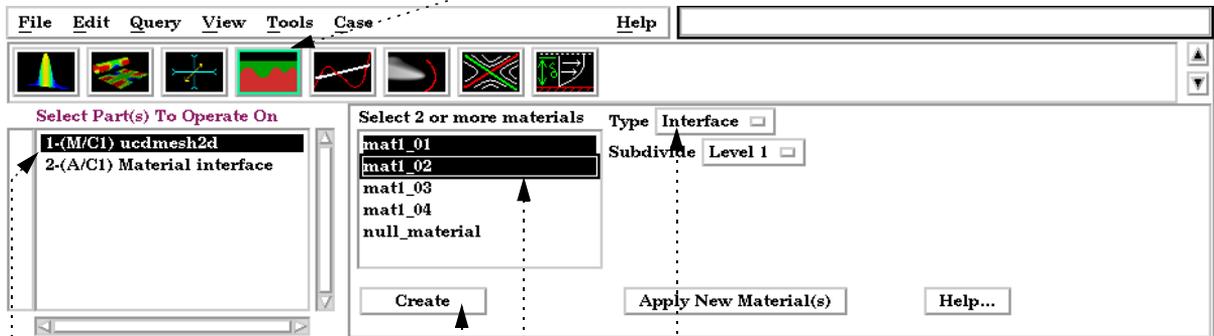
1. Click the Material Parts creation icon.....



2. Select the parent model part(s).
3. Set Type to Domain.
4. Select 1 or more materials.
5. Click Create.

For Material Interface:

1. Click the Material Parts creation Icon.....



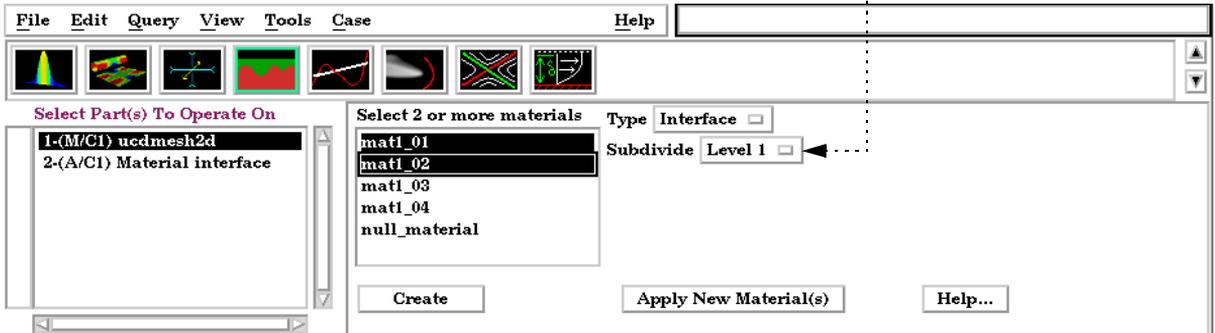
2. Select the parent model part(s).
3. Set Type to Interface.
4. Select 2 or more materials.
5. Click Create.



ADVANCED USAGE

Increased Element Resolution

You can increase the element resolution of the Material Part by increasing the Subdivide option from Level 1 to either Level 2 or Level 3.



Each 3D (or 2D) part element is first decomposed into tetrahedrons (or triangles) before it is processed. Level 1 simply processes each of these decomposed elements. Level 2 subdivides each of these decomposed elements into 3 sub-tetrahedrons (or sub-triangles). Level 3 subdivides each of these decomposed elements into 6 sub-tetrahedrons (or sub-triangles). Each subdivided element is then processed.

SEE ALSO

User Manual:

[Section 7.18, Material Parts Create/Update](#)

In [Section 11.1, EnSight Gold Casefile Format](#), see [EnSight Gold Material Files Format](#)