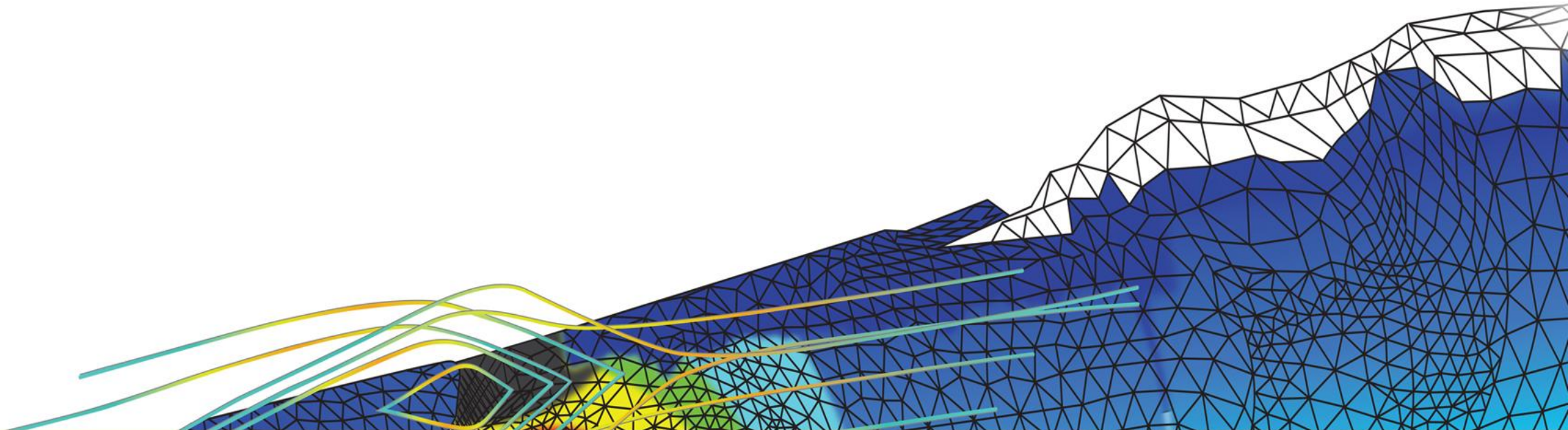


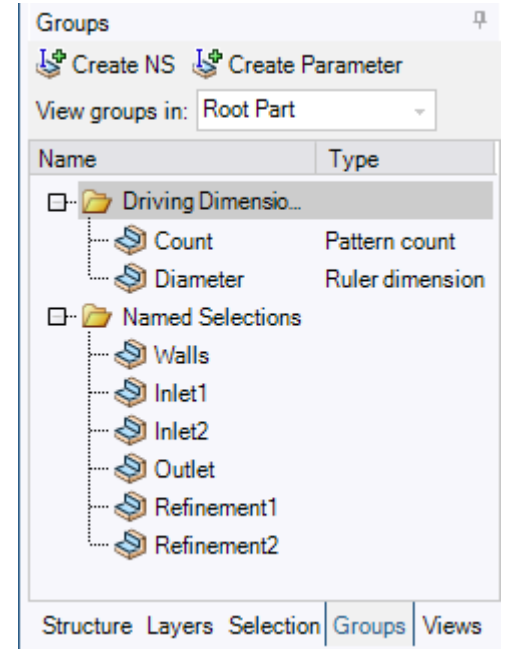
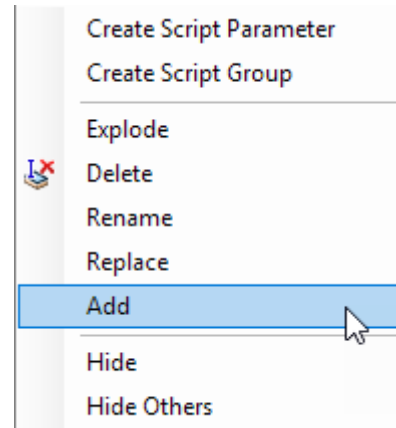


## Geometry Improvements in 2019 R1



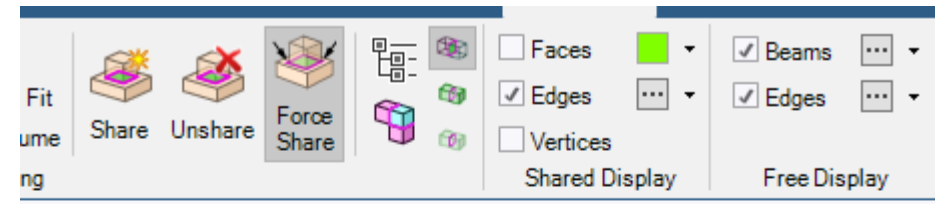
# Group Panel overhaul

- **Much easier to work with and manage named selections and parameters within SpaceClaim**
- **Comprehensive improvements include:**
  - Ability to create either Parameter or named selection
  - Add or subtract entities from named selections
  - Merge multiple named selections into one
  - Auto focus to renaming named selections when they are created
  - Sorting capabilities added to named selection
  - Hide now hides only faces if they are selected
    - If other entities are in your selection entire body is hidden
  - Support for Renaming multiple objects

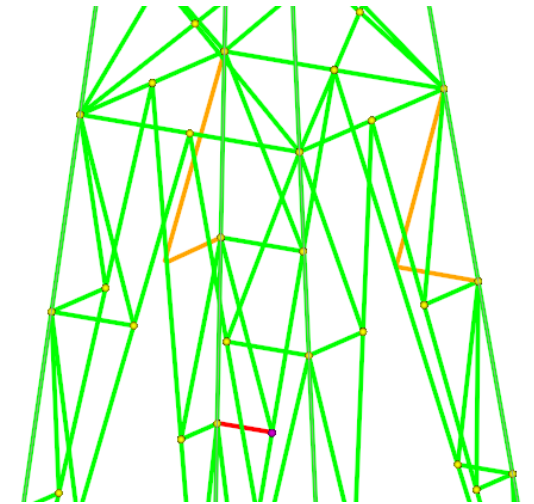
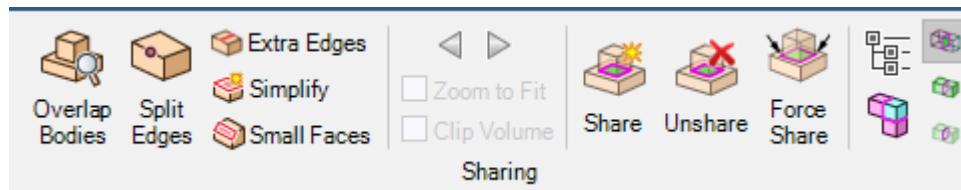
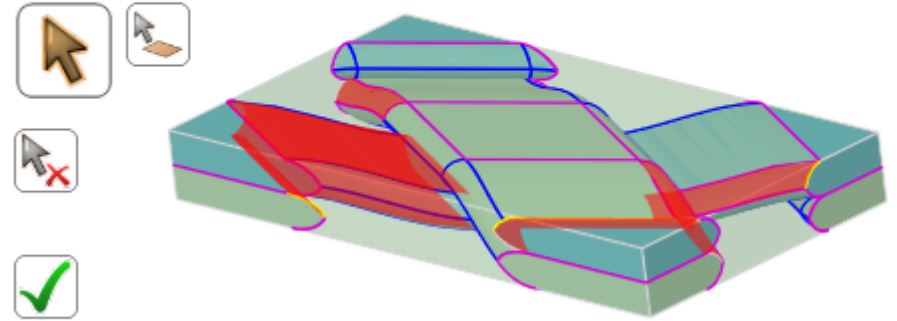


# CAE prep: Shared Topology

- **Addition of preprocessing tools**
  - Control visibility of each connection type
  - Show hidden connections behind solids
  - Toggle colors of connection
- **Force Share has new find/fix workflow**
  - Option to maintain or break instancing during sharing
  - When maintaining instances, sharing will not occur between instances and other geometry, only within an instance
- **Visibility improvements for beam connections**
  - Much easier to see beams which are unconnected to the truss system

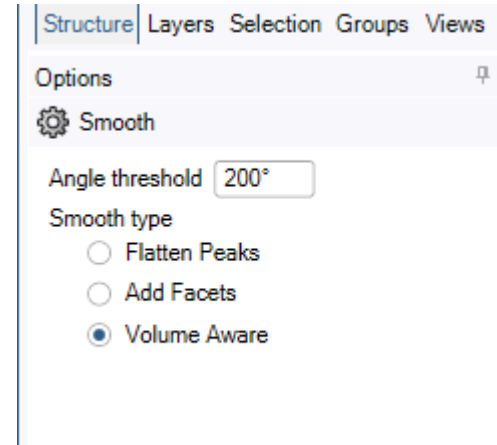
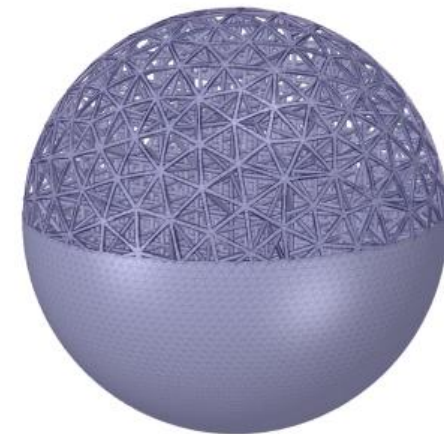
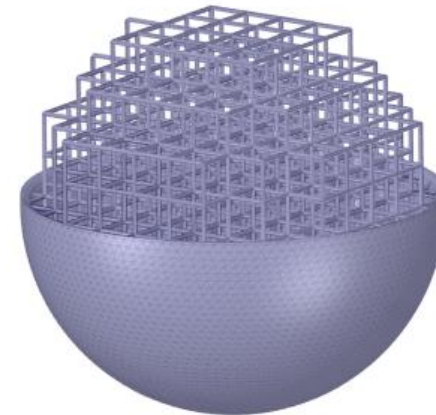
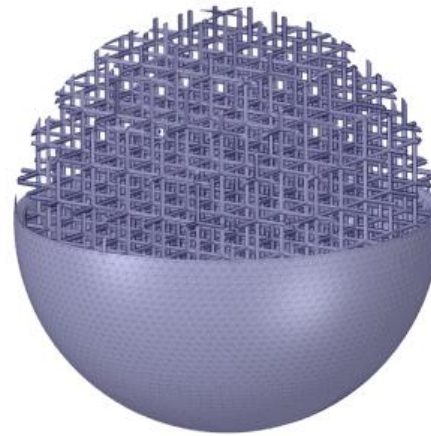


Found 13 contacts. Click the Complete tool guide to share all contacts



# Additive Manufacturing

- **New Smoothing Option to preserve volume**
  - Greatly reduces volume loss when smoothing
  - Changed naming convention for existing smoothing methods
- **Lattice improvements**
  - Boundary Conformal lattices
  - Remove incomplete lattice members
  - Excellent when removing faces and wanting to expose lattices
- **Overhang Improvements**
  - Orientation to reduce overhang
  - Create selection out of overhangs
  - Useful when creating named selections for simulation of additive process in mechanical



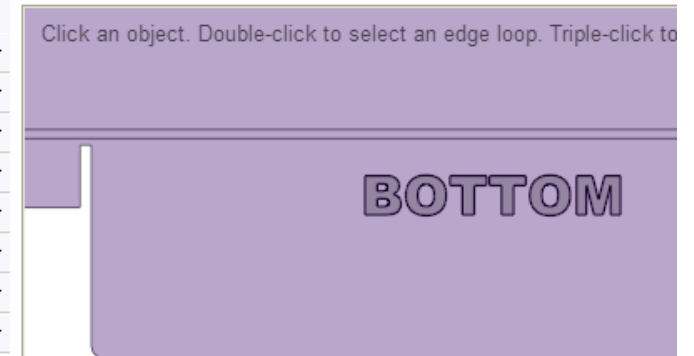
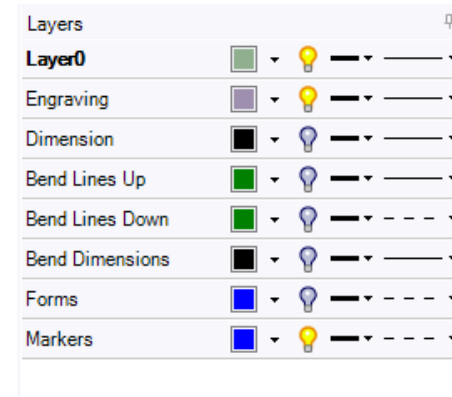


# Core Modeling



- **Speed improvements in drawing sheets**
  - Dimension and note placement speed enhanced
- **Layer support for lightweight text in sheet metal**
- **Scripting support for hole command and share topology**
- **Separated selection for vertices vs. points**
- **XYZ extents when measuring**
- **Tracelines setup per configuration**
- **Import Export:**
  - Support for Keyshot 8
  - JT included with Discovery Live/Standard/Ultimate
  - FDM export for Fluent
  - Import of Inventor 2019
  - Import of Creo 5.0

Area	11172.6964mm <sup>2</sup>
X Overall	79.8097mm
Y Overall	31.9948mm
Z Overall	63.4762mm



Configurations affiliation	
Configuration01	True
Configuration02	True
Configuration03	False
Configuration04	False
Configuration05	True

# Beta Features



- **Enabled beta option in advanced option**
  - Allows for more user feedback and improved communication with development
- **Constraint based Sketching**
  - Displays over/under constrained sketches
  - Add dimensions and sketch constraints such as tangent, equal distance, parallel, etc.
- **Model replay**
  - Allows replay of SCDM edits to new versions of imported geometry
  - Bi-directional link from CAD->WB->SCDM improves parameterization workflow
  - Works with most geometry interfaces (not Catia)
- **Guided traceline creation**
  - Auto detection of coaxial faces for tracelines
  - Color coded for easy visualization

