

CGM Defeaturing

Automated Simplification of Models

Identify and remove features such as fillets and holes from CAD models to achieve the right level-of-detail for visualization, design, manufacturing or simulation.

Applications can use feature recognition along with face removal to build smart defeaturing workflows such as the elimination of specific hole types including counter bore holes, counter sunk holes, through holes, blind holes, and more.

PROCESS AUTOMATION

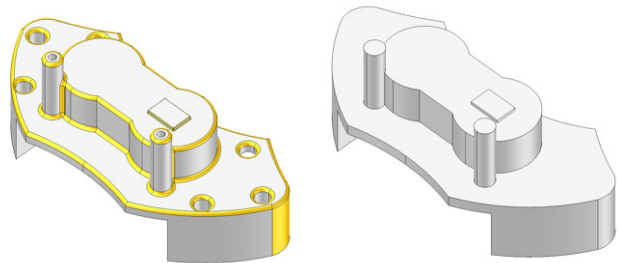
CGM Defeaturing delivers automation by removing hole or fillet features in one-step without user input; for example deleting all the complex fillet chains on a CAD model without manual selection of seed faces.

SIMPLIFICATION FOR SIMULATION

CGM Defeaturing is customizable by filtering on hole or fillet size; small model details can be removed to reduce solver time and larger details needed in the analysis can be kept.

LEVEL OF DETAIL IN VISUALIZATION

CAD Parts and assemblies created for manufacturing carry more detail than is needed for real-time rendering, CGM Defeaturing reduces model tessellation and improves visualization performance.



CGM DEFEATURING FEATURES

Fillet and Hole Removal

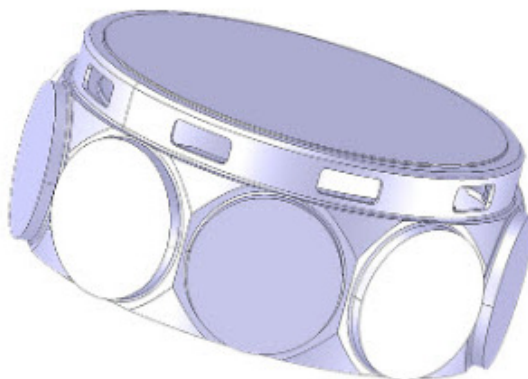
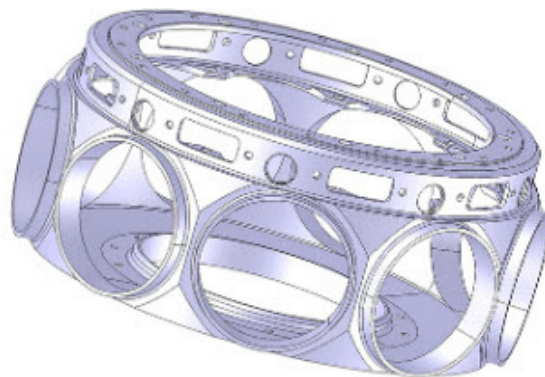
CGM Defeaturing supports standard hole types in CAD systems such as SolidWorks, Catia, etc but is also robust for complex real world scenarios. When removing fillets, CGM Defeaturing preserves model quality through robust surface extension algorithms allowing future modifications such as the application of drafts, chamfers, or direct edits.

Modeler and CAD Agnostic

CGM Defeaturing uses a geometrical recognition algorithm and supports Native CAD and formats which do not have feature tree information such as STEP, IGES, etc.

Feature Recognition and Face Removal

Use feature recognition along with face removal to eliminate details such as logos, pockets and pads.



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